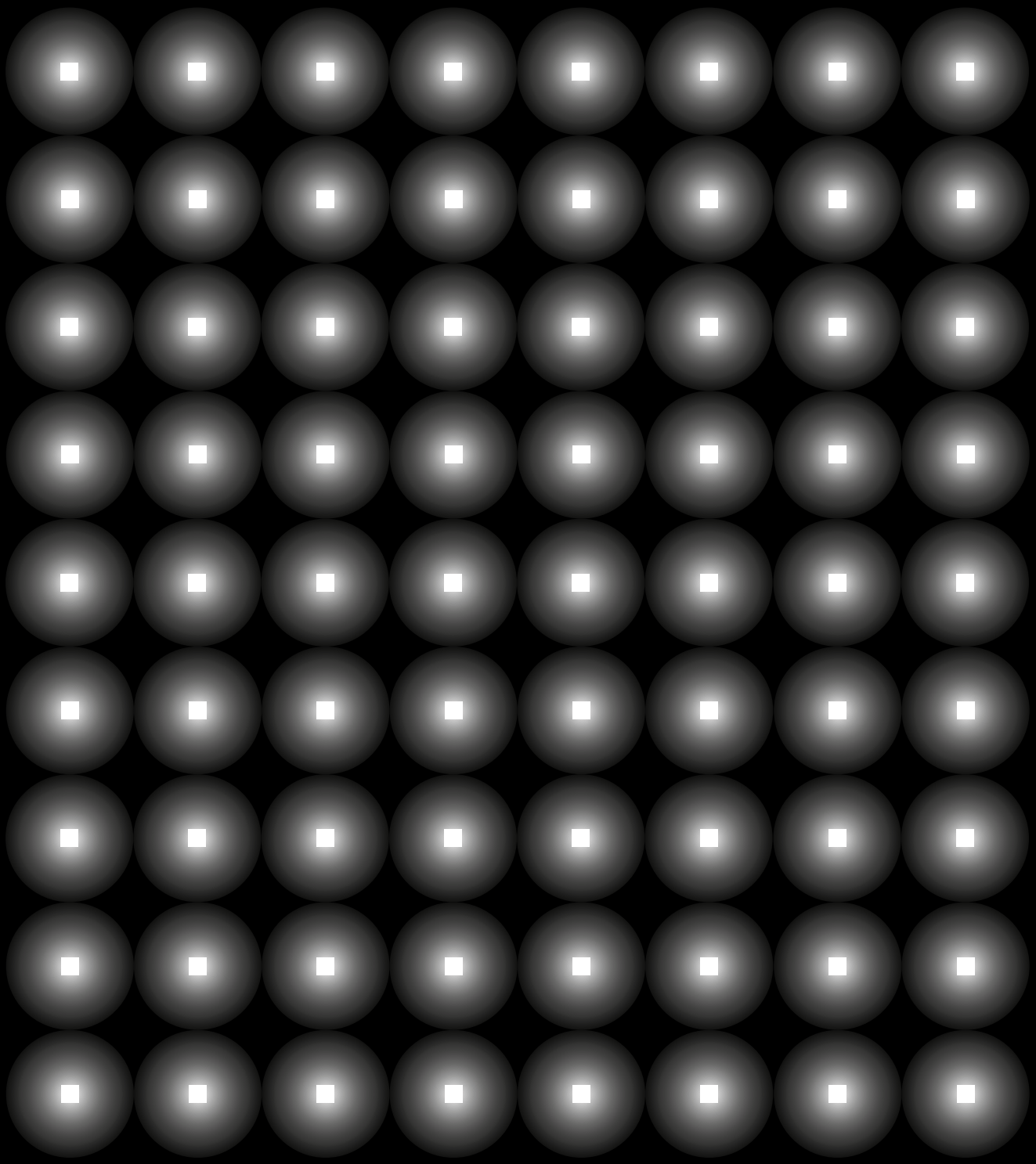
21



LED LUMINAIRES

TREVOS

ABOUT COMPANY

HISTORY
The TREVOS, a. s. company is a renowned Czech firm with 30 years of tradition in production of industrial light fittings which was established in 1990. Thanks to its long-term experience it implements and offers a wide range of industrial light fittings, the research and development of which is based on its own professional knowledge and protected know-how.

The total turnover of the company is divided into two basic groups: Domestic sales – 30 % and Export sales – 70 %.

REGIONAL POSITION
The interest of the market in the Czech Republic in industrial and indoor light fittings is mostly driven by the demand of assembling companies from the branch of electrical engineering. Deliveries are secured through the network of wiring material and light fitting wholesale customers. The TREVOS company ranks among leading manufacturers of industrial and office light fittings at the domestic market. With almost 300 employees, TREVOS counts itself as one of the largest employers in the region.

GLOBAL POSITION
Besides its significant share of the domestic market, the company is also very active in export. It successfully exports its products into more than 60 countries of the world, e.g. Italy, Germany, France, Brazil and many more.

The company acquired its illumination technology market share first of all by the implementation of its own research and development in the production of innovative models of light fittings as well as investments into quality thermoplastic materials and electric components. The business strategy of the company is also based on the production of continually innovated lines of light fittings inspired by modern trends of illumination technology while keeping reasonable prices in comparison with top world producers.

The business has been continually increasing especially with customers from the European Union, to which Trevos supplies complete products modified in details on the basis of individual customer's requirements.

COMPANY GOAL
The goal of the company is to offer its clients first-class products for competitive prices.

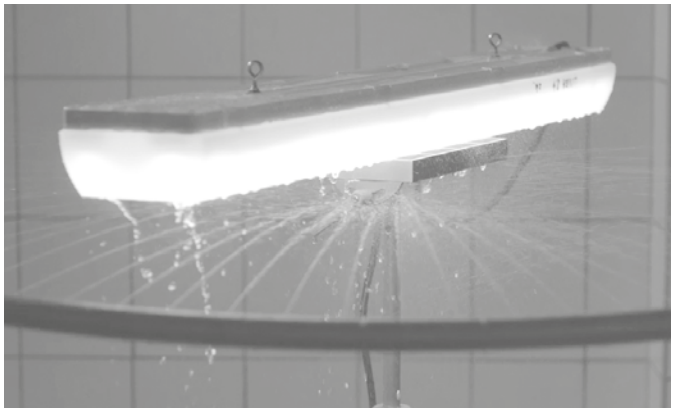
LIGHT FITTING DEVELOPMENT

All development tasks are subject to and strictly managed by the ISO 9001 quality process.

The development and implementation of production of new light fitting type lines is driven particularly by market requirements which are monitored in detail and summarized into marketing studies.

The projects are well secured as regards human resources. The members of the technical division have the required know-how and experience. They apply the results to industrial practice. Within the projects, they also closely cooperate with knowledgeable academicians of several technical universities.

The technical division has an extensive background of premises with cutting-edge equipment, serving for the implementation of applied research and experimental development including the execution of key measurement and tests.



PRODUCTION

The production program of the company is segmented into product lines of light fittings with similar or identical ways of use. Another criterion consists in type lines distinguishing the products by the achieved technical parameters and their capabilities.

The company has a large technological park that ensures its own production program. All injection machines are robotized. New innovative technologies include e.g. the robotized overmoulding of aluminium cores, the fully automated System Robot connecting workstation or the Sonderhoff foaming line.

CERTIFICATION

Company TREVOS, a.s. utilizes an integrated management system (IMS) that consists of a range of processes, rules, policies, and documents the company needs to deliver high-quality products and provide superior services in an appropriate and timely fashion, ensuring everything is done perfectly the first time. The company is managed in accordance with these processes, rules, policies, and documents.

ESČ certificate

ISO certificate

ENEC certificate

Our ISM integrates a variety of the company's performance criteria to ensure compliance with the requirements of a number of management system standards. These include ČSN EN ISO 9001:2016 (QMS) and ČSN EN ISO 14001:2016 (EMS) as well as ČSN EN ISO 50001:2019 (EnMS) and ČSN ISO 45001:2018 (OHSMS). The ISM uses simplified processes, procedures and documents while increasing production efficiency and eliminating the elementary approach. As a result, costs are cut, system efficiency increases, and less effort is required.

We are holders of the ENEC, CB, ESČ, EAC, ATEX and DLG certificates. We are authorized to the use the "Czech Quality" mark for light fittings with ESČ licence. Ex fittings designed for hazardous areas (zones 1, 21): conformity to type ensured by internal production management and product testing under the supervision of a notified body.

ENVIRONMENT

Pursuant to Czech Act No. 541/2020 Sb. (the Waste Act), and Act No. 542/2020 Sb., on End-of-life Products, Trevos participates in EKOLAMP, a non-profit initiative seeking to ensure compliance with applicable electrical appliance collection and recycling rules. Additionally, Trevos meets the requirements of Directive No. 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) as well as of Regulation No. 1907/2006 concerning the registration, evaluation, authorisation and restriction of chemicals (REACH).

Industrial plastic

INNOVA 10

INNOVA 12

INNOVA NB for high ceilings 15

INNOVA WB for low ceilings 18

INNOVA ABS chemically resistant version 21

INNOVA NB ABS for high ceilings, chemically resistant version 24

INNOVA WB ABS for low ceilings, chemically resistant version 27

INNOVA TRS for both direct and indirect illumina 30

NEW

Industrial plastic

FUTURA 34

FUTURA, ES PC, HE PC 36

FUTURA VP for outdoor spaces 47

FUTURA NB for high ceilings 51

FUTURA ABS, ES ABS, HE ABS chemically resistant version 54

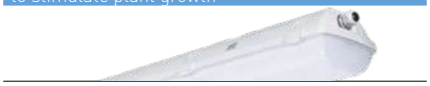
FUTURA CLASS II with Class II insulation 64

NEW

FUTURA MAX for extreme temperatures 68

FUTURA SENSOR with motion detector 71

FUTURA HORTI, HORTI ABS to stimulate plant growth 74



Industrial plastic

PRIMA LED 82

PRIMA LED 84

PRIMA LED VP for outdoor spaces 87

PRIMA LED ABS chemically resistant version 90

PRIMA LED CLASS II with Class II insulation 93

NEW

PRIMA LED TRS for both direct and indirect illumina 96

NEW

PRIMA LED MAX for extreme temperatures 99

PRIMA LED SENSOR with motion detector 101

PRIMA LED Ex for explosion-hazard environment 104

PRIMA LED TUBE 107

CONCEPT RED 112

CONCEPT RED with red light module 112

CONCEPT TUNABLE WHITE 116

CONCEPT TUNABLE WHITE to boost circadian rhythms 116

TW

Industrial metal

TUNNEL STAR 118

TUNNEL STAR
for tunnels 120

TREX 124

TREX
for explosion-hazard environment 126

PERUN SLIM 132

PERUN SLIM 134

PERUN HORTI
to stimulate plant growth 137

ALUMAX LED 140

ALUMAX LED 142

ALUMAX LED MAX
for extreme temperatures 145

CANOPUS 150

CANOPUS 152

CANOPUS HE
high efficiency 159

CANOPUS MAX
for extreme temperatures 162

CANOPUS MINI 169

CANOPUS HORTI
to stimulate plant growth 172

Indoor surface-mounted plastic

LINEA 176

LINEA 178

LINEA SQUARE 180

LINEA ROUND 182

LUXOR LED 186

LUXOR LED 188

SB LED 192

SB LED 194

NEW

Indoor surface-mounted plastic

BELTR LED 196

BELTR LED 198

BELTR LED TUBE 201

NAOS 206

NAOS 208

NAOS SQUARE 211

NEW

NAOS MPR 213

NAOS SQUARE MPR 216

MO LED 220

MO LED 222

Outdoor illumination

EVELUX 228

EVELUX 230

Emergency light fittings

Emergency 236

PRIMA LED NM 238

FUTURA NM 241

BELTR LED NM 244

HELIOS LED 247

PLEXI LED 250

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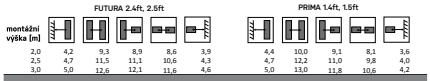
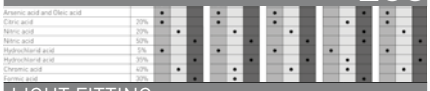
DALI PROFESSIONAL CONTROL 254

PROPOSAL OF EMERGENCY LIGHT FITTINGS 260

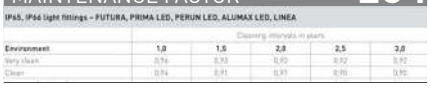


SOURCE COLOUR RENDERING 262

CHEMICAL RESISTANCE 263



LIGHT FITTING MAINTENANCE FACTOR 264



IP66 (Ingress Protection) code for protection level against dust, solid items and water

up to ta 45°C Nominal maximum temperature of environment

850°C Fire and ignition resistance at test by hot loop heated to 850 °C

IK 10 Code for protection level against external impact
Anti-vandalism version

LED LED light fitting

WARRANTY 5 Light fitting with 5-year warranty. It does not cover light fittings fitted with emergency module (2 years) and batteries (6 months).

D Light fitting external surface warming

Class 1 light fitting - basic insulation, plus terminal for guard wire

Class 2 light fitting

220-240 V 50/60 Hz Nominal input voltage 220-240V, 50/60 Hz

DALI Electric equipment:
with digital dimmable driver DALI

1F 1 phase through-wiring connection

3F 3 phase through-wiring connection

EMERGENCY Electric equipment: for emergency illumination with own independent source

Electrical equipment: a microwave motion sensor

CRI >80 The colour rendering index determines the colour sensation accuracy at other than daily lighting

CCT 4000 K 3 SDCM The chromaticity temperature determines the colour spectrum of the light (it is given in Kelvin - K)

L90 B10 During the stated operation life and under observance of the specified operating conditions, no more than 10% (B10) chips could experience defaults and the total luminous flux of the light fitting will not drop under 90% (L90).

CE Conformity mark documenting conformity verification of product with all EU harmonising provisions

Licence mark indicating product conformity with European standards for electric safety of product

The mark is registered at the CENELEC as a Czech mark expressing the permanent conformity of a product with electrical safety standards

CB test Internationally acknowledged certificate. Product certification according to IEC standards

EMC Electromagnetic compatibility

EAC Certificate of the United Customs Union (Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan)

Ex Light fitting intended for environments with danger of explosion

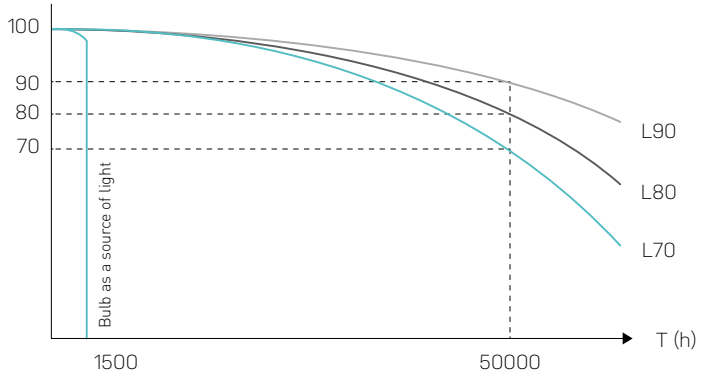
HACCP Declaration of conformity with legal norms for food industry

DLG The light fitting complies with the relevant requirements of the German Agricultural Society (DLG) and may be installed in agricultural buildings.

BALL-PROOF The luminaire complies with the resistance requirements as per DIN 18032-3 and DIN EN 13964 and may be installed in sports halls.

Light fittings meet photobiological safety requirements in accordance with the CSN EN 62471:2009 standard. Suitable for use in areas with persons sensitive to UV radiation & the blue visible spectrum (daylight).

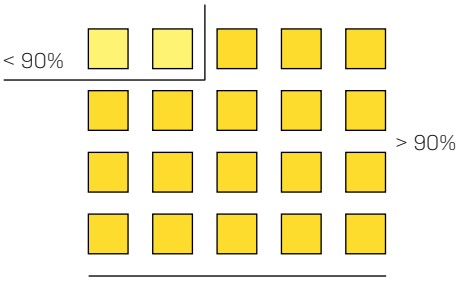
Reliability and long lifespan are some of the key advantages of LED technology. And while it is true that they do not last forever, unlike light bulbs and halogen lamps, LED chips never fail abruptly. Instead, they gradually fade over time until they become too dim.



Sudden failure of traditional light bulbs as opposed to a gradual decrease in output of LEDs

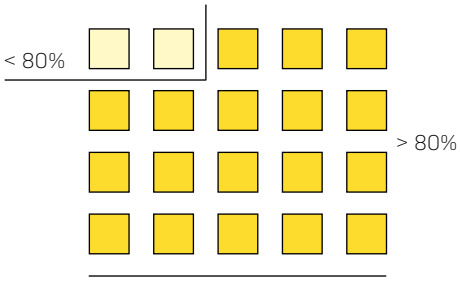
WHAT DOES LxBx MEAN?

L90 B10



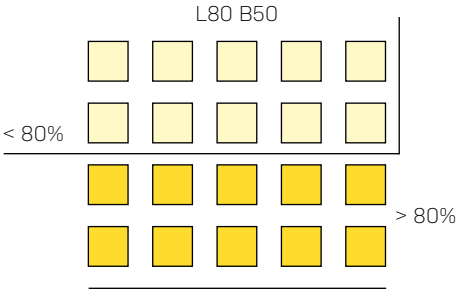
90 % of sources of light retain more than 90 % of their luminous power while the remaining 10 % retain less than 90% of their rated luminous power.

L80 B10



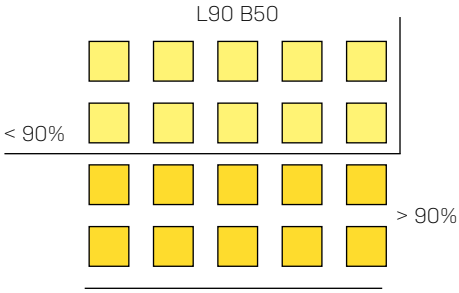
90 % of sources of light retain more than 80 % of their luminous power while the remaining 10 % retain less than 80% of their rated luminous power.

L80 B50



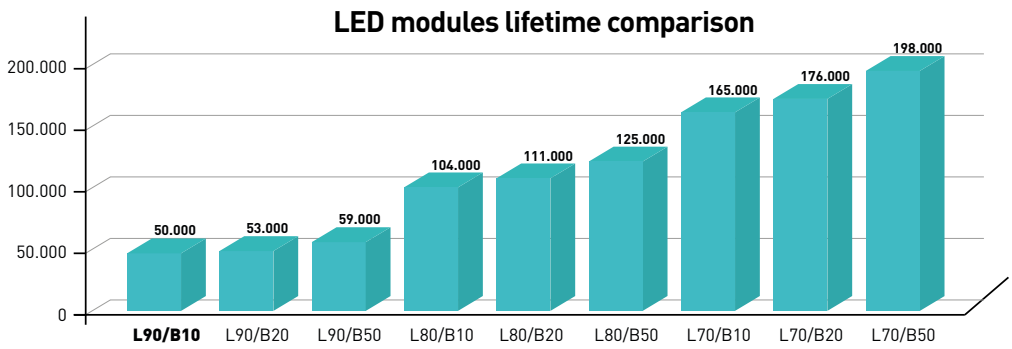
50 % of sources of light retain more than 80 % of their luminous power while the remaining 50 % retain less than 80% of their rated luminous power.

L90 B50



50 % of sources of light retain more than 90 % of their luminous power while the remaining 50 % retain less than 90% of their rated luminous power.

The values shown are based on LM-80 and TM-21 standards. TREVOS LED modules' standard lifespan is indicated by their L90B10 rating. All lifespans exceeding 60.000 hours are calculated without taking into consideration other possible types of failure. The stated lifespans are indicative only and not covered by the warranty.



The given values apply to the ambient temperatures prescribed for each luminaire type and for luminaires with a given luminous power.

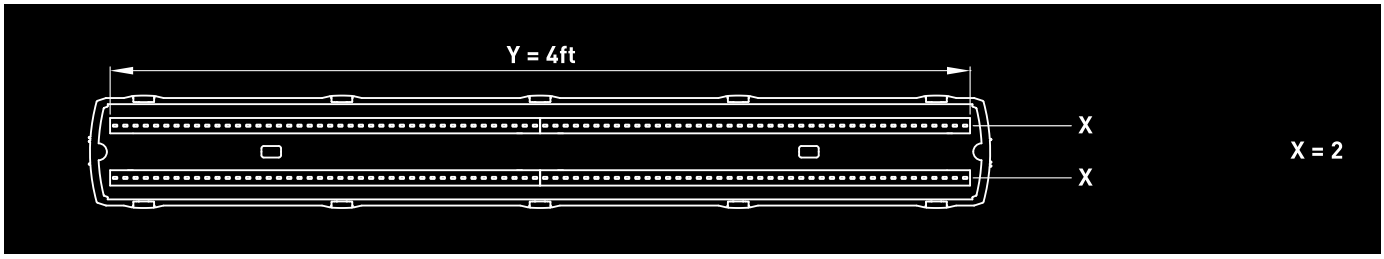
LIGHT FITTING NAME X.Yft

X
- total number of LED module rows in light
- X = {1, 2, 4, 5, 6, 7}

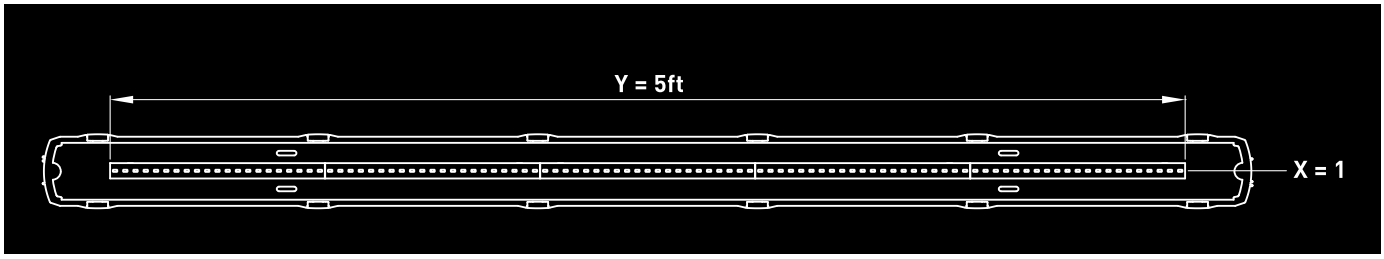
Y
- total length of LED modules in one row
- X = {1, 2, 4, 5}

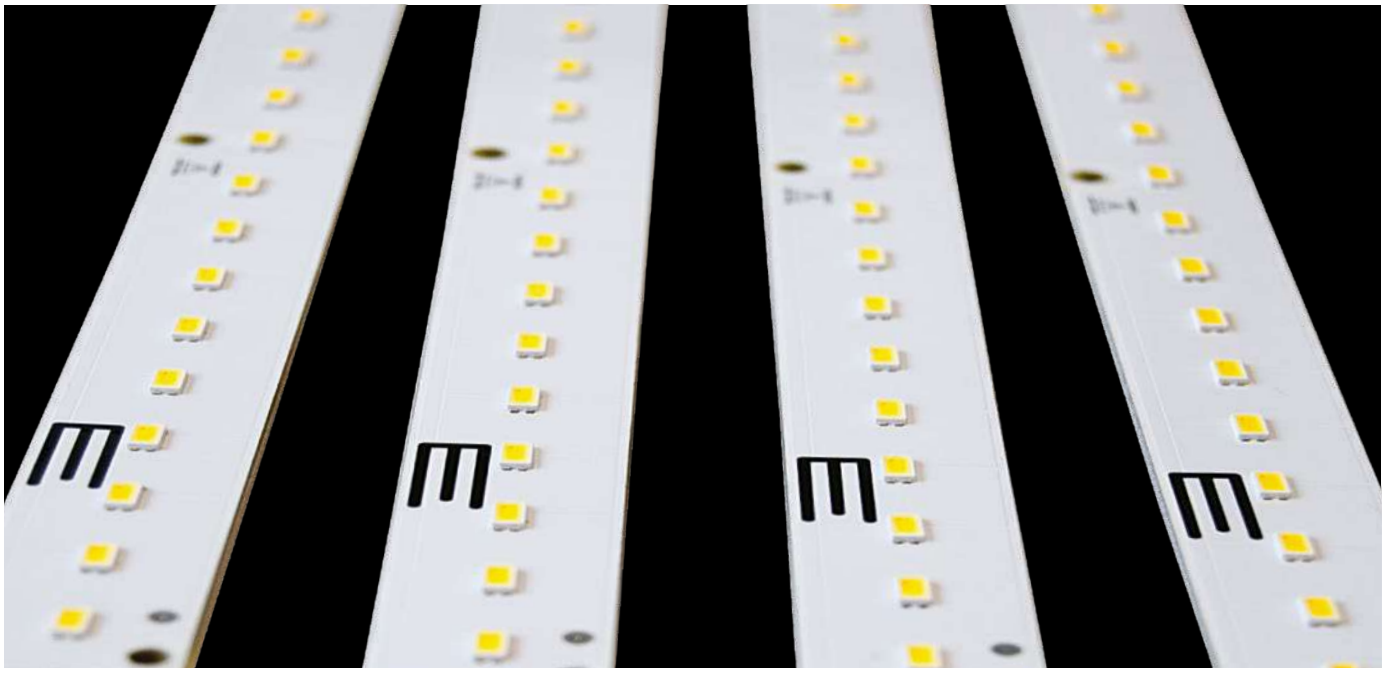
ft
- unit of length
- 1ft = 1 feet (280 mm)

FUTURA 2.4ft
- X = 2
- Y = 4ft



PRIMA LED 1.5ft
- X = 1
- Y = 5ft





TAKE A SNEAK PEEK

The future of commercial lighting

Every year we come up with something new, be it a fixture we have just launched or a redesign of one that we have been offering for a while. In any case, we respect the needs of the market and do our best to suit each client's requirements.

Modern design process with BIM objects

Not only have we prepared BIM objects for our most popular luminaires – INNOVA, FUTURA, LINEA and PRIMA LED. We pioneered the use of BIM objects by becoming the first in the Czech Republic to offer them for this type of luminaires. Currently, designers and architects are welcome to download BIM plugins for Archicad or Revit.

bim.lighting

Are LED fittings worth it?

Here is one of the most frequently asked questions: Is investing in TREVOS LEDs and replacing an existing fluorescent lighting system worth it? Most probably yes! You can calculate replacement costs as well as your energy savings using our easy-to-use app.

trevos.eu/en/calculator

Luminaires deserve their own videos

Don't believe that exciting videos can be made about light fittings? Then check out our YouTube channel! There's an installation speed test video featuring two differently connected light fittings. There's one that shows you how to build a Trevos exhibition stand. And there are many more that introduce our products and manufacturing processes as well as test our light fittings.

YouTube

Keeping you posted on all things Trevos

Like us on Facebook to keep in touch with what we do. Be the first to check out our new and redesigned products, photos of our production floor and from trade fairs, and lots more. Feel free to like, share and comment.

facebook.com/trevos.cz

Sharing information with professionals

We also share info about our products as well as news on LinkedIn, though in a more formal way.

linkedin.com/company/trevos-a-s-

Hashtag TREVOS

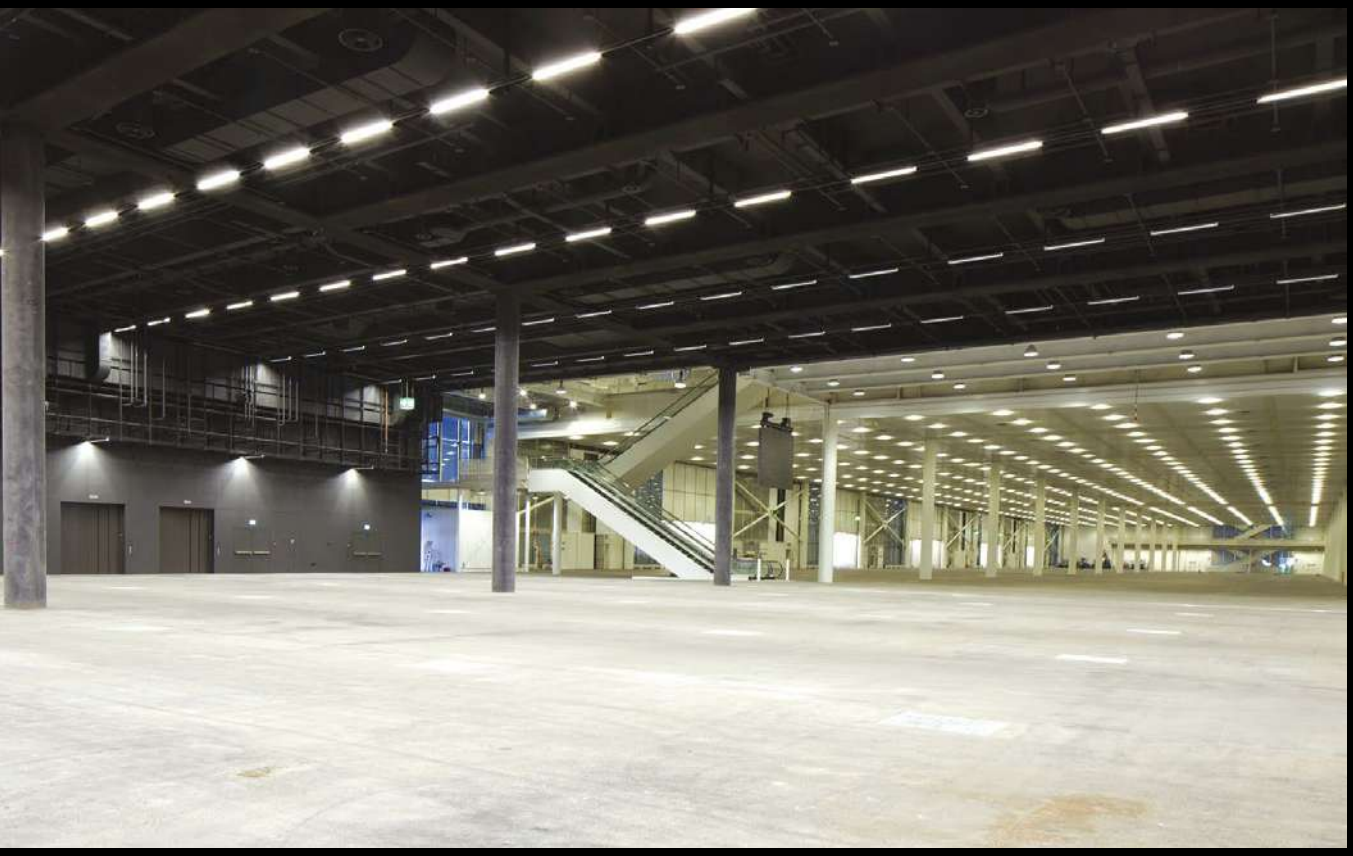
Guess what! We have just started using a #hashtag. It gives our fans access to unusual product photos and short vids, exciting news about a product we are about to launch or redesign, and lots more.

#trevoslighting

Want us to keep you posted about all things Trevos? Contact us at **marketing@trevos.cz**

TREVOS.EU

INNOVA



INDUSTRIAL

PLASTIC

IP66 / IP69

CUSTOMIZABLE SOLUTION

INNOVA – industrial plastic LED light fitting

INNOVA
page 12

IP66 **IP69**

INNOVA PC
page 12

INNOVA
FOR HIGH CEILINGS
page 15

IP66 **IP69**

INNOVA NB PC
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INNOVA
FOR LOW CEILINGS
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IP66 **IP69**

INNOVA WB PC
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INNOVA - CHEMICALLY
RESISTANT VERSION
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IP66 **IP69**

INNOVA ABS
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INNOVA FOR HIGH CEIL-
INGS - CHEMICALLY
RESISTANT VERSION
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IP66 **IP69**

INNOVA NB ABS
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INNOVA FOR LOW
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IP66 **IP69**

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INNOVA FOR BOTH
DIRECT AND INDIRECT
ILLUMINA
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IP66 **IP69**

INNOVA TRS
page 30

INNOVA
ACCESSORIES
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INNOVA
ACCESSORIES
page 33

BIM ready
www.bim.lighting/en

INNOVA

... dustproof, waterproof and impact-resistant.

USE

Closed and non-dismountable light fitting according to the standard ČSN EN 60598-1 part 4 suitable for indoor and outdoor space (even without shelter), **industrial, warehouse and agricultural buildings, sports premises, transport terminals, parking lots and garages, workshops and laboratories** without explosion hazard. The structural design of the light fitting (IP69) allows even placement in food-processing industry - HACCP.

The light fitting resists dust, humidity and washing with spouting water up to 80°C. The body and the diffuser made of PC material have high mechanical resistance against impact and deformation.

An external terminal strip makes it easy and quick to connect the supply cable with no need to open the **fitting (PLUG and PLAY system)**.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page 263.

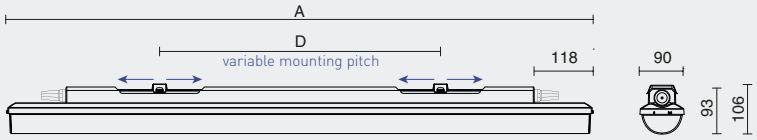
ADVANTAGES

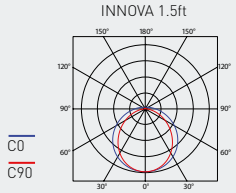
- Light fitting protection **IP66 / IP69**
- High temperature resistance in a range from ta = -25 °C to **ta = 50 °C**
- Lifetime: 50 000 hours / L90B10
- High mechanical resistance IK10
- Variable suspension pitch; optional installation of light fitting even on an existing structure on which the original light fittings were suspended
- Modernized stainless steel snap-in mounting clips – **easy attachment to a track lighting system with** a width of 60 mm
- **External terminal strip makes it easy to connect the supply cable – PLUG and PLAY system**
- Optional arrangement of light fittings in line without gaps
- Fully automatic 100% control of functionality and tightness (leak test) during production
- Easy cleaning and maintenance without need of replacing the light sources
- Eliminated risk of mechanical and electrostatic damage to LED chips
- Optional throughwiring (up to 5 wires inside the light fitting)
- Optional delivery in dimmable version
- Certificates: **ESČ, ENEC, CB, HACCP**

INNOVA PC

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66 / IP69**
- Maximum ambient temperature: **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- Maximum light fitting efficiency: 142 lm/W
- **CRI > 80: 4000 K** – standard
- CRI > 80: 3000 K, 5000 K, 6500 K - on request
- CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K - on request
- MacAdam = 3 SDCM
- Diffuser: translucent PC (high mechanical resistance, UV stability)
- Body: grey PC (high mechanical resistance, UV stability)
- Snap-in mounting clips: made of stainless steel and allowing **easy attachment to a track lighting system** with a width of 60 mm
- Ventilation membrane in the base eliminating vacuum and condensate build-up
- 3 or 5-pole **external terminal strip**, conductor cross-sectional area: 1.5 or 2.5 mm2
- Fittings may be **lined with zero distance** between them
- Optional constant luminous flux (CLO) in DALI version
- Electric equipment: LED modules, fixed output driver or DALI driver
- The package includes: stainless hooks and stainless brackets
- The values stated for power consumption and luminous flux are in a tolerance of ± 7,5 %





Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Up to ambient temperature t_a = 50 °C - body: grey polycarbonate - diffuser: translucent polycarbonate								
INNOVA 1.4ft PC 2600/840	50	2600	2470	18	137	1,5	1175	420 - 700
INNOVA 1.4ft PC 3200/840	50	3200	3050	22	139	1,5	1175	420 - 700
INNOVA 1.4ft PC 4400/840	45	4400	4180	30	139	1,5	1175	420 - 700
INNOVA 1.4ft PC 6400/840	45	6400	6030	43	140	1,5	1175	420 - 700
INNOVA 1.4ft PC 8800/840	40	8800	8110	58	140	1,6	1175	420 - 700
INNOVA 1.5ft PC 3250/840	50	3250	3000	22	136	1,8	1455	700 - 980
INNOVA 1.5ft PC 4000/840	50	4000	3770	27	140	1,8	1455	700 - 980
INNOVA 1.5ft PC 5500/840	45	5500	5270	37	142	1,8	1455	700 - 980
INNOVA 1.5ft PC 8000/840	45	8000	7570	54	140	1,8	1455	700 - 980
INNOVA 1.5ft PC 11000/840	40	11000	9950	71	140	1,9	1455	700 - 980

INNOVA 1.4ft PC 3200/840 = suitable replacement for tube light fitting PRIMA 136 PC – 1 × 36 W
INNOVA 1.4ft PC 6400/840 = suitable replacement for tube light fitting PRIMA 236 PC – 2 × 36 W
INNOVA 1.5ft PC 4000/840 = suitable replacement for tube light fitting PRIMA 158 PC – 1 × 58 W
INNOVA 1.5ft PC 8000/840 = suitable replacement for tube light fitting PRIMA 258 PC – 2 × 58 W

INNOVA PC

Diffuser made of translucent polycarbonate

Type	1x3P	1x5P	1x5P DALI	2x3P	2x5P	2x5P DALI
INNOVA 1.4ft PC 2600/840...	72111	72112	72113	72115	72116	72117
INNOVA 1.4ft PC 3200/840...	72121	72122	72123	72125	72126	72127
INNOVA 1.4ft PC 4400/840...	72131	72132	72133	72135	72136	72137
INNOVA 1.4ft PC 6400/840...	72141	72142	72143	72145	72146	72147
INNOVA 1.4ft PC 8800/840...	72101	72102	72103	72105	72106	72107
INNOVA 1.5ft PC 3250/840...	72151	72152	72153	72155	72156	72157
INNOVA 1.5ft PC 4000/840...	72161	72162	72163	72165	72166	72167
INNOVA 1.5ft PC 5500/840...	72171	72172	72173	72175	72176	72177
INNOVA 1.5ft PC 8000/840...	72181	72182	72183	72185	72186	72187
INNOVA 1.5ft PC 11000/840...	72191	72192	72193	72195	72196	72197

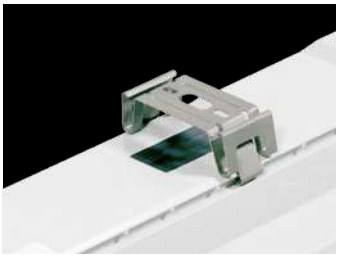
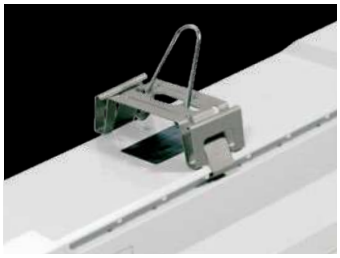
LEGEND

1x3P - a version featuring a non-dimmable ballast and a single 3-pole external terminal strip
1x5P - a version featuring a non-dimmable ballast and a single 5-pole external terminal strip
1x5P DALI - a version featuring a digitally dimmable ballast and a single 5-pole external terminal strip

2x3P - a version featuring a non-dimmable ballast, two 3-pole external terminal strips and 3-wire connecting cables (1F), for continuous row installation
2x5P - a version featuring a non-dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (3F), for continuous row installation
2x5P DALI - a version featuring a digitally dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (DALI 1F), for continuous row installation

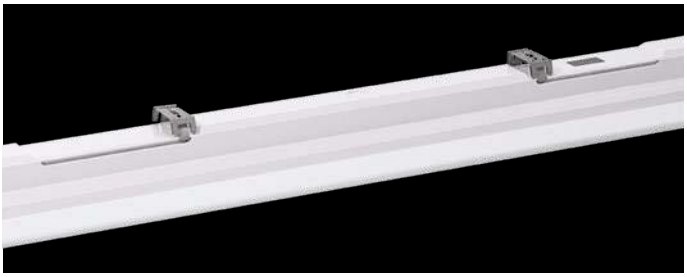
LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) To be attached to a track lighting system with a width of 60 mm using stainless steel snap-in mounting clips
d) Attachment with the use of side hangers to the wall

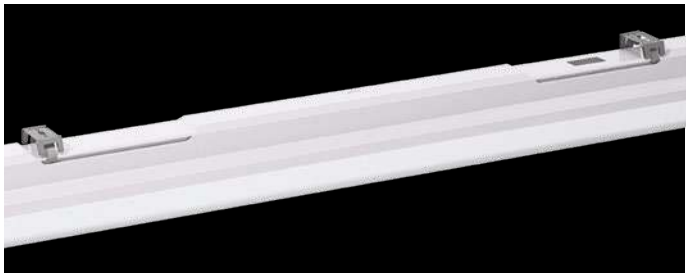



VARIABLE INSTALLATION PITCH

MINIMUM



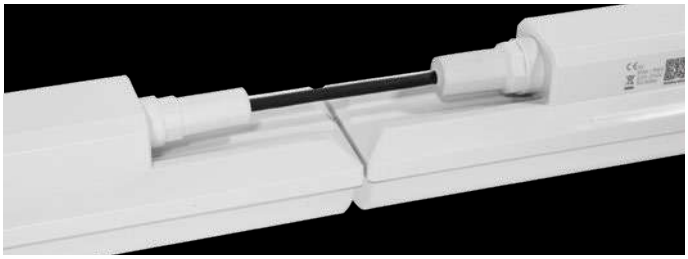
MAXIMUM



LIGHT FITTING INTERCONNECTION

An external terminal strip is used to ensure the supply cable can easily and quickly be connected with no need to open the light fixture (PLUG and PLAY system)

Interconnection of light fittings without spacing



LIGHT FITTING DETAILED VIEW

INNOVA PC

INNOVA NB

BIM ready

... impact-resistant, for areas with high ceilings of 8 – 12 m.

USE

Closed and non-dismountable light fitting according to the standard ČSN EN 60598-1 part 4 **with Narrow Beam** optics suitable for inside and outside spaces (even without shelter) intended for suspension height from 8 to 12 m, e.g. **inside or outside walls and corridors of high industrial, agricultural, warehouse or sports buildings, rack aisles in warehouses, outdoor playgrounds, covered sports arenas**. The structural design of the light fitting (IP69) allows even placement in food-processing industry - HACCP.

The light fitting resists dust, humidity and washing with spouting water up to 80 °C. The body and the diffuser made of PC material have high mechanical resistance against impact and deformation.

An external terminal strip makes it easy and quick to connect the supply cable with no need to open the **fitting (PLUG and PLAY system)**.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page 263.

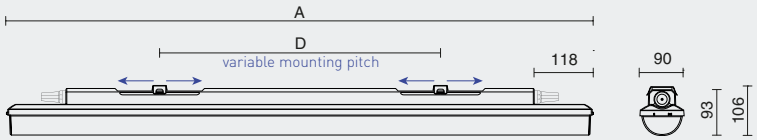
ADVANTAGES

- Light fitting protection **IP66 / IP69**
- High temperature resistance in a range from ta = -25 °C to **ta = 45 °C**
- Lifetime: 50 000 hours / L90B10
- High mechanical resistance IK10
- **Narrow Beam (NB)**, ceiling height 8 to 12 m
- **Variable suspension pitch**; optional installation of light fitting even on an existing structure on which the original light fittings were suspended
- Modernized stainless steel snap-in mounting clips – **easy attachment to a track lighting system with** a width of 60 mm
- **External terminal strip makes it easy to connect the supply cable – PLUG and PLAY system**
- Optional arrangement of light fittings in line without gaps
- **Fully automatic 100% control of functionality and tightness (leak test) during production**
- Easy cleaning and maintenance without need of replacing the light sources
- Eliminated risk of mechanical and electrostatic damage to LED chips
- Optional throughwiring (up to 5 wires inside the light fitting)
- Optional delivery in dimmable version
- Certificates: **ESČ, ENEC, CB, HACCP**

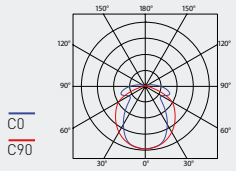
INNOVA NB PC

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66 / IP69**
- Maximum ambient temperature: **t_a = 45 °C**
- Lifetime: 50 000 hours / L90B10
- Maximum light fitting efficiency: 131 lm/W
- CRI > 80: 4000 K – standard
- CRI > 80: 3000 K, 5000 K, 6500 K - on request
- CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K - on request
- MacAdam = 3 SDCM
- Diffuser: transparent PC with Fresnel lenses, **Narrow Beam** (high mechanical resistance, UV stability)
- Body: grey PC (high mechanical resistance, UV stability)
- Snap-in mounting clips: made of stainless steel and allowing **easy attachment to a track lighting system** with a width of 60 mm
- Ventilation membrane in the base eliminating vacuum and condensate build-up
- 3 or 5-pole **external terminal strip**, conductor cross-sectional area: 1.5 or 2.5 mm2
- Fittings may be **lined with zero distance** between themOptional constant luminous flux (CLO) in DALI version
- Electric equipment: LED modules, fixed output driver or DALI driver
- The package includes: stainless hooks and stainless brackets
- The values stated for power consumption and luminous flux are in a tolerance of ± 7,5 %



INNOVA NB 1.5ft



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Up to ambient temperature t_a = 45 °C - body: grey polycarbonate - diffuser with Fresnel lenses, NB (Narrow Beam), transparent polycarbonate								
INNOVA 1.4ft NB PC 4400/840	45	4400	3850	30	128	1,5	1175	420 - 700
INNOVA 1.4ft NB PC 6400/840	45	6400	5540	43	129	1,5	1175	420 - 700
INNOVA 1.5ft NB PC 5500/840	45	5500	4850	37	131	1,8	1455	700 - 980
INNOVA 1.5ft NB PC 8000/840	45	8000	6960	54	129	1,8	1455	700 - 980

INNOVA NB

Diffuser with Fresnel lenses, Narrow Beam, transparent polycarbonate

Type	1x3P	1x5P	1x5P DALI	2x3P	2x5P	2x5P DALI
INNOVA 1.4ft NB PC 4400/840...	72211	72212	72213	72215	72216	72217
INNOVA 1.4ft NB PC 6400/840...	72221	72222	72223	72225	72226	72227
INNOVA 1.5ft NB PC 5500/840...	72231	72232	72233	72235	72236	72237
INNOVA 1.5ft NB PC 8000/840...	72241	72242	72243	72245	72246	72247

Example of type marking: 72223 = INNOVA 1.4ft NB PC 6400/840 **1x5P DALI**

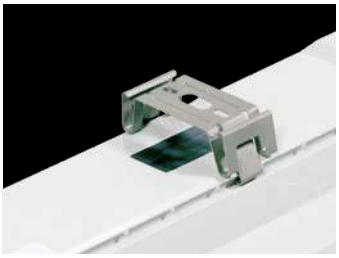
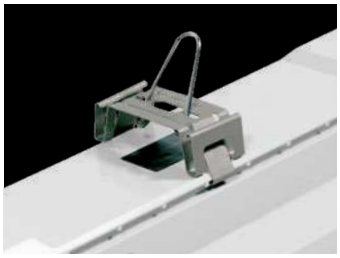
LEGEND

1x3P - a version featuring a non-dimmable ballast and a single 3-pole external terminal strip
1x5P - a version featuring a non-dimmable ballast and a single 5-pole external terminal strip
1x5P DALI - a version featuring a digitally dimmable ballast and a single 5-pole external terminal strip

2x3P - a version featuring a non-dimmable ballast, two 3-pole external terminal strips and 3-wire connecting cables (1F), for continuous row installation
2x5P - a version featuring a non-dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (3F), for continuous row installation
2x5P DALI - a version featuring a digitally dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (DALI 1F), for continuous row installation

LIGHT FITTING ATTACHMENT

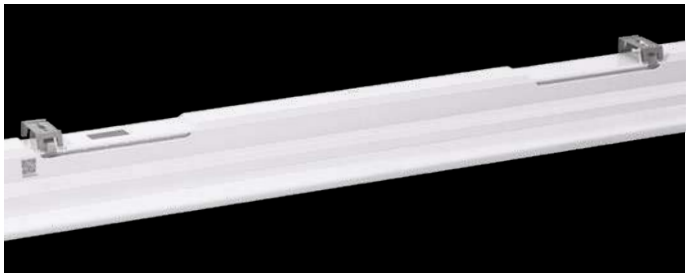
a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) To be attached to a track lighting system with a width of 60 mm using stainless steel snap-in mounting clips
d) Attachment with the use of side hangers to the wall

VARIABLE INSTALLATION PITCH

MINIMUM

MAXIMUM



LIGHT FITTING INTERCONNECTION

An external terminal strip is used to ensure the supply cable can easily and quickly be connected with no need to open the light fixture (PLUG and PLAY system)

Interconnection of light fittings without spacing

LIGHT FITTING DETAILED VIEW

INNOVA NB

INNOVA WB

... impact-resistant, for areas with low ceilings of 2.5 – 5 m.

USE

Closed and non-dismountable light fitting according to the standard ČSN EN 60598-1 part 4 **with Wide Beam** optics, suitable for inside and outside spaces (even without shelter), intended for suspension height from 2.5 to 5 m, e.g.: **production premises, parking buildings and garages, workshops, cellars, pedestrian underpasses and underground rooms with low ceilings**. The structural design of the light fitting (IP69) allows even placement in food-processing industry - HACCP.

The light fitting resists dust, humidity and washing with spouting water up to 80 °C. The body and the diffuser made of PC material have high mechanical resistance against impact and deformation.

An external terminal strip makes it easy and quick to connect the supply cable with no need to open the **fitting (PLUG and PLAY system)**.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page 263.

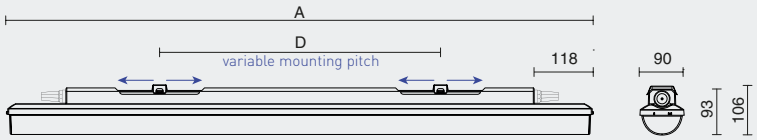
ADVANTAGES

- Light fitting protection **IP66 / IP69**
- High temperature resistance in a range from t_a = -25 °C to **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- High mechanical resistance IK10
- **Wide Beam (WB)**, ceiling height 2.5 to 5 m
- **Variable suspension pitch**; optional installation of light fitting even on an existing structure on which the original light fittings were suspended
- Modernized stainless steel snap-in mounting clips – **easy attachment to a track lighting system with** a width of 60 mm
- **External terminal strip makes it easy to connect the supply cable – PLUG and PLAY system**
- Optional arrangement of light fittings in line without gaps
- **Fully automatic 100% control of functionality and tightness (leak test) during production**
- Easy cleaning and maintenance without need of replacing the light sources
- Eliminated risk of mechanical and electrostatic damage to LED chips
- Optional throughwiring (up to 5 wires inside the light fitting)
- Optional delivery in dimmable version
- Certificates: **ESČ, ENEC, CB, HACCP**

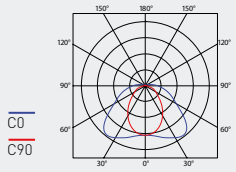
INNOVA WB PC

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66 / IP69**
- Maximum ambient temperature: **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- Maximum light fitting efficiency: 131 lm/W
- **CRI > 80: 4000 K** – standard
- CRI > 80: 3000 K, 5000 K, 6500 K - on request
- CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K - on request
- MacAdam = 3 SDCM
- Diffuser: transparent PC with Fresnel lenses, **Wide Beam** (high mechanical resistance, UV stability)
- Body: grey PC (high mechanical resistance, UV stability)
- Snap-in mounting clips: made of stainless steel and allowing **easy attachment to a track lighting system** with a width of 60 mm
- Ventilation membrane in the base eliminating vacuum and condensate build-up
- 3 or 5-pole **external terminal strip**, conductor cross-sectional area: 1.5 or 2.5 mm2
- Fittings may be **lined with zero distance** between them
- Optional constant luminous flux (CLO) in DALI version
- Electric equipment: LED modules, fixed output driver or DALI driver
- The package includes: stainless hooks and stainless brackets
- The values stated for power consumption and luminous flux are in a tolerance of ± 7,5 %



INNOVA WB 1.5ft



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Up to ambient temperature t_a = 50 °C - body: grey polycarbonate - diffuser with Fresnel lenses, WB (Wide Beam), transparent polycarbonate								
INNOVA 1.4ft WB PC 2600/840	50	2600	2270	18	126	1,5	1175	420 - 700
INNOVA 1.4ft WB PC 3200/840	50	3200	2810	22	128	1,5	1175	420 - 700
INNOVA 1.4ft WB PC 4400/840	45	4400	3850	30	128	1,5	1175	420 - 700
INNOVA 1.4ft WB PC 6400/840	45	6400	5540	43	129	1,5	1175	420 - 700
INNOVA 1.5ft WB PC 3250/840	50	3250	2750	22	125	1,8	1455	700 - 980
INNOVA 1.5ft WB PC 4000/840	50	4000	3470	27	129	1,8	1455	700 - 980
INNOVA 1.5ft WB PC 5500/840	45	5500	4850	37	131	1,8	1455	700 - 980
INNOVA 1.5ft WB PC 8000/840	45	8000	6960	54	129	1,8	1455	700 - 980

INNOVA WB

Diffuser with Fresnel lenses, Wide Beam, transparent polycarbonate

Type	1x3P	1x5P	1x5P DALI	2x3P	2x5P	2x5P DALI
INNOVA 1.4ft WB PC 2600/840...	72311	72312	72313	72315	72316	72317
INNOVA 1.4ft WB PC 3200/840...	72321	72322	72323	72325	72326	72327
INNOVA 1.4ft WB PC 4400/840...	72331	72332	72333	72335	72336	72337
INNOVA 1.4ft WB PC 6400/840...	72341	72342	72343	72345	72346	72347
INNOVA 1.5ft WB PC 3250/840...	72351	72352	72353	72355	72356	72357
INNOVA 1.5ft WB PC 4000/840...	72361	72362	72363	72365	72366	72367
INNOVA 1.5ft WB PC 5500/840...	72371	72372	72373	72375	72376	72377
INNOVA 1.5ft WB PC 8000/840...	72381	72382	72383	72385	72386	72387

Example of type marking: 72343 = INNOVA 1.4ft WB PC 6400/840 **1x5P DALI**

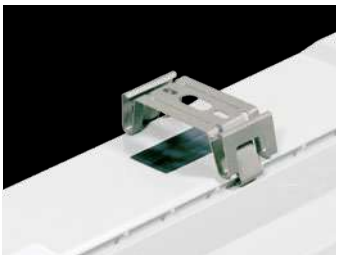
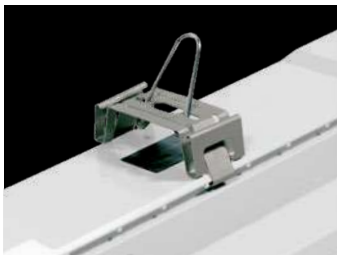
LEGEND

1x3P - a version featuring a non-dimmable ballast and a single 3-pole external terminal strip
1x5P - a version featuring a non-dimmable ballast and a single 5-pole external terminal strip
1x5P DALI - a version featuring a digitally dimmable ballast and a single 5-pole external terminal strip

2x3P - a version featuring a non-dimmable ballast, two 3-pole external terminal strips and 3-wire connecting cables (1F), for continuous row installation
2x5P - a version featuring a non-dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (3F), for continuous row installation
2x5P DALI - a version featuring a digitally dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (DALI 1F), for continuous row installation

LIGHT FITTING ATTACHMENT

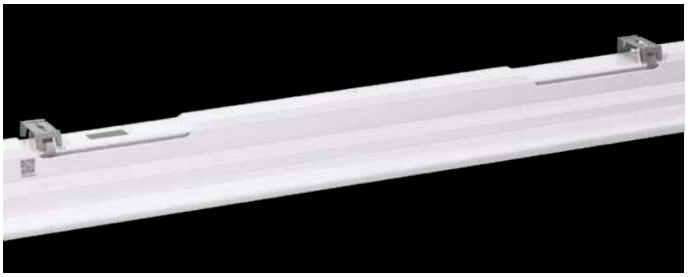
a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) To be attached to a track lighting system with a width of 60 mm using stainless steel snap-in mounting clips
d) Attachment with the use of side hangers to the wall

VARIABLE INSTALLATION PITCH

MINIMUM

MAXIMUM



LIGHT FITTING INTERCONNECTION

An external terminal strip is used to ensure the supply cable can easily and quickly be connected with no need to open the light fixture (PLUG and PLAY system)

Interconnection of light fittings without spacing

LIGHT FITTING DETAILED VIEW

INNOVA WB

INNOVA ABS

... dustproof, waterproof and chemically resistant.

USE

Closed and non-dismountable light fitting according to the standard ČSN EN 60598-1 part 4 intended for chemically challenging or agricultural premises with incidence of vapours like ammonia, lye, alkaline compounds and hot water (hydrolysis). The light fitting is suitable particularly for **agricultural and industrial buildings like farms, stables, production and warehouse premises, car wash units and laboratories** without explosion hazard. The structural design of the light fitting (IP69) allows even placement in food-processing industry - HACCP.

The light fitting resists dust, humidity and washing with spouting water up to 80 °C. The body and the diffuser made of ABS material have high chemical resistance.

An external terminal strip makes it easy and quick to connect the supply cable with no need to open the **fitting (PLUG and PLAY system)**.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page č. 263.

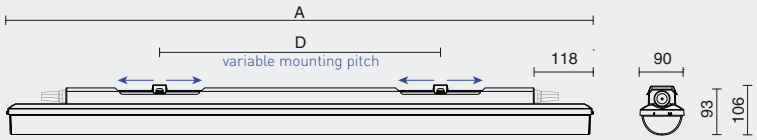
ADVANTAGES

- Light fitting protection **IP66 / IP69**
- High temperature resistance in a range from t_a = -25 °C to **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- High chemical resistance
- **Variable suspension pitch**; optional installation of light fitting even on an existing structure on which the original light fittings were suspended
- Modernized stainless steel snap-in mounting clips – **easy attachment to a track lighting system with** a width of 60 mm
- **External terminal strip makes it easy to connect the supply cable – PLUG and PLAY system**
- Optional arrangement of light fittings in line without gaps
- **Fully automatic 100% control of functionality and tightness (leak test) during production**
- Easy cleaning and maintenance without need of replacing the light sources
- Eliminated risk of mechanical and electrostatic damage to LED chips
- Optional throughwiring (up to 5 wires inside the light fitting)
- Optional delivery in dimmable version
- Certificates: **ESČ, ENEC, CB, DLG, HACCP**

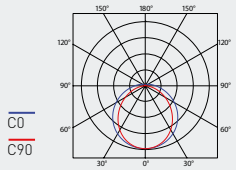
INNOVA ABS

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66 / IP69**
- Maximum ambient temperature: **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- Maximum light fitting efficiency: 135 lm/W
- CRI > 80: 4000 K – standard
- CRI > 80: 3000 K, 5000 K, 6500 K - on request
- CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K - on request
- MacAdam = 3 SDCM
- Diffuser: translucent ABS (high chemical resistance, UV stability)
- Body: dark grey ABS (high chemical resistance, UV stability)
- Snap-in mounting clips: made of stainless steel and allowing **easy attachment to a track lighting system** with a width of 60 mm
- Ventilation membrane in the base eliminating vacuum and condensate build-up
- 3 or 5-pole **external terminal strip**, conductor cross-sectional area: 1.5 or 2.5 mm2
- Fittings may be **lined with zero distance** between them
- Optional constant luminous flux (CLO) in DALI version
- Electric equipment: LED modules, fixed output driver or DALI driver
- The package includes: stainless hooks and stainless brackets
- The values stated for power consumption and luminous flux are in a tolerance of ± 7,5 %



INNOVA ABS 1.5ft



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Up to ambient temperature t_a = 50 °C - body: dark grey ABS - diffuser: translucent ABS								
INNOVA 1.4ft ABS 2600/840	50	2600	2470	18	137	1,5	1175	420 - 700
INNOVA 1.4ft ABS 3200/840	50	3200	3050	22	139	1,5	1175	420 - 700
INNOVA 1.4ft ABS 4400/840	45	4400	4180	30	139	1,5	1175	420 - 700
INNOVA 1.4ft ABS 6400/840	45	6400	6030	43	140	1,5	1175	420 - 700
INNOVA 1.4ft ABS 8800/840	40	8800	8110	58	140	1,6	1175	420 - 700
INNOVA 1.5ft ABS 3250/840	50	3250	3000	22	136	1,8	1455	700 - 980
INNOVA 1.5ft ABS 4000/840	50	4000	3770	27	140	1,8	1455	700 - 980
INNOVA 1.5ft ABS 5500/840	45	5500	5270	37	142	1,8	1455	700 - 980
INNOVA 1.5ft ABS 8000/840	45	8000	7570	54	140	1,8	1455	700 - 980
INNOVA 1.5ft ABS 11000/840	40	11000	9950	71	140	1,9	1455	700 - 980

INNOVA 1.4ft ABS 3200/840 = suitable replacement for tube light fitting PRIMA 136 ABS – 1 × 36 W
INNOVA 1.4ft ABS 6400/840 = suitable replacement for tube light fitting PRIMA 236 ABS – 2 × 36 W
INNOVA 1.5ft ABS 4000/840 = suitable replacement for tube light fitting PRIMA 158 ABS – 1 × 58 W
INNOVA 1.5ft ABS 8000/840 = suitable replacement for tube light fitting PRIMA 258 ABS – 2 × 58 W

INNOVA ABS

Diffuser from translucent ABS

Type	1x3P	1x5P	1x5P DALI	2x3P	2x5P	2x5P DALI
INNOVA 1.4ft ABS 2600/840...	72411	72412	72413	72415	72416	72417
INNOVA 1.4ft ABS 3200/840...	72421	72422	72423	72425	72426	72427
INNOVA 1.4ft ABS 4400/840...	72431	72432	72433	72435	72436	72437
INNOVA 1.4ft ABS 6400/840...	72441	72442	72443	72445	72446	72447
INNOVA 1.4ft ABS 8800/840...	72401	72402	72403	72405	72406	72407
INNOVA 1.5ft ABS 3250/840...	72451	72452	72453	72455	72456	72457
INNOVA 1.5ft ABS 4000/840...	72461	72462	72463	72465	72466	72467
INNOVA 1.5ft ABS 5500/840...	72471	72472	72473	72475	72476	72477
INNOVA 1.5ft ABS 8000/840...	72481	72482	72483	72485	72486	72487
INNOVA 1.5ft ABS 11000/840...	72491	72492	72493	72495	72496	72497

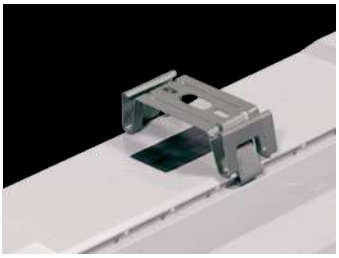
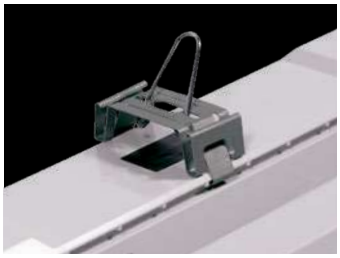
LEGEND

1x3P - a version featuring a non-dimmable ballast and a single 3-pole external terminal strip
1x5P - a version featuring a non-dimmable ballast and a single 5-pole external terminal strip
1x5P DALI - a version featuring a digitally dimmable ballast and a single 5-pole external terminal strip

2x3P - a version featuring a non-dimmable ballast, two 3-pole external terminal strips and 3-wire connecting cables (1F), for continuous row installation
2x5P - a version featuring a non-dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (3F), for continuous row installation
2x5P DALI - a version featuring a digitally dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (DALI 1F), for continuous row installation

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) To be attached to a track lighting system with a width of 60 mm using stainless steel snap-in mounting clips
d) Attachment with the use of side hangers to the wall

VARIABLE INSTALLATION PITCH

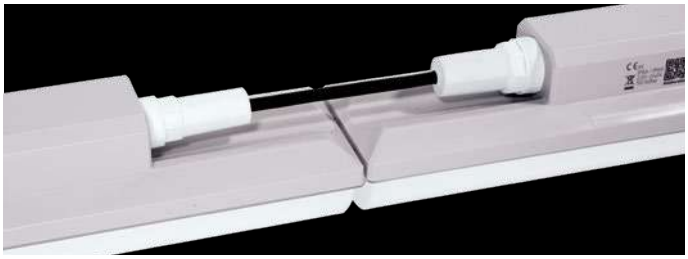
MINIMUM

MAXIMUM

LIGHT FITTING INTERCONNECTION

An external terminal strip is used to ensure the supply cable can easily and quickly be connected with no need to open the light fixture (PLUG and PLAY system)

Interconnection of light fittings without spacing



LIGHT FITTING DETAILED VIEW

INNOVA ABS

INNOVA NB ABS

... chemically resistant, for areas with high ceilings of 8 – 12 m.

USE

Closed and non-dismountable light fitting according to the standard ČSN EN 60598-1 part 4 intended for chemically challenging or agricultural premises with incidence of vapours like ammonia, lye, alkaline compounds and hot water (hydrolysis). Thanks to the **Narrow Beam** optics, it is suitable for inside spaces with high ceilings, intended for suspension height from 8 to 12 m, e.g. **inside walls and corridors of high agricultural and industrial buildings, rack aisles in production and storage spaces, farms, stables and laboratories** without explosion hazard. The structural design of the light fitting (IP69) allows even placement in food-processing industry - HACCP.

The light fitting resists dust, humidity and washing with spouting water up to 80 °C. The body and the diffuser made of ABS material have high chemical resistance.

An external terminal strip makes it easy and quick to connect the supply cable with no need to open the **fitting (PLUG and PLAY system)**.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page 263.

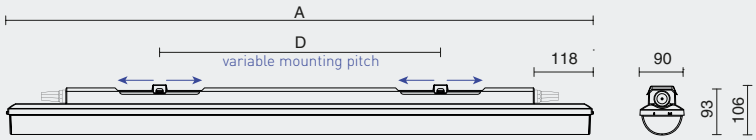
ADVANTAGES

- Light fitting protection **IP66 / IP69**
- High temperature resistance in a range from t_a = -25 °C to **t_a = 45 °C**
- Lifetime: 50 000 hours / L90B10
- High chemical resistance
- **Narrow Beam (NB)**, ceiling height 8 to 12 m
- **Variable suspension pitch**; optional installation of light fitting even on an existing structure on which the original light fittings were suspended
- Modernized stainless steel snap-in mounting clips – **easy attachment to a track lighting system with** a width of 60 mm
- **External terminal strip makes it easy to connect the supply cable – PLUG and PLAY system**
- Optional arrangement of light fittings in line without gaps
- **Fully automatic 100% control of functionality and tightness (leak test) during production**
- Easy cleaning and maintenance without need of replacing the light sources
- Eliminated risk of mechanical and electrostatic damage to LED chips
- Optional throughwiring (up to 5 wires inside the light fitting)
- Optional delivery in dimmable version
- Certificates: **ESČ, ENEC, CB, DLG, HACCP**

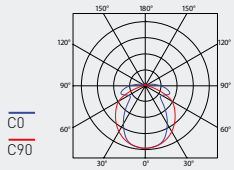
INNOVA NB ABS

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66 / IP69**
- Maximum ambient temperature: **t_a = 45 °C**
- Lifetime: 50 000 hours / L90B10
- Maximum light fitting efficiency: 131 lm/W
- **CRI > 80: 4000 K** – standard
- CRI > 80: 3000 K, 5000 K, 6500 K - on request
- CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K - on request
- MacAdam = 3 SDCM
- Diffuser: transparent ABS with Fresnel lenses, **Narrow Beam** (high chemical resistance, UV stability)
- Body: dark grey ABS (high chemical resistance, UV stability)
- Snap-in mounting clips: made of stainless steel and allowing **easy attachment to a track lighting system** with a width of 60 mm
- Ventilation membrane in the base eliminating vacuum and condensate build-up
- 3 or 5-pole **external terminal strip**, conductor cross-sectional area: 1.5 or 2.5 mm2
- Fittings may be **lined with zero distance** between them
- Optional constant luminous flux (CLO) in DALI version
- Electric equipment: LED modules, fixed output driver or DALI driver
- The package includes: stainless hooks and stainless brackets
- The values stated for power consumption and luminous flux are in a tolerance of ± 7,5 %



INNOVA NB ABS 1.5ft



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Up to ambient temperature t_a = 45 °C - body: dark grey ABS - diffuser with Fresnel lenses, NB (Narrow Beam), transparent ABS								
INNOVA 1.4ft NB ABS 4400/840	45	4400	3850	30	128	1,5	1175	420 - 700
INNOVA 1.4ft NB ABS 6400/840	45	6400	5540	43	129	1,5	1175	420 - 700
INNOVA 1.5ft NB ABS 5500/840	45	5500	4850	37	131	1,8	1455	700 - 980
INNOVA 1.5ft NB ABS 8000/840	45	8000	6960	54	129	1,8	1455	700 - 980

INNOVA NB ABS

Diffuser with Fresnel lenses, Narrow Beam, transparent ABS

Type	1x3P	1x5P	1x5P DALI	2x3P	2x5P	2x5P DALI
INNOVA 1.4ft NB ABS 4400/840...	72511	72512	72513	72515	72516	72517
INNOVA 1.4ft NB ABS 6400/840...	72521	72522	72523	72525	72526	72527
INNOVA 1.5ft NB ABS 5500/840...	72531	72532	72533	72535	72536	72537
INNOVA 1.5ft NB ABS 8000/840...	72541	72542	72543	72545	72546	72547

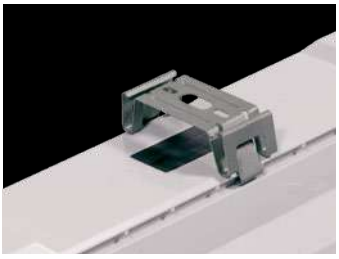
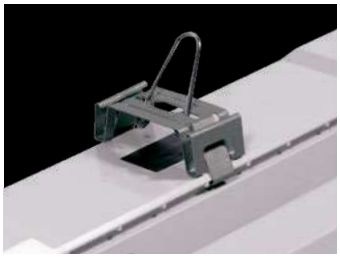
Example of type marking: 72523 = INNOVA 1.4ft NB ABS 6400/840 **1x5P DALI**

LEGEND

1x3P - a version featuring a non-dimmable ballast and a single 3-pole external terminal strip
1x5P - a version featuring a non-dimmable ballast and a single 5-pole external terminal strip
1x5P DALI - a version featuring a digitally dimmable ballast and a single 5-pole external terminal strip

2x3P - a version featuring a non-dimmable ballast, two 3-pole external terminal strips and 3-wire connecting cables (1F), for continuous row installation
2x5P - a version featuring a non-dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (3F), for continuous row installation
2x5P DALI - a version featuring a digitally dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (DALI 1F), for continuous row installation

Light fitting attachment
a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) To be attached to a track lighting system with a width of 60 mm using stainless steel snap-in mounting clips
d) Attachment with the use of side hangers to the wall

VARIABLE INSTALLATION PITCH

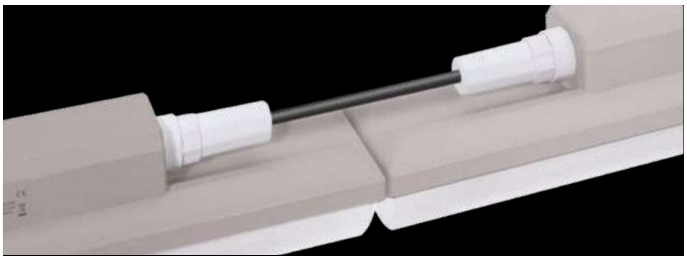
MINIMUM

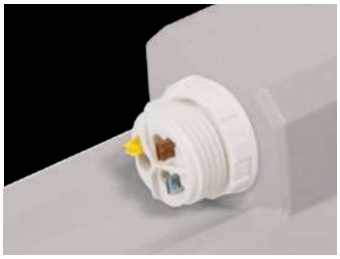
MAXIMUM

LIGHT FITTING INTERCONNECTION

An external terminal strip is used to ensure the supply cable can easily and quickly be connected with no need to open the light fixture (PLUG and PLAY system)

Interconnection of light fittings without spacing





LIGHT FITTING DETAILED VIEW

INNOVA NB ABS

INNOVA WB ABS

... chemically resistant, for areas with low ceilings of 2.5 – 5 m.

USE

Closed and non-dismountable light fitting according to the standard ČSN EN 60598-1 part 4 intended for chemically challenging or agricultural premises with incidence of vapours like ammonia, lye, alkaline compounds and hot water (hydrolysis). Thanks to the **Wide Beam** optics it is suitable for inside spaces with low ceilings, intended for suspension height from 2.5 to 5 m, e.g. **inside walls and corridors of low agricultural and industrial buildings, workshops, corridors, cellars, farms, stables and laboratories** without explosion hazard. The structural design of the light fitting (IP69) allows even placement in food-processing industry - HACCP.

The light fitting resists dust, humidity and washing with spouting water up to 80 °C. The body and the diffuser made of ABS material have high chemical resistance.

An external terminal strip makes it easy and quick to connect the supply cable with no need to open the **fitting (PLUG and PLAY system)**.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page 263.

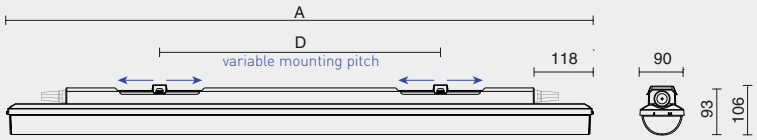
ADVANTAGES

- Light fitting protection **IP66 / IP69**
- High temperature resistance in a range from t_a = -25 °C to **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- High chemical resistance
- **Wide Beam (WB)**, ceiling height 2.5 to 5 m
- **Variable suspension pitch**; optional installation of light fitting even on an existing structure on which the original light fittings were suspended
- Modernized stainless steel snap-in mounting clips – **easy attachment to a track lighting system with** a width of 60 mm
- **External terminal strip makes it easy to connect the supply cable – PLUG and PLAY system**
- Optional arrangement of light fittings in line without gaps
- **Fully automatic 100% control of functionality and tightness (leak test) during production**
- Easy cleaning and maintenance without need of replacing the light sources
- Eliminated risk of mechanical and electrostatic damage to LED chips
- Optional throughwiring (up to 5 wires inside the light fitting)
- Optional delivery in dimmable version
- Certificates: **ESČ, ENEC, CB, DLG, HACCP**

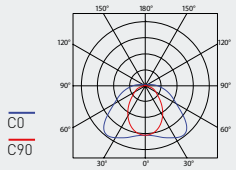
INNOVA WB ABS

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66 / IP69**
- Maximum ambient temperature: **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- Maximum light fitting efficiency: 131 lm/W
- **CRI > 80: 4000 K** – standard
- CRI > 80: 3000 K, 5000 K, 6500 K - on request
- CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K - on request
- MacAdam = 3 SDCM
- Diffuser: transparent ABS with Fresnel lenses, **Wide Beam** (high chemical resistance, UV stability)
- Body: dark grey ABS (high chemical resistance, UV stability)
- Snap-in mounting clips: made of stainless steel and allowing **easy attachment to a track lighting system** with a width of 60 mm
- Ventilation membrane in the base eliminating vacuum and condensate build-up
- 3 or 5-pole **external terminal strip**, conductor cross-sectional area: 1.5 or 2.5 mm2
- Fittings may be **lined with zero distance** between them
- Optional constant luminous flux (CLO) in DALI version
- Electric equipment: LED modules, fixed output driver or DALI driver
- The package includes: stainless hooks and stainless brackets
- The values stated for power consumption and luminous flux are in a tolerance of ± 7,5 %



INNOVA WB ABS 1.5ft



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Up to ambient temperature t_a = 50 °C - body: dark grey ABS - diffuser with Fresnel lenses, WB (Wide Beam), transparent ABS								
INNOVA 1.4ft WB ABS 2600/840	50	2600	2270	18	126	1,5	1175	420 - 700
INNOVA 1.4ft WB ABS 3200/840	50	3200	2810	22	128	1,5	1175	420 - 700
INNOVA 1.4ft WB ABS 4400/840	45	4400	3850	30	128	1,5	1175	420 - 700
INNOVA 1.4ft WB ABS 6400/840	45	6400	5540	43	129	1,5	1175	420 - 700
INNOVA 1.5ft WB ABS 3250/840	50	3250	2750	22	125	1,8	1455	700 - 980
INNOVA 1.5ft WB ABS 4000/840	50	4000	3470	27	129	1,8	1455	700 - 980
INNOVA 1.5ft WB ABS 5500/840	45	5500	4850	37	131	1,8	1455	700 - 980
INNOVA 1.5ft WB ABS 8000/840	45	8000	6960	54	129	1,8	1455	700 - 980

INNOVA WB ABS

Diffuser with Fresnel lenses, Wide Beam, transparent ABS

Type	1x3P	1x5P	1x5P DALI	2x3P	2x5P	2x5P DALI
INNOVA 1.4ft WB ABS 2600/840...	72611	72612	72613	72615	72616	72617
INNOVA 1.4ft WB ABS 3200/840...	72621	72622	72623	72625	72626	72627
INNOVA 1.4ft WB ABS 4400/840...	72631	72632	72633	72635	72636	72637
INNOVA 1.4ft WB ABS 6400/840...	72641	72642	72643	72645	72646	72647
INNOVA 1.5ft WB ABS 3250/840...	72651	72652	72653	72655	72656	72657
INNOVA 1.5ft WB ABS 4000/840...	72661	72662	72663	72665	72666	72667
INNOVA 1.5ft WB ABS 5500/840...	72671	72672	72673	72675	72676	72677
INNOVA 1.5ft WB ABS 8000/840...	72681	72682	72683	72685	72686	72687

Example of type marking: 72643 = INNOVA 1.4ft WB ABS 6400/840 **1x5P DALI**

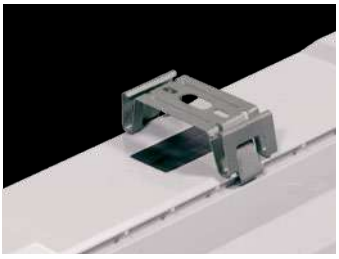
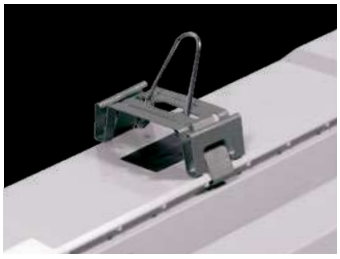
LEGEND

1x3P - a version featuring a non-dimmable ballast and a single 3-pole external terminal strip
1x5P - a version featuring a non-dimmable ballast and a single 5-pole external terminal strip
1x5P DALI - a version featuring a digitally dimmable ballast and a single 5-pole external terminal strip

2x3P - a version featuring a non-dimmable ballast, two 3-pole external terminal strips and 3-wire connecting cables (1F), for continuous row installation
2x5P - a version featuring a non-dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (3F), for continuous row installation
2x5P DALI - a version featuring a digitally dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (DALI 1F), for continuous row installation

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) To be attached to a track lighting system with a width of 60 mm using stainless steel snap-in mounting clips
d) Attachment with the use of side hangers to the wall

VARIABLE INSTALLATION PITCH

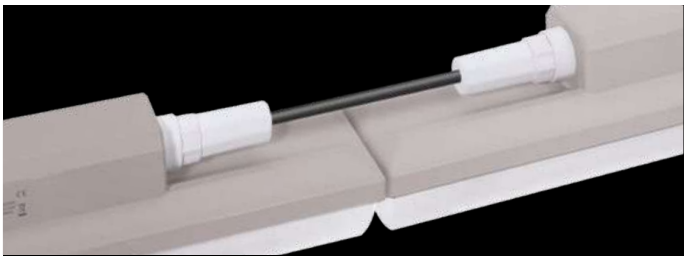
MINIMUM

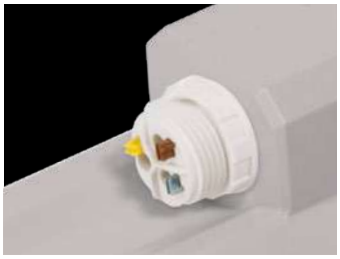
MAXIMUM

LIGHT FITTING INTERCONNECTION

An external terminal strip is used to ensure the supply cable can easily and quickly be connected with no need to open the light fixture (PLUG and PLAY system)

Interconnection of light fittings without spacing





LIGHT FITTING DETAILED VIEW

INNOVA WB ABS

INNOVA TRS

NEW

... for direct and indirect illumination.

USE

An enclosed, non-dismantable and **fully transparent** luminaire featuring a user non-replaceable light source in accordance with ČSN EN 60598-1(4). The fixture is a perfect choice for inside as well as outside spaces (roof and unroofed) with luminaire installation height ranging from 2.5 m to 5 m such as: **production plants, (multistorey) car parks and garages, workshops, corridors, cellars, pedestrian underpasses and underground spaces with low ceilings.** The structural design of the light fitting (IP69) allows even placement in food-processing industry - HACCP.

The light fitting resists dust, humidity and washing with spouting water up to 80 °C. The body and the diffuser made of PC material have high mechanical resistance against impact and deformation.

An external terminal strip makes it easy and quick to connect the supply cable with no need to open the **fitting (PLUG and PLAY system)**.

Emissions in the environment of use may reduce the usability of the plastics see page č. 263.

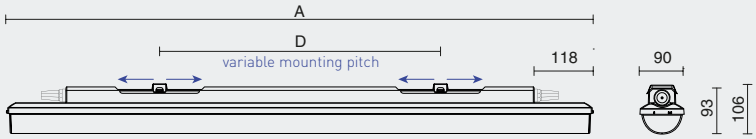
ADVANTAGES

- Light fitting protection **IP66 / IP69**
- High temperature resistance in a range from t_a = -25 °C to **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- High mechanical resistance IK10
- **For direct and indirect lighting**, ceiling height 2.5 to 5 m
- **Variable suspension pitch**; optional installation of light fitting even on an existing structure on which the original light fittings were suspended
- Modernized stainless steel snap-in mounting clips – **easy attachment to a track lighting system with** a width of 60 mm
- **External terminal strip makes it easy to connect the supply cable – PLUG and PLAY system**
- Optional arrangement of light fittings in line without gaps
- **Fully automatic 100% control of functionality and tightness (leak test) during production**
- Easy cleaning and maintenance without need of replacing the light sources
- Eliminated risk of mechanical and electrostatic damage to LED chips
- Optional throughwiring (up to 5 wires inside the light fitting)
- Optional delivery in dimmable version
- Certificates: **ESČ, CB, HACCP**

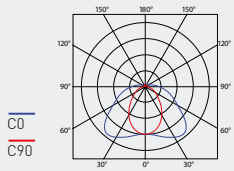
INNOVA TRS PC

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66 / IP69**
- Maximum ambient temperature: **t_a = 50 °C**
- Lifetime: 50 000 hours / L90B10
- Maximum light fitting efficiency: 131 lm/W
- **CRI > 80: 4000 K** – standard
- CRI > 80: 3000 K, 5000 K, 6500 K - on request
- CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K - on request
- MacAdam = 3 SDCM
- Diffuser: transparent PC (high mechanical resistance, UV stability)
- Body: transparent PC (high mechanical resistance, UV stability)
- Reflector: modified for **indirect illumination**
- Snap-in mounting clips: made of stainless steel and allowing **easy attachment to a track lighting system** with a width of 60 mm
- Ventilation membrane in the base eliminating vacuum and condensate build-up
- 3 or 5-pole **external terminal strip**, conductor cross-sectional area: 1.5 or 2.5 mm2
- Fittings may be **lined with zero distance** between them
- Optional constant luminous flux (CLO) in DALI version
- Electric equipment: LED modules, fixed output driver or DALI driver
- The package includes: stainless hooks and stainless brackets, a connector's counterpart (if no cables are ordered)
- The values stated for power consumption and luminous flux are in a tolerance of ± 7,5 %



INNOVA 1.5ft TRS



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Up to ambient temperature t_a = 50 °C - body: transparent polycarbonate - diffuser: transparent polycarbonate								
INNOVA 1.4ft TRS PC 2600/840	50	2600	2270	18	126	1,5	1175	420 - 700
INNOVA 1.4ft TRS PC 3200/840	50	3200	2810	22	128	1,5	1175	420 - 700
INNOVA 1.4ft TRS PC 4400/840	45	4400	3850	30	128	1,5	1175	420 - 700
INNOVA 1.4ft TRS PC 6400/840	45	6400	5540	43	129	1,5	1175	420 - 700
INNOVA 1.5ft TRS PC 3250/840	50	3250	2750	22	125	1,8	1455	700 - 980
INNOVA 1.5ft TRS PC 4000/840	50	4000	3470	27	129	1,8	1455	700 - 980
INNOVA 1.5ft TRS PC 5500/840	45	5500	4850	37	131	1,8	1455	700 - 980
INNOVA 1.5ft TRS PC 8000/840	45	8000	6960	54	129	1,8	1455	700 - 980

INNOVA TRS

Diffuser: transparent polycarbonate

Type	1x3P	1x5P	1x5P DALI	2x3P	2x5P	2x5P DALI
INNOVA 1.4ft TRS PC 2600/840...	16201	16202	16203	16205	16206	16207
INNOVA 1.4ft TRS PC 3200/840...	16211	16212	16213	16215	16216	16217
INNOVA 1.4ft TRS PC 4400/840...	16221	16222	16223	16225	16226	16227
INNOVA 1.4ft TRS PC 6400/840...	16231	16232	16233	16235	16236	16237
INNOVA 1.5ft TRS PC 3250/840...	16241	16242	16243	16245	16246	16247
INNOVA 1.5ft TRS PC 4000/840...	16251	16252	16253	16255	16256	16257
INNOVA 1.5ft TRS PC 5500/840...	16261	16262	16263	16265	16266	16267
INNOVA 1.5ft TRS PC 8000/840...	16271	16272	16273	16275	16276	16277

Example of type marking: 16233 = INNOVA 1.4ft TRS PC 6400/840 **1x5P DALI**

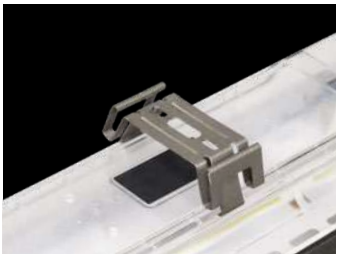
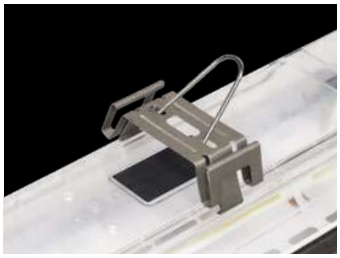
LEGEND

1x3P - a version featuring a non-dimmable ballast and a single 3-pole external terminal strip
1x5P - a version featuring a non-dimmable ballast and a single 5-pole external terminal strip
1x5P DALI - a version featuring a digitally dimmable ballast and a single 5-pole external terminal strip

2x3P - a version featuring a non-dimmable ballast, two 3-pole external terminal strips and 3-wire connecting cables (1F), for continuous row installation
2x5P - a version featuring a non-dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (3F), for continuous row installation
2x5P DALI - a version featuring a digitally dimmable ballast, two 5-pole external terminal strips and 5-wire connecting cables (DALI 1F), for continuous row installation

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) To be attached to a track lighting system with a width of 60 mm using stainless steel snap-in mounting clips
d) Attachment with the use of side hangers to the wall

VARIABLE INSTALLATION PITCH

MINIMUM

MAXIMUM

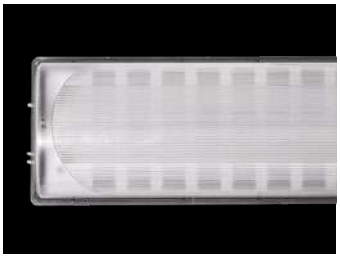
LIGHT FITTING INTERCONNECTION

An external terminal strip is used to ensure the supply cable can easily and quickly be connected with no need to open the light fixture (PLUG and PLAY system)

Interconnection of light fittings without spacing

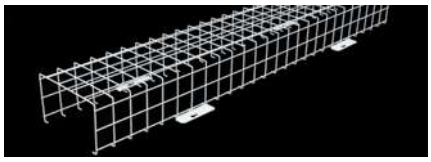
LIGHT FITTING DETAILED VIEW

INNOVA TRS



OM – protective grid

The metal grid protects the light fitting against mechanical damage and unauthorised handling. It is attached to the surface with the use of screws.
The surface is treated with the RAL 9003 powder-coated colour.



Code	Type	Description	Weight [kg]
11942	OM 236	protective grid for Types 236, 228/254, x.4ft (1300 × 220 × 130 mm)	1,7
11943	OM 258	protective grid for Types 258, 235/249/280, x.5ft (1600 × 220 × 130 mm)	2,0

BZ – side hanger

It serves to attach the light fitting to the wall with the possibility of its positioning.

Code	Type	Description	Weight [kg]
90002	BZ	side hanger with blocking (set for 1 light fitting)	0,4

Canalis busbar system connector

The connector enables a quick 1 phase or 3 phase interconnection of light fittings without their opening.

Code	Type	Description	Weight [kg]
79001	KBA 40 ZU	light fitting suspension holder - Canalis KBA system	0,1
72971	KBC 10 CC212	three-pole connector with 1 m cable - Canalis KBA system	0,2
72972	KBC 10 CC213	five-pole connector with 1 m cable - Canalis KBA system	0,3

FUTURA

INDUSTRIAL

PLASTIC

DUSTPROOF

WATERPROOF

IMPACT-RESISTANT

FUTURA – industrial plastic LED light fitting

FUTURA
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IP66

FUTURA PC Al,
PCc Al
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USE

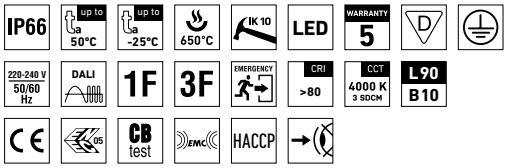
The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page. 263).

ADVANTAGES

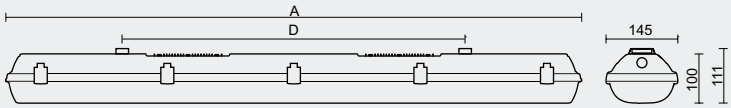
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate with Al coolers (PC Al) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- Certification: ENEC, CB, HACCP

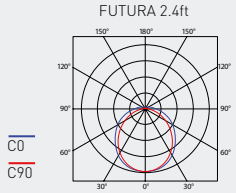


FUTURA PC Al, PCc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 144 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate with Al coolers (PC Al), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate								
75010	FUTURA 2.2ft PC Al 2600/840	50	2600	2420	18	134	1,5	612	475
75020	FUTURA 2.2ft PC Al 3200/840	50	3200	2980	22	135	1,5	612	475
75030	FUTURA 2.2ft PC Al 4400/840	45	4400	4090	30	136	1,7	612	475
75040	FUTURA 2.4ft PC Al 5200/840	50	5200	4840	35	138	2,9	1172	700
75050	FUTURA 2.4ft PC Al 6400/840	50	6400	5950	42	142	2,9	1172	700
75060	FUTURA 2.4ft PC Al 8800/840	45	8800	8180	58	141	3,0	1172	700
75410	FUTURA 2.4ft PC Al 12800/840	35	12800	11900	85	140	3,0	1172	700
75070	FUTURA 2.5ft PC Al 6500/840	50	6500	6050	44	138	3,8	1452	940
75080	FUTURA 2.5ft PC Al 8000/840	50	8000	7440	53	140	3,9	1452	940
75090	FUTURA 2.5ft PC Al 11000/840	45	11000	10230	71	144	3,9	1452	940
75420	FUTURA 2.5ft PC Al 16000/840	35	16000	14880	106	140	3,9	1452	940

75020 FUTURA 2.2ft PC Al 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 – 2×18W
75050 FUTURA 2.4ft PC Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2×36W
75080 FUTURA 2.5ft PC Al 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2×58W

FUTURA PC Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
75010	FUTURA 2.2ft PC Al 2600/840	x	x	75014	75015	x	x
75020	FUTURA 2.2ft PC Al 3200/840	x	x	75024	75025	x	x
75030	FUTURA 2.2ft PC Al 4400/840	x	x	75034	75035	x	x
75040	FUTURA 2.4ft PC Al 5200/840	75140	75340	75044	75045	75344	75345
75050	FUTURA 2.4ft PC Al 6400/840	75150	75350	75054	75055	75354	75355
75060	FUTURA 2.4ft PC Al 8800/840	75160	75360	75064	75065	75364	75365
75410	FUTURA 2.4ft PC Al 12800/840	75411	75412	x	x	x	x
75070	FUTURA 2.5ft PC Al 6500/840	75170	75370	75074	75075	75374	75375
75080	FUTURA 2.5ft PC Al 8000/840	75180	75380	75084	75085	75384	75385
75090	FUTURA 2.5ft PC Al 11000/840	75190	75390	75094	75095	75394	75395
75420	FUTURA 2.5ft PC Al 16000/840	75421	75422	x	x	x	x

FUTURA PCc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
75210	FUTURA 2.2ft PCc Al 2600/840	x	x	75214	75215	x	x
75220	FUTURA 2.2ft PCc Al 3200/840	x	x	75224	75225	x	x
75230	FUTURA 2.2ft PCc Al 4400/840	x	x	75234	75235	x	x
75240	FUTURA 2.4ft PCc Al 5200/840	75540	75640	75244	75245	75644	75645
75250	FUTURA 2.4ft PCc Al 6400/840	75550	75650	75254	75255	75654	75655
75260	FUTURA 2.4ft PCc Al 8800/840	75560	75660	75264	75265	75664	75665
75430	FUTURA 2.4ft PCc Al 12800/840	75431	75432	x	x	x	x
75270	FUTURA 2.5ft PCc Al 6500/840	75570	75670	75274	75275	75674	75675
75280	FUTURA 2.5ft PCc Al 8000/840	75580	75680	75284	75285	75684	75685
75290	FUTURA 2.5ft PCc Al 11000/840	75590	75690	75294	75295	75694	75695
75440	FUTURA 2.5ft PCc Al 16000/840	75441	75442	x	x	x	x

Example of type marking: 75665 = FUTURA 2.4ft PCc Al 8800/840 **3F M3h**

FUTURA PC Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
75013	FUTURA 2.2ft PC Al 2600/840 DALI	x	x	75017	75019	x	x
75023	FUTURA 2.2ft PC Al 3200/840 DALI	x	x	75027	75029	x	x
75033	FUTURA 2.2ft PC Al 4400/840 DALI	x	x	75037	75039	x	x
75043	FUTURA 2.4ft PC Al 5200/840 DALI	75143	75343	75047	75049	75347	75349
75053	FUTURA 2.4ft PC Al 6400/840 DALI	75153	75353	75057	75059	75357	75359
75063	FUTURA 2.4ft PC Al 8800/840 DALI	75163	75363	75067	75069	75367	75369
75450	FUTURA 2.4ft PC Al 12800/840 DALI	75451	75452	x	x	x	x
75073	FUTURA 2.5ft PC Al 6500/840 DALI	75173	75373	75077	75079	75377	75379
75083	FUTURA 2.5ft PC Al 8000/840 DALI	75183	75383	75087	75089	75387	75389
75093	FUTURA 2.5ft PC Al 11000/840 DALI	75193	75393	75097	75099	75397	75399
75460	FUTURA 2.5ft PC Al 16000/840 DALI	75461	75462	x	x	x	x

FUTURA PCc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
75213	FUTURA 2.2ft PCc Al 2600/840 DALI	x	x	75217	75219	x	x
75223	FUTURA 2.2ft PCc Al 3200/840 DALI	x	x	75227	75229	x	x
75233	FUTURA 2.2ft PCc Al 4400/840 DALI	x	x	75237	75239	x	x
75243	FUTURA 2.4ft PCc Al 5200/840 DALI	75543	75643	75247	75249	75647	75649
75253	FUTURA 2.4ft PCc Al 6400/840 DALI	75553	75653	75257	75259	75657	75659
75263	FUTURA 2.4ft PCc Al 8800/840 DALI	75563	75663	75267	75269	75667	75669
75470	FUTURA 2.4ft PCc Al 12800/840 DALI	75471	75472	x	x	x	x
75273	FUTURA 2.5ft PCc Al 6500/840 DALI	75573	75673	75277	75279	75677	75679
75283	FUTURA 2.5ft PCc Al 8000/840 DALI	75583	75683	75287	75289	75687	75689
75293	FUTURA 2.5ft PCc Al 11000/840 DALI	75593	75693	75297	75299	75697	75699
75480	FUTURA 2.5ft PCc Al 16000/840 DALI	75481	75482	x	x	x	x

Example of type marking: 75687 = FUTURA 2.5ft PCc Al 8000/840 DALI **3F M1h**

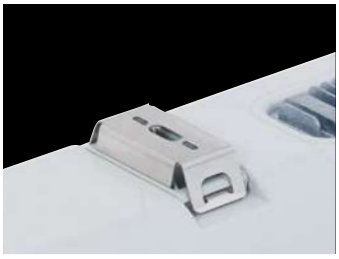
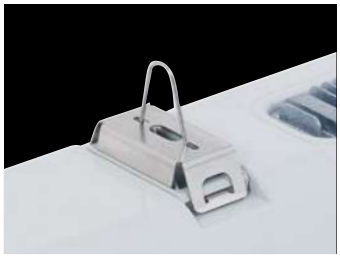
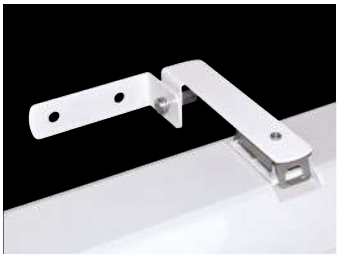
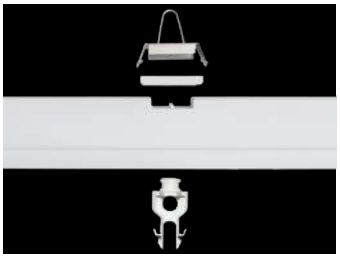
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA

FUTURA ES

... Energy Saver.

USE

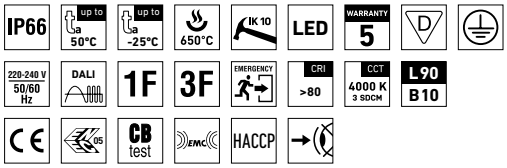
The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page. 263).

ADVANTAGES

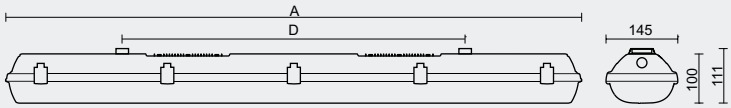
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate with Al coolers (PC Al) = high mechanical resistance
- Up to 50 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- Certification: ENEC, CB, HACCP



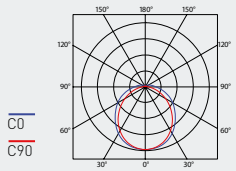
FUTURA ES PC Al, PCc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 157 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate with Al coolers (PC Al), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



FUTURA 2.4ft ES



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate								
10010	FUTURA 2.2ft ES PC Al 2600/840	50	2600	2420	16	151	1,5	612	475
10020	FUTURA 2.2ft ES PC Al 3200/840	50	3200	2980	19	157	1,5	612	475
10030	FUTURA 2.2ft ES PC Al 4400/840	45	4400	4090	27	151	1,7	612	475
10040	FUTURA 2.4ft ES PC Al 5200/840	50	5200	4840	32	151	2,9	1172	700
10050	FUTURA 2.4ft ES PC Al 6400/840	50	6400	5950	39	153	2,9	1172	700
10060	FUTURA 2.4ft ES PC Al 8800/840	45	8800	8180	54	151	3,0	1172	700
10070	FUTURA 2.4ft ES PC Al 12800/840	35	12800	11900	78	153	3,0	1172	700
10080	FUTURA 2.5ft ES PC Al 6500/840	50	6500	6050	40	151	3,8	1452	940
10090	FUTURA 2.5ft ES PC Al 8000/840	50	8000	7440	49	152	3,9	1452	940
10100	FUTURA 2.5ft ES PC Al 11000/840	45	11000	10230	67	153	3,9	1452	940
10110	FUTURA 2.5ft ES PC Al 16000/840	35	16000	14880	97	153	3,9	1452	940

10020 FUTURA 2.2ft ES PC Al 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 – 2×18 W
10050 FUTURA 2.4ft ES PC Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2×36 W
10090 FUTURA 2.5ft ES PC Al 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2×58 W

FUTURA ES PC Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10010	FUTURA 2.2ft ES PC Al 2600/840	x	x	10014	10015	x	x
10020	FUTURA 2.2ft ES PC Al 3200/840	x	x	10024	10025	x	x
10030	FUTURA 2.2ft ES PC Al 4400/840	x	x	10034	10035	x	x
10040	FUTURA 2.4ft ES PC Al 5200/840	10041	10043	10044	10045	10046	10047
10050	FUTURA 2.4ft ES PC Al 6400/840	10051	10053	10054	10055	10056	10057
10060	FUTURA 2.4ft ES PC Al 8800/840	10061	10063	10064	10065	10066	10067
10070	FUTURA 2.4ft ES PC Al 12800/840	10071	10073	x	x	x	x
10080	FUTURA 2.5ft ES PC Al 6500/840	10081	10083	10084	10085	10086	10087
10090	FUTURA 2.5ft ES PC Al 8000/840	10091	10093	10094	10095	10096	10097
10100	FUTURA 2.5ft ES PC Al 11000/840	10101	10103	10104	10105	10106	10107
10110	FUTURA 2.5ft ES PC Al 16000/840	10111	10113	x	x	x	x

FUTURA ES PCc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10120	FUTURA 2.2ft ES PCc Al 2600/840	x	x	10124	10125	x	x
10130	FUTURA 2.2ft ES PCc Al 3200/840	x	x	10134	10135	x	x
10140	FUTURA 2.2ft ES PCc Al 4400/840	x	x	10144	10145	x	x
10150	FUTURA 2.4ft ES PCc Al 5200/840	10151	10153	10154	10155	10156	10157
10160	FUTURA 2.4ft ES PCc Al 6400/840	10161	10163	10164	10165	10166	10167
10170	FUTURA 2.4ft ES PCc Al 8800/840	10171	10173	10174	10175	10176	10177
10180	FUTURA 2.4ft ES PCc Al 12800/840	10181	10183	x	x	x	x
10190	FUTURA 2.5ft ES PCc Al 6500/840	10191	10193	10194	10195	10196	10197
10200	FUTURA 2.5ft ES PCc Al 8000/840	10201	10203	10204	10205	10206	10207
10210	FUTURA 2.5ft ES PCc Al 11000/840	10211	10213	10214	10215	10216	10217
10220	FUTURA 2.5ft ES PCc Al 16000/840	10221	10223	x	x	x	x

Example of type marking: 10177 = FUTURA 2.4ft ES PCc Al 8800/840 **3F M3h**

FUTURA ES PC Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10230	FUTURA 2.2ft ES PC Al 2600/840 DALI	x	x	10234	10235	x	x
10240	FUTURA 2.2ft ES PC Al 3200/840 DALI	x	x	10244	10245	x	x
10250	FUTURA 2.2ft ES PC Al 4400/840 DALI	x	x	10254	10255	x	x
10260	FUTURA 2.4ft ES PC Al 5200/840 DALI	10261	10263	10264	10265	10266	10267
10270	FUTURA 2.4ft ES PC Al 6400/840 DALI	10271	10273	10274	10275	10276	10277
10280	FUTURA 2.4ft ES PC Al 8800/840 DALI	10281	10283	10284	10285	10286	10287
10290	FUTURA 2.4ft ES PC Al 12800/840 DALI	10291	10293	x	x	x	x
10300	FUTURA 2.5ft ES PC Al 6500/840 DALI	10301	10303	10304	10305	10306	10307
10310	FUTURA 2.5ft ES PC Al 8000/840 DALI	10311	10313	10314	10315	10316	10317
10320	FUTURA 2.5ft ES PC Al 11000/840 DALI	10321	10323	10324	10325	10326	10327
10330	FUTURA 2.5ft ES PC Al 16000/840 DALI	10331	10333	x	x	x	x

FUTURA ES PCc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10340	FUTURA 2.2ft ES PCc Al 2600/840 DALI	x	x	10344	10345	x	x
10350	FUTURA 2.2ft ES PCc Al 3200/840 DALI	x	x	10354	10355	x	x
10360	FUTURA 2.2ft ES PCc Al 4400/840 DALI	x	x	10364	10365	x	x
10370	FUTURA 2.4ft ES PCc Al 5200/840 DALI	10371	10373	10374	10375	10376	10377
10380	FUTURA 2.4ft ES PCc Al 6400/840 DALI	10381	10383	10384	10385	10386	10387
10390	FUTURA 2.4ft ES PCc Al 8800/840 DALI	10391	10393	10394	10395	10396	10397
10400	FUTURA 2.4ft ES PCc Al 12800/840 DALI	10401	10403	x	x	x	x
10410	FUTURA 2.5ft ES PCc Al 6500/840 DALI	10411	10413	10414	10415	10416	10417
10420	FUTURA 2.5ft ES PCc Al 8000/840 DALI	10421	10423	10424	10425	10426	10427
10430	FUTURA 2.5ft ES PCc Al 11000/840 DALI	10431	10433	10434	10435	10436	10437
10440	FUTURA 2.5ft ES PCc Al 16000/840 DALI	10441	10443	x	x	x	x

Example of type marking: 10426 = FUTURA 2.5ft ES PCc Al 8000/840 DALI **3F M1h**

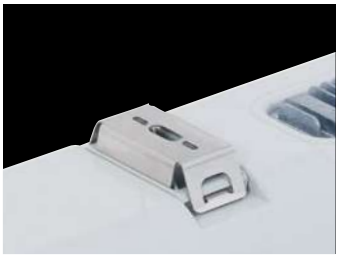
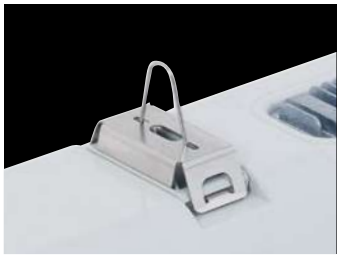
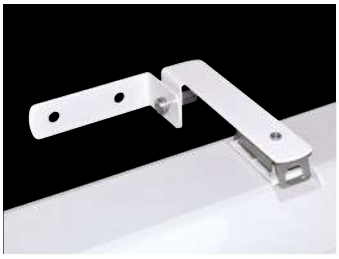
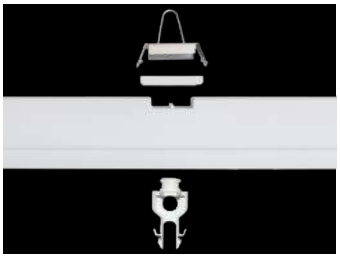
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA ES

FUTURA HE

171
lm/W

... high efficiency, with sulphur-resistant LED chips.

USE

The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page. 263).

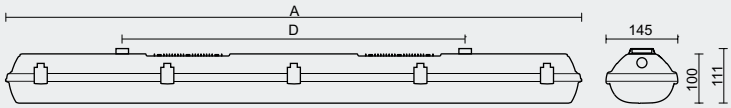
ADVANTAGES

- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate with Al coolers (PC Al) = high mechanical resistance
- Up to 55 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- **Chips with high sulphur resistance**
- Long lifetime due to low thermal resistance

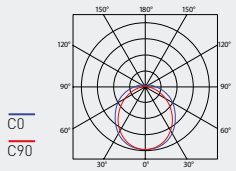
FUTURA HE PC Al, PCc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 171 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate with Al coolers (PC Al), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED sulphur-resistant modules, current driver or current driver DALI



FUTURA 2.4ft HE



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate								
11000	FUTURA 2.2ft HE PC Al 3200/840	50	3200	2980	18	166	1,7	612	475
11010	FUTURA 2.2ft HE PC Al 4400/840	45	4400	4090	24	170	1,7	612	475
11003	FUTURA 2.2ft HE PC Al 6400/840	35	6400	5950	35	170	1,7	612	475
11006	FUTURA 2.4ft HE PC Al 6400/840	50	6400	5950	36	165	3,0	1172	700
11020	FUTURA 2.4ft HE PC Al 8800/840	45	8800	8180	48	170	3,0	1172	700
11016	FUTURA 2.4ft HE PC Al 12800/840	35	12800	11900	70	170	3,0	1172	700
11019	FUTURA 2.5ft HE PC Al 8000/840	50	8000	7440	45	165	3,9	1452	940
11030	FUTURA 2.5ft HE PC Al 11000/840	45	11000	10230	60	171	3,9	1452	940
11041	FUTURA 2.5ft HE PC Al 16000/840	35	16000	14880	87	171	3,9	1452	940
103406	FUTURA 2.5ft HE PC Al 22000/840	35	22000	20460	130	157	4,0	1452	940

FUTURA HE PC Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11000	FUTURA 2.2ft HE PC Al 3200/840	x	x	11001	11002	x	x
11010	FUTURA 2.2ft HE PC Al 4400/840	x	x	11014	11015	x	x
11003	FUTURA 2.2ft HE PC Al 6400/840	x	x	11004	11005	x	x
11006	FUTURA 2.4ft HE PC Al 6400/840	11007	11008	11009	11011	11012	11013
11020	FUTURA 2.4ft HE PC Al 8800/840	11021	11023	11024	11025	11026	11027
11016	FUTURA 2.4ft HE PC Al 12800/840	11017	11018	x	x	x	x
11019	FUTURA 2.5ft HE PC Al 8000/840	11022	11028	11029	11032	11038	11039
11030	FUTURA 2.5ft HE PC Al 11000/840	11031	11033	11034	11035	11036	11037
11041	FUTURA 2.5ft HE PC Al 16000/840	11042	11043	x	x	x	x
103406	FUTURA 2.5ft HE PC Al 22000/840	103407	103408	x	x	x	x

FUTURA HE PCc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11046	FUTURA 2.2ft HE PCc Al 3200/840	x	x	11047	11048	x	x
11040	FUTURA 2.2ft HE PCc Al 4400/840	x	x	11044	11045	x	x
11049	FUTURA 2.2ft HE PCc Al 6400/840	x	x	11052	11058	x	x
11059	FUTURA 2.4ft HE PCc Al 6400/840	11062	11068	11069	11071	11072	11073
11050	FUTURA 2.4ft HE PCc Al 8800/840	11051	11053	11054	11055	11056	11057
11076	FUTURA 2.4ft HE PCc Al 12800/840	11077	11078	x	x	x	x
11079	FUTURA 2.5ft HE PCc Al 8000/840	11082	11088	11089	11092	11098	11099
11060	FUTURA 2.5ft HE PCc Al 11000/840	11061	11063	11064	11065	11066	11067
11101	FUTURA 2.5ft HE PCc Al 16000/840	11102	11103	x	x	x	x
103412	FUTURA 2.5ft HE PCc Al 22000/840	103413	103414	x	x	x	x

FUTURA HE PC Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11106	FUTURA 2.2ft HE PC Al 3200/840 DALI	x	x	11107	11108	x	x
11070	FUTURA 2.2ft HE PC Al 4400/840 DALI	x	x	11074	11075	x	x
11109	FUTURA 2.2ft HE PC Al 6400/840 DALI	x	x	11112	11118	x	x
11119	FUTURA 2.4ft HE PC Al 6400/840 DALI	11122	11128	11129	11130	11131	11132
11080	FUTURA 2.4ft HE PC Al 8800/840 DALI	11081	11083	11084	11085	11086	11087
11133	FUTURA 2.4ft HE PC Al 12800/840 DALI	11134	11135	x	x	x	x
11136	FUTURA 2.5ft HE PC Al 8000/840 DALI	11137	11138	11139	11140	11141	11142
11090	FUTURA 2.5ft HE PC Al 11000/840 DALI	11091	11093	11094	11095	11096	11097
11143	FUTURA 2.5ft HE PC Al 16000/840 DALI	11144	11145	x	x	x	x
103411	FUTURA 2.5ft HE PC Al 22000/840 DALI	103409	103410	x	x	x	x

FUTURA HE PCc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11146	FUTURA 2.2ft HE PCc Al 3200/840 DALI	x	x	11147	11148	x	x
11100	FUTURA 2.2ft HE PCc Al 4400/840 DALI	x	x	11104	11105	x	x
11149	FUTURA 2.2ft HE PCc Al 6400/840 DALI	x	x	11150	11151	x	x
11152	FUTURA 2.4ft HE PCc Al 6400/840 DALI	11153	11154	11155	11156	11157	11158
11110	FUTURA 2.4ft HE PCc Al 8800/840 DALI	11111	11113	11114	11115	11116	11117
11159	FUTURA 2.4ft HE PCc Al 12800/840 DALI	11160	11161	x	x	x	x
11162	FUTURA 2.5ft HE PCc Al 8000/840 DALI	11163	11164	11165	11166	11167	11168
11120	FUTURA 2.5ft HE PCc Al 11000/840 DALI	11121	11123	11124	11125	11126	11127
11169	FUTURA 2.5ft HE PCc Al 16000/840 DALI	11170	11171	x	x	x	x
103415	FUTURA 2.5ft HE PCc Al 22000/840 DALI	103416	103417	x	x	x	x

Example of type marking: 11116 = FUTURA 2.4ft HE PCc Al 8800/840 DALI **3F M1h**

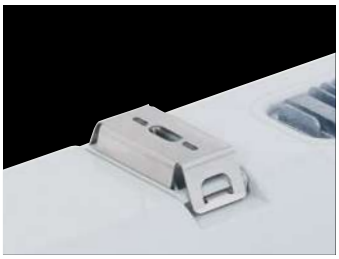
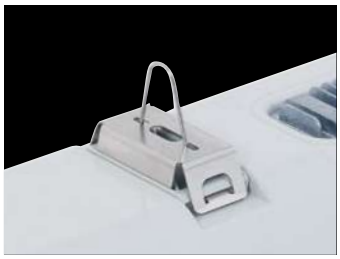
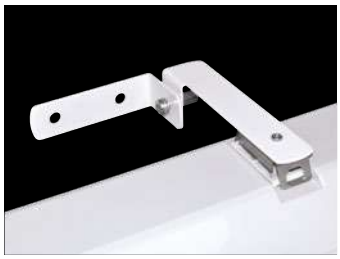
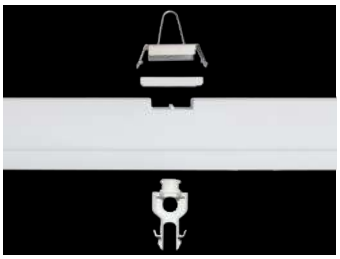
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA HE

FUTURA VP

... for outdoor spaces.

USE

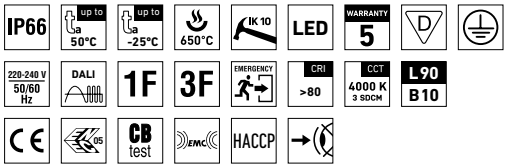
The light fitting is suitable for the installation in outdoor spaces with shelter. It is equipped with a ventilation plug made of polyamide which eliminates the presence of condensation fumes and underpressure in the light fitting caused by ambient temperature fluctuations.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page 263).

ADVANTAGES

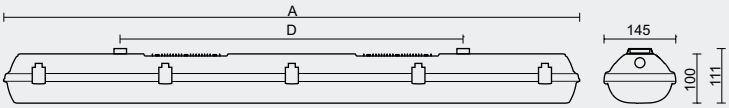
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate with Al coolers (PC Al) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- Certification: ENEC, CB, HACCP



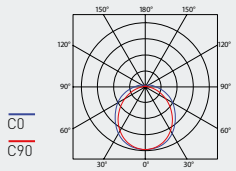
FUTURA VP Al, VPc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 141 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate with Al coolers, UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



FUTURA 2.4ft VP



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate								
76010	FUTURA 2.2ft VP Al 2600/840	50	2600	2490	18	138	1,5	612	475
76020	FUTURA 2.2ft VP Al 3200/840	50	3200	3050	22	139	1,5	612	475
76030	FUTURA 2.2ft VP Al 4400/840	45	4400	4230	30	141	1,7	612	475
76040	FUTURA 2.4ft VP Al 5200/840	50	5200	4910	35	140	2,9	1172	700
76050	FUTURA 2.4ft VP Al 6400/840	50	6400	5880	42	140	2,9	1172	700
76060	FUTURA 2.4ft VP Al 8800/840	45	8800	8110	58	140	3,0	1172	700
76410	FUTURA 2.4ft VP Al 12800/840	35	12800	11900	85	140	3,0	1172	700
76070	FUTURA 2.5ft VP Al 6500/840	50	6500	6190	44	141	3,8	1452	940
76080	FUTURA 2.5ft VP Al 8000/840	50	8000	7440	53	140	3,9	1452	940
76090	FUTURA 2.5ft VP Al 11000/840	45	11000	9950	71	140	3,9	1452	940
76420	FUTURA 2.5ft VP Al 16000/840	35	16000	14810	106	140	3,9	1452	940

76020 FUTURA 2.2ft VP Al 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 – 2 × 18 W
76050 FUTURA 2.4ft VP Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2 × 36 W
76080 FUTURA 2.5ft VP Al 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2 × 58 W

FUTURA VP Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
76010	FUTURA 2.2ft VP Al 2600/840	x	x	76014	76015	x	x
76020	FUTURA 2.2ft VP Al 3200/840	x	x	76024	76025	x	x
76030	FUTURA 2.2ft VP Al 4400/840	x	x	76034	76035	x	x
76040	FUTURA 2.4ft VP Al 5200/840	76140	76340	76044	76045	76344	76345
76050	FUTURA 2.4ft VP Al 6400/840	76150	76350	76054	76055	76354	76355
76060	FUTURA 2.4ft VP Al 8800/840	76160	76360	76064	76065	76364	76365
76410	FUTURA 2.4ft VP Al 12800/840	76411	76412	x	x	x	x
76070	FUTURA 2.5ft VP Al 6500/840	76170	76370	76074	76075	76374	76375
76080	FUTURA 2.5ft VP Al 8000/840	76180	76380	76084	76085	76384	76385
76090	FUTURA 2.5ft VP Al 11000/840	76190	76390	76094	76095	76394	76395
76420	FUTURA 2.5ft VP Al 16000/840	76421	76422	x	x	x	x

FUTURA VPc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
76210	FUTURA 2.2ft VPc Al 2600/840	x	x	76214	76215	x	x
76220	FUTURA 2.2ft VPc Al 3200/840	x	x	76224	76225	x	x
76230	FUTURA 2.2ft VPc Al 4400/840	x	x	76234	76235	x	x
76240	FUTURA 2.4ft VPc Al 5200/840	76540	76640	76244	76245	76644	76645
76250	FUTURA 2.4ft VPc Al 6400/840	76550	76650	76254	76255	76654	76655
76260	FUTURA 2.4ft VPc Al 8800/840	76560	76660	76264	76265	76664	76665
76430	FUTURA 2.4ft VPc Al 12800/840	76431	76432	x	x	x	x
76270	FUTURA 2.5ft VPc Al 6500/840	76570	76670	76274	76275	76674	76675
76280	FUTURA 2.5ft VPc Al 8000/840	76580	76680	76284	76285	76684	76685
76290	FUTURA 2.5ft VPc Al 11000/840	76590	76690	76294	76295	76694	76695
76440	FUTURA 2.5ft VPc Al 16000/840	76441	76442	x	x	x	x

Example of type marking: 76664 = FUTURA 2.4ft VPc Al 8800/840 **3F M1h**

FUTURA VP Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
76013	FUTURA 2.2ft VP Al 2600/840 DALI	x	x	76017	76019	x	x
76023	FUTURA 2.2ft VP Al 3200/840 DALI	x	x	76027	76029	x	x
76033	FUTURA 2.2ft VP Al 4400/840 DALI	x	x	76037	76039	x	x
76043	FUTURA 2.4ft VP Al 5200/840 DALI	76143	76343	76047	76049	76347	76349
76053	FUTURA 2.4ft VP Al 6400/840 DALI	76153	76353	76057	76059	76357	76359
76063	FUTURA 2.4ft VP Al 8800/840 DALI	76163	76363	76067	76069	76367	76369
76450	FUTURA 2.4ft VP Al 12800/840 DALI	76451	76452	x	x	x	x
76073	FUTURA 2.5ft VP Al 6500/840 DALI	76173	76373	76077	76079	76377	76379
76083	FUTURA 2.5ft VP Al 8000/840 DALI	76183	76383	76087	76089	76387	76389
76093	FUTURA 2.5ft VP Al 11000/840 DALI	76193	76393	76097	76099	76397	76399
76460	FUTURA 2.5ft VP Al 16000/840 DALI	76461	76462	x	x	x	x

FUTURA VPc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
76213	FUTURA 2.2ft VPc Al 2600/840 DALI	x	x	76217	76219	x	x
76223	FUTURA 2.2ft VPc Al 3200/840 DALI	x	x	76227	76229	x	x
76233	FUTURA 2.2ft VPc Al 4400/840 DALI	x	x	76237	76239	x	x
76243	FUTURA 2.4ft VPc Al 5200/840 DALI	76543	76643	76247	76249	76647	76649
76253	FUTURA 2.4ft VPc Al 6400/840 DALI	76553	76653	76257	76259	76657	76659
76263	FUTURA 2.4ft VPc Al 8800/840 DALI	76563	76663	76267	76269	76667	76669
76470	FUTURA 2.4ft VPc Al 12800/840 DALI	76471	76472	x	x	x	x
76273	FUTURA 2.5ft VPc Al 6500/840 DALI	76573	76673	76277	76279	76677	76679
76283	FUTURA 2.5ft VPc Al 8000/840 DALI	76583	76683	76287	76289	76687	76689
76293	FUTURA 2.5ft VPc Al 11000/840 DALI	76593	76693	76297	76299	76697	76699
76480	FUTURA 2.5ft VPc Al 16000/840 DALI	76481	76482	x	x	x	x

Example of type marking: 76667 = FUTURA 2.4ft VPc Al 8800/840 DALI **3F M1h**

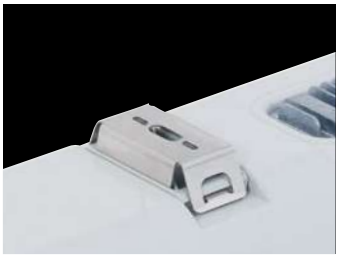
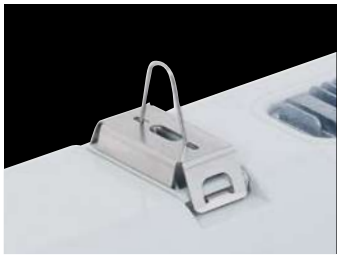
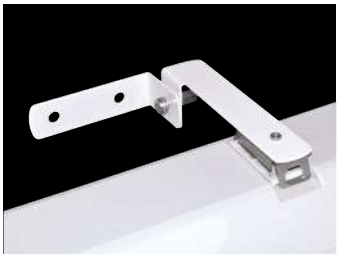
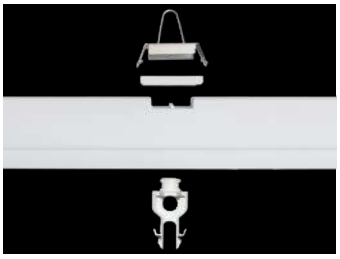
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA VP

FUTURA NB

... for storage rack lanes with high ceilings 10-15 m.

USE

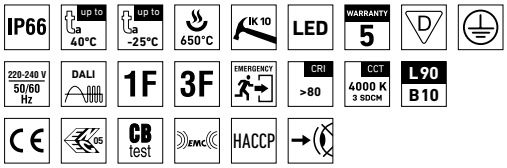
The light fitting with narrow emitting characteristics is suitable to illuminate storage rack lanes and narrow spaces with high ceilings. Its assembly height is 10-15 m.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page 263).

ADVANTAGES

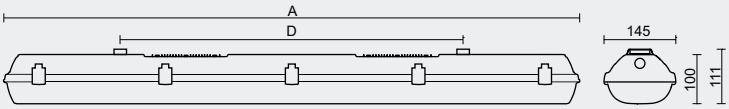
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 40 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: transparent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate with Al coolers (PC Al) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- ICan be delivered with a grille to reduce the longitudinal UGR
- Through-wiring of up to 10 wires at body
- Certification: ENEC, CB, HACCP



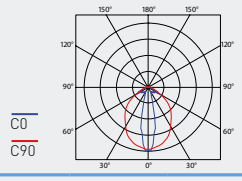
FUTURA NB PC Al, PCc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 40 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 131 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: transparent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate with Al coolers (PC Al), UV stable, impact-resistant
- Reflector: parabolic polished aluminium with narrow emitting characteristics (NB - narrow beam)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



FUTURA NB 2.4ft



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 40 °C - body: grey polycarbonate with Al coolers - diffuser: transparent polycarbonate								
78060	FUTURA 2.4ft NB PC Al 8800/840	40	8800	7460	58	129	3,3	1172	700
78070	FUTURA 2.4ft NB PC Al 12800/840	30	12800	11070	85	130	3,3	1172	700
78090	FUTURA 2.5ft NB PC Al 11000/840	40	11000	9130	71	129	3,9	1452	940
78080	FUTURA 2.5ft NB PC Al 16000/840	30	16000	13840	106	131	3,9	1452	940

FUTURA NB PC Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
78060	FUTURA 2.4ft NB PC Al 8800/840	78160	78360	78064	78065	78364	78365
78070	FUTURA 2.4ft NB PC Al 12800/840	78170	78370	x	x	x	x
78090	FUTURA 2.5ft NB PC Al 11000/840	78190	78390	78094	78095	78394	78395
78080	FUTURA 2.5ft NB PC Al 16000/840	78180	78380	x	x	x	x

FUTURA NB PCc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
78260	FUTURA 2.4ft NB PCc Al 8800/840	78560	78660	78264	78265	78664	78665
78270	FUTURA 2.4ft NB PCc Al 12800/840	78570	78670	x	x	x	x
78290	FUTURA 2.5ft NB PCc Al 11000/840	78590	78690	78294	78295	78694	78695
78280	FUTURA 2.5ft NB PCc Al 16000/840	78580	78680	x	x	x	x

FUTURA NB PC Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
78063	FUTURA 2.4ft NB PC Al 8800/840 DALI	78163	78363	78067	78069	78367	78369
78073	FUTURA 2.4ft NB PC Al 12800/840 DALI	78173	78373	x	x	x	x
78093	FUTURA 2.5ft NB PC Al 11000/840 DALI	78193	78393	78097	78099	78397	78399
78083	FUTURA 2.5ft NB PC Al 16000/840 DALI	78183	78383	x	x	x	x

FUTURA NB PCc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
78263	FUTURA 2.4ft NB PCc Al 8800/840 DALI	78563	78663	78267	78269	78667	78669
78273	FUTURA 2.4ft NB PCc Al 12800/840 DALI	78573	78673	x	x	x	x
78293	FUTURA 2.5ft NB PCc Al 11000/840 DALI	78593	78693	78297	78299	78697	78699
78283	FUTURA 2.5ft NB PCc Al 16000/840 DALI	78583	78683	x	x	x	x

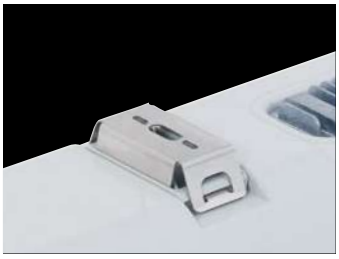
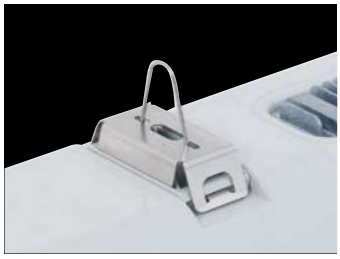
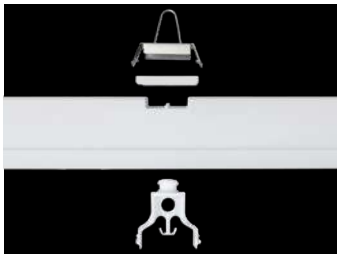
Example of type marking: 78669 = FUTURA 2.4ft NB PCc Al 8800/840 DALI **3F M3h**

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks

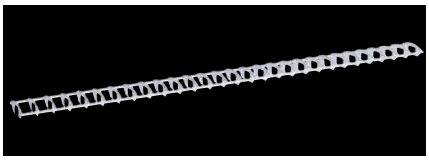
LIGHT FITTING DETAILED VIEW

FUTURA NB

ACCESSORIES

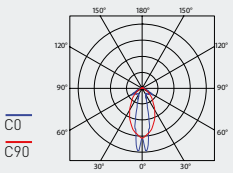
Grid FUTURA NB

Additional grid for reducing the longitudinal UGR for FUTURA NB lamps.
The grid reduces the glare value in the longitudinal direction to below 19 (see the luminance curve below).



Code	Type	Description	Weight [kg]
11989	MNB 2.4	grid FUTURA 2.4ft NB	0,36
11990	MNB 2.5	grid FUTURA 2.5ft NB	0,45

FUTURA NB 2.4ft (with grid)



Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	Change of the values for lamp variants with grid							
78060	FUTURA 2.4ft NB PC Al 8800/840	8800	**5850**	58	**101**	3,7	1172	700
78070	FUTURA 2.4ft NB PC Al 12800/840	12800	**8680**	85	**102**	3,7	1172	700
78090	FUTURA 2.5ft NB PC Al 11000/840	11000	**7250**	71	**102**	4,4	1452	940
78080	FUTURA 2.5ft NB PC Al 16000/840	16000	**10850**	106	**102**	4,4	1452	940

FUTURA ABS

... dustproof, waterproof and chemically resistant.

USE

The light fitting is suitable for the environment where ammoniac fumes, lixiviants, alkaline compounds and hot water (hydrolyses) can be present. We recommend this light fitting for agricultural operations, stables, car washing lines, warehouses, mechanical workshops and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body made of ABS and the diffuser made of AC have increased chemical resistance.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page 263).

Always open the cover of the light fitting out of an environment with aggressive volatile substances.

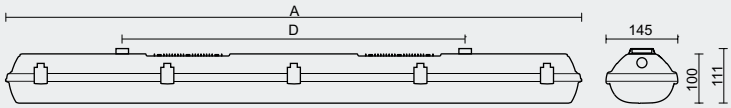
ADVANTAGES

- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC) = high chemical resistance
- Body: dark grey ABS with Al coolers (ABS Al) = high chemical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- Certification: ENEC, CB, (except RED), HACCP

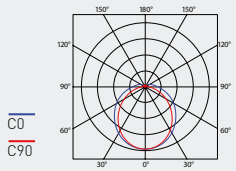
FUTURA ABS Al, ABSc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 136 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC), UV stable, chemically resistant
- Body: dark grey ABS with Al coolers (ABS Al), UV stable, chemically resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



FUTURA 2.4ft ABS



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: dark grey ABS with Al coolers - diffuser: translucent acrylate								
77010	FUTURA 2.2ft ABS Al 2600/840	50	2600	2290	18	127	1,5	612	475
77020	FUTURA 2.2ft ABS Al 3200/840	50	3200	2820	22	128	1,5	612	475
77030	FUTURA 2.2ft ABS Al 4400/840	45	4400	3870	30	129	1,7	612	475
77040	FUTURA 2.4ft ABS Al 5200/840	50	5200	4580	35	131	2,9	1172	700
77050	FUTURA 2.4ft ABS Al 6400/840	50	6400	5630	42	134	2,9	1172	700
77060	FUTURA 2.4ft ABS Al 8800/840	45	8800	7740	58	133	3,0	1172	700
77410	FUTURA 2.4ft ABS Al 12800/840	35	12800	11260	85	132	3,0	1172	700
77070	FUTURA 2.5ft ABS Al 6500/840	50	6500	5720	44	130	3,8	1452	940
77080	FUTURA 2.5ft ABS Al 8000/840	50	8000	7040	53	133	3,9	1452	940
77090	FUTURA 2.5ft ABS Al 11000/840	45	11000	9680	71	136	3,9	1452	940
77420	FUTURA 2.5ft ABS Al 16000/840	35	16000	14080	106	133	3,9	1452	940

77020 FUTURA 2.2ft ABS Al 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 – 2 × 18 W
77050 FUTURA 2.4ft ABS Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2 × 36 W
77080 FUTURA 2.5ft ABS Al 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2 × 58 W

FUTURA ABS Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
77010	FUTURA 2.2ft ABS Al 2600/840	x	x	77014	77015	x	x
77020	FUTURA 2.2ft ABS Al 3200/840	x	x	77024	77025	x	x
77030	FUTURA 2.2ft ABS Al 4400/840	x	x	77034	77035	x	x
77040	FUTURA 2.4ft ABS Al 5200/840	77140	77340	77044	77045	77344	77345
77050	FUTURA 2.4ft ABS Al 6400/840	77150	77350	77054	77055	77354	77355
77060	FUTURA 2.4ft ABS Al 8800/840	77160	77360	77064	77065	77364	77365
77410	FUTURA 2.4ft ABS Al 12800/840	77411	77412	x	x	x	x
77070	FUTURA 2.5ft ABS Al 6500/840	77170	77370	77074	77075	77374	77375
77080	FUTURA 2.5ft ABS Al 8000/840	77180	77380	77084	77085	77384	77385
77090	FUTURA 2.5ft ABS Al 11000/840	77190	77390	77094	77095	77394	77395
77420	FUTURA 2.5ft ABS Al 16000/840	77421	77422	x	x	x	x

FUTURA ABSc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
77210	FUTURA 2.2ft ABSc Al 2600/840	x	x	77214	77215	x	x
77220	FUTURA 2.2ft ABSc Al 3200/840	x	x	77224	77225	x	x
77230	FUTURA 2.2ft ABSc Al 4400/840	x	x	77234	77235	x	x
77240	FUTURA 2.4ft ABSc Al 5200/840	77540	77640	77244	77245	77644	77645
77250	FUTURA 2.4ft ABSc Al 6400/840	77550	77650	77254	77255	77654	77655
77260	FUTURA 2.4ft ABSc Al 8800/840	77560	77660	77264	77265	77664	77665
77430	FUTURA 2.4ft ABSc Al 12800/840	77431	77432	x	x	x	x
77270	FUTURA 2.5ft ABSc Al 6500/840	77570	77670	77274	77275	77674	77675
77280	FUTURA 2.5ft ABSc Al 8000/840	77580	77680	77284	77285	77684	77685
77290	FUTURA 2.5ft ABSc Al 11000/840	77590	77690	77294	77295	77694	77695
77440	FUTURA 2.5ft ABSc Al 16000/840	77441	77442	x	x	x	x

FUTURA ABS Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
77013	FUTURA 2.2ft ABS Al 2600/840 DALI	x	x	77017	77019	x	x
77023	FUTURA 2.2ft ABS Al 3200/840 DALI	x	x	77027	77029	x	x
77033	FUTURA 2.2ft ABS Al 4400/840 DALI	x	x	77037	77039	x	x
77043	FUTURA 2.4ft ABS Al 5200/840 DALI	77143	77343	77047	77049	77347	77349
77053	FUTURA 2.4ft ABS Al 6400/840 DALI	77153	77353	77057	77059	77357	77359
77063	FUTURA 2.4ft ABS Al 8800/840 DALI	77163	77363	77067	77069	77367	77369
77450	FUTURA 2.4ft ABS Al 12800/840 DALI	77451	77452	x	x	x	x
77073	FUTURA 2.5ft ABS Al 6500/840 DALI	77173	77373	77077	77079	77377	77379
77083	FUTURA 2.5ft ABS Al 8000/840 DALI	77183	77383	77087	77089	77387	77389
77093	FUTURA 2.5ft ABS Al 11000/840 DALI	77193	77393	77097	77099	77397	77399
77460	FUTURA 2.5ft ABS Al 16000/840 DALI	77461	77462	x	x	x	x

FUTURA ABSc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
77213	FUTURA 2.2ft ABSc Al 2600/840 DALI	x	x	77217	77219	x	x
77223	FUTURA 2.2ft ABSc Al 3200/840 DALI	x	x	77227	77229	x	x
77233	FUTURA 2.2ft ABSc Al 4400/840 DALI	x	x	77237	77239	x	x
77243	FUTURA 2.4ft ABSc Al 5200/840 DALI	77543	77643	77247	77249	77647	77649
77253	FUTURA 2.4ft ABSc Al 6400/840 DALI	77553	77653	77257	77259	77657	77659
77263	FUTURA 2.4ft ABSc Al 8800/840 DALI	77563	77663	77267	77269	77667	77669
77470	FUTURA 2.4ft ABSc Al 12800/840 DALI	77471	77472	x	x	x	x
77273	FUTURA 2.5ft ABSc Al 6500/840 DALI	77573	77673	77277	77279	77677	77679
77283	FUTURA 2.5ft ABSc Al 8000/840 DALI	77583	77683	77287	77289	77687	77689
77293	FUTURA 2.5ft ABSc Al 11000/840 DALI	77593	77693	77297	77299	77697	77699
77480	FUTURA 2.5ft ABSc Al 16000/840 DALI	77481	77482	x	x	x	x

Example of type marking: 77667 = FUTURA 2.4ft ABSc Al 8800/840 DALI **3F M1h**

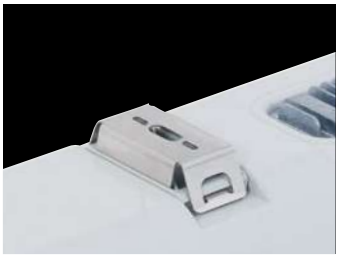
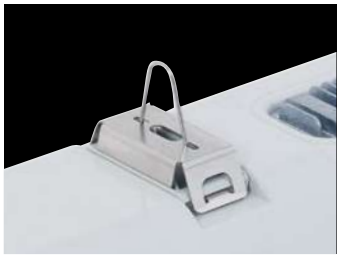
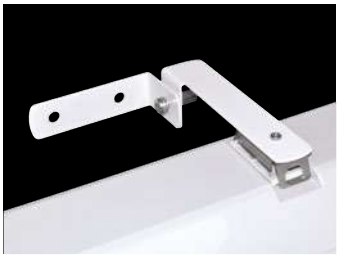
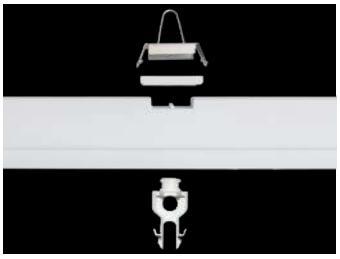
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA ABS

FUTURA ES ABS

... Energy Saver, chemically resistant.

USE

The light fitting is suitable for the environment where ammoniac fumes, lixiviants, alkaline compounds and hot water (hydrolyses) can be present. We recommend this light fitting for agricultural operations, stables, car washing lines, warehouses, mechanical workshops and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body made of ABS and the diffuser made of AC have increased chemical resistance.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page 263).

Always open the cover of the light fitting out of an environment with aggressive volatile substances.

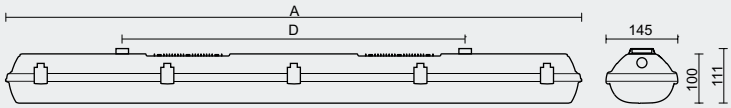
ADVANTAGES

- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC) = high chemical resistance
- Body: dark grey ABS with Al coolers (ABS Al) = high chemical resistance
- Up to 50 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- Certification: ENEC, CB, HACCP

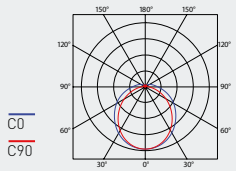
FUTURA ES ABS Al, ABSc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 148 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC), UV stable, chemically resistant
- Body: dark grey ABS with Al coolers (ABS Al), UV stable, chemically resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



FUTURA 2.4ft ES ABS



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: dark grey ABS with Al coolers - diffuser: translucent acrylate								
10510	FUTURA 2.2ft ES ABS Al 2600/840	50	2600	2290	16	143	1,5	612	475
10520	FUTURA 2.2ft ES ABS Al 3200/840	50	3200	2820	19	148	1,5	612	475
10530	FUTURA 2.2ft ES ABS Al 4400/840	45	4400	3870	27	143	1,7	612	475
10540	FUTURA 2.4ft ES ABS Al 5200/840	50	5200	4580	32	143	2,9	1172	700
10550	FUTURA 2.4ft ES ABS Al 6400/840	50	6400	5630	39	144	2,9	1172	700
10560	FUTURA 2.4ft ES ABS Al 8800/840	45	8800	7740	54	143	3,0	1172	700
10570	FUTURA 2.4ft ES ABS Al 12800/840	35	12800	11260	78	144	3,0	1172	700
10580	FUTURA 2.5ft ES ABS Al 6500/840	50	6500	5720	40	143	3,8	1452	940
10590	FUTURA 2.5ft ES ABS Al 8000/840	50	8000	7040	49	144	3,9	1452	940
10600	FUTURA 2.5ft ES ABS Al 11000/840	45	11000	9680	67	144	3,9	1452	940
10610	FUTURA 2.5ft ES ABS Al 16000/840	35	16000	14080	97	145	3,9	1452	940

77020 FUTURA 2.2ft ES ABS Al 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 – 2 × 18 W
77050 FUTURA 2.4ft ES ABS Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2 × 36 W
77080 FUTURA 2.5ft ES ABS Al 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2 × 58 W

FUTURA ES ABS Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10510	FUTURA 2.2ft ES ABS Al 2600/840	x	x	10514	10515	x	x
10520	FUTURA 2.2ft ES ABS Al 3200/840	x	x	10524	10525	x	x
10530	FUTURA 2.2ft ES ABS Al 4400/840	x	x	10534	10535	x	x
10540	FUTURA 2.4ft ES ABS Al 5200/840	10541	10543	10544	10545	10546	10547
10550	FUTURA 2.4ft ES ABS Al 6400/840	10551	10553	10554	10555	10556	10557
10560	FUTURA 2.4ft ES ABS Al 8800/840	10561	10563	10564	10565	10566	10567
10570	FUTURA 2.4ft ES ABS Al 12800/840	10571	10573	x	x	x	x
10580	FUTURA 2.5ft ES ABS Al 6500/840	10581	10583	10584	10585	10586	10587
10590	FUTURA 2.5ft ES ABS Al 8000/840	10591	10593	10594	10595	10596	10597
10600	FUTURA 2.5ft ES ABS Al 11000/840	10601	10603	10604	10605	10606	10607
10610	FUTURA 2.5ft ES ABS Al 16000/840	10611	10613	x	x	x	x

FUTURA ES ABSc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10620	FUTURA 2.2ft ES ABSc Al 2600/840	x	x	10624	10625	x	x
10630	FUTURA 2.2ft ES ABSc Al 3200/840	x	x	10634	10635	x	x
10640	FUTURA 2.2ft ES ABSc Al 4400/840	x	x	10644	10645	x	x
10650	FUTURA 2.4ft ES ABSc Al 5200/840	10651	10653	10654	10655	10656	10657
10660	FUTURA 2.4ft ES ABSc Al 6400/840	10661	10663	10664	10665	10666	10667
10670	FUTURA 2.4ft ES ABSc Al 8800/840	10671	10673	10674	10675	10676	10677
10680	FUTURA 2.4ft ES ABSc Al 12800/840	10681	10683	x	x	x	x
10690	FUTURA 2.5ft ES ABSc Al 6500/840	10691	10693	10694	10695	10696	10697
10700	FUTURA 2.5ft ES ABSc Al 8000/840	10701	10703	10704	10705	10706	10707
10710	FUTURA 2.5ft ES ABSc Al 11000/840	10711	10713	10714	10715	10716	10717
10720	FUTURA 2.5ft ES ABSc Al 16000/840	10721	10723	x	x	x	x

Example of type marking: 10706 = FUTURA 2.4ft ES ABSc Al 8800/840 **3F M1h**

FUTURA ES ABS Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10730	FUTURA 2.2ft ES ABS Al 2600/840 DALI	x	x	10734	10735	x	x
10740	FUTURA 2.2ft ES ABS Al 3200/840 DALI	x	x	10744	10745	x	x
10750	FUTURA 2.2ft ES ABS Al 4400/840 DALI	x	x	10754	10755	x	x
10760	FUTURA 2.4ft ES ABS Al 5200/840 DALI	10761	10763	10764	10765	10766	10767
10770	FUTURA 2.4ft ES ABS Al 6400/840 DALI	10771	10773	10774	10775	10776	10777
10780	FUTURA 2.4ft ES ABS Al 8800/840 DALI	10781	10783	10784	10785	10786	10787
10790	FUTURA 2.4ft ES ABS Al 12800/840 DALI	10791	10793	x	x	x	x
10800	FUTURA 2.5ft ES ABS Al 6500/840 DALI	10801	10803	10804	10805	10806	10807
10810	FUTURA 2.5ft ES ABS Al 8000/840 DALI	10811	10813	10814	10815	10816	10817
10820	FUTURA 2.5ft ES ABS Al 11000/840 DALI	10821	10823	10824	10825	10826	10827
10830	FUTURA 2.5ft ES ABS Al 16000/840 DALI	10831	10833	x	x	x	x

FUTURA ES ABSc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
10840	FUTURA 2.2ft ES ABSc Al 2600/840 DALI	x	x	10844	10845	x	x
10850	FUTURA 2.2ft ES ABSc Al 3200/840 DALI	x	x	10854	10855	x	x
10860	FUTURA 2.2ft ES ABSc Al 4400/840 DALI	x	x	10864	10865	x	x
10870	FUTURA 2.4ft ES ABSc Al 5200/840 DALI	10871	10873	10874	10875	10876	10877
10880	FUTURA 2.4ft ES ABSc Al 6400/840 DALI	10881	10883	10884	10885	10886	10887
10890	FUTURA 2.4ft ES ABSc Al 8800/840 DALI	10891	10893	10894	10895	10896	10897
10900	FUTURA 2.4ft ES ABSc Al 12800/840 DALI	10901	10903	x	x	x	x
10910	FUTURA 2.5ft ES ABSc Al 6500/840 DALI	10911	10913	10914	10915	10916	10917
10920	FUTURA 2.5ft ES ABSc Al 8000/840 DALI	10921	10923	10924	10925	10926	10927
10930	FUTURA 2.5ft ES ABSc Al 11000/840 DALI	10931	10933	10934	10935	10936	10937
10940	FUTURA 2.5ft ES ABSc Al 16000/840 DALI	10941	10943	x	x	x	x

Example of type marking: 10896 = FUTURA 2.4ft ES ABSc Al 8800/840 DALI **3F M1h**

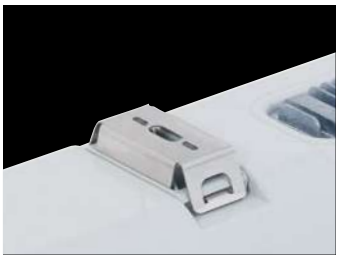
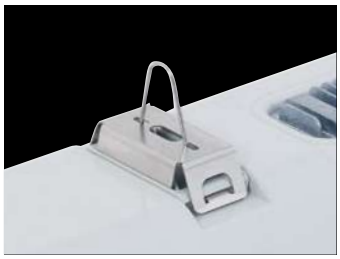
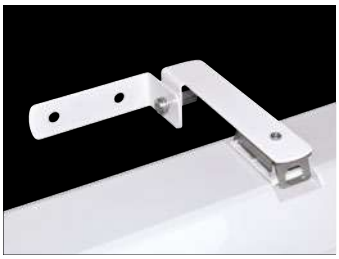
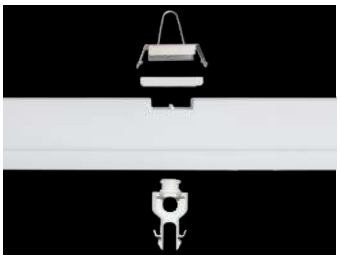
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA ES ABS

FUTURA HE ABS

... high efficiency, with sulphur-resistant LED chips, chemically resistant.

USE

The light fitting is suitable for the environment where ammoniac fumes, lixiviants, alkaline compounds and hot water (hydrolyses) can be present. We recommend this light fitting for agricultural operations, stables, car washing lines, warehouses, mechanical workshops and laboratories without a danger of explosion of gas, dust and combustible fumes.

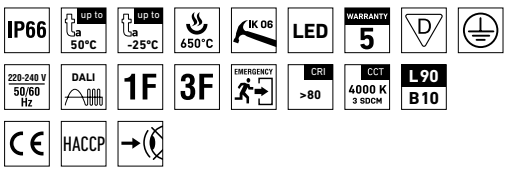
The light fitting is resistant to dust, moisture and spouting water. The body made of ABS and the diffuser made of AC have increased chemical resistance.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page 263).

Always open the cover of the light fitting out of an environment with aggressive volatile substances.

ADVANTAGES

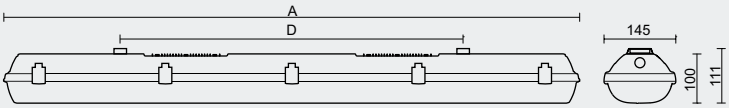
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC) = high chemical resistance
- Body: dark grey ABS with Al coolers (ABS Al) = high chemical resistance
- Up to 55 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- **Chips with high sulphur resistance**
- Long lifetime due to low thermal resistance



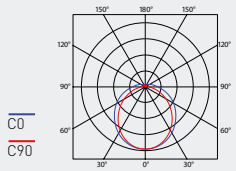
FUTURA HE ABS Al, ABSc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 162 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC), UV stable, chemically resistant
- Body: dark grey ABS with Al coolers (ABS Al), UV stable, chemically resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED sulphur-resistant modules, current driver or current driver DALI



FUTURA 2.4ft HE ABS



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: dark grey ABS with Al coolers - diffuser: translucent acrylate								
11200	FUTURA 2.2ft HE ABS Al 3200/840	50	3200	2820	18	157	1,7	612	475
11210	FUTURA 2.2ft HE ABS Al 4400/840	45	4400	3870	24	161	1,7	612	475
11203	FUTURA 2.2ft HE ABS Al 6400/840	35	6400	5630	35	161	1,7	612	475
11206	FUTURA 2.4ft HE ABS Al 6400/840	50	6400	5630	36	156	3,0	1172	700
11220	FUTURA 2.4ft HE ABS Al 8800/840	45	8800	7740	48	161	3,0	1172	700
11216	FUTURA 2.4ft HE ABS Al 12800/840	35	12800	11260	70	161	3,0	1172	700
11219	FUTURA 2.5ft HE ABS Al 8000/840	50	8000	7040	45	156	3,9	1452	940
11230	FUTURA 2.5ft HE ABS Al 11000/840	45	11000	9680	60	161	3,9	1452	940
11241	FUTURA 2.5ft HE ABS Al 16000/840	35	16000	14080	87	162	3,9	1452	940

FUTURA HE ABS Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11200	FUTURA 2.2ft HE ABS Al 3200/840	x	x	11201	11202	x	x
11210	FUTURA 2.2ft HE ABS Al 4400/840	x	x	11214	11215	x	x
11203	FUTURA 2.2ft HE ABS Al 6400/840	x	x	11204	11205	x	x
11206	FUTURA 2.4ft HE ABS Al 6400/840	11207	11208	11209	11211	11212	11213
11220	FUTURA 2.4ft HE ABS Al 8800/840	11221	11223	11224	11225	11226	11227
11216	FUTURA 2.4ft HE ABS Al 12800/840	11217	11218	x	x	x	x
11219	FUTURA 2.5ft HE ABS Al 8000/840	11222	11228	11229	11232	11238	11239
11230	FUTURA 2.5ft HE ABS Al 11000/840	11231	11233	11234	11235	11236	11237
11241	FUTURA 2.5ft HE ABS Al 16000/840	11242	11243	x	x	x	x

FUTURA HE ABSc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11246	FUTURA 2.2ft HE ABSc Al 3200/840	x	x	11247	11248	x	x
11240	FUTURA 2.2ft HE ABSc Al 4400/840	x	x	11244	11245	x	x
11249	FUTURA 2.2ft HE ABSc Al 6400/840	x	x	11252	11258	x	x
11259	FUTURA 2.4ft HE ABSc Al 6400/840	11262	11268	11269	11271	11272	11273
11250	FUTURA 2.4ft HE ABSc Al 8800/840	11251	11253	11254	11255	11256	11257
11276	FUTURA 2.4ft HE ABSc Al 12800/840	11277	11278	x	x	x	x
11279	FUTURA 2.5ft HE ABSc Al 8000/840	11282	11288	11289	11292	11298	11299
11260	FUTURA 2.5ft HE ABSc Al 11000/840	11261	11263	11264	11265	11266	11267
11301	FUTURA 2.5ft HE ABSc Al 16000/840	11302	11303	x	x	x	x

Example of type marking: 11256 = FUTURA 2.4ft HE ABSc Al 8800/840 **3F M1h**

FUTURA HE ABS Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11306	FUTURA 2.2ft HE ABS Al 3200/840 DALI	x	x	11307	11308	x	x
11270	FUTURA 2.2ft HE ABS Al 4400/840 DALI	x	x	11274	11275	x	x
11309	FUTURA 2.2ft HE ABS Al 6400/840 DALI	x	x	11312	11318	x	x
11319	FUTURA 2.4ft HE ABS Al 6400/840 DALI	11322	11328	11329	11330	11331	11332
11280	FUTURA 2.4ft HE ABS Al 8800/840 DALI	11281	11283	11284	11285	11286	11287
11333	FUTURA 2.4ft HE ABS Al 12800/840 DALI	11334	11335	x	x	x	x
11336	FUTURA 2.5ft HE ABS Al 8000/840 DALI	11337	11338	11339	11340	11341	11342
11290	FUTURA 2.5ft HE ABS Al 11000/840 DALI	11291	11293	11294	11295	11296	11297
11343	FUTURA 2.5ft HE ABS Al 16000/840 DALI	11344	11345	x	x	x	x

FUTURA HE ABSc Al DALI

Digital dimmable driver DALI - stainless clips (c)

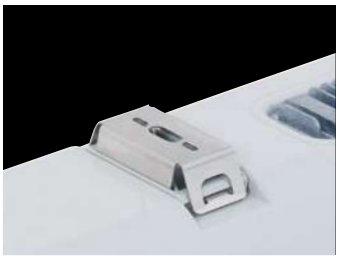
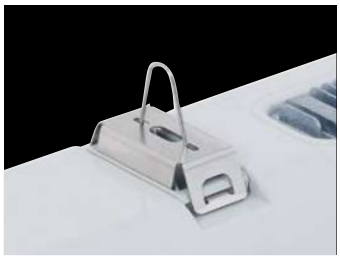
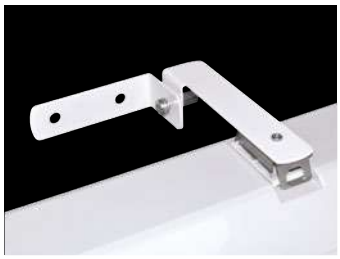
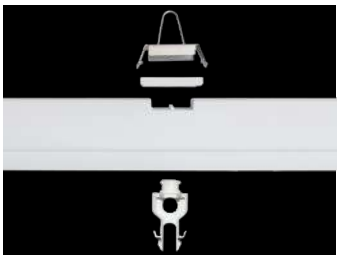
Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
11346	FUTURA 2.2ft HE ABSc Al 3200/840 DALI	x	x	11347	11348	x	x
11300	FUTURA 2.2ft HE ABSc Al 4400/840 DALI	x	x	11304	11305	x	x
11349	FUTURA 2.2ft HE ABSc Al 6400/840 DALI	x	x	11350	11351	x	x
11352	FUTURA 2.4ft HE ABSc Al 6400/840 DALI	11353	11354	11355	11356	11357	11358
11310	FUTURA 2.4ft HE ABSc Al 8800/840 DALI	11311	11313	11314	11315	11316	11317
11359	FUTURA 2.4ft HE ABSc Al 12800/840 DALI	11360	11361	x	x	x	x
11362	FUTURA 2.5ft HE ABSc Al 8000/840 DALI	11363	11364	11365	11366	11367	11368
11320	FUTURA 2.5ft HE ABSc Al 11000/840 DALI	11321	11323	11324	11325	11326	11327
11369	FUTURA 2.5ft HE ABSc Al 16000/840 DALI	11370	11371	x	x	x	x

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA HE ABS

FUTURA CLASS II

NEW

... with Class II insulation.

USE

It is suitable for **industrial, warehouse and agricultural buildings, sports premises, transport terminals, railway vehicle repair shops, platforms, traction substations, depots, parking lots and garages, workshops and laboratories** without explosion hazard.

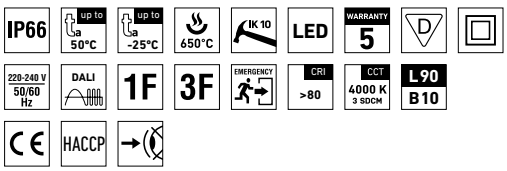
The light fitting resists dust, humidity and spouting water. The body and the diffuser made of PC material have high mechanical resistance against impact and deformation.

Easy, fast and maximally **efficient mounting is achieved when using the cables with connectors delivered by us**.

It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment.

ADVANTAGES

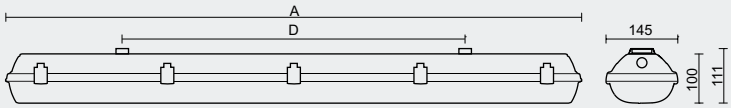
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 6 wires at body (2.4ft and 2.5ft)



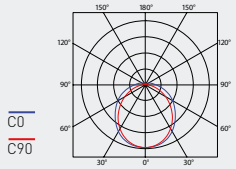
FUTURA CLASS II PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 157 lm/W
- AWEX emergency light module generates a luminous flux of 440 lm
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: **Connectors with 2, 4 or 6 poles, wire section 1.5 or 2.5 mm**
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



FUTURA CLASS II 2.4ft



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate								
47550	FUTURA 2.2ft CLASS II PC 2600/840	50	2600	2420	16	151	1,5	612	475
47560	FUTURA 2.2ft CLASS II PC 3200/840	50	3200	2980	19	157	1,5	612	475
47570	FUTURA 2.2ft CLASS II PC 4400/840	45	4400	4090	27	151	1,7	612	475
47580	FUTURA 2.4ft CLASS II PC 5200/840	50	5200	4840	32	151	2,9	1172	700
47590	FUTURA 2.4ft CLASS II PC 6400/840	50	6400	5950	39	153	2,9	1172	700
47600	FUTURA 2.4ft CLASS II PC 8800/840	45	8800	8180	54	151	3,0	1172	700
47620	FUTURA 2.5ft CLASS II PC 6500/840	50	6500	6050	40	151	3,8	1452	940
47630	FUTURA 2.5ft CLASS II PC 8000/840	50	8000	7440	49	152	3,9	1452	940
47640	FUTURA 2.5ft CLASS II PC 11000/840	45	11000	10230	67	153	3,9	1452	940

47560 FUTURA 2.2ft CLASS II PC 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 – 2×18 W
47590 FUTURA 2.4ft CLASS II PC 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2×36 W
47630 FUTURA 2.5ft CLASS II PC 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2×58 W

FUTURA CLASS II PC

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
47550	FUTURA 2.2ft CLASS II PC 2600/840	x	x	47554	47555	x	x
47560	FUTURA 2.2ft CLASS II PC 3200/840	x	x	47564	47565	x	x
47570	FUTURA 2.2ft CLASS II PC 4400/840	x	x	47574	47575	x	x
47580	FUTURA 2.4ft CLASS II PC 5200/840	47581	47583	47584	47585	47586	47587
47590	FUTURA 2.4ft CLASS II PC 6400/840	47591	47593	47594	47595	47596	47597
47600	FUTURA 2.4ft CLASS II PC 8800/840	47601	47603	47604	47605	47606	47607
47620	FUTURA 2.5ft CLASS II PC 6500/840	47621	47623	47624	47625	47626	47627
47630	FUTURA 2.5ft CLASS II PC 8000/840	47631	47633	47634	47635	47636	47637
47640	FUTURA 2.5ft CLASS II PC 11000/840	47641	47643	47644	47645	47646	47647

FUTURA CLASS II PCc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
47660	FUTURA 2.2ft CLASS II PCc 2600/840	x	x	47664	47665	x	x
47670	FUTURA 2.2ft CLASS II PCc 3200/840	x	x	47674	47675	x	x
47680	FUTURA 2.2ft CLASS II PCc 4400/840	x	x	47684	47685	x	x
47690	FUTURA 2.4ft CLASS II PCc 5200/840	47691	47693	47694	47695	47696	47697
47700	FUTURA 2.4ft CLASS II PCc 6400/840	47701	47703	47704	47705	47706	47707
47710	FUTURA 2.4ft CLASS II PCc 8800/840	47711	47713	47714	47715	47716	47717
47730	FUTURA 2.5ft CLASS II PCc 6500/840	47731	47733	47734	47735	47736	47737
47740	FUTURA 2.5ft CLASS II PCc 8000/840	47741	47743	47744	47745	47746	47747
47750	FUTURA 2.5ft CLASS II PCc 11000/840	47751	47753	47754	47755	47756	47757

Example of type marking: 47717 = FUTURA 2.4ft CLASS II PCc 8800/840 **3F M3h**

FUTURA CLASS II PC DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
47770	FUTURA 2.2ft CLASS II PC 2600/840 DALI	x	x	47774	47775	x	x
47780	FUTURA 2.2ft CLASS II PC 3200/840 DALI	x	x	47784	47785	x	x
47790	FUTURA 2.2ft CLASS II PC 4400/840 DALI	x	x	47794	47795	x	x
47800	FUTURA 2.4ft CLASS II PC 5200/840 DALI	47801	47803	47804	47805	47806	47807
47810	FUTURA 2.4ft CLASS II PC 6400/840 DALI	47811	47813	47814	47815	47816	47817
47820	FUTURA 2.4ft CLASS II PC 8800/840 DALI	47821	47823	47824	47825	47826	47827
47840	FUTURA 2.5ft CLASS II PC 6500/840 DALI	47841	47843	47844	47845	47846	47847
47850	FUTURA 2.5ft CLASS II PC 8000/840 DALI	47851	47853	47854	47855	47856	47857
47860	FUTURA 2.5ft CLASS II PC 11000/840 DALI	47861	47863	47864	47865	47866	47867

FUTURA CLASS II PCc DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
47880	FUTURA 2.2ft CLASS II PCc 2600/840 DALI	x	x	47884	47885	x	x
47890	FUTURA 2.2ft CLASS II PCc 3200/840 DALI	x	x	47894	47895	x	x
47900	FUTURA 2.2ft CLASS II PCc 4400/840 DALI	x	x	47904	47905	x	x
47910	FUTURA 2.4ft CLASS II PCc 5200/840 DALI	47911	47913	47914	47915	47916	47917
47920	FUTURA 2.4ft CLASS II PCc 6400/840 DALI	47921	47923	47924	47925	47926	47927
47930	FUTURA 2.4ft CLASS II PCc 8800/840 DALI	47931	47933	47934	47935	47936	47937
47950	FUTURA 2.5ft CLASS II PCc 6500/840 DALI	47951	47953	47954	47955	47956	47957
47960	FUTURA 2.5ft CLASS II PCc 8000/840 DALI	47961	47963	47964	47965	47966	47967
47970	FUTURA 2.5ft CLASS II PCc 11000/840 DALI	47971	47973	47974	47975	47976	47977

Example of type marking: 47966 = FUTURA CLASS II 2.5ft PCc 8000/840 DALI **3F M1h**

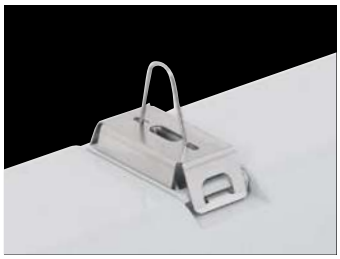
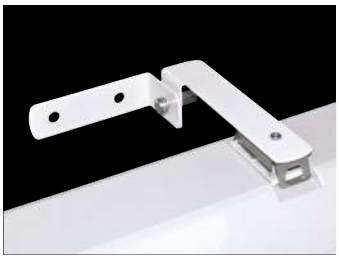
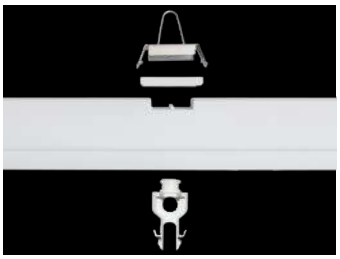
LEGEND

CLASS II 1F 1-phase 2 core through-wiring in the luminaire
CLASS II 3F 3-phase 4 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
CLASS II 3F Mxh 3-phase 4 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
CLASS II DALI 1F 1-phase 4 core through-wiring in the luminaire
CLASS II DALI 3F 3-phase 6 core through-wiring in the luminaire
CLASS II DALI 3F Mxh 3-phase 6 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA CLASS II

STUCCHI 37xx

WIELAND

FUTURA MAX

... for extreme temperatures -40 °C to +70 °C.

USE

The light fitting is suitable for indoor and outdoor spaces with roof with extreme ambient temperatures from **(-40 °C to +70 °C)**. The light fitting is destined mainly for heating stations, metallurgical lines, glass-works, as well as for freezers, cooling plants and other premises without danger of explosion of gases, dusts and flammable vapors.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page 263).

ADVANTAGES

- Light fitting protection **IP66**
- Minimum ambient temperature up to **t_a = -40 °C**
- Maximum ambient temperature up to **t_a = 70 °C**
- Lifetime: 50,000 hours / L80B10
- Possibility of using in even higher ambient temperatures under the condition of a shortened service life of the light fitting – parameters solved within a particular project
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate with Al coolers (PC Al) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- Constant luminous flux even in ambient temperature of -40 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K
- Through-wiring of up to 10 wires at body
- Certification: HACCP

IP66 | up to ta 70°C | up to ta -40°C | 850°C | IK 10 | LED | WARRANTY 5

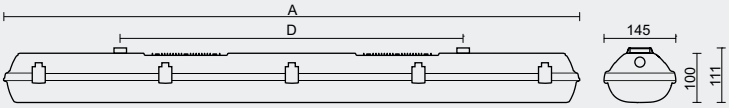
220-240 V 50/60 Hz | 1F | 3F | CRI >80 | CCT 4000 K 3 SDCM | L80 B10

CE | HACCP

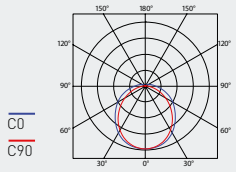
FUTURA MAX PCc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Minimum ambient temperature: t_a = -40 °C
- Maximum ambient temperature: t_a = 70 °C
- Lifetime: 50,000 hours / L80B10
- Possibility of using in even higher ambient temperatures under the condition of a shortened service life of the light fitting – parameters solved within a particular project
- Maximum system efficacy: 157 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate with Al coolers (PC Al), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Clips: stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver



FUTURA MAX 2.4ft



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 70 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate								
79820	FUTURA 1.5ft MAX PCc Al 4000/840	70	4000	3720	24	155	3,6	1452	940
79830	FUTURA 1.5ft MAX PCc Al 5500/840	65	5500	5120	33	155	3,6	1452	940
79840	FUTURA 2.4ft MAX PCc Al 6400/840	65	6400	5950	38	157	3,0	1172	700
79800	FUTURA 2.4ft MAX PCc Al 8800/840	60	8800	8180	52	157	3,0	1172	700
79850	FUTURA 2.5ft MAX PCc Al 8000/840	65	8000	7440	48	155	3,9	1452	940
79810	FUTURA 2.5ft MAX PCc Al 11000/840	60	11000	10230	65	157	3,9	1452	940

FUTURA MAX PCc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	DALI	DALI 3F
79820	FUTURA 1.5ft MAX PCc Al 4000/840	79821	79823	x	x	79825	79826
79830	FUTURA 1.5ft MAX PCc Al 5500/840	79831	79833	x	x	79835	79836
79840	FUTURA 2.4ft MAX PCc Al 6400/840	79841	79843	x	x	79845	79846
79800	FUTURA 2.4ft MAX PCc Al 8800/840	79801	79803	x	x	79805	79806
79850	FUTURA 2.5ft MAX PCc Al 8000/840	79851	79853	x	x	79855	79856
79810	FUTURA 2.5ft MAX PCc Al 11000/840	79811	79813	x	x	79815	79816

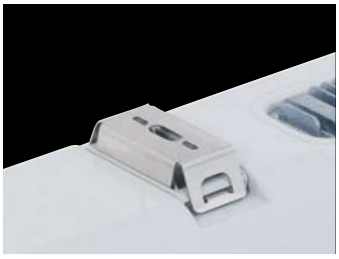
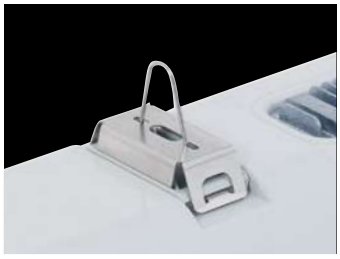
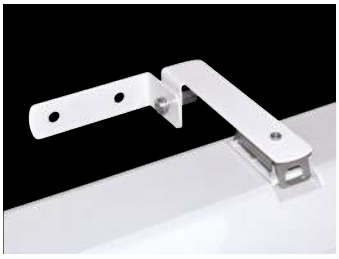
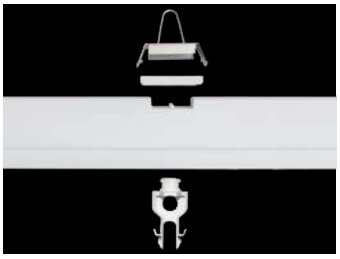
Example of type marking: 79813 = FUTURA MAX 2.5ft PCc Al 11000/840 **3F**

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA MAX

FUTURA Sensor

... dustproof, waterproof and impact-resistant.

USE

The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic and aluminium at installations in an aggressive environment, see also page 263).

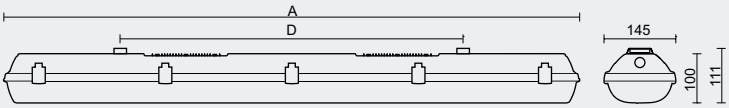
ADVANTAGES

- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate with Al coolers (PC Al) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- Current driver with the possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- With built-in **microwave motion sensor**
- The possibility of setting the sensor using the DIP switch
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- Certification: ENEC, CB, HACCP

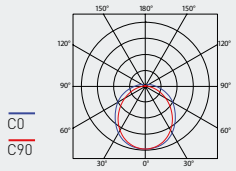
FUTURA SNS PC Al, PCc Al

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 141 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate with Al coolers (PC Al), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or digital dimmable driver DALI
- Motion sensor: 360° range, switch on height 1 – 6 m, time range 5 sec – 30 min, switch-on sensitivity 2 – 50 lux



FUTURA 2.4ft SNS



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 50 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate								
79010	FUTURA 2.2ft SNS PC Al 2600/840	50	2600	2490	18	138	1,5	612	475
79020	FUTURA 2.2ft SNS PC Al 3200/840	50	3200	3050	22	139	1,5	612	475
79030	FUTURA 2.2ft SNS PC Al 4400/840	45	4400	4230	30	141	1,7	612	475
79040	FUTURA 2.4ft SNS PC Al 5200/840	50	5200	4910	35	140	2,9	1172	700
79050	FUTURA 2.4ft SNS PC Al 6400/840	50	6400	5880	42	140	2,9	1172	700
79060	FUTURA 2.4ft SNS PC Al 8800/840	45	8800	8110	58	140	3,0	1172	700
79410	FUTURA 2.4ft SNS PC Al 12800/840	35	12800	11900	85	140	3,0	1172	700
79070	FUTURA 2.5ft SNS PC Al 6500/840	50	6500	6190	44	141	3,8	1452	940
79080	FUTURA 2.5ft SNS PC Al 8000/840	50	8000	7440	53	140	3,9	1452	940
79090	FUTURA 2.5ft SNS PC Al 11000/840	45	11000	9950	71	140	3,9	1452	940
79420	FUTURA 2.5ft SNS PC Al 16000/840	35	16000	14810	106	140	3,9	1452	940

79050 FUTURA 2.4ft SNS PC Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2×36 W
79080 FUTURA 2.5ft SNS PC Al 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2×58 W

FUTURA SNS PC Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
79010	FUTURA 2.2ft SNS PC Al 2600/840	x	x	79014	x	x	x
79020	FUTURA 2.2ft SNS PC Al 3200/840	x	x	79024	x	x	x
79030	FUTURA 2.2ft SNS PC Al 4400/840	x	x	79034	x	x	x
79040	FUTURA 2.4ft SNS PC Al 5200/840	79140	79340	79044	79045	79344	79345
79050	FUTURA 2.4ft SNS PC Al 6400/840	79150	79350	79054	79055	79354	79355
79060	FUTURA 2.4ft SNS PC Al 8800/840	79160	79360	79064	79065	79364	79365
79410	FUTURA 2.4ft SNS PC Al 12800/840	79411	79412	x	x	x	x
79070	FUTURA 2.5ft SNS PC Al 6500/840	79170	79370	79074	79075	79374	79375
79080	FUTURA 2.5ft SNS PC Al 8000/840	79180	79380	79084	79085	79384	79385
79090	FUTURA 2.5ft SNS PC Al 11000/840	79190	79390	79094	79095	79394	79395
79420	FUTURA 2.5ft SNS PC Al 16000/840	79421	79422	x	x	x	x

FUTURA SNS PCc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
79210	FUTURA 2.2ft SNS PCc Al 2600/840	x	x	79214	x	x	x
79220	FUTURA 2.2ft SNS PCc Al 3200/840	x	x	79224	x	x	x
79230	FUTURA 2.2ft SNS PCc Al 4400/840	x	x	79234	x	x	x
79240	FUTURA 2.4ft SNS PCc Al 5200/840	79540	79640	79244	79245	79644	79645
79250	FUTURA 2.4ft SNS PCc Al 6400/840	79550	79650	79254	79255	79654	79655
79260	FUTURA 2.4ft SNS PCc Al 8800/840	79560	79660	79264	79265	79664	79665
79430	FUTURA 2.4ft SNS PCc Al 12800/840	79431	79432	x	x	x	x
79270	FUTURA 2.5ft SNS PCc Al 6500/840	79570	79670	79274	79275	79674	79675
79280	FUTURA 2.5ft SNS PCc Al 8000/840	79580	79680	79284	79285	79684	79685
79290	FUTURA 2.5ft SNS PCc Al 11000/840	79590	79690	79294	79295	79694	79695
79440	FUTURA 2.5ft SNS PCc Al 16000/840	79441	79442	x	x	x	x

Example of type marking: 79684 = FUTURA 2.5ft SNS PCc Al 8000/840 **3F M1h**

FUTURA SNS PC Al CORRIDOR

Digital dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
79043	FUTURA 2.4ft SNS PC Al 5200/840 CORRIDOR	79143	79343	79047	79049	79347	79349
79053	FUTURA 2.4ft SNS PC Al 6400/840 CORRIDOR	79153	79353	79057	79059	79357	79359
79063	FUTURA 2.4ft SNS PC Al 8800/840 CORRIDOR	79163	79363	79067	79069	79367	79369
79073	FUTURA 2.5ft SNS PC Al 6500/840 CORRIDOR	79173	79373	79077	79079	79377	79379
79083	FUTURA 2.5ft SNS PC Al 8000/840 CORRIDOR	79183	79383	79087	79089	79387	79389
79093	FUTURA 2.5ft SNS PC Al 11000/840 CORRIDOR	79193	79393	79097	79099	79397	79399

FUTURA SNS PCc Al CORRIDOR

Digital dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
79243	FUTURA 2.4ft SNS PCc Al 5200/840 CORRIDOR	79543	79643	79247	79249	79647	79649
79253	FUTURA 2.4ft SNS PCc Al 6400/840 CORRIDOR	79553	79653	79257	79259	79657	79659
79263	FUTURA 2.4ft SNS PCc Al 8800/840 CORRIDOR	79563	79663	79267	79269	79667	79669
79273	FUTURA 2.5ft SNS PCc Al 6500/840 CORRIDOR	79573	79673	79277	79279	79677	79679
79283	FUTURA 2.5ft SNS PCc Al 8000/840 CORRIDOR	79583	79683	79287	79289	79687	79689
79293	FUTURA 2.5ft SNS PCc Al 11000/840 CORRIDOR	79593	79693	79297	79299	79697	79699

Example of type marking: 79687 = FUTURA 2.5ft SNS PCc Al 8000/840 CORRIDOR **3F M1h**

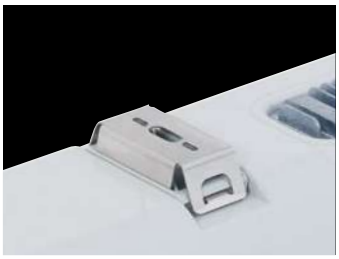
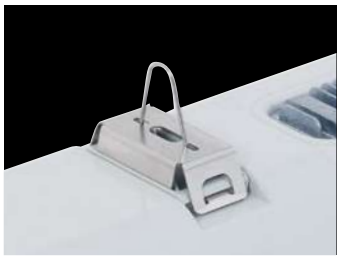
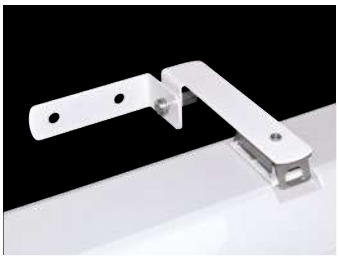
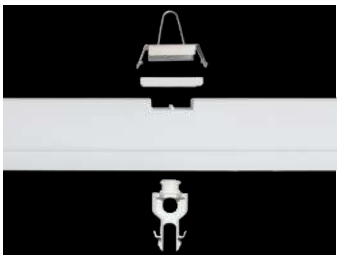
LEGEND

SNS 1F 1-phase 3 core through-wiring in the luminaire for connection of max. 5 slave luminaires
SNS 3F 3-phase 5 core through-wiring in the luminaire for connection of max. 5 slave luminaires (sensor connected to L3)
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
SNS 3F Mxh 3-phase 5 core through-wiring in the luminaire for connection of max. 5 slave luminaires (sensor and emergency unit connected to L3)

CORRIDOR version with digital dimmable driver DALI and set corridor function
CORRIDOR 1F 1-phase 5 core through-wiring in the luminaire for connection of max. 20 luminaires
CORRIDOR 3F 3-phase 7 core through-wiring in the luminaire for connection of max. 20 luminaires (sensor connected to L3)
CORRIDOR 3F Mxh 3-phase 7 core through-wiring in the luminaire for connection of max. 20 luminaires (sensor and emergency unit connected to L3)

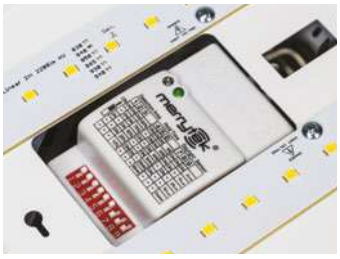
LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA SNS



FUTURA HORTI

... to stimulate plant growth, for greenhouses.

USE

An indoor light fixture designed for greenhouse gardening.

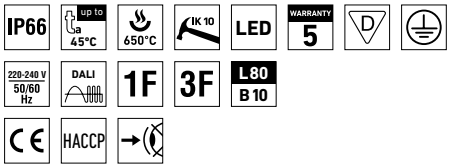
It makes it possible for growers to **increase crop yields and their quality as well as ensure year-round production independent of the season of the year or weather**. The fitting provides greenhouse owners with exceptional benefits whether it is used to substitute regular lights, or as an energy-efficient feature that complements an existing lighting system. The exceptional characteristics of HORTI are appreciated by greenhouse farmers regardless of what crops they grow (tomatoes, cucumbers, leaf vegetables, herbs, strawberries, cut flowers, pot plants, perennials, etc.).

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

Please, consider the emissions that the fitting installed in a chemically aggressive environment is exposed to as these may compromise the usability of plastic.

ADVANTAGES

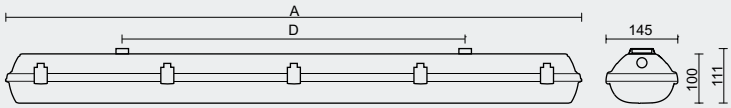
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L80B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- CRI > 70: 4000 K for white component of light
- Through-wiring of up to 10 wires at body
- Support of individual phases of plant growth: germination, growth, bloom, fruit ripening



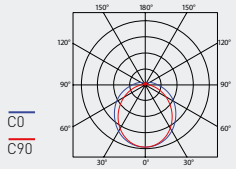
FUTURA HORTI PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C
- Lifetime: 50,000 hours / L80B10
- CRI > 70: 4000 K for white component of light
- MacAdam = 3 SDCM
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, five-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules HORTI, supply element DALI (1 driver – 4 DALI addresses)



FUTURA 2.4ft HORTI PC



Code	Type	DEEP BLUE 450 nm [µmol/s]	DEEP RED 660 nm [µmol/s]	FAR RED+WHITE 730 nm [µmol/s]	Max. performance [µmol/s]	Max. power consumption [W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: dark grey ABS - diffuser: translucent acrylate								
86240	FUTURA 1.4ft HORTI PC DALI	20	43	38	103	56	3,1	1172	700
86246	FUTURA 2.2ft HORTI PC DALI	20	43	38	103	56	1,8	612	475
86249	FUTURA 2.4ft HORTI PC DALI	41	87	78	207	112	3,1	1172	700

FUTURA HORTI PC

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F
86240	FUTURA 1.4ft HORTI PC DALI	86241	86242
86246	FUTURA 2.2ft HORTI PC DALI	x	x
86249	FUTURA 2.4ft HORTI PC DALI	86250	86251

FUTURA HORTI PCc

Digital dimmable driver DALI - stainless clips (c)

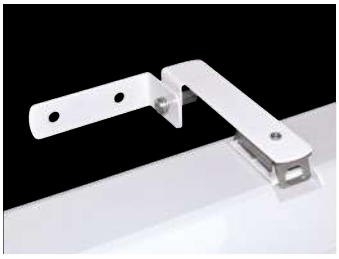
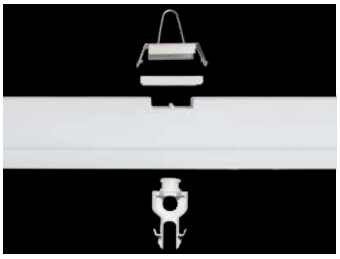
Code	Type	1F	3F
86258	FUTURA 1.4ft HORTI PCc DALI	86259	86260
86264	FUTURA 2.2ft HORTI PCc DALI	x	x
86267	FUTURA 2.4ft HORTI PCc DALI	86268	86269

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

FUTURA HORTI PC

FUTURA HORTI ABS

... to stimulate plant growth, for greenhouses.

USE

An indoor light fixture designed for greenhouse gardening.

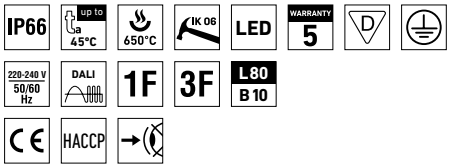
It makes it possible for growers to **increase crop yields and their quality as well as ensure year-round production independent of the season of the year or weather**. The fitting provides greenhouse owners with exceptional benefits whether it is used to substitute regular lights, or as an energy-efficient feature that complements an existing lighting system. The exceptional characteristics of HORTI are appreciated by greenhouse farmers regardless of what crops they grow (tomatoes, cucumbers, leaf vegetables, herbs, strawberries, cut flowers, pot plants, perennials, etc.).

The fixture is protected against dust ingress, humidity, and water jets. It features a base made of ABS and a diffuser made of AC. Both boast increased chemical resistance to substances contained in detergents, disinfectants, and pesticide sprays.

Please, consider the emissions that the fitting installed in a chemically aggressive environment is exposed to as these may compromise the usability of plastic.

ADVANTAGES

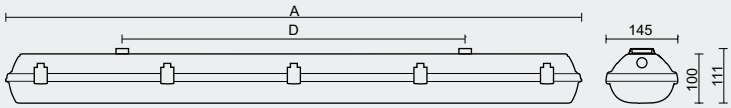
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L80B10
- Diffuser: translucent acrylate (AC) = high chemical resistance
- Body: dark grey ABS = high chemical resistance
- CRI > 70: 4000 K for white component of light
- Through-wiring of up to 10 wires at body
- Support of individual phases of plant growth: germination, growth, bloom, fruit ripening



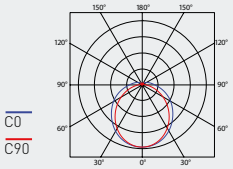
FUTURA HORTI ABS, ABSc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C
- Lifetime: 50,000 hours / L80B10
- CRI > 70: 4000 K for white component of light
- MacAdam = 3 SDCM
- Diffuser: translucent acrylate (AC), UV stable, chemically resistant
- Body: dark grey ABS, UV stable, chemically resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, five-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules HORTI, supply element DALI (1 driver – 4 DALI addresses)



FUTURA 2.4ft HORTI ABS



Code	Type	DEEP BLUE 450 nm [µmol/s]	DEEP RED 660 nm [µmol/s]	FAR RED+WHITE 730 nm [µmol/s]	Max. performance [µmol/s]	Max. power consumption [W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: dark grey ABS with Al coolers - diffuser: translucent acrylate								
86204	FUTURA 1.4ft HORTI ABS DALI	19	41	37	98	56	3,1	1172	700
86210	FUTURA 2.2ft HORTI ABS DALI	19	41	37	98	56	1,8	612	475
86213	FUTURA 2.4ft HORTI ABS DALI	39	83	74	197	112	3,1	1172	700

FUTURA HORTI ABS

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F
86204	FUTURA 1.4ft HORTI ABS DALI	86205	86206
86210	FUTURA 2.2ft HORTI ABS DALI	x	x
86213	FUTURA 2.4ft HORTI ABS DALI	86214	86215

FUTURA HORTI ABSc

Digital dimmable driver DALI - stainless clips (c)

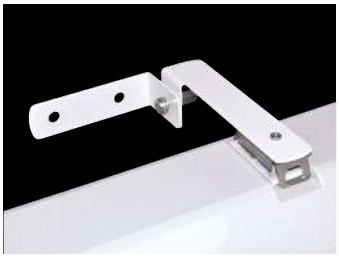
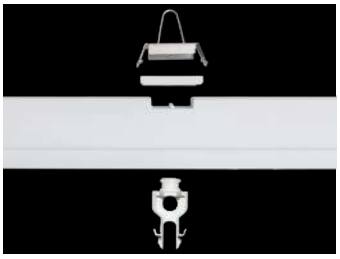
Code	Type	1F	3F
86222	FUTURA 1.4ft HORTI ABSc DALI	86223	86224
86228	FUTURA 2.2ft HORTI ABSc DALI	x	x
86231	FUTURA 2.4ft HORTI ABSc DALI	86232	86233

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

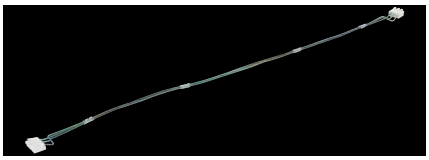



LIGHT FITTING DETAILED VIEW

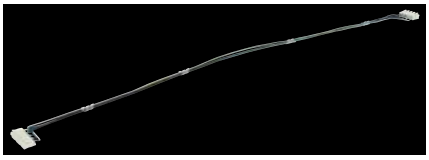
FUTURA HORTI ABS

Through-wiring cables

Additional furnishing of 1 phase, 3 phase or multi-phase through-wiring in the body to the light fitting.



Code	Type	Description	Weight [kg]
11995	Z1F-2.4	1 phase cables for through-wiring at body 2.4ft	0,1
11996	Z1F-2.5	1 phase cables for through-wiring at body 2.5ft	0,1

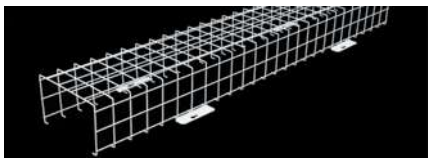


Code	Type	Description	Weight [kg]
11997	Z3F-2.4	3 phase cables for through-wiring at body 2.4ft	0,1
11998	Z3F-2.5	3 phase cables for through-wiring at body 2.5ft	0,1

Code	Type	Description	Weight [kg]
11987	Z2x3F-2.4	2x 3 phase cables for through-wiring at body 2.4ft	0,1
11988	Z2x3F-2.5	2x 3 phase cables for through-wiring at body 2.5ft	0,1

OM – protective grid

The metal grid protects the light fitting against mechanical damage and unauthorised handling. It is attached to the surface with the use of screws.
The surface is treated with the RAL 9003 powder-coated colour.



Code	Type	Description	Weight [kg]
11941	OM 218	protective grid for types 218, 214/224, 2.2ft (700 × 220 × 130 mm)	1,0
11942	OM 236	protective grid for types 236, 228/254, 2.4ft (1300 × 220 × 130 mm)	1,7
11943	OM 258	protective grid for types 258, 235/249/280, 2.5ft (1600 × 220 × 130 mm)	2,0

BZ – side hanger

It serves to attach the light fitting to the wall with the possibility of its positioning.

Code	Type	Description	Weight [kg]
90002	BZ	side hanger with blocking (set for 1 light fitting)	0,4

Canalis busbar system connector

The connector enables a quick 1 phase or 3 phase interconnection of light fittings without their opening.

Code	Type	Description	Weight [kg]
79001	KBA 40 ZU	light fitting suspended holder - Canalis KBA system	0,1
70002	KBC 10 CC211	connector with 1 m cable - Canalis KBA system	0,2

Light fitting inputs

The version with four inputs in the body side for types 2.4ft and 2.5ft can be made-to-order.

Stucchi or Wieland connector

The connector enables a quick 1 phase or 3 phase interconnection of light fittings without their opening.

PRIMA LED

INDUSTRIAL

PLASTIC

DUSTPROOF

WATERPROOF

IMPACT-RESISTANT

PRIMA LED – industrial plastic LED light fitting

PRIMA LED
page 84

IP66

PRIMA LED
PC, PCc
page 84

PRIMA LED FOR OUTDOOR SPACES
page 87

IP66

PRIMA LED
VP, VPc
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PRIMA LED - CHEMICALLY RESISTANT VERSION
page 90

IP66

PRIMA LED
ABS, ABSc
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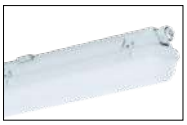
PRIMA LED
CLASS II INSULATION
str. 93

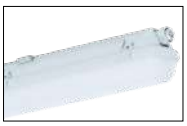
IP66



PRIMA LED
CLASS II
str. 93

PRIMA LED TRS
str. 96

IP66



PRIMA LED TRS
str. 96

PRIMA LED FOR EXTREME TEMPERATURES
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IP66

PRIMA LED
MAX PCc
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PRIMA LED WITH MOTION DETECTOR
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PRIMA LED
SNS PC, SNS PCc
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PRIMA LED FOR ENVIRONMENT WITH A DANGER OF EXPLOSION
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PRIMA LED Ex PCc
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PRIMA LED TUBE
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IP66

PRIMA LED TUBE
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PRIMA LED
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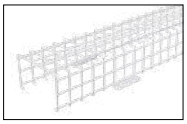


PRIMA LED
ACCESSORIES
page 110

BIM ready
www.bim.lighting/en

PRIMA LED

... dustproof, waterproof and impact-resistant.

USE

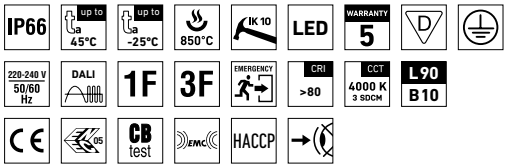
The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic at installations in an aggressive environment, see also page 263).

ADVANTAGES

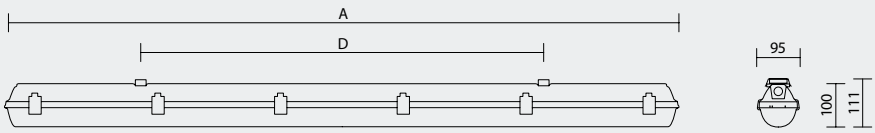
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ, ENEC, CB, HACCP



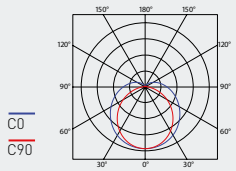
PRIMA LED PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 134 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5, or rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, five-pole (basic version), or screwed
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



PRIMA LED 1.4ft PC



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: grey polycarbonate - diffuser: translucent polycarbonate								
65010	PRIMA LED 1.2ft PC 1300/840	45	1300	1150	9	127	1,3	662	350
65020	PRIMA LED 1.2ft PC 1600/840	45	1600	1410	11	128	1,2	662	350
65030	PRIMA LED 1.2ft PC 2200/840	40	2200	1950	15	130	1,3	662	350
65040	PRIMA LED 1.4ft PC 2600/840	45	2600	2320	18	129	1,9	1272	700
65050	PRIMA LED 1.4ft PC 3200/840	45	3200	2860	22	130	1,7	1272	700
65060	PRIMA LED 1.4ft PC 4400/840	40	4400	3920	30	131	1,9	1272	700
65460	PRIMA LED 1.4ft PC 6400/840	40	6400	5650	43	131	1,9	1272	700
65070	PRIMA LED 1.5ft PC 3250/840	45	3250	2810	22	128	2,3	1572	940
65080	PRIMA LED 1.5ft PC 4000/840	45	4000	3530	27	131	2,2	1572	940
65090	PRIMA LED 1.5ft PC 5500/840	40	5500	4940	37	134	2,3	1572	940
65490	PRIMA LED 1.5ft PC 8000/840	40	8000	7090	54	131	2,3	1572	940

65020 PRIMA LED 1.2ft PC 1600/840 = suitable replacement for T8 fl. tube light fitting PRIMA 118 – 1 × 18 W
65050 PRIMA LED 1.4ft PC 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 136 – 1 × 36 W
65460 PRIMA LED 1.4ft PC 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2 × 36 W
65080 PRIMA LED 1.5ft PC 4000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 158 – 1 × 58 W
65490 PRIMA LED 1.5ft PC 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2 × 58 W

PRIMA LED PC

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
65010	PRIMA LED 1.2ft PC 1300/840	x	x	x	x	x	x
65020	PRIMA LED 1.2ft PC 1600/840	x	x	x	x	x	x
65030	PRIMA LED 1.2ft PC 2200/840	x	x	x	x	x	x
65040	PRIMA LED 1.4ft PC 2600/840	65140	65340	65044	65045	65344	65345
65050	PRIMA LED 1.4ft PC 3200/840	65150	65350	65054	65055	65354	65355
65060	PRIMA LED 1.4ft PC 4400/840	65160	65360	65064	65065	65364	65365
65460	PRIMA LED 1.4ft PC 6400/840	65461	65462	x	x	x	x
65070	PRIMA LED 1.5ft PC 3250/840	65170	65370	65074	65075	65374	65375
65080	PRIMA LED 1.5ft PC 4000/840	65180	65380	65084	65085	65384	65385
65090	PRIMA LED 1.5ft PC 5500/840	65190	65390	65094	65095	65394	65395
65490	PRIMA LED 1.5ft PC 8000/840	65491	65492	x	x	x	x

PRIMA LED PCc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
65210	PRIMA LED 1.2ft PCc 1300/840	x	x	x	x	x	x
65220	PRIMA LED 1.2ft PCc 1600/840	x	x	x	x	x	x
65230	PRIMA LED 1.2ft PCc 2200/840	x	x	x	x	x	x
65240	PRIMA LED 1.4ft PCc 2600/840	65540	65640	65244	65245	65644	65645
65250	PRIMA LED 1.4ft PCc 3200/840	65550	65650	65254	65255	65654	65655
65260	PRIMA LED 1.4ft PCc 4400/840	65560	65660	65264	65265	65664	65665
65760	PRIMA LED 1.4ft PCc 6400/840	65761	65762	x	x	x	x
65270	PRIMA LED 1.5ft PCc 3250/840	65570	65670	65274	65275	65674	65675
65280	PRIMA LED 1.5ft PCc 4000/840	65580	65680	65284	65285	65684	65685
65290	PRIMA LED 1.5ft PCc 5500/840	65590	65690	65294	65295	65694	65695
65790	PRIMA LED 1.5ft PCc 8000/840	65791	65792	x	x	x	x

Example of type marking: 65644 = PRIMA LED 1.4ft PCc 2600/840 **3F M1h**

PRIMA LED PC DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
65013	PRIMA LED 1.2ft PC 1300/840 DALI	x	x	x	x	x	x
65023	PRIMA LED 1.2ft PC 1600/840 DALI	x	x	x	x	x	x
65033	PRIMA LED 1.2ft PC 2200/840 DALI	x	x	x	x	x	x
65043	PRIMA LED 1.4ft PC 2600/840 DALI	65143	65343	65047	65048	65347	65348
65053	PRIMA LED 1.4ft PC 3200/840 DALI	65153	65353	65057	65058	65357	65358
65063	PRIMA LED 1.4ft PC 4400/840 DALI	65163	65363	65067	65068	65367	65368
65860	PRIMA LED 1.4ft PC 6400/840 DALI	65861	65862	x	x	x	x
65073	PRIMA LED 1.5ft PC 3250/840 DALI	65173	65373	65077	65078	65377	65378
65083	PRIMA LED 1.5ft PC 4000/840 DALI	65183	65383	65087	65088	65387	65388
65093	PRIMA LED 1.5ft PC 5500/840 DALI	65193	65393	65097	65098	65397	65398
65890	PRIMA LED 1.5ft PC 8000/840 DALI	65891	65892	x	x	x	x

PRIMA LED PCc DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
65213	PRIMA LED 1.2ft PCc 1300/840 DALI	x	x	x	x	x	x
65223	PRIMA LED 1.2ft PCc 1600/840 DALI	x	x	x	x	x	x
65233	PRIMA LED 1.2ft PCc 2200/840 DALI	x	x	x	x	x	x
65243	PRIMA LED 1.4ft PCc 2600/840 DALI	65543	65643	65247	65248	65647	65648
65253	PRIMA LED 1.4ft PCc 3200/840 DALI	65553	65653	65257	65258	65657	65658
65263	PRIMA LED 1.4ft PCc 4400/840 DALI	65563	65663	65267	65268	65667	65668
65960	PRIMA LED 1.4ft PCc 6400/840 DALI	65961	65962	x	x	x	x
65273	PRIMA LED 1.5ft PCc 3250/840 DALI	65573	65673	65277	65278	65677	65678
65283	PRIMA LED 1.5ft PCc 4000/840 DALI	65583	65683	65287	65288	65687	65688
65293	PRIMA LED 1.5ft PCc 5500/840 DALI	65593	65693	65297	65298	65697	65698
65990	PRIMA LED 1.5ft PCc 8000/840 DALI	65991	65992	x	x	x	x

Example of type marking: 65693 = PRIMA LED 1.5ft PCc 5500/840 DALI **3F**

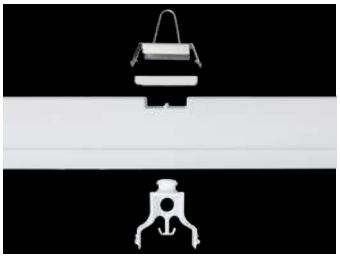
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW

PRIMA LED

PRIMA LED VP

... for outdoor spaces.

USE

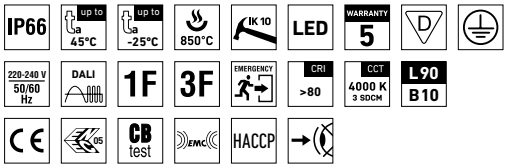
The light fitting is suitable for the installation in outdoor spaces with shelter. It is equipped with a ventilation plug made of polyamide which eliminates the presence of condensation fumes and underpressure in the light fitting caused by ambient temperature fluctuations.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic at installations in an aggressive environment, see also page 263).

ADVANTAGES

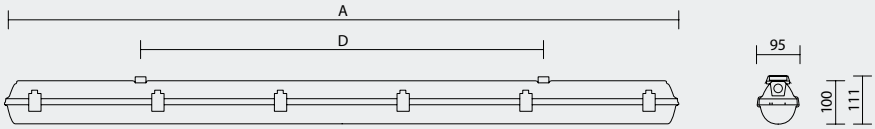
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ, ENEC, CB, HACCP



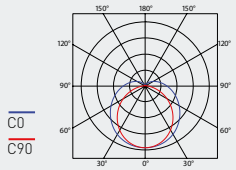
PRIMA LED VP, VPc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 134 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5, or rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, five-pole (basic version), or screwed
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



PRIMA LED 1.4ft VP



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: grey polycarbonate - diffuser: translucent polycarbonate								
66010	PRIMA LED 1.2ft VP 1300/840	45	1300	1150	9	127	1,3	662	350
66020	PRIMA LED 1.2ft VP 1600/840	45	1600	1410	11	128	1,2	662	350
66030	PRIMA LED 1.2ft VP 2200/840	40	2200	1950	15	130	1,3	662	350
66040	PRIMA LED 1.4ft VP 2600/840	45	2600	2320	18	129	1,9	1272	700
66050	PRIMA LED 1.4ft VP 3200/840	45	3200	2860	22	130	1,7	1272	700
66060	PRIMA LED 1.4ft VP 4400/840	40	4400	3920	30	131	1,9	1272	700
66460	PRIMA LED 1.4ft VP 6400/840	40	6400	5650	43	131	1,9	1272	700
66070	PRIMA LED 1.5ft VP 3250/840	45	3250	2810	22	128	2,3	1572	940
66080	PRIMA LED 1.5ft VP 4000/840	45	4000	3530	27	131	2,2	1572	940
66090	PRIMA LED 1.5ft VP 5500/840	40	5500	4940	37	134	2,3	1572	940
66490	PRIMA LED 1.5ft VP 8000/840	40	8000	7090	54	131	2,3	1572	940

66020 PRIMA LED 1.2ft VP 1600/840 = suitable replacement for T8 fl. tube light fitting PRIMA 118 – 1 × 18 W
66050 PRIMA LED 1.4ft VP 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 136 – 1 × 36 W
66460 PRIMA LED 1.4ft VP 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2 × 36 W
66080 PRIMA LED 1.5ft VP 4000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 158 – 1 × 58 W
66490 PRIMA LED 1.5ft VP 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2 × 58 W

PRIMA LED VP

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
66010	PRIMA LED 1.2ft VP 1300/840	x	x	x	x	x	x
66020	PRIMA LED 1.2ft VP 1600/840	x	x	x	x	x	x
66030	PRIMA LED 1.2ft VP 2200/840	x	x	x	x	x	x
66040	PRIMA LED 1.4ft VP 2600/840	66140	66340	66044	66045	66344	66345
66050	PRIMA LED 1.4ft VP 3200/840	66150	66350	66054	66055	66354	66355
66060	PRIMA LED 1.4ft VP 4400/840	66160	66360	66064	66065	66364	66365
66460	PRIMA LED 1.4ft VP 6400/840	66461	66462	x	x	x	x
66070	PRIMA LED 1.5ft VP 3250/840	66170	66370	66074	66075	66374	66375
66080	PRIMA LED 1.5ft VP 4000/840	66180	66380	66084	66085	66384	66385
66090	PRIMA LED 1.5ft VP 5500/840	66190	66390	66094	66095	66394	66395
66490	PRIMA LED 1.5ft VP 8000/840	66491	66492	x	x	x	x

PRIMA LED VPc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
66210	PRIMA LED 1.2ft VPc 1300/840	x	x	x	x	x	x
66220	PRIMA LED 1.2ft VPc 1600/840	x	x	x	x	x	x
66230	PRIMA LED 1.2ft VPc 2200/840	x	x	x	x	x	x
66240	PRIMA LED 1.4ft VPc 2600/840	66540	66640	66244	66245	66644	66645
66250	PRIMA LED 1.4ft VPc 3200/840	66550	66650	66254	66255	66654	66655
66260	PRIMA LED 1.4ft VPc 4400/840	66560	66660	66264	66265	66664	66665
66760	PRIMA LED 1.4ft VPc 6400/840	66761	66762	x	x	x	x
66270	PRIMA LED 1.5ft VPc 3250/840	66570	66670	66274	66275	66674	66675
66280	PRIMA LED 1.5ft VPc 4000/840	66580	66680	66284	66285	66684	66685
66290	PRIMA LED 1.5ft VPc 5500/840	66590	66690	66294	66295	66694	66695
66790	PRIMA LED 1.5ft VPc 8000/840	66791	66792	x	x	x	x

Example of type marking: 66644 = PRIMA LED 1.4ft VP 2600/840 **3F M1h**

PRIMA LED VP DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
66013	PRIMA LED 1.2ft VP 1300/840 DALI	x	x	x	x	x	x
66023	PRIMA LED 1.2ft VP 1600/840 DALI	x	x	x	x	x	x
66033	PRIMA LED 1.2ft VP 2200/840 DALI	x	x	x	x	x	x
66043	PRIMA LED 1.4ft VP 2600/840 DALI	66143	66343	66047	66048	66347	66348
66053	PRIMA LED 1.4ft VP 3200/840 DALI	66153	66353	66057	66058	66357	66358
66063	PRIMA LED 1.4ft VP 4400/840 DALI	66163	66363	66067	66068	66367	66368
66860	PRIMA LED 1.4ft VP 6400/840 DALI	66861	66862	x	x	x	x
66073	PRIMA LED 1.5ft VP 3250/840 DALI	66173	66373	66077	66078	66377	66378
66083	PRIMA LED 1.5ft VP 4000/840 DALI	66183	66383	66087	66088	66387	66388
66093	PRIMA LED 1.5ft VP 5500/840 DALI	66193	66393	66097	66098	66397	66398
66890	PRIMA LED 1.5ft VP 8000/840 DALI	66891	66892	x	x	x	x

PRIMA LED VPc DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
66213	PRIMA LED 1.2ft VPc 1300/840 DALI	x	x	x	x	x	x
66223	PRIMA LED 1.2ft VPc 1600/840 DALI	x	x	x	x	x	x
66233	PRIMA LED 1.2ft VPc 2200/840 DALI	x	x	x	x	x	x
66243	PRIMA LED 1.4ft VPc 2600/840 DALI	66543	66643	66247	66248	66647	66648
66253	PRIMA LED 1.4ft VPc 3200/840 DALI	66553	66653	66257	66258	66657	66658
66263	PRIMA LED 1.4ft VPc 4400/840 DALI	66563	66663	66267	66268	66667	66668
66960	PRIMA LED 1.4ft VPc 6400/840 DALI	66961	66962	x	x	x	x
66273	PRIMA LED 1.5ft VPc 3250/840 DALI	66573	66673	66277	66278	66677	66678
66283	PRIMA LED 1.5ft VPc 4000/840 DALI	66583	66683	66287	66288	66687	66688
66293	PRIMA LED 1.5ft VPc 5500/840 DALI	66593	66693	66297	66298	66697	66698
66990	PRIMA LED 1.5ft VPc 8000/840 DALI	66991	66992	x	x	x	x

Example of type marking: 66693 = PRIMA LED 1.5ft VPc 5500/840 DALI **3F**

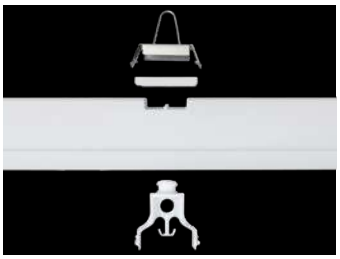
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW

PRIMA LED VP

PRIMA LED ABS

... dustproof, waterproof and chemically resistant.

USE

The light fitting is suitable for the environment where ammoniac fumes, lixiviants, alkaline compounds and hot water (hydrolyses) can be present. We recommend this light fitting for agricultural operations, stables, car washing lines, warehouses, mechanical workshops and laboratories without a danger of explosion of gas, dust and combustible fumes.

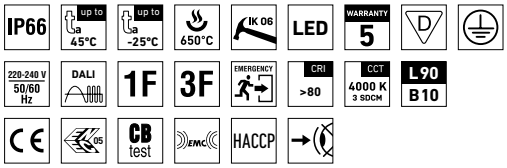
The light fitting is resistant to dust, moisture and spouting water. The body made of ABS and the diffuser made of AC have increased chemical resistance.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic at installations in an aggressive environment, see also page 263).

Always open the cover of the light fitting out of an environment with aggressive volatile substances.

ADVANTAGES

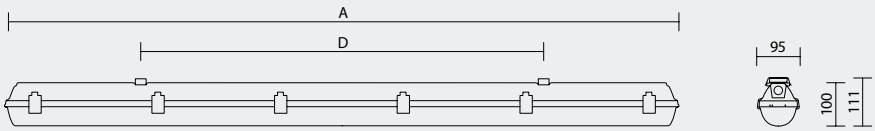
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC) = high chemical resistance
- Body: dark grey (ABS) = high chemical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ, ENEC, CB, HACCP



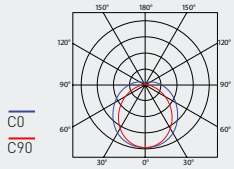
PRIMA LED ABS, ABSc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 134 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent acrylate (AC), UV stable, chemically resistant
- Body: dark grey (ABS), UV stable, chemically resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5, or rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, five-pole (basic version), or screwed
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



PRIMA LED 1.4ft ABS



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: dark grey ABS - diffuser: translucent acrylate								
67010	PRIMA LED 1.2ft ABS 1300/840	45	1300	1150	9	127	1,3	662	350
67020	PRIMA LED 1.2ft ABS 1600/840	45	1600	1410	11	128	1,2	662	350
67030	PRIMA LED 1.2ft ABS 2200/840	40	2200	1950	15	130	1,3	662	350
67040	PRIMA LED 1.4ft ABS 2600/840	45	2600	2320	18	129	1,9	1272	700
67050	PRIMA LED 1.4ft ABS 3200/840	45	3200	2860	22	130	1,7	1272	700
67060	PRIMA LED 1.4ft ABS 4400/840	40	4400	3920	30	131	1,9	1272	700
67460	PRIMA LED 1.4ft ABS 6400/840	40	6400	5650	43	131	1,9	1272	700
67070	PRIMA LED 1.5ft ABS 3250/840	45	3250	2810	22	128	2,3	1572	940
67080	PRIMA LED 1.5ft ABS 4000/840	45	4000	3530	27	131	2,2	1572	940
67090	PRIMA LED 1.5ft ABS 5500/840	40	5500	4940	37	134	2,3	1572	940
67490	PRIMA LED 1.5ft ABS 8000/840	40	8000	7090	54	131	2,3	1572	940

67020 PRIMA LED 1.2ft ABS 1600/840 = suitable replacement for T8 fl. tube light fitting PRIMA 118 – 1×18 W
67050 PRIMA LED 1.4ft ABS 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 136 – 1×36 W
67490 PRIMA LED 1.5ft ABS 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2×58 W

PRIMA LED ABS

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
67010	PRIMA LED 1.2ft ABS 1300/840	x	x	x	x	x	x
67020	PRIMA LED 1.2ft ABS 1600/840	x	x	x	x	x	x
67030	PRIMA LED 1.2ft ABS 2200/840	x	x	x	x	x	x
67040	PRIMA LED 1.4ft ABS 2600/840	67140	67340	67044	67045	67344	67345
67050	PRIMA LED 1.4ft ABS 3200/840	67150	67350	67054	67055	67354	67355
67060	PRIMA LED 1.4ft ABS 4400/840	67160	67360	67064	67065	67364	67365
67460	PRIMA LED 1.4ft ABS 6400/840	67461	67462	x	x	x	x
67070	PRIMA LED 1.5ft ABS 3250/840	67170	67370	67074	67075	67374	67375
67080	PRIMA LED 1.5ft ABS 4000/840	67180	67380	67084	67085	67384	67385
67090	PRIMA LED 1.5ft ABS 5500/840	67190	67390	67094	67095	67394	67395
67490	PRIMA LED 1.5ft ABS 8000/840	67491	67492	x	x	x	x

PRIMA LED ABSc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
67210	PRIMA LED 1.2ft ABSc 1300/840	x	x	x	x	x	x
67220	PRIMA LED 1.2ft ABSc 1600/840	x	x	x	x	x	x
67230	PRIMA LED 1.2ft ABSc 2200/840	x	x	x	x	x	x
67240	PRIMA LED 1.4ft ABSc 2600/840	67540	67640	67244	67245	67644	67645
67250	PRIMA LED 1.4ft ABSc 3200/840	67550	67650	67254	67255	67654	67655
67260	PRIMA LED 1.4ft ABSc 4400/840	67560	67660	67264	67265	67664	67665
67760	PRIMA LED 1.4ft ABSc 6400/840	67761	67762	x	x	x	x
67270	PRIMA LED 1.5ft ABSc 3250/840	67570	67670	67274	67275	67674	67675
67280	PRIMA LED 1.5ft ABSc 4000/840	67580	67680	67284	67285	67684	67685
67290	PRIMA LED 1.5ft ABSc 5500/840	67590	67690	67294	67295	67694	67695
67790	PRIMA LED 1.5ft ABSc 8000/840	67791	67792	x	x	x	x

Example of type marking: 67644 = PRIMA LED 1.4ft ABS 2600/840 **3F M1h**

PRIMA LED ABS DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
67013	PRIMA LED 1.2ft ABS 1300/840 DALI	x	x	x	x	x	x
67023	PRIMA LED 1.2ft ABS 1600/840 DALI	x	x	x	x	x	x
67033	PRIMA LED 1.2ft ABS 2200/840 DALI	x	x	x	x	x	x
67043	PRIMA LED 1.4ft ABS 2600/840 DALI	67143	67343	67047	67048	67347	67348
67053	PRIMA LED 1.4ft ABS 3200/840 DALI	67153	67353	67057	67058	67357	67358
67063	PRIMA LED 1.4ft ABS 4400/840 DALI	67163	67363	67067	67068	67367	67368
67860	PRIMA LED 1.4ft ABS 6400/840 DALI	67861	67862	x	x	x	x
67073	PRIMA LED 1.5ft ABS 3250/840 DALI	67173	67373	67077	67078	67377	67378
67083	PRIMA LED 1.5ft ABS 4000/840 DALI	67183	67383	67087	67088	67387	67388
67093	PRIMA LED 1.5ft ABS 5500/840 DALI	67193	67393	67097	67098	67397	67398
67890	PRIMA LED 1.5ft ABS 8000/840 DALI	67891	67892	x	x	x	x

PRIMA LED ABSc DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
67213	PRIMA LED 1.2ft ABSc 1300/840 DALI	x	x	x	x	x	x
67223	PRIMA LED 1.2ft ABSc 1600/840 DALI	x	x	x	x	x	x
67233	PRIMA LED 1.2ft ABSc 2200/840 DALI	x	x	x	x	x	x
67243	PRIMA LED 1.4ft ABSc 2600/840 DALI	67543	67643	67247	67248	67647	67648
67253	PRIMA LED 1.4ft ABSc 3200/840 DALI	67553	67653	67257	67258	67657	67658
67263	PRIMA LED 1.4ft ABSc 4400/840 DALI	67563	67663	67267	67268	67667	67668
67960	PRIMA LED 1.4ft ABSc 6400/840 DALI	67961	67962	x	x	x	x
67273	PRIMA LED 1.5ft ABSc 3250/840 DALI	67573	67673	67277	67278	67677	67678
67283	PRIMA LED 1.5ft ABSc 4000/840 DALI	67583	67683	67287	67288	67687	67688
67293	PRIMA LED 1.5ft ABSc 5500/840 DALI	67593	67693	67297	67298	67697	67698
67990	PRIMA LED 1.5ft ABSc 8000/840 DALI	67991	67992	x	x	x	x

Example of type marking: 67693 = PRIMA LED 1.5ft ABSc 5500/840 DALI **3F**

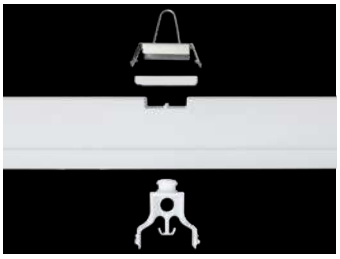
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW

PRIMA LED ABS

PRIMA LED CLASS II

NEW

... with Class II insulation.

USE

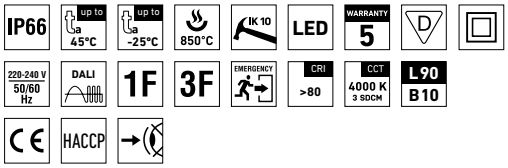
Light fitting is suitable for **industrial, warehouse and agricultural buildings, sports premises, transport terminals, railway vehicle repair shops, platforms, traction substations, depots, parking lots and garages, workshops and laboratories** without explosion hazard.

The light fitting resists dust, humidity and spouting water. The body and the diffuser made of PC material have high mechanical resistance against impact and deformation.

Emissions in the environment of use may reduce the usability of the plastics.

ADVANTAGES

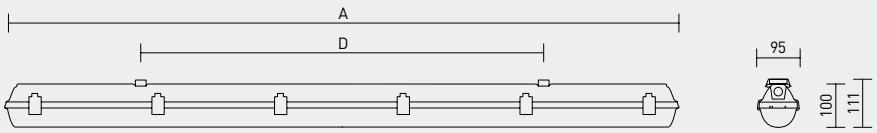
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 6 wires at body (1.4ft and 1.5ft)



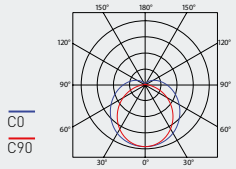
PRIMA LED CLASS II PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 134 lm/W
- AWEX emergency light module generates a luminous flux of 440 lm
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5, or rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: **Connectors with 2, 4 or 6 poles, wire section 1.5 or 2.5 mm**
- Installation: package contains stainless hooks, stainless brackets and a connector's counterpart
- Electric equipment: LED modules, current driver or current driver DALI



PRIMA LED 1.4ft CLASS II PC



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: grey polycarbonate - diffuser: translucent polycarbonate								
71200	PRIMA LED 1.2ft CLASS II PC 1300/840	45	1300	1150	9	127	1,3	662	350
71210	PRIMA LED 1.2ft CLASS II PC 1600/840	45	1600	1410	11	128	1,2	662	350
71220	PRIMA LED 1.2ft CLASS II PC 2200/840	40	2200	1950	15	130	1,3	662	350
71230	PRIMA LED 1.4ft CLASS II PC 2600/840	45	2600	2320	18	129	1,9	1272	700
71240	PRIMA LED 1.4ft CLASS II PC 3200/840	45	3200	2860	22	130	1,7	1272	700
71250	PRIMA LED 1.4ft CLASS II PC 4400/840	40	4400	3920	30	131	1,9	1272	700
71260	PRIMA LED 1.4ft CLASS II PC 6400/840	40	6400	5650	43	131	1,9	1272	700
71270	PRIMA LED 1.5ft CLASS II PC 3250/840	45	3250	2810	22	128	2,3	1572	940
71280	PRIMA LED 1.5ft CLASS II PC 4000/840	45	4000	3530	27	131	2,2	1572	940
71290	PRIMA LED 1.5ft CLASS II PC 5500/840	40	5500	4940	37	134	2,3	1572	940
71300	PRIMA LED 1.5ft CLASS II PC 8000/840	40	8000	7090	54	131	2,3	1572	940

71210 PRIMA LED 1.2ft CLASS II PC 1600/840 = suitable replacement for T8 fl. tube light fitting PRIMA 118 – 1 × 18 W
71240 PRIMA LED 1.4ft CLASS II PC 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 136 – 1 × 36 W
71260 PRIMA LED 1.4ft CLASS II PC 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2 × 36 W
71280 PRIMA LED 1.5ft CLASS II PC 4000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 158 – 1 × 58 W
71300 PRIMA LED 1.5ft CLASS II PC 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2 × 58 W

PRIMA LED CLASS II PC

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
71200	PRIMA LED 1.2ft CLASS II PC 1300/840	x	x	x	x	x	x
71210	PRIMA LED 1.2ft CLASS II PC 1600/840	x	x	x	x	x	x
71220	PRIMA LED 1.2ft CLASS II PC 2200/840	x	x	x	x	x	x
71230	PRIMA LED 1.4ft CLASS II PC 2600/840	71231	71233	71234	71235	71236	71237
71240	PRIMA LED 1.4ft CLASS II PC 3200/840	71241	71243	71244	71245	71246	71247
71250	PRIMA LED 1.4ft CLASS II PC 4400/840	71251	71253	71254	71255	71256	71257
71260	PRIMA LED 1.4ft CLASS II PC 6400/840	71261	71263	x	x	x	x
71270	PRIMA LED 1.5ft CLASS II PC 3250/840	71271	71273	71274	71275	71276	71277
71280	PRIMA LED 1.5ft CLASS II PC 4000/840	71281	71283	71284	71285	71286	71287
71290	PRIMA LED 1.5ft CLASS II PC 5500/840	71291	71293	71294	71295	71296	71297
71300	PRIMA LED 1.5ft CLASS II PC 8000/840	71301	71303	x	x	x	x

PRIMA LED CLASS II PCc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
71310	PRIMA LED 1.2ft CLASS II PCc 1300/840	x	x	x	x	x	x
71320	PRIMA LED 1.2ft CLASS II PCc 1600/840	x	x	x	x	x	x
71330	PRIMA LED 1.2ft CLASS II PCc 2200/840	x	x	x	x	x	x
71340	PRIMA LED 1.4ft CLASS II PCc 2600/840	71341	71343	71344	71345	71346	71347
71350	PRIMA LED 1.4ft CLASS II PCc 3200/840	71351	71353	71354	71355	71356	71357
71360	PRIMA LED 1.4ft CLASS II PCc 4400/840	71361	71363	71364	71365	71366	71367
71370	PRIMA LED 1.4ft CLASS II PCc 6400/840	71371	71373	x	x	x	x
71380	PRIMA LED 1.5ft CLASS II PCc 3250/840	71381	71383	71384	71385	71386	71387
71390	PRIMA LED 1.5ft CLASS II PCc 4000/840	71391	71393	71394	71395	71396	71397
71400	PRIMA LED 1.5ft CLASS II PCc 5500/840	71401	71403	71404	71405	71406	71407
71410	PRIMA LED 1.5ft CLASS II PCc 8000/840	71411	71413	x	x	x	x

Example of type marking: 71346 = PRIMA LED 1.4ft CLASS II PCc 2600/840 **3F M1h**

PRIMA LED CLASS II PC DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
71420	PRIMA LED 1.2ft CLASS II PC 1300/840 DALI	x	x	x	x	x	x
71430	PRIMA LED 1.2ft CLASS II PC 1600/840 DALI	x	x	x	x	x	x
71440	PRIMA LED 1.2ft CLASS II PC 2200/840 DALI	x	x	x	x	x	x
71450	PRIMA LED 1.4ft CLASS II PC 2600/840 DALI	71451	71453	71454	71455	71456	71457
71460	PRIMA LED 1.4ft CLASS II PC 3200/840 DALI	71461	71463	71464	71465	71466	71467
71470	PRIMA LED 1.4ft CLASS II PC 4400/840 DALI	71471	71473	71474	71475	71476	71477
71480	PRIMA LED 1.4ft CLASS II PC 6400/840 DALI	71481	71483	x	x	x	x
71490	PRIMA LED 1.5ft CLASS II PC 3250/840 DALI	71491	71493	71494	71495	71496	71497
71500	PRIMA LED 1.5ft CLASS II PC 4000/840 DALI	71501	71503	71504	71505	71506	71507
71510	PRIMA LED 1.5ft CLASS II PC 5500/840 DALI	71511	71513	71514	71515	71516	71517
71520	PRIMA LED 1.5ft CLASS II PC 8000/840 DALI	71521	71523	x	x	x	x

PRIMA LED CLASS II PCc DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
71530	PRIMA LED 1.2ft CLASS II PCc 1300/840 DALI	x	x	x	x	x	x
71540	PRIMA LED 1.2ft CLASS II PCc 1600/840 DALI	x	x	x	x	x	x
71550	PRIMA LED 1.2ft CLASS II PCc 2200/840 DALI	x	x	x	x	x	x
71560	PRIMA LED 1.4ft CLASS II PCc 2600/840 DALI	71561	71563	71564	71565	71566	71567
71570	PRIMA LED 1.4ft CLASS II PCc 3200/840 DALI	71571	71573	71574	71575	71576	71577
71580	PRIMA LED 1.4ft CLASS II PCc 4400/840 DALI	71581	71583	71584	71585	71586	71587
71590	PRIMA LED 1.4ft CLASS II PCc 6400/840 DALI	71591	71593	x	x	x	x
71600	PRIMA LED 1.5ft CLASS II PCc 3250/840 DALI	71601	71603	71604	71605	71606	71607
71610	PRIMA LED 1.5ft CLASS II PCc 4000/840 DALI	71611	71613	71614	71615	71616	71617
71620	PRIMA LED 1.5ft CLASS II PCc 5500/840 DALI	71621	71623	71624	71625	71626	71627
71630	PRIMA LED 1.5ft CLASS II PCc 8000/840 DALI	71631	71633	x	x	x	x

Example of type marking: 71623 = PRIMA LED 1.5ft CLASS II PCc 5500/840 DALI **3F**

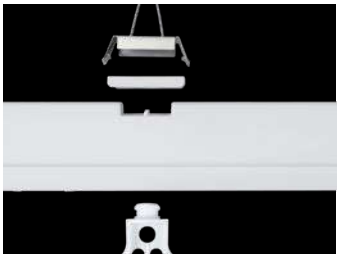
LEGEND

CLASS II 1F 1-phase 2 core through-wiring in the luminaire
CLASS II 3F 3-phase 4 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
CLASS II 3F Mxh 3-phase 4 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
CLASS II DALI 1F 1-phase 4 core through-wiring in the luminaire
CLASS II DALI 3F 3-phase 6 core through-wiring in the luminaire
CLASS II DALI 3F Mxh 3-phase 6 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

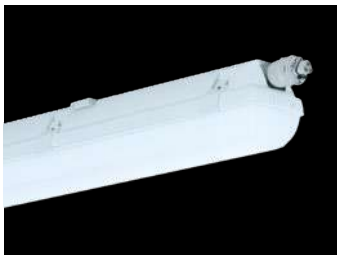
a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW

PRIMA LED CLASS II

STUCCHI 37xx


WIELAND

PRIMA LED TRS

NEW

... for direct and indirect illumination.

USE

This luminaire, which features a clear base, is a perfect source of both direct and indirect illumination for spaces with low ceilings. The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic at installations in an aggressive environment.

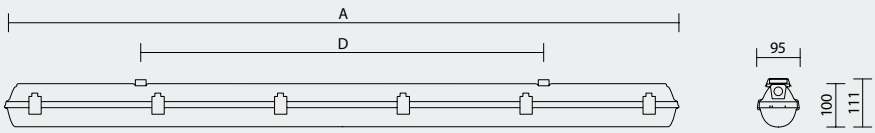
ADVANTAGES

- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: clear polycarbonate (PC) = high mechanical resistance
- Body: clear polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable version
- It can be delivered in Tunable White version at request
- Certification: ESČ, CB, HACCP

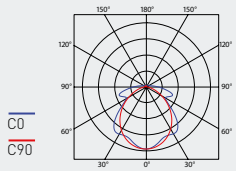
PRIMA LED TRS PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C,
- Maximum system efficacy: 134 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: clear polycarbonate (PC) = high mechanical resistence
- Body: clear polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003) modified for indirect illumination
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5, or rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version), or screwed
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



PRIMA LED 1.5ft TRS PC



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: clear polycarbonate - diffuser: clear polycarbonate								
88000	PRIMA LED 1.2ft TRS PC 1300/840	45	1300	1150	9	127	1,3	662	350
88010	PRIMA LED 1.2ft TRS PC 1600/840	45	1600	1410	11	128	1,2	662	350
88020	PRIMA LED 1.2ft TRS PC 2200/840	40	2200	1950	15	130	1,3	662	350
88030	PRIMA LED 1.4ft TRS PC 2600/840	45	2600	2320	18	129	1,9	1272	700
88040	PRIMA LED 1.4ft TRS PC 3200/840	45	3200	2860	22	130	1,7	1272	700
88050	PRIMA LED 1.4ft TRS PC 4400/840	40	4400	3920	30	131	1,9	1272	700
88060	PRIMA LED 1.4ft TRS PC 6400/840	40	6400	5650	43	131	1,9	1272	700
88070	PRIMA LED 1.5ft TRS PC 3250/840	45	3250	2810	22	128	2,3	1572	940
88080	PRIMA LED 1.5ft TRS PC 4000/840	45	4000	3530	27	131	2,2	1572	940
88090	PRIMA LED 1.5ft TRS PC 5500/840	40	5500	4940	37	134	2,3	1572	940
88100	PRIMA LED 1.5ft TRS PC 8000/840	40	8000	7090	54	131	2,3	1572	940

88010 PRIMA LED 1.2ft TRS PC 1600/840 = suitable replacement for T8 fl. tube light fitting PRIMA 118 – 1 × 18 W
88040 PRIMA LED 1.4ft TRS PC 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 136 – 1 × 36 W
88060 PRIMA LED 1.4ft TRS PC 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2 × 36 W
88080 PRIMA LED 1.5ft TRS PC 4000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 158 – 1 × 58 W
88100 PRIMA LED 1.5ft TRS PC 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2 × 58 W

PRIMA LED TRS PC

Plastic clips

Code	Type	1F	3F	DALI	DALI 1F	DALI 3F
88000	PRIMA LED 1.2ft TRS PC 1300/840	x	x	88220	x	x
88010	PRIMA LED 1.2ft TRS PC 1600/840	x	x	88230	x	x
88020	PRIMA LED 1.2ft TRS PC 2200/840	x	x	88240	x	x
88030	PRIMA LED 1.4ft TRS PC 2600/840	88031	88033	88250	88251	88253
88040	PRIMA LED 1.4ft TRS PC 3200/840	88041	88043	88260	88261	88263
88050	PRIMA LED 1.4ft TRS PC 4400/840	88051	88053	88270	88271	88273
88060	PRIMA LED 1.4ft TRS PC 6400/840	88061	88063	88280	88281	88283
88070	PRIMA LED 1.5ft TRS PC 3250/840	88071	88073	88290	88291	88293
88080	PRIMA LED 1.5ft TRS PC 4000/840	88081	88083	88300	88301	88303
88090	PRIMA LED 1.5ft TRS PC 5500/840	88091	88093	88310	88311	88313
88100	PRIMA LED 1.5ft TRS PC 8000/840	88101	88103	88320	88321	88323

PRIMA LED TRS PCc

Stainless clips (c)

Code	Type	1F	3F	DALI	DALI 1F	DALI 3F
88110	PRIMA LED 1.2ft TRS PCc 1300/840	x	x	88330	x	x
88120	PRIMA LED 1.2ft TRS PCc 1600/840	x	x	88340	x	x
88130	PRIMA LED 1.2ft TRS PCc 2200/840	x	x	88350	x	x
88140	PRIMA LED 1.4ft TRS PCc 2600/840	88141	88143	88360	88361	88363
88150	PRIMA LED 1.4ft TRS PCc 3200/840	88151	88153	88370	88371	88373
88160	PRIMA LED 1.4ft TRS PCc 4400/840	88161	88163	88380	88381	88383
88170	PRIMA LED 1.4ft TRS PCc 6400/840	88171	88173	88390	88391	88393
88180	PRIMA LED 1.5ft TRS PCc 3250/840	88181	88183	88400	88401	88403
88190	PRIMA LED 1.5ft TRS PCc 4000/840	88191	88193	88410	88411	88413
88200	PRIMA LED 1.5ft TRS PCc 5500/840	88201	88203	88420	88421	88423
88210	PRIMA LED 1.5ft TRS PCc 8000/840	88211	88213	88430	88431	88433

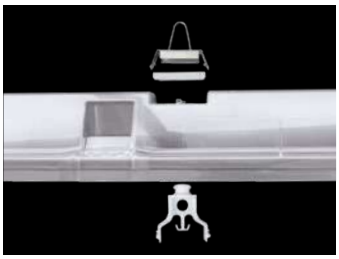
Example of type marking: 88363 = PRIMA LED 1.4ft TRS PCc 2600/840 **DALI 3F**

LEGEND

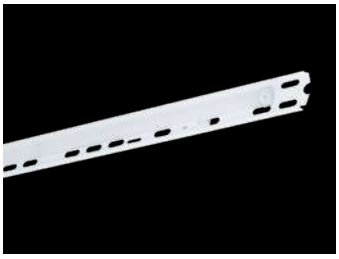
1F	1-phase 3 core through-wiring in the luminaire
3F	3-phase 5 core through-wiring in the luminaire
M1h	emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h	emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh	3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI	version with digital dimmable driver DALI
DALI 1F	1-phase 5 core through-wiring in the luminaire
DALI 3F	3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh	3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW



PRIMA LED MAX

... for extreme temperatures -40 °C to +65 °C.

USE

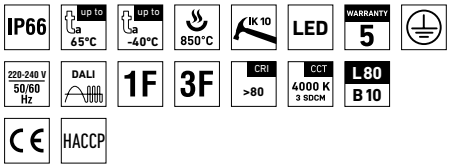
The light fitting is suitable for indoor and outdoor spaces with roof with extreme ambient temperatures from **(-40 °C to +65 °C)**. The light fitting is destined mainly for heating stations, metallurgical lines, glass-works, as well as for freezers, cooling plants and other premises without danger of explosion of gases, dusts and flammable vapors.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic at installations in an aggressive environment, see also page 263).

ADVANTAGES

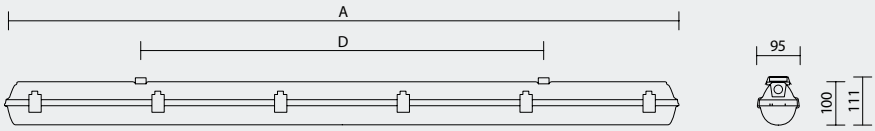
- Light fitting protection **IP66**
- Minimum ambient temperature up to **t_a = -40 °C**
- Maximum ambient temperature up to **t_a = 65 °C**
- Lifetime: 50,000 hours / L80B10
- Possibility of using in even higher ambient temperatures under the condition of a shortened service life of the light fitting – parameters solved within a particular project
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- Constant luminous flux even in ambient temperature of -40 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K
- Certification: HACCP



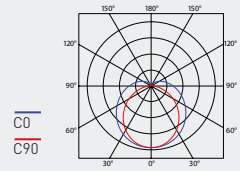
PRIMA LED MAX PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Minimum ambient temperature: t_a = -40 °C
- Maximum ambient temperature: t_a = 65 °C
- Lifetime: 50,000 hours / L80B10
- Possibility of using in even higher ambient temperatures under the condition of a shortened service life of the light fitting – parameters solved within a particular project
- Maximum system efficacy: 148 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Clips: stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5, or rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, five-pole (basic version), or screwed
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver



PRIMA LED MAX 1.5ft



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 65 °C - body: grey polycarbonate - diffuser: translucent polycarbonate								
79910	PRIMA LED 1.5ft MAX PCc 4000/840	65	4000	3550	24	148	2,3	1572	940
79900	PRIMA LED 1.5ft MAX PCc 5500/840	60	5500	4780	33	145	2,3	1572	940

PRIMA LED MAX PCc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	DALI	DALI 3F
79910	PRIMA LED 1.5ft MAX PCc 4000/840	79911	79913	x	x	79915	79916
79900	PRIMA LED 1.5ft MAX PCc 5500/840	79901	79903	x	x	79905	79906

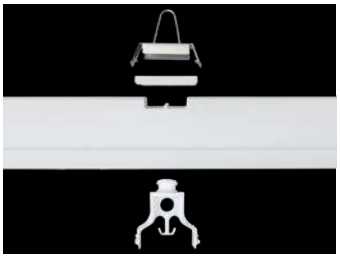
Example of type marking: 79903 = PRIMA LED MAX 1.5ft PCc 5500/840 **3F**

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW

PRIMA LED MAX

PRIMA LED Sensor

... dustproof, waterproof and impact-resistant.

USE

The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic at installations in an aggressive environment, see also page 263).

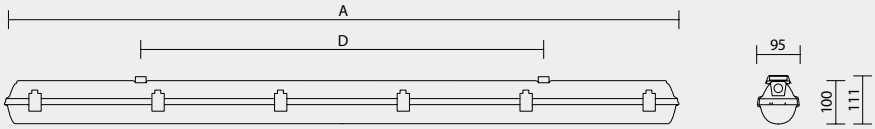
ADVANTAGES

- Light fitting protection IP66
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- Current driver with the possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- With built-in **microwave motion sensor**
- The possibility of setting the sensor using the DIP switch
- It can be delivered in dimmable or emergency version
- Certification: ESČ, CB, HACCP

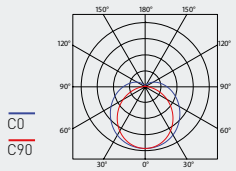
PRIMA LED SNS PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 134 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: screwed PG 13.5, or rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, five-pole (basic version), or screwed
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or digital dimmable driver DALI
- Motion sensor: 360° range, switch on height 1 – 6 m, time range 5 sec – 30 min, switch-on sensitivity 2 – 50 lux



PRIMA LED 1.4ft SNS PC



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 45 °C - body: grey polycarbonate - diffuser: translucent polycarbonate								
64040	PRIMA LED 1.4ft SNS PC 2600/840	45	2600	2320	18	129	1,9	1272	700
64050	PRIMA LED 1.4ft SNS PC 3200/840	45	3200	2860	22	130	1,7	1272	700
64060	PRIMA LED 1.4ft SNS PC 4400/840	40	4400	3920	30	131	1,9	1272	700
64460	PRIMA LED 1.4ft SNS PC 6400/840	40	6400	5650	43	131	1,9	1272	700
64070	PRIMA LED 1.5ft SNS PC 3250/840	45	3250	2810	22	128	2,3	1572	940
64080	PRIMA LED 1.5ft SNS PC 4000/840	45	4000	3530	27	131	2,2	1572	940
64090	PRIMA LED 1.5ft SNS PC 5500/840	40	5500	4940	37	134	2,3	1572	940
64490	PRIMA LED 1.5ft SNS PC 8000/840	40	8000	7090	54	131	2,3	1572	940

64050 PRIMA LED 1.4ft SNS PC 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 136 – 1×36 W
64460 PRIMA LED 1.4ft SNS PC 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2×36 W
64080 PRIMA LED 1.5ft SNS PC 4000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 158 – 1×58 W
64490 PRIMA LED 1.5ft SNS PC 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 – 2×58 W

PRIMA LED SNS PC

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
64040	PRIMA LED 1.4ft SNS PC 2600/840	64140	64340	64044	64045	64344	64345
64050	PRIMA LED 1.4ft SNS PC 3200/840	64150	64350	64054	64055	64354	64355
64060	PRIMA LED 1.4ft SNS PC 4400/840	64160	64360	64064	64065	64364	64365
64460	PRIMA LED 1.4ft SNS PC 6400/840	64461	64462	x	x	x	x
64070	PRIMA LED 1.5ft SNS PC 3250/840	64170	64370	64074	64075	64374	64375
64080	PRIMA LED 1.5ft SNS PC 4000/840	64180	64380	64084	64085	64384	64385
64090	PRIMA LED 1.5ft SNS PC 5500/840	64190	64390	64094	64095	64394	64395
64490	PRIMA LED 1.5ft SNS PC 8000/840	64491	64492	x	x	x	x

PRIMA LED SNS PCc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
64240	PRIMA LED 1.4ft SNS PCc 2600/840	64540	64640	64244	64245	64644	64645
64250	PRIMA LED 1.4ft SNS PCc 3200/840	64550	64650	64254	64255	64654	64655
64260	PRIMA LED 1.4ft SNS PCc 4400/840	64560	64660	64264	64265	64664	64665
64760	PRIMA LED 1.4ft SNS PCc 6400/840	64761	64762	x	x	x	x
64270	PRIMA LED 1.5ft SNS PCc 3250/840	64570	64670	64274	64275	64674	64675
64280	PRIMA LED 1.5ft SNS PCc 4000/840	64580	64680	64284	64285	64684	64685
64290	PRIMA LED 1.5ft SNS PCc 5500/840	64590	64690	64294	64295	64694	64695
64790	PRIMA LED 1.5ft SNS PCc 8000/840	64791	64792	x	x	x	x

Example of type marking: 64644 = PRIMA LED 1.4ft SNS PC 2600/840 **3F M1h**

PRIMA LED SNS PC CORRIDOR

Digital dimmable driver - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
64043	PRIMA LED 1.4ft SNS PC 2600/840 CORRIDOR	64143	64343	64047	x	64347	x
64053	PRIMA LED 1.4ft SNS PC 3200/840 CORRIDOR	64153	64353	64057	x	64357	x
64063	PRIMA LED 1.4ft SNS PC 4400/840 CORRIDOR	64163	64363	64067	x	64367	x
64073	PRIMA LED 1.5ft SNS PC 3250/840 CORRIDOR	64173	64373	64077	64078	64377	64378
64083	PRIMA LED 1.5ft SNS PC 4000/840 CORRIDOR	64183	64383	64087	64088	64387	64388
64093	PRIMA LED 1.5ft SNS PC 5500/840 CORRIDOR	64193	64393	64097	64098	64397	64398

PRIMA LED SNS PCc CORRIDOR

Digital dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
64243	PRIMA LED 1.4ft SNS PCc 2600/840 CORRIDOR	64543	64643	64247	x	64647	x
64253	PRIMA LED 1.4ft SNS PCc 3200/840 CORRIDOR	64553	64653	64257	x	64657	x
64263	PRIMA LED 1.4ft SNS PCc 4400/840 CORRIDOR	64563	64663	64267	x	64667	x
64273	PRIMA LED 1.5ft SNS PCc 3250/840 CORRIDOR	64573	64673	64277	64278	64677	64678
64283	PRIMA LED 1.5ft SNS PCc 4000/840 CORRIDOR	64583	64683	64287	64288	64687	64688
64293	PRIMA LED 1.5ft SNS PCc 5500/840 CORRIDOR	64593	64693	64297	64298	64697	64698

Example of type marking: 64693 = PRIMA LED 1.5ft SNS PCc 5500/840 CORRIDOR **3F**

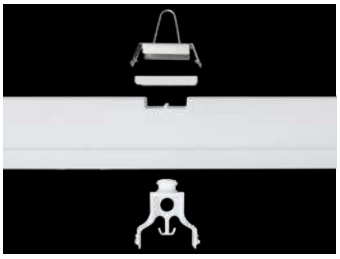
LEGEND

SNS 1F 1-phase 3 core through-wiring in the luminaire for connection of max. 5 slave luminaires
SNS 3F 3-phase 5 core through-wiring in the luminaire for connection of max. 5 slave luminaires (sensor connected to L3)
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
SNS 3F Mxh 3-phase 5 core through-wiring in the luminaire for connection of max. 5 slave luminaires (sensor and emergency unit connected to L3)

CORRIDOR version with digital dimmable driver DALI and set corridor function
CORRIDOR 1F 1-phase 5 core through-wiring in the luminaire for connection of max. 20 luminaires
CORRIDOR 3F 3-phase 7 core through-wiring in the luminaire for connection of max. 20 luminaires (sensor connected to L3)
CORRIDOR 3F Mxh 3-phase 7 core through-wiring in the luminaire for connection of max. 20 luminaires (sensor and emergency unit connected to L3)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW

PRIMA LED SNS

PRIMA LED Ex

... for explosion hazard environment group II, category 3 (zone 2, 22).

USE

The light fitting is suitable for the environment with a danger of explosion of gas, dust and combustible fumes. The light fittings meet the requirements of Government Decree 116/2016 Coll. and European Community Directive No.2014/34/EU.

The light fitting is certified for the environment:
Ⓔx II 3G Ex ec IIC T6 Gc
Ⓔx II 3D Ex tc IIIC T85°C Dc IP66

The basic requirements for safety and health protection are secured by the verification of conformity with the standards according to ČSN EN 60079-7, ČSN EN 60079-0 and ČSN EN 60079-31.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistence against deformation and impact.

(It is necessary to consider exhalation in the air reducing the usability of the plastic at installations in an aggressive environment, see also page 263).

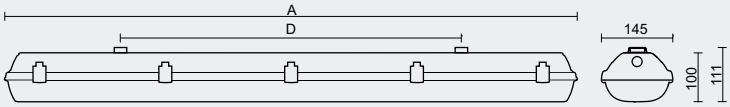
ADVANTAGES

- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 55°C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to fluorescent tubes
- Current driver with the possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K
- Clips: stainless steel + polyamide + 15 % glass fibre
- Through-wiring of up to 10 wires at body
- Certification: **ATEX AR19ATEX004rev1**
- Certification M1h, M3h: **ATEX AR19ATEX047**
- At request also versions according to the standard for EAC states (Russia, Kazakhstan, Belarus, Armenia).

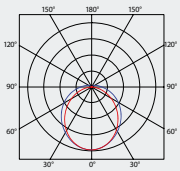
PRIMA LED Ex PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: -25°≤Ta≤+55°
- Maximum ambient temperature: 0°≤Ta≤+50° (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 141 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: stainless steel + polyamide + 15 % glass fibre
- Ventilation plug steel, size M12×1,5 ATEX (for version with emergency back-up source M1h, M3h)
- Cable glands: screwed M20×1,5 ATEX
- Distance part: polyamide + 10 % glass fibre, serves to suspend the reflector during assembly
- Terminal block: screwless, five-pole (version 1.4ft and 1.5ft), three-pole incl. earthing tape & screw for a perfect connection (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver, halogen-free wires with higher temperature resistance

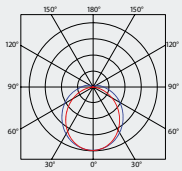


PRIMA LED Ex 1.4ft



C0
C90

PRIMA LED Ex 2.5ft



Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 55 °C - body: grey polycarbonate - diffuser: translucent polycarbonate								
14810	PRIMA LED Ex 1.4ft PCc 3200/840	55	3200	2910	22	132	3,2	1272	700
14820	PRIMA LED Ex 1.4ft PCc 4400/840	55	4400	4000	30	133	3,3	1272	700
14830	PRIMA LED Ex 1.5ft PCc 4000/840	55	4000	3640	27	135	4,1	1572	940
14840	PRIMA LED Ex 1.5ft PCc 5500/840	55	5500	5010	37	135	4,2	1572	940
14850	PRIMA LED Ex 2.4ft PCc 6400/840	55	6400	5820	42	139	3,4	1272	700
14860	PRIMA LED Ex 2.4ft PCc 8800/840	55	8800	8010	58	138	3,5	1272	700
14870	PRIMA LED Ex 2.5ft PCc 8000/840	55	8000	7280	53	137	4,3	1572	940
14880	PRIMA LED Ex 2.5ft PCc 11000/840	55	11000	10010	71	141	4,4	1572	940

	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	Version with emergency back-up source M1h, M3h								
	PRIMA LED Ex 1.4ft PCc 3200/840 Mxh	50	3200	2910	22	132	3,7	1272	700
	PRIMA LED Ex 1.4ft PCc 4400/840 Mxh	50	4400	4000	30	133	3,8	1272	700
	PRIMA LED Ex 1.5ft PCc 4000/840 Mxh	50	4000	3640	27	135	4,6	1572	940
	PRIMA LED Ex 1.5ft PCc 5500/840 Mxh	50	5500	5010	37	135	4,7	1572	940
	PRIMA LED Ex 2.4ft PCc 6400/840 Mxh	45	6400	5820	42	139	3,9	1272	700
	PRIMA LED Ex 2.4ft PCc 8800/840 Mxh	40	8800	8010	58	138	4,0	1272	700
	PRIMA LED Ex 2.5ft PCc 8000/840 Mxh	45	8000	7280	53	137	4,8	1572	940
	PRIMA LED Ex 2.5ft PCc 11000/840 Mxh	40	11000	10010	71	141	4,9	1572	940

14810 PRIMA LED Ex 1.4ft PCc 3200/840 = suitable replacement for PRIMA Ex 136 PCc E – 1×36 W
14830 PRIMA LED Ex 1.5ft PCc 4000/840 = suitable replacement for PRIMA Ex 158 PCc E – 1×58 W
14850 PRIMA LED Ex 2.4ft PCc 6400/840 = suitable replacement for PRIMA Ex 236 PCc E – 2×36 W
14870 PRIMA LED Ex 2.5ft PCc 8000/840 = suitable replacement for PRIMA Ex 258 PCc E – 2×58 W

PRIMA LED Ex PCc

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
14810	PRIMA LED Ex 1.4ft PCc 3200/840	14811	14813	14814	14815	14817	14818
14820	PRIMA LED Ex 1.4ft PCc 4400/840	14821	14823	14824	14825	14827	14828
14830	PRIMA LED Ex 1.5ft PCc 4000/840	14831	14833	14834	14835	14837	14838
14840	PRIMA LED Ex 1.5ft PCc 5500/840	14841	14843	14844	14845	14847	14848
14850	PRIMA LED Ex 2.4ft PCc 6400/840	14851	14853	14854	14855	14857	14858
14860	PRIMA LED Ex 2.4ft PCc 8800/840	14861	14863	14864	14865	14867	14868
14870	PRIMA LED Ex 2.5ft PCc 8000/840	14871	14873	14874	14875	14877	14878
14880	PRIMA LED Ex 2.5ft PCc 11000/840	14881	14883	14884	14885	14887	14888

Example of type marking: 14853 = PRIMA LED Ex 2.4ft PCc 6400/840 **3F**

PRIMA LED Ex PCc DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
14910	PRIMA LED Ex 1.4ft PCc 3200/840 DALI	14911	14913	14914	14915	14917	14918
14920	PRIMA LED Ex 1.4ft PCc 4400/840 DALI	14921	14923	14924	14925	14927	14928
14930	PRIMA LED Ex 1.5ft PCc 4000/840 DALI	14931	14933	14934	14935	14937	14938
14940	PRIMA LED Ex 1.5ft PCc 5500/840 DALI	14941	14943	14944	14945	14947	14948
14950	PRIMA LED Ex 2.4ft PCc 6400/840 DALI	14951	14953	14954	14955	14957	14958
14960	PRIMA LED Ex 2.4ft PCc 8800/840 DALI	14961	14963	14964	14965	14967	14968
14970	PRIMA LED Ex 2.5ft PCc 8000/840 DALI	14971	14973	14974	14975	14977	14978
14980	PRIMA LED Ex 2.5ft PCc 11000/840 DALI	14981	14983	14984	14985	14987	14988

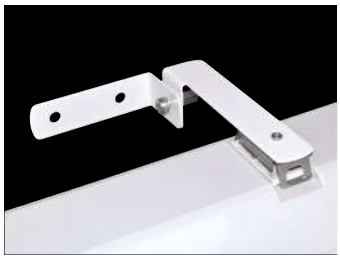
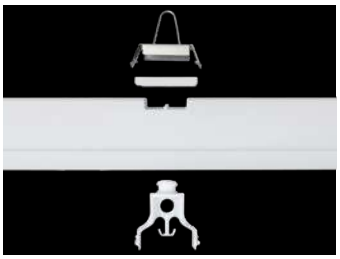
LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

PRIMA LED Ex

ATEX CERTIFICATE

PRIMA LED Ex

ATEX CERTIFICATE

PRIMA LED Ex Mxh

EAC CERTIFICATE

PRIMA LED Ex

PRIMA LED TUBE

... dustproof, waterproof and impact-resistant.

USE

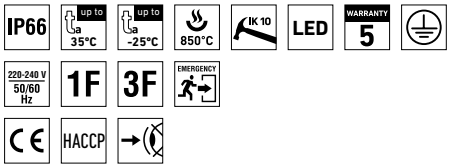
The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals and utility structures without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have the increased resistance against deformation and impact.

(It is necessary to consider exhalation in the air which can reduce the usability of the plastic at installations in an aggressive environment, see also page 263).

ADVANTAGES

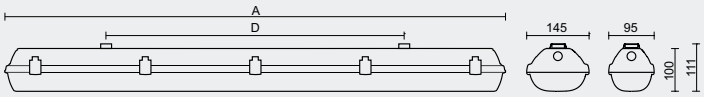
- Light fitting protection **IP66**
- Diffuser: transparent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Constant luminous flux even in ambient temperature of -25 °C
- Through-wiring of up to 10 wires at bodies of 2x120 and 2x150 type light fittings
- It can be delivered in emergency version

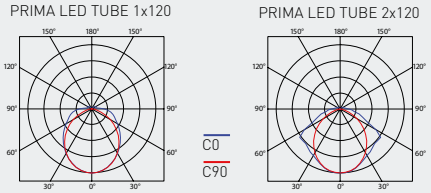


PRIMA LED TUBE PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 146 lm/W
- The watt and lumen values can vary by ± 7,5 %
- MacAdam = 3 SDCM
- Diffuser: transparent polycarbonate (PC), UV stable, impact-resistant
- Body: grey polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: rubber (SBS)
- Distance part: polyamide + 10 % glass fibre
- Terminal block: screwless, three-pole (basic version)
- Installation: package contains stainless hooks and stainless brackets
- Electric equipment: for LED tubes Osram ST8A 4000 K, 6500 K; lampholder G13





Code	Type	Luminous flux of LED modules [lm]*	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 35 °C - body: grey polycarbonate - diffuser: transparent polycarbonate - lampholder G13							
37510	PRIMA LED TUBE 1x60 PC	1100*	1063	7,3	146	0,8	662	350
37520	PRIMA LED TUBE 1x120 PC	2100*	2028	14	145	1,7	1272	700
37530	PRIMA LED TUBE 1x150 PC	3100*	2995	20,6	145	1,9	1572	940
37540	PRIMA LED TUBE 2x60 PC	2200*	2025	14,6	139	1,1	662	350
37550	PRIMA LED TUBE 2x120 PC	4200*	3850	28	138	2,1	1272	700
37560	PRIMA LED TUBE 2x150 PC	6200*	5665	41,2	138	2,5	1572	940

* - total luminous flux of the light fitting with Osram ST8A sources

PRIMA LED TUBE PC

For LED tubes Osram ST8A - plastic clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
37510	PRIMA LED TUBE 1x60 PC	37511	37513	x	x	x	x
37520	PRIMA LED TUBE 1x120 PC	37521	37523	x	x	x	x
37530	PRIMA LED TUBE 1x150 PC	37531	37533	x	x	x	x
37540	PRIMA LED TUBE 2x60 PC	37541	37543	37544	37545	37546	37547
37550	PRIMA LED TUBE 2x120 PC	37551	37553	37554	37555	37556	37557
37560	PRIMA LED TUBE 2x150 PC	37561	37563	37564	37565	37566	37567

PRIMA LED TUBE PCc

For LED tubes Osram ST8A - stainless clips (c)

37610	PRIMA LED TUBE 1x60 PCc	37611	37613	x	x	x	x
37620	PRIMA LED TUBE 1x120 PCc	37621	37623	x	x	x	x
37630	PRIMA LED TUBE 1x150 PCc	37631	37633	x	x	x	x
37640	PRIMA LED TUBE 2x60 PCc	37641	37643	37644	37645	37646	37647
37650	PRIMA LED TUBE 2x120 PCc	37651	37653	37654	37655	37656	37657
37660	PRIMA LED TUBE 2x150 PCc	37661	37663	37664	37665	37666	37667

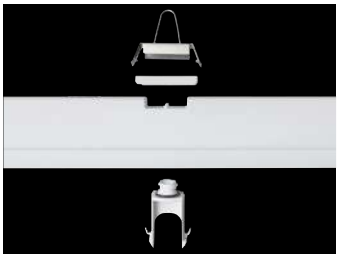
Example of type marking: 37653 = PRIMA LED TUBE 2x120 PCc **3F**

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire
(L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks
c) Attachment with the use of side hangers to the wall



LIGHT FITTING DETAILED VIEW

PRIMA LED TUBE

BZ – side hanger

It serves to attach the light fitting to the wall with the possibility of its positioning.

Code	Type	Description	Weight [kg]
90002	BZ	side hanger with blocking (set for 1 light fitting)	0,4

Canalis busbar system connector

The connector enables a quick 1 phase or 3 phase interconnection of light fittings without their opening.

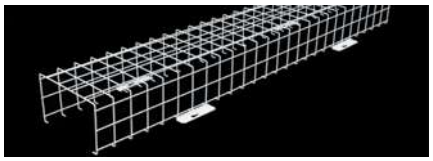
Code	Type	Description	Weight [kg]
79001	KBA 40 ZU	light fitting suspended holder - Canalis KBA system	0,1
70002	KBC 10 CC211	connector with 1 m cable - Canalis KBA system	0,2

Stucchi or Wieland connector

The connector enables a quick 1 phase or 3 phase interconnection of light fittings without their opening.

OM – protective grid

The metal grid protects the light fitting against mechanical damage and unauthorised handling. It is attached to the surface with the use of screws.
The surface is treated with the RAL 9003 powder-coated colour.



Code	Type	Description	Weight [kg]
11941	OM 218	protective grid for types 218, 214/224, x.2ft (700 × 220 × 130 mm)	1,0
11942	OM 236	protective grid for types 236, 228/254, x.4ft (1300 × 220 × 130 mm)	1,7
11943	OM 258	protective grid for types 258, 235/249/280, x.5ft (1600 × 220 × 130 mm)	2,0

DOWN
15

CONCEPT RED

... for cow barns, chemically resistant.

USE

Light fixtures fitted with our special red light producing LED module are primarily designed to be used in **cattle farms**. The benefit of this specific colour is it does not disturb or interrupt the sleep cycles of the animals while making it possible for workers to access and move around the facility comfortably and to perform their duties.

The light fittings feature a white light producing LED module to be used during the day and a red light producing LED module to be used at night.

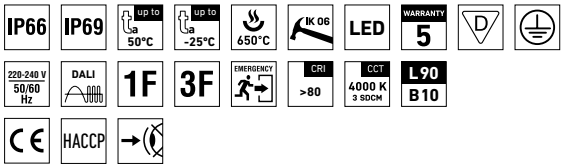
Our INNOVA, PRIMA LED, and FUTURA-range luminaires may be fitted with this module.

The light fixtures withstand exposure to chemically aggressive environments (ammonia in the air) typical of livestock farms.

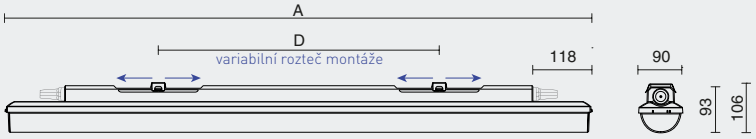
The body made of ABS and the diffuser made of AC have increased chemical resistance.

In addition to being protected against dust and humidity (IP66), the fixtures boast excellent thermal resistance, withstanding temperatures up to 50 °C.

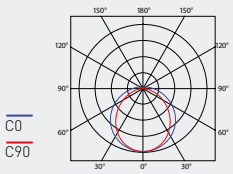
IP69-rated, our INNOVA-range fittings may be washed using hot water (up to 80 °C).



Our INNOVA luminaires may be fitted with this module.



INNOVA 1.5ft RED



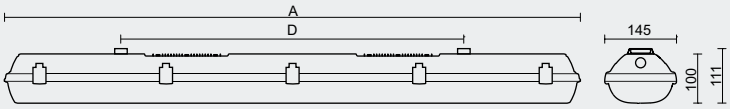
Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
EXAMPLE								
INNOVA 1.5ft ABS 4000/840	50	4000	3570	27	132	1,8	1455	700-980
INNOVA 1.5ft ABS 4000/840 RED	50	4000 +620	3570 +550	27 +12	132 +45	2,0	1455	700-980

INNOVA ABS

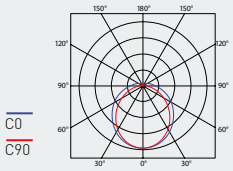
Plastic clips

Typ	RED	DALI RED	DALI 1F RED	3F RED	DALI 3F RED
INNOVA 1.4ft ABS 2600/840...	56420	56440	56421	56441	56442
INNOVA 1.4ft ABS 3200/840...	56422	56443	56423	56444	56445
INNOVA 1.4ft ABS 4400/840...	56424	56446	56425	56447	56448
INNOVA 1.4ft ABS 6400/840...	56426	56449	56427	56450	56451
INNOVA 1.4ft ABS 8800/840...	x	x	x	x	x
INNOVA 1.5ft ABS 3250/840...	56430	56455	56431	56456	56457
INNOVA 1.5ft ABS 4000/840...	56432	56458	56433	56459	56460
INNOVA 1.5ft ABS 5500/840...	56434	56461	56435	56462	56463
INNOVA 1.5ft ABS 8000/840...	56436	56464	56437	56465	56466
INNOVA 1.5ft ABS 11000/840...	x	x	x	x	x

Our FUTURA luminaires may be fitted with this module.



FUTURA 2.5ft RED



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
EXAMPLE								
FUTURA 2.5ft ABS 11000/840	45	11000	9620	71	135	3,9	1452	940
FUTURA 2.5ft ABS 11000/840 RED	45	11000 +620	9620 +550	71 +12	135 +45	4,1	1452	940

FUTURA ABS

Plastic clips

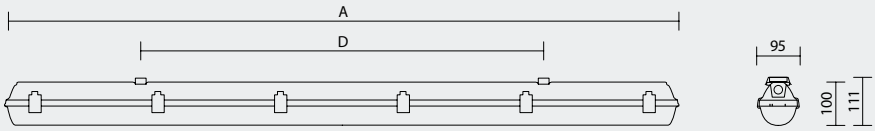
Code	Typ	RED	DALI RED	DALI 1F RED	3F RED	DALI 3F RED
77010	FUTURA 2.2ft ABS Al 2600/840	56200	56244	x	x	x
77020	FUTURA 2.2ft ABS Al 3200/840	56202	56247	x	x	x
77030	FUTURA 2.2ft ABS Al 4400/840	56204	56250	x	x	x
77040	FUTURA 2.4ft ABS Al 5200/840	56206	56253	56254	56207	56255
77050	FUTURA 2.4ft ABS Al 6400/840	56208	56256	56257	56209	56258
77060	FUTURA 2.4ft ABS Al 8800/840	56210	56259	56260	56211	56261
77410	FUTURA 2.4ft ABS Al 12800/840	56212	56262	56263	56213	56264
77070	FUTURA 2.5ft ABS Al 6500/840	56214	56265	56266	56215	56267
77080	FUTURA 2.5ft ABS Al 8000/840	56216	56268	56269	56217	56270
77090	FUTURA 2.5ft ABS Al 11000/840	56218	56271	56272	56219	56273
77420	FUTURA 2.5ft ABS Al 16000/840	56220	56274	56275	56221	56276

FUTURA ABSc

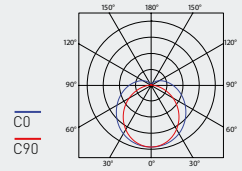
Stainless clips (c)

77210	FUTURA 2.2ft ABSc Al 2600/840	56222	56277	x	x	x
77220	FUTURA 2.2ft ABSc Al 3200/840	56224	56280	x	x	x
77230	FUTURA 2.2ft ABSc Al 4400/840	56226	56283	x	x	x
77240	FUTURA 2.4ft ABSc Al 5200/840	56228	56286	56287	56229	56288
77250	FUTURA 2.4ft ABSc Al 6400/840	56230	56289	56290	56231	56400
77260	FUTURA 2.4ft ABSc Al 8800/840	56232	56401	56402	56233	56403
77430	FUTURA 2.4ft ABSc Al 12800/840	56234	56404	56405	56235	56406
77270	FUTURA 2.5ft ABSc Al 6500/840	56236	56407	56408	56237	56409
77280	FUTURA 2.5ft ABSc Al 8000/840	56238	56410	56411	56239	56412
77290	FUTURA 2.5ft ABSc Al 11000/840	56240	56413	56414	56241	56415
77440	FUTURA 2.5ft ABSc Al 16000/840	56242	56416	56417	56243	56418

Our PRIMA LED luminaires may be fitted with this module.



PRIMA LED 1.5ft RED



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
EXAMPLE								
PRIMA LED 1.5ft ABS 5500/840	40	5500	4940	37	134	2,3	1572	940
PRIMA LED 1.5ft ABS 5500/840 RED	40	5500 +620	4940 +550	37 +12	134 +45	2,3	1572	940

PRIMA LED ABS

Plastic clips

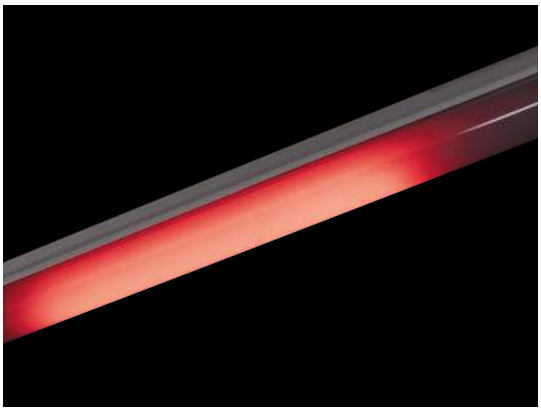
Code	Type	RED	DALI RED	DALI 1F RED	3F RED	DALI 3F RED
67010	PRIMA LED 1.2ft ABS 1300/840	x	x	x	x	x
67020	PRIMA LED 1.2ft ABS 1600/840	x	x	x	x	x
67030	PRIMA LED 1.2ft ABS 2200/840	x	x	x	x	x
67040	PRIMA LED 1.4ft ABS 2600/840	56100	56132	56133	56101	56134
67050	PRIMA LED 1.4ft ABS 3200/840	56102	56135	56136	56103	56137
67060	PRIMA LED 1.4ft ABS 4400/840	56104	56138	56139	56105	56140
67460	PRIMA LED 1.4ft ABS 6400/840	56106	56141	56142	56107	56143
67070	PRIMA LED 1.5ft ABS 3250/840	56108	56144	56145	56109	56146
67080	PRIMA LED 1.5ft ABS 4000/840	56110	56147	56148	56111	56149
67090	PRIMA LED 1.5ft ABS 5500/840	56112	56150	56151	56113	56152
67490	PRIMA LED 1.5ft ABS 8000/840	56114	56153	56154	56115	56155

PRIMA LED ABSc

Stainless clips (c)

67210	PRIMA LED 1.2ft ABSc 1300/840	x	x	x	x	x
67220	PRIMA LED 1.2ft ABSc 1600/840	x	x	x	x	x
67230	PRIMA LED 1.2ft ABSc 2200/840	x	x	x	x	x
67240	PRIMA LED 1.4ft ABSc 2600/840	56116	56156	56157	56117	56158
67250	PRIMA LED 1.4ft ABSc 3200/840	56118	56159	56160	56119	56161
67260	PRIMA LED 1.4ft ABSc 4400/840	56120	56162	56163	56121	56164
67760	PRIMA LED 1.4ft ABSc 6400/840	56122	56165	56166	56123	56167
67270	PRIMA LED 1.5ft ABSc 3250/840	56124	56168	56169	56125	56170
67280	PRIMA LED 1.5ft ABSc 4000/840	56126	56171	56172	56127	56173
67290	PRIMA LED 1.5ft ABSc 5500/840	56128	56174	56175	56129	56176
67790	PRIMA LED 1.5ft ABSc 8000/840	56130	56177	56178	56131	56179

LUMINAIRES FITTED WITH A RED LIGHT MODULE – DEMO



CONCEPT
TUNABLE WHITE (TW)

... to boost circadian rhythms.

USE

The fixture is a perfect choice for a variety of spaces such as offices, hospitals, industrial buildings, and livestock farms.

The light fitting boosts **natural circadian rhythms. These rhythms ensure proper timing of all the processes in the body as well as coordinate various activities of the organs**. It is these that make body temperature, blood pressure, alertness, attention, energy consumption, and digestive and immune system activity fluctuate.

The module allows users to adjust both correlated colour temperature (CCT) from warm to cool white (**2,700 K – 6,500 K**) and lighting intensity (dimming).

Dimming is controlled using a Digital Addressable Lighting Interface (DALI). The dimming function may be incorporated in an automated system or user-controlled on an as-needed basis.

Please, consider the emissions that the fitting installed in a chemically aggressive environment is exposed to as these may compromise the usability of plastic.

ADVANTAGES

- Lifetime: 50,000 hours / L80B10
- In the DALI design, constant luminous flux for the whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- It can be delivered in emergency version

CRI > 80

Type	Luminous flux of LED modules [lm]	Power consumption [W]
CRI > 80		
Luminaire 1.2ft TW xx 2200/827-865	2200	16
Luminaire 1.4ft TW xx 4400/827-865	4400	31
Luminaire 1.5ft TW xx 5500/827-865	5500	39
Luminaire 2.2ft TW xx 4400/827-865	4400	31
Luminaire 2.4ft TW xx 8800/827-865	8800	62
Luminaire 2.5ft TW xx 11000/827-865	11000	78

Example: PRIMA LED 1.5ft TW PC 5500/827-865

CRI > 90

Type	Luminous flux of LED modules [lm]	Power consumption [W]
CRI > 90		
Luminaire 1.2ft TW xx 3200/927-965	3200	29
Luminaire 1.4ft TW xx 6400/927-965	6400	49
Luminaire 1.5ft TW xx 8000/927-965	8000	60

Example: NAOS 1.2ft TW 3200/927-965

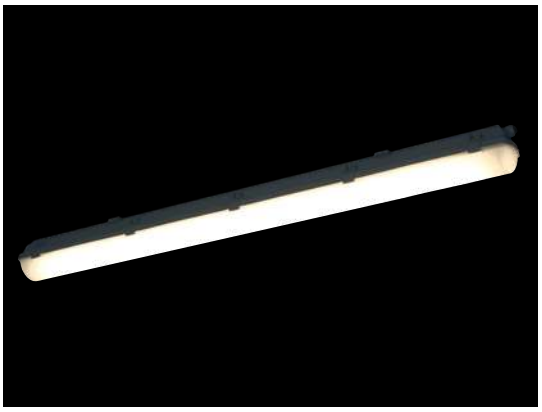
LEGEND

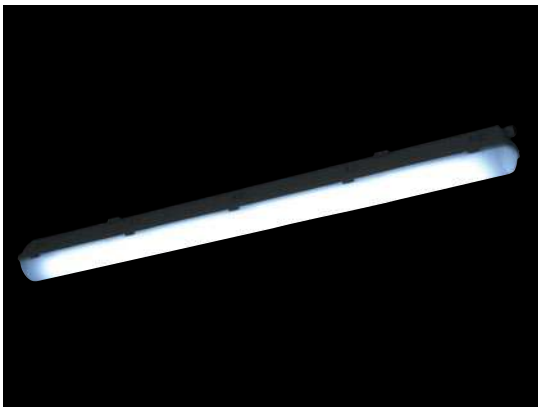
xx – materials (PC, ABS, applicable for the luminaires INNOVA, FUTURA and PRIMA LED)

The TW modules can be installed in a family of linear luminaires:

INNOVA example: INNOVA 1.4 TW ABS 6400/927-965
FUTURA example: FUTURA 2.5ft TW PC 11000/827-865
PRIMA LED example: PRIMA LED 1.4ft TW PC 4400/827-865
PERUN SLIM example: PERUN SLIM 1.5ft TW 8000/927-965
ALUMAX LED example: ALUMAX LED 2.4ft TW 8800/827-865
LINEA example: LINEA 1.4ft TW 4400/827-865
BELTR LED example: BELTR LED 2.2ft TW 4400/827-865
NAOS example: NAOS 2.4ft TW 8800/827-865

LUMINAIRES FITTED WITH A TUNABLE WHITE LIGHT MODULE – DEMO





TUNNEL STAR

INDUSTRIAL

STAINLESS

DUSTPROOF

WATERPROOF

TUNNEL STAR – industrial metal LED light fitting suitable for tunnels

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IP65

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TUNNEL STAR

... stainless, dustproof, waterproof, for tunnels.

USE

The luminaire is suitable for tunnels, indoor and outdoor transport terminals and garages without the risk of explosion of gases, dust and flammable vapours.

The light fitting is resistant to deformation, dust and splashing water.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

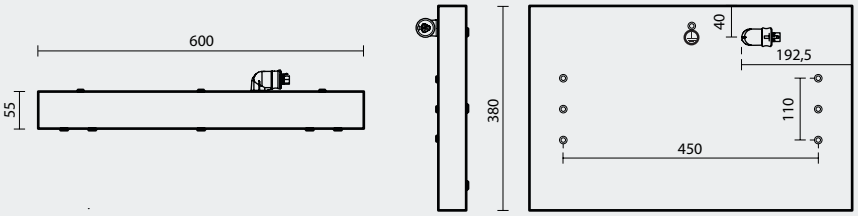
ADVANTAGES

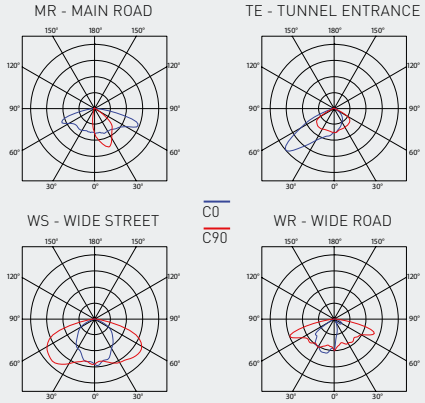
- Light fitting protection **IP65**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L80B10
- High mechanical robustness IK10
- Diffuser: transparent tempered safety glass
- Body: steel sheet grade AISI 304, or AISI 316Ti (sea water resistant)
- Possibility of delivery either in a deemed design
- In DALI version possibility of constant luminous flux for whole lifetime (CL0)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 70: 4000 K
- Optional optical luminaire system Main Road (MR), Tunnel Entrance (TE), Wide Street (WS), Wide Road (WR)

TUNNEL STAR

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C
- Maximum system efficacy: 137 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 70: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L80B10
- Diffuser: transparent tempered safety glass
- Possibility of delivery of the diffuser with a safety foil (SF)
- Body: steel sheet grade AISI 304, or AISI 316Ti (sea water resistant)
- Sealing: EPDM attached to light fitting body
- Terminal box: connection connector, 2 m cable
- External power box
- Installation: supplied with optional brackets
- Electric equipment: LED modules, current driver or current driver DALI





Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: transparent tempered safety glass					
TUNNEL STAR 10000/740 INOX 304	10000	8740	64	137	7,9
TUNNEL STAR 15000/740 INOX 304	15000	13110	96	137	8,0
TUNNEL STAR 20000/740 INOX 304	20000	17480	128	137	8,1
TUNNEL STAR 25000/740 INOX 304	25000	21490	168	128	8,1

Based on the requirements of a specific project, the following fittings can be supplied: TUNNEL STAR 40000/740 and TUNNEL STAR 50000/740

TUNNEL STAR INOX 304

Steel sheet grade AISI 304

Type	MR	TE	WS	WR
TUNNEL STAR 10000/740 INOX 304	62910	62911	62912	62913
TUNNEL STAR 15000/740 INOX 304	62920	62921	62922	62923
TUNNEL STAR 20000/740 INOX 304	62930	62931	62932	62933
TUNNEL STAR 25000/740 INOX 304	100159	100161	100228	100767

TUNNEL STAR INOX 316

Steel sheet grade AISI 316Ti

Type	MR	TE	WS	WR
TUNNEL STAR 10000/740 INOX 316	62950	62951	62952	62953
TUNNEL STAR 15000/740 INOX 316	62960	62961	62962	62963
TUNNEL STAR 20000/740 INOX 316	62970	62971	62972	62973
TUNNEL STAR 25000/740 INOX 316	100160	100227	100229	100768

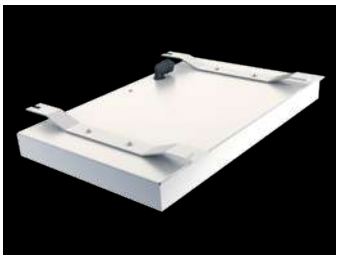
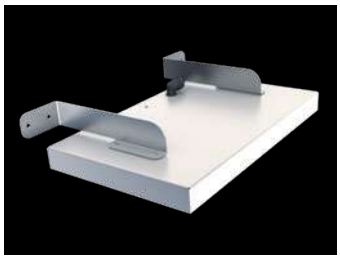
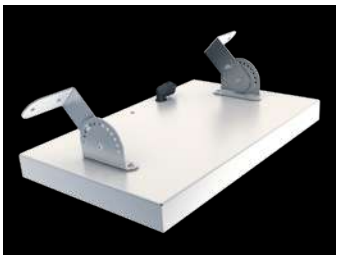
Example of type marking: 62960 = TUNNEL STAR MR 15000/740 INOX 316

LEGEND

MR - Main road – main communication streets
TE - Tunnel Entrance – tunnel entrances
WS - Wide street – for sidewalks and residential areas
WR - Wide road – for sidewalks and driveways

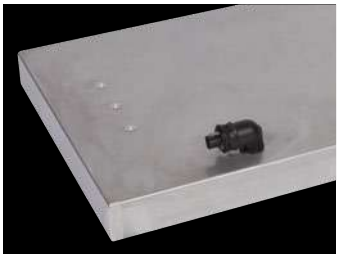
LIGHT FITTING ATTACHMENT

a) Holders directly on the ceiling
b) Side suspensions on the wall
c) Adjustable side suspensions on the wall
d) Holders on tube structures

LIGHT FITTING DETAILED VIEW

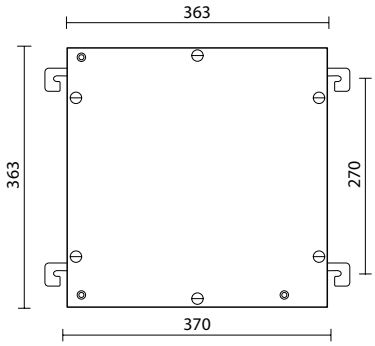
TUNNEL STAR

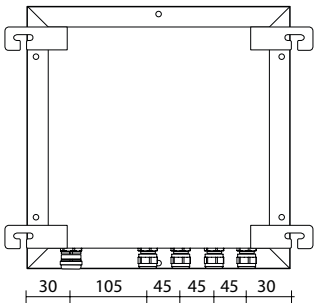


ACCESSORIES

Power boxes

Boxes for luminaire supply

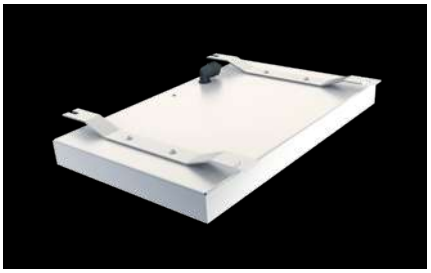




Code	Type	Description	Weight [kg]
62990	TUNNEL BOX 1 INOX 304	Box for luminaire supply 3 × 10000 including 2m cable with connectors	3,6
62976	TUNNEL BOX 1 INOX 316	Box for luminaire supply 3 × 10000 including 2m cable with connectors	3,6
62991	TUNNEL BOX 2 INOX 304	Box for luminaire supply 3 × 15000 including 2m cable with connector	3,2
62977	TUNNEL BOX 2 INOX 316	Box for luminaire supply 3 × 15000 including 2m cable with connector	3,2
62992	TUNNEL BOX 3 INOX 304	Box for luminaire supply 2 × 20000 including 2m cable with connector	3,5
62978	TUNNEL BOX 3 INOX 316	Box for luminaire supply 2 × 20000 including 2m cable with connector	3,5
101496	TUNNEL BOX 4 INOX 304	Box for luminaire supply 2 × 25000 including 2m cable with connector	3,5
101541	TUNNEL BOX 4 INOX 316	Box for luminaire supply 2 × 25000 including 2m cable with connector	3,5
62993	TUNNEL BOX 1 DALI INOX 304	Box for luminaire supply 3 × 10000 including 2m cable with connectors, with lighting regulation DALI	3,6
62979	TUNNEL BOX 1 DALI INOX 316	Box for luminaire supply 3 × 10000 including 2m cable with connectors, with lighting regulation DALI	3,6
62994	TUNNEL BOX 2 DALI INOX 304	Box for luminaire supply 3 × 15000 including 2m cable with connector, with lighting regulation DALI	3,2
62980	TUNNEL BOX 2 DALI INOX 316	Box for luminaire supply 3 × 15000 including 2m cable with connector, with lighting regulation DALI	3,2
62995	TUNNEL BOX 3 DALI INOX 304	Box for luminaire supply 2 × 20000 including 2m cable with connector, with lighting regulation DALI	3,5
62981	TUNNEL BOX 3 DALI INOX 316	Box for luminaire supply 2 × 20000 including 2m cable with connector, with lighting regulation DALI	3,5
101542	TUNNEL BOX 4 DALI INOX 304	Box for luminaire supply 2 × 25000 including 2m cable with connector, with lighting regulation DALI	3,5
101543	TUNNEL BOX 4 DALI INOX 316	Box for luminaire supply 2 × 25000 including 2m cable with connector, with lighting regulation DALI	3,5

Ceiling suspension

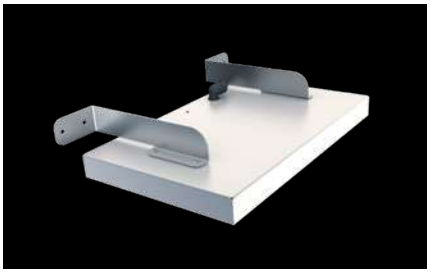
Serves for hanging the light fitting on the ceiling.



Code	Type	Description	Weight [kg]
62996	TUNNEL STAR holder 1 INOX 304	Stainless-steel holder for direct suspending on the ceiling. Holder - 2 ks, screw M6×16 - 4 pcs assembly.	0,9
62985	TUNNEL STAR holder 1 INOX 316	Stainless-steel holder for direct suspending on the ceiling. Holder - 2 ks, screw M6×16 - 4 pcs assembly.	0,9

Side suspension

Serves for firm fixation of the light fitting on the wall.



Code	Type	Description	Weight [kg]
62997	TUNNEL STAR holder 2 INOX 304	Stainless-steel holder for direct suspension on the wall. Holder - 2 pcs, screw M6×16 - 4 pcs for assembling	1,4
62986	TUNNEL STAR holder 2 INOX 316	Stainless-steel holder for direct suspension on the wall. Holder - 2 pcs, screw M6×16 - 4 pcs for assembling	1,4

Adjustable side suspension

Serves for hanging the light fitting on the wall, ceiling, sloped surfaces, and enables positioning the light fitting from 0 to 90°, with a step of 15°.

Code	Type	Description	Weight [kg]
62998	TUNNEL STAR holder 3 INOX 304	Stainless-steel holder for direct suspending on the wall or ceiling. Holder - 2 pcs, screw M6×16 - 8 pcs for assembling.	1,3
62987	TUNNEL STAR holder 3 INOX 316	Metal holder for direct suspending on the wall or ceiling. Holder - 2 pcs, screw M6×16 - 8 pcs for assembling.	1,3

Pipeline holder

Serves for suspending the light fitting to tube structures with a diameter of ¾" – 2" by means of pipeline clamps.

Code	Type	Description	Weight [kg]
62999	TUNNEL STAR holder 4 INOX 304	Stainless-steel - 2 pcs, screw M6×16 - 4 pcs, nut M8 - 4 pcs, washer 8.2 - 4 pcs, pipeline clamp ETR M8 - 2 pcs for assembling.	0,8
62988	TUNNEL STAR holder 4 INOX 316	Stainless-steel - 2 pcs, screw M6×16 - 4 pcs, nut M8 - 4 pcs, washer 8.2 - 4 pcs, pipeline clamp ETR M8 - 2 pcs for assembling.	0,8

TrEx

INDUSTRIAL

STEEL / INOX

DUSTPROOF

WATERPROOF

TrEx – industrial metal LED light fitting for the environment with a danger of explosion

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TrEx

... for explosion hazard environment group II, category 2 (zone 1, 21 and 2, 22).

USE

The metal light fitting with satinated tempered safety glass is suitable for environment with hazard of explosion of gases, vapours and dust for zones 1, 21 and 2,22. It meets the requirements of the European Community Directive No. 2014/34/EU. It is resistant against chemically aggressive environment, therefore it fits for industrial premises like chemical factories, plants for processing of gases and oil, power plants, army facilities, automotive factories, laboratories and other facilities of heavy and mechanical engineering. The light fitting in IP66 protection is resistant against dust and splashing water.

USE IN ENVIRONMENT WITH HAZARD OF EXPLOSION

AR19ATEX001 **AR20ATEX023**	Light fitting with disconnector	Ex II 2G Ex db eb mb op is IIC T4 Gb
	Light fitting Mxh with disconnector	Ex II 2D Ex tb IIIC T 68°C IP66 Db
	Light fitting without disconnector	Ex II 2G Ex eb mb op is IIC T4 Gb
	Light fitting Mxh without disconnector	Ex II 2D Ex tb IIIC T 68°C IP66 Db
AR19ATEX131U	Ex battery box HM 4Ah	Ex II 2GEx d IIC T4 Gb
TÜV CY 20 ATEX 0206368 U	Ex disconnector OT 2A-2C Ex d	Ex II 2G Ex db IIC Gb

The basic requirements for safety and health protection are secured by verification of conformity with EN 60079-0, EN 60079-7, EN 60079-18, EN 60079-1, EN 60079-28 and EN 60079-31.

ADVANTAGES

- Light fitting protection **IP66**
- High temperature resistance on a range from **t_a = -40 °C to t_a = 55 °C**
- For hazardous areas of zones 1, 21 and 2, 22
- Lifetime: 75 000 hours / L80B50 at t_a = 55°C, 110 000 hours / L70B50 at t_a = 55°C
- Cable glands: plastic ATEX M20 × 1,5, or metallic (INOX version on request)
- Wide fixing options including recessed frame for false ceiling
- Up to 45 % lower power consumption as compared to fluorescent tubes
- Constant luminous flux even at ambient temperature of -40 °C
- Standard model CRI > 80: 4000 K, at request CRI > 80: 6000 K
- Optional through-wiring of up to 7 wires at reflector

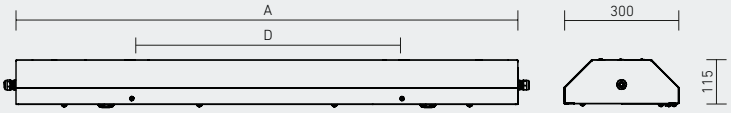
TrEx

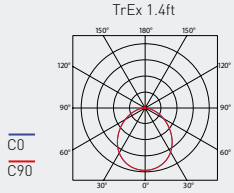
TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Minimum ambient temperature: t_a = -40 °C
- Maximum ambient temperature: t_a = 55 °C
- Ambient temperature: t_a = 0 – 40 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 107 lm/W
- CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 75 000 hours / L80B50 at t_a = 55 °C, 110 000 hours / L70B50 at t_a = 55°C
- Body: powder coated steel sheet RAL 9003, or INOX (AISI 304)
- Diffuser: satinated tempered safety glass
- Sealing: glued EPDM
- Cable glands: plastic ATEX M20 × 1,5, or metallic (INOX version on request)
- Terminal block: ATEX, screwless WAGO, Cable cross-section max: 4 mm²
- Installation: the package includes suspensory eyes 2 × M6
- Electric equipment: LED modules, current driver, disconnector and Ex battery box with ATEX certificate
- The watt and lumen values can vary by ± 7,5 %

AT REQUEST

- CRI > 80: 6000 K
- Halogen-free wires
- Design modification for fixing and connecting in the false ceiling
- Diffuser: transparent tempered safety glass
- Cable glands: metal or armoured ATEX cable glands M20 × 1,5 or M25 × 1,5
- Increased number of cable entries on sides and in upper part of light fitting if recessed frame for false ceiling mounted





Type	Min. and max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
Light fitting without a battery system								
TrEx 1.2ft 2500/840	-40°≤Ta≤+55°	3070	2570	24	107	8,3	730	350
TrEx 1.4ft 5000/840	-40°≤Ta≤+55°	6150	5020	48	105	13,2	1300	700
TrEx 2.2ft 5000/840	-40°≤Ta≤+50°	6150	5150	48	107	8,9	730	350
TrEx 2.4ft 10000/840	-40°≤Ta≤+50°	12300	10050	96	105	15,0	1300	700

Type	Min. and max. ambient temperature [°C]	Emergency light fluxof light fitting 1h [lm]	Emergency light fluxof light fitting 3h [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
EM emergency lighting kit						
TrEx 1.2ft 2500/840 Mxh	0°≤Ta≤+40°	375	250	2	NiCd HT	+1,3
TrEx 1.4ft 5000/840 Mxh	0°≤Ta≤+40°	550	300	2	NiCd HT	+1,3
TrEx 2.2ft 5000/840 Mxh	0°≤Ta≤+40°	550	300	2	NiCd HT	+1,3
TrEx 2.4ft 10000/840 Mxh	0°≤Ta≤+40°	550	300	2	NiCd HT	+1,3

TrEx DIS

Light fitting with disconnector

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
62610	TrEx 1.2ft 2500/840 DIS	62611	62613	62614	62615	62616	62617
62620	TrEx 1.4ft 5000/840 DIS	62621	62623	62624	62625	62626	62627
62630	TrEx 2.2ft 5000/840 DIS	62631	62633	62634	62635	62636	62637
62640	TrEx 2.4ft 10000/840 DIS	62641	62643	62644	62645	62646	62647

TrEx

Light fitting without disconnector

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
62650	TrEx 1.2ft 2500/840	62651	62653	62654	62655	62656	62657
62660	TrEx 1.4ft 5000/840	62661	62663	62664	62665	62666	62667
62670	TrEx 2.2ft 5000/840	62671	62673	62674	62675	62676	62677
62680	TrEx 2.4ft 10000/840	62681	62683	62684	62685	62686	62687

TrEx DIS INOX

Light fitting with disconnector, body steel sheet grade AISI 304

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
62510	TrEx 1.2ft 2500/840 DIS INOX	62511	62513	62514	62515	62516	62517
62520	TrEx 1.4ft 5000/840 DIS INOX	62521	62523	62524	62525	62526	62527
62530	TrEx 2.2ft 5000/840 DIS INOX	62531	62533	62534	62535	62536	62537
62540	TrEx 2.4ft 10000/840 DIS INOX	62541	62543	62544	62545	62546	62547

TrEx INOX

Light fitting without disconnector, body steel sheet grade AISI 304

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
62550	TrEx 1.2ft 2500/840 INOX	62551	62553	62554	62555	62556	62557
62560	TrEx 1.4ft 5000/840 INOX	62561	62563	62564	62565	62566	62567
62570	TrEx 2.2ft 5000/840 INOX	62571	62573	62574	62575	62576	62577
62580	TrEx 2.4ft 10000/840 INOX	62581	62583	62584	62585	62586	62587

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire
(L3 used for emergency unit unswitched power supply)

DIS – light fitting with disconnector

CERTIFICATION

AR19ATEX001, AR20ATEX023 - TrEx, TrEx Mxh

Directive		Standards
2014/34/EU	ATEX	EN 60079-0:2012 + A11:2013
		EN IEC 60079-0:2018
		EN 60079-1:2014
		EN 60079-7:2015
		EN 60079-18:2015
		EN 60079-28:2015
		EN 60079-31:2014
2014/35/EU	General requirements and standards	EN 60598-1:2015
		EN 60598-2-1:89
		EN 62471:2008
		EN 55015:2013
		EN 60598-2-22:2014
		EN 61547:2009
		EN 61000-3-2:14
		EN 61000-3-3:13
2011/65/EN	RoHS	EN 50581:2012

AR19ATEX131U - Ex battery box HM4Ah

Directive		Standards
2014/34/EU	ATEX	EN IEC 60079-0:2018
		EN 60079-1:2014

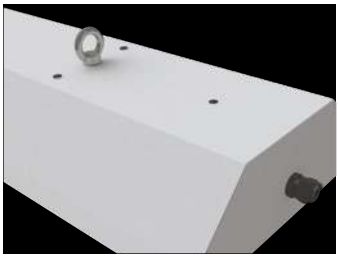
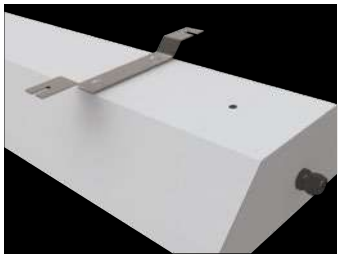
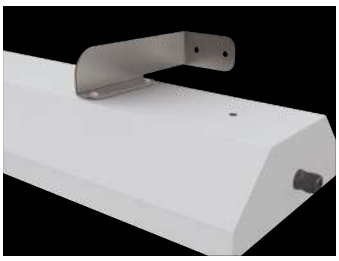
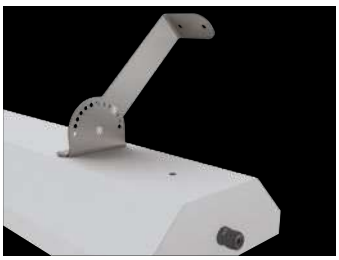
TÜV CY 20 ATEX 0206368 U - Ex disconnector OT 2A-2C Ex d

Directive		Standards
2014/34/EU	ATEX	EN IEC 60079-0:2018
		EN 60079-1:2014

	Identification of external influences	Classification of spaces	
		Identification	Establishment regulation
Hazard of explosion of flammable dust	BE3N1	ZONE 21, 22	EN 60079-17
			EN 60079-14
			EN 60079-10-2
Hazard of explosion of flammable gases and vapours	BE3N2	ZONE 1, 2	EN 60079-10-1
			EN 60079-14
			EN 60079-17

LIGHT FITTING ATTACHMENT

a) Suspension eyes 2 × M6 - in standard model
b) Holders directly on the ceiling
c) Side suspensions on the wall
d) Adjustable side suspensions on the wall
e) Recessed frame for false ceiling
f) Holders on tube structures

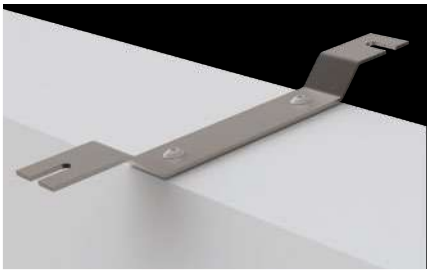





LIGHT FITTING DETAILED VIEW

TrEx

Ceiling suspension

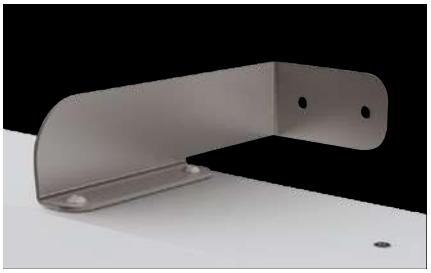
Serves for hanging the light fitting on the ceiling.



Code	Type	Description	Weight [kg]
62694	TrEx suspension 3	Metal holder for direct suspending on the ceiling. Holder - 2 pcs, screw M6×16 - 4 pcs assembly.	0,6
62695	TrEx suspension 3 INOX	Stainless-steel holder for direct suspending on the ceiling. Holder - 2 pcs, screw M6×16 - 4 pcs for assembling.	0,6

Side suspension

Serves for firm fixation of the light fitting on the wall.



Code	Type	Description	Weight [kg]
62690	TrEx suspension 1	Metal holder for direct suspension on the wall. Holder - 2 pcs, screw M6×16 - 4 pcs for assembling	1,4
62691	TrEx suspension 1 INOX	Stainless-steel holder for direct suspension on the wall. Holder - 2 pcs, screw M6×16 - 4 pcs for assembling	1,4

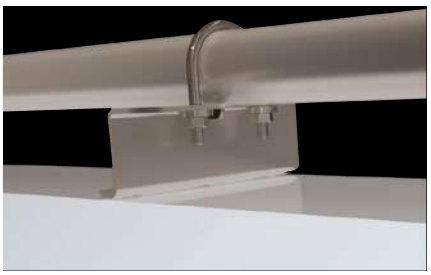
Adjustable side suspension

Serves for hanging the light fitting on the wall, ceiling, sloped surfaces, and enables positioning the light fitting from 0 to 90°, with a step of 15°.

Code	Type	Description	Weight [kg]
62692	TrEx suspension 2	Metal holder for direct suspending on the wall or ceiling. Holder - 2 pcs, screw M6×16 - 8 pcs for assembling.	1,5
62693	TrEx suspension 2 INOX	Stainless-steel holder for direct suspending on the wall and ceiling. Holder - 2 pcs, screw M6×16 - 8 pcs for assembling.	1,5

Pipeline holder

Serves for suspending the light fitting to tube structures with a diameter of ¾" – 2" by means of pipeline clamps.



Code	Type	Description	Weight [kg]
62696	TrEx holder	Metal holder for direct suspending on the tube structures. Holder - 2 pcs, screw M6×16 - 4 pcs, nut M8 - 4 pcs, washer 8.2 - 4 pcs, pipeline clamp ETR M8 - 2 pcs for assembling.	0,8
62697	TrEx holder INOX	Stainless-steel holder for direct suspending to tube structures. Holder - 2 pcs, screw M6×16 - 4 pcs, nut M8 - 4 pcs, washer 8.2 - 4 pcs, pipeline clamp ETR M8 - 2 pcs for assembling.	0,8

Recessed frame for false ceiling

Serves for fixing the light fitting into the false ceiling by means of a recessed frame and modified customize body.

Type	Description
TrEx fixture body with a frame	Raster ceiling mounted fixture body, frame, screw M6×16 - 4 pcs, screw M6×60 - 4 pcs, washer 6,2 - 4 pcs, suspension M6 for plasterboard - 4 pcs for assembling.

Please, contact our sales representative to order a raster ceiling mounted fixture body with a frame.

SAÍDA

PERUN SLIM

INDUSTRIAL

STAINLESS

DUSTPROOF

WATERPROOF

PERUN SLIM – industrial metal LED light fitting

PERUN SLIM
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IP65

PERUN SLIM
page 134

PERUN HORTI
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IP65

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PERUN SLIM

... stainless, dustproof, waterproof.

USE

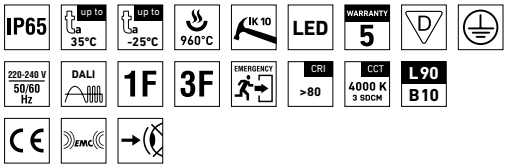
The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, garages, workshops, sports areas, transport terminals, utility structures, agricultural operations and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to deformation, dust, spouting water and have increased chemical resistance.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

ADVANTAGES

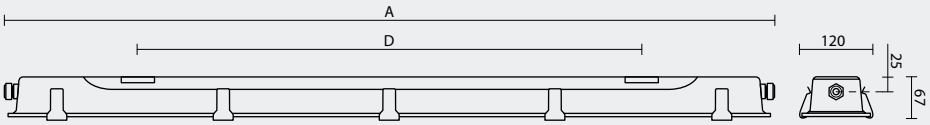
- Light fitting protection **IP65**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- High chemical and mechanical robustness IK10
- Diffuser: polished thermally toughened safety glass
- Body: stainless sheet
- Up to 45 % lower electricity consumption when compared to tubes T5
- It can be delivered in dimmable or permanent emergency version M1h and M3hAt
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K



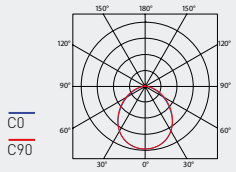
PERUN SLIM

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C with a back-up power supply M1h, M3hAt
- Maximum system efficacy: 121 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: polished thermally toughened safety glass, shock-resistant, chemically resistant
- Possibility of delivery of the diffuser with a safety foil (SF)
- Possibility of delivery of an EM kit M1h with battery autotesting
- Body: stainless sheet, impact-resistant, chemically resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: stainless
- Sealing: silicone, at light fitting body
- Cable glands: PG 13.5 brass with surface treatment
- Terminal block: screwless, three-pole (basic version)
- The package includes: stainless hooks and stainless brackets
- Electric equipment: LED modules, current driver or current driver DALI



PERUN SLIM 1.4ft



Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	Body: stainless steel - diffuser: polished thermally toughened safety glass							
86710	PERUN SLIM 1.2ft 1300/840	1300	1040	9	115	2,4	680	360
86720	PERUN SLIM 1.2ft 1600/840	1600	1280	11	116	2,4	680	360
86730	PERUN SLIM 1.2ft 2200/840	2200	1760	15	117	2,4	680	360
86740	PERUN SLIM 1.4ft 2600/840	2600	2090	18	116	4,3	1290	850
86750	PERUN SLIM 1.4ft 3200/840	3200	2580	22	117	4,3	1290	850
86760	PERUN SLIM 1.4ft 4400/840	4400	3540	30	118	4,3	1290	850
86770	PERUN SLIM 1.4ft 6400/840	6400	5100	43	119	4,3	1290	850
86780	PERUN SLIM 1.5ft 3250/840	3250	2540	22	115	5,3	1600	1050
86790	PERUN SLIM 1.5ft 4000/840	4000	3190	27	118	5,3	1600	1050
86800	PERUN SLIM 1.5ft 5500/840	5500	4460	37	121	5,3	1600	1050
86810	PERUN SLIM 1.5ft 8000/840	8000	6410	54	119	5,3	1600	1050

86720 PERUN SLIM 1.2ft 1600/840 = suitable replacement for T8 fl. tube light fitting PERUN 118 – 1×18 W
86750 PERUN SLIM 1.4ft 3200/840 = suitable replacement for T8 fl. tube light fitting PERUN 136 – 1×36 W
86770 PERUN SLIM 1.4ft 6400/840 = suitable replacement for T8 fl. tube light fitting PERUN 236 – 2×36 W
86790 PERUN SLIM 1.5ft 4000/840 = suitable replacement for T8 fl. tube light fitting PERUN 158 – 1×58 W
86810 PERUN SLIM 1.5ft 8000/840 = suitable replacement for T8 fl. tube light fitting PERUN 258 – 2×58 W

PERUN SLIM

Non-dimmable driver, diffuser: polished thermally toughened safety glass

Code	Type	1F	3F	M1h	M3hAt	3F M1h	3F M3hAt
86710	PERUN SLIM 1.2ft 1300/840	86711	86713	x	x	x	x
86720	PERUN SLIM 1.2ft 1600/840	86721	86723	x	x	x	x
86730	PERUN SLIM 1.2ft 2200/840	86731	86733	x	x	x	x
86740	PERUN SLIM 1.4ft 2600/840	86741	86743	86744	86745	86746	86747
86750	PERUN SLIM 1.4ft 3200/840	86751	86753	86754	86755	86756	86757
86760	PERUN SLIM 1.4ft 4400/840	86761	86763	86764	86765	86766	86767
86770	PERUN SLIM 1.4ft 6400/840	86771	86773	x	x	x	x
86780	PERUN SLIM 1.5ft 3250/840	86781	86783	86784	86785	86786	86787
86790	PERUN SLIM 1.5ft 4000/840	86791	86793	86794	86795	86796	86797
86800	PERUN SLIM 1.5ft 5500/840	86801	86803	86804	86805	86806	86807
86810	PERUN SLIM 1.5ft 8000/840	86811	86813	x	x	x	x

PERUN SLIM DALI

Digital dimmable driver DALI, diffuser: polished thermally toughened safety glass

Code	Type	1F	3F	M1h	M3hAt	3F M1h	3F M3hAt
86820	PERUN SLIM 1.2ft 1300/840 DALI	86821	x	x	x	x	x
86830	PERUN SLIM 1.2ft 1600/840 DALI	86831	x	x	x	x	x
86840	PERUN SLIM 1.2ft 2200/840 DALI	86841	x	x	x	x	x
86850	PERUN SLIM 1.4ft 2600/840 DALI	86851	86853	86854	86855	86856	86857
86860	PERUN SLIM 1.4ft 3200/840 DALI	86861	86863	86864	86865	86866	86867
86870	PERUN SLIM 1.4ft 4400/840 DALI	86871	86873	86874	86875	86876	86877
86880	PERUN SLIM 1.4ft 6400/840 DALI	86881	86883	x	x	x	x
86890	PERUN SLIM 1.5ft 3250/840 DALI	86891	86893	86894	86895	86896	86897
86900	PERUN SLIM 1.5ft 4000/840 DALI	86901	86903	86904	86905	86906	86907
86910	PERUN SLIM 1.5ft 5500/840 DALI	86911	86913	86914	86915	86916	86917
86920	PERUN SLIM 1.5ft 8000/840 DALI	86921	86923	x	x	x	x

Example of type marking: 86916 = PERUN SLIM 1.5ft 5500/840 **3F M1h**

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks

LIGHT FITTING DETAILED VIEW

PERUN SLIM

PERUN HORTI

... to stimulate plant growth, for greenhouses.

USE

An indoor light fixture designed for greenhouse gardening.

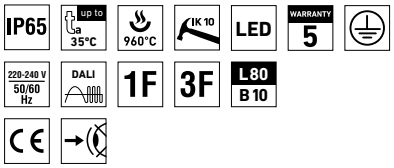
It makes it possible for growers to **increase crop yields and their quality as well as ensure year-round production independent of the season of the year or weather**. The fitting provides greenhouse owners with exceptional benefits whether it is used to substitute regular lights, or as an energy-efficient feature that complements an existing lighting system. The exceptional characteristics of HORTI are appreciated by greenhouse farmers regardless of what crops they grow (tomatoes, cucumbers, leaf vegetables, herbs, strawberries, cut flowers, pot plants, perennials, etc.).

The light fitting is resistant to deformation, dust, spouting water and have increased chemical resistance.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

ADVANTAGES

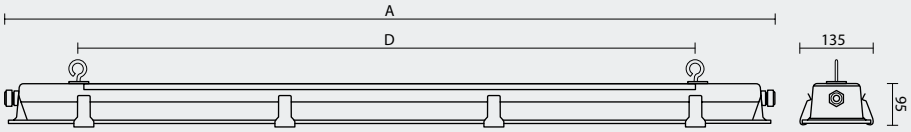
- Light fitting protection **IP65**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L80B10
- High chemical and mechanical robustness IK10
- Diffuser: polished thermally toughened safety glass
- Body: stainless sheet AISI 304
- CRI > 70: 4000 K for white component of light
- Support of individual phases of plant growth: germination, growth, bloom, fruit ripening



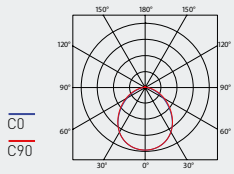
PERUN HORTI

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C
- Lifetime: 50,000 hours / L80B10
- CRI > 70: 4000 K for white component of light
- MacAdam = 3 SDCM
- Diffuser: polished thermally toughened safety glass, shock-resistant, chemically resistant
- Possibility of delivery of the diffuser with a safety foil (SF)
- Body: stainless sheet AISI 304, chemically resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: stainless
- Sealing: silicone, at light fitting body
- Cable glands: PG 13.5 brass with surface treatment
- Terminal block: screwless, five-pole (basic version)
- Installation: package contains stainless lugs, stainless washers and rubber distance washers
- Continuous installation of 1.5 mm² wires
- Electric equipment: LED modules HORTI, supply element DALI (1 driver – 4 DALI addresses)



PERUN HORTI 1.4ft



Code	Type	DEEP BLUE 450 nm [µmol/s]	DEEP RED 660 nm [µmol/s]	FAR RED+WHITE 730 nm [µmol/s]	Max. performance [µmol/s]	Max. power consumption [W]	Net weight [kg]	A [mm]	D [mm]
	Body: stainless sheet - diffuser: polished thermally toughened safety glass								
68700	PERUN 1.4ft HORTI DALI	18	37	33	89	56	5,3	1305	1095

PERUN HORTI

Digital dimmable driver DALI, diffuser: polished thermally toughened safety glass

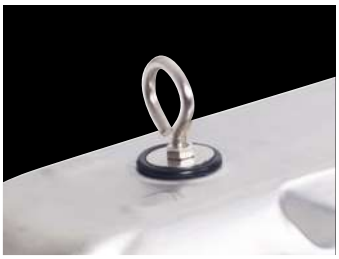
Code	Type	1F	3F
68700	PERUN 1.4ft HORTI DALI	68701	68702

LEGEND

DALI – version with digital dimmable driver DALI
1F – 1 phase wiring cables for through-wiring
3F – 3 phase wiring cables for through-wiring

LIGHT FITTING ATTACHMENT

a) Suspension with the use of stainless lugs and wire cords to a ceiling
b) Directly to a ceiling or a wall with the use of screws, stainless and rubber distance washers



LIGHT FITTING DETAILED VIEW

PERUN HORTI

ALUMAX LED

INDUSTRIAL

DUSTPROOF

WATERPROOF

ALUMINIUM PROFILE

ALUMAX LED – industrial metal LED light fitting

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ALUMAX LED

... aluminium, dustproof, waterproof, chemically resistant.

USE

The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, garages, workshops, sports areas, transport terminals, utility structures, agricultural operations and laboratories without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to deformation, dust, spouting water and chemically aggressive environment.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard.

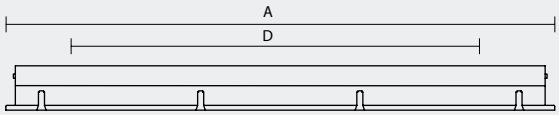
ADVANTAGES

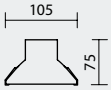
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: tempered glass with high mechanical resistance
- Body: grey aluminium profile, surface treated with powder-coated colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ, ENEC, CB

ALUMAX LED

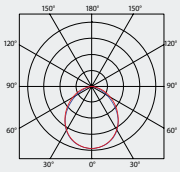
TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C with a back-up power supply M1h, M3h
- Maximum system efficacy: 117 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: tempered glass
- Body: grey aluminium profile, surface treated with powder-coated colour
- Reflector: steel sheet, white colour (RAL 9003)
- Clips: stainless
- Sealing: polyurethane (PUR) in body groove
- Side covers: grey aluminium alloy with plastic side plates for fixation and suspension of glass at assembly, surface treated with powder-coated colour
- Terminal block: screwless, three-pole (basic version)
- Cable glands: brass M18 × 1,5
- Installation: package contains stainless sheet suspension brackets and FeZn sliding hangers
- Electric equipment: LED modules, current driver or current driver DALI

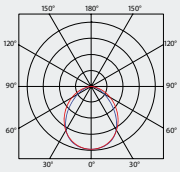




ALUMAX LED 1.5ft



ALUMAX LED 2.5ft



C0
C90

Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	Diffuser made of tempered glass							
50410	ALUMAX LED 1.2ft 1300/840	1300	1050	9	116	2,2	624	534
50420	ALUMAX LED 1.2ft 1600/840	1600	1290	11	117	2,2	624	534
50430	ALUMAX LED 1.2ft 2200/840	2200	1670	15	111	2,2	624	534
50440	ALUMAX LED 1.4ft 2600/840	2600	1990	18	111	4,2	1224	1134
50450	ALUMAX LED 1.4ft 3200/840	3200	2450	22	111	4,2	1224	1134
50460	ALUMAX LED 1.4ft 4400/840	4400	3370	30	112	4,2	1224	1134
50470	ALUMAX LED 1.5ft 3250/840	3250	2410	22	110	5,0	1524	1434
50480	ALUMAX LED 1.5ft 4000/840	4000	3030	27	112	5,0	1524	1434
50490	ALUMAX LED 1.5ft 5500/840	5500	4240	37	115	5,0	1524	1434
50510	ALUMAX LED 2.2ft 2600/840	2600	1950	18	108	2,4	624	534
50520	ALUMAX LED 2.2ft 3200/840	3200	2420	22	110	2,4	624	534
50530	ALUMAX LED 2.2ft 4400/840	4400	3320	30	111	2,4	624	534
50540	ALUMAX LED 2.4ft 5200/840	5200	3870	35	111	4,3	1224	1134
50550	ALUMAX LED 2.4ft 6400/840	6400	4760	42	113	4,3	1224	1134
50560	ALUMAX LED 2.4ft 8800/840	8800	6660	58	115	4,3	1224	1134
50570	ALUMAX LED 2.5ft 6500/840	6500	4880	44	111	5,3	1524	1434
50580	ALUMAX LED 2.5ft 8000/840	8000	5960	53	112	5,3	1524	1434
50590	ALUMAX LED 2.5ft 11000/840	11000	8150	71	115	5,3	1524	1434

50450 ALUMAX LED 1.4ft 3200/840 = suitable replacement for ALUMAX 136 E – 1 × 36 W
50480 ALUMAX LED 1.5ft 4000/840 = suitable replacement for ALUMAX 158 E – 1 × 58 W
50550 ALUMAX LED 2.4ft 6400/840 = suitable replacement for ALUMAX 236 E – 2 × 36 W
50580 ALUMAX LED 2.5ft 8000/840 = suitable replacement for ALUMAX 258 E – 2 × 58 W

ALUMAX LED

Diffuser made of tempered glass, stainless clips

Code	Type	1F	3F	M1h	M3h	3F M1h	3F M3h
50410	ALUMAX LED 1.2ft 1300/840	x	x	50414	x	x	x
50420	ALUMAX LED 1.2ft 1600/840	x	x	50424	x	x	x
50430	ALUMAX LED 1.2ft 2200/840	x	x	50434	x	x	x
50440	ALUMAX LED 1.4ft 2600/840	50441	50443	50444	50445	50447	50448
50450	ALUMAX LED 1.4ft 3200/840	50451	50453	50454	50455	50457	50458
50460	ALUMAX LED 1.4ft 4400/840	50461	50463	50464	50465	50467	50468
50470	ALUMAX LED 1.5ft 3250/840	50471	50473	50474	50475	50477	50478
50480	ALUMAX LED 1.5ft 4000/840	50481	50483	50484	50485	50487	50488
50490	ALUMAX LED 1.5ft 5500/840	50491	50493	50494	50495	50497	50498
50510	ALUMAX LED 2.2ft 2600/840	x	x	50514	x	x	x
50520	ALUMAX LED 2.2ft 3200/840	x	x	50524	x	x	x
50530	ALUMAX LED 2.2ft 4400/840	x	x	50534	x	x	x
50540	ALUMAX LED 2.4ft 5200/840	50541	50543	50544	50545	50547	50548
50550	ALUMAX LED 2.4ft 6400/840	50551	50553	50554	50555	50557	50558
50560	ALUMAX LED 2.4ft 8800/840	50561	50563	x	x	x	x
50570	ALUMAX LED 2.5ft 6500/840	50571	50573	50574	50575	50577	50578
50580	ALUMAX LED 2.5ft 8000/840	50581	50583	50584	50585	50587	50588
50590	ALUMAX LED 2.5ft 11000/840	50591	50593	x	x	x	x

Example of type marking: 50555 = ALUMAX LED 2.4ft 6400/840 **M3h**

ALUMAX LED DALI

Digital dimmable driver DALI, diffuser made of tempered glass, stainless clips

Code	Type	3F	M1h	M3h	3F M1h	3F M3h
50610	ALUMAX LED 1.2ft 1300/840 DALI	x	50614	x	x	x
50620	ALUMAX LED 1.2ft 1600/840 DALI	x	50624	x	x	x
50630	ALUMAX LED 1.2ft 2200/840 DALI	x	50634	x	x	x
50640	ALUMAX LED 1.4ft 2600/840 DALI	50643	50644	50645	50647	50648
50650	ALUMAX LED 1.4ft 3200/840 DALI	50653	50654	50655	50657	50658
50660	ALUMAX LED 1.4ft 4400/840 DALI	50663	50664	50665	50667	50668
50670	ALUMAX LED 1.5ft 3250/840 DALI	50673	50674	50675	50677	50678
50680	ALUMAX LED 1.5ft 4000/840 DALI	50683	50684	50685	50687	50688
50690	ALUMAX LED 1.5ft 5500/840 DALI	50693	50694	50695	50697	50698
50710	ALUMAX LED 2.2ft 2600/840 DALI	x	x	x	x	x
50720	ALUMAX LED 2.2ft 3200/840 DALI	x	x	x	x	x
50730	ALUMAX LED 2.2ft 4400/840 DALI	x	x	x	x	x
50740	ALUMAX LED 2.4ft 5200/840 DALI	50743	50744	50745	50747	50748
50750	ALUMAX LED 2.4ft 6400/840 DALI	50753	50754	50755	50757	50758
50760	ALUMAX LED 2.4ft 8800/840 DALI	50763	x	x	x	x
50770	ALUMAX LED 2.5ft 6500/840 DALI	50773	50774	50775	50777	50778
50780	ALUMAX LED 2.5ft 8000/840 DALI	50783	50784	50785	50787	50788
50790	ALUMAX LED 2.5ft 11000/840 DALI	50793	x	x	x	x

Example of type marking: 50694 = ALUMAX LED 1.5ft 5500/840 DALI **M1h**

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire (L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) To a ceiling or a wall with the use of FeZn sliding hangers in body groove
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

ALUMAX LED

ALUMAX LED MAX

... for extreme temperatures -40 °C to +75 °C.

USE

The light fitting is suitable for indoor and outdoor spaces with roof with extreme ambient temperatures from **(-40 °C to +75 °C)**. The light fitting is destined mainly for heating stations, metallurgical lines, glass-works, as well as for freezers, cooling plants and other premises without danger of explosion of gases, dusts and flammable vapors.

The light fitting is resistant to deformation, dust, spouting water and chemically aggressive environment.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard.

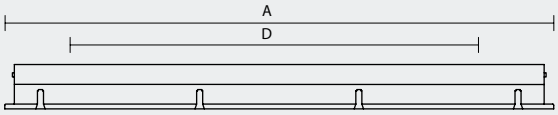
ADVANTAGES

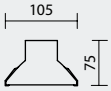
- Light fitting protection **IP66**
- Minimum ambient temperature up to **t_a = -40 °C**
- Maximum ambient temperature up to **t_a = 75 °C**
- Lifetime: 50,000 hours / L80B10
- Possibility of using in even higher ambient temperatures under the condition of a shortened service life of the light fitting – parameters solved within a particular project
- Diffuser: tempered glass with high mechanical resistance
- Body: grey aluminium profile, surface treated with powder-coated colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- Constant luminous flux even in ambient temperature of -40 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K

ALUMAX LED MAX

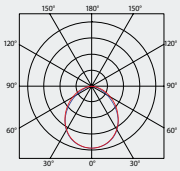
TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Minimum ambient temperature: t_a = -40 °C
- Maximum ambient temperature: t_a = 75 °C
- Lifetime: 50,000 hours / L80B10
- Possibility of using in even higher ambient temperatures under the condition of a shortened service life of the light fitting – parameters solved within a particular project
- Maximum system efficacy: 129 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Diffuser: tempered glass
- Body: grey aluminium profile, surface treated with powder-coated colour
- Reflector: steel sheet, white colour (RAL 9003)
- Ventilation plug: type BVPB-01 made of brass, size M12 × 1,5
- Side covers: grey aluminium alloy with plastic side plates for fixation and suspension of glass at assembly, surface treated with powder-coated colour
- Clips: stainless
- Sealing: polyurethane (PUR) in body groove
- Terminal block: screwless, three-pole (basic version)
- Cable glands: brass M18 × 1,5
- Installation: package contains stainless sheet suspension brackets and FeZn sliding hangers
- Electric equipment: LED modules, current driver

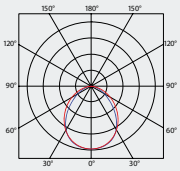




ALUMAX LED MAX 1.5ft



ALUMAX LED MAX 2.5ft



C0
C90

Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature up to t_a = 75 °C - body: aluminum profile - diffuser: thermally toughened glass								
79730	ALUMAX LED 1.5ft MAX 4000/840	75	4000	3050	24	127	5,0	1524	1434
79700	ALUMAX LED 1.5ft MAX 5500/840	70	5500	4100	33	124	5,0	1524	1434
79740	ALUMAX LED 2.4ft MAX 6400/840	70	6400	4920	38	129	4,3	1224	1134
79710	ALUMAX LED 2.4ft MAX 8800/840	65	8800	6480	52	125	4,3	1224	1134
79750	ALUMAX LED 2.5ft MAX 8000/840	70	8000	6020	48	125	5,3	1524	1434
79720	ALUMAX LED 2.5ft MAX 11000/840	65	11000	8100	65	125	5,3	1524	1434

ALUMAX LED MAX

Diffuser: polished thermally toughened glass, stainless clips

Code	Type	1F	3F	M1h	M3h	DALI	DALI 3F
79730	ALUMAX LED 1.5ft MAX 4000/840	79731	79733	x	x	79735	79736
79700	ALUMAX LED 1.5ft MAX 5500/840	79701	79703	x	x	79705	79706
79740	ALUMAX LED 2.4ft MAX 6400/840	79741	79743	x	x	79745	79746
79710	ALUMAX LED 2.4ft MAX 8800/840	79711	79713	x	x	79715	79716
79750	ALUMAX LED 2.5ft MAX 8000/840	79751	79753	x	x	79755	79756
79720	ALUMAX LED 2.5ft MAX 11000/840	79721	79723	x	x	79725	79726

Example of type marking: 79713 = ALUMAX LED MAX 2.4ft 8800/840 **3F**

LEGEND

DALI – version with digital dimmable driver DALI
1F – 1 phase wiring cables for through-wiring
3F – 3 phase wiring cables for through-wiring

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) To a ceiling or a wall with the use of FeZn sliding hangers in body groove
c) Attachment with the use of side hangers to the wall

LIGHT FITTING DETAILED VIEW

ALUMAX LED MAX

BZ – side hanger

It serves to attach the light fitting to the wall with the possibility of its positioning.

Code	Type	Description	Weight [kg]
90002	BZ	side hanger with blocking (set for 1 light fitting)	0,4

CANOPUS

INDUSTRIAL

METAL

FOR HIGH CEILINGS

CANOPUS – industrial metal LED light fitting

CANOPUS
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IP65

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CANOPUS NB
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IP65

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CANOPUS

... dustproof, waterproof, for high ceilings.

USE

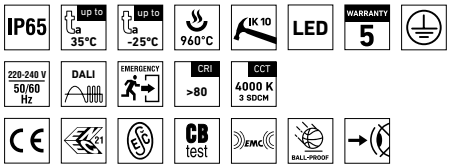
The light fitting is suitable for large operations with high ceilings, industrial outdoor and indoor roofed spaces, warehouses, workshops, sports areas, transport terminals and utility structures without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to deformation, dust and splashing water.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

ADVANTAGES

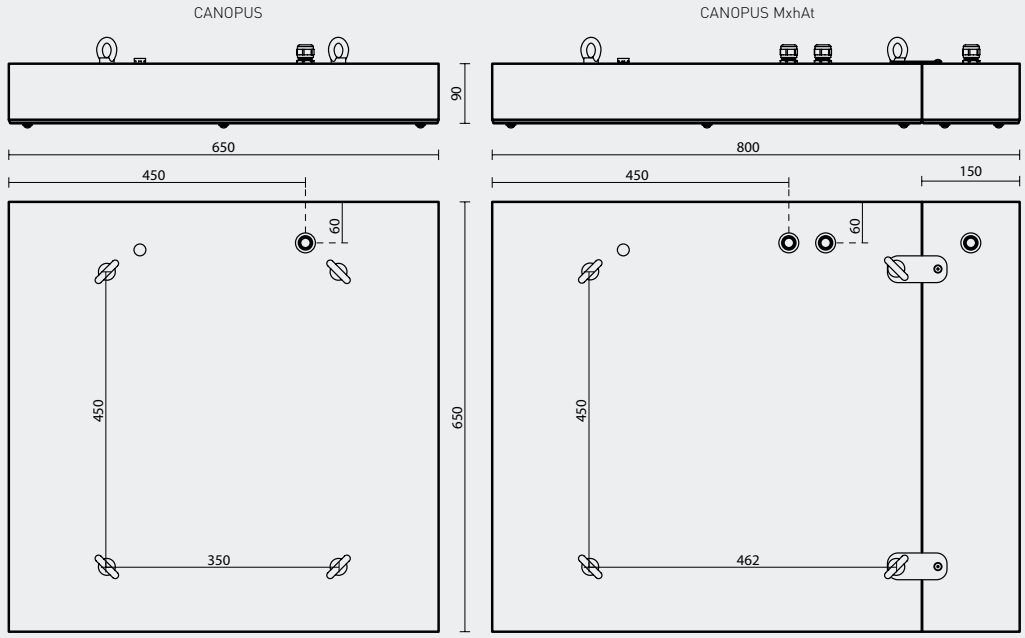
- Light fitting protection **IP65**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B50
- High mechanical robustness IK10
- Diffuser: satinized or transparent tempered safety glass
- Body: steel sheet - white colour (RAL 9003), or inox AISI 304 at request
- Up to 45 % lower electricity consumption when compared to tubes T5
- Possibility of delivery either in a deemed or permanently emergency design M1hAt and M3hAt
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- Easy installation with the help of supply connector with cable 0,4 m CYSY 3 × 1.5, without necessity of opening the light fitting
- Certification: ESČ, ENEC, CB, Ball proof test

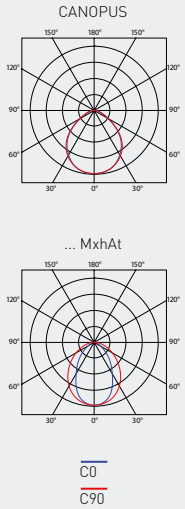


CANOPUS

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C and for the design with a back-up power supply M1hAt, M3hAt
- Maximum system efficacy: 125 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B50
- Diffuser: satinized tempered safety glass
- Possibility of delivery of the diffuser with a safety foil (SF)
- EM kit with battery autotesting for M1hAt and M3hAt
- Body: steel sheet, white colour (RAL 9003), or inox AISI 304 at request
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: interconnecting connector, 0.4 m cable
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED modules, current driver or current driver DALI (2 – 3 pcs depending on type)





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: satinized tempered safety glass					
74010	CANOPUS 22000/840	22000	18110	146	124	11,6
74020	CANOPUS 26000/840	26000	21370	171	125	11,8
74030	CANOPUS 30000/840	30000	24500	201	122	11,8

	Type	Autonomy [hrs]	Emergency light flux of light fitting [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
	EM kit for permanent emergency lighting with battery autotesting - diffuser: satinized tempered safety glass					
...	M1hAt	1	440	1,5	$LiFePO_4$	+4,2
...	M3hAt	3	440	1,5	$LiFePO_4$	+4,4

CANOPUS

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74010	CANOPUS 22000/840	74011	74013	74016	74017	74018
74020	CANOPUS 26000/840	74021	74023	74026	74027	74028
74030	CANOPUS 30000/840	74031	74033	74036	74037	74038

Example of type marking: 74036 = CANOPUS 30000/840 **DALI**

LEGEND

DALI – version with digital dimmable driver DALI (2 – 3 pcs)
M1hAt – emergency back-up source with operating time of 1 hour (SA) for permanent illumination with battery autotesting
M3hAt – emergency back-up source with operating time of 3 hours (SA) for permanent illumination with battery autotesting
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

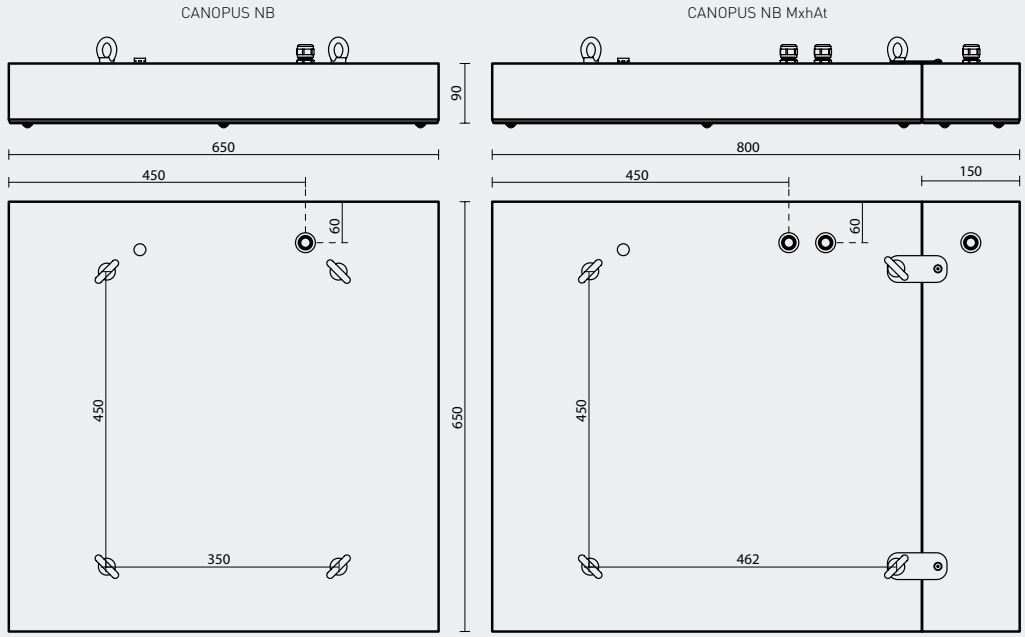
LIGHT FITTING DETAILED VIEW

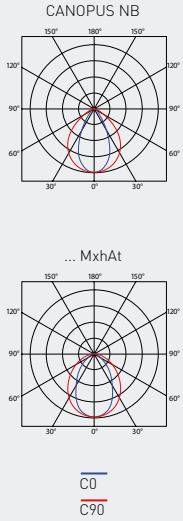
LIGHT FITTING DETAILED VIEW WITH AN EMERGENCY MODULE

CANOPUS NB

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C and for the design with a back-up power supply M1hAt, M3hAt
- Maximum system efficacy: 121 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B50
- Diffuser: satinized tempered safety glass
- Possibility of delivery of the diffuser with a safety foil (SF)
- EM kit with battery autotesting for M1hAt and M3hAt
- Reflector: parabolic polished aluminium with narrow emitting characteristics (NB - narrow beam)
- Body: steel sheet, white colour (RAL 9003), or inox AISI 304 at request
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: interconnecting connector, 0.4 m cable
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED modules, current driver or current driver DALI (2 – 3 pcs depending on type)





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: satinized tempered safety glass with parabolic reflector					
74110	CANOPUS NB 22000/840	22000	17570	146	120	12,3
74120	CANOPUS NB 26000/840	26000	20730	171	121	12,5
74130	CANOPUS NB 30000/840	30000	23710	201	118	12,5

	Type	Autonomy [hrs]	Emergency light flux of light fitting [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
	EM kit for permanent emergency lighting with battery autotesting - diffuser: satinized tempered safety glass					
...	M1hAt	1	440	1,5	$LiFePO_4$	+4,2
...	M3hAt	3	440	1,5	$LiFePO_4$	+4,4

CANOPUS NB

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74110	CANOPUS NB 22000/840	74111	74113	74116	74117	74118
74120	CANOPUS NB 26000/840	74121	74123	74126	74127	74128
74130	CANOPUS NB 30000/840	74131	74133	74136	74137	74138

Example of type marking: 74136 = CANOPUS NB 30000/840 **DALI**

LEGEND

DALI – version with digital dimmable driver DALI (2 – 3 pcs)
M1hAt – emergency back-up source with operating time of 1 hour (SA) for permanent illumination with battery autotesting
M3hAt – emergency back-up source with operating time of 3 hours (SA) for permanent illumination with battery autotesting
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

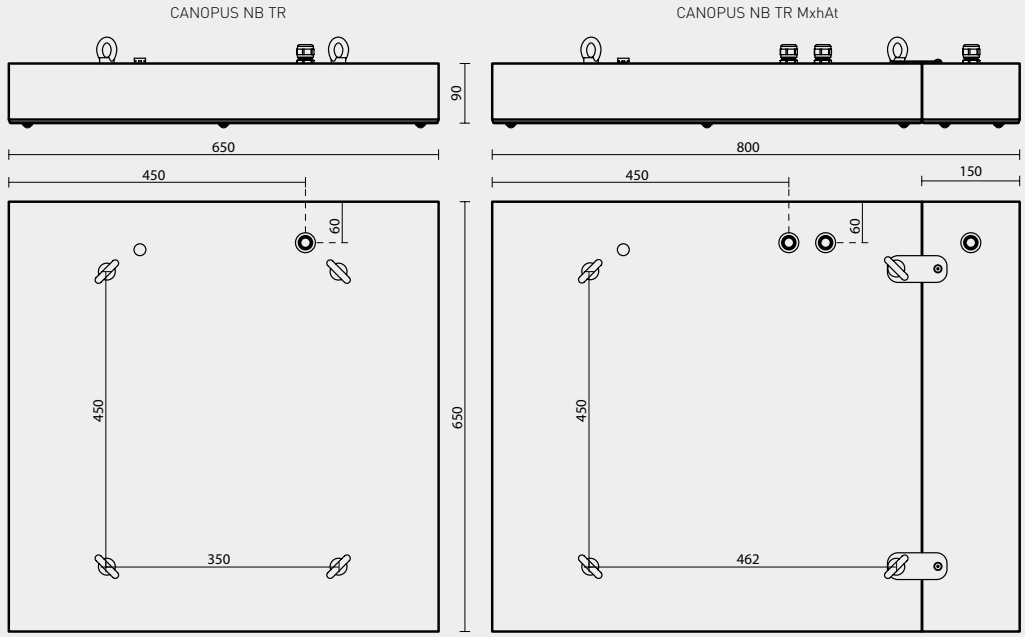
LIGHT FITTING DETAILED VIEW

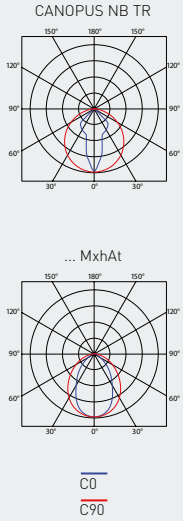
LIGHT FITTING DETAILED VIEW WITH AN EMERGENCY MODULE

CANOPUS NB TR

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C and for the design with a back-up power supply M1hAt, M3hAt
- Maximum system efficacy: 128 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B50
- Diffuser: transparent tempered safety glass (TR)
- Possibility of delivery of the diffuser with a safety foil (SF)
- EM kit with battery autotesting for M1hAt and M3hAt
- Reflector: parabolic polished aluminium with narrow emitting characteristics (NB - narrow beam)
- Body: steel sheet, white colour (RAL 9003), or inox AISI 304 at request
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: interconnecting connector, 0.4 m cable
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED modules, current driver or current driver DALI (2 – 3 pcs depending on type)





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: tempered safety glass with parabolic reflector (TR)					
74210	CANOPUS NB TR 22000/840	22000	18540	146	127	12,3
74220	CANOPUS NB TR 26000/840	26000	21880	171	128	12,5
74230	CANOPUS NB TR 30000/840	30000	25140	201	125	12,5

	Type	Autonomy [hrs]	Emergency light flux of light fitting [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
	EM kit for permanent emergency lighting with battery autotesting - diffuser: satinized tempered safety glass					
...	M1hAt	1	440	1,5	$LiFePO_4$	+4,2
...	M3hAt	3	440	1,5	$LiFePO_4$	+4,4

CANOPUS NB TR

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74210	CANOPUS NB TR 22000/840	74211	74213	74216	74217	74218
74220	CANOPUS NB TR 26000/840	74221	74223	74226	74227	74228
74230	CANOPUS NB TR 30000/840	74231	74233	74236	74237	74238

Example of type marking: 74236 = CANOPUS NB TR 30000/840 **DALI**

LEGEND

DALI – version with digital dimmable driver DALI (2 – 3 pcs)
M1hAt – emergency back-up source with operating time of 1 hour (SA) for permanent illumination with battery autotesting
M3hAt – emergency back-up source with operating time of 3 hours (SA) for permanent illumination with battery autotesting
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

LIGHT FITTING DETAILED VIEW

LIGHT FITTING DETAILED VIEW WITH AN EMERGENCY MODULE

CANOPUS HE

... high efficiency, for high ceilings, with sulphur-resistant LED chips.

USE

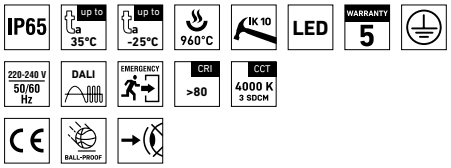
The light fitting is suitable for large operations with high ceilings, industrial outdoor and indoor roofed spaces, warehouses, workshops, sports areas, transport terminals and utility structures without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to deformation, dust and splashing water.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

ADVANTAGES

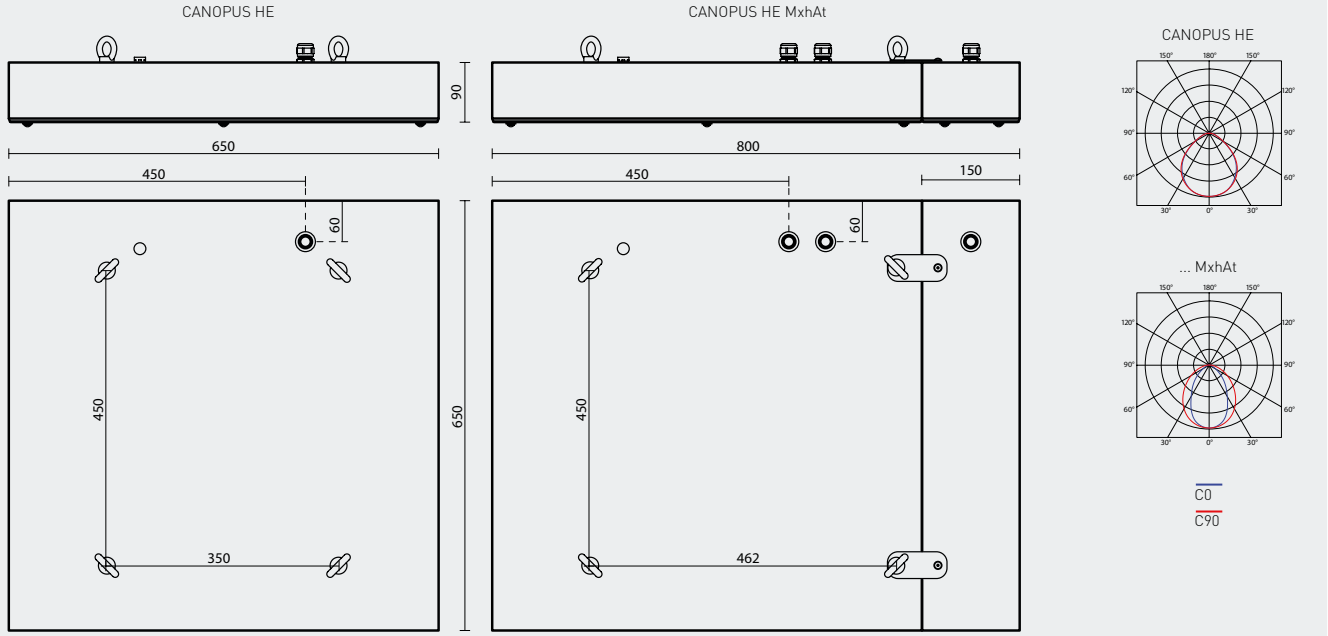
- Light fitting protection **IP65**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B50
- High mechanical robustness IK10
- Diffuser: satinized or transparent tempered safety glass
- Body: steel sheet - white colour (RAL 9003), or inox AISI 304 at request
- Up to 45 % lower electricity consumption when compared to tubes T5
- Possibility of delivery either in a deemed or permanently emergency design M1hAt and M3hAt
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- Easy installation with the help of supply connector with cable 0,4 m CYSY 3 × 1.5, without necessity of opening the light fitting
- **Chips with high sulphur resistance**
- Certification: Ball proof test



CANOPUS HE

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C and for the design with a back-up power supply M1hAt, M3hAt
- Maximum system efficacy: 152 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B50
- Diffuser: satinized tempered safety glass
- Possibility of delivery of the diffuser with a safety foil (SF)
- EM kit with battery autotesting for M1hAt and M3hAt
- Body: steel sheet, white colour (RAL 9003), or inox AISI 304 at request
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: interconnecting connector, 0.4 m cable
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED sulphur-resistant modules, current driver or current driver DALI (2 – 3 pcs depending on type)



Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: satinized tempered safety glass					
74810	CANOPUS HE 22000/840	22000	17360	116	150	11,6
74820	CANOPUS HE 26000/840	26000	21300	140	152	11,8
74830	CANOPUS HE 30000/840	30000	24240	162	150	11,8

	Type	Autonomy [hrs]	Emergency light flux of light fitting [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
	EM kit for permanent emergency lighting with battery autotesting - diffuser: satinized tempered safety glass					
...	M1hAt	1	440	1,5	$LiFePO_4$	+4,2
...	M3hAt	3	440	1,5	$LiFePO_4$	+4,4

CANOPUS HE

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74810	CANOPUS HE 22000/840	74811	74812	74813	74814	74815
74820	CANOPUS HE 26000/840	74821	74822	74823	74824	74825
74830	CANOPUS HE 30000/840	74831	74832	74833	74834	74835

Example of type marking: 74834 = CANOPUS HE 30000/840 **DALI M1hAt**

LEGEND

DALI – version with digital dimmable driver DALI (2 – 3 pcs)
M1hAt – emergency back-up source with operating time of 1 hour (SA) for permanent illumination with battery autotesting
M3hAt – emergency back-up source with operating time of 3 hours (SA) for permanent illumination with battery autotesting
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

LIGHT FITTING DETAILED VIEW

LIGHT FITTING DETAILED VIEW WITH AN EMERGENCY MODULE

CANOPUS MAX

... for extreme temperatures -40 °C to +60 °C.

USE

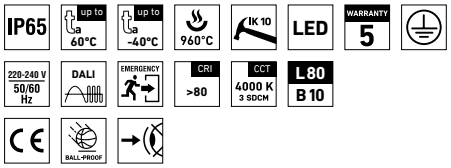
The light fitting is suitable for sizable premises with high ceilings and extern ambient temperatures from **-40 °C to +60 °C**. The light fitting is destined mainly for heating stations, metallurgical lines, glass-works, but also for freezers, cooling plants and other premises without danger of explosion of gases, dusts and flammable vapors.

The light fitting is resistant to deformation, dust and splashing water.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

ADVANTAGES

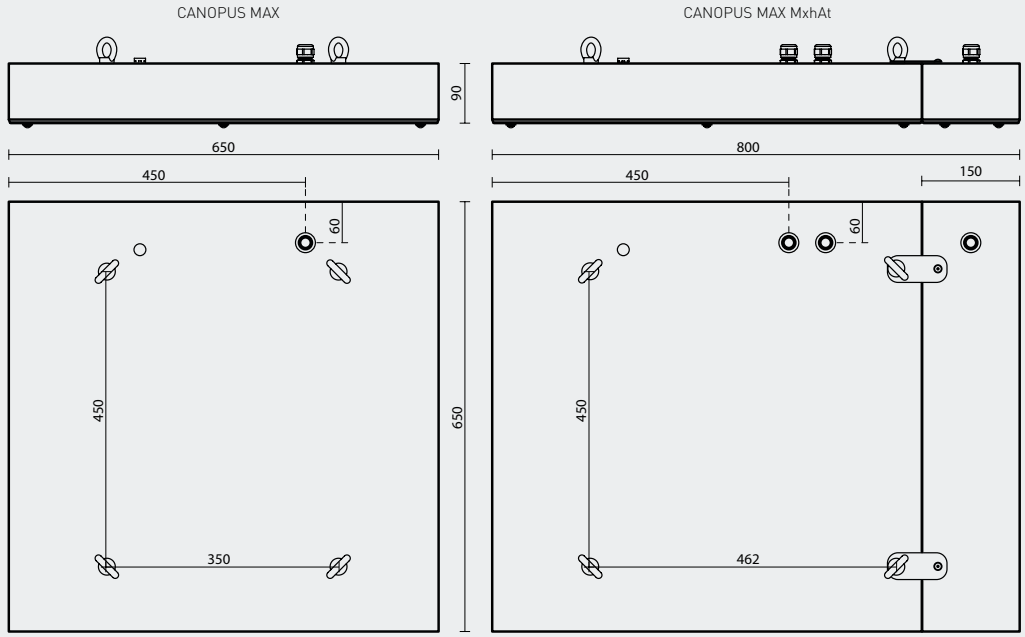
- Light fitting protection **IP65**
- Minimal ambient temperature **t_a = -40 °C**
- Maximum ambient temperature up to **t_a = 60 °C**
- Lifetime: 50,000 hours / L80B10
- High mechanical robustness IK10
- Diffuser: satinized or transparent tempered safety glass
- Body: steel sheet, white colour (RAL 9003), or inox AISI 304
- Up to 45 % lower electricity consumption when compared to tubes T5
- Possibility of delivery either in a deemed or permanently emergency design M1hAt and M3hAt
- In DALI version possibility of constant luminous flux for whole lifetime (CL0)
- Constant luminous flux even in ambient temperature of -40 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- Easy installation with the help of supply connector with cable 0,4 m CYSY 3 × 1.5, without necessity of opening the light fitting
- Certification: Ball Proof

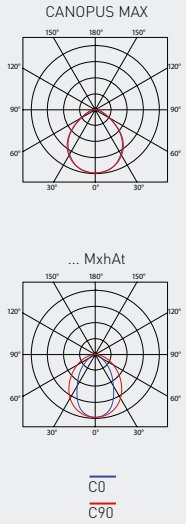


CANOPUS MAX

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Minimal ambient temperature t_a = -40 °C
- Maximum ambient temperature: t_a = 60 °C
  Maximum ambient temperature: t_a = 35 °C
  with a back-up power supply M1hAt, M3hAt
- Lifetime: 50,000 hours / L80B10
- Maximum system efficacy: 138 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Diffuser: satinized tempered safety glass
- Possibility to equip the diffuser with a safety foil (SF)
- EM kit with battery autotesting
- Body: steel sheet, white colour (RAL 9003), or inox AISI 304
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: interconnecting connector, 0.4 m cable
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED modules, current driver or current driver DALI (2 pcs)





Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 60 °C - body: steel sheet, white colour - diffuser: satinized tempered safety glass						
74610	CANOPUS MAX 22000/840	60	22000	18250	132	138	16,0
74600	CANOPUS MAX 26000/840	55	26000	20750	153	135	16,0
74620	CANOPUS MAX 30000/840	50	30000	24600	186	132	16,0

	Type	Autonomy [hrs]	Emergency light flux of light fitting [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
	EM kit for permanent emergency lighting with battery autotesting - diffuser: satinized tempered safety glass					
...	M1hAt	1	440	1,5	$LiFePO_4$	+4,2
...	M3hAt	3	440	1,5	$LiFePO_4$	+4,4

CANOPUS MAX

steel sheet, white colour (RAL 9003)

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74610	CANOPUS MAX 22000/840	74611	74612	74615	74616	74617
74600	CANOPUS MAX 26000/840	74601	74602	74605	74606	74607
74620	CANOPUS MAX 30000/840	74621	74622	74625	74626	74627

Example of type marking: 74625 = CANOPUS MAX 30000/840 DALI

CANOPUS MAX INOX

inox AISI 304

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74710	CANOPUS MAX 22000/840 INOX	74711	74712	74715	74716	74717
74700	CANOPUS MAX 26000/840 INOX	74701	74702	74705	74706	74707
74720	CANOPUS MAX 30000/840 INOX	74721	74722	74725	74726	74727

LEGEND

DALI – version with digital dimmable driver DALI
M1hAt – emergency back-up source with operating time of 1 hour (SA) for permanent illumination with battery autotesting
M3hAt – emergency back-up source with operating time of 3 hours (SA) for permanent illumination with battery autotesting
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

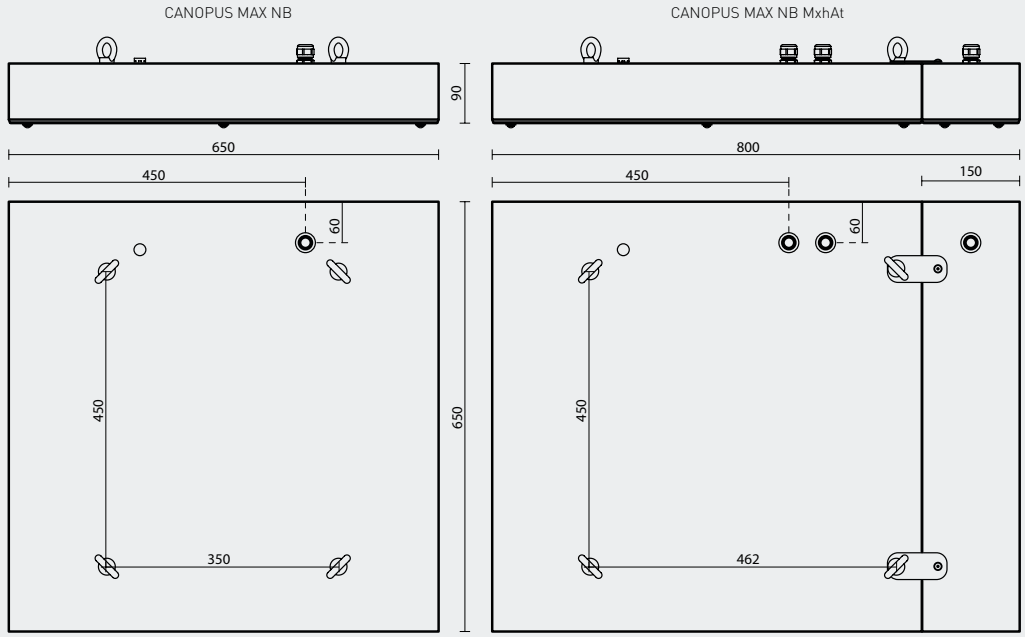
LIGHT FITTING DETAILED VIEW

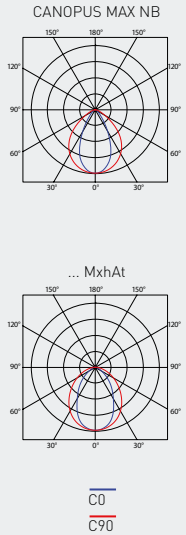
LIGHT FITTING DETAILED VIEW WITH AN EMERGENCY MODULE

CANOPUS MAX NB

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Minimal ambient temperature t_a = -40 °C
- Maximum ambient temperature: t_a = 60 °C
  Maximum ambient temperature: t_a = 35 °C
  with a back-up power supply M1hAt, M3hAt
- Lifetime: 50,000 hours / L80B10
- Maximum system efficacy: 135 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Diffuser: satinized tempered safety glass
- Possibility to equip the diffuser with a safety foil (SF)
- Reflector: parabolic polished aluminium with narrow emitting characteristics (NB - narrow beam)
- EM kit with battery autotesting
- Body: steel sheet, white colour (RAL 9003), or inox AISI 304
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: interconnecting connector, 0.4 m cable
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED modules, current driver or current driver DALI (2 pcs)





Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 60 °C - body: steel sheet, white colour - diffuser: satinized tempered safety glass with parabolic reflector						
74640	CANOPUS MAX NB 22000/840	60	22000	17900	132	135	16,6
74630	CANOPUS MAX NB 26000/840	55	26000	20350	153	133	16,6
74650	CANOPUS MAX NB 30000/840	50	30000	24100	186	130	16,6

	Type	Autonomy [hrs]	Emergency light flux of light fitting [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
	EM kit for permanent emergency lighting with battery autotesting - diffuser: satinized tempered safety glass					
...	M1hAt	1	440	1,5	$LiFePO_4$	+4,2
...	M3hAt	3	440	1,5	$LiFePO_4$	+4,4

CANOPUS MAX NB

steel sheet, white colour (RAL 9003)

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74640	CANOPUS MAX NB 22000/840	74641	74642	74645	74646	74647
74630	CANOPUS MAX NB 26000/840	74631	74632	74635	74636	74637
74650	CANOPUS MAX NB 30000/840	74651	74652	74655	74656	74657

Example of type marking: 74655 = CANOPUS MAX NB 30000/840 DALI

CANOPUS MAX NB INOX

inox AISI 304

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74740	CANOPUS MAX NB 22000/840 INOX	74741	74742	74745	74746	74747
74730	CANOPUS MAX NB 26000/840 INOX	74731	74732	74735	74736	74737
74750	CANOPUS MAX NB 30000/840 INOX	74751	74752	74755	74756	74757

LEGENDA

DALI – version with digital dimmable driver DALI
M1hAt – emergency back-up source with operating time of 1 hour (SA) for permanent illumination with battery autotesting
M3hAt – emergency back-up source with operating time of 3 hours (SA) for permanent illumination with battery autotesting
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

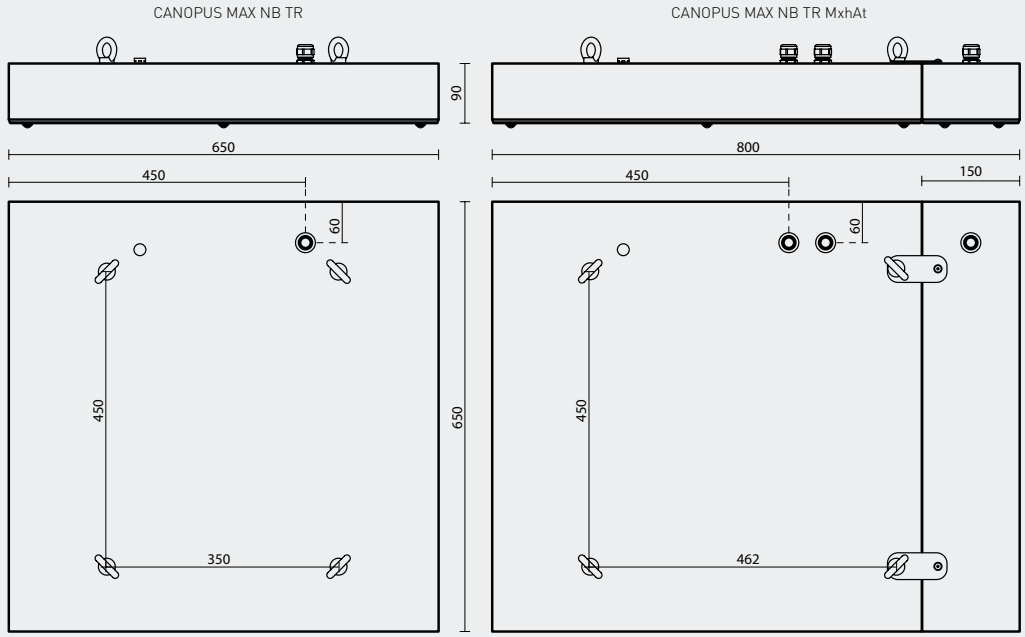
LIGHT FITTING DETAILED VIEW

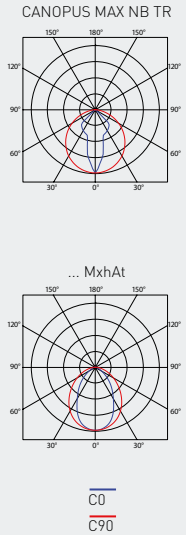
LIGHT FITTING DETAILED VIEW WITH AN EMERGENCY MODULE

CANOPUS MAX NB TR

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Minimal ambient temperature t_a = -40 °C
- Maximum ambient temperature: t_a = 60 °C
  Maximum ambient temperature: t_a = 35 °C
  with a back-up power supply M1hAt, M3hAt
- Lifetime: 50,000 hours / L80B10
- Maximum system efficacy: 141 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Diffuser: transparent tempered safety glass (TR)
- Possibility to equip the diffuser with a safety foil (SF)
- Reflector: parabolic polished aluminium with narrow emitting characteristics (NB - narrow beam)
- EM kit with battery autotesting
- Body: steel sheet, white colour (RAL 9003) , or inox AISI 304
- Ventilation plug: type BVPB-01 made of polyamide, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: interconnecting connector, 0.4 m cable
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED modules, current driver or current driver DALI (2 pcs)





Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 60 °C - body: steel sheet, white colour - diffuser: tempered safety glass with parabolic reflector (TR)						
74670	CANOPUS MAX NB TR 22000/840	60	22000	18650	132	141	16,6
74660	CANOPUS MAX NB TR 26000/840	55	26000	21200	153	138	16,6
74680	CANOPUS MAX NB TR 30000/840	50	30000	25150	186	135	16,6

	Type	Autonomy [hrs]	Emergency light flux of light fitting [lm]	Power in standby mode [W]	Battery type	Net weight [kg]
	EM kit for permanent emergency lighting with battery autotesting - diffuser: satinized tempered safety glass					
...	M1hAt	1	440	1,5	$LiFePO_4$	+4,2
...	M3hAt	3	440	1,5	$LiFePO_4$	+4,4

CANOPUS MAX NB TR

steel sheet, white colour (RAL 9003)

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74670	CANOPUS MAX NB TR 22000/840	74671	74672	74675	74676	74677
74660	CANOPUS MAX NB TR 26000/840	74661	74662	74665	74666	74667
74680	CANOPUS MAX NB TR 30000/840	74681	74682	74685	74686	74687

Example of type marking: 74685 = CANOPUS MAX NB TR 30000/840 DALI

CANOPUS MAX NB TR INOX

inox AISI 304

Code	Type	M1hAt	M3hAt	DALI	DALI M1hAt	DALI M3hAt
74770	CANOPUS MAX NB TR 22000/840 INOX	74771	74772	74775	74776	74777
74760	CANOPUS MAX NB TR 26000/840 INOX	74761	74762	74765	74766	74767
74780	CANOPUS MAX NB TR 30000/840 INOX	74781	74782	74785	74786	74787

LEGEND

DALI – version with digital dimmable driver DALI
M1hAt – emergency back-up source with operating time of 1 hour (SA) for permanent illumination with battery autotesting
M3hAt – emergency back-up source with operating time of 3 hours (SA) for permanent illumination with battery autotesting
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

LIGHT FITTING DETAILED VIEW

LIGHT FITTING DETAILED VIEW WITH AN EMERGENCY MODULE

CANOPUS MINI

... for wall and ceiling installations.

USE

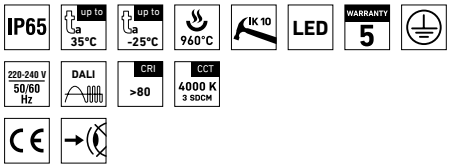
The light fitting is suitable for operations in industrial outdoor and indoor roofed spaces, warehouses, workshops, sports areas, transport terminals and utility structures without a danger of explosion of gas, dust and combustible fumes.

The light fitting is resistant to deformation, dust and splashing water.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

ADVANTAGES

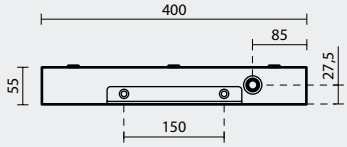
- Light fitting protection **IP65**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B50
- High mechanical robustness IK10
- Diffuser: satinized tempered safety glass
- Body: white steel sheet (RAL 9003), stainless steel AISI 304 or AISI 316Ti (seawater resistant)
- Up to 45 % lower electricity consumption when compared to tubes T5
- Possibility of delivery either in a deemed design
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Constant luminous flux even in ambient temperature of -25 °C
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K

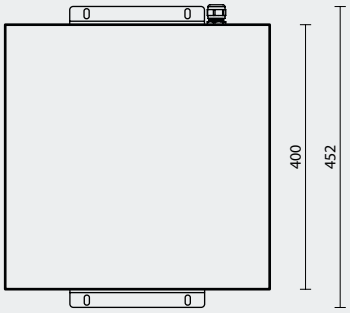


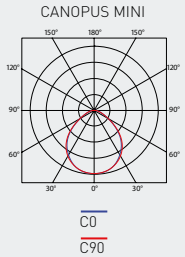
CANOPUS MINI

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C
- Maximum system efficacy: 120 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B50
- Diffuser: satinized tempered safety glass
- Possibility of delivery of the diffuser with a safety foil (SF)
- Body: white steel sheet (RAL 9003), stainless steel AISI 304 or AISI 316Ti (seawater resistant)
- Sealing: EPDM attached to light fitting body
- Terminal block: screwless, three-pole (basic version)
- Cable gland: screwed PG 13,5
- Installation: supplied with brackets
- Electric equipment: LED modules, current driver or current driver DALI







Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: satinized tempered safety glass					
74550	CANOPUS MINI 4400/840	4400	3610	30	120	5,3
74560	CANOPUS MINI 5200/840	5200	4210	36	117	5,3
74570	CANOPUS MINI 6400/840	6400	4990	44	113	5,3
74580	CANOPUS MINI 8800/840	8800	6860	60	114	5,3

CANOPUS MINI

Steel sheet - white colour (RAL 9003)

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
74550	CANOPUS MINI 4400/840	x	x	74554	x	x
74560	CANOPUS MINI 5200/840	x	x	74564	x	x
74570	CANOPUS MINI 6400/840	x	x	74574	x	x
74580	CANOPUS MINI 8800/840	x	x	74584	x	x

CANOPUS MINI INOX 304

Steel sheet grade AISI 304

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
74555	CANOPUS MINI 4400/840 INOX 304	x	x	74556	x	x
74565	CANOPUS MINI 5200/840 INOX 304	x	x	74566	x	x
74575	CANOPUS MINI 6400/840 INOX 304	x	x	74576	x	x
74585	CANOPUS MINI 8800/840 INOX 304	x	x	74586	x	x

CANOPUS MINI INOX 316

Steel sheet grade AISI 316Ti

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
74557	CANOPUS MINI 4400/840 INOX 316	x	x	74558	x	x
74567	CANOPUS MINI 5200/840 INOX 316	x	x	74568	x	x
74577	CANOPUS MINI 6400/840 INOX 316	x	x	74578	x	x
74587	CANOPUS MINI 8800/840 INOX 316	x	x	74588	x	x

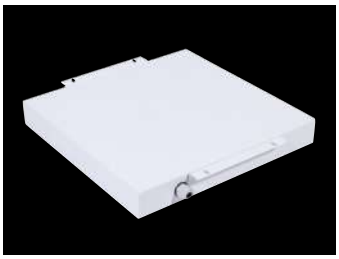
Example of type marking: 74578 = CANOPUS MINI 6400/840 INOX 316 **DALI**

LEGEND

DALI – version with digital dimmable driver DALI

LIGHT FITTING ATTACHMENT

a) With help of a holders directly to the ceiling or on the wall



LIGHT FITTING DETAILED VIEW

CANOPUS HORTI

... to stimulate plant growth, for greenhouses.

USE

An indoor light fixture designed for greenhouse gardening.

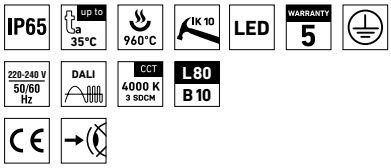
It makes it possible for growers to **increase crop yields and their quality as well as ensure year-round production independent of the season of the year or weather**. The fitting provides greenhouse owners with exceptional benefits whether it is used to substitute regular lights, or as an energy-efficient feature that complements an existing lighting system. The exceptional characteristics of HORTI are appreciated by greenhouse farmers regardless of what crops they grow (tomatoes, cucumbers, leaf vegetables, herbs, strawberries, cut flowers, pot plants, perennials, etc.).

The light fitting is resistant to deformation, dust and splashing water.

Characteristics of the used tempered glass and its shattering power are controlled by the ČSN EN 12150-1 standard. For applications where spontaneous fracture means a higher safety risk, we recommend to use the version with the safety film (SF).

ADVANTAGES

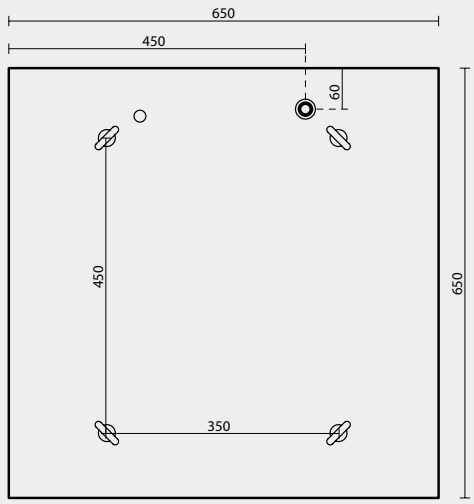
- Light fitting protection **IP65**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L80B10
- High mechanical robustness IK10
- Diffuser: satinized or transparent tempered safety glass
- Body: stainless sheet AISI 304
- CRI > 70: 4000 K for white component of light
- Easy installation with the help of supply connector with cable 0,4 m CYSY 5 × 1.5, without necessity of opening the light fitting
- Support of individual phases of plant growth: germination, growth, bloom, fruit ripening

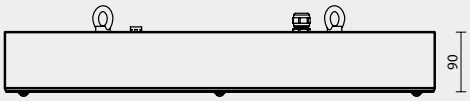


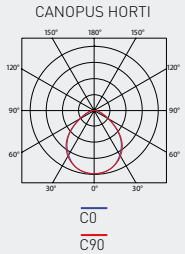
CANOPUS HORTI

TECHNICAL DESCRIPTION

- Light fitting protection: IP65
- Maximum ambient temperature: t_a = 35 °C
- The watt and lumen values can vary by ± 7,5 %
- CRI > 70: 4000 K for white component of light
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L80B10
- Diffuser: satinized tempered safety glass
- Possibility of delivery of the diffuser with a safety foil (SF)
- Body: stainless sheet AISI 304
- Ventilation plug: type BVPB-01 made of INOX, size M12 × 1.5
- Sealing: EPDM attached to light fitting body
- Terminal block: stainless steel bushing, 0.4 m cable, STUCCHI 3700 five-pole connector
- Installation: all versions delivered including suspension lugs (4 pcs)
- Electric equipment: LED modules HORTI, supply element DALI (2 drivers – 8 DALI addresses)



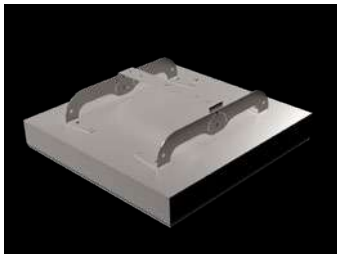
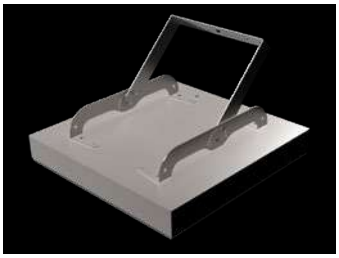




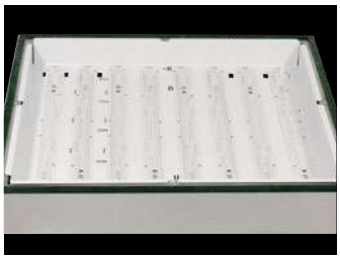
Code	Type	DEEP BLUE 450 nm [µmol/s]	DEEP RED 660 nm [µmol/s]	FAR RED+WHITE 730 nm [µmol/s]	Max. performance [µmol/s]	Max. power consumption [W]	Net weight [kg]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: satinized tempered safety glass						
74900	CANOPUS HORTI DALI	72	152	135	361	224	11,6

LIGHT FITTING ATTACHMENT

a) With help of suspension eyes of M6
b) With help of a holder directly to the ceiling
c) With the help of adjustable holder directly on the ceiling or on the wall
d) With help of a chain hinge

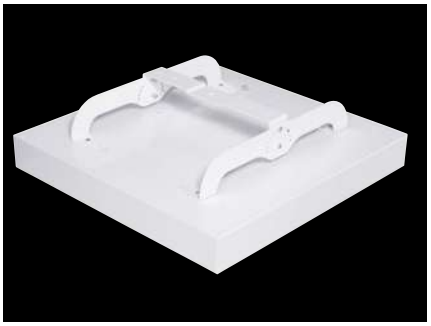



LIGHT FITTING DETAILED VIEW



Ceiling holder

Serves to suspend the light fitting from the ceiling.



Code	Type	Description	Weight [kg]
50080	CANOPUS holder 1	Metal suspender for direct suspension from the ceiling. Screw M6 × 16 - 8 pcs for assembly.	2,3
50086	CANOPUS holder 1 INOX	Stainless-steel suspender for direct suspension from the ceiling. Screw M6 × 16 - 8 pcs for assembly.	2,3

Adjustable holder

Serves to suspend the light fitting on the wall, ceiling and skew surface, allows adjusting the light fitting from 0-90°, by 15°.

Code	Type	Description	Weight [kg]
50081	CANOPUS holder 2	Metal adjustable holder for the ceiling and for the wall. Adjustment by 15° in a range of 0-90°. Screw M6 × 16 - 8 pcs for assembly.	3,0
50087	CANOPUS holder 2 INOX	Stainless-steel adjustable holder for the ceiling and for the wall. Adjustment by 15° in a range of 0-90°. Screw M6 × 16 - 8 pcs for assembly.	3,0

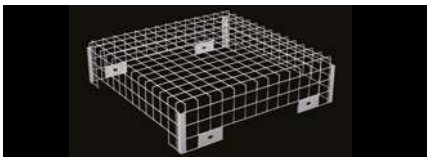
Chain suspender

Serves to suspend the light fitting with the help of chains on a threaded rod or with the help of a lug on a hook.

Code	Type	Description	Weight [kg]
50082	CANOPUS suspender	Chain suspender with height 40 cm. (Suspender holder - 1 pc, lugs M6 - 4 pcs, snap-hooks - 4 pcs, chains - 4 pcs).	0,6
50088	CANOPUS suspender INOX	INOX chain suspender with height 40 cm. (Suspender holder - 1 pc, lugs M6 - 4 pcs, snap-hooks - 4 pcs, chains - 4 pcs).	0,6

Protective grille

The metal grille protects the light fitting against mechanical damage and tampering. It is fixed on the ceiling holder of the light fitting.
Surface finish with RAL 9003 powder coating.



Code	Type	Description	Weight [kg]
50083	CANOPUS protective grille	Metal protective grille (for variants without an emergency module) with mesh size 50×50 mm. (Protective basket, 2 threaded rods M10, 4 closed nuts M10, 4 distance tubes IRS16, 4 washers M10).	3,6
50085	CANOPUS Mxh protective grille	Metal protective grille (for variants with an emergency module) with mesh size 50×50 mm. (Protective basket, 2 threaded rods M10, 4 closed nuts M10, 4 distance tubes IRS16, 4 washers M10).	4,4

LINEA

INDOOR

PLASTIC

SURFACE-MOUNTED

LINEA – indoor plastic LED light fitting

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IP54

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LINEA ROUND
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IP54

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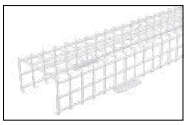

LINEA
ACCESSORIES
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BIM ready
www.bim.lighting/en

LINEA

... indoor, surface-mounted, plastic.

USE

LINEA family is a perfect lighting solution of modern and technically functional illumination. It offers ceiling and wall-mounted luminaires with balanced shadowing and uniform light. Thanks to various sizes, individual premises as well as public buildings can be attractively illuminated.

The Linea light fitting line can be used as a comprehensive solution for lighting of office buildings, schools, hospitals, libraries, as well as individual lighting of flat interiors, corridors, sanitary and welfare facilities.

Thanks to its high luminous efficiency and low electricity consumption it is a suitable replacement for light fittings with fluorescent tubes.

T A
Č R
Technology
Agency
of the Czech Republic

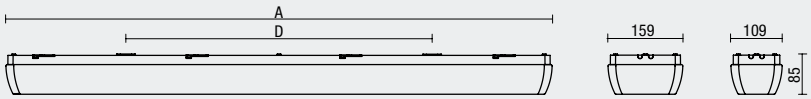
ADVANTAGES

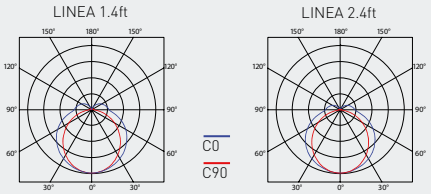
- Light fitting protection **IP54**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high light transmission
- Body: white polycarbonate (PC) = high mechanical resistance
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ, ENEC, CB

LINEA

TECHNICAL DESCRIPTION

- Light fitting protection: IP54
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h with autotest)
- Maximum system efficacy: 126 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: white polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Rotary cap: polyamide + 10 % glass fibre
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: rubber (SBS)
- Terminal block: screwless, three-pole (basic version)
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 35 °C - body: white polycarbonate - diffuser: translucent polycarbonate							
63140	LINEA 1.4ft 2600/840	2600	2240	18	124	1,9	1160	650
63150	LINEA 1.4ft 3200/840	3200	2720	22	124	1,9	1160	650
63160	LINEA 1.4ft 4400/840	4400	3720	30	124	1,9	1160	650
63240	LINEA 2.4ft 5200/840	5200	4330	35	124	2,5	1160	650
63250	LINEA 2.4ft 6400/840	6400	5210	42	124	2,5	1160	650
63260	LINEA 2.4ft 8800/840	8800	7280	58	126	2,5	1160	650

63150 LINEA 1.4ft 3200/840 = suitable replacement for T8 fl. tube light fitting SM 136 – 1×36W
63160 LINEA 1.4ft 4400/840 = suitable replacement for T8 fl. tube light fitting SM 158 – 1×58W
63250 LINEA 2.4ft 6400/840 = suitable replacement for T8 fl. tube light fitting SM 236 – 2×36W
63260 LINEA 2.4ft 8800/840 = suitable replacement for T8 fl. tube light fitting SM 258 – 2×58W

LINEA

Diffuser made of translucent polycarbonate

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h	Senzor	DALI Senzor
63140	LINEA 1.4ft 2600/840	63144	x	63143	63147	x	x	x
63150	LINEA 1.4ft 3200/840	63154	x	63153	63157	x	x	x
63160	LINEA 1.4ft 4400/840	63164	x	63163	63167	x	x	x
63240	LINEA 2.4ft 5200/840	63244	63245	63243	63247	63246	63241	63248
63250	LINEA 2.4ft 6400/840	63254	63255	63253	63257	63256	63251	63258
63260	LINEA 2.4ft 8800/840	63264	63265	63263	63267	63266	63261	63268

LEGEND

DALI – version with digital dimmable driver DALI ; the corridor function can be used

M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination with autotest

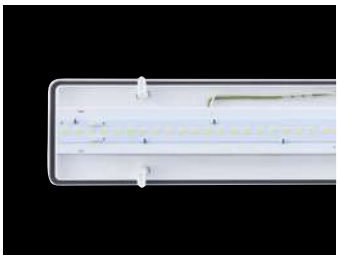
M3h – emergency back-up source with operating time of 3 hours (SA) for both permanent and emergency illumination with autotest

Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT AND ITS DETAILED VIEW

Directly to a ceiling or a wall with the use of screws

LINEA



LINEA SQUARE

... interior square, plastic, surface-mounting.

USE

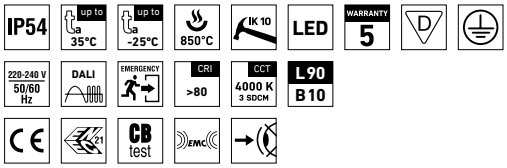
LINEA family is a perfect lighting solution of modern and technically functional illumination. It offers ceiling and wall-mounted luminaires with balanced shadowing and uniform light. Thanks to various sizes, individual premises as well as public buildings can be attractively illuminated.

The Linea light fitting line can be used as a comprehensive solution for lighting of office buildings, schools, hospitals, libraries, as well as individual lighting of flat interiors, corridors, sanitary and welfare facilities.

Thanks to its high luminous efficiency and low electricity consumption it is a suitable replacement for light fittings with fluorescent tubes.

ADVANTAGES

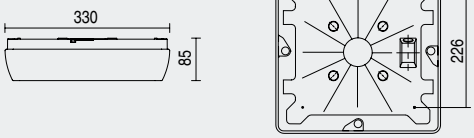
- Light fitting protection **IP54**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high light transmission
- Body: white polycarbonate (PC) = high mechanical resistance
- Up to 50 % lower electricity consumption when compared to compact fluorescent tubes
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ENEC, CB

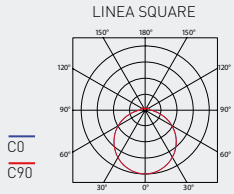


LINEA SQUARE

TECHNICAL DESCRIPTION

- Light fitting protection: IP54
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h with autotest)
- Maximum system efficacy: 127 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: white polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Rotary cap: polyamide + 10 % glass fibre
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: rubber (SBS)
- Terminal block: screwless, three-pole (basic version)
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature max. t_a = 35 °C - body: white polycarbonate - diffuser: translucent polycarbonate						
63348	LINEA SQUARE 1550/840	35	1550	1240	10	124	1,4
63349	LINEA SQUARE 1900/840	35	1900	1520	12	127	1,4
63350	LINEA SQUARE 2200/840	35	2200	1760	14	126	1,4
63351	LINEA SQUARE 2500/840	35	2500	2000	16	125	1,4
63560	LINEA SQUARE 3600/840	30	3600	2880	24	120	1,5

63560 LINEA SQUARE 3600/840 = suitable replacement for compact fluorescent lamps 2 × 26 W

LINEA SQUARE

Diffuser made of translucent polycarbonate

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h	SNS	SNS M1h	SNS M3h	SNS DALI	SNS M1h DALI	SNS M3h DALI
63348	LINEA SQUARE 1550/840	63356	63360	x	x	x	63352	63365	63369	x	x	x
63349	LINEA SQUARE 1900/840	63357	63361	63374	63381	63384	63353	63366	63370	63377	63388	63392
63350	LINEA SQUARE 2200/840	63358	63362	63375	63382	63385	63354	63367	63371	63378	63389	63393
63351	LINEA SQUARE 2500/840	63359	63363	63376	63383	63386	63355	63368	63372	63379	63390	63394
63560	LINEA SQUARE 3600/840	63564	63364	63563	63567	63387	63561	63566	63373	63380	63391	63395

Example of type marking: 63376 = LINEA SQUARE 2500/840 **DALI**

LEGEND

DALI – version with digital dimmable driver DALI
SNS – microwave motion sensor

M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination with autotest
M3h – emergency back-up source with operating time of 3 hours (SA) for both permanent and emergency illumination with autotest
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT AND ITS DETAILED VIEW

Directly to a ceiling or a wall with the use of screws

LINEA SQUARE

LINEA ROUND

... interior circular, plastic, surface-mounting.

USE

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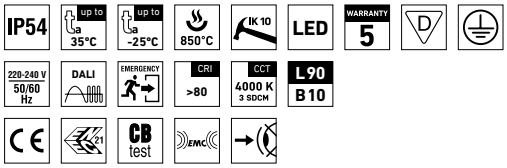
Thanks to its high luminous efficiency and low electricity consumption it is a suitable replacement for light fittings with fluorescent tubes.

ADVANTAGES

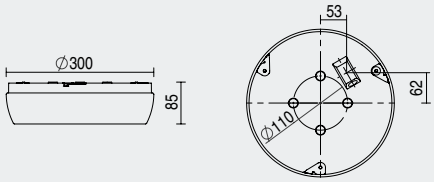
- Light fitting protection **IP54**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high light transmission
- Body: white polycarbonate (PC) = high mechanical resistance
- Up to 50 % lower electricity consumption when compared to compact fluorescent tubes
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ENEC, CB

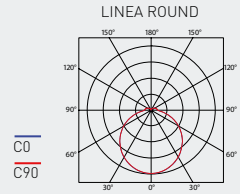


LINEA ROUND

TECHNICAL DESCRIPTION

- Light fitting protection: IP54
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h with autotest)
- Maximum system efficacy: 125 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: white polycarbonate (PC), UV stable, impact-resistant
- Reflector: steel sheet, white colour (RAL 9003)
- Rotary cap: polyamide + 10 % glass fibre
- Sealing: polyurethane (PUR), foamed body groove
- Cable glands: rubber (SBS)
- Terminal block: screwless, three-pole (basic version)
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature max. t_a = 35 °C - body: white polycarbonate - diffuser: translucent polycarbonate						
63301	LINEA ROUND 1550/840	35	1550	1220	10	122	1
63302	LINEA ROUND 1900/840	35	1900	1500	12	125	1
63303	LINEA ROUND 2200/840	35	2200	1740	14	124	1
63304	LINEA ROUND 2500/840	35	2500	1980	16	124	1
63640	LINEA ROUND 3600/840	30	3600	2840	24	118	1,1

63640 LINEA ROUND 3600/840 = suitable replacement for compact fluorescent lamps 2 × 26 W

LINEA ROUND

Diffuser made of translucent polycarbonate

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h	SNS	SNS M1h	SNS M3h	SNS DALI	SNS M1h DALI	SNS M3h DALI
63301	LINEA ROUND 1550/840	63309	63313	x	x	x	63305	63317	63321	x	x	x
63302	LINEA ROUND 1900/840	63310	63314	63326	63333	63336	63306	63318	63322	63329	63340	63344
63303	LINEA ROUND 2200/840	63311	63315	63327	63334	63337	63307	63319	63323	63330	63341	63345
63304	LINEA ROUND 2500/840	63312	63316	63328	63335	63338	63308	63320	63324	63331	63342	63346
63640	LINEA ROUND 3600/840	63664	63665	63663	63667	63339	63641	63646	63325	63332	63343	63347

Example of type marking: 63333 = LINEA ROUND 1900/840 **DALI M1h**

LEGEND

DALI – version with digital dimmable driver DALI
SNS – microwave motion sensor

M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination with autotest
M3h – emergency back-up source with operating time of 3 hours (SA) for both permanent and emergency illumination with autotest

Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

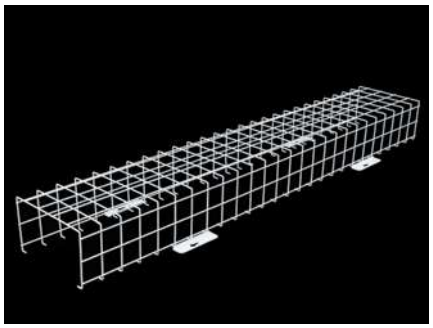
LIGHT FITTING ATTACHMENT AND ITS DETAILED VIEW

Directly to a ceiling or a wall with the use of screws

LINEA ROUND

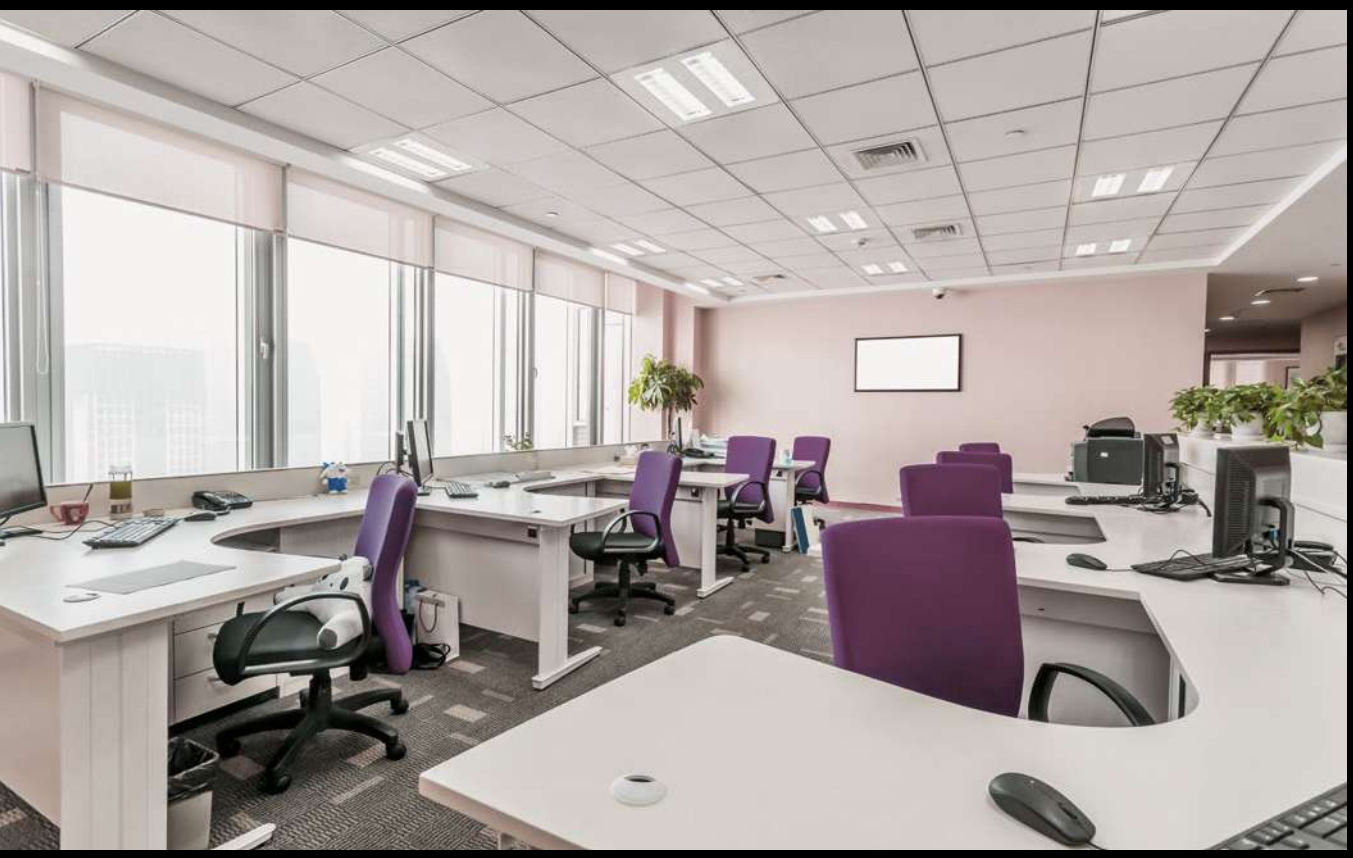
OM – protective grid

The metal grid protects the light fitting against mechanical damage and unauthorised handling. It is attached to the surface with the use of screws.
The surface is treated with the RAL 9003 powder-coated colour.



Code	Type	Description	Weight [kg]
11942	OM 236	protective grid for types 236, 228/254, 2.4ft (1300 × 220 × 130 mm)	1,7

LUXOR LED



INDOOR

METAL

CEILING-MOUNTED

RASTER

LUXOR LED – indoor metal LED light fitting

LUXOR LED
page 188

IP40

LUXOR LED
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LUXOR LED
ACCESSORIES
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LUXOR LED

... indoor metal.

USE

LUXOR LED is the perfect solution for office, education, halls, hospitals and shop & retail. Various sizes and three mounting methods are available.

It is the luminaire with highly specular parabolic louvre of glare-free effects, **UGR ‹19.**

LUXOR LED creates an atmosphere of well-being and can be used for daycare facilities too. LUXOR LED complies the European Lighting Standard EN 12461-1 and can also be used for day nurseries.

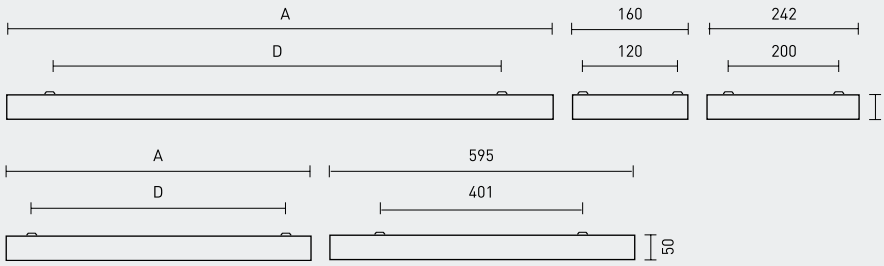
ADVANTAGES

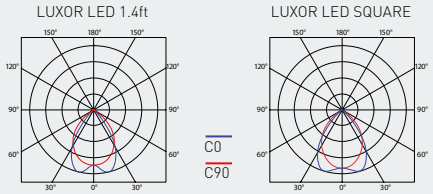
- Light fitting protection **IP20**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50 000 hours / L90B10
- Optical system: shiny parabolic louvre, UGR ‹ 19
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CL0)
- Standard model - CRI → 80: 4000 K
- At request CRI → 80: 3000 K, 5000 K, 6500 K, CRI → 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version

LUXOR LED

TECHNICAL DESCRIPTION

- Light fitting protection: IP20
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C version with emergency back-up source Mxh with autotest
- Maximum system efficacy: 97 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50 000 hodin / L90B10
- Diffuser: shiny parabolical grid, UGR 19
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Cable gland: rubber (SBS), white
- Terminal block: screwless, three-pole
- Cover secured by: magnets and plastic rivets
- Electric equipment: LED modules, current driver or current driver DAL





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature ta = 35 °C - body: steel sheet, white colour - diffuser shiny parabolical grid							
102249	LUXOR LED 1.2ft 1600/840	1600	1020	11	92	2,7	664	450
102250	LUXOR LED 1.4ft 3200/840	3200	2050	22	93	4,4	1224	1030
102251	LUXOR LED 1.5ft 4000/840	4000	2560	27	94	5,2	1504	1310
102252	LUXOR LED 2.2ft 3200/840	3200	2050	22	93	3,3	664	450
102253	LUXOR LED 2.4ft 6400/840	6400	4100	42	97	5,5	1224	1030
102254	LUXOR LED 2.5ft 8000/840	8000	5120	53	96	6,8	1504	1310
102255	LUXOR LED SQUARE 6400/840	6400	4100	42	97	6,0	595	500

LUXOR LED

body lacquered steel sheet - white colour

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
102249	LUXOR LED 1.2ft 1600/840	102281	102288	102295	102302	102309
102250	LUXOR LED 1.4ft 3200/840	102282	102289	102296	102303	102310
102251	LUXOR LED 1.5ft 4000/840	102283	102290	102297	102304	102311
102252	LUXOR LED 2.2ft 3200/840	102284	102291	102298	102305	102312
102253	LUXOR LED 2.4ft 6400/840	102285	102292	102299	102306	102313
102254	LUXOR LED 2.5ft 8000/840	102286	102293	102300	102307	102314
102255	LUXOR LED SQUARE 6400/840	102287	102294	102301	102308	102315

Example of type marking: 102306 = LUXOR LED 2.4ft 6400/840 DALI M1h

LUXOR LED s

body lacquered steel sheet - silver colour (s)

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
102316	LUXOR LED 1.2ft 1600/840	102323	102330	102337	102344	102351
102317	LUXOR LED 1.4ft 3200/840	102324	102331	102338	102345	102352
102318	LUXOR LED 1.5ft 4000/840	102325	102332	102339	102346	102353
102319	LUXOR LED 2.2ft 3200/840	102326	102333	102340	102347	102354
102320	LUXOR LED 2.4ft 6400/840	102327	102334	102341	102348	102355
102321	LUXOR LED 2.5ft 8000/840	102328	102335	102342	102349	102356
102322	LUXOR LED SQUARE 6400/840	102329	102336	102343	102350	102357

Example of type marking: 102326 = LUXOR LED 2.2ft 4400/840 M1h s

LEGEND

s – silver colour RAL 9006
DALI – version with electronic and digitally dimmed ballast module operated via DALI protocol
M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination with autotest
M3h – emergency back-up source with operating time of 3 hour (SA) for both permanent and emergency illumination with autotest

Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

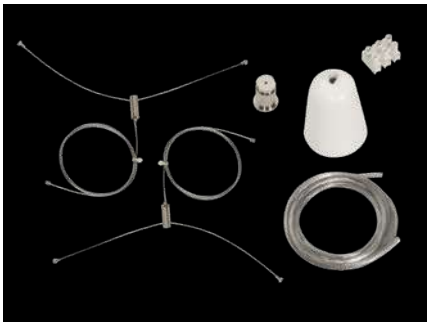
LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws
b) By suspending to a ceiling with the use of wire-cord suspensions
c) Installation into lower ceiling

LIGHT FITTING DETAILED VIEW

LUXOR LED

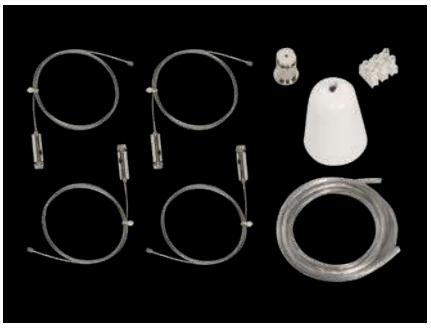
Ceiling suspender kit for LUXOR luminaires



Code	Type	Description	Weight [kg]
101344	ZL 1 - S3	a wire suspension kit with a maximum length of 1.5m to hang **single-line light fixtures (1.2ft, 1.4ft, 1.5ft)** including a **3-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 150 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2
101458	ZL 1 - S5	a wire suspension kit with a maximum length of 1.5m to hang **single-line light fixtures (1.2ft, 1.4ft, 1.5ft)** including a **5-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 150 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2

Code	Type	Description	Weight [kg]
101456	ZL 2 - S3	a wire suspension kit with a maximum length of 1.5m to hang **double-line light fixtures (2.2ft, 2.4ft, 2.5ft)** including a **3-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 300 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2
101494	ZL 2 - S5	a wire suspension kit with a maximum length of 1.5m to hang **double-line light fixtures (2.2ft, 2.4ft, 2.5ft)** including a **5-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 300 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2

Ceiling suspender kit for LUXOR SQUARE luminaires



Code	Type	Description	Weight [kg]
101457	ZL 3 - S3	a wire suspension kit with a maximum length of 1.5 m to hang **square light** fixtures including a **3-core** supply cable (a steel wire with a keyhole hanging bracket and a ceiling hook – 4 pcs, M5 bolt with a fan disc washer – 4pcs, supply cable, ceiling rose, three-pole terminal block)	0,2
101495	ZL 3 - S5	a wire suspension kit with a maximum length of 1.5 m to hang **square light** fixtures including a **5-core** supply cable (a steel wire with a keyhole hanging bracket and a ceiling hook – 4 pcs, M5 bolt with a fan disc washer – 4pcs, supply cable, ceiling rose, five-pole terminal block)	0,2

SB LED

INTERIOR

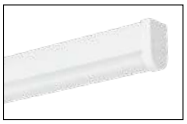
ALUMINUM

WALL/CEILING-MOUNTED

SB LED – interior aluminium LED fixture

SB LED
page. 194

IP40



SB LED
page. 194

SB LED

... indoor.

USE

The luminaire is an excellent choice for bathrooms, toilets, kitchen units, wall units, dressing rooms, worktops and shop windows.

ADVANTAGES

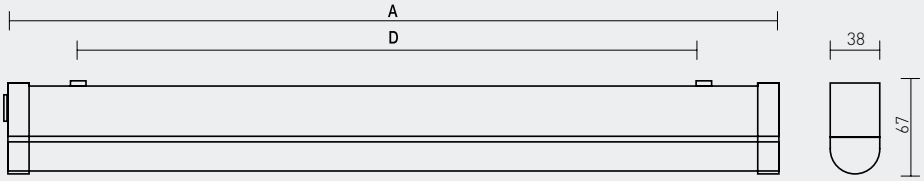
- Light fitting protection IP20
- Maximum ambient temperature up to ta = 35 °C
- Integrated switch in side plastic cover
- Packaging: white cover, scratch protection
- Sliding mounting spacers

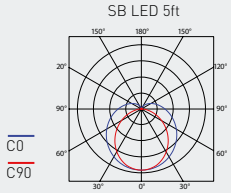
IP20 LED up to ta 35°C CRI >80 CCT 4000 K 3 SDCM CE 220-240 V 50/60 Hz

SB LED

TECHNICAL DESCRIPTION

- Light fitting protection: IP20
- Maximum ambient temperature up to t_a = 35 °C
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: aluminium profile, white (RAL 9003)
- Terminal block: screwed, three-poles
- Side cover: white, plastic (ABS)
- Integrated switch in side plastic cover
- Electric equipment: LED modules, current driver
- Maximum system efficacy: 145 lm/W
- MacAdam = 3 SDCM
- The watt and lumen values can, in accordance with valid standards, vary by ± 7,5 %
- CRI → 80: 4000 K
- Sliding spacers (PA-GF)

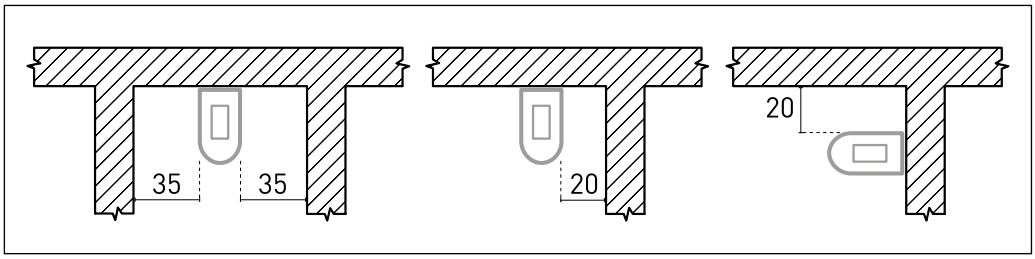




Code	Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature ta = 35 °C - body: aluminum profile of white color - diffuser translucent polycarbonate								
22415	SB LED 1.1ft 1100/840	35	1190	1080	9	120	0,4	360	230
22425	SB LED 1.2ft 2200/840	35	2340	2130	15	142	0,6	590	460
22435	SB LED 1.4ft 4400/840	35	4660	4250	30	142	1	1150	1020
22445	SB LED 1.5ft 5500/840	35	5900	5360	37	145	1,2	1430	1300

LIGHT FITTING ATTACHMENT

Directly to a ceiling or a wall with the use of screws



BELTR LED

INDOOR

PLASTIC

SURFACE-MOUNTED

BATTEN

BELTR LED – indoor plastic LED light fitting

BELTR LED
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IP40

BELTR LED
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BELTR LED TUBE
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IP40

BELTR LED TUBE
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BELTR LED
ACCESSORIES
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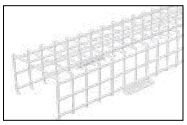

BELTR LED
ACCESSORIES
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BELTR LED

... indoor, plastic, surface-mounted, batten.

USE

The light fitting is suitable for offices, hallways, school interiors, libraries, lecture rooms, sanitary rooms, hospitals and passenger terminals.

Thanks to its high luminous efficiency and low electricity consumption it is a suitable replacement for light fittings with fluorescent tubes.

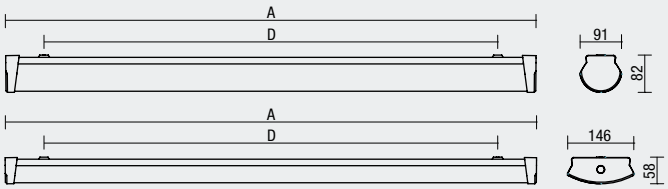
ADVANTAGES

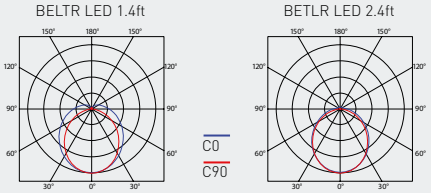
- Light fitting protection **IP40**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: steel sheet, white colour (RAL 9003)
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CL0)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Possibility to through-wire individual light fittings to row with the use of external terminal blocks
- Certification: ESČ, ENEC, CB

BELTR LED

TECHNICAL DESCRIPTION

- Light fitting protection: IP40
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 hour; M1h)
- Maximum system efficacy: 110 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: steel sheet, white colour (RAL 9003)
- Side covers: white (ABS), UV stable, with offsets allowing fixing the light fitting with enclosed screws M4 against tampering
- Cable gland: white, rubber
- Terminal block: screwless, three-pole (basic version)
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser: translucent polycarbonate							
54090	BELTR LED 1.1ft 650/840	650	470	5	102	0,6	330	220
54100	BELTR LED 1.1ft 800/840	800	580	6	102	0,6	330	220
54110	BELTR LED 1.2ft 1300/840	1300	940	9	104	0,8	610	500
54120	BELTR LED 1.2ft 1600/840	1600	1160	11	105	0,8	610	500
54180	BELTR LED 1.4ft 2600/840	2600	1910	18	106	1,5	1170	1000
54140	BELTR LED 1.4ft 3200/840	3200	2360	22	107	1,4	1170	1000
54190	BELTR LED 1.5ft 3250/840	3250	2310	22	105	1,9	1450	1000
54150	BELTR LED 1.5ft 4000/840	4000	2910	27	108	1,8	1450	1000
54160	BELTR LED 2.1ft 1300/840	1300	1040	10	104	1,0	330	250
54200	BELTR LED 2.1ft 1600/840	1600	1250	12	104	1,0	330	250
54210	BELTR LED 2.2ft 2600/840	2600	1890	18	105	1,5	610	500
54220	BELTR LED 2.2ft 3200/840	3200	2350	22	107	1,3	610	500
54280	BELTR LED 2.4ft 5200/840	5200	3770	35	108	2,4	1170	1000
54240	BELTR LED 2.4ft 6400/840	6400	4640	42	110	2,3	1170	1000
54290	BELTR LED 2.5ft 6500/840	6500	4750	44	108	3,1	1450	1000
54250	BELTR LED 2.5ft 8000/840	8000	5800	53	109	2,9	1450	1000

54120 BELTR LED 1.2ft 1600/840 = suitable replacement for T8 fl. tube light fitting BELTR 118 - 1×18 W
54140 BELTR LED 1.4ft 3200/840 = suitable replacement for T8 fl. tube light fitting BELTR 136 - 1×36 W
54150 BELTR LED 1.5ft 4000/840 = suitable replacement for T8 fl. tube light fitting BELTR 158 - 1×58 W
54220 BELTR LED 2.2ft 3200/840 = suitable replacement for T8 fl. tube light fitting BELTR 218 - 2×18 W
54240 BELTR LED 2.4ft 6400/840 = suitable replacement for T8 fl. tube light fitting BELTR 236 - 2×36 W
54250 BELTR LED 2.5ft 8000/840 = suitable replacement for T8 fl. tube light fitting BELTR 258 - 2×58 W

BELTR LED

Diffuser made of translucent polycarbonate

Code	Type	M1h	DALI	DALI M1h	Senzor
54090	BELTR LED 1.1ft 650/840	x	x	x	x
54100	BELTR LED 1.1ft 800/840	x	x	x	x
54110	BELTR LED 1.2ft 1300/840	x	54113	x	x
54120	BELTR LED 1.2ft 1600/840	x	54123	x	x
54180	BELTR LED 1.4ft 2600/840	54184	54183	54187	x
54140	BELTR LED 1.4ft 3200/840	54144	54143	54147	x
54190	BELTR LED 1.5ft 3250/840	54194	54193	54197	x
54150	BELTR LED 1.5ft 4000/840	54154	54153	54157	x
54160	BELTR LED 2.1ft 1300/840	x	x	x	54168
54200	BELTR LED 2.1ft 1600/840	x	x	x	54208
54210	BELTR LED 2.2ft 2600/840	x	54213	x	54218
54220	BELTR LED 2.2ft 3200/840	x	54223	x	54228
54280	BELTR LED 2.4ft 5200/840	54284	54283	54287	54288
54240	BELTR LED 2.4ft 6400/840	54244	54243	54247	54248
54290	BELTR LED 2.5ft 6500/840	54294	54293	54297	54298
54250	BELTR LED 2.5ft 8000/840	54254	54253	54257	54258

Example of type marking: 54243 = BELTR LED 2.4ft 6400/840 **DALI M1h**

BELTR LED S3F

Diffuser made of translucent polycarbonate,
through-wiring with the use of external terminal blocks Wieland (S) GST15i5

Code	Type	M1h	DALI	DALI M1h	Senzor
54410	BELTR LED 2.2ft S3F 2600/840	x	54413	X	54418
54420	BELTR LED 2.2ft S3F 3200/840	x	54423	x	54428
54480	BELTR LED 2.4ft S3F 5200/840	54484	54483	x	54488
54440	BELTR LED 2.4ft S3F 6400/840	54444	54443	x	54448
54490	BELTR LED 2.5ft S3F 6500/840	54494	54493	x	54498
54450	BELTR LED 2.5ft S3F 8000/840	54454	54453	x	54458

Example of type marking: 54453 = BELTR LED 2.5ft S3F 8000/840 **DALI**

LEGEND

1F 1-phase 3 core through-wiring in the luminaire
3F 3-phase 5 core through-wiring in the luminaire
M1h emergency back-up source with 1 hour operating time for maintained emergency illumination
M3h emergency back-up source with 3 hour operating time for maintained emergency illumination
3F Mxh 3-phase 5 core through-wiring in the luminaire
(L3 used for emergency unit unswitched power supply)

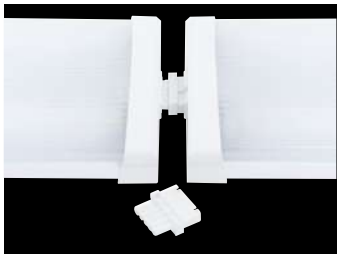
DALI version with digital dimmable driver DALI
DALI 1F 1-phase 5 core through-wiring in the luminaire
DALI 3F 3-phase 7 core through-wiring in the luminaire
DALI 3F Mxh 3-phase 7 core through-wiring in the luminaire
(L3 used for emergency unit unswitched power supply)

LIGHT FITTING ATTACHMENT

Directly to a ceiling or a wall with the use of screws

LIGHT FITTING DETAILED VIEW

BELTR LED



BELTR LED TUBE

... indoor, plastic, surface-mounted, batten.

USE

The light fitting is suitable for offices, hallways, school interiors, libraries, lecture rooms, sanitary rooms, hospitals and passenger terminals.

Thanks to its high luminous efficiency and low electricity consumption it is a suitable replacement for light fittings with fluorescent tubes.

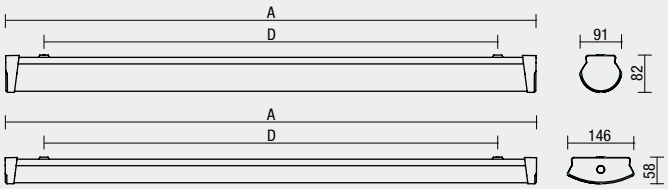
ADVANTAGES

- Light fitting protection **IP40**
- Maximum ambient temperature up to **t_a = 35 °C**
- Diffuser: transparent polycarbonate = high mechanical resistance
- Body: steel sheet, white colour (RAL 9003)
- Up to 45 % lower electricity consumption when compared to tubes T5
- It can be delivered in emergency version

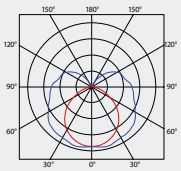
BELTR LED TUBE

TECHNICAL DESCRIPTION

- Light fitting protection: IP40
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 hour; M1h)
- Maximum system efficacy: 145 lm/W
- MacAdam = 3 SDCM
- The watt and lumen values can vary by ± 7,5 %
- Diffuser: transparent polycarbonate, UV stable, impact-resistant
- Body: steel sheet, white colour (RAL 9003)
- Side covers: white (ABS), UV stable
- Cable gland: white, rubber
- Terminal block: screwless, three-pole (basic version)
- Electric equipment: for LED tubes Osram ST8A 4000 K, 6500 K; lampholder G13

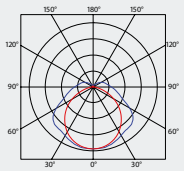


BELTR LED TUBE 1x120



C0
C90

BELTR LED TUBE 2x120



Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature ta = 35 °C - body: steel sheet, white colour - diffuser: translucent polycarbonate - lampholder G13							
37110	BELTR LED TUBE 1x60	1100	1060	7,3	145	0,5	635	450
37120	BELTR LED TUBE 1x120	2100	2025	14	145	0,9	1245	900
37130	BELTR LED TUBE 1x150	3100	2988	20,6	145	1,1	1545	900
37140	BELTR LED TUBE 2x60	2200	2025	14,6	139	0,8	635	450
37150	BELTR LED TUBE 2x120	4200	3855	28	138	1,4	1245	900
37160	BELTR LED TUBE 2x150	6200	5670	41,2	138	1,7	1545	900

* - total luminous flux of the light fitting with Osram ST8A sources

BELTR LED TUBE

For LED tubes Osram ST8A

Code	Type	1F	3F	M1h	M3h
37110	BELTR LED TUBE 1x60	x	x	x	x
37120	BELTR LED TUBE 1x120	x	x	x	x
37130	BELTR LED TUBE 1x150	x	x	x	x
37140	BELTR LED TUBE 2x60	x	x	37144	37145
37150	BELTR LED TUBE 2x120	x	x	37154	37155
37160	BELTR LED TUBE 2x150	x	x	37164	37165

Example of type marking: 37164 = BELTR LED TUBE 2x150 **M1h**

LEGEND

1F – 1 phase wiring cables for through-wiring
3F – 3 phase wiring cables for through-wiring
M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination
M3h – emergency back-up source with operating time of 3 hours (SA) for both permanent and emergency illumination
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

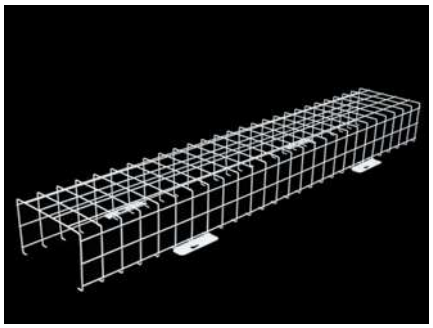
Directly to a ceiling or a wall with the use of screws

LIGHT FITTING DETAILED VIEW

BELTR LED TUBE

OM – protective grid

The metal grid protects the light fitting against mechanical damage and unauthorised handling. It is attached to the surface with the use of screws.
The surface is treated with the RAL 9003 powder-coated colour.

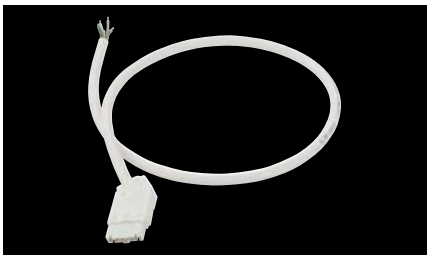


Code	Type	Description	Weight [kg]
11941	OM 218	protective grid for types 218, 214/224, 2.2ft (700 × 220 × 130 mm)	1,0
11942	OM 236	protective grid for types 236, 228/254, 2.4ft (1300 × 220 × 130 mm)	1,7
11943	OM 258	protective grid for types 258, 235/249/280, 2.5ft (1600 × 220 × 130 mm)	2,0

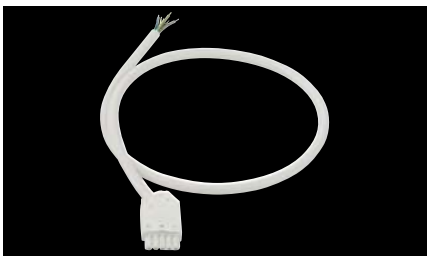
Connection cables and connectors

Code	Type	Description	Weight [kg]
27401	GST 15i5-S1	5-pole wiring terminal block	0,1

Code	Type	Description	Weight [kg]
27421	GST 15i5-S21	interconnecting cable 5x1.5 mm² - female/male L=1m	0,2
27422	GST 15i5-S22	interconnecting cable 5x1.5 mm² - female/male L=2m	0,3
27423	GST 15i5-S23	interconnecting cable 5x1.5 mm² - female/male L=3m	0,4
27424	GST 15i5-S24	interconnecting cable 5x1.5 mm² - female/male L=4m	0,5
27425	GST 15i5-S25	interconnecting cable 5x1.5 mm² - female/male L=5m	0,6
27426	GST 15i5-S26	interconnecting cable 5x1.5 mm² - female/male L=6m	0,7
27427	GST 15i5-S27	interconnecting cable 5x1.5 mm² - female/male L=7m	0,8
27428	GST 15i5-S28	interconnecting cable 5x1.5 mm² - female/male L=8m	0,9



Code	Type	Description	Weight [kg]
27431	GST 15i5-S31	connecting cable 5x1.5 mm² - male/free end L=1m	0,2
27432	GST 15i5-S32	connecting cable 5x1.5 mm² - male/free end L=2m	0,3
27433	GST 15i5-S33	connecting cable 5x1.5 mm² - male/free end L=3m	0,4
27434	GST 15i5-S34	connecting cable 5x1.5 mm² - male/free end L=4m	0,5
27435	GST 15i5-S35	connecting cable 5x1.5 mm² - male/free end L=5m	0,6
27436	GST 15i5-S36	connecting cable 5x1.5 mm² - male/free end L=6m	0,7
27437	GST 15i5-S37	connecting cable 5x1.5 mm² - male/free end L=7m	0,8
27438	GST 15i5-S38	connecting cable 5x1.5 mm² - male/free end L=8m	0,9



Code	Type	Description	Weight [kg]
27441	GST 15i5-S41	connecting cable 5x1.5 mm² - female/free end L=1m	0,2
27442	GST 15i5-S42	connecting cable 5x1.5 mm² - female/free end L=2m	0,3
27443	GST 15i5-S43	connecting cable 5x1.5 mm² - female/free end L=3m	0,4
27444	GST 15i5-S44	connecting cable 5x1.5 mm² - female/free end L=4m	0,5
27445	GST 15i5-S45	connecting cable 5x1.5 mm² - female/free end L=5m	0,6
27446	GST 15i5-S46	connecting cable 5x1.5 mm² - female/free end L=6m	0,7
27447	GST 15i5-S47	connecting cable 5x1.5 mm² - female/free end L=7m	0,8
27448	GST 15i5-S48	connecting cable 5x1.5 mm² - female/free end L=8m	0,9

NAOS

INDOOR

METAL

NAOS – indoor metal LED light fitting

NAOS
page 208

IP20

NAOS
page 208

NAOS SQUARE
page 211

IP20

NAOS SQUARE
page 211

NAOS MPR
page 213

IP20

NAOS MPR
page 213

NAOS SQUARE MPR
page 216

IP20

NAOS SQUARE MPR
page 216

NAOS
ACCESSORIES
page 218

NAOS
ACCESSORIES
page 218

NAOS

... indoor, metal.

USE

Advanced lamp with low profile of total height of 34 mm only.

Body of the lamp is made of painted metal sheet and it is supplemented with acryl diffuser sandblasted on both sides.

The light fitting is suitable for offices, hallways, school interiors, libraries, lecture rooms, sanitary rooms, hospitals and passenger terminals.

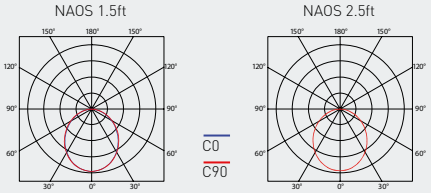
ADVANTAGES

- Light fitting protection **IP20**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: acryl (PMMA) sandblasted on both sides
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ

NAOS

TECHNICAL DESCRIPTION

- Light fitting protection: IP20
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 hour; M1h)
- Maximum system efficacy: 125 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: acryl (PMMA) sandblasted on both sides
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Cable gland: rubber (SBS), white
- Terminal block: screwless, five-pole
- Securing of the cover: by the means of magnets
- Electric equipment: LED modules, current driver or current driver DALI



Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser made of sandblasted opalised acryl							
95010	NAOS 1.2ft 1300/840	1300	1050	9	116	2,0	620	470
95020	NAOS 1.2ft 1600/840	1600	1290	11	117	2,0	620	470
95040	NAOS 1.4ft 2600/840	2600	2120	18	118	3,7	1180	1030
95050	NAOS 1.4ft 3200/840	3200	2620	22	119	3,7	1180	1030
95070	NAOS 1.5ft 3250/840	3250	2570	22	117	4,4	1460	1310
95080	NAOS 1.5ft 4000/840	4000	3230	27	120	4,4	1460	1310
95100	NAOS 2.2ft 2600/840	2600	2150	18	119	2,6	620	470
95110	NAOS 2.2ft 3200/840	3200	2670	22	121	2,6	620	470
95130	NAOS 2.4ft 5200/840	5200	4280	35	122	4,6	1180	1030
95140	NAOS 2.4ft 6400/840	6400	5270	42	125	4,6	1180	1030
95160	NAOS 2.5ft 6500/840	6500	5400	44	123	5,5	1460	1310
95170	NAOS 2.5ft 8000/840	8000	6590	53	124	5,5	1460	1310

95050 NAOS 1.4ft 3200/840 = suitable replacement for T5 fl. tube light fitting LUXOR 154 OP ET5 – 1 × 54 W
95140 NAOS 2.4ft 6400/840 = suitable replacement for T5 fl. tube light fitting LUXOR 254 OP ET5 – 2 × 54 W

NAOS

Diffuser made from sandblasted opalised acryl, white colour

Code	Type	M1h	DALI	DALI M1h
95010	NAOS 1.2ft 1300/840	95013	95015	95016
95020	NAOS 1.2ft 1600/840	95023	95025	95026
95040	NAOS 1.4ft 2600/840	95043	95045	95046
95050	NAOS 1.4ft 3200/840	95053	95055	95056
95070	NAOS 1.5ft 3250/840	95073	95075	95076
95080	NAOS 1.5ft 4000/840	95083	95085	95086
95100	NAOS 2.2ft 2600/840	95103	95105	95106
95110	NAOS 2.2ft 3200/840	95113	95115	95116
95130	NAOS 2.4ft 5200/840	95133	95135	95136
95140	NAOS 2.4ft 6400/840	95143	95145	95146
95160	NAOS 2.5ft 6500/840	95163	95165	95166
95170	NAOS 2.5ft 8000/840	95173	95175	95176

Example of type marking: 95146 = NAOS 2.4ft 6400/840 **DALI M1h**

NAOS s

Diffuser made from sandblasted opalised acryl, silver colour (s)

Code	Type	M1h	DALI	DALI M1h
95310	NAOS 1.2ft 1300/840 s	95313	95315	95316
95320	NAOS 1.2ft 1600/840 s	95323	95325	95326
95340	NAOS 1.4ft 2600/840 s	95343	95345	95346
95350	NAOS 1.4ft 3200/840 s	95353	95355	95356
95370	NAOS 1.5ft 3250/840 s	95373	95375	95376
95380	NAOS 1.5ft 4000/840 s	95383	95385	95386
95400	NAOS 2.2ft 2600/840 s	95403	95405	95406
95410	NAOS 2.2ft 3200/840 s	95413	95415	95416
95430	NAOS 2.4ft 5200/840 s	95433	95435	95436
95440	NAOS 2.4ft 6400/840 s	95443	95445	95446
95460	NAOS 2.5ft 6500/840 s	95463	95465	95466
95470	NAOS 2.5ft 8000/840 s	95473	95475	95476

Example of type marking: 95413 = NAOS 2.2ft 3200/840 **M1h** s

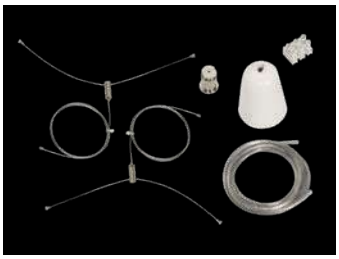
LEGEND

s – silver colour RAL 9006
DALI – version with electronic and digitally dimmed ballast module operated via DALI protocol
M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination

Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws
b) By suspending to a ceiling with the use of wire-cord suspensions



LIGHT FITTING DETAILED VIEW

NAOS

NAOS SQUARE

... indoor, square, metal.

USE

Advanced lamp with low profile of total height of 34 mm only.

Body of the lamp is made of painted metal sheet and it is supplemented with acryl diffuser sandblasted on both sides.

The light fitting is suitable for offices, hallways, school interiors, libraries, lecture rooms, sanitary rooms, hospitals and passenger terminals.

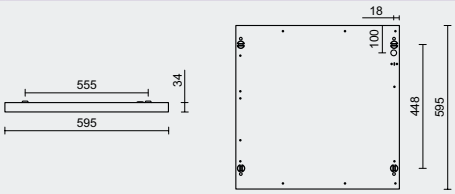
ADVANTAGES

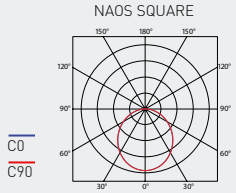
- Light fitting protection **IP20**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: acryl (PMMA) sandblasted on both sides
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ

NAOS SQUARE

TECHNICAL DESCRIPTION

- Light fitting protection: IP20
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 125 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: acryl (PMMA) sandblasted on both sides
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Cable gland: rubber (SBS), white
- Terminal block: screwless, five-pole
- Securing of the cover: by the means of magnets
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For ambient temperature t_a = 35 °C - body: steel sheet, white colour - diffuser made of sandblasted opalised acryl					
95710	NAOS SQUARE 5200/840	5200	4280	35	122	5,7
95720	NAOS SQUARE 6400/840	6400	5270	42	125	5,7

95710 NAOS SQUARE 5200/840 = suitable replacement surface mounted or recessed fluorescent light fittings 4×18 W a 4×14 W

NAOS SQUARE

Diffuser made from sandblasted opalised acryl, white colour

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
95710	NAOS SQUARE 5200/840	95713	95714	95715	95716	95717
95720	NAOS SQUARE 6400/840	95723	95724	95725	95726	95727

NAOS SQUARE s

Diffuser made from sandblasted opalised acryl, silver colour (s)

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
95750	NAOS SQUARE 5200/840 s	95753	95754	95755	95756	95757
95760	NAOS SQUARE 6400/840 s	95763	95764	95765	95766	95767

Example of type marking: 95756 = NAOS SQUARE 5200/840 **DALI M1h** s

LEGEND

s – silver colour RAL 9006
DALI – version with electronic and digitally dimmed ballast module operated via DALI protocol
M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws
b) By suspending to a ceiling with the use of wire-cord suspensions
c) Installation into 600 × 600 mm grid lower ceiling

LIGHT FITTING DETAILED VIEW

NAOS SQUARE

NAOS MPR

... indoor, metal, with low UGR.

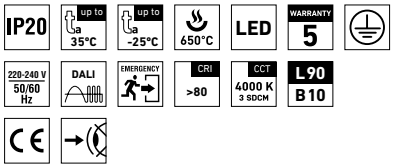
USE

Advanced lamp **with low profile** of total height of **34 mm only**.

The light fitting is suitable for offices, hallways, school interiors, libraries, lecture rooms, sanitary rooms, hospitals and passenger terminals.

ADVANTAGES

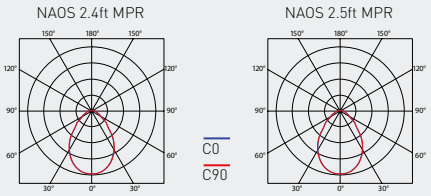
- Light fitting protection **IP20**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: multi-layer micropyramid optics (MPR) with UGR < 19
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ



NAOS MPR

TECHNICAL DESCRIPTION

- Light fitting protection: IP20
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 hour; M1h)
- Maximum system efficacy: 115 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: multi-layer micropyramid optics MPR for light distribution without glare according to EN 12464-1 with UGR < 19
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Cable gland: rubber (SBS), white
- Terminal block: screwless, five-pole
- Securing of the cover: by the means of magnets
- Electric equipment: LED modules, current driver or current driver DALI



Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	D [mm]
	For environment temperature t_a = 35 °C - body made of white steel sheet - diffuser made of multilayer micropyramid optics							
95510	NAOS MPR 2.4ft 5200/840	5200	4020	35	115	6,1	1180	1030
95520	NAOS MPR 2.5ft 6500/840	6500	5070	44	115	7,6	1460	1310

95510 NAOS MPR 2.4ft 5200/840 = suitable replacement for T5 fl. tube light fitting LUXOR 235 OP ET5 – 2×35 W
95520 NAOS MPR 2.4ft 6500/840 = suitable replacement for T5 fl. tube light fitting LUXOR 249 OP ET5 – 2×49 W

NAOS MPR

Diffuser with multilayer micropyramid optics, white colour

Code	Type	M1h	DALI	DALI M1h
95510	NAOS MPR 2.4ft 5200/840	95513	95515	95516
95520	NAOS MPR 2.5ft 6500/840	95523	95525	95526

NAOS MPR s

Diffuser with multilayer micropyramid optics, silver colour (s)

Code	Type	M1h	DALI	DALI M1h
95610	NAOS MPR 2.4ft 5200/840 s	95613	95615	95616
95620	NAOS MPR 2.5ft 6500/840 s	95623	95625	95626

Example of type marking: 95626 = NAOS MPR 2.5ft 6500/840 **DALI M1h**

LEGEND

s – silver colour RAL 9006
DALI – version with electronic and digitally dimmed ballast module operated via DALI protocol
M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination

Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws
b) By suspending to a ceiling with the use of wire-cord suspensions

LIGHT FITTING DETAILED VIEW

NAOS MPR

NAOS SQUARE MPR

... indoor, square, metal, with low UGR.

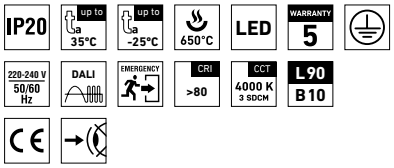
USE

Advanced lamp **with low profile** of total height of **34 mm only**.

The light fitting is suitable for offices, hallways, school interiors, libraries, lecture rooms, sanitary rooms, hospitals and passenger terminals.

ADVANTAGES

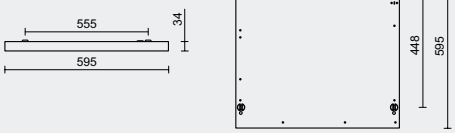
- Light fitting protection **IP20**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Diffuser: multi-layer micropyramid optics (MPR) with UGR < 19
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Certification: ESČ

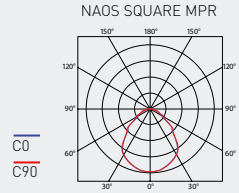


NAOS SQUARE MPR

TECHNICAL DESCRIPTION

- Light fitting protection: IP20
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source for 1 or 3 hours; M1h, M3h)
- Maximum system efficacy: 115 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: multi-layer micropyramid optics MPR for light distribution without glare according to EN 12464-1 with UGR < 19
- Body: steel sheet, white (RAL 9003) or silver (RAL 9006) colour
- Cable gland: rubber (SBS), white
- Terminal block: screwless, five-pole
- Securing of the cover: by the means of magnets
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
	For environment temperature t_a = 35 °C - body made of white steel sheet - diffuser made of multilayer micropyramid optics					
95810	NAOS SQUARE MPR 5200/840	5200	4020	35	115	5,7

95810 NAOS SQUARE MPR 5200/840 = suitable replacement surface mounted or recessed fluorescent light fittings 4×18 W a 4×14 W

NAOS SQUARE MPR

Diffuser with multilayer micropyramid optics, white colour

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
95810	NAOS SQUARE MPR 5200/840	95813	95814	95815	95816	95817

NAOS SQUARE MPR s

Diffuser with multilayer micropyramid optics, silver colour (s)

Code	Type	M1h	M3h	DALI	DALI M1h	DALI M3h
95850	NAOS SQUARE MPR 5200/840 s	95853	95854	95855	95856	95857

Example of type marking: 95856 = NAOS SQUARE MPR 5200/840 **DALI M1h** s

LEGEND

s – silver colour RAL 9006
DALI – version with electronic and digitally dimmed ballast module operated via DALI protocol
M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination

Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

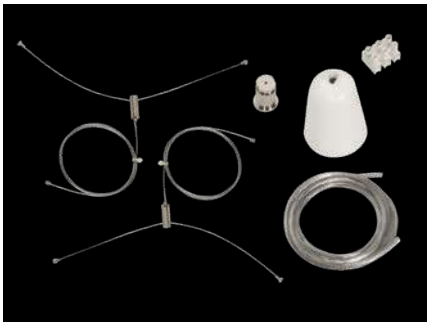
LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws
b) By suspending to a ceiling with the use of wire-cord suspensions
c) Installation into 600 × 600 mm grid lower ceiling

LIGHT FITTING DETAILED VIEW

NAOS SQUARE MPR

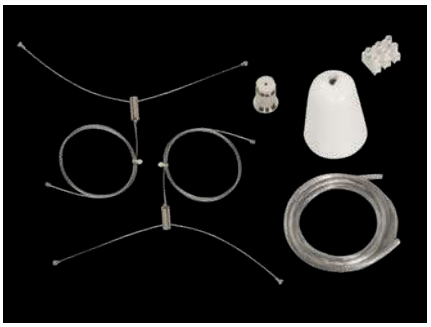
Ceiling suspender kit for NAOS luminaires



Code	Type	Description	Weight [kg]
101344	ZL 1 - S3	a wire suspension kit with a maximum length of 1.5m to hang **single-line light fixtures (1.2ft, 1.4ft, 1.5ft)** including a **3-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 150 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2
101458	ZL 1 - S5	a wire suspension kit with a maximum length of 1.5m to hang **single-line light fixtures (1.2ft, 1.4ft, 1.5ft)** including a **5-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 150 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2

Code	Type	Description	Weight [kg]
101456	ZL 2 - S3	a wire suspension kit with a maximum length of 1.5m to hang **double-line light fixtures (2.2ft, 2.4ft, 2.5ft)** including a **3-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 300 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2
101494	ZL 2 - S5	a wire suspension kit with a maximum length of 1.5m to hang **double-line light fixtures (2.2ft, 2.4ft, 2.5ft)** including a **5-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 300 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2

Ceiling suspender kit for NAOS MPR luminaires



Code	Type	Description	Weight [kg]
101456	ZL 2 - S3	a wire suspension kit with a maximum length of 1.5m to hang **double-line light fixtures (2.2ft, 2.4ft, 2.5ft)** including a **3-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 300 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2
101494	ZL 2 - S5	a wire suspension kit with a maximum length of 1.5m to hang **double-line light fixtures (2.2ft, 2.4ft, 2.5ft)** including a **5-core** supply cable (a steel Y wire with a keyhole hanging bracket and a span of 300 mm including a ceiling wire holder clip – 2 pcs, supply cable, ceiling rose, three-pole terminal block)	0,2

Ceiling suspender kit for NAOS SQUARE, NAOS SQUARE MPR luminaires

Code	Type	Description	Weight [kg]
101457	ZL 3 - S3	a wire suspension kit with a maximum length of 1.5 m to hang **square light** fixtures including a **3-core** supply cable (a steel wire with a keyhole hanging bracket and a ceiling hook – 4 pcs, M5 bolt with a fan disc washer – 4pcs, supply cable, ceiling rose, three-pole terminal block)	0,2
101495	ZL 3 - S5	a wire suspension kit with a maximum length of 1.5 m to hang **square light** fixtures including a **5-core** supply cable (a steel wire with a keyhole hanging bracket and a ceiling hook – 4 pcs, M5 bolt with a fan disc washer – 4pcs, supply cable, ceiling rose, five-pole terminal block)	0,2

MO LED

INDOOR

BATTEN

MO LED – indoor batten LED light fittings

MO LED
p. 222

IP20

MO LED
p. 222

MO LED
ACCESSORIES
p. 225

MO LED
ACCESSORIES
p. 225

MO LED

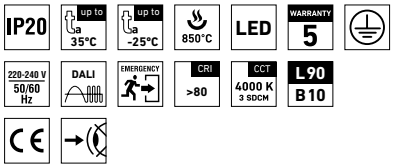
... indoor suspended LED light fitting.

USE

Interior light fitting from aluminum profile and PC of diffuser It is suitable for selling premises, offices, corridors, entrance and terminal halls, interiors of schools, lecture rooms and hospitals. The light fittings can be easy connected to different lengths and shapes.

ADVANTAGES

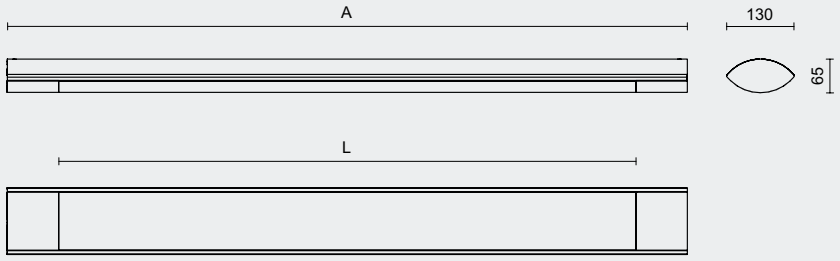
- Light fitting protection **IP20**
- Maximum ambient temperature up to **t_a = 35 °C**
- Lifetime: 50,000 hours / L90B10
- Possibility of connection of light fittings to required lengths and shapes
- Diffuser: polycarbonate with translucent foil (PC)
- Body: aluminium profile, white (RAL 9003) or silver (RAL 9006) colour
- Up to 45 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- Standard model - CRI > 80: 4000 K
- At request CRI > 80: 3000 K, 5000 K, 6500 K, CRI > 90: 3000 K, 4000 K, 5000 K, 6500 K
- It can be delivered in dimmable or permanent emergency version M1h and M3hAt
- Through-wiring in basic version

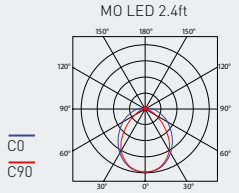


MO LED

TECHNICAL DESCRIPTION

- Light fitting protection: IP20
- Maximum ambient temperature: t_a = 35 °C, Maximum ambient temperature: t_a = 25 °C (version with emergency back-up source M1h a M3hAt)
- Maximum system efficacy: 121 lm/W
- The watt and lumen values can vary by ± 7,5 %
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Diffuser: polycarbonate with translucent foil (PC)
- Body: aluminium profile, white (RAL 9003) or silver (RAL 9006) colour
- Reflector: steel sheet, white colour (RAL 9003)
- Terminal block: 2x screwless-type, five-poles, three-phase connection
- Electric equipment: LED modules, current driver or current driver DALI





Code	Type	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]	A [mm]	L [mm]
	For ambient temperature t_a = 35 °C - aluminum profile of white color - polycarbonate with translucent foil							
86410	MO LED 1.2ft 1600/840	1600	1220	11	110	1,9	764	564
86420	MO LED 1.2ft 2200/840	2200	1760	15	117	1,9	764	564
86430	MO LED 1.4ft 3200/840	3200	2560	23	111	3,2	1324	1124
86440	MO LED 1.4ft 4400/840	4400	3520	31	114	3,2	1324	1124
86450	MO LED 1.5ft 4000/840	4000	3200	28	114	3,7	1604	1404
86460	MO LED 1.5ft 5500/840	5500	4400	38	116	3,7	1604	1404
86470	MO LED 2.2ft 3200/840	3200	2560	23	111	1,9	764	564
86480	MO LED 2.2ft 4400/840	4400	3520	31	114	1,9	764	564
86490	MO LED 2.4ft 6400/840	6400	5120	43	119	3,3	1324	1124
86500	MO LED 2.4ft 8800/840	8800	7040	59	119	3,3	1324	1124
86510	MO LED 2.5ft 8000/840	8000	6400	54	119	3,8	1604	1404
86520	MO LED 2.5ft 11000/840	11000	8800	73	121	3,8	1604	1404

86410 MO LED 1.2ft 1600/840 = suitable replacement for T5 fl. tube light fitting MO 118 – 1 × 18 W
86430 MO LED 1.4ft 3200/840 = suitable replacement for T5 fl. tube light fitting MO 136 – 1 × 36 W
86450 MO LED 1.5ft 4000/840 = suitable replacement for T5 fl. tube light fitting MO 158 – 1 × 58 W
86470 MO LED 2.2ft 3200/840 = suitable replacement for T5 fl. tube light fitting MO 218 – 2 × 18 W
86490 MO LED 2.4ft 6400/840 = suitable replacement for T5 fl. tube light fitting MO 236 – 2 × 36 W
86510 MO LED 2.5ft 8000/840 = suitable replacement for T5 fl. tube light fitting MO 258 – 2 × 58 W

MO LED

Body: white colour (RAL 9003)

Code	Type	M1h	M3hAt	DALI	DALI M1h	DALI M3hAt
86410	MO LED 1.2ft 1600/840	x	x	86419	x	x
86420	MO LED 1.2ft 2200/840	x	x	86429	x	x
86430	MO LED 1.4ft 3200/840	86434	86435	86439	86438	86437
86440	MO LED 1.4ft 4400/840	86444	86445	86449	86448	86447
86450	MO LED 1.5ft 4000/840	86454	86455	86459	86458	86457
86460	MO LED 1.5ft 5500/840	86464	86465	86469	86468	86467
86470	MO LED 2.2ft 3200/840	x	x	86479	x	x
86480	MO LED 2.2ft 4400/840	x	x	86489	x	x
86490	MO LED 2.4ft 6400/840	86494	86495	86499	86498	86497
86500	MO LED 2.4ft 8800/840	86504	86505	86509	86508	86507
86510	MO LED 2.5ft 8000/840	86514	86515	86519	86518	86517
86520	MO LED 2.5ft 11000/840	86524	86525	86529	86528	86527

Example of type marking: 86495 = MO LED 2.4ft 6400/840 **M3hAt**

MO LED s

Body: silver colour (RAL 9006)

Code	Type	M1h	M3hAt	DALI	DALI M1h	DALI M3hAt
86530	MO LED 1.2ft 1600/840 s	x	x	86539	x	x
86540	MO LED 1.2ft 2200/840 s	x	x	86549	x	x
86550	MO LED 1.4ft 3200/840 s	86554	86555	86559	86558	86557
86560	MO LED 1.4ft 4400/840 s	86564	86565	86569	86568	86567
86570	MO LED 1.5ft 4000/840 s	86574	86575	86579	86578	86577
86580	MO LED 1.5ft 5500/840 s	86584	86585	86589	86588	86587
86590	MO LED 2.2ft 3200/840 s	x	x	86599	x	x
86600	MO LED 2.2ft 4400/840 s	x	x	86609	x	x
86610	MO LED 2.4ft 6400/840 s	86614	86615	86619	86618	86617
86620	MO LED 2.4ft 8800/840 s	86624	86625	86629	86628	86627
86630	MO LED 2.5ft 8000/840 s	86634	86635	86639	86638	86637
86640	MO LED 2.5ft 11000/840 s	86644	86645	86649	86648	86647

LEGEND

s – silver colour RAL 9006
DALI – version with electronic and digitally dimmed ballast module operated via DALI protocol

M1h – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination
M3hAt – emergency back-up source with operating time of 1 hour (SA) for both permanent and emergency illumination with battery autotesting

Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

LIGHT FITTING ATTACHMENT

a) With the use of wire-cord suspensions and joints

LIGHT FITTING DETAILED VIEW

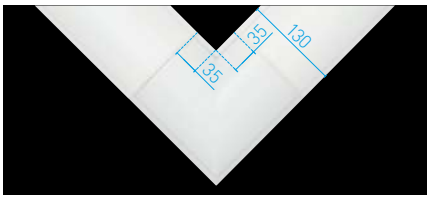
MO LED

Metal joints

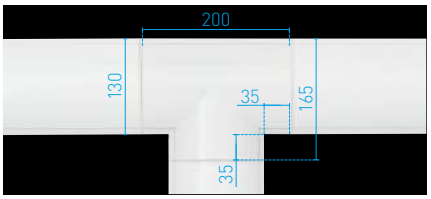
Metal joints in RAL colour serve to interconnect light fittings into various shapes. Joints are including connecting material.

Code	Type	Description	Weight [kg]
16190	MO-S	direct connection of light fittings into row, white RAL 9003	0.1
16192	MO-S s	direct connection of light fittings into row, silver RAL 9006	0.1

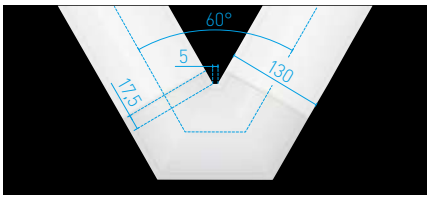
Code	Type	Description	Weight [kg]
16111	MO-I	direct connection of light fittings into row (200 mm), white RAL 9003	0.5
16112	MO-I s	direct connection of light fittings into row (200 mm), silver RAL 9006	0.5



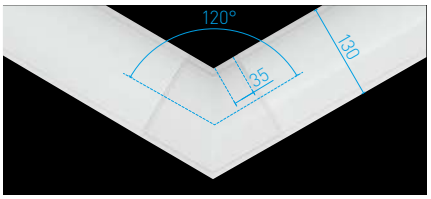
Code	Type	Description	Weight [kg]
16121	MO-L	connection of light fittings in L shape with angle of 90°, white RAL 9003	0.6
16122	MO-L s	connection of light fittings in L shape with angle of 90°, silver RAL 9006	0.6



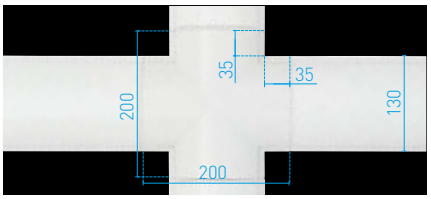
Code	Type	Description	Weight [kg]
16131	MO-T	connection of light fittings in T shape with angles of 90°, white RAL 9003	0.7
16132	MO-T s	connection of light fittings in T shape with angles of 90°, silver RAL 9006	0.7



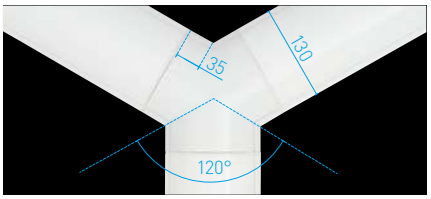
Code	Type	Description	Weight [kg]
16141	MO-U	connection of light fittings with angles from 45° to 89° - standardly supplied angle is 60°; other angles can be made-to-order, white RAL 9003	0.6
16142	MO-U s	connection of light fittings with angles from 45° to 89° - standardly supplied angle is 60°; other angles can be made-to-order, silver RAL 9006	0.6



Code	Type	Description	Weight [kg]
16151	MO-V	connection of light fittings with angles from 91° to 175° - standardly supplied angle is 120°; other angles can be made-to-order, white RAL 9003	0.6
16152	MO-V s	connection of light fittings with angles from 91° to 175° - standardly supplied angle is 120°; other angles can be made-to-order, silver RAL 9006	0.6



Code	Type	Description	Weight [kg]
16161	MO-X	connection of light fittings in X shape with angles of 90°, white RAL 9003	0.8
16162	MO-X s	connection of light fittings in X shape with angles of 90°, silver RAL 9006	0.8



Code	Type	Description	Weight [kg]
16171	MO-Y	connection of light fittings with angle of 120°, white RAL 9003	0.7
16172	MO-Y s	connection of light fittings with angle of 120°, silver RAL 9006	0.7

Code	Type	Description	Weight [kg]
16181	MO-K	plastic end cap, white RAL 9003	0.1
16182	MO-K s	plastic end cap, silver RAL 9006	0.1

Code	Type	Description	Weight [kg]
16002	MO tube body	tube body for addition of set shape, max. length 2m, white	according to length
16003	MO tube cover	tube cover for addition of set shape, max. length 2m, white	according to length
16202	MO tube body-s	tube body for addition of set shape, max. length 2m, silver	according to length
16203	MO tube cover-s	tube cover for addition of set shape, max. length 2m, silver	according to length

Z4 - ceiling suspension

Steel wire cord 1.1m, wire-cord brackets, metal slider into tube groove, plastic cap on ceiling in white or silver colour.

Code	Type	Description	Weight [kg]
16101	Z4-F1	ceiling wire-cord suspension for type MO/RPK, white RAL 9003	0.1
16102	Z4-F1 s	ceiling wire-cord suspension for type MO/RPK, silver RAL 9006	0.1

Supply cable

The twisted cable for electricity supply into a set of light fittings.

Code	Type	Description	Weight [kg]
13401	KPK 3x0.5 KR	cable, length 30 - 80 cm - short - white	0.1
13402	KPK 3x0.5 DL	cable, length 80 - 160 cm - long - white	0.2
13403	KPK 3x0.75 KR	cable, length 30 - 80 cm - short - white	0.1
13404	KPK 3x0.75 DL	cable, length 80 - 160 cm - long - white	0.2
13405	KPK 3x1.0 KR	cable, length 30 - 60 cm - short - white	0.1
13406	KPK 3x1.0 DL	cable, length 60 - 120 cm - long - white	0.2
13408	KPK 3x1.5 DL	cable, length 60 - 120 cm - long - white	0.2
13415	KPK 4x1.0 KR	cable, length 30 - 60 cm - short - white	0.1
13416	KPK 4x1.0 DL	cable, length 60 - 120 cm - long - white	0.2
13426	KPK 5x1.0 DL	cable, length 60 - 120 cm - long - white	0.2
13434	KPK 3x0.75 DL cr	cable, length 80 - 160 cm - long - black	0.2

OUTDOOR ILLUMINATION

OUTDOOR

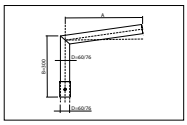
STREET

EVELUX – street lamp units

EVELUX
p. 230

IP66

EVELUX
p. 230



OUTDOOR LIGHTING ACCESSORIES
p. 234

EVELUX

... lamp for road lighting.

USE

The luminaire is suitable for roads, residential areas, parking areas and outdoor areas.

The luminaire is resistant to dust, moisture and gushing water.

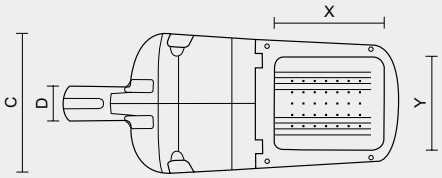
ADVANTAGES

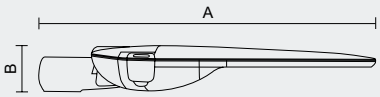
- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 45 °C**
- Lifetime: up to 100 000 hours / L90B10 at t_a = 45 °C
- Body: gray aluminium alloy (RAL 7021)
- Reflector cover made from thermally hardened safety glass
- Model CRI > 70: 4000 K, 3000 K
- Optional optical luminaire system
- Overvoltage protection 10 kV

EVELUX

TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 45 °C
- Maximum system efficacy: 153 lm/W
- The watt and lumen values can vary by ± 7,5 %
- CRI > 70, CCT = 4000 K, 3000 K
- MacAdam = 3 SDCM
- Lifetime: 100,000 hours / L90B10
- Body: gray aluminium alloy (RAL 7021)
- Cover: thermally hardened safety glass
- Terminal block: three-pole screwed type, with disconnector for wire cross section of max. 4 mm²
- Cable gland: PG 9
- Installation: bracket included in package
- Electric equipment:
  - LED modules, overvoltage protection 10 kV
  - 1 PN power supply with CLO and midnight function
  - power supply DALI 4 PN





	A	B	C	D	X	Y
S	630	95	265	60	185	150
M	720	100	310	60	235	200

Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Net weight [kg]
For ambient temperature t_a = 45 °C - gray coloured body made from aluminium alloy						
EVELUX S 16/35/730	45	2670	2300	16	144	5
EVELUX S 24/35/730	45	4000	3440	25	138	5
EVELUX S 24/52/730	45	5670	4880	39	125	5
EVELUX S 24/70/730	45	7330	6300	53	119	5
EVELUX M 32/35/730	45	5330	4580	34	135	7,2
EVELUX M 48/35/730	45	7990	6870	50	137	7,2
EVELUX M 48/52/730	45	11330	9740	79	123	7,2
EVELUX M 48/70/730	45	14660	12600	105	120	7,2
EVELUX S 16/35/740	45	2850	2450	16	153	5
EVELUX S 24/35/740	45	4280	3680	25	147	5
EVELUX S 24/52/740	45	6070	5220	39	134	5
EVELUX S 24/70/740	45	7850	6750	53	127	5
EVELUX M 32/35/740	45	5700	4900	34	144	7,2
EVELUX M 48/35/740	45	8560	7360	50	147	7,2
EVELUX M 48/52/740	45	12110	10410	79	132	7,2
EVELUX M 48/70/740	45	15690	13620	105	130	7,2

LIGHT FITTING ATTACHMENT (see also page 234)

a) Directly to the wall using a wall bracket
b) Using an arched boom to the mast
c) With the broken boom to the mast

LIGHT FITTING DETAILED VIEW

EVELUX

EVELUX

Driver 1 PN

Type	AS	CP	MR1	EWS1	EP	WR1	MR2	EWS2	WR2	WTR	CW1	WR3	TE	CW2	NR
EVELUX S 16/35/730	22632	22664	76700	22600	22696	76702	22728	22760	76703	22792	22824	22856	22888	22920	76701
EVELUX S 24/35/730	22636	22668	76704	22604	22700	76706	22732	22764	76707	22796	22828	22860	22892	22924	76705
EVELUX S 24/52/730	22644	22676	76708	22612	22708	76710	22740	22772	76711	22804	22836	22868	22900	22932	76709
EVELUX S 24/70/730	22648	22680	76712	22616	22712	76714	22744	22776	76715	22808	22840	22872	22904	22936	76713
EVELUX M 32/35/730	22640	22672	76716	22608	22704	76718	22736	22768	76719	22800	22832	22864	22896	22928	76717
EVELUX M 48/35/730	22660	22692	76720	22628	22724	76722	22756	22788	76723	22820	22852	22884	22916	22948	76721
EVELUX M 48/52/730	22652	22684	76724	22620	22716	76726	22748	22780	76727	22812	22844	22876	22908	22940	76725
EVELUX M 48/70/730	22656	22688	76728	22624	22720	76730	22752	22784	76731	22816	22848	22880	22912	22944	76729
EVELUX S 16/35/740	22634	22666	76732	22602	22698	76734	22730	22762	76735	22794	22826	22858	22890	22922	76733
EVELUX S 24/35/740	22638	22670	76736	22606	22702	76738	22734	22766	76739	22798	22830	22862	22894	22926	76737
EVELUX S 24/52/740	22646	22678	76740	22614	22710	76742	22742	22774	76743	22806	22838	22870	22902	22934	76741
EVELUX S 24/70/740	22650	22682	76744	22618	22714	76746	22746	22778	76747	22810	22842	22874	22906	22938	76745
EVELUX M 32/35/740	22643	22675	76748	22610	22707	76750	22739	22771	76751	22803	22835	22867	22899	22931	76749
EVELUX M 48/35/740	22662	22694	76752	22630	22726	76754	22758	22790	76755	22822	22854	22886	22918	22950	76753
EVELUX M 48/52/740	22654	22686	76756	22622	22718	76758	22750	22782	76759	22814	22846	22878	22910	22942	76757
EVELUX M 48/70/740	22658	22690	76760	22626	22722	76762	22754	22786	76763	22818	22850	22882	22914	22946	76761

102276 Settings: Midnight function

EVELUX DALI

Digital dimmable driver DALI 4 PN

Typ	AS	CP	MR1	EWS1	EP	WR1	MR2	EWS2	WR2	WTR	CW1	WR3	TE	CW2	NR
EVELUX S 16/35/730 DALI	22633	22665	76764	22601	22697	76766	22729	22761	76767	22793	22825	22857	22889	22921	76765
EVELUX S 24/35/730 DALI	22637	22669	76768	22605	22701	76770	22733	22765	76771	22797	22829	22861	22893	22925	76769
EVELUX S 24/52/730 DALI	22645	22677	76772	22613	22709	76774	22741	22773	76775	22805	22837	22869	22901	22933	76773
EVELUX S 24/70/730 DALI	22649	22681	76776	22617	22713	76778	22745	22777	76779	22809	22841	22873	22905	22937	76777
EVELUX M 32/35/730 DALI	22641	22673	76780	22609	22705	76782	22737	22769	76783	22801	22833	22865	22897	22929	76781
EVELUX M 48/35/730 DALI	22661	22693	76784	22629	22725	76786	22757	22789	76787	22821	22853	22885	22917	22949	76785
EVELUX M 48/52/730 DALI	22653	22685	76788	22621	22717	76790	22749	22781	76791	22813	22845	22877	22909	22941	76789
EVELUX M 48/70/730 DALI	22657	22689	76792	22625	22721	76794	22753	22785	76795	22817	22849	22881	22913	22945	76793
EVELUX S 16/35/740 DALI	22635	22667	76796	22603	22699	76798	22731	22763	76799	22795	22827	22859	22891	22923	76797
EVELUX S 24/35/740 DALI	22639	22671	76800	22607	22703	76802	22735	22767	76803	22799	22831	22863	22895	22927	76801
EVELUX S 24/52/740 DALI	22647	22679	76804	22615	22711	76806	22743	22775	76807	22807	22839	22871	22903	22935	76805
EVELUX S 24/70/740 DALI	22651	22683	76808	22619	22715	76810	22747	22779	76811	22811	22843	22875	22907	22939	76809
EVELUX M 32/35/740 DALI	22642	22674	76812	22611	22706	76814	22738	22770	22952	22802	22834	22866	22898	22930	76813
EVELUX M 48/35/740 DALI	22663	22695	76816	22631	22727	76818	22759	22791	76819	22823	22855	22887	22919	22951	76817
EVELUX M 48/52/740 DALI	22655	22687	76820	22623	22719	76822	22751	22783	76823	22815	22847	22879	22911	22943	76821
EVELUX M 48/70/740 DALI	22659	22691	76824	22627	22723	76826	22755	22787	76827	22819	22851	22883	22915	22947	76825

102276 Settings: Midnight function

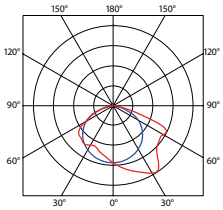
Example of type marking: 76824 = EVELUX M 48/70/740 DALI MR

LEGEND

DALI		– version with digital dimmable driver DALI
AS	**– Asymmetric**	– asymmetric optics
CP	**– Central parking**	– for indoor sections of parking garages
MR1	**– Main road**	– main streets and roads
EWS1	**– Extra wide street**	– very wide roads
EP	**– Edge parking**	– edges and corners of parking garages
WR1	**– Wide road**	– for sidewalks and residential areas
MR2	**– Main road**	– major roads
EWS2	**– Extra wide street**	– very wide roads
WR2	**– Wide road**	– for sidewalks and driveways
WTR	**– Wet road**	– for wet roads
CW1	**– Crosswalk**	– pedestrian crossings and bike paths
WR3	**– Wide road**	– for pavements and access roads
TE	**– Tunnel entrance**	– for tunnel, building and underpass entrances
CW2	**– Crosswalk**	– pedestrian crossings and bike paths
NR	**– Narrow road**	– secondary roads

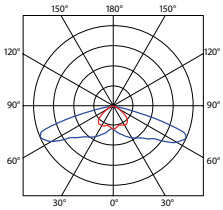
EVELUX - OPTICS

AS
ASYMETRIC



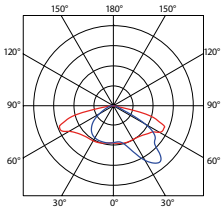
ASYMETRIC

CP
CENTRAL PARKING



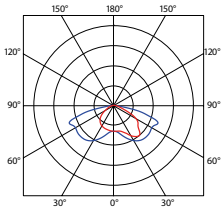
TYPE I

MR1
MAIN ROAD



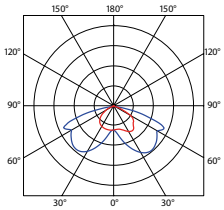
TYPE II ME3A

EWS1
EXTRA WIDE STREET



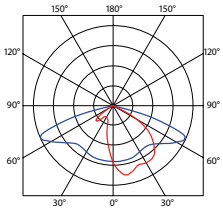
TYPE III - M

EP
EDGE PARKING



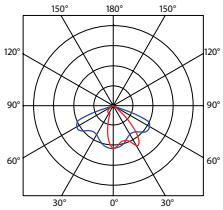
TYPE IV

WR1
WIDE ROAD



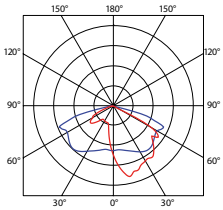
TYPE II / III

MR2
MAIN ROAD



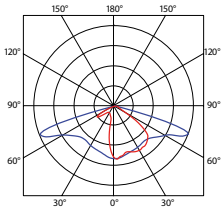
TYPE II

EWS2
EXTRA WIDE STREET



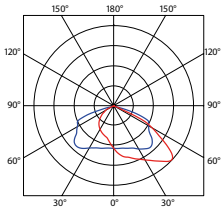
EXTRA WIDE STREET

WR2
WIDE ROAD



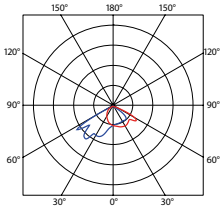
TYPE II OPTI

WTR
WET ROAD



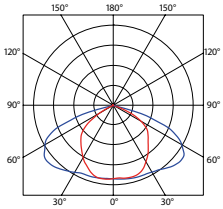
TYPE II / III

CW1
CROSSWALK



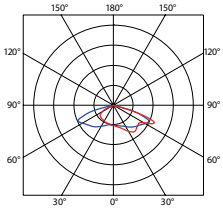
CROSSWALKS

WR3
WIDE ROAD



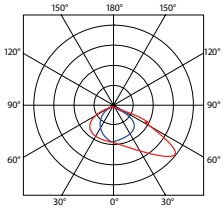
TYPE I CENTRAL LANE

TE
TUNEL ENTRANCE



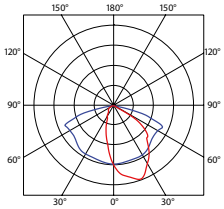
TYPE IV TUNNEL ENTRANCE

CW2
CROSSWALK



CROSSWALKS

NR
NARROW ROAD



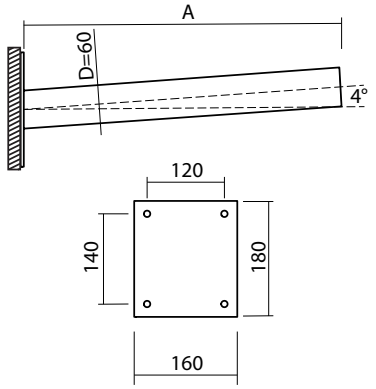
TYPE II ME3

C0

C90

Straight wall boom – type UDS

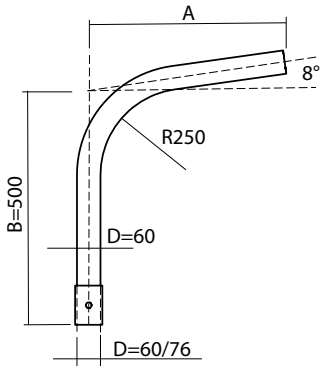
Straight wall boom, with fixing flange, hot-dip galvanized, diameter of 60 mm, in lengths of 300 to 1000 mm



Code	Type	A [mm]	Weight [kg]
41964	UDS 1 - 300	300	4
41965	UDS 1 - 500	500	5
41966	UDS 1 - 750	750	6
41967	UDS 1 - 1000	1000	7

Arched boom for tree alleys – type SV

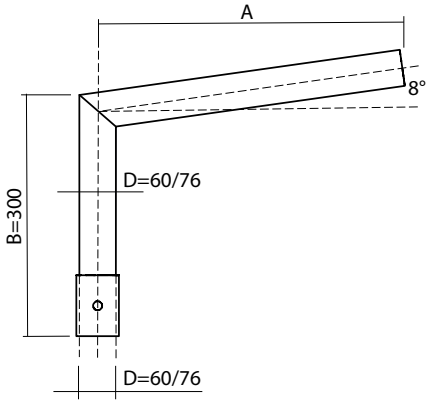
Arched boom for tree alleys, with fixing clamp, diameters of 60 and 76 mm, lengths 300 to 1000 mm, hot-dip galvanized, for fixing of single one luminaire



Code	Type	A [mm]	Weight [kg]
41968	SV 1/60 - 300	300	6
41969	SV 1/60 - 500	500	6
41970	SV 1/60 - 750	750	8
41971	SV 1/60 - 1000	1000	10
Code	**Type**	**A [mm]**	**Weight [kg]**
41972	SV 1/76 - 300	300	6
41973	SV 1/76 - 500	500	6
41974	SV 1/76 - 750	750	8
41975	SV 1/76 - 1000	1000	10

Broken boom for tree alleys – type SK

Broken boom for tree alleys, with fixing clamp, diameters of 60 and 76 mm, lengths 300 to 1000 mm, hot-dip galvanized, for fixing of single one luminaire



Code	Type	A [mm]	Weight [kg]
41976	SK 1/60 - 300	300	3
41977	SK 1/60 - 500	500	4
41978	SK 1/60 - 750	750	5
41979	SK 1/60 - 1000	1000	6
Code	**Type**	**A [mm]**	**Weight [kg]**
41980	SK 1/76 - 300	300	6
41981	SK 1/76 - 500	500	6
41982	SK 1/76 - 750	750	8
41983	SK 1/76 - 1000	1000	10

EMERGENCY LED

PRIMA LED

FUTURA

BELTR LED

HELIOS LED

PLEXI LED

PRIMA LED – plastic emergency LED light fitting

PRIMA LED NM
page 238

IP66

PRIMA LED NM
page 238

FUTURA – plastic emergency LED light fitting

FUTURA NM
str. 241

IP66

FUTURA NM
str. 241

BELTR LED NM – plastic emergency LED light fitting

BELTR LED NM
page 244

IP40

BELTR LED NM
str. 244

BELTR LED NM
ACCESSORIES
page 252

HELIOS LED – all-plastic emergency LED light fitting

HELIOS LED
page 247

IP42 IP65

HELIOS LED
page 248

HELIOS DS LED
page 249

HELIOS LED
ACCESSORIES
page 252

PLEXI LED – emergency LED light fitting for installation into plasterboard lower ceilings

PLEXI LED
page 250

IP20

PLEXI LED
page 250

PLEXI LED
ACCESSORIES
page 252

PRIMA LED NM

... emergency.

USE

Non-maintained emergency luminaire for escape routes, available for use in high ambient temperature, t_a = 50 °C, is intended by its function and shape primarily for being in a set with Prima LED and Innova light fittings.

It is recommended for escape routes of interior industrial rooms, storage halls, sports premises, agricultural buildings and laboratories without hazard of explosion of gases, dusts and flammable vapours.

It is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have increased resistance against deformation and impact.

Atmosphere emissions must be considered, as they may reduce the usability of plastics at installation in aggressive environment, see p. 263.

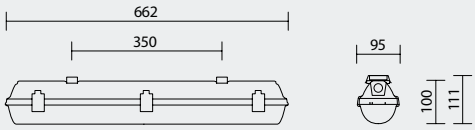
ADVANTAGES

- Light fitting protection **IP66**
- High thermal resistance ranging **from t_a = 0 °C to t_a = 50 °C** also for basic Ni-Cd battery type
- LED module lifetime: 50 000 hours / L80B20
- Luminous flux of the light fitting: **440 lm**
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Emergency module **1h or 3h**
- Optional selection of EM kit with battery autotest
- Integrated diode for indication of correct operation
- Optional selection of battery type between **Ni-Cd** or **$LiFePO_4$**
- Low energy consumption in StandBy mode
- Optional selection of connection between **cable gland** or **connector**
- Insulation class II

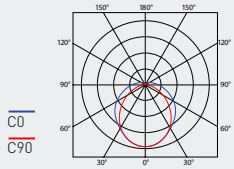
PRIMA LED PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66**
- Maximum ambient temperature: **t_a = 50 °C**
- LED module lifetime: 50 000 hours / L80B20
- Luminous flux of the light fitting: **440 lm**
- Maximum light fitting efficiency: 133 lm/W
- **CRI > 80: 6500 K**
- MacAdam = 3 SDCM
- Diffuser: translucent PC (high mechanical resistance, UV stability)
- Body: grey PC (high mechanical resistance, UV stability)
- Reflector: white steel sheet (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foam-filled body groove
- Light fitting connection: **cable gland PG 13,5 / 16** or **connector**
- Distance holder: polyamide + 10 % glass fibre
- Electric equipment:
  EM kit including Ni-Cd battery without autotest, LED module
  EM kit including $LiFePO_4$ battery with autotest, LED module
- The package includes: stainless hooks and stainless brackets
- 1-year warranty for battery, 2-year warranty for EM kit (unit + LED module)
- The above stated values of power consumption and luminous flux are within a tolerance of ± 7,5 %



PRIMA LED 1.2ft PC



Type	Autonomy [hrs]	Luminous flux of light fitting [lm]	Power in emergency mode [W]	Light fitting efficiency [lm/W]	Battery type	Power in standby mode [W]	Charging time [hrs]	Power in charging mode [W]	Net weight [kg]
Non-maintained emergency luminaire without autotest									
PRIMA LED 1.2ft PC NM1h	1	440	4,5	98	Ni-Cd	1,5	24	9	1,2
PRIMA LED 1.2ft PC NM3h	3	440	4,5	98	Ni-Cd	1,5	24	9	1,4
Non-maintained emergency luminaire with autotest									
PRIMA LED 1.2ft PC NM1hAt	1	440	3,3	133	$LiFePO_4$	0,7	12	3,5	1,2
PRIMA LED 1.2ft PC NM3hAt	3	440	3,3	133	$LiFePO_4$	0,7	12	3,5	1,4

PRIMA LED PC with cable glands

Non-maintained emergency luminaire without autotest - cable glands PG 13,5 / 16 - plastic clips

Type	NM1h	3F NM1h	DALI 3F NM1h	NM3h	3F NM3h	DALI 3F NM3h
PRIMA LED 1.2ft PC ...	62210	62211	x	62213	62214	x

Non-maintained emergency luminaire with autotest - cable glands PG 13,5 / 16 - plastic clips

Type	NM1hAt	3F NM1hAt	DALI 3F NM1hAt	NM3hAt	3F NM3hAt	DALI 3F NM3hAt
PRIMA LED 1.2ft PC ...	62220	62221	x	62223	62224	x

PRIMA LED PCc with cable glands

Non-maintained emergency luminaire without autotest - cable glands PG 13,5 / 16 - stainless clips (c)

Type	NM1h	3F NM1h	DALI 3F NM1h	NM3h	3F NM3h	DALI 3F NM3h
PRIMA LED 1.2ft PCc ...	62230	62231	x	62233	62234	x

Non-maintained emergency luminaire with autotest - cable glands PG 13,5 / 16 - stainless clips (c)

Type	NM1hAt	3F NM1hAt	DALI 3F NM1hAt	NM3hAt	3F NM3hAt	DALI 3F NM3hAt
PRIMA LED 1.2ft PCc ...	62240	62241	x	62243	62244	x

PRIMA LED PC with connectors

Non-maintained emergency luminaire without autotest - interconnecting connectors - plastic clips

Type	L1 2x5P NM1h	L3 2x5P NM1h	L1 2x7P NM1h	L1 2x5P NM3h	L3 2x5P NM3h	L1 2x7P NM3h
PRIMA LED 1.2ft PC ...	62250	62251	62252	62253	62254	62255

Non-maintained emergency luminaire with autotest - interconnecting connectors - plastic clips

Type	L1 2x5P NM1hAt	L3 2x5P NM1hAt	L1 2x7P NM1hAt	L1 2x5P NM3hAt	L3 2x5P NM3hAt	L1 2x7P NM3hAt
PRIMA LED 1.2ft PC ...	62260	62261	62262	62263	62264	62265

PRIMA LED PCc with connectors

Non-maintained emergency luminaire without autotest - interconnecting connectors - stainless clips (c)

Type	L1 2x5P NM1h	L3 2x5P NM1h	L1 2x7P NM1h	L1 2x5P NM3h	L3 2x5P NM3h	L1 2x7P NM3h
PRIMA LED 1.2ft PCc ...	62270	62271	62272	62273	62274	62275

Non-maintained emergency luminaire with autotest - interconnecting connectors - stainless clips (c)

Type	L1 2x5P NM1hAt	L3 2x5P NM1hAt	L1 2x7P NM1hAt	L1 2x5P NM3hAt	L3 2x5P NM3hAt	L1 2x7P NM3hAt
PRIMA LED 1.2ft PCc ...	62280	62281	62282	62283	62284	62285

LEGEND

NM1h – non-maintained emergency luminaire, operation time 1 hour
3F NM1h – non-maintained emergency luminaire, operation time 1 hour, 5-wire throughwiring (3F)
DALI 3F NM1h – non-maintained emergency luminaire, operation time 1 hour, 7-wire throughwiring (DALI 3F)
NM3h – non-maintained emergency luminaire, operation time 3 hours
3F NM3h – non-maintained emergency luminaire, operation time 3 hours, 5-wire throughwiring (3F)
DALI 3F NM3h – non-maintained emergency luminaire, operation time 3 hours, 7-wire throughwiring (DALI 3F)

L1 2x5P NM1h – non-maintained emergency luminaire, 2x5P connectors and 5-wire throughwiring (3F), operation time 1 hour, line connection, power supply from L1
L3 2x5P NM1h – non-maintained emergency luminaire, 2x5P connectors and 5-wire throughwiring (3F), operation time 1 hour, line connection, power supply from L3
L1 2x7P NM1h – non-maintained emergency luminaire, 2x7P connectors and 7-wire throughwiring (DALI 3F), operation time 1 hour, line connection, power supply from L1
L1 2x5P NM3h – non-maintained emergency luminaire, 2x5P connectors and 5-wire throughwiring (3F), operation time 3 hours, line connection, power supply from L1
L3 2x5P NM3h – non-maintained emergency luminaire, 2x5P connectors and 5-wire throughwiring (3F), operation time 3 hours, line connection, power supply from L3
L1 2x7P NM3h – non-maintained emergency luminaire, 2x7P connectors and 7-wire throughwiring (DALI 3F), operation time 3 hours, line connection, power supply from L1

...At – version with battery autotest

Module signalling without autotest

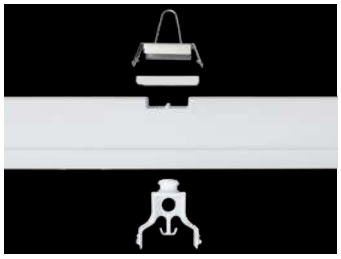
LED colour	Information
● green	
flashing	battery charging
-	running test/emergency mode

Module signalling with autotest (At)

LED colour		Information
● green	● red	
flashing	-	battery charging
-	flashing	defective LED module
-	shining	defective battery
-	-	running test/emergency mode

LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks



LIGHT FITTING DETAILED VIEW

PRIMA LED PC

FUTURA NM

... emergency.

USE

Non-maintained emergency luminaire for escape routes, available for use in high ambient temperature, t_a = 50 °C, is intended by its function and shape primarily for being in a set with Futura and Innova light fittings.

It is recommended for escape routes of interior industrial rooms, storage halls, sports premises, agricultural buildings and laboratories without hazard of explosion of gases, dusts and flammable vapours.

It is resistant to dust, moisture and spouting water. The body and the diffuser made of polycarbonate (PC) have increased resistance against deformation and impact.

Atmosphere emissions must be considered, as they may reduce the usability of plastics at installation in aggressive environment, see p. 263.

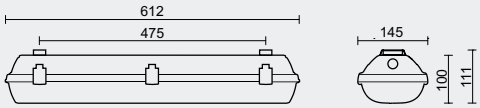
ADVANTAGES

- Light fitting protection **IP66**
- High thermal resistance ranging **from t_a = 0 °C to t_a = 50 °C** also for basic Ni-Cd battery type
- LED module lifetime: 50 000 hours / L80B20
- Luminous flux of the light fitting: **440 lm**
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: grey polycarbonate (PC) = high mechanical resistance
- Emergency module **1h or 3h**
- Optional selection of EM kit with battery autotest
- Integrated diode for indication of correct operation
- Optional selection of battery type between **Ni-Cd** or **$LiFePO_4$**
- Low energy consumption in StandBy mode
- Optional selection of connection between **cable gland** or **connector**
- Insulation class II

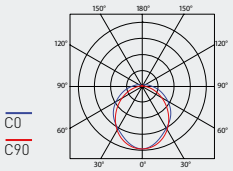
FUTURA PC, PCc

TECHNICAL DESCRIPTION

- Light fitting protection: **IP66**
- Maximum ambient temperature: **t_a = 50 °C**
- LED module lifetime: 50 000 hours / L80B20
- Luminous flux of the light fitting: **440 lm**
- Maximum light fitting efficiency: 133 lm/W
- **CRI > 80: 6500 K**
- MacAdam = 3 SDCM
- Diffuser: translucent PC (high mechanical resistance, UV stability)
- Body: grey PC (high mechanical resistance, UV stability)
- Reflector: white steel sheet (RAL 9003)
- Clips: polyamide + 15 % glass fibre or stainless steel + polyamide
- Sealing: polyurethane (PUR), foam-filled body groove
- Light fitting connection: **cable gland PG 13,5 / 16** or **connector**
- Distance holder: polyamide + 10 % glass fibre
- Electric equipment:
  EM kit including Ni-Cd battery without autotest, LED module
  EM kit including $LiFePO_4$ battery with autotest, LED module
- The package includes: stainless hooks and stainless brackets
- 1-year warranty for battery, 2-year warranty for EM kit (unit + LED module)
- The above stated values of power consumption and luminous flux are within a tolerance of ± 7,5 %



FUTURA 2.2ft PC



Type	Autonomy [hrs]	Luminous flux of light fitting [lm]	Power in emergency mode [W]	Light fitting efficiency [lm/W]	Battery type	Power in standby mode [W]	Charging time [hrs]	Power in charging mode [W]	Net weight [kg]
Non-maintained emergency luminaire without autotest									
FUTURA 2.2ft PC NM1h	1	440	4,5	98	Ni-Cd	1,5	24	9	1,2
FUTURA 2.2ft PC NM3h	3	440	4,5	98	Ni-Cd	1,5	24	9	1,4
Non-maintained emergency luminaire with autotest									
FUTURA 2.2ft PC NM1hAt	1	440	3,3	133	$LiFePO_4$	0,7	12	3,5	1,2
FUTURA 2.2ft PC NM3hAt	3	440	3,3	133	$LiFePO_4$	0,7	12	3,5	1,4

FUTURA PC with cable glands

Non-maintained emergency luminaire without autotest - cable glands PG 13,5 / 16 - plastic clips

Type	NM1h	3F NM1h	NM3h	3F NM3h
FUTURA 2.2ft PC ...	62410	62411	62413	62414

Non-maintained emergency luminaire with autotest - cable glands PG 13,5 / 16 - plastic clips

Type	NM1hAt	3F NM1hAt	NM3hAt	3F NM3hAt
FUTURA 2.2ft PC ...	62420	62421	62423	62424

FUTURA PC with cable glands

Non-maintained emergency luminaire without autotest - cable glands PG 13,5 / 16 - stainless clips (c)

Type	NM1h	3F NM1h	NM3h	3F NM3h
FUTURA 2.2ft PCc ...	62430	62431	62433	62434

Non-maintained emergency luminaire with autotest - cable glands PG 13,5 / 16 - stainless clips (c)

Type	NM1hAt	3F NM1hAt	NM3hAt	3F NM3hAt
FUTURA 2.2ft PCc ...	62440	62441	62443	62444

LEGEND

NM1h – non-maintained emergency luminaire, operation time 1 hour
3F NM1h – non-maintained emergency luminaire, operation time 1 hour, 5-wire throughwiring (3F)
NM3h – non-maintained emergency luminaire, operation time 3 hours
3F NM3h – non-maintained emergency luminaire, operation time 3 hours, 5-wire throughwiring (3F)

...At – version with battery autotest

Module signalling without autotest

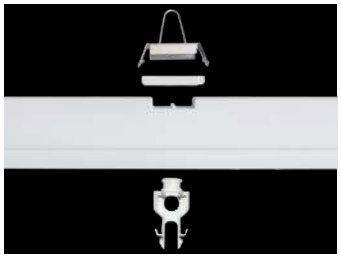
LED colour	Information
● green	
flashing	battery charging
-	running test/emergency mode

Module signalling with autotest (At)

LED colour		Information
● green	● red	
flashing	-	battery charging
-	flashing	defective LED module
-	shining	defective battery
-	-	running test/emergency mode

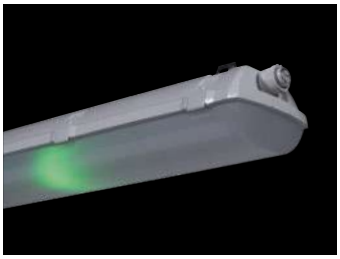
LIGHT FITTING ATTACHMENT

a) Directly to a ceiling or a wall with the use of screws and stainless brackets
b) Suspension with the use of stainless hooks



LIGHT FITTING DETAILED VIEW

FUTURA PC



BELTR LED NM

... emergency.

USE

The light fitting is suitable for emergency and orientation illumination of hallways, offices, warehouses.

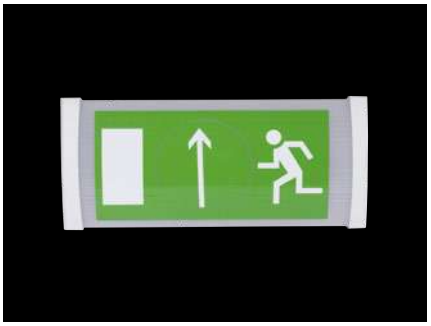
Non-maintained emergency luminaire for escape routes, available for use in high ambient temperature, t_a = 40 °C.

Atmosphere emissions must be considered, as they may reduce the usability of plastics at installation in aggressive environment, see p. 263.

ADVANTAGES

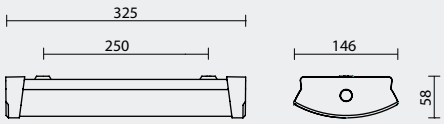
- Light fitting protection **IP40**
- High thermal resistance ranging **from t_a = 0 °C to t_a = 40 °C** also for basic Ni-Cd battery type
- LED module lifetime: 50 000 hours / L80B20
- Luminous flux of the light fitting: **440 lm**
- Diffuser: translucent polycarbonate (PC) = high mechanical resistance
- Body: steel sheet, white colour (RAL 9003)
- Emergency module **1h or 3h**
- Optional selection of EM kit with battery autotest
- Integrated diode for indication of correct operation
- Optional selection of battery type between **Ni-Cd** or **$LiFePO_4$**
- Low energy consumption in StandBy mode

BELTR LED NM, NMAt

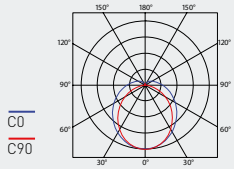


TECHNICAL DESCRIPTION

- Recognizing distance: 25 m
- Light fitting protection: **IP40**
- Maximum ambient temperature: **t_a = 40 °C**
- LED module lifetime: 50 000 hours / L80B20
- Luminous flux of the light fitting: **440 lm**
- Maximum light fitting efficiency: 135 lm/W
- **CRI > 80: 6500 K**
- MacAdam = 3 SDCM
- Diffuser: translucent polycarbonate (PC), UV stable, impact-resistant
- Body: steel sheet, white colour (RAL 9003)
- Cable gland: white, rubber
- Electric equipment:
  EM kit including Ni-Cd battery without autotest, LED module
  EM kit including $LiFePO_4$ battery with autotest, LED module
- 1-year warranty for battery, 2-year warranty for EM kit (unit + LED module)
- The above stated values of power consumption and luminous flux are within a tolerance of ± 7,5 %



BELTR LED NM



Type	Autonomy [hrs]	Luminous flux of light fitting [lm]	Power in emergency mode [W]	Light fitting efficiency [lm/W]	Battery type	Power in standby mode [W]	Charging time [hrs]	Power in charging mode [W]	Net weight [kg]
Non-maintained emergency luminaire without autotest									
BELTR LED 2.1ft NM1h	1	440	4,5	133	Ni-Cd	1,5	24	9	1,2
BELTR LED 2.1ft NM3h	3	440	4,5	133	Ni-Cd	1,5	24	9	1,4
Non-maintained emergency luminaire with autotest									
BELTR LED 2.1ft NM1hAt	1	440	3,3	135	$LiFePO_4$	0,7	12	3,5	1,2
BELTR LED 2.1ft NM3hAt	3	440	3,3	135	$LiFePO_4$	0,7	12	3,5	1,4

BELTR LED NM, NMAt

Non-maintained emergency luminaire without autotest

Type	NM1h	NM3h
BELTR LED 2.1ft NM	54510	54520

Non-maintained emergency luminaire with autotest

Type	NM1hAt	NM3hAt
BELTR LED 2.1ft NMAt	54530	54540

LEGEND

NM1h – non-maintained emergency luminaire, operation time 1 hour
NM3h – non-maintained emergency luminaire, operation time 3 hours

...At – version with battery autotest

Module signalling without autotest

LED colour	Information
● green	
flashing	battery charging
-	running test/emergency mode

Module signalling with autotest (At)

LED colour		Information
● green	● red	
flashing	-	battery charging
-	flashing	defective LED module
-	shining	defective battery
-	-	running test/emergency mode

LIGHT FITTING ATTACHMENT

Directly to a ceiling or a wall with the use of screws

LIGHT FITTING DETAILED VIEW

BELTR LED NM, NMAt

HELIOS LED

... emergency and orientation.

USE

The light fitting is suitable for emergency and orientation illumination of hallways, offices, warehouses and production shop floors.

ADVANTAGES

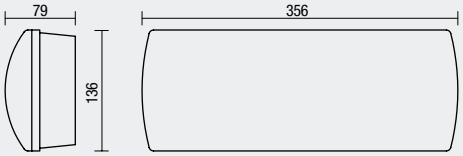
- Emergency module **1 hr or 3 hrs**
- High-temperature **Ni-Cd HT** battery (M1h and M3h), or $LiFePO_4$ battery for version with self-test (M1hAt and M3hAt)
- LED indicator of correct operation
- Electronic protection against complete battery discharge
- Possible connection for both permanent (SA) and emergency (SE) lighting
- Light fitting protection **IP42 or IP65**
- Maximum ambient temperature up to **t_a = 40 °C**
- Insulation: Class 2

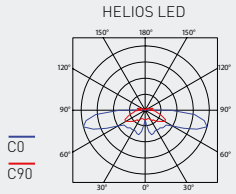
IP42 IP65 up to t_a 40°C LED 220-240 V 50/60 Hz EMERGENCY CE

HELIOS LED

TECHNICAL DESCRIPTION

- Recognizing distance: 25 m
- Light fitting protection: IP42 or IP65
- Maximum ambient temperature: t_a = 40 °C
- Diffuser: opalized polycarbonate, UV stable
- Body: white polycarbonate
- Reflector: white polycarbonate
- MacAdam = 3 SDCM
- Diffuser and body connected: by screws
- Charging:
  M1h and M3h variants max. 24 h,
  M1hAt and M3hAt variant max. 12 h
- Electric equipment: driver, emergency module 1h or 3h; M1h and M3h variants including Ni-Cd HT battery (3,6V); M1hAt and M3hAt variants including $LiFePO_4$ (6,4V)





Code	Type	Autonomy [hrs]	Luminous flux of light fitting [lm]	Power in emergency mode [W]	Light fitting efficiency [lm/W]	Battery type	Charging time [hrs]	Net weight [kg]
	Diffuser made of opalized polycarbonate - emergency standby source for both permanent (SA) and emergency (SE) lighting							
43518	HELIOS LED 101 M1h	1	80	1	80	Ni-Cd HT	24	1,1
43511	HELIOS LED 102 M1h	1	150	2	75	Ni-Cd HT	24	1,2
43618	HELIOS LED IP65 101 M1h	1	80	1	80	Ni-Cd HT	24	1,2
43611	HELIOS LED IP65 102 M1h	1	150	2	75	Ni-Cd HT	24	1,2
43538	HELIOS LED 101 M3h	3	80	1	80	Ni-Cd HT	24	1,2
43531	HELIOS LED 102 M3h	3	150	2	75	Ni-Cd HT	24	1,4
43638	HELIOS LED IP65 101 M3h	3	80	1	80	Ni-Cd HT	24	1,2
43631	HELIOS LED IP65 102 M3h	3	150	2	75	Ni-Cd HT	24	1,4
	Diffuser made of opalized polycarbonate - emergency standby source for both permanent (SA) and emergency (SE) lighting with autotest							
43548	HELIOS LED 101 M1hAt	1	80	1	80	$LiFePO_4$	12	1,1
43541	HELIOS LED 102 M1hAt	1	150	2	75	$LiFePO_4$	12	1,2
43648	HELIOS LED IP65 101 M1hAt	1	80	1	80	$LiFePO_4$	12	1,1
43641	HELIOS LED IP65 102 M1hAt	1	150	2	75	$LiFePO_4$	12	1,1
43568	HELIOS LED 101 M3hAt	3	80	1	80	$LiFePO_4$	12	1,1
43561	HELIOS LED 102 M3hAt	3	150	2	75	$LiFePO_4$	12	1,3
43668	HELIOS LED IP65 101 M3hAt	3	80	1	80	$LiFePO_4$	12	1,1
43661	HELIOS LED IP65 102 M3hAt	3	150	2	75	$LiFePO_4$	12	1,2

Example of type marking: 43638 = HELIOS LED IP65 101 **M3h**

LEGEND

M1–3h – emergency standby source with operation time 1–3 hours for both permanent (SA) and emergency (SE) lighting
M1–3hAt – emergency standby source with operation time 1–3 hours for both permanent (SA) and emergency (SE) lighting with autotest
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

Module signalling without autotest

LED colour	Information
● green	
flashing	battery charging
-	running test/emergency mode

Module signalling with autotest (At)

LED colour		Information
● green	● red	
flashing	-	battery charging
-	flashing	defective LED module
-	shining	defective battery
-	-	running test/emergency mode

LIGHT FITTING ATTACHMENT

Directly to a ceiling or a wall with the use of screws

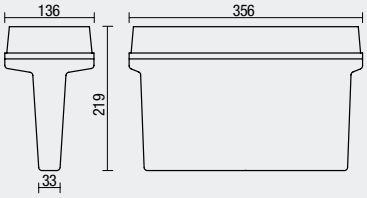
LIGHT FITTING DETAILED VIEW

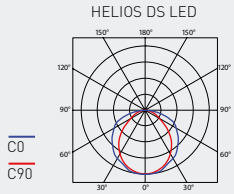
HELIOS LED

HELIOS DS LED

TECHNICAL DESCRIPTION

- Recognizing distance: 25 m
- Light fitting protection: IP42 or IP65
- Maximum ambient temperature: t_a = 40 °C
- Diffuser: opalized polycarbonate, UV stable
- Body: white polycarbonate
- MacAdam = 3 SDCM
- Reflector: white polycarbonate
- Diffuser and body connected: by screws
- Charging:
  M1h and M3h variants max. 24 h,
  M1hAt and M3hAt variant max. 12 h
- Electric equipment: driver, emergency module 1h or 3h; M1h and M3h variants including Ni-Cd HT battery (3,6V); M1hAt and M3hAt variants including $LiFePO_4$ (6,4V)





Code	Type	Autonomy [hrs]	Luminous flux of light fitting [lm]	Power in emergency mode [W]	Light fitting efficiency [lm/W]	Battery type	Charging time [hrs]	Net weight [kg]
	Diffuser made of opalized polycarbonate - emergency standby source for both permanent (SA) and emergency (SE) lighting							
43718	HELIOS DS LED 101 M1h	1	80	1	80	Ni-Cd HT	24	1,3
43711	HELIOS DS LED 102 M1h	1	150	2	75	Ni-Cd HT	24	1,4
43818	HELIOS DS LED IP65 101 M1h	1	80	1	80	Ni-Cd HT	24	1,4
43811	HELIOS DS LED IP65 102 M1h	1	150	2	75	Ni-Cd HT	24	1,4
43738	HELIOS DS LED 101 M3h	3	80	1	80	Ni-Cd HT	24	1,4
43731	HELIOS DS LED 102 M3h	3	150	2	75	Ni-Cd HT	24	1,6
43838	HELIOS DS LED IP65 101 M3h	3	80	1	80	Ni-Cd HT	24	1,4
43831	HELIOS DS LED IP65 102 M3h	3	150	2	75	Ni-Cd HT	24	1,6
	Diffuser made of opalized polycarbonate - emergency standby source for both permanent (SA) and emergency (SE) lighting with autotest							
43748	HELIOS DS LED 101 M1hAt	1	80	1	80	$LiFePO_4$	12	1,3
43741	HELIOS DS LED 102 M1hAt	1	150	2	75	$LiFePO_4$	12	1,4
43848	HELIOS DS LED IP65 101 M1hAt	1	80	1	80	$LiFePO_4$	12	1,3
43841	HELIOS DS LED IP65 102 M1hAt	1	150	2	75	$LiFePO_4$	12	1,3
43768	HELIOS DS LED 101 M3hAt	3	80	1	80	$LiFePO_4$	12	1,3
43761	HELIOS DS LED 102 M3hAt	3	150	2	75	$LiFePO_4$	12	1,5
43868	HELIOS DS LED IP65 101 M3hAt	3	80	1	80	$LiFePO_4$	12	1,3
43861	HELIOS DS LED IP65 102 M3hAt	3	150	2	75	$LiFePO_4$	12	1,4

Example of type marking: 43838 = HELIOS DS LED IP65 101 **M3h**

LEGEND

M1–3h – emergency standby source with operation time 1–3 hours for both permanent (SA) and emergency (SE) lighting
M1–3hAt – emergency standby source with operation time 1–3 hours for both permanent (SA) and emergency (SE) lighting with autotest
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

Module signalling without autotest

LED colour	Information
● green	
flashing	battery charging
-	running test/emergency mode

Module signalling with autotest (At)

LED colour		Information
● green	● red	
flashing	-	battery charging
-	flashing	defective LED module
-	shining	defective battery
-	-	running test/emergency mode

LIGHT FITTING ATTACHMENT

Directly to a ceiling or a wall with the use of screws

LIGHT FITTING DETAILED VIEW

HELIOS DS LED

PLEXI LED

... emergency and orientation, into lower ceilings.

USE

The light fitting is suitable for emergency illumination of hallways and offices. It is intended for installation into plasterboard lower ceilings.

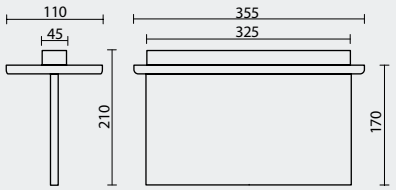
ADVANTAGES

- Emergency module **1 hr or 3 hrs**
- High-temperature **Ni-Cd HT** battery (M1h and M3h), or $LiFePO_4$ battery for version with self-test (M1hAt and M3hAt)
- LED indicator of correct operation
- Electronic protection against complete battery discharge
- Possible connection for both permanent (SA) and emergency (SE) lighting
- Light fitting protection **IP20**
- Maximum ambient temperature up to **t_a = 40 °C**
- Insulation: Class 1

PLEXI LED

TECHNICAL DESCRIPTION

- Recognizing distance: 30 m
- Light fitting protection: IP20
- Maximum ambient temperature: t_a = 40 °C
- Diffuser: transparent plexi glass, UV stable
- Body: steel sheet, silver (RAL 9006)
- MacAdam = 3 SDCM
- Charging:
  M1h and M3h variants max. 24 h,
  M1hAt and M3hAt variant max. 12 h
- Electric equipment: driver, emergency module 1h or 3h; M1h and M3h variants including Ni-Cd HT battery (3,6V); M1hAt and M3hAt variants including $LiFePO_4$ (6,4V)



Code	Type	Autonomy [hrs]	Power in emergency mode [W]	Battery type	Charging time [hrs]	Net weight [kg]
	Diffuser made of transparent plexi glass - emergency standby source for emergency (SE) lighting					
41519	PLEXI LED 101 NM1h	1	1	Ni-Cd HT	24	2,1
41539	PLEXI LED 101 NM3h	3	1	Ni-Cd HT	24	2,2
	Diffuser made of transparent plexi glass - emergency standby source for both permanent (SA) and emergency (SE) lighting					
41518	PLEXI LED 101 M1h	1	1	Ni-Cd HT	24	2,0
41538	PLEXI LED 101 M3h	3	1	Ni-Cd HT	24	2,1
	Diffuser made of transparent plexi glass - emergency standby source for both permanent (SA) and emergency (SE) lighting with autotest					
41548	PLEXI LED 101 M1hAt	1	1	$LiFePO_4$	12	2,0
41568	PLEXI LED 101 M3hAt	3	1	$LiFePO_4$	12	2,1
	Diffuser made of transparent plexi glass - driver for central battery supply AC/DC (CB = central battery)					
41578	PLEXI LED 101 CB	-	1	-	-	2,1

Example of type marking: 41538 = PLEXI LED **M3h**

LEGEND

M1–3h – emergency back-up source with operating time of 1 - 3 hours (SA) for both permanent and emergency illumination
M1–3hAt – emergency back-up source with operating time of 1 - 3 hours (SA) for both permanent and emergency illumination with autotest
NM1–3h – emergency back-up source with operating time of 1 - 3 hours (SE) for emergency (non-maintained) illumination
CB – for central battery power supply AC/DC (CB = central battery)
Batteries must be formatted before their putting into operation. Assembly instructions must be observed at installation.

Module signalling without autotest

LED colour	Information
● green	
flashing	battery charging
-	running test/emergency mode

Module signalling with autotest (At)

LED colour		Information
● green	● red	
flashing	-	battery charging
-	flashing	defective LED module
-	shining	defective battery
-	-	running test/emergency mode

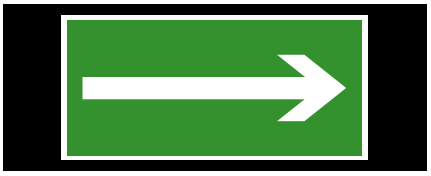
LIGHT FITTING ATTACHMENT

Recessed into plasterboard lower ceilings

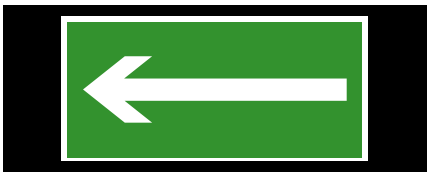
LIGHT FITTING DETAILED VIEW

PLEXI LED

Stickers with pictograms for emergency light fittings



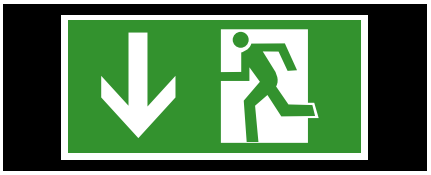
Code	Type	Description	Dimensions [mm]
43901	Pictogram 01 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41901	Pictogram 01 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



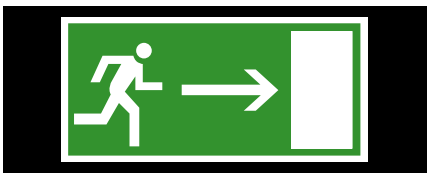
Code	Type	Description	Dimensions [mm]
43902	Pictogram 02 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41902	Pictogram 02 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300

Code	Type	Description	Dimensions [mm]
43904	Pictogram 04 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41904	Pictogram 04 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300

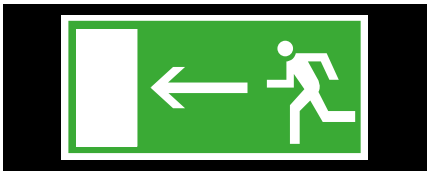
Code	Type	Description	Dimensions [mm]
43905	Pictogram 05 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41905	Pictogram 05 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



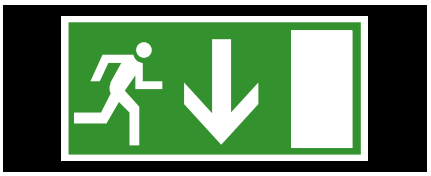
Code	Type	Description	Dimensions [mm]
43906	Pictogram 06 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41906	Pictogram 06 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



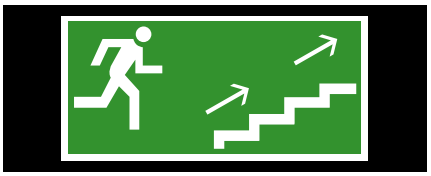
Code	Type	Description	Dimensions [mm]
43907	Pictogram 07 HE	for HELIOS typ and BELTR LED NM types e - 25 m distance	125 × 250
41907	Pictogram 07 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



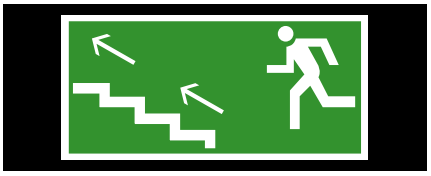
Code	Type	Description	Dimensions [mm]
43908	Pictogram 08 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41908	Pictogram 08 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



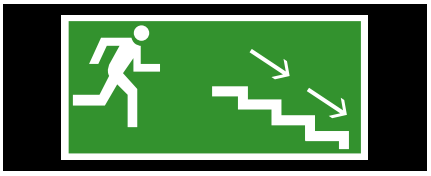
Code	Type	Description	Dimensions [mm]
43909	Pictogram 09 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41909	Pictogram 09 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



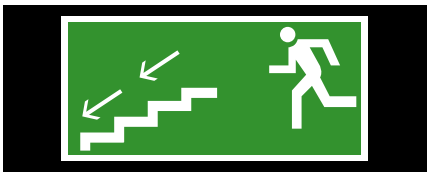
Code	Type	Description	Dimensions [mm]
43910	Pictogram 10 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41910	Pictogram 10 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



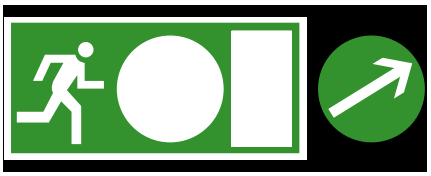
Code	Type	Description	Dimensions [mm]
43911	Pictogram 11 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41911	Pictogram 11 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



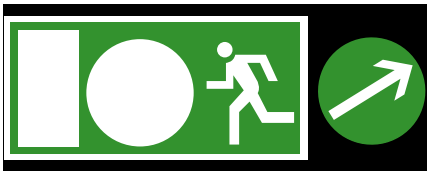
Code	Type	Description	Dimensions [mm]
43912	Pictogram 12 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41912	Pictogram 12 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



Code	Type	Description	Dimensions [mm]
43913	Pictogram 13 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41913	Pictogram 13 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300

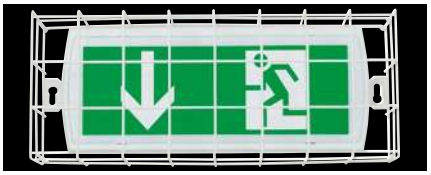


Code	Type	Description	Dimensions [mm]
43914	Pictogram 14 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41914	Pictogram 14 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300



Code	Type	Description	Dimensions [mm]
43915	Pictogram 15 HE	for HELIOS and BELTR LED NM types - 25 m distance	125 × 250
41915	Pictogram 15 PL	for TYLIUS and PLEXI types - 30 m distance	150 × 300

Protective grid



Code	Type	Description	Weight [kg]
43900	OM-HE, TG	protective grid for HELIOS types	0.4

Frame

Code	Type	Description	Weight [kg]
41900	TYLIUS frame	accessories for built-in installation for TYLIUS AC and TYLIUS AL light fitting types	0,4

LIGHTING MANAGEMENT

MANAGEMENT
FOR SIMPLE AND LARGE
LIGHTING SYSTEMS

LIGHTING MANAGEMENT

This innovative system brings a new trend in lighting control. It expands the existing advantages of LED technology by allowing easy control and creation of a variety of lighting scenes. The system is designed for simple as well as complex lighting solutions for offices, corridors and halls. The systems make it possible to regulate lighting based on daylight level, occupancy as well as tunable white and RGB requirements.

DALIeco

Our DALIeco system is designed for simple installations.

Designed for:

- offices
- showrooms
- conference rooms
- corridors
- school classrooms

DALIeco CONTROL

Advantages:

- unit features two DALI circuits (a total of 16 fixtures may be connected to each DALI circuit)
- up to 4 light sensors may be connected
- controlled by a regular button, or an IR remote control
- small dimensions (suitable to be placed in light fixtures)
- the Touch DIM function substituted in problematic installations
- predefined operating modes ensure simplified switch-on process
- the corridor function may be set

Components for DALIeco:

DALIeco LS/PD LI	User Remote	DALIeco REMOTE
• regulation of lighting based on daylight level and occupancy • recessed and surface-mounted installation possible	• infra-red remote control • 4 lighting scenes may be saved and recalled • up to 15 independently controlled systems due to adaptable IR coding	• configuration and switching on of lighting management systems by a remote control

DALIeco BT RTC

Our DALIeco BT RTC system is designed for simple installati

Designed for:

- offices
- showrooms
- corridors
- training rooms

DALIeco BT RTC

Advantages:

- up to 32 fixtures may be controlled
- tunable white fully supported (device type 8)
- in-built clock for time plans + human centric lighting with up to 24 points
- controlled by a mobile phone or a regular button
- up to 4 separately controlled groups – lighting scenes created easily using an app (Android or iOS)
- small dimensions (suitable to be placed in light fixtures)
- up to 4 sensors and 4 buttons

Components for DALIeco BT RTC:

DALIeco LS/PD CI G2

- regulation of lighting based on daylight level and occupancy
- recessed and surface-mounted installation possible

DALI PRO PB Coupler

- 4 independent push-button inputs
- standard buttons and switches may be used

basicDIM Wireless

Our basicDIM Wireless system is designed for simple installations as well as for medium-size installations where lighting regulation is required but the existing cabling must be retained.

Designed for:

- offices
- showrooms
- conference rooms
- restaurants

Advantages:

- automatic creation of wireless communication with up to 250 units
- may be controlled/set by a mobile app
- wireless connection of light fixtures using an app
- no external gateway required for communication
- firmware easily updated

Components for basicDIM Wireless:

basicDIM Wireless Module

- when placed in a fixture, the fixture becomes wireless

basicDIM Wireless Sensor 5DP 38rc

- regulation of lighting based on daylight level and occupancy
- power supply
- parts and accessories that correspond to installation type (surface-mounted, recessed)
- covers to limit motion detection
- perfect for installation height not exceeding 4 m

basicDIM Wireless User Interface

- battery-powered wall-mounted control panel
- 4 lighting scenes may be saved and recalled
- dimming and CCT adjustment possible

sceneCOM S

Our sceneCOM S system is suitable for a majority of installations.

Designed for:

- offices
- restaurants
- assembly and production halls
- warehouses
- shop floors

sceneCOM S Controller

Advantages:

- up to 64 fixtures may be controlled
- certified as a DALI-2 device
- small dimensions (may be placed under a wall-mounted switch)
- simple addressing using a mobile app
- time plans may be set
- tunable white fully supported (device type 8)
- up to 16 groups may be created and up to 16 scenes may be saved
- 4 independent inputs for buttons
- power supply ensured by DALI

Components for sceneCOM S:

DALI XC G3 CWM 30 DA2

- 4 independent programmable inputs
- to be installed under a wall-mounted switch

DALI PS3

- DALI-2 (70 mA) power supply
- small dimensions

MSensor G3 PIR 10DPI WH

- monitoring of the surrounding areas and motion detection
- parts and accessories that correspond to installation type (surface-mounted, recessed)
- designed for installation height up to 5, 10 or 16 m depending on sensor type

REMOTECONTROL IR6

- infra-red remote control

DALI PROFESSIONAL

Our DALI PROFESSIONAL system is primarily intended for large installations.

Designed for:

- offices
- restaurants
- assembly and production halls
- warehouses
- shop floors

DALI PRO CONT-4-RTC

Advantages:

- 4 DALI circuits – each circuit allows up to 64 fixtures to be controlled
- 16 groups may be created and 16 scenes may be saved in each DALI circuit.
- 4 programmable relays (4x5 A) integrated in the controller
- integrated clock to manage events
- weekly planning possible
- may easily be mounted on a DIN rail
- plug-and-play configuration for instant use without setting

Components for DALI PROFESSIONAL:

DALI PRO COUPLER

- 4 independent programmable inputs
- standard buttons and switches may be used

DALI HIGH BAY ADAPTER

- integrated lighting control sensor
- regulation of lighting for installation heights up to 13 m
- direct connection to DALI

HIGH BAY

- energy savings up to 35 % (compared to manual switching)
- motion sensor with a switch contact (adjustable power-off dela

EXIT

ORIENTATIONAL CHART OF ARRANGEMENT OF EMERGENCY LIGHT FITTINGS

FUTURA

Installation height [m]					
2,0	4,1	9,3	9,0	8,6	3,7
2,5	4,3	11,2	10,8	10,3	4,1
3,0	4,6	12,0	11,5	11,1	4,3
3,5	4,8	12,6	12,1	11,7	4,5
4,0	4,9	13,1	12,7	12,2	4,7
5,0	5,2	13,7	13,1	12,7	4,9
6,0	5,3	14,0	13,5	13,2	5,1

PRIMA LED

4,1	9,6	8,8	8,0	3,5
4,5	11,4	10,5	9,6	3,9
4,6	12,2	11,3	10,3	4,1
4,8	12,8	11,9	11,0	4,3
4,9	13,3	12,4	11,5	4,4
5,2	13,7	13,0	12,3	4,6
5,4	14,1	13,3	12,8	4,8

ALUMAX LED

Installation height [m]					
2,0	3,1	6,7	7,3	7,7	3,4
2,5	3,4	8,3	9,0	9,4	4,0
3,0	3,7	9,1	9,8	10,3	4,3
3,5	4,0	9,8	10,5	11,2	4,6
4,0	4,1	10,4	11,2	11,9	4,7
5,0	4,6	11,2	12,1	12,8	5,2
6,0	4,8	12,1	13,1	13,7	5,4

PERUN SLIM

3,6	8,1	8,3	8,6	3,7
4,0	9,8	10,1	10,3	4,1
4,3	10,6	10,9	11,1	4,4
4,5	11,4	11,6	11,8	4,6
4,6	12,0	12,2	12,4	4,7
4,9	12,6	12,7	13,1	5,0
5,1	13,2	13,3	13,7	5,2

CANOPUS

Installation height [m]					
2,0	3,0	5,9	7,1	8,0	4,1
2,5	3,3	7,4	8,8	10,0	4,5
3,0	3,7	8,8	10,3	11,9	4,8
3,5	3,9	9,6	11,1	12,7	5,0
4,0	4,1	10,2	11,8	13,4	5,3
5,0	4,6	11,3	12,9	14,6	5,7
6,0	4,7	12,2	13,8	15,5	5,9

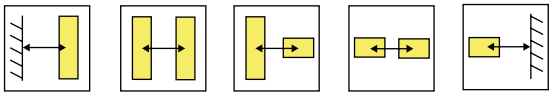
NAOS MPR

Installation height [m]					
2,0	3,2	7,4	7,4	7,5	3,2
2,5	3,4	8,7	8,6	8,5	3,5
3,0	3,8	9,3	9,2	9,2	3,8
3,5	4,1	9,9	10,0	10,0	4,1
4,0	4,3	10,5	10,6	10,7	4,2

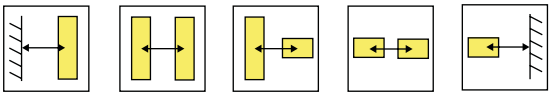
NAOS

3,3	8,4	8,5	8,6	3,4
3,7	9,2	9,3	9,4	3,7
3,8	10,0	10,0	10,0	3,8
4,0	10,4	10,5	10,6	4,0
4,1	10,9	10,9	11,0	4,1

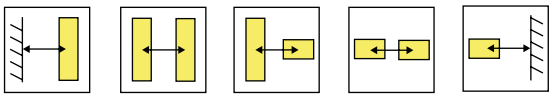
ORIENTATIONAL CHART OF ARRANGEMENT OF EMERGENCY LIGHT FITTINGS



Installation height [m]	LINEA Square					LINEA Round				
2,0	3,8	9,5	9,5	9,5	3,8	3,8	9,5	9,5	9,5	3,8
2,0	4,2	10,4	10,4	10,4	4,2	4,0	10,4	10,4	10,4	4,0
3,0	4,3	11,2	11,1	11,1	4,3	4,3	11,1	11,1	11,1	4,3
3,0	4,5	11,8	11,8	11,7	4,5	4,5	11,7	11,7	11,7	4,5
4,0	4,6	12,3	12,3	12,3	4,6	4,6	12,2	12,2	12,2	4,6



Installation height [m]	LINEA				
2,0	3,4	9,0	8,4	7,7	3,0
2,5	3,7	9,7	9,0	8,3	3,3
3,0	3,8	10,2	9,6	8,9	3,3
3,5	3,8	10,7	10,0	9,3	3,3
4,0	3,8	10,9	10,2	9,5	3,4



Installation height [m]	BELTR LED					MO LED				
2,0	3,4	8,5	8,3	7,8	3,2	4,0	9,8	8,7	7,7	3,2
2,5	3,7	9,3	9,1	8,7	3,4	4,2	10,6	9,6	8,5	3,5
3,0	3,8	10,0	9,8	9,3	3,7	4,5	11,4	10,3	9,3	3,8
3,5	4,0	10,5	10,3	9,8	3,7	4,7	12,0	11,0	10,0	4,0
4,0	4,1	11,0	10,8	10,3	3,8	4,8	12,5	11,5	10,5	4,2

The table of distances is based on the following parameters:

- Maintenance factor: 0.80
- Emergency lighting factor: 1.00
- Minimum illuminance in axis: 1 lx
- Minimum illuminance at half-width of escape route: 0.50 lx
- Evenness in axis max. 40 : 1
- Escape route width: 2.00 m

Source colour rendering correct choice		**Warm white**					**White**				**Daylight**			
	Shot light													Horti-cultural
Light colour	79	29	827	927	830	930	25	33	840	940	950	865	965	54
CIE division		3	1B	1A	1B	1A	2A	2B	1B	1A	1A	1B	1A	2A
Shop - foodstuff					●				●					
Shop - meat	●								●					
Shop - textiles, leather				●		●				●				
Hairdressers', beauty salons				●		●				●				
Workshops, mechanics									●			●		
Printing										●	●		●	
Warehouses									●					
Paintshops									●			●		
Colour testing											●		●	
Growing of plants														●
Households, restaurants			●	●										
Offices, school rooms					●				●					
Museums						●				●				
Hospital rooms				●		●								
Consulting rooms										●				
Sporting facilities					●				●					
Outdoor illumination		●						●						●

● Recommended Permissible

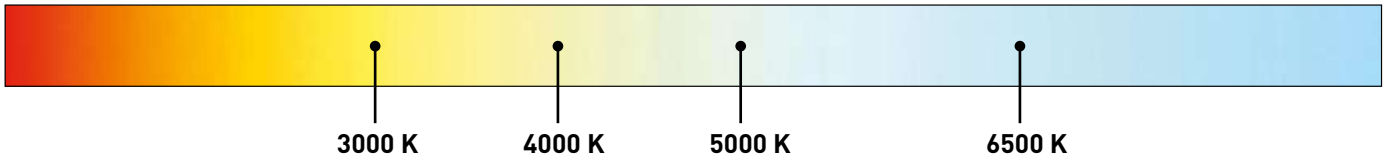
CRI - COLOUR RENDERING INDEX

It determines the colour sensation accuracy at other than daily lighting. It is given at the scale from 0 to 100; the higher the value, the better. The standard colour rendering index of TREVOS LED light fittings is 80, or 90 upon request.

CCT - CHROMATICITY TEMPERATURE

It determines the colour spectrum of the light (it is given in Kelvin - K).

The optimal lighting values are perceived as white light - about 5.000 - 7.000 K (5.000 K - common daylight); higher values are perceived as a light with blue shade, while lower values as a light with yellow to red shade. The standard chromaticity temperature of TREVOS LED light fittings is 4.000 K, or 3.000, 5.000 or 6.500 K upon request.



CHEMICAL RESISTANCE OF SELECTED MATERIALS

Environment	Maximum concentration	Polycarbonate/ PC			Acrylate/AC (SAN, PMMA)			ABS			Aluminium/Al			Polyamide (PA6/66)			INOX AISI 304		
		Resistance			Resistance			Resistance			Resistance			Resistance			Resistance		
		yes	partially	no	yes	partially	no	yes	partially	no	yes	partially	no	yes	partially	no	yes	partially	no
Aceton (ketones)				●			●			●	●			●			●		
Aniline			●				●			●		●			●		●		
Ammonia	5%			●	●			●				●		●					●
Benzaldehyde							●			●					●		●		
Benzene				●			●			●		●				●	●		
Diethylether (ethers)				●		●				●	●			●					●
Potassium nitrate	40%	●			●			●				●			●				●
Ethanol (alcohols)	50%	●				●			●			●		●			●		
Ethylacetate (esters)				●			●			●		●			●		●		
Ethyl alcohol		●				●		●				●		●			●		
Phenol				●			●			●	●					●	●		
Glycerine			●		●						●			●			●		
Heptane						●				●	●						●		
Ammonium hydroxide	25%				●				●			●					●		
Sodium hydroxide - base	60%			●	●			●					●		●			●	
Sodium chloride - salt solution	15%	●			●			●				●		●				●	
Sulphur chloride and Calcium chloride		●			●			●					●	●					●
Carbon tetrachloride and Chloric ether				●			●			●		●							●
Iron dichloride		●			●			●					●					●	
Arsenic acid and Oleic acid		●			●			●					●	●					●
Citric acid	20%	●			●			●				●			●				●
Nitric acid	20%		●			●			●				●			●		●	
Nitric acid	50%			●			●			●			●			●	●		
Phosphoric acid	30%		●		●			●								●		●	
Hydrochlorid acid	5%	●			●			●			●					●			●
Hydrochlorid acid	35%			●			●			●		●				●			●
Chromic acid	40%		●			●			●			●				●			●
Formic acid	30%			●		●			●				●			●		●	
Acetic acid	10%	●			●				●			●			●			●	
Sulphuric acid	30%	●			●				●				●			●			●
Methanol				●			●			●		●			●		●		
Fuel oil			●			●		●			●			●			●		
Mineral oil			●		●			●			●			●			●		
Vegetable oil			●		●			●			●				●		●		
Rape oil			●		●				●		●			●			●		
Lamp oil			●			●			●		●			●			●		
Hydrogen peroxide	30%	●			●			●			●					●	●		
Ammonium sulphate	15%	●			●			●			●			●				●	
Toluene				●			●			●	●			●			●		
Turpentine oil										●		●					●		
Trichlorethylene				●			●			●		●			●		●		
Sodium carbonate	20%	●			●			●				●		●			●		
Aliphatic hydrocarbons		●			●				●		●			●			●		
Aromatic hydrocarbons				●			●			●	●			●			●		
Alkali				●	●			●			●						●		

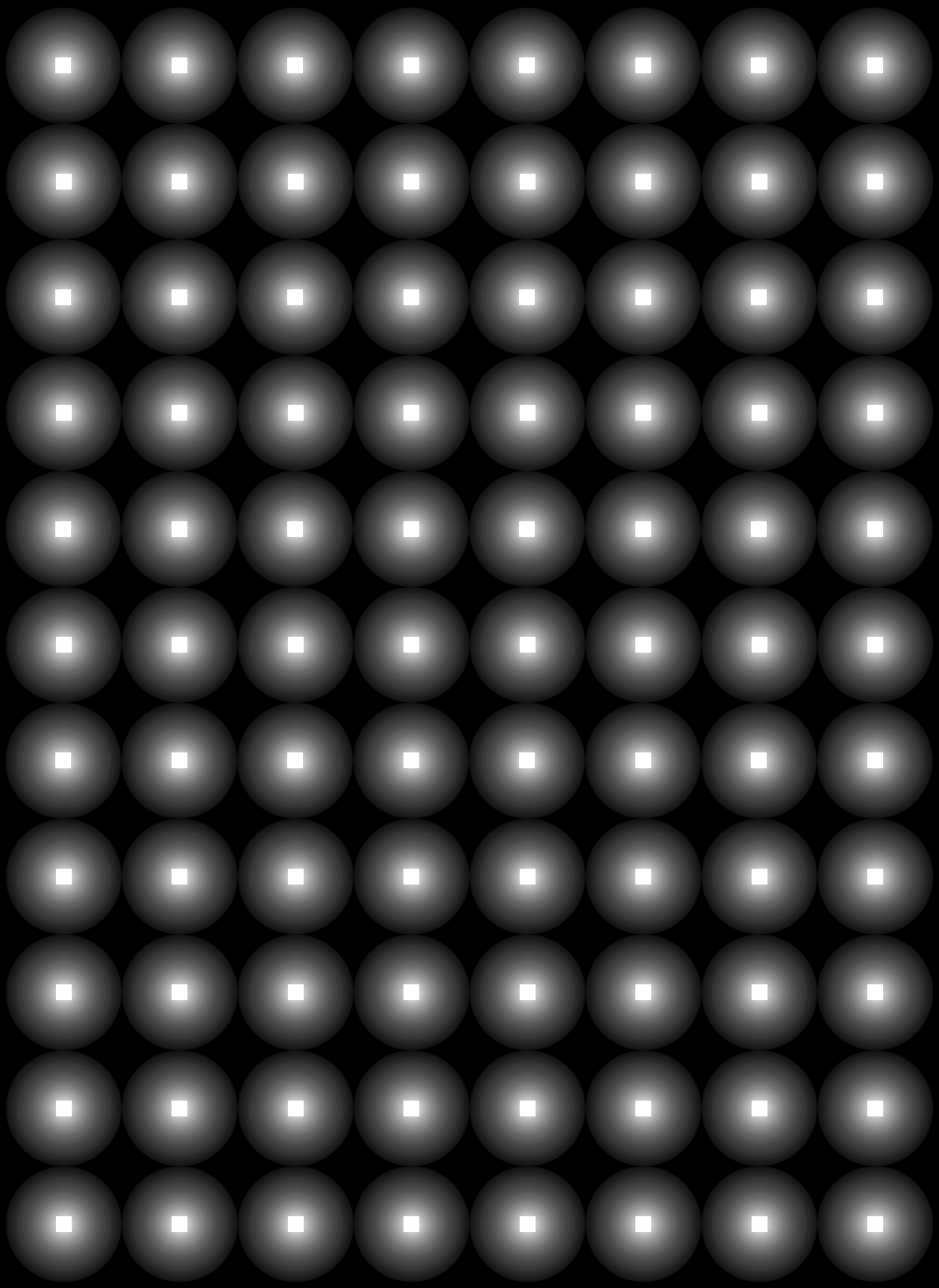
APPROXIMATE VALUES OF LIGHT FITTING MAINTENANCE FACTOR (LMF)

IP65, IP66 light fittings – INNOVA, FUTURA, PRIMA LED, TUNNEL STAR, TREX, PERUN SLIM, ALUMAX LED, CANOPUS, LINEA					
	Cleaning intervals in years				
Environment	**1,0**	**1,5**	**2,0**	**2,5**	**3,0**
Very clean	0,96	0,93	0,93	0,92	0,92
Clean	0,94	0,91	0,91	0,90	0,90
Common (optional)	0,90	0,88	0,86	0,85	0,84
Dirty (optional)	0,86	0,83	0,81	0,80	0,79

IP20, IP40 light fittings – BELTR LED, MO LED					
	Cleaning intervals in years				
Environment	**1,0**	**1,5**	**2,0**	**2,5**	**3,0**
Very clean	0,94	0,93	0,91	0,9	0,89
Clean	0,88	0,85	0,83	0,81	0,79
Common (optional)	0,82	0,79	0,77	0,75	0,73
Dirty (optional)	0,77	0,73	0,71	0,68	0,65

The table includes only approximate values that may not match the maintenance values achievable for a specific device.

Only damp microfiber cloth can be used for cleaning.



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