

FUTURA ES



... Energy Saver.

USE

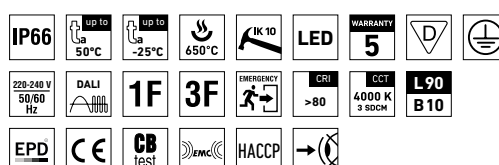
The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

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.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page 407.

ADVANTAGES

- Light fitting protection **IP66**
- Maximum ambient temperature up to **t_a = 50 °C**
- Lifetime: 50,000 hours / L90B10
- Lifetime: 100,000 hours / L80B10
- 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
- At request CRI > 80: 3000 K, 5000 K, 6500 K
- It can be delivered in dimmable or emergency version
- Through-wiring of up to 10 wires at body
- Certification: EPD, CB, HACCP

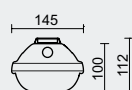
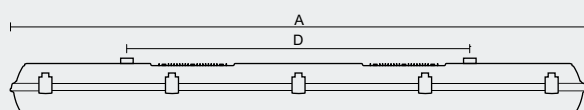


FUTURA ES PC Al, PCc Al



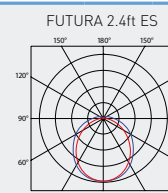
TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: $t_a = 50^\circ\text{C}$, Maximum ambient temperature: $t_a = 0-40^\circ\text{C}$ (version with emergency back-up M3hAt)
- Maximum system efficacy: 171 lm/W
- The watt and lumen values can vary by $\pm 7,5\%$
- Standard model - CRI > 80: 4000 K
- MacAdam = 3 SDCM
- Lifetime: 50,000 hours / L90B10
- Lifetime: 100,000 hours / L80B10
- 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



UGR EVALUATED FOR

X = 4 H, Y = 8 H S = 0.25 H
Reflectivity 70/50/20



Type	Max. ambient temperature [°C]	Luminous flux of LED modules [lm]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	UGR Longitudinal/transverse	Net weight [kg]	A [mm]	D [mm]
For ambient temperature $t_a = 50^\circ\text{C}$ - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate									
FUTURA 2.2ft ES PC Al 3200/840	50	3190	3000	18,2	165	23.9 / 21.9	1,45	612	475
FUTURA 2.2ft ES PC Al 4400/840	45	4380	4120	24,6	167	24.9 / 23.1	1,45	612	475
FUTURA 2.4ft ES PC Al 6400/840	50	6410	6030	35,2	171	24.1 / 22.3	2,45	1172	700
FUTURA 2.4ft ES PC Al 8800/840	45	9110	8560	50,4	170	25.3 / 23.5	2,45	1172	700
FUTURA 2.4ft ES PC Al 12800/840	35	14490	13620	80,1	170	26.8 / 25.1	2,65	1172	700
FUTURA 2.5ft ES PC Al 8000/840	50	8150	7660	45,1	170	24.1 / 22.4	2,95	1452	940
FUTURA 2.5ft ES PC Al 11000/840	45	12560	11810	68,9	171	25.7 / 24.0	2,95	1452	940
FUTURA 2.5ft ES PC Al 16000/840	35	17980	16900	99,3	170	26.8 / 25.1	3,25	1452	940

10020 FUTURA 2.2ft ES PC Al 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 - 2 x 18W

10050 FUTURA 2.4ft ES PC Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 - 2 x 36W

10090 FUTURA 2.5ft ES PC Al 8000/840 = suitable replacement for T8 fl. tube light fitting PRIMA 258 - 2 x 58W

FUTURA ES PC Al

Non-dimmable driver - plastic clips

Code	Type	1F	3F	M3hAt	3F M3hAt
10020	FUTURA 2.2ft ES PC Al 3200/840	x	x	109119	x
10030	FUTURA 2.2ft ES PC Al 4400/840	x	x	109120	x
10050	FUTURA 2.4ft ES PC Al 6400/840	10051	10053	109122	109128
10060	FUTURA 2.4ft ES PC Al 8800/840	10061	10063	109123	109129
10070	FUTURA 2.4ft ES PC Al 12800/840	10071	10073	x	x
10090	FUTURA 2.5ft ES PC Al 8000/840	10091	10093	109125	109131
10100	FUTURA 2.5ft ES PC Al 11000/840	10101	10103	109126	109132
10110	FUTURA 2.5ft ES PC Al 16000/840	10111	10113	x	x

FUTURA ES PCc Al

Non-dimmable driver - stainless clips [c]

Code	Type	1F	3F	M3hAt	3F M3hAt
10130	FUTURA 2.2ft ES PCc Al 3200/840	x	x	109134	x
10140	FUTURA 2.2ft ES PCc Al 4400/840	x	x	109135	x
10160	FUTURA 2.4ft ES PCc Al 6400/840	10161	10163	109137	109143
10170	FUTURA 2.4ft ES PCc Al 8800/840	10171	10173	109138	109144
10180	FUTURA 2.4ft ES PCc Al 12800/840	10181	10183	x	x
10200	FUTURA 2.5ft ES PCc Al 8000/840	10201	10203	109140	109146
10210	FUTURA 2.5ft ES PCc Al 11000/840	10211	10213	109141	109147
10220	FUTURA 2.5ft ES PCc Al 16000/840	10221	10223	x	x

FUTURA ES PC Al DALI

Code	Type
10240	FUTURA 2.2ft ES PC Al 3200/840 DALI
10250	FUTURA 2.2ft ES PC Al 4400/840 DALI
10270	FUTURA 2.4ft ES PC Al 6400/840 DALI
10280	FUTURA 2.4ft ES PC Al 8800/840 DALI
10290	FUTURA 2.4ft ES PC Al 12800/840 DALI
10310	FUTURA 2.5ft ES PC Al 8000/840 DALI
10320	FUTURA 2.5ft ES PC Al 11000/840 DALI
10330	FUTURA 2.5ft ES PC Al 16000/840 DALI

Digital dimmable driver DALI - plastic clips

1F	3F	M3hAt	3F M3hAt
x	x	109149	x
x	x	109150	x
10271	10273	109152	109158
10281	10283	109153	109159
10291	10293	x	x
10311	10313	109155	109161
10321	10323	109156	109162
10331	10333	x	x

FUTURA ES PCc Al DALI

Code	Type
10350	FUTURA 2.2ft ES PCc Al 3200/840 DALI
10360	FUTURA 2.2ft ES PCc Al 4400/840 DALI
10380	FUTURA 2.4ft ES PCc Al 6400/840 DALI
10390	FUTURA 2.4ft ES PCc Al 8800/840 DALI
10400	FUTURA 2.4ft ES PCc Al 12800/840 DALI
10420	FUTURA 2.5ft ES PCc Al 8000/840 DALI
10430	FUTURA 2.5ft ES PCc Al 11000/840 DALI
10440	FUTURA 2.5ft ES PCc Al 16000/840 DALI

Digital dimmable driver DALI - stainless clips (c)

1F	3F	M3hAt	3F M3hAt
x	x	109164	x
x	x	109165	x
10381	10383	109167	109173
10391	10393	109168	109174
10401	10403	x	x
10421	10423	109170	109176
10431	10433	109171	109177
10441	10443	x	x

LEGEND

- 1F** - 1-phase 3 core through-wiring in the luminaire
3F - 3-phase 5 core through-wiring in the luminaire
M3hAt - emergency back-up source with 3 hour operating time for maintained emergency illumination with battery autotest
3F M3hAt - 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 M3hAt - 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 - is not included in accessories



LIGHT FITTING DETAILED VIEW

FUTURA ES

