

FUTURA HE



180
lm/W

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

USE

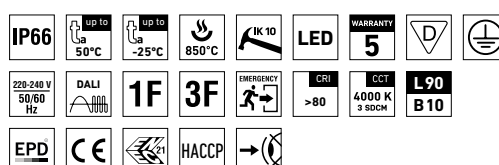
The light fitting is suitable for industrial indoor and outdoor roofed spaces, warehouses, sports areas, workshops, garages, transport terminals, utility structures and laboratories without a danger of explosion of gas, dust and combustible fumes.

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.

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 **$t_a = 50^\circ\text{C}$**
- 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 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
- Certification: EPD, ENEC, HACCP

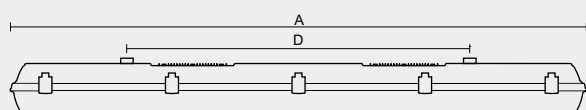


FUTURA HE PC Al, PCc Al



TECHNICAL DESCRIPTION

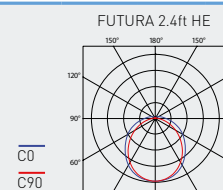
- Light fitting protection: IP66
- Maximum ambient temperature: $t_a = 50^\circ\text{C}$, Maximum ambient temperature: $t_a = 0-40^\circ\text{C}$ (version with emergency back-up M3hAt)
- Maximum system efficacy: 180 lm/W
- The watt and lumen values can vary by $\pm 7,5\%$
- Standard model - CRI > 80: 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 sulphur-resistant 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 HE PC Al 3200/840	50	3335	3130	18,6	168	24.1 / 22.0	1,45	612	475
FUTURA 2.2ft HE PC Al 4400/840	45	4520	4250	25,2	169	25.0 / 23.2	1,45	612	475
FUTURA 2.2ft HE PC Al 6400/840	35	6650	6250	35,9	174	26.5 / 24.4	1,45	612	475
FUTURA 2.4ft HE PC Al 6400/840	50	6690	6290	36,0	175	24.3 / 22.4	2,45	1172	700
FUTURA 2.4ft HE PC Al 8800/840	45	9140	8590	48,6	177	25.3 / 23.5	2,45	1172	700
FUTURA 2.4ft HE PC Al 12800/840	35	15610	14670	81,7	180	27.2 / 25.4	2,65	1172	700
FUTURA 2.5ft HE PC Al 8000/840	50	8330	7830	44,1	178	24.2 / 22.5	2,95	1452	940
FUTURA 2.5ft HE PC Al 11000/840	45	13200	12410	69,8	178	25.8 / 24.1	2,95	1452	940
FUTURA 2.5ft HE PC Al 16000/840	35	19400	18240	101,2	180	27.2 / 25.4	3,25	1452	940
FUTURA 2.5ft HE PC Al 22000/840	35	23220	21830	127,2	172	27.8 / 26.1	3,25	1452	940

FUTURA HE PC Al

Code	Type
11000	FUTURA 2.2ft HE PC Al 3200/840
11010	FUTURA 2.2ft HE PC Al 4400/840
11003	FUTURA 2.2ft HE PC Al 6400/840
11006	FUTURA 2.4ft HE PC Al 6400/840
11020	FUTURA 2.4ft HE PC Al 8800/840
11016	FUTURA 2.4ft HE PC Al 12800/840
11019	FUTURA 2.5ft HE PC Al 8000/840
11030	FUTURA 2.5ft HE PC Al 11000/840
11041	FUTURA 2.5ft HE PC Al 16000/840
103406	FUTURA 2.5ft HE PC Al 22000/840

Non-dimmable driver - plastic clips

1F	3F	M3hAt	3F M3hAt
x	x	109178	x
x	x	109179	x
x	x	109180	x
11007	11008	109181	109185
11021	11023	109182	109186
11017	11018	x	x
11022	11028	109183	109187
11031	11033	109184	109188
11042	11043	x	x
103407	103408	x	x

FUTURA HE PCc Al

Code	Type
11046	FUTURA 2.2ft HE PCc Al 3200/840
11040	FUTURA 2.2ft HE PCc Al 4400/840
11049	FUTURA 2.2ft HE PCc Al 6400/840
11059	FUTURA 2.4ft HE PCc Al 6400/840
11050	FUTURA 2.4ft HE PCc Al 8800/840
11076	FUTURA 2.4ft HE PCc Al 12800/840
11079	FUTURA 2.5ft HE PCc Al 8000/840
11060	FUTURA 2.5ft HE PCc Al 11000/840
11101	FUTURA 2.5ft HE PCc Al 16000/840
103412	FUTURA 2.5ft HE PCc Al 22000/840

Non-dimmable driver - stainless clips (c)

1F	3F	M3hAt	3F M3hAt
x	x	109189	x
x	x	109190	x
x	x	109191	x
11062	11068	109192	109196
11051	11053	109193	109197
11077	11078	x	x
11082	11088	109194	109198
11061	11063	109195	109199
11102	11103	x	x
103413	103414	x	x

FUTURA HE PC Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M3hAt	3F M3hAt
11106	FUTURA 2.2ft HE PC Al 3200/840 DALI	x	x	109200	x
11070	FUTURA 2.2ft HE PC Al 4400/840 DALI	x	x	109201	x
11109	FUTURA 2.2ft HE PC Al 6400/840 DALI	x	x	109202	x
11119	FUTURA 2.4ft HE PC Al 6400/840 DALI	11122	11128	109203	109207
11080	FUTURA 2.4ft HE PC Al 8800/840 DALI	11081	11083	109204	109208
11133	FUTURA 2.4ft HE PC Al 12800/840 DALI	11134	11135	x	x
11136	FUTURA 2.5ft HE PC Al 8000/840 DALI	11137	11138	109205	109209
11090	FUTURA 2.5ft HE PC Al 11000/840 DALI	11091	11093	109206	109210
11143	FUTURA 2.5ft HE PC Al 16000/840 DALI	11144	11145	x	x
103411	FUTURA 2.5ft HE PC Al 22000/840 DALI *	103409	103410	x	x

FUTURA HE PCc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M3hAt	3F M3hAt
11146	FUTURA 2.2ft HE PCc Al 3200/840 DALI	x	x	109211	x
11100	FUTURA 2.2ft HE PCc Al 4400/840 DALI	x	x	109212	x
11149	FUTURA 2.2ft HE PCc Al 6400/840 DALI	x	x	109213	x
11152	FUTURA 2.4ft HE PCc Al 6400/840 DALI	11153	11154	109214	109218
11110	FUTURA 2.4ft HE PCc Al 8800/840 DALI	11111	11113	109215	109219
11159	FUTURA 2.4ft HE PCc Al 12800/840 DALI	11160	11161	x	x
11162	FUTURA 2.5ft HE PCc Al 8000/840 DALI	11163	11164	109216	109220
11120	FUTURA 2.5ft HE PCc Al 11000/840 DALI	11121	11123	109217	109221
11169	FUTURA 2.5ft HE PCc Al 16000/840 DALI	11170	11171	x	x
103415	FUTURA 2.5ft HE PCc Al 22000/840 DALI *	103416	103417	x	x

*) The FUTURA 2.5ft HE 22000/840 DALI luminaire contains 2pcs DALI drivers, so it has 2 DALI control addresses.

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 HE

