

# FUTURA



**BIM**  
ready

... dustproof, waterproof and impact-resistant, MultiLumen.

## 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.

**Thanks to the MultiLumen function**, the luminaire can be adjusted for changing lighting requirements without much effort.

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<sub>a</sub> = 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 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

- **MultiLumen (ML)** function enables simple switching between up to four luminous fluxes via driver's DIP switch.
- 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: EPD, ENEC, CB, HACCP

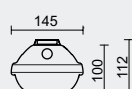
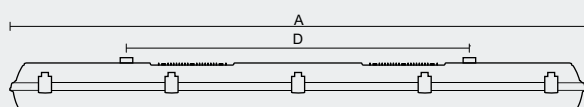


## FUTURA PC AL, PCc AL



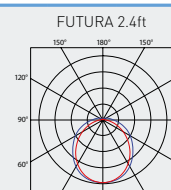
## TECHNICAL DESCRIPTION

- 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: 167 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
- **MultiLumen (ML):** luminous flux variable in up to 4 steps. In the standard version preset maximum luminous flux.
- 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]	Preselected Step 1 of MultiLumen function				Net weight [kg]	A [mm]	D [mm]
			Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	UGR Longitudinal/ transverse			
For ambient temperature t <sub>a</sub> = 50 °C - body: grey polycarbonate with Al coolers - diffuser: translucent polycarbonate									
FUTURA 2.2ft PC Al 3200/840 *	50	3250	3060	20,1	152	24.2 / 22.1	1,45	612	475
FUTURA 2.2ft PC Al 4400/840 *	45	4680	4400	28,3	155	25.4 / 23.5	1,45	612	475
FUTURA 2.4ft PC Al 6400/840 *	50	6520	6130	38,4	160	24.4 / 22.5	2,45	1172	700
FUTURA 2.4ft PC Al 8800/840 *	45	8980	8440	52,8	160	25.5 / 23.6	2,45	1172	700
FUTURA 2.4ft PC Al 12800/840	35	12920	12140	74,8	162	26.7 / 24.9	2,65	1172	700
FUTURA 2.5ft PC Al 8000/840 *	50	8330	7830	48,3	162	24.5 / 22.6	2,95	1452	940
FUTURA 2.5ft PC Al 11000/840	45	11260	10580	64,7	164	25.5 / 23.7	2,95	1452	940
FUTURA 2.5ft PC Al 16000/840	35	16100	15130	92,7	163	26.7 / 24.9	3,25	1452	940

\*) Also available with MultiLumen function:

Type	MultiLumen function								
	Step 2			Step 3			Step 4		
	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]	Luminous flux of light fitting [lm]	Power consumption [W]	System efficacy [lm/W]
FUTURA 2.2ft PC AL 3200/840 ML	2650	17,3	153	2240	14,5	154	1810	12,3	147
FUTURA 2.2ft PC AL 4400/840 ML	3830	24,2	158	3240	20,3	160	2610	16,4	159
FUTURA 2.4ft PC AL 6400/840 ML	5310	32,9	161	4470	27,4	163	3630	22,0	165
FUTURA 2.4ft PC AL 8800/840 ML	7320	44,9	163	6190	37,4	166	5020	30,1	167
FUTURA 2.5ft PC AL 8000/840 ML	6790	41,5	164	5740	34,6	166	4640	27,9	166

## FUTURA PC AL

Code	Type
75020	FUTURA 2.2ft PC AL 3200/840 ML
75030	FUTURA 2.2ft PC AL 4400/840 ML
75050	FUTURA 2.4ft PC AL 6400/840 ML
75060	FUTURA 2.4ft PC AL 8800/840 ML
75410	FUTURA 2.4ft PC AL 12800/840
75080	FUTURA 2.5ft PC AL 8000/840 ML
75090	FUTURA 2.5ft PC AL 11000/840
75420	FUTURA 2.5ft PC AL 16000/840

Non-dimmable driver - plastic clips

	1F	3F	M3hAt	3F M3hAt
	x	x	109059	x
	x	x	109060	x
	75150	75350	109062	109068
	75160	75360	109063	109069
	75411	75412	x	x
	75180	75380	109065	109071
	75190	75390	109066	109072
	75421	75422	x	x

## FUTURA PCc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M3hAt	3F M3hAt
75220	FUTURA 2.2ft PCc Al 3200/840 ML	x	x	109089	x
75230	FUTURA 2.2ft PCc Al 4400/840 ML	x	x	109090	x
75250	FUTURA 2.4ft PCc Al 6400/840 ML	75550	75650	109092	109098
75260	FUTURA 2.4ft PCc Al 8800/840 ML	75560	75660	109093	109099
75430	FUTURA 2.4ft PCc Al 12800/840	75431	75432	x	x
75280	FUTURA 2.5ft PCc Al 8000/840 ML	75580	75680	109095	109101
75290	FUTURA 2.5ft PCc Al 11000/840	75590	75690	109096	109102
75440	FUTURA 2.5ft PCc Al 16000/840	75441	75442	x	x

## FUTURA PC Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M3hAt	3F M3hAt
75023	FUTURA 2.2ft PC Al 3200/840 DALI	x	x	109074	x
75033	FUTURA 2.2ft PC Al 4400/840 DALI	x	x	109075	x
75053	FUTURA 2.4ft PC Al 6400/840 DALI	75153	75353	109077	109083
75063	FUTURA 2.4ft PC Al 8800/840 DALI	75163	75363	109078	109084
75450	FUTURA 2.4ft PC Al 12800/840 DALI	75451	75452	x	x
75083	FUTURA 2.5ft PC Al 8000/840 DALI	75183	75383	109080	109086
75093	FUTURA 2.5ft PC Al 11000/840 DALI	75193	75393	109081	109087
75460	FUTURA 2.5ft PC Al 16000/840 DALI	75461	75462	x	x

## FUTURA PCc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M3hAt	3F M3hAt
75223	FUTURA 2.2ft PCc Al 3200/840 DALI	x	x	109104	x
75233	FUTURA 2.2ft PCc Al 4400/840 DALI	x	x	109105	x
75253	FUTURA 2.4ft PCc Al 6400/840 DALI	75553	75653	109107	109113
75263	FUTURA 2.4ft PCc Al 8800/840 DALI	75563	75663	109108	109114
75470	FUTURA 2.4ft PCc Al 12800/840 DALI	75471	75472	x	x
75283	FUTURA 2.5ft PCc Al 8000/840 DALI	75583	75683	109110	109116
75293	FUTURA 2.5ft PCc Al 11000/840 DALI	75593	75693	109111	109117
75480	FUTURA 2.5ft PCc Al 16000/840 DALI	75481	75482	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

