FUTURA ES ABS



... Energy Saver, chemically resistant, MultiLumen.

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.

Emissions in the environment of use may reduce the usability of the plastics; for more information see page 421.

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

ADVANTAGES

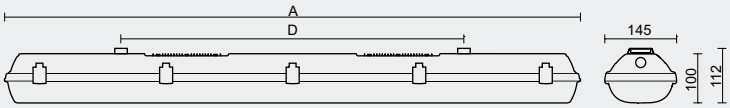
- Light fitting protection **IP66**
- Maximum ambient temperature up to t_a **= 50 °C**
- Lifetime: 50,000 hours / L90B10
- Lifetime: 100,000 hours / L80B10
- Diffuser: translucent acrylate (AC) = high chemical resistance
- Body: dark grey ABS with Al coolers (ABS Al) = high chemical resistance
- Up to 50 % lower electricity consumption when compared to tubes T5
- In DALI version possibility of constant luminous flux for whole lifetime (CLO)
- **MultiLumen (ML)** function enables simple switching between up to four luminous fluxes via driver's DIP switch
- 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 ABS Al, ABSc Al

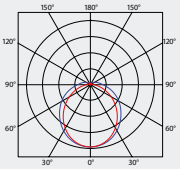


TECHNICAL DESCRIPTION

- Light fitting protection: IP66
- Maximum ambient temperature: t_a = 50 °C, Maximum ambient temperature: t_a = 0-40 °C (version with emergency back-up M3hAt)
- Maximum system efficacy: 175 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
- 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 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



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]			
For ambient temperature t_a = 50 °C - body: dark grey ABS with Al coolers - diffuser: translucent acrylate								
FUTURA 2.2ft ES ABS Al 3200/840	50	3470	3050	18,1	169	1,45	612	475
FUTURA 2.2ft ES ABS Al 4400/840 *	45	4700	4140	24,1	172	1,45	612	475
FUTURA 2.4ft ES ABS Al 6400/840	50	6600	5810	34,3	169	2,45	1172	700
FUTURA 2.4ft ES ABS Al 8800/840 *	45	9100	8010	47,0	170	2,45	1172	700
FUTURA 2.4ft ES ABS Al 12800/840	40	13014	11450	66,4	172	2,65	1172	700
FUTURA 2.4ft ES ABS Al 14000/840	40	14780	13010	76,1	171	2,65	1172	700
FUTURA 2.5ft ES ABS Al 8000/840	50	8034	7070	40,7	174	2,95	1452	940
FUTURA 2.5ft ES ABS Al 11000/840 *	45	11120	9790	56,7	173	2,95	1452	940
FUTURA 2.5ft ES ABS Al 16000/840	40	16150	14210	81,3	175	3,25	1452	940
FUTURA 2.5ft ES ABS Al 18000/840	40	18030	15870	93,9	169	3,25	1452	940
FUTURA 2.5ft ES ABS Al 20000/840	40	20110	17700	107,6	164	3,25	1452	940
FUTURA 2.5ft ES ABS Al 22000/840	35	22180	19520	119,3	164	3,45	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 ES ABS Al 4400/840 ML	3600	21,4	168	3050	18,1	169	2450	14,6	168
FUTURA 2.4ft ES ABS Al 8800/840 ML	6930	40,5	171	5810	34,3	169	4640	27,7	168
FUTURA 2.5ft ES ABS Al 11000/840 ML	8440	48,6	174	7070	40,7	174	5690	32,9	173

10520 FUTURA 2.2ft ES ABS Al 3200/840 = suitable replacement for T8 fl. tube light fitting PRIMA 218 – 2×18 W
10550 FUTURA 2.4ft ES ABS Al 6400/840 = suitable replacement for T8 fl. tube light fitting PRIMA 236 – 2×36 W
10590 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	M3hAt	3F M3hAt
10520	FUTURA 2.2ft ES ABS Al 3200/840	x	x	109283	x
10530	FUTURA 2.2ft ES ABS Al 4400/840 ML	x	x	109284	x
10550	FUTURA 2.4ft ES ABS Al 6400/840	10551	10553	109286	109292
10560	FUTURA 2.4ft ES ABS Al 8800/840 ML	10561	10563	109287	109293
10570	FUTURA 2.4ft ES ABS Al 12800/840	10571	10573	x	x
111791	FUTURA 2.4ft ES ABS Al 14000/840	111795	111799	x	x
10590	FUTURA 2.5ft ES ABS Al 8000/840	10591	10593	109289	109295
10600	FUTURA 2.5ft ES ABS Al 11000/840 ML	10601	10603	109290	109296
10610	FUTURA 2.5ft ES ABS Al 16000/840	10611	10613	x	x
111792	FUTURA 2.5ft ES ABS Al 18000/840	111796	111800	x	x
111793	FUTURA 2.5ft ES ABS Al 20000/840	111797	111801	x	x
111794	FUTURA 2.5ft ES ABS Al 22000/840	111798	111802	x	x

FUTURA ES ABSc Al

Non-dimmable driver - stainless clips (c)

Code	Type	1F	3F	M3hAt	3F M3hAt
10630	FUTURA 2.2ft ES ABSc Al 3200/840	x	x	109298	x
10640	FUTURA 2.2ft ES ABSc Al 4400/840 ML	x	x	109299	x
10660	FUTURA 2.4ft ES ABSc Al 6400/840	10661	10663	109301	109307
10670	FUTURA 2.4ft ES ABSc Al 8800/840 ML	10671	10673	109302	109308
10680	FUTURA 2.4ft ES ABSc Al 12800/840	10681	10683	x	x
111845	FUTURA 2.4ft ES ABSc Al 14000/840	111849	111853	x	x
10700	FUTURA 2.5ft ES ABSc Al 8000/840	10701	10703	109304	109310
10710	FUTURA 2.5ft ES ABSc Al 11000/840 ML	10711	10713	109305	109311
10720	FUTURA 2.5ft ES ABSc Al 16000/840	10721	10723	x	x
111846	FUTURA 2.5ft ES ABSc Al 18000/840	111850	111854	x	x
111847	FUTURA 2.5ft ES ABSc Al 20000/840	111851	111855	x	x
111848	FUTURA 2.5ft ES ABSc Al 22000/840	111852	111856	x	x

FUTURA ES ABS Al DALI

Digital dimmable driver DALI - plastic clips

Code	Type	1F	3F	M3hAt	3F M3hAt
10740	FUTURA 2.2ft ES ABS Al 3200/840 DALI	x	x	109313	x
10750	FUTURA 2.2ft ES ABS Al 4400/840 DALI	x	x	109314	x
10770	FUTURA 2.4ft ES ABS Al 6400/840 DALI	10771	10773	109316	109322
10780	FUTURA 2.4ft ES ABS Al 8800/840 DALI	10781	10783	109317	109323
10790	FUTURA 2.4ft ES ABS Al 12800/840 DALI	10791	10793	x	x
111803	FUTURA 2.4ft ES ABS Al 14000/840 DALI	111807	111811	x	x
10810	FUTURA 2.5ft ES ABS Al 8000/840 DALI	10811	10813	109319	109325
10820	FUTURA 2.5ft ES ABS Al 11000/840 DALI	10821	10823	109320	109326
10830	FUTURA 2.5ft ES ABS Al 16000/840 DALI	10831	10833	x	x
111804	FUTURA 2.5ft ES ABS Al 18000/840 DALI	111808	111812	x	x
111805	FUTURA 2.5ft ES ABS Al 20000/840 DALI	111809	111813	x	x
111806	FUTURA 2.5ft ES ABS Al 22000/840 DALI *	111810	111814	x	x

FUTURA ES ABSc Al DALI

Digital dimmable driver DALI - stainless clips (c)

Code	Type	1F	3F	M3hAt	3F M3hAt
10850	FUTURA 2.2ft ES ABSc Al 3200/840 DALI	x	x	109328	x
10860	FUTURA 2.2ft ES ABSc Al 4400/840 DALI	x	x	109329	x
10880	FUTURA 2.4ft ES ABSc Al 6400/840 DALI	10881	10883	109331	109337
10890	FUTURA 2.4ft ES ABSc Al 8800/840 DALI	10891	10893	109332	109338
10900	FUTURA 2.4ft ES ABSc Al 12800/840 DALI	10901	10903	x	x
111857	FUTURA 2.4ft ES ABSc Al 14000/840 DALI	111861	111865	x	x
10920	FUTURA 2.5ft ES ABSc Al 8000/840 DALI	10921	10923	109334	109340
10930	FUTURA 2.5ft ES ABSc Al 11000/840 DALI	10931	10933	109335	109341
10940	FUTURA 2.5ft ES ABSc Al 16000/840 DALI	10941	10943	x	x
111858	FUTURA 2.5ft ES ABSc Al 18000/840 DALI	111862	111866	x	x
111859	FUTURA 2.5ft ES ABSc Al 20000/840 DALI	111863	111867	x	x
111860	FUTURA 2.5ft ES ABSc Al 22000/840 DALI *	111864	111868	x	x

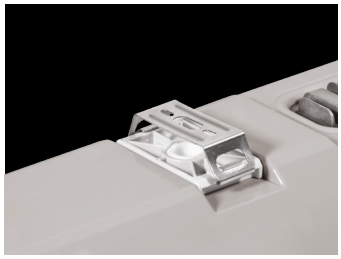
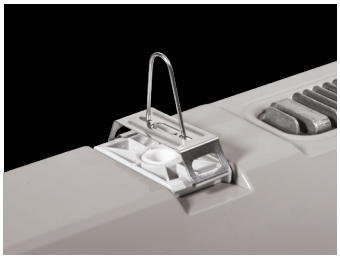
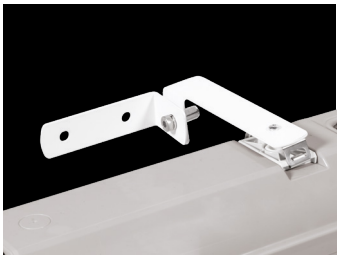
*) The FUTURA 2.5ft ES 22000/840 DALI luminaire contains 2pcs DALI drivers, so it has 2 DALI control addresses.

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 ES ABS

