



LFE - LFEE series fluorescent light fittings

• Use

LFE - LFEE series fluorescent light fittings are normally used in the chemical and petrochemical plants, off-shore platforms, refineries and any other industry where hazardous atmospheres (gas and combustible dust) are potentially present.

The LFE - LFEE range has been designed to meet the main requirements of illumination of working areas and to grant a

• Function

The LFE range is used for the standard illumination while LFEE range is proposed with two different functions: "normal + emergency" or "only emergency" operation. The LFEE "only emergency operation" can be supplied with diffuser showing different safety indications (EXIT, arrows, warnings, etc.) available, on request, also in local languages. The wiring diagram of LFEE series is designed to provide a continuous power supply to the emergency unit so to grant its full functionality anytime. Besides a LED unit, well visible from outside, indicates the status of emergency unit through green/yellow/red colours to facilitate the maintenance activity. The internal wiring is designed to allow any combination of loop-in loop-out installation. The light fitting can be installed using different mounting types: ceiling, chain, pendant, pole, and bracket.

• Construction

The materials used to manufacture the LFE - LFEE series have been studied to grant the maximum protection against the highly corrosive agents present in these industries:

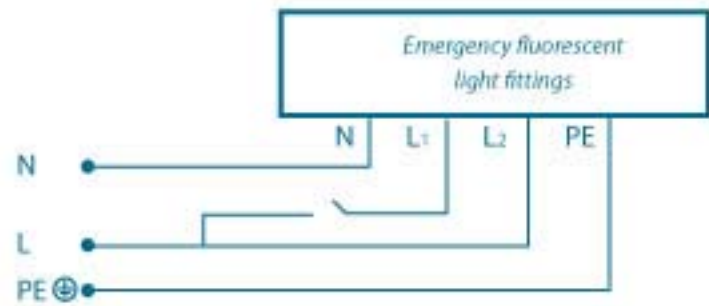
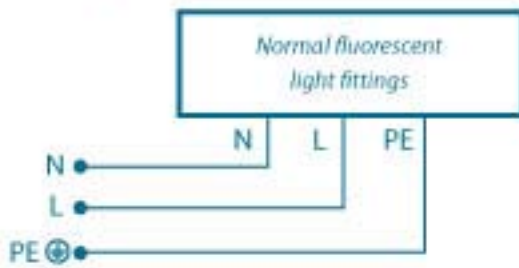
- the body in glass fiber reinforced polyester (GRP), provides a very high mechanical strength together with a good resistance against the UV ray effects;
- the transparent diffuser in UV ray resistance polycarbonate has a self extinguishing property according to Standard UL 94;
- the gasket on cover grants an IP66 protection level ;
- the closing system in one single spot, apart from facilitating greatly the maintenance operations, is itself a guarantee of first-rate holding system since it provides a constant pressure of seals over all the perimeter of the diffuser ;
- the internal electrical components are fully sealed so to prevent any corrosive action that could cause electrical faults;
- the body has two cable entries M25x1.5 on one side and one cable entry M25x1.5 on the opposite side so to allow any loop-in loop-out installation. On request it's possible to have two cable entries M25x1.5 on both sides;
- all the light fittings are equipped, as standard, with one cable gland and two stopping plugs in plastic and Atex certified. Other materials or combinations are available as option;
- two kind of lampholder: G13 for traditional T8 fluorescent tubes and G5 for new generation of T5 fluorescent tubes;
- electronic ballast, equipped with some self-protective functions, works with a multirange voltage and has a two-supply circuit design so to continue to energize one fluorescent tube in case the second one is faulty;
- internal circuit is protected by fuses so to minimize any possible problems caused by overvoltage during normal operation;

Safety interlock

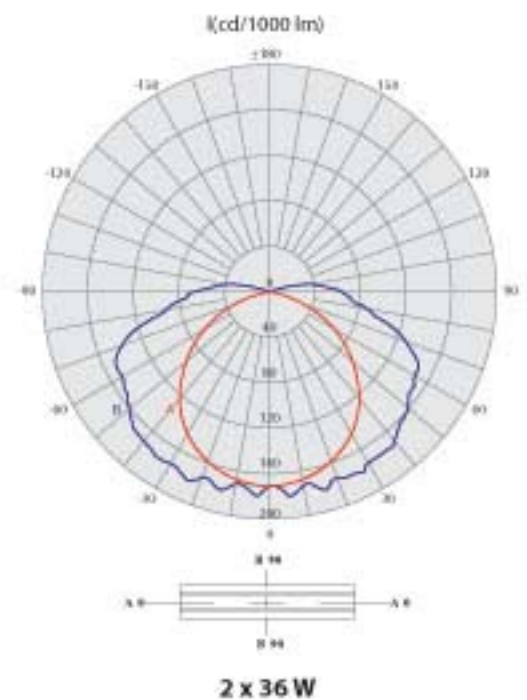
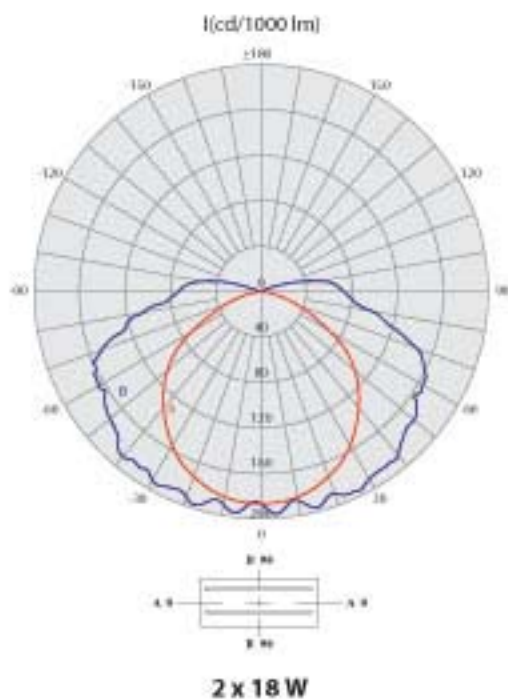
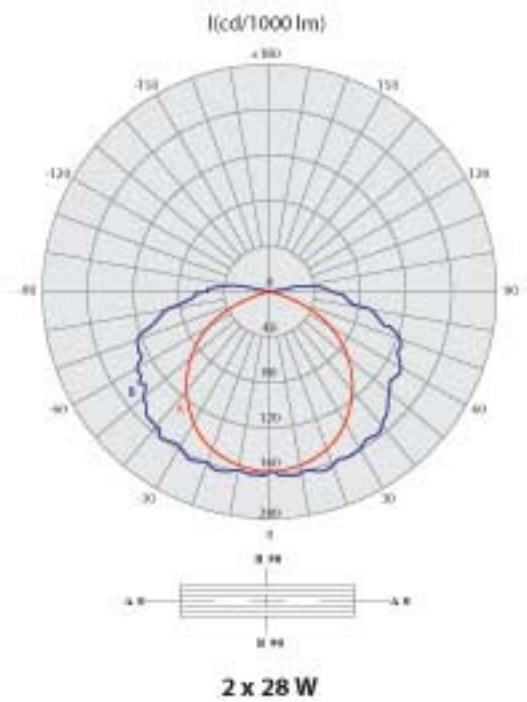
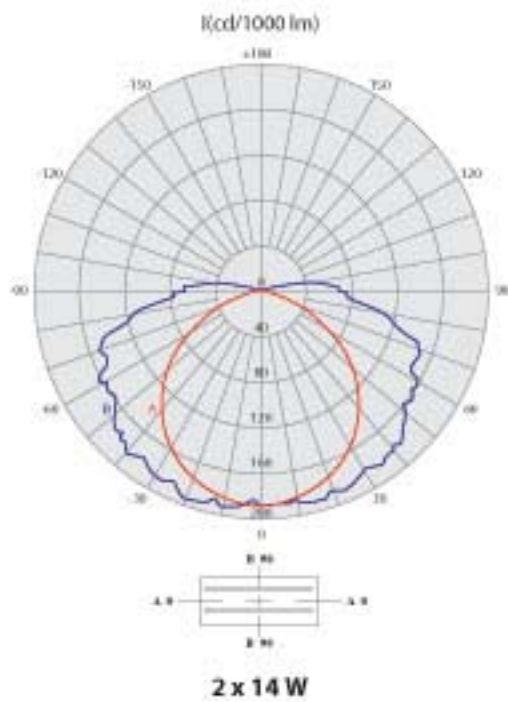


The light fitting is equipped with an interlock device mechanically connected with the internal Ex de safety switches, that automatically cut-off the power when the enclosure is opened.

• Wiring diagrams



• Polar diagrams

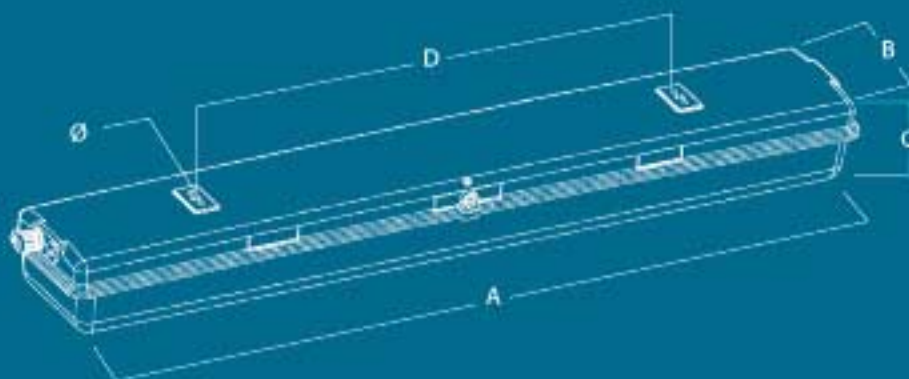


• Protection and electrical data

certificate number:	DNV 11 ATEX 104067
marking:	⊕ II 2GD Ex dembq II C Gb T4 Ex tD A21 T 80°C
category:	suitable for Zone 1 – 21 (gas) and Zone 2 – 22 (dust)
ambient temperature:	-25°C ≤ Ta ≤ 40°C
degree of protection:	IP66
rated voltage:	AC110 ~ 240V (±10%) 50/60Hz
power factor:	λ > 0.98
energy efficiency index:	EEL = A2
terminals:	L - N - PE (each terminal 2 x 1.5 - 10mm ²)
fuse:	Up to 6.3 A
standards:	EN60079-0 / EN60079-1 / EN60079-5 EN60079-7 / EN60079-18 / EN61241-0 / EN61241-1
conformity:	Directive ATEX 94/9/EC
cable entries:	1 x M25x1.5 (left side) 2 x M25x1.5 (right side)
cable diameters:	8-17mm / 11-15mm / 11.5-16mm

• Order specifications

code	overall dimensions and weight				fixing dimensions		electrical data		
	A	B	C	kg	D	ø	lampholder	power	current
LFE 114	725	222	145	4.8	400	M8	G5 bi-pin	1 x 14 W	max 0.16 Ah
LFE 118	725	222	145	4.8	400	M8	G13 bi-pin	1 x 18 W	max 0.20 Ah
LFE 128	1335	222	145	7.7	800	M8	G5 bi-pin	1 x 28W	max 0.33 Ah
LFE 136	1335	222	145	7.7	800	M8	G13 bi-pin	1 x 36 W	max 0.39 Ah
LFE 214	725	222	145	5.0	400	M8	G5 bi-pin	2 x 14 W	max 0.16 Ah
LFE 218	725	222	145	5.0	400	M8	G13 bi-pin	2 x 18 W	max 0.20 Ah
LFE 228	1335	222	145	7.9	800	M8	G5 bi-pin	2 x 28W	max 0.33 Ah
LFE 236	1335	222	145	7.9	800	M8	G13 bi-pin	2 x 36 W	max 0.39 Ah



LFEE - Explosion-proof Emergency Fluorescent Light Fitting
• Protection and electrical data






certificate number:	DNV 11 ATEX 104067
marking:	⊕ II 2GD Ex dembq II C Gb T4 Ex tD A21 T 80°C
category:	suitable for Zone 1 - 21 (gas) and Zone 2 - 22 (dust)
ambient temperature:	-25°C ≤ Ta ≤ 40°C
degree of protection:	IP66
rated voltage:	AC110 ~ 240V (±10%) 50/60Hz
power factor:	λ > 0.98
battery recharging time:	24h
battery designed life:	> 500 recharging times
emerg. starting time:	0.1 seconds
emerg. working time:	> 120 minutes
terminals:	L1 - L2 - L - N - PE (each terminal 2 x 1.5 - 10mm ²)
fuse:	Up to 6.3 A
standards:	EN60079-0 / EN60079-1 / EN60079-5 EN60079-7 / EN60079-18 / EN61241-0 / EN61241-1
conformity:	Directive ATEX 94/9/EC
cable entries:	1 x M25x1.5 (left side) 2 x M25x1.5 (right side)
cable diameters:	8-17mm / 11-15mm / 11.5-16mm

• Order specifications

code	overall dimensions and weight				fixing dimensions		electrical data		
	A	B	C	kg	D	σ	lampholder	power	current
LFEE 014	725	222	145	6.6	400	M8	G5 bi-pin	-	1 x 14 W
LFEE 018	725	222	145	6.6	400	M8	G13 bi-pin	-	1 x 18 W
LFEE 028	1335	222	145	9.7	800	M8	G5 bi-pin	-	1 x 28W
LFEE 036	1335	222	145	9.7	800	M8	G13 bi-pin	-	1 x 36 W
LFEE 114	725	222	145	6.6	400	M8	G5 bi-pin	1 x 14 W	1 x 14 W
LFEE 118	725	222	145	6.6	400	M8	G13 bi-pin	1 x 18 W	1 x 18 W
LFEE 128	1335	222	145	9.7	800	M8	G5 bi-pin	1 x 28W	1 x 28W
LFEE 136	1335	222	145	9.7	800	M8	G13 bi-pin	1 x 36 W	1 x 36 W
LFEE 214	725	222	145	6.8	400	M8	G5 bi-pin	2 x 14 W	1 x 14 W
LFEE 218	725	222	145	6.8	400	M8	G13 bi-pin	2 x 18 W	1 x 18 W
LFEE 228	1335	222	145	9.9	800	M8	G5 bi-pin	2 x 28W	1 x 28W
LFEE 236	1335	222	145	9.9	800	M8	G13 bi-pin	2 x 36 W	1 x 36 W

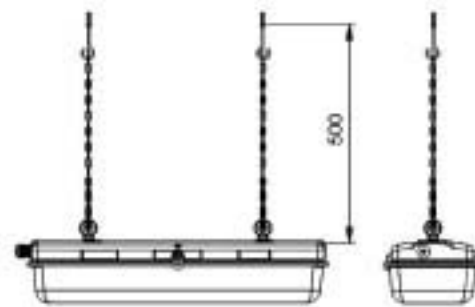
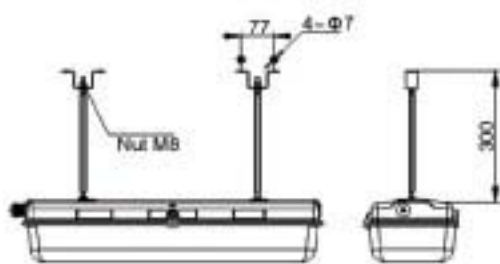
The overall dimensions of present table are related to drawing page 4.

• Mounting accessories

Code	Mounting type	Description	Material	Image
ULS 1G	Chain	Support set	galvanized steel	
ULS 1S			stainless steel	
ULS 2G	Pendant	Support set	galvanized steel	
ULS 2S			stainless steel	
ULS 3G	Pole - Bracket	Clamp set G 1½" Ø 47 ~ 50 mm	galvanized steel	
ULS 3S		Clamp set G 1½" Ø 47 ~ 50 mm	stainless steel	
ULS 4G	Ceiling	Support set	galvanized steel	
ULS 4S			stainless steel	
ULS 5G	Frame	Support set	galvanized steel	
ULS 5S			stainless steel	

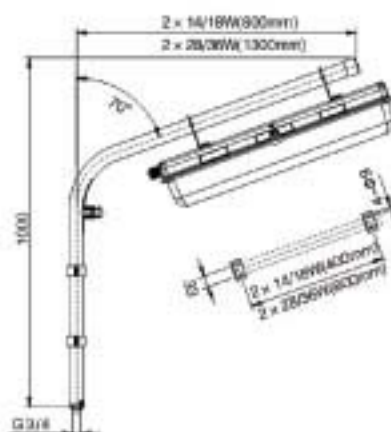
• Mounting types

Pendant Type



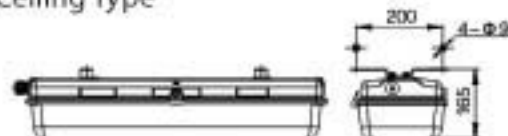
Chain Type

Bracket Type



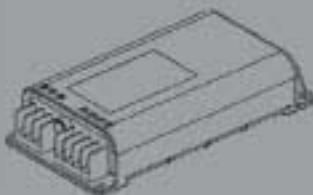






Pole Type

Ceiling Type



• Electric Accessories

Code	Description	Protection	Image
ULSME	Limit-switch contact 2 NC	Ex de IIC	
ULHE/G5	Lampholder - T5 fluorescent tube	Ex e II	
ULHE/G13	Lampholder - T5 fluorescent tube	Ex e II	
UBHE 214	Ballast module 2x14 W - T5 fluorescent tube	Ex eq II	
UBHE 228	Ballast module 2x28 W - T5 fluorescent tube	Ex eq II	
UBHE 218	Ballast module 2x18 W - T8 fluorescent tube	Ex eq II	
UBHE 236	Ballast module 2x36 W - T8 fluorescent tube	Ex eq II	
UIHE 118	Inverter module 1x18 (1x14) W	Ex eq II	
UIHE 136	Inverter module 1x36 (1x28) W	Ex eq II	
UBME 6	Battery module 4.5 A / 6 V	Ex e II	
UBME 7	Battery module 4.5 A / 7.2 V	Ex e II	
ULME	Emergency indicator module LED colours: red - yellow - green	Ex mb II	
UFME 0.4	Fuse module 0.4 A	Ex mbe II	
UFME 0.8	Fuse module 0.8 A	Ex mbe II	
UFME 6.3	Fuse module 6.3 A	Ex mbe II	

• Other Accessories

Code	Description	Material	Image
ULSS 01	Exit stickers	Self adhesive vinyl	

Other escape/warning labels are available on request