

# Low intensity XLFE-4/1 LED Obstruction lighting fixtures

XLFE-4... /1 series low intensity lighting fixtures are suitable to be installed on towers or high buildings as obstacle signaling devices thanks to the high power and luminous efficiency light source developed by Cortem Group making full use of the experience gained in the world of LED lighting in the recent years. The XLFE-4... /1 lighting fixture, red in color with a luminous intensity of more than 32 candles, complies with the ICAO Annex 14 standard for low intensity aviation warning lamps type A and type B (corresponding to the FAA L-810). The XLFE-4... /1 series is equipped with an internal reflector in chromium-plated anticorodal aluminium alloy and it can be provided with double circuit (main/spare). They are also available for industrial signaling in flashing operation and with different light colors upon request.

**Application sectors:** 



Oil refineries



Chemical and petrochemical plants



Onshore plants al



Offshore plants



Oil loading/ unloading jetties



Combustible liquid depots



High buildings



Aircraft storage facilities Hangars

#### **CERTIFICATION DATA**

Classification:	Gruppo II	Categoria 2GD			
Installation: EN 60079.14	zona 1 - zona 2 (Gas)	zona 21 - zona 22 (Polveri)			
Marking:	C€ 0722 ऒ II 2GD Ex de IIC T6 Gb; Ex tb IIIC Db IP66				
Certification:	ATEX CESI 03 ATEX 046				
	IECEx CES 12.0020				
	TR CU AVAILABLE	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com			
Standards:	CENELEC EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009, EN 60598-1:2008+A11:2009, EN60598-2-1:1989 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2011, IEC 60079-1: 2007-04, IEC 60079-31: 2008, IEC 60079-7:2006 European Directive 2006/95 Low voltage European Directive 2004/108 Electromagnetic compatibility European Directive 2003/108 WEEE Waste electrical and electronic equipment European Directive 2011/64 RoHS				
Class temperature:	100°C (T5)				
Ambient temperature:	-20°C +55°C	Special -50°C +55°C			
Degree of protection:		IP66			

## Low intensity XLFE-4/1 LED Obstruction lighting fixtures





#### **MECHANICAL FEATURES**

**Body:** Low copper content aluminium alloy

Globe: Shock and temperature resistant borosilicate glass sealed with aluminium shade ring

Internal reflector: In chromed aluminum

Gaskets: Silicone acid/hydrocarbon and high temperatures resistant

Heat dissipater: Internally fitted in extruded aluminium

Mounting: See "XLFE-4/1 series dimensional drawings"

Bolts and screws: Stainless steel
Entries: 2 ISO M25 entries

**Coating:** Epoxy coating Ral 7035 (light grey)

Corrosion Resistance: The STANDARD of the aluminium alloy used by Cortem has passed the tests required by

standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests)

### **ELECTRICAL FEATURES**

**LEDs:** 4 x LEDs fitted to electronic plate with single circuit

8 x LEDs fitted to electronic plate with double circuit

- High resistance to vibration (longer lifespan if installed in severe operating conditions)
- Estimated lifespan 100,000 hours (12 hours per day for 20 years)

Obstruction lighting fixtures	Rated voltage	Rated frequency	Working current	Peak current
XLFE024	24 Vdc ±10%	-	0.145 A	0.45 A
XLFE110	110 Vac ±10%	50/60 Hz		
XLFE230	230 Vac ±10%	50/60 Hz		

### **ACCESSORIES AVAILABLE / SPECIAL REQUESTS**

Special markings in 🖾 II 2GD Ex d IIC T5 Gb; Ex tb IIIC T.. Db IP66. (sample code: XLF-4V1101/1)

Cable gland: NAV25IB for armoured cable or NEV25IB for non-armoured cable Yellow light (XLFE-4G../1), blue light (XLFE-4B../1), green light (XLFE-4V../1)

Ex or watertight protected control panel

# Low intensity XLFE-4/1 LED Obstruction lighting fixtures





ICAO, FAA standard. The red XLFE-4/1 unit with light intensity more than 32 candles complies with ICAO Annex 14 Aerodromes vol I. June 2016 (corresponding to the FAA model of code L-810). In compliance with this standard, the luminous flux of the lighting fixture on the horizontal plane is 360° while it is less than 10° on the vertical plane.

Single and double A board with a second circuit can be supplied therefore with 4 + 4 LEDs fitted. This innovative system guarantees the correct management with an external panel in the event of a failure in the first circuit thus eliminating the need for costly 2 fixtures applications. For order codes, see the selection chart (not available for flashing lights).



Single LED circuit XLFE...1/1 - fixed light and flash -

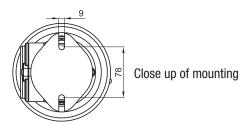


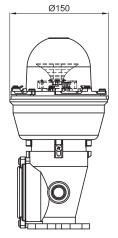
Double LED circuit XLFE...2/1 - fixed light and flash -

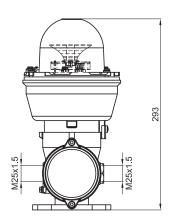


# Dimensional designs low intensity XLFE-4/1

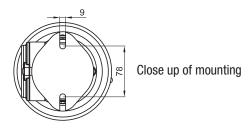
### **DIMENSIONAL DRAWING**

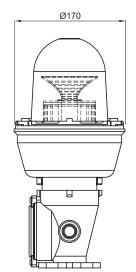


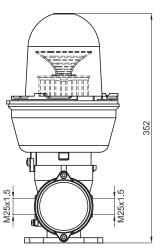




Low intensity XLFE-4...1/1







Low intensity XLFE-4...2/1

Dimensions in mm

# Selection chart low intensity XLFE-4/1

Code	Colour light	Power supply	Type of light	Type of circuit	Weight kg	mm
XLFE-4R024F1/1	Red	24 Vdc	Fixed	Individual	2,1	160x150x330
XLFE-4R024F2/1	Red	24 Vdc	Fixed	Double	2,1	160x150x330
XLFE-4R024L1/1	Red	24 Vdc	Flash	Individual	2,1	160x150x330
XLFE-4R230F1/1	Red	110-230 Vac	Fixed	Individual	3,0	190x170x390
XLFE-4R230F2/1	Red	110-230 Vac	Fixed	Double	3,0	190x170x390
XLFE-4R230L1/1	Red	110-230 Vac	Flash	Individual	3,0	190x170x390
XLFE-4R230L2/1	Red	110-230 Vac	Flash	Double	3,0	190x170x390



## **DON'T FORGET TO ORDER THE ACCESSORIES**

Example: Type of lighting fixture + XLFE-4R024F1

Cable gland NAV25IB

other ...see key



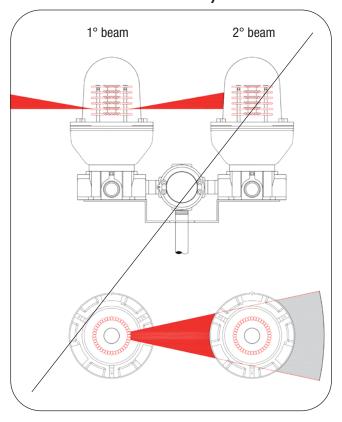
# Accessories and spare parts available on request XLFE-4/1

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Globe with shade ring	XLFE-41/1	Borosilicate glass globe Threaded aluminium shade ring	G50-0440CM	SPAR PAIT
		XLFE-42/1		G60-0440CM	
	O-ring	XLFE-41/1	Material: silicone	OR-4512SH70S	SPARE PART
		XLFE-42/1		K21-131S	
	'Ex e' type structure mounting		2 x entries ISO M25	G-0439	SPAR PART
	Kit complete with LED plate, heat dissipater, reflector and power supply.  For colour LEDs enter the letter: R: red V: green B: blue G: yellow es. EC-48/R024F1	XLFE-4024F1/1	1 circuit, fixed, 24 Vdc	EC-48/024F1	
		XLFE-4024F2/1	2 circuit, fixed, 24 Vdc	EC-48/024F2	
		XLFE-4024L1/1	1 circuit, flash, 24 Vdc	EC-48/024L1	
		XLFE-4230F1/1	1 circuit, fixed, 110-230 Vac	EC-48/230F1	SPARE PART
		XLFE-4230F2/1	2 circuits, fixed, 110-230 Vac	EC-48/230F2	
		XLFE-4230L1/1	1 circuit, flash, 110-230 Vac	EC-48/230L1	
		XLFE-4230L2/1	2 circuits, flash, 110-230 Vac	EC-48/230L2	
	Cable gland		For cable gland models and codes see www.cortemgroup.com	NAV25IB NEV25IB	AND PART AND

## Features, installation and mounting methods

The double fixtures system requested in the event of an emergency failure, is more expensive due to the installation of 2 applications complete with terminal block and fitting it is also less functional as the beam of light is inevitably covered by the second beam. As can be seen in the diagram below, the luminous flux of the new XLFE-4...2/1 obstruction lighting fixture reaches a full 360° on the horizontal plane with no hindrances thus eliminating the problem of illumination and making installation easier.

Obsolete 2 fixture system



New XLFE-4...2/1 obstruction lighting fixture



### Examples of structure fitting.

Refer to ICAO and FAA standards for all installation specifications or contact the sales offices

