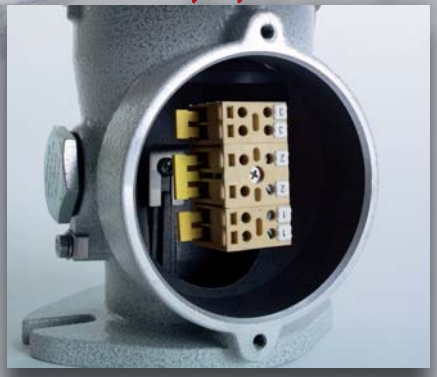
Borosilicate glass globe

XLFE-4

- Zones 1, 2, 21, 22
- Obstruction warnings
- LOW INTENSITY LED technology
- Lamp lifespan more than 10 years
- Complies with ICAO, FAA

Painted aluminium body

Ex e terminal box for fast connection



CORTEM GROUP®

Low intensity XLFE-4 LED Obstruction lighting fixtures

The new XLFE series LED obstruction lighting fixtures are ideal for airports, chimneys, towers, smokestacks, high buildings, towers, buildings, cranes, bridges, radio/television masts, cable car and power line pylons, wind turbines, radar and telecommunication antennas and specifically for use in the petrochemical and oil industries. The LED technology, thanks to 4 high output LEDs, ensures low power consumption, a long lifespan (50,000 hours) and thus lower maintenance costs. The lighting fixture consists of an aluminium alloy body, a borosilicate glass globe and stainless steel fitting components. The lamp housing contains: an LED plate, heat dissipater, power supply unit, support frame, terminal board, polycarbonate reflector and sealed diaphragm. The 'Ex de' degree of protection allows connection using an Ex non-barrier cable gland making these lighting fixtures ideal for any type of plant. The red XLFE lighting fixture, with light intensity in more than 32 candles, complies with ICAO and FAA. 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. For this reason, it falls into the Low Intensity lighting fixture category. Additional benefits offered by XLFE fixtures include: lower maintenance costs, better visibility in critical weather conditions, zero environmental impact due to the absence of toxic or harmful substances and minimal light pollution thanks to the well defined directional beam.

Application sectors:

Oil refineries · Chemical and petrochemical plants · Onshore plants · Offshore plants · Oil loading/unloading jetties · Combustible liquid depots · High buildings · Aircraft storage facilities Hangars

CERTIFICATION DATA

Classification: 94/9/EC	Group II	Category 2GD		
Installation: EN 60079.14	zona 1 - zona 2 (Gas)	zona 21 - zona 22 (Dust)		
Marking:	CE 0722 Ex II 2GD Ex de IIC T6 Gb; Ex tb IIIC Db IP66			
Certification:	ATEX CESI 03 ATEX 046			
Standards:	IECEx IECEx CES 12.0020	All IEC Ex certification data can be downloaded at www.cortemgroup.com		

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 94/9/EC: 1994
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:	85°C (T6)			
Ambient temperature:	-20°C +55°C	Special -50°C +55°C		
Degree of protection:	IP66			

Low intensity XLFE-4 LED Obstruction lighting fixtures

ORIGINAL PRODUCT

MECHANICAL FEATURES

Body:	Low copper content aluminium alloy
Globe:	Shock and temperature resistant borosilicate glass sealed with aluminium shade ring
Internal reflector:	Polycarbonate with external metal coating
Heat dissipater:	Internally fitted extruded aluminium
Gaskets:	Silicone acid/hydrocarbon resistant
Mounting:	See "XLFE-4 series dimensional drawings"
Bolts and screws:	Stainless steel
Entries:	2 x 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)

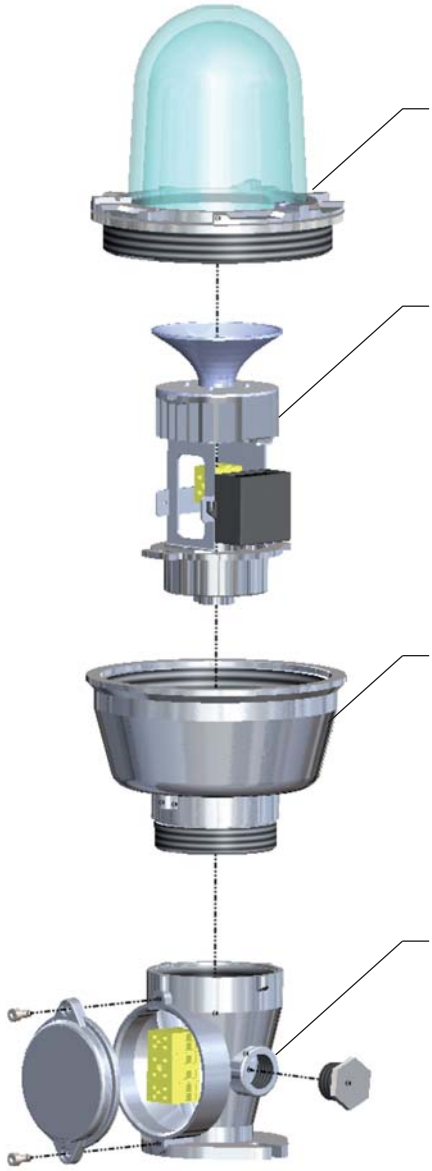
ELECTRICAL FEATURES

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)
Rated voltage:	24 VDC ±10%, 110 VAC ±10% 230 VAC ±10%
Rated frequency:	50/60 Hz
Power consumption:	<10 W
Connection:	Direct to terminal box L, N, Pe. Max section 4mm^2
Wiring:	Silicone rubber cables with glass braid protection against high temperatures

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

Special markings in Ⓔx II 2GD Ex d IIC T5 Gb; Ex tb IIIC T.. Db IP66. (sample code: XLF-4V1101)
Cable gland: REV2IB for armoured cable or REVD2IB for non-armoured cable
Yellow light (XLFE-4G..), blue light (XLFE-4B..), green light (XLFE-4V..)
Ex or watertight protected control panel
Special infra-red application for environments with poor visibility

EXPLODED DIAGRAM OF XLFE-4 OBSTRUCTION LIGHTING FIXTURE

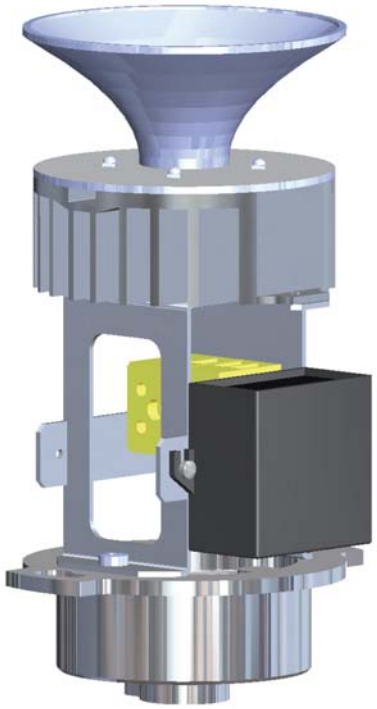


Aluminium ring with borosilicate glass globe

The unit is pre-wired and consists of a light source housing containing the following: LED plate, heat dissipater, electronic power supply unit for the LED modules, support frame, terminal board, polycarbonate reflector and sealed diaphragm

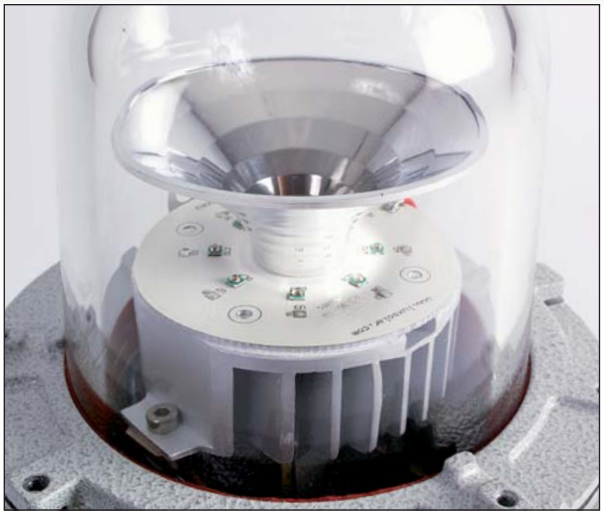
The outside of the lighting fixture body is painted with RAL7035

"Ex de" protective housings containing the terminal board



ICAO, FAA standard. The red XLFE-4 unit with light intensity more than 32 candles complies with ICAO volume 1, 5th edition 2009, appendix 14 and FAA standards. 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.

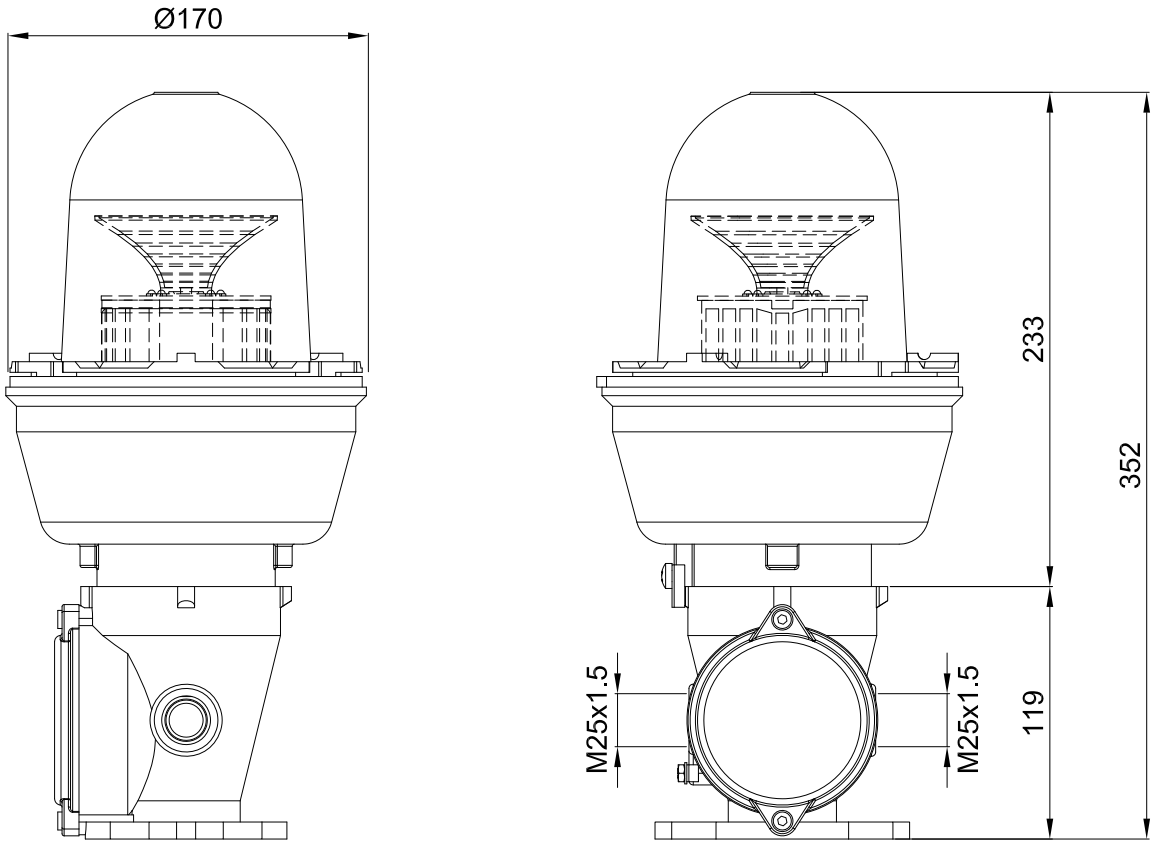
Single and double circuit A board with a second circuit can be supplied therefore with 4 + 4 LEDs fitted. This innovative system guarantees the correct management with an external panel in the event of a failure in the first circuit thus eliminating the need for costly 2 fixtures applications.
For order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



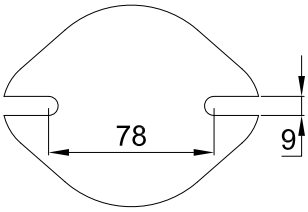
LED circuit
- fixed light-

LED circuit
- flash -

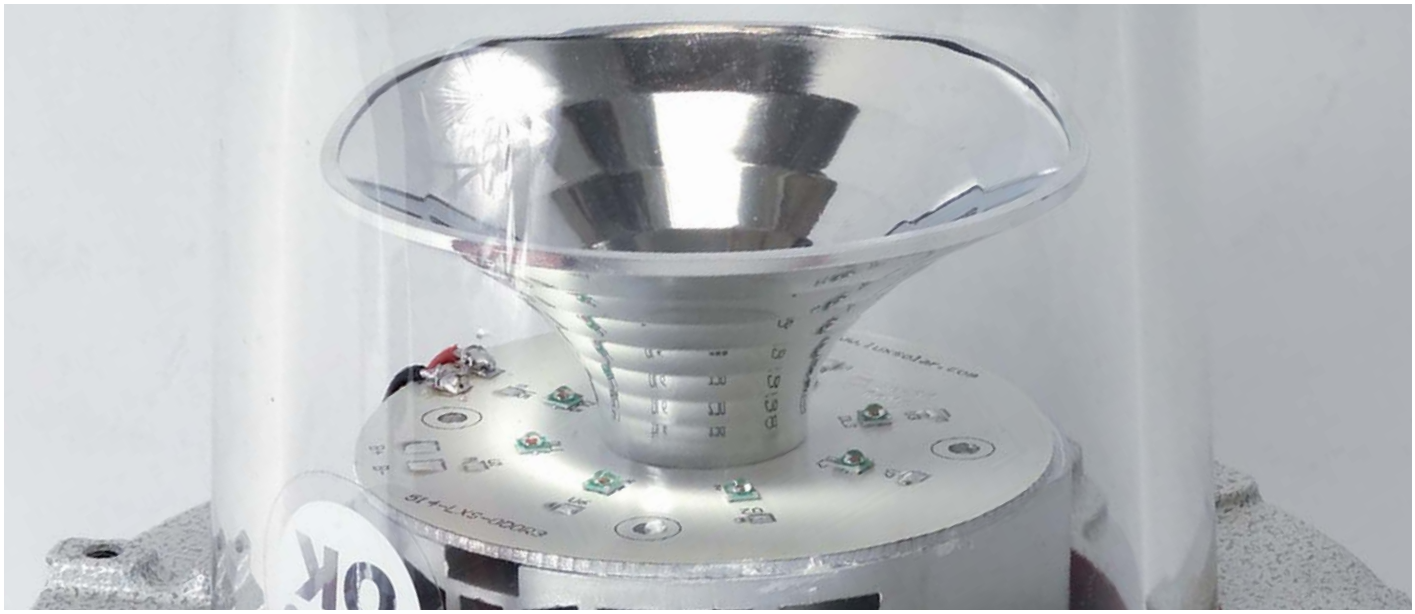
Dimensional designs low intensity XLFE-4



Dimensions in mm



Close up of mounting



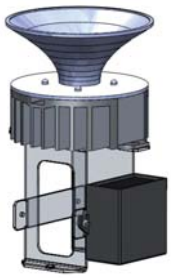
Selection chartlow intensity XLFE-4

Code	Colour light	Power supply	Type of light	Type of circuit	Weight Kg	mm
XLFE-4R024F1	Red	24 VDC	Fixed	Single	3.0	190x170x390
XLFE-4R024F2	Red	24 VDC	Fixed	Double	3.0	190x170x390
XLFE-4R024L1	Red	24 VDC	Flash	Single	3.0	190x170x390
XLFE-4R110F1	Red	110 VAC	Fixed	Single	3.0	190x170x390
XLFE-4R110F2	Red	110 VAC	Fixed	Double	3.0	190x170x390
XLFE-4R230F1	Red	230 VAC	Fixed	Single	3.0	190x170x390
XLFE-4R230F2	Red	230 VAC	Fixed	Double	3.0	190x170x390
XLFE-4R230L1	Red	230 VAC	Flash	Single	3.0	190x170x390

DON'T FORGET TO ORDER THE ACCESSORIES

Example: Type of lighting fixture XLFE-4R024F1 + Cable gland FL2IBK + other …see key

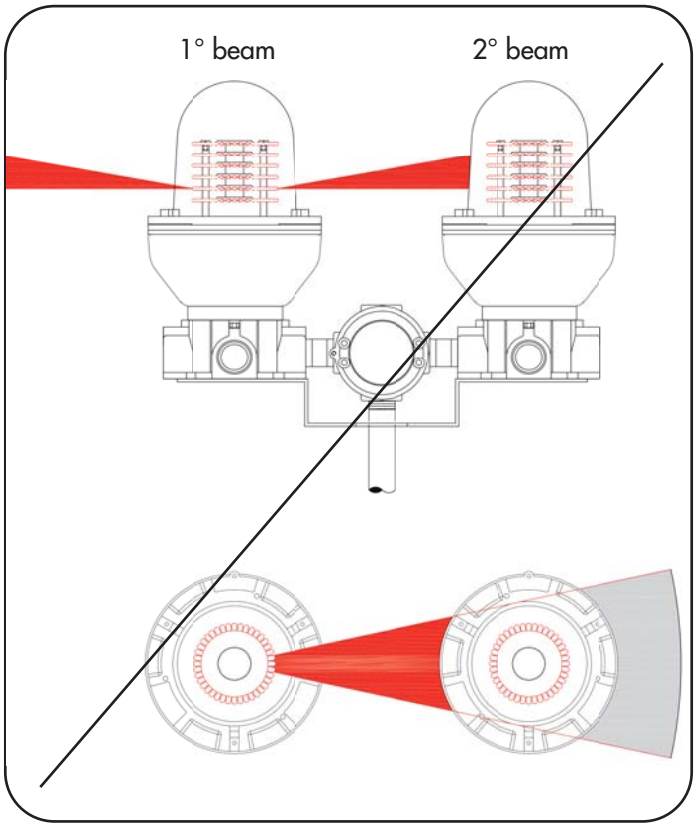
Accessories and spare parts available on request XLFE-4

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
	Globe with shade ring		Borosilicate glass globe Aluminium ring shade ring	**G60-0440CM**	SPARE PART
	O-ring		Material: silicone	**K15-131S**	SPARE PART
	Ex e type structure mounting		2 x ISO M25 entries	**G-0439**	SPARE PART
	Kit complete with LED plate, heat dissipater, reflector and power supply. For red LEDs enter the letter: R: red V: green B: blue G: yellow e.g. EC-32/R024F1	XLFE-4..024F1	1 circuit, fixed light, 24 VDC	**EC-32/..024F1**	SPARE PART
		XLFE-4..024F2	2 circuits, fixed light, 24 VDC	**EC-32/..024F2**	
		XLFE-4..024L1	1 circuit, flash, 24 VDC	**EC-32/..024L1**	
		XLFE-4..110F1	1 circuit, fixed light, 110 VAC	**EC-32/..110F1**	
		XLFE-4..110F2	2 circuits, fixed light, 110 VAC	**EC-32/..110F2**	
		XLFE-4..230F1	1 circuit, fixed light, 230 VAC	**EC-32/..230F1**	
		XLFE-4..230F2	2 circuits, fixed light, 230 VAC	**EC-32/..230F2**	
		XLFE-4..230L1	1 circuit, flash, 230 VAC	**EC-32/..230L1**	
	Cable gland		For cable gland models and codes see www.cortemgroup.com	**REV2IB** **REVD2IB**	ACCESSORY SPARE PART

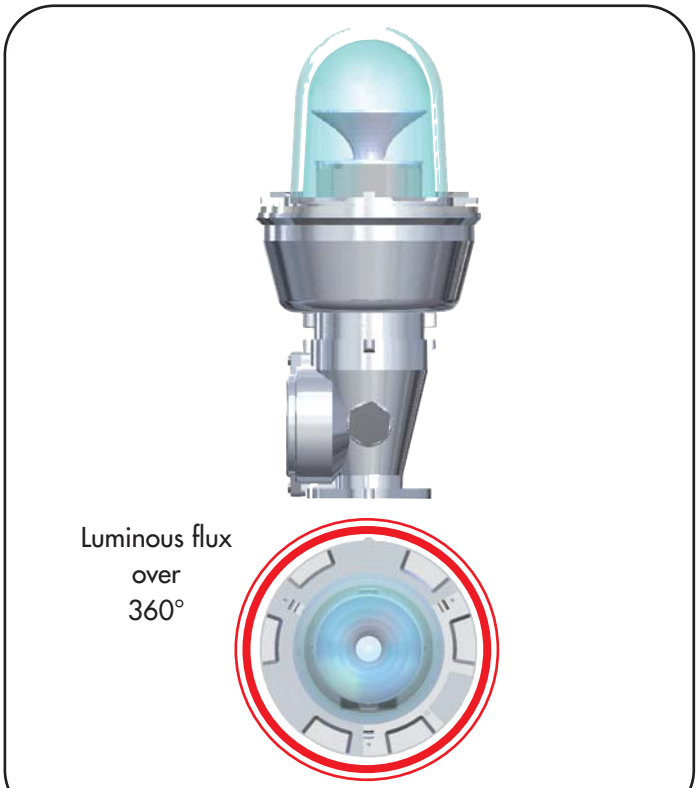
Features, installation and mounting methods

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 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 obstruction lighting fixture



Examples of structure fitting.

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