

# EVFD-L

- Zones 1, 2, 21, 22
- With Cortem LED strips
- Easy relamping
- Designed to last

**'Ex op is'**  
safe optical radiation

*Reflector in galvanized steel  
white painted*

*Body and head in  
painted aluminium*

*Opening of electrical parts housing*



*High mechanical strength*



*Silicone resin*

*Electrical component housing*

## EVFD-L Series Lighting fixtures with LED strips

As their high mechanical resistance, EVFD LED lighting fixtures are recommended for use in all those hazardous areas where the atmosphere is constantly contaminated with fumes, gases and dusts. These units have been designed to provide the even distribution of light without taking up the limited vertical space available. The specially curved reflector and the transparency of the tempered glass tube combine to allow light to diffuse over a wide range and provide more pleasant, less tiring working conditions. All the electrical components are housed in an aluminium "enclosure" that can be easily removed from the fixture for maintenance work. Simply cleaning the glass tube ensures constant excellent illumination over time. As specified in the appropriate installation standard (EN/IEC 60079-14), the only "entry" to the fixture must be through an Ex "barrier" cable gland (sealed) or, in the case of a conduit system, with an EYS, EZS series sealing fitting.

### Sectors for use:



Petroleum refineries



Chemical and petro-chemical plants



Oil and combustible liquid depots



Offshore plants



Onshore plants



Stair handrails



Farm produce applications



100% produced by Cortem

### CERTIFICATION DATA

#### Classification:

Group II

Category 2GD

#### Installation: EN 60079.14

zona 1 - zona 2 (Gas)

zona 21 - zona 22 (Polveri)

#### Marking:

CE 0722 Ex II 2GD Ex db op is IIB T6 Gb - Ex tb op is IIIC T85°C Db IP66

CE 0722 Ex II 2GD Ex db op is IIB+H<sub>2</sub> T6 Gb - Ex tb op is IIIC T85°C Db IP66

#### Certification:

ATEX EPT 17 ATEX 2880 X

IECEX IECEX SEV 18.0004

CENELEC EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60079-31: 2014, EN 60079-28: 2015 and EUROPEAN DIRECTIVE 2014/34/UE

#### Standards:

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:



Standard  
Ex db op is IIB  
-40°C +60°C



On request  
Ex db op is IIB+H<sub>2</sub>  
-20°C +60°C

#### Degree of protection:

IP66

This equipment can be used in an environment containing explosive atmosphere and with the presence of hydrogen.

## EVFD-L Series Lighting fixtures with LED strips

EVFD-1L

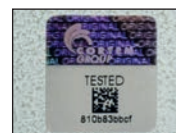


EVFD-2L



### MECHANICAL FEATURES

<b>Body:</b>	Low copper content aluminium alloy
<b>External tube:</b>	Shock and high temperature resistant borosilicate glass
<b>Seal:</b>	Silicone resin between the aluminium heads and the glass strips
<b>Gaskets:</b>	Silicon acid/hydrocarbon resistant
<b>External reflector:</b>	White painted galvanised steel
<b>Bolts and screws:</b>	Stainless steel
<b>Mounting:</b>	2 x galvanised steel brackets with Ø9 slots
<b>Entries:</b>	3 x 3/4" threaded NPT. Fixture complete with 2 x PLG2NA aluminium plugs
<b>Coating:</b>	Polyester coating Ral 7035 (Light grey)
<b>Corrosion Resistance:</b>	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)



ORIGINAL PRODUCT


### ELECTRICAL FEATURES

<b>Ballast:</b>	Electronic
<b>Rated voltage:</b>	120-240 Vac (EVFD-1L) 100-277 Vac (EVFD-2L)
<b>Rated frequency:</b>	50/60 Hz
<b>Connection:</b>	Direct to the terminal board L, N, Pe section 4 mm <sup>2</sup> terminal board suitable for through wiring connection
<b>Power factor:</b>	0,98
<b>Wiring:</b>	Silicone rubber cables with glass braid insulation for high temperatures

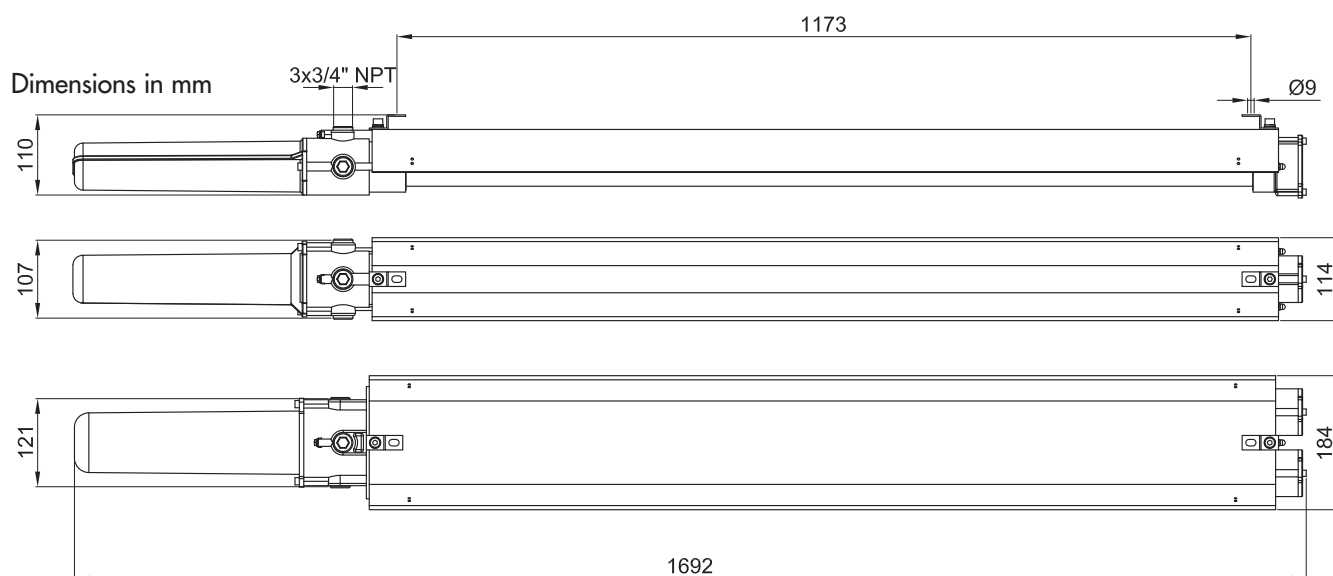
### ACCESSORIES AVAILABLE / SPECIAL REQUESTS

Installation mounting brackets  
Stainless steel external reflector  
Stainless steel guard  
Re-lamping bracket for use on in-line lighting fixtures  
Cable gland: FB2NBK for armoured cable or FGAB2NBK for non-armoured cable  
GAS UNI ISO 7/1 thread

## EVFD-L Series Lighting fixtures with LED strips

Code	Type	N. Strips	Power supply	Lumen	Watt*	Weight kg	 mm
EVFD-1L	1 x Cortem LED strips	1	120/240 Vac	4575	38	6,6	2090x120x155
EVFD-2L	2 x Cortem LED strips	2	100/277 Vac	9150	80	10,4	2090x120x155

### DIMENSIONAL DRAWING



Features	EVFD-1L	EVFD-2L
Power supply:	120-240 Vac	100-277 Vac
Rated frequency:	50-60 Hz	50-60 Hz
Power consumption:	38 W*	80 W*
Connection:	Entrata cavi direttamente alla morsettiera L, N, PE. Sez max. 4 mm <sup>2</sup> , adatta per l'entra-esci	
Power factor:	>0,96*	>0,96*
Rated current:	172 mA*	362 mA*
EMC (electromagnetic compatibility):	EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3	
THD (total harmonic distortion):	20%	20%
Over-voltage protection:	1 kV	6 kV
Driver performances:	Protection Over-Voltage, Protection Over-Current, Protection Short-Circuit	
LED:	Luxeon	
Viewing angle:	120°	120°
Colour temperature:	5000 K	5000 K
CRI:	80	80
Instant Restrike:	YES	YES
<b>Lumen:</b>	<b>4575 lm</b>	<b>9150 lm</b>
<b>Maximum light intensity:</b>	<b>1602 cd</b>	<b>3204 cd</b>
<b>Overall efficiency:</b>	<b>120 lm/W</b>	<b>114 lm/W</b>

\* Test carried out at 230Vac

## EVFD-L Series Lighting fixtures with LED strips

ILLUSTRATION	DESCRIPTION	MODEL	FEATURES	CODE	KEY
M8 	Tie	Length: 250 mm	Material: stainless steel	BRF8MIN/250	 
	Type U eyebolt		Material: galvanised steel	G0F-8	 
	Type D bracket complete with screws		Material: bracket: galvanised steel screws: stainless steel	G-0609	 
	Type V bracket complete with screws		Material: bracket: galvanised steel screws: stainless steel	G-0610	 
	Type D bracket complete with screws		Material: bracket: galvanised steel screws: stainless steel	G-0611	 
	Type P bracket		Material: galvanised steel	G-0480	 
	Cable gland		For models and codes, visit <a href="http://www.cortemgroup.com">www.cortemgroup.com</a>	FB2NBK FGAB2NBK	 
	Guard	EVFD-1L	AISI 316L stainless steel Electro-polished	G136-0418S	 
		EVFD-2L		G236-0418S	
	Stainless steel reflector	EVFD-1L	Stainless steel plate	G136-455IN	 
		EVFD-2L		G236-455IN	
	Standard reflector	EVFD-1L	White painted galvanised steel	G136-455	
		EVFD-2L		G236-455	
	Power supply circuit	EVFD-1L	120-240 Vac	LEDDEVFD1L	
		EVFD-2L	100-277 Vac	LEDDEVFD2L	
	LED strip	EVFD-1L	LED module with contacts	LTT36500	
		EVFD-2L			

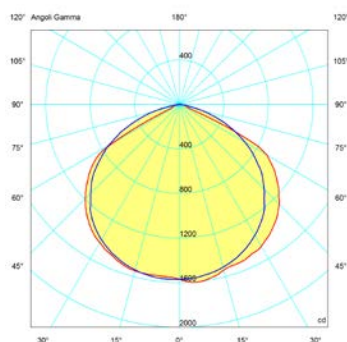
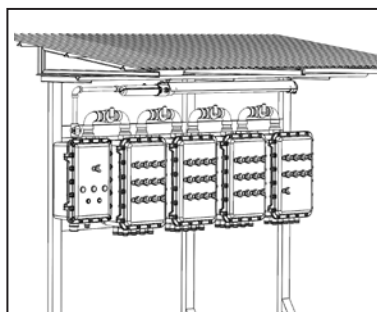
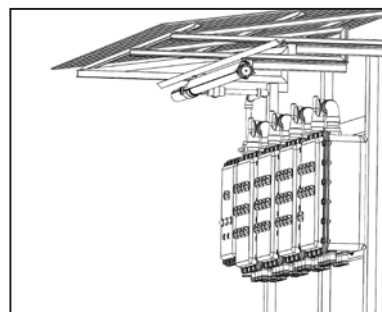
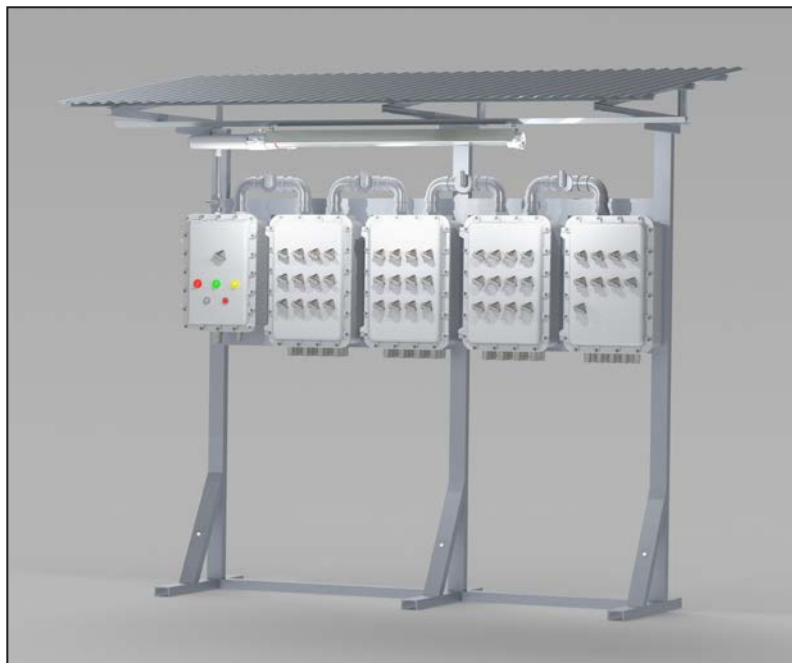


# EVFD-L Series Lighting fixtures with LED strips

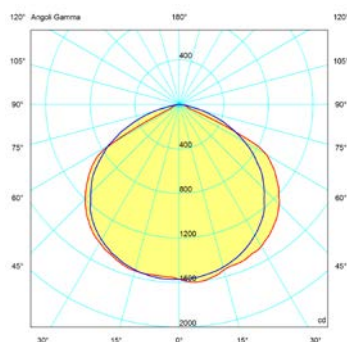
## INSTALLATION AND MOUNTING METHODS

Control panel completely designed and manufactured by Cortem.  
The lighting fixture used according to customer specifications to optimize the power consumption is the LED lighting fixture EVFD-1L model.

EVFD-2L series lighting fixture  
Typical pole-mounted installation with P-type brackets (model G-0480)



**EVFD-1L Luminous flux:**  
**4575 lm**



**EVFD-2L Luminous flux:**  
**9150 lm**

On Cortem Group web site you can download .LDT and .IES lighting data files for the design and simulation of lighting levels in 2D and 3D, rendering and ray tracing.

— = plane 90270  
— = plane 0180