

Lighting: LED High Bay Lighting Fixture, DFDR Series

Flameproof/ Increased Safety and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Application

The DFDR series is suitable for Zone 1 & Zone 2 (Ex-gas) and Zone 21 & Zone 22 (Ex-dust) hazardous areas, such as chemical and petrochemical facilities, offshore platforms, shipyards, electric power stations, loading docks, and wastewater treatment plants, etc.

Specification

Body material	: Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey) (optional offshore painting-acrylic polyurethane coating)
Lens	: Heat and high impact resistant clear glass (4J impact)
Bolts	: Stainless steel, SS 304 (optional SS 316)
Bracket	: Hot-dip galvanized steel (optional SS 304 or SS 316)
Sealing (O-ring)	: Silicone

Product Features

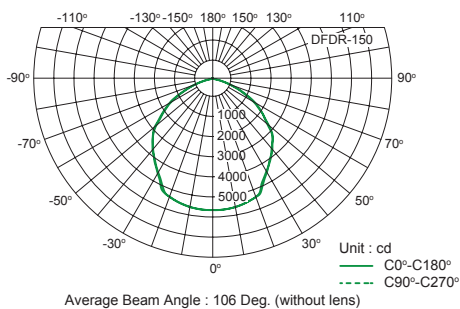
Luminous efficacy	: 117 lm/W
Colour temperature	: Standard 5,700 K (daylight) (optional 2,700 K; 3,000 K; 3,500 K; 4,000 K; 5,000 K; 6,500 K etc.)
Colour Rendering Index (Ra)	: ≥ 80
Chip	: LUXEON 5050 - LumiLEDs (optional Cree, Bridgelux, Nichia)
Beam angle	: Average 115-120° without lens 30°, 60°, 90° with lens (other beam angle, please specify)

Fixture Life

- L70 - Rated lifetime of 60,000 hours at ambient temperatures of 85°C.
- L80 - Rated lifetime of 43,318 hours at ambient temperatures of 85°C.
- L90 - Rated lifetime of 20,534 hours at ambient temperatures of 85°C.



Luminous Intensity Distribution Curve



Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex db e IIB T6/T5 Gb	Ex tb IIIC T85°C/ T95°C Db
Symbol of Protection		
Certificate	LCIE 17 ATEX 3031X IECEx LCIE 17.0040X	
Conformity to Standards	EN IEC 60079-0, EN 60079-1, EN IEC 60079-7, EN IEC 60079-31 IEC 60079-0:2011, IEC 60079-1:2014-06, IEC 60079-7:2006-07, IEC 60079-31:2013	
Ambient Temperature	-20°C to +50°C	
Index of Protection	IP66/ IK10	

Entry Threads	2x M20x1.5, 2x M25x1.5 (1x stopping plug) or 2x 1/2" NPT, 2x 3/4" NPT (1x stopping plug)
Mounting	Bracket mounting
Connection	L, N and PE ; for 1-4 mm² cable (Through wiring system with an extra terminal block for cable connection at both ends.)
Rated Voltage	110-240 V AC, 50/60 Hz, P.F. ≥ 0.95

Catalogue Number Logic

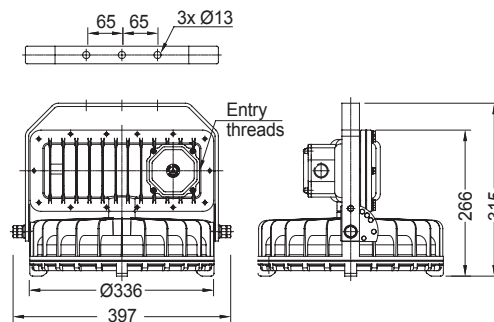
DFDR	-	■ ■ ■	-	□ □	-	○
Series		LED power (see ordering requirement table below)		Entry threads		Accessories
				M1 M20x1.5 N1 1/2" NPT		G Guard
				M2 M25x1.5 N2 3/4" NPT		

Ordering Requirements

Cat. No.	LED power	Voltage	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)		Approx. weight (kg)
			Ta 40°C	Ta 50°C	Ta 40°C	Ta 50°C	
DFDR-100-□□-○	100 W	110-240 V AC, 50/60 Hz	T6	T5	T85°C	T95°C	14.5
DFDR-120-□□-○	120 W						
DFDR-150-□□-○	150 W						

Remark *: The maximum surface temperatures are specified for dust free condition. The dust layer which may cover around the lighting fixture will cause higher surface temperature.

Dimensions (in mm)



Diagram

