

Lighting: LED High Bay Lighting Fixture, DFDR1 Series

Flameproof/ Increased Safety and Dust protection by enclosure

Zone 1 & 2 – 21 & 22



Application

The DFDR1 series are suitable for zone 1 & 2 Ex-gas and zone 21 & 22 Ex-dust hazardous area, such as chemical, petrochemical, platforms, shipyard, electric power, loading docks, wastewater treatment etc.

Specification

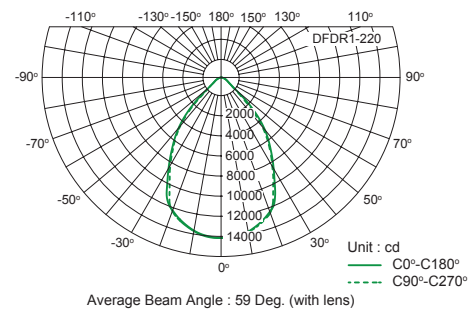
- Body material** : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey) (optional offshore painting-acrylic polyurethane coating)
- Lens** : Heat and high impact resistant clear glass (4J impact)
- Bolts** : Stainless steel, SUS 304 (optional SUS 316)
- Bracket** :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

LED System

- Luminous efficient** : 120 lm/W
- Colour temperature** : Standard 5700 K (daylight) (optional 3000K, 3500K, 4000K, 4500K, 5000K, 6500K etc.)
- Color Rendering Index (Ra)** : ≥ 80
- Chip** : LUXEON 5050 - LumiLEDs (optional Cree, Bridgelux, Nichia)
- Beam angle** : Average 100° without lens with lens
30-100W.; 90°
110-240W.; 30°, 60°, 90°
(other beam angle, please specify)
- Lifespan** : >50,000 Hrs.
(70% lumen maintenance)



Luminous Intensity Distribution Curve



Complete photometrics, please contact us.

Dimension

LED Power	Dimension in mm.			
	a	b	øc	d
30W. to 90W.	273	306	254	314
100W.	265	341	254	331
110W. to 240W.	278	389	338	401

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex II 2G	Ex II 2D
Symbol of Protection	Ex db eb IIC T6..T4 Gb	Ex tb IIIC T85°C..T135°C Db
Certificate No.	LOM 21 ATEX 1018X	
Conformity to standards	EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-7:2015/A1:2018, EN 60079-31:2014	
Ambient Temperature	-20°C to +60°C	
Index of Protection	IP66/ IK10	
Entries	2- M20x1.5, 2- M25x1.5 (1-stopping plug) or 2- 1/2" NPT, 2- 3/4" NPT (1-stopping plug)	
Mounting	Bracket mounting	
Connection	L, N and PE ; for 1-4mm. ² cable (Through wiring system with an extra terminal block for cable connection at both ends.)	
Rated Voltage	110-240V.ac 50/60Hz., THDi < 20%, P.F. ≥ 0.95	

Catalogue Number Logic

Series	LED Power (see ordering requirement table below)	Entries	Option
M1	M20x1.5	N1	1/2" NPT
M2	M25x1.5	N2	3/4" NPT
G			Guard

Ordering Requirements

Cat. No.	LED Power	Voltage	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)		Approx. Weight (kgs.)
			Ta 40 °C	Ta 60 °C	Ta 40 °C	Ta 60 °C	
DFDR1-30 - □□-□	30W.	110-240V.ac 50/60Hz.	T6	T6	T85°C	T85°C	10.5
DFDR1-40 - □□-□	40W.						
DFDR1-50 - □□-□	50W.						
DFDR1-60 - □□-□	60W.						
DFDR1-70 - □□-□	70W.						
DFDR1-80 - □□-□	80W.						
DFDR1-90 - □□-□	90W.						
DFDR1-100 - □□-□	100W.		T5	T4	T100°C	T135°C	22.0
DFDR1-110 - □□-□	110W.						
DFDR1-120 - □□-□	120W.						
DFDR1-130 - □□-□	130W.						
DFDR1-140 - □□-□	140W.						
DFDR1-150 - □□-□	150W.						
DFDR1-160 - □□-□	160W.	T5	T4	T100°C	T135°C	23.0	
DFDR1-170 - □□-□	170W.						
DFDR1-180 - □□-□	180W.						
DFDR1-190 - □□-□	190W.						
DFDR1-200 - □□-□	200W.						
DFDR1-210 - □□-□	210W.						
DFDR1-220 - □□-□	220W.						
DFDR1-230 - □□-□	230W.						
DFDR1-240 - □□-□	240W.						

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.

