

Lighting: Fluorescent & LED Lighting Fixture, DFP-S Series (Short end cap)

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Application

The DFP-S series can be used all over the world and are suited for lighting applications in hazardous areas, e.g. onshore, offshore platforms or refineries. The different light families allow their optimum use in various environments.

The DFP-S series consist of a glass tube with two end caps. They are for installation of both single and double T8 and T5 bi-pin fluorescent, LED tube or LED PCB. The end cap and threaded housing for ballast and terminals connection.

Specification

- Body material : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey) (optional offshore painting-acrylic polyurethane coating)
- Glass tube : Borosilicate glass (4J impact)
- Reflector : Sheet steel with polyester powder coated, RAL 9016 (white)
- Protective guard : Stainless steel, SUS 304 (optional SUS 316)
- Bolts : Stainless steel, SUS 304 (optional SUS 316)
- Sealing (O-ring) : Silicone

Product Features

- LED tube : meet TIS 2779-2562
- Color Rendering Index (CRI) : >80
- Colour temperature : 3,000K or 6,500K
- Luminous efficient : >120 lm/W
- Power factor : >0.95
- THDi : <15%
- Beam angle : average 115°
- Lifetime : >54000 Hrs. (L70)

Electrical for Emergency unit

- Operation : Maintained mode
- Battery : Ni-MH, 7.2V. 2.5Ah.
- Recharge time : 16-24 hours, continous battery recharge
- Emergency starting time : ≤ 0.5Sec.
- Emergency duration : 120Min. (2-Hours) (optional Ni-MH, 7.2V. 2x 2.5Ah. battery for 3-hours)

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 IIC T6 Gb	Ex tb IIIC T85°C Db
Certificate No.	TÜV CY 17 ATEX 0205887X	
Conformity to Standards	EN 60079-0:2012/A11:2013, EN 60079-1:2014, EN 60079-31:2014	
Ambient Temperature	-20°C to +55°C 0°C to +55°C (with emergency battery)	
Index of Protection	IP66	
Entries	2- M20x1.5, 2- M25x1.5 (1-stopping plug) or 2- 1/2" NPT, 2- 3/4" NPT (1-stopping plug)	
Mounting	Ceiling, Pendant, Bracket, Stanchion or Pole mount	
Connection	L, N and PE ; for 1-4mm. ² cable	
Rated Voltage	110-240V.ac 50/60Hz. (P.F. ≥ 0.98)	

Connection

 <p>Standard</p> <p>Screw terminal 1.0-4.0mm.²</p>	 <p>Optional (socket+plug)</p> <p>Push-in cage clamp 1.0-4.0mm.²</p>	 <p>Optional (1-Ea/phase)</p> <p>Splicing Connector 1.0-6.0mm.²</p>
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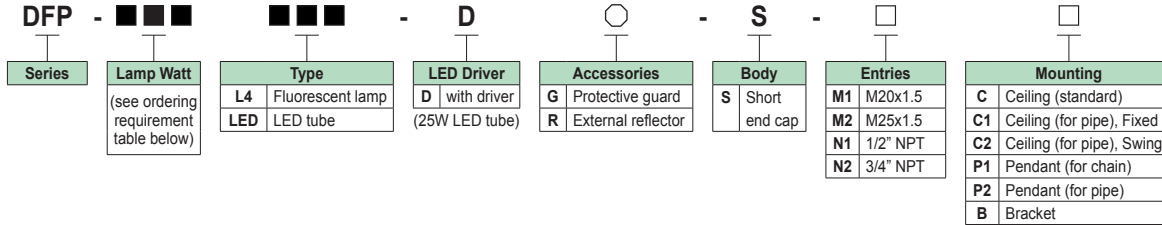
Lighting: Fluorescent & LED Lighting Fixture, DFP-S Series (Short end cap)

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22



Catalogue Number Logic (Normal Light)



Ordering Requirements and Dimension

Cat. No.	Lamp Watt	Voltage	Ballast or Driver	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)		Volume (cm ³)	Dimension in mm.		Approx. Weight (kgs.)									
				Ta 40°C	Ta 55°C	Ta 40°C	Ta 55°C		a	b										
T8 Fluorescent Lamp																				
DFP-118L4 -○ -S -□□	1x 18W.	220-240V.ac 50/60Hz.	Electronic	T6	T6	T85°C	T85°C	3,950	755	645	6.80									
DFP-218L4 -○ -S -□□	2x 18W.										6.95									
DFP-132L4 -○ -S -□□	1x 32W.										7,020	1370	1258	10.30						
DFP-232L4 -○ -S -□□	2x 32W.													10.60						
DFP-136L4 -○ -S -□□	1x 36W.										7,020	1370	1258	10.30						
DFP-236L4 -○ -S -□□	2x 36W.													10.60						
T5 Fluorescent Lamp																				
DFP-114L4 -○ -S -□□	1x 14W.	220-240V.ac 50/60Hz.	Electronic	T6	T6	T85°C	T85°C	3,950	755	645	6.80									
DFP-214L4 -○ -S -□□	2x 14W.										6.95									
DFP-128L4 -○ -S -□□	1x 28W.										7,020	1370	1258	10.30						
DFP-228L4 -○ -S -□□	2x 28W.													10.60						
LED Tube																				
DFP-105LED -○ -S -□□	1x 5W.	110-240V.ac 50/60Hz.	-	T6	T6	T85°C	T85°C	3,950	755	645	4.80									
DFP-205LED -○ -S -□□	2x 5W.										5.00									
DFP-106LED -○ -S -□□	1x 6W.										4.80									
DFP-206LED -○ -S -□□	2x 6W.										5.00									
DFP-108LED -○ -S -□□	1x 8W.										4.80									
DFP-208LED -○ -S -□□	2x 8W.										5.00									
DFP-109LED -○ -S -□□	1x 9W.										4.80									
DFP-209LED -○ -S -□□	2x 9W.										5.00									
DFP-114LED -○ -S -□□	1x 14W.	110-240V.ac 50/60Hz.	-	T6	T6	T85°C	T85°C	7,020	1370	1258	9.30									
DFP-214LED -○ -S -□□	2x 14W.										9.60									
DFP-115LED -○ -S -□□	1x 15W.										9.30									
DFP-215LED -○ -S -□□	2x 15W.										9.60									
DFP-116LED -○ -S -□□	1x 16W.										9.30									
DFP-216LED -○ -S -□□	2x 16W.										9.60									
DFP-118LED -○ -S -□□	1x 18W.										9.30									
DFP-218LED -○ -S -□□	2x 18W.										9.60									
DFP-120LED -○ -S -□□	1x 20W.										9.30									
DFP-220LED -○ -S -□□	2x 20W.										9.60									
DFP-122LED -○ -S -□□	1x 22W.										9.30									
DFP-222LED -○ -S -□□	2x 22W.										9.60									
DFP-125LED -D○ -S -□□	1x 25W.										110-240V.ac 50/60Hz.	LED Driver	T6	T6	T85°C	T85°C	7,020	1370	1258	10.60
DFP-225LED -D○ -S -□□	2x 25W.																			11.00

Lighting source; cool white (6500K) are standard and/or warm white (3000K), please specify.

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



Lighting: Fluorescent & LED Lighting Fixture, DFP-S Series (Short end cap)

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

Catalogue Number Logic (Emergency Light)

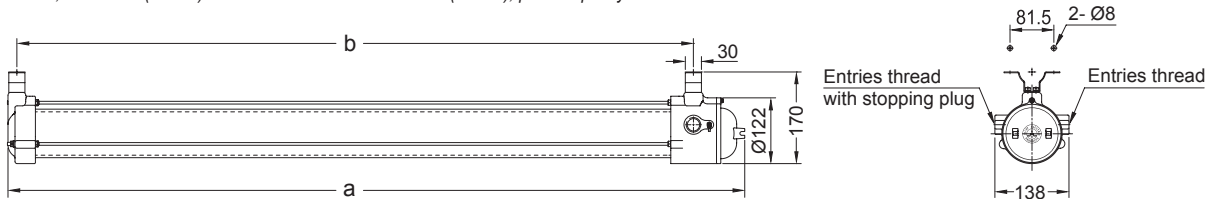
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DFP - ■■■■	LED -	D	○	-	S -	□	□
Series	Lamp Watt (see ordering requirement table below)	Type LED LED tube	LED Driver D with driver	Accessories G Protective guard R External reflector E Emergency power unit	Body S Short end cap	Entries M1 M20x1.5 M2 M25x1.5 N1 1/2" NPT N2 3/4" NPT	Mounting C Ceiling (standard) C1 Ceiling (for pipe), Fixed C2 Ceiling (for pipe), Swing P1 Pendant (for chain) P2 Pendant (for pipe) B Bracket

Ordering Requirements and Dimension

Cat. No.	Lamp Watt	Voltage	Driver	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)		Volume (cm ³)	Dimension in mm.		Approx. Weight (kgs.)
				Ta 40°C	Ta 55°C	Ta 40°C	Ta 55°C		a	b	
LED Tube											
DFP-105LED -D○E-S-□□	1x 5W.	110-240V.ac 50/60Hz.	LED Driver	T6	T6	T85°C	T85°C	3,950	755	645	4.84
DFP-205LED -D○E-S-□□	2x 5W.										5.04
DFP-106LED -D○E-S-□□	1x 6W.										4.84
DFP-206LED -D○E-S-□□	2x 6W.										5.04
DFP-108LED -D○E-S-□□	1x 8W.										4.84
DFP-208LED -D○E-S-□□	2x 8W.										5.04
DFP-109LED -D○E-S-□□	1x 9W.										4.84
DFP-209LED -D○E-S-□□	2x 9W.	5.04									
DFP-114LED -D○E-S-□□	1x 14W.	110-240V.ac 50/60Hz.	LED Driver	T6	T6	T85°C	T85°C	7,020	1370	1258	9.34
DFP-214LED -D○E-S-□□	2x 14W.										9.64
DFP-115LED -D○E-S-□□	1x 15W.										9.34
DFP-215LED -D○E-S-□□	2x 15W.										9.64
DFP-116LED -D○E-S-□□	1x 16W.										9.34
DFP-216LED -D○E-S-□□	2x 16W.										9.64
DFP-118LED -D○E-S-□□	1x 18W.										9.34
DFP-218LED -D○E-S-□□	2x 18W.										9.64
DFP-120LED -D○E-S-□□	1x 20W.										9.34
DFP-220LED -D○E-S-□□	2x 20W.										9.64
DFP-122LED -D○E-S-□□	1x 22W.										9.34
DFP-222LED -D○E-S-□□	2x 22W.										9.64
DFP-125LED -D○E-S-□□	1x 25W.										10.64
DFP-225LED -D○E-S-□□	2x 25W.										11.04

Lighting source; cool white (6500K) are standard and/or warm white (3000K), please specify.



LED tube Data

Lamp Watt	Total Lumen Flux	Luminous Efficacy	Colour Rendering Index	Colour Temp.	Driver
9W.	1,000lm	100lm/W	80	6,500K	Internal
18W.	2,600lm	140lm/W	80	6,500K	Internal
22W.	3,500lm	150lm/W	80	6,500K	Internal
25W.	3,800lm	150lm/W	80	6,500K	External

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Zone 1 & 2 – 21 & 22



Catalogue Number Logic (Exit Emergency Light)

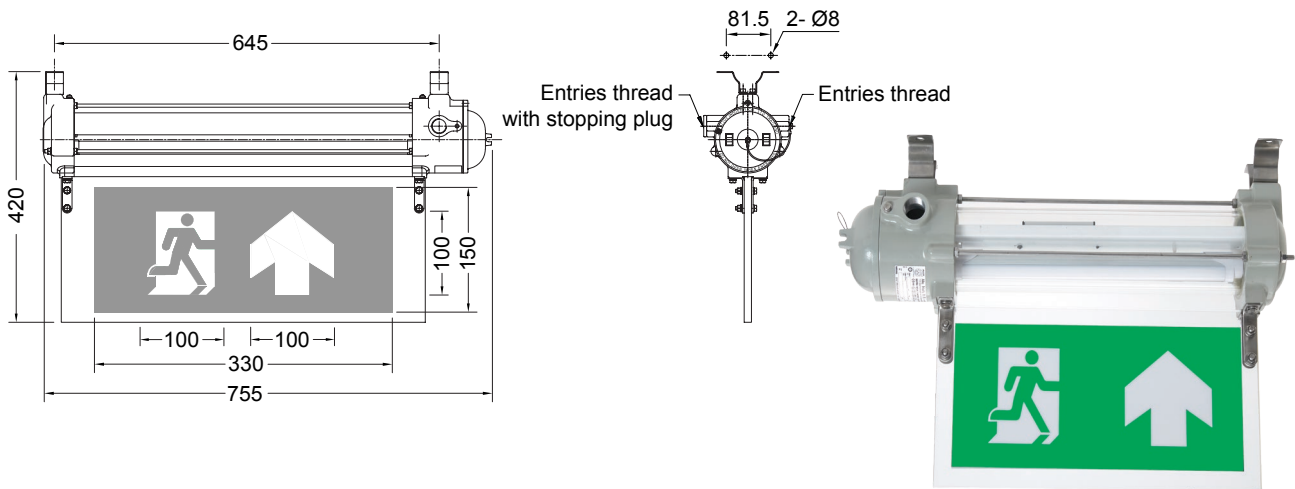
DFP - 109	LED	-	D	E	X	○	-	S	-	□	□
Series	Lamp Watt	Type	LED Driver	Accessories	Exit	Exit symbol	Body	Entries	Mounting		
1x 9W.	LED LED tube	D with driver	E Emergency power unit			S Short end cap	M1 M20x1.5 M2 M25x1.5 N1 1/2" NPT N2 3/4" NPT	C Ceiling (standard) C1 Ceiling (for pipe), Fixed C2 Ceiling (for pipe), Swing P1 Pendant (for chain) P2 Pendant (for pipe) B Bracket			

under preparation to supplement

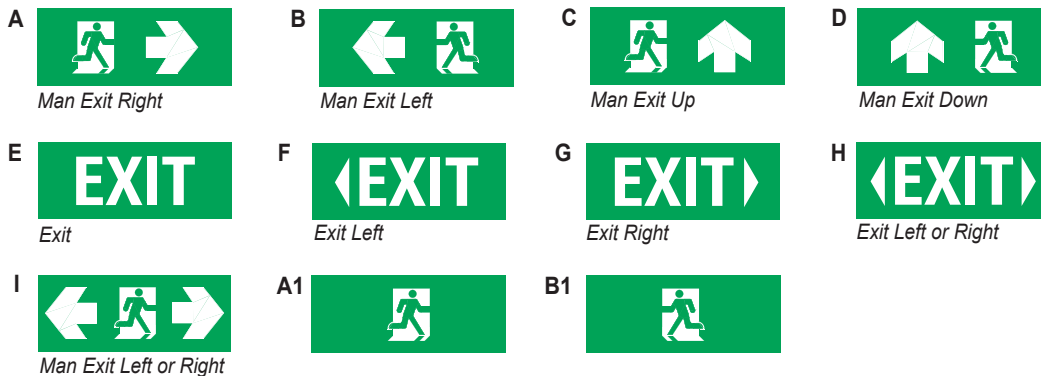
Ordering Requirements and Dimension

Cat. No.	Lamp Watt	Image Element Size	Voltage	Driver	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)		Volume (cm ³)	Approx. Weight (kgs.)
					Ta 40°C	Ta 55°C	Ta 40°C	Ta 55°C		
LED Tube										
DFP-109LED-DEX○-S-□□	1x 9W.**	10cm.	110-240V.ac 50/60Hz.	LED driver	T6	T6	T85°C	T85°C	3,950	5.8

Remark: * The maximum surface temperatures are specified for dust free condition. The dust layer which may cover around the lighting fixture will cause to higher surface temperature.
** LED tube with 15° lens

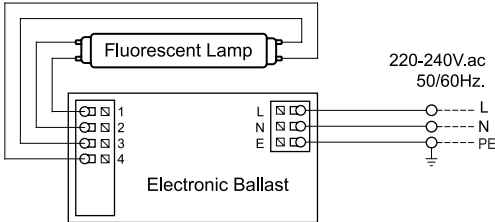


Exit Signs Symbols (○) ; Image element size 10cm. as follow EIT standard 021004-22

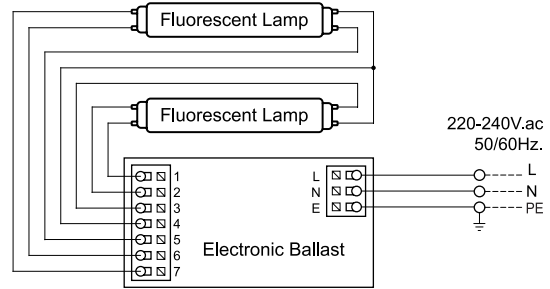


Wiring Diagram

Electronic ballast for fluorescent lamp;
1x 14W., 1x 28W., 1x 18W. and 1x 36W.

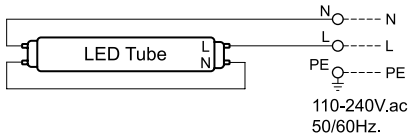


Electronic ballast for fluorescent lamp;
2x 14W., 2x 28W., 2x 18W. and 2x 36W.

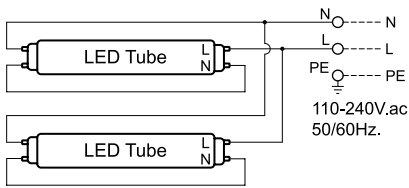


LED Tube (Single-ended), Internal driver

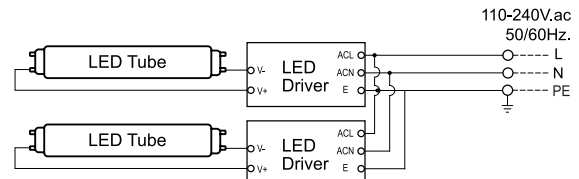
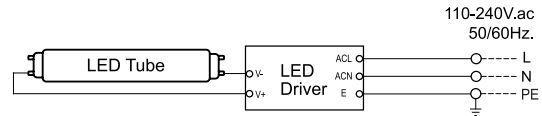
1x Lamp



2x Lamp

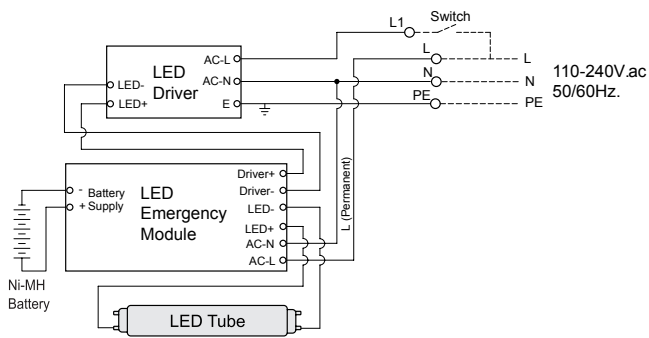


LED Tube (Double-ended) or LED PCB with External driver

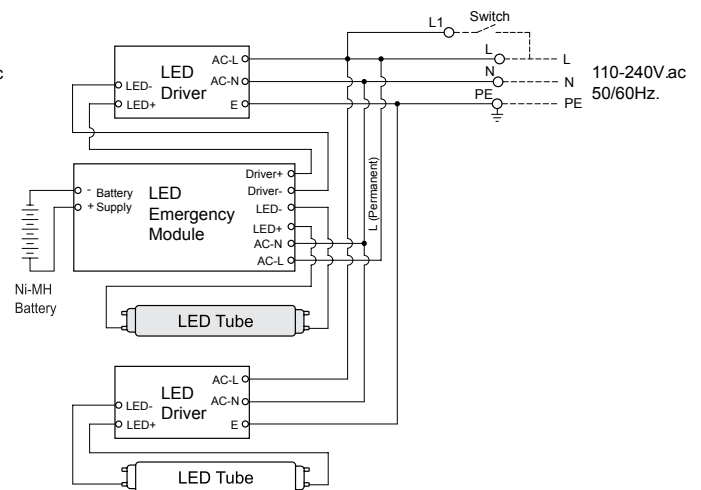


Wiring Diagram (Emergency)

1-Lamp with Emergency backup



2-Lamps with 1-Lamp Emergency backup



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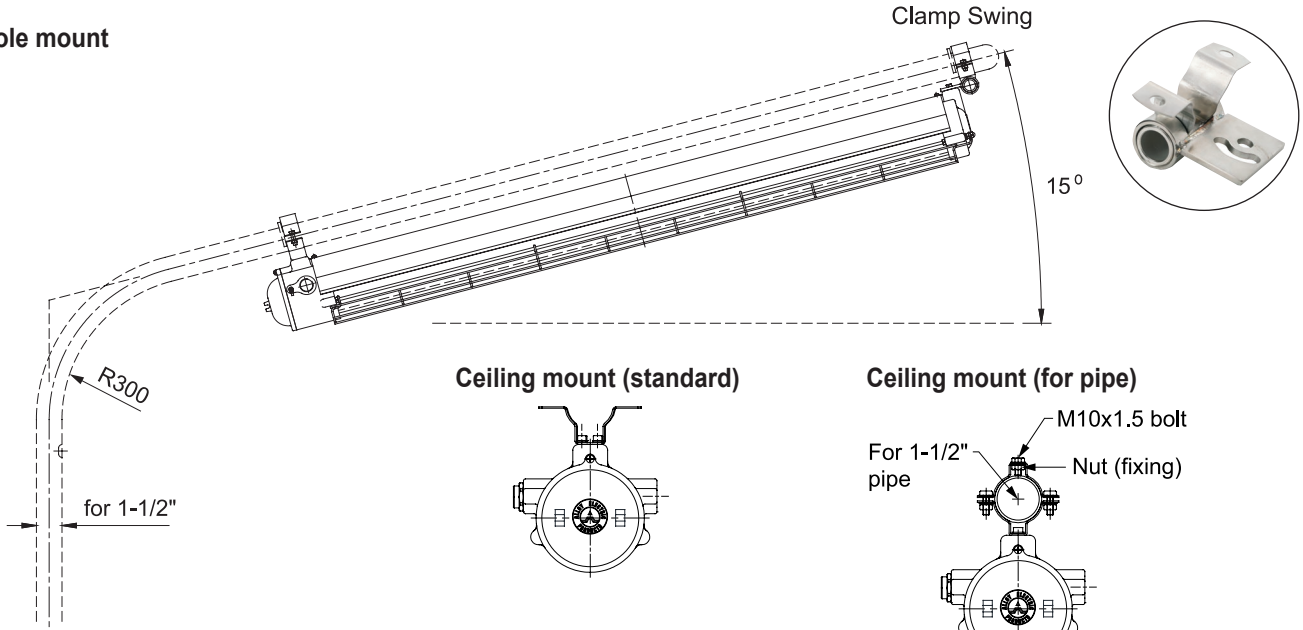
Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

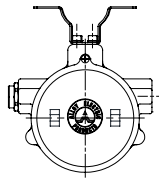


Installation Information

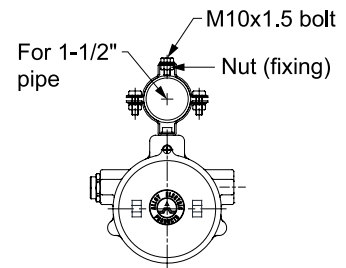
Pole mount



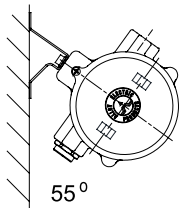
Ceiling mount (standard)



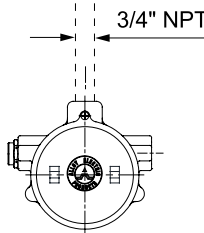
Ceiling mount (for pipe)



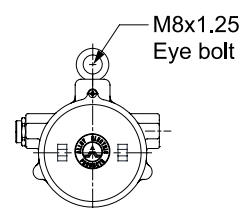
Bracket mount (or wall mount)



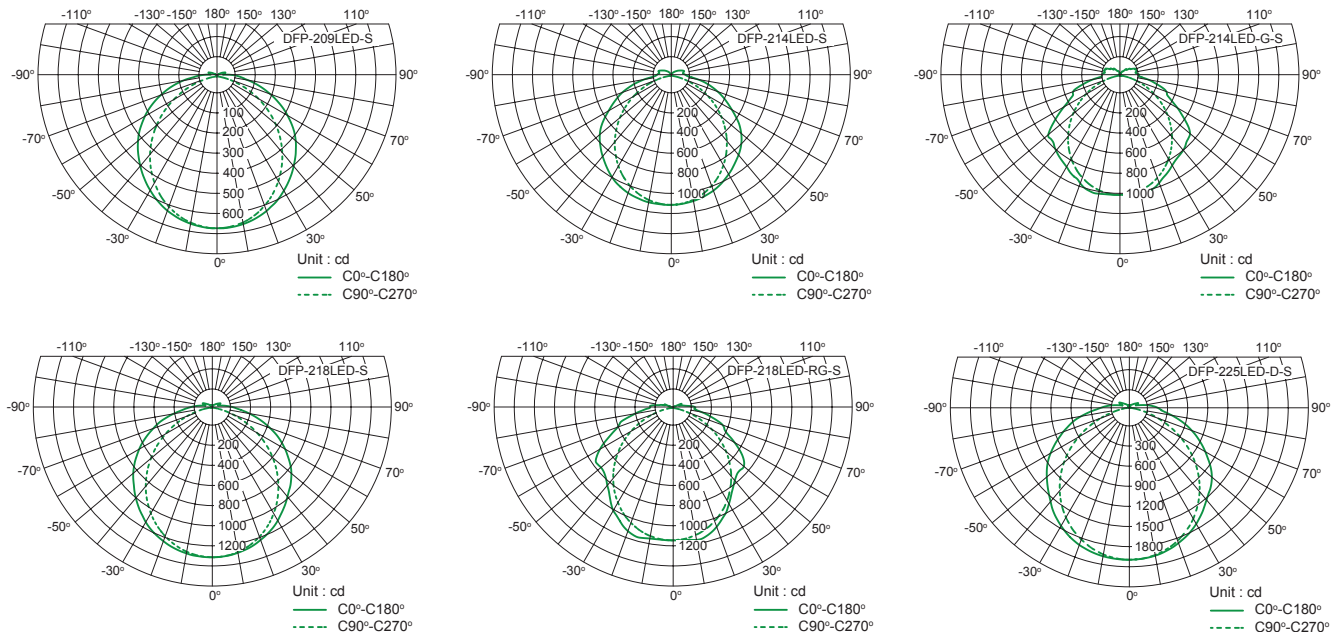
Pendant mount (for pipe)



Pendant mount (for chain)



Luminous Intensity Distribution Curve



Complete photometrics, please contact us.

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