

EX-Q SERIES

EXPLOSION-PROOF LIGHT

Class I Division 2, Class II Division 1 & 2, Zone 2, Zone 21 & 22

INTRODUCTION

The FGE-EX-Q1 / Q2 Series Explosion-Proof Lighting is a high-efficiency LED fixture specially designed for hazardous areas requiring compact, durable, and energy-saving illumination. Featuring a low-profile aluminum housing with tempered glass cover, it offers excellent explosion protection and corrosion resistance.

With Class I Division 2, Class II Division 1 & 2, Zone 2, Zone 21 & 22 certification and up to 150 lm/W efficacy, the Q1/Q2 delivers bright and uniform lighting suitable for chemical plants, oil refineries, and marine facilities.

The IP66-rated structure ensures outstanding resistance to dust, moisture, and vibration, providing long-term reliable performance in demanding industrial conditions.



Q1



Q2

COMPLIANCE

UL 844 Hazardous Locations
Class I Division 2, Group A, B, C, D
Class II Division 1, Group E, F, G
Class II Division 2, Group F, G
Class III
Class I, Zone 2, Group IIA, IIB, IIC
Zone 21 or 22
DLC (Pending)
UL 1598
UL 1598A

IP66 IK08

LM-79 | LM-80 | TM-21 | ISTMT | IEC

FEATURES

140 lm/W
150 lm/W

High Efficacy & Energy Saving: Up to 140 lm/W, 150 lm/W, reducing energy consumption by over 60% compared with HID fixtures.

EMERGENCY BACKUP

90-Minute Emergency Backup Option: Ensuring safety and visibility during critical moments.

0-10V DIMMABLE

Smart Control Ready: Supports 0-10V/DALI dimming.

RELIABLE WARRANTY

Reliable Warranty: 5 Years Warranty.

3 POWER SELECTABLE

Power Selectable: Multi-wattage options in a single fixture for flexible applications and reduced inventory.

CCT SELECTABLE

CCT Selectable: Adjustable color temperature to suit diverse environments.

- **Robust Protection:**
  IP66 waterproof & dustproof, IK08 impact resistance for harsh industrial environments.
- **Superior Thermal Management:**
  Copper-free aluminum housing, great corrosion resistance and cooling performance.
- **Versatile Mounting Options:**
  Ceiling, wall, surface, pendant, and stanchion 25° mounting for flexible installation.
- **Wide Input Voltage:**
  AC120–277V / AC200-480V or DC12-48V, suitable for global power grids.

APPLICATIONS



Paper Mills: Providing safe and stable illumination in dust-rich environments to reduce ignition risks and support continuous operation.



Loading Dock Platforms: Delivering durable explosion-proof lighting to withstand vibration and fuel vapors for safer loading and unloading operations.



Chemical Processing Facilities: Ensuring reliable lighting in areas with volatile chemicals to maintain safety and compliance under hazardous conditions.



Coal Mine: Offering explosion-proof illumination for methane- and dust-prone mining zones to protect workers during underground operations.



Power Plants: Providing robust lighting around high-risk equipment to support safe inspection and maintenance in demanding conditions.



Heavy Industrial Facilities: Delivering long-lasting explosion-proof lighting for harsh industrial sites exposed to dust, oil mist, and mechanical impact.

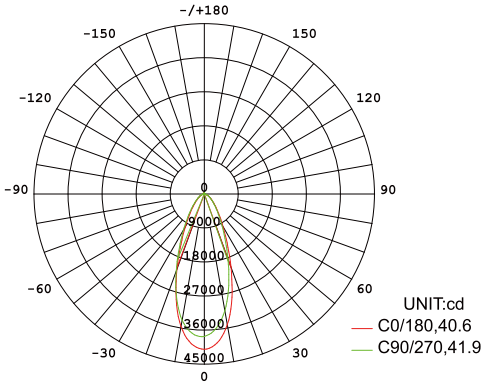
TECHNICAL PARAMETERS

Product Model	EX-Q1	EX-Q2
Electrical Performance		
Wattage	80W	20W/40W/50W/60W/80W/100W/120W/150W/180W/200W
Input Voltage	AC120–277V/200-480V	AC120–277V/200-480V
Frequency	50/60Hz	50/60Hz
Power Factor (PF)	>0.95	>0.95
Surge Protection	4 kV	4 kV
THD	<20%	<20%
Optical Performance		
Luminous Efficacy	150 lm/W	150 lm/W
Luminous Flux	12000lm	3000lm/6000lm/7500lm/9000lm/12000lm/15000lm/18000lm/22500lm/27000lm/30000lm
CCT	3000K/4000K/5000K/5700K/6500K	3000K/4000K/5000K/5700K/6500K
CRI	Ra>70	Ra>70
Beam Angle	40°/60°/90°/120°	40°/60°/90°/120°
Unified Glare Rating (UGR)	20	20
Reliability		
Lifetime	>100,000 h	>100,000 h
Operating Temperature	-40°C to 40°C, -40°C to 50°C, -40°C to 65°C	-40°C to 40°C, -40°C to 50°C, -40°C to 65°C
Storage Temperature	-40°C to 70°C	-40°C to 70°C
Ingress Protection	IP66	IP66
Impact Resistance	IK08	IK08
Control		
Dimming	0-10V Dimming	0-10V Dimming
Sensor	-	-
Communication Protocol	-	-
Emergency Kit	Optional	Optional
Mechanical		
Housing Material	Copper-free Aluminum	Copper-free Aluminum
Lens Material	Flat glass/Flat polycarbonate/Convex glass/Convex polycarbonate	
Coating	Grey/RAL7040	Grey/RAL7040
Net Weight	7.2kg	13.5kg
Dimensions	264x264x218mm	312x312x240mm
Warranty	5 Years	5 Years

Power and CCT Selectable

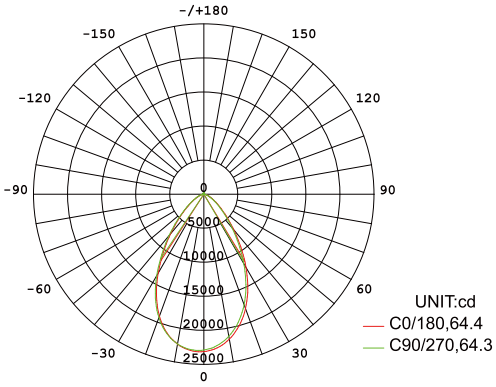
Product Model	EX-100W/80W/60W	EX-200W/150W/120W
Electrical Performance		
Wattage	100W/80W/60W	200W/150W/120W
Input Voltage	AC120–277V/200-480V	AC120–277V/200-480V
Frequency	50/60Hz	50/60Hz
Power Factor (PF)	>0.95	>0.95
Surge Protection	4 kV	4 kV
THD	<20%	<20%
Optical Performance		
Luminous Efficacy	140 lm/W	140 lm/W
Luminous Flux	17000lm/13600lm/10200lm	34000lm/25500lm/20400lm
CCT	4000K/5000K/6500K	4000K/5000K/6500K
CRI	Ra>70	Ra>70
Beam Angle	40°/60°/90°/120°	40°/60°/90°/120°
Unified Glare Rating (UGR)	20	20
Reliability		
Lifetime	>100,000 h	>100,000 h
Operating Temperature	-40°C to 40°C, -40°C to 50°C, -40°C to 65°C	-40°C to 40°C, -40°C to 50°C, -40°C to 65°C
Storage Temperature	-40°C to 70°C	-40°C to 70°C
Ingress Protection	IP66	IP66
Impact Resistance	IK08	IK08
Control		
Dimming	0-10V Dimming	0-10V Dimming
Sensor	-	-
Communication Protocol	-	-
Emergency Kit	Optional	Optional
Mechanical		
Housing Material	Copper-free Aluminum	Copper-free Aluminum
Lens Material	Flat glass/Flat polycarbonate/Convex glass/Convex polycarbonate	
Coating	Grey/RAL7040	Grey/RAL7040
Net Weight	7.2kg	13.5kg
Dimensions	264x264x218mm	312x312x240mm
Warranty	5 Years	5 Years

PHOTOMETRICS



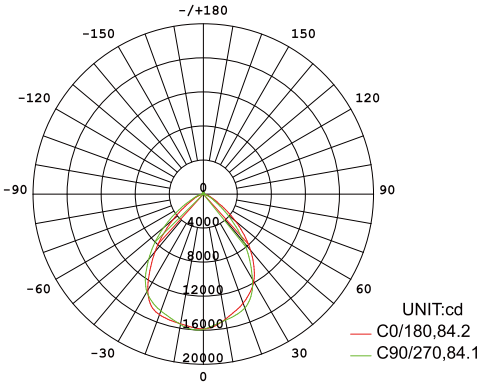
AVERAGE BEAM ANGLE(50%):41.2 DEG

40°



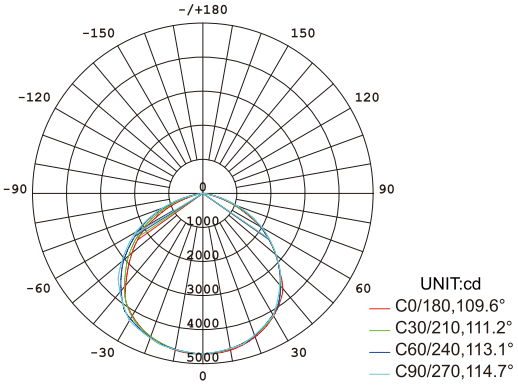
AVERAGE BEAM ANGLE(50%):64.3 DEG

60°



AVERAGE BEAM ANGLE(50%):84.1 DEG

90°



AVERAGE BEAM ANGLE(50%):112.1 DEG

120°

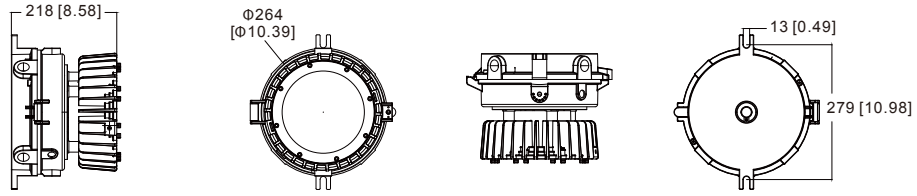
MECHANICAL DIMENSIONS

Model	Net Weight				Gross Weight				Quantity/ Carton	Package Dimensions (LxWxH)
	Driver Box Cover Type**				Driver Box Cover Type**					
	 A	 B	 C	 D	 A	 B	 C	 D		
Q1	6.60kg/ 14.55lbs	7.00kg/ 15.43lbs	7.10kg/ 15.65lbs	6.80kg/ 14.99lbs	8.60kg/ 18.96lbs	9.00kg/ 19.84lbs	9.09kg/ 20.06lbs	8.80kg/ 19.40lbs	1 pc	450x450x300mm/ 17.72"x17.72"x11.81"
Q2	9.80kg/ 21.61lbs	10.21kg/ 22.49lbs	10.21kg/ 22.49lbs	10.00kg/ 22.05lbs	11.80kg/ 26.02lbs	12.20kg/ 26.90lbs	12.20kg/ 26.90lbs	11.90kg/ 26.46lbs	1 pc	450x450x350mm/ 17.72"x17.72"x13.78"

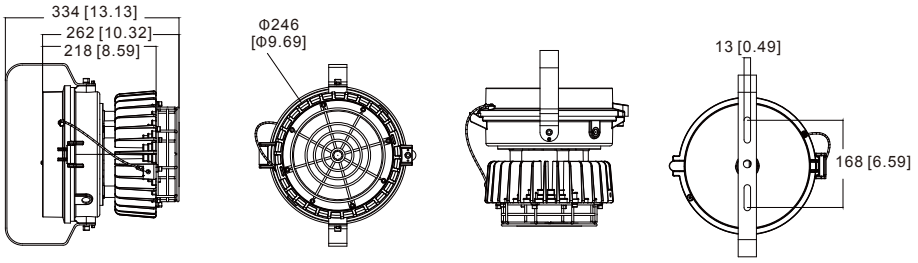
** The listed net weight and gross weight are data for products with Flat Glass diffuser and without wire guard.*

Q1 series:

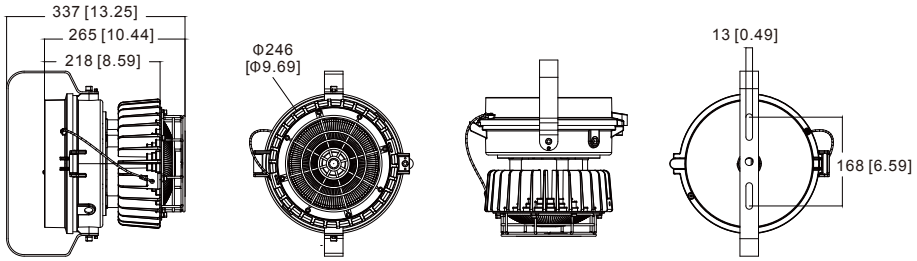
Q1 with driver cover A and flat diffuser



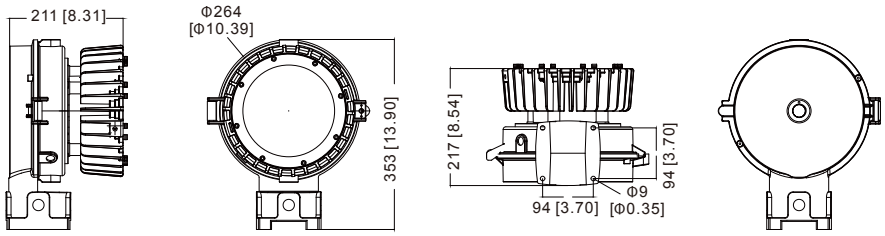
Q1 with driver cover B, wire guard, and flat diffuser



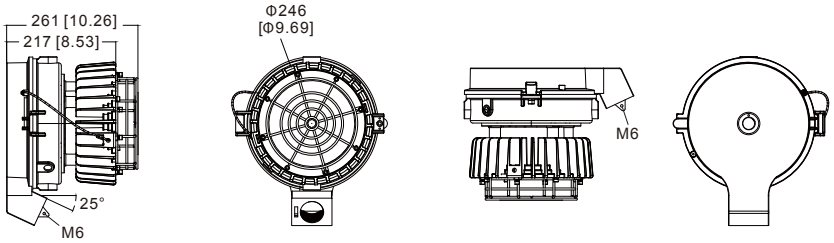
Q1 with driver cover B, wire guard, and convex diffuser (glass or PC)



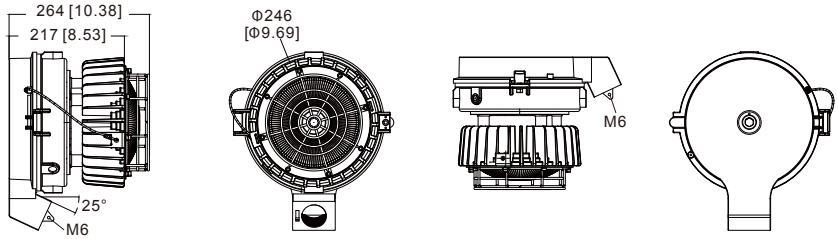
Q1 with driver cover C and flat diffuser



Q1 with driver cover D, wire guard, and flat diffuser

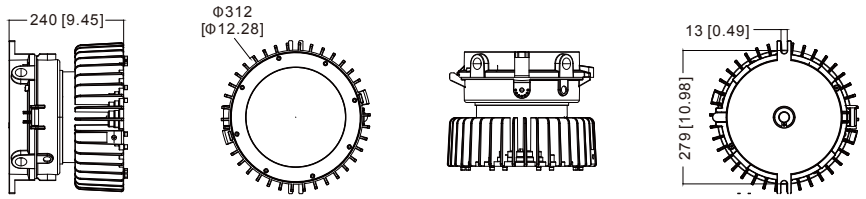


Q1 with driver cover D, wire guard, and convex diffuser (glass or PC)

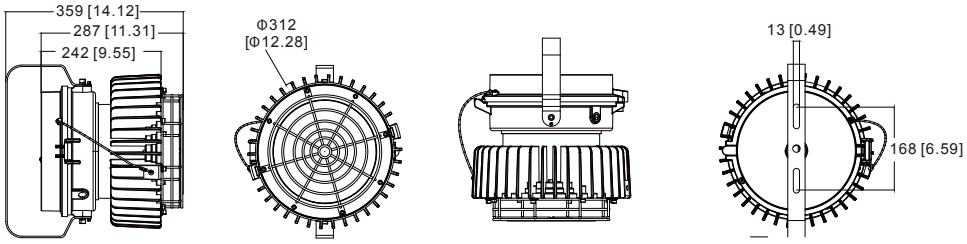


Q2 series:

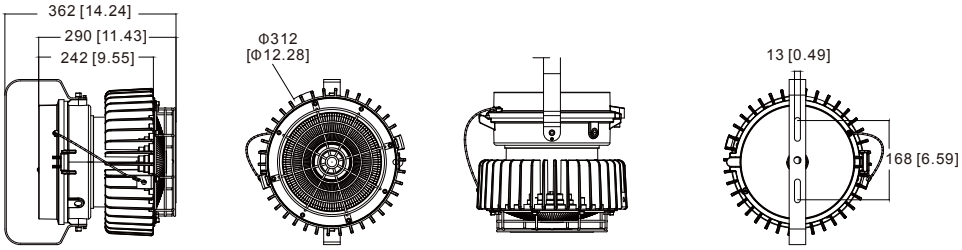
Q2 with driver cover A and flat diffuser



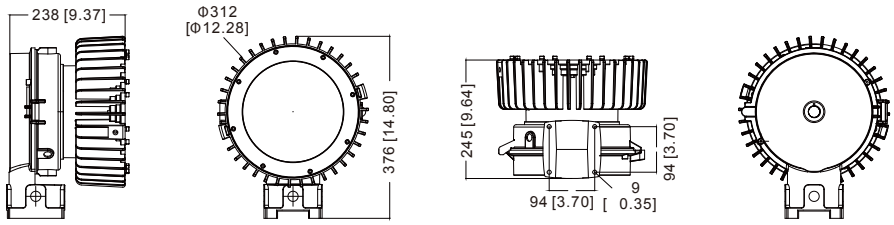
Q2 with driver cover B, wire guard, and flat diffuser



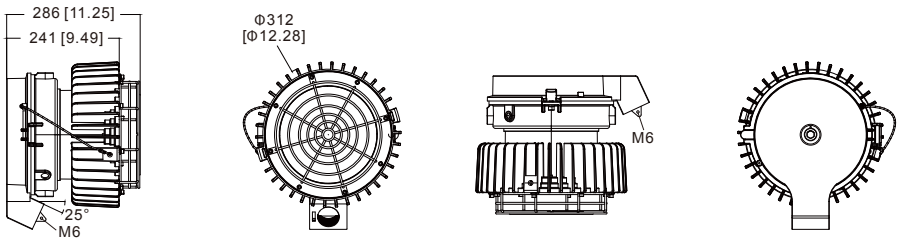
Q2 with driver cover B, wire guard, and convex diffuser (glass or PC)



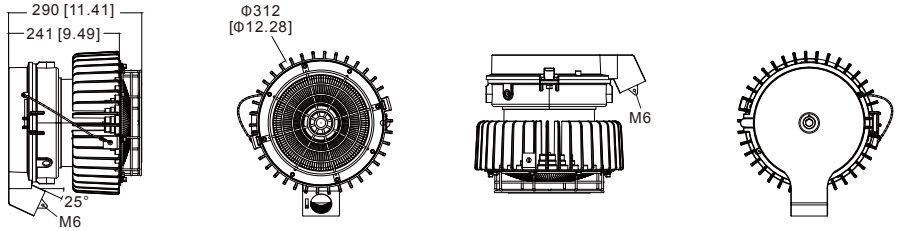
Q2 with driver cover C and flat diffuser



Q2 with driver cover D, wire guard, and flat diffuser



Q2 with driver cover D, wire guard, and convex diffuser (glass or PC)



DIFFERENT MOUNTING KIT DESIGN

Ceiling
Driver Cover A



Surface
Driver Cover B



Pendant
Driver Cover B



Wall
Driver Cover C



Stanchion 25°
Driver Cover D



Note: The small hole in the center of the top is designed for backup. If it is unable to connect wires from the side of the fixture during installation, wires can be connected from this hole.

4 DIFFUSERS OPTIONAL



Flat Glass



Convex Glass

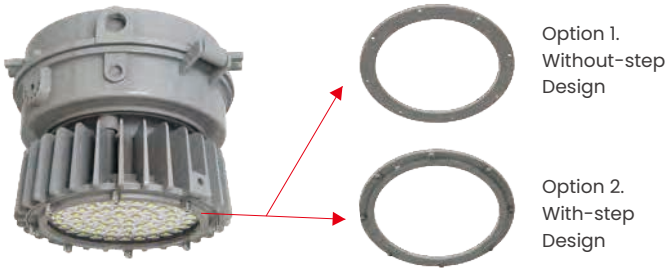


Flat Polycarbonate



Convex Polycarbonate

2 SURFACE COVERS OPTIONAL



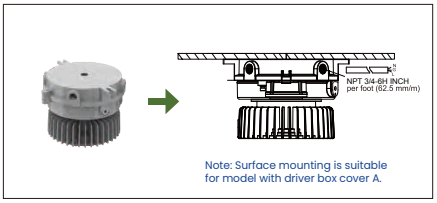
Option 1.
Without-step
Design

Option 2.
With-step
Design

Note: For Q1/Q2, both option 1 and option 2 are available.

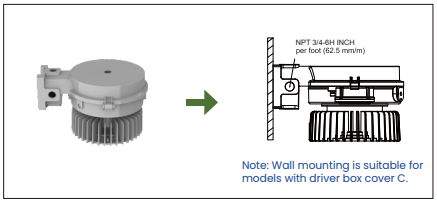
MOUNTING METHODS AND ACCESSORIES

Option 1: Ceiling Mounting



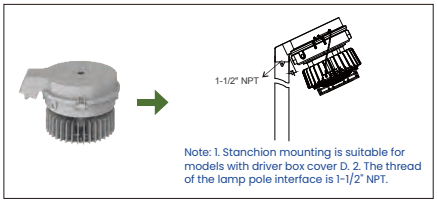
Note: Surface mounting is suitable for model with driver box cover A.

Option 2: Wall Mounting



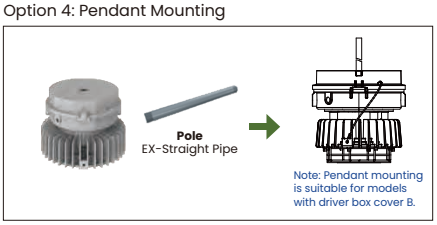
Note: Wall mounting is suitable for models with driver box cover C.

Option 3: Stanchion 25°



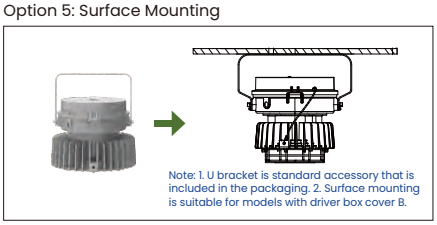
Note: 1. Stanchion mounting is suitable for models with driver box cover D. 2. The thread of the lamp pole interface is 1-1/2" NPT.

Option 4: Pendant Mounting



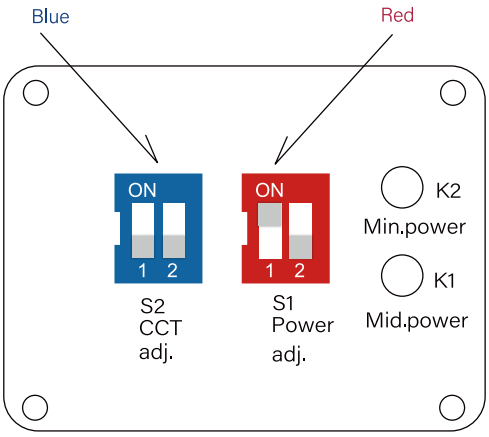
Note: Pendant mounting is suitable for models with driver box cover B.

Option 5: Surface Mounting



Note: 1. U bracket is standard accessory that is included in the packaging. 2. Surface mounting is suitable for models with driver box cover B.

POWER & CCT SELECTABLE



Power Selectable	CCT Selectable
100W/80W/60W	4000K/5000K/6500K
200W/150W/120W	4000K/5000K/6500K

Operating Instructions

- S1 DIP switch - Red (S1 Power adj.)

The luminaire incorporates a dual-dial power configuration switch enabling three selectable output ratings. Factory default settings and power levels can be customized based on project requirements.

1. Maximum Output (100% nominal power)
Switch configuration: Dial 1 = OFF, Dial 2 = OFF;



200W

2. Medium Output (70%-90% of nominal power, depending on specification)Switch configuration: Dial 1 = ON, Dial 2 = OFF



150W

3. Minimum Output (50%-70% of nominal power, depending on specification)Switch configuration: Dial 1 = OFF, Dial 2 = ON



120W

- S2 DIP switch - Blue (S2 CCT adj.)

The luminaire incorporates a dual-dial power configuration switch enabling three preset color temperature options. The factory default setting can be customized according to order requirements.

1. Cool white, e.g. 6500K
Switch configuration: Dial 1 = OFF, Dial 2 = OFF



6500K

2. Neutral white, e.g. 5000K
Switch configuration: Dial 1 = ON, Dial 2 = OFF



5000K

3. Warm white, e.g. 4000K
Switch configuration: Dial 1 = ON, Dial 2 = ON



4000K

ORDER INFORMATION

EX - YY - YY - YY - YY - YY - YY - YY

1 2 3 4 5 6 7 8 9 10 11 12 13

1 EX = Explosion Proof Light

2 Wattage

20W	20W
40W	40W
50W	50W
60W	60W
80W	80W
100W	100W
120W	120W
150W	150W
180W	180W
200W	200W

3 Shell Shape Series

Q1	Q1
Q2	Q2

4 Color Temperature

30	3000K
40	4000K
50	5000K
57	5700K
65	6500K

5 Dimmable

D	0-10V Dimming

6 Optics

40	40°
60	60°
90	90°
120	120°

7 Diffuser Type

(Blank)	Flat Glass
G	Convex Glass
P	Convex PC
FP	Flat PC

8 Driver Box Cover

A	Cover A
B	Cover B
C	Cover A
D	Cover D

9 EM Back-up

(Blank)	Without EM Back-up
EM	With EM Back-up

7 Glass Type

(Blank)	Flat Glass
C	Spherical Glass

10 Enclosure Cover

A	Alternate Enclosure Cover 1 (Normal Cover)
B	Lamp Enclosure Cover 1 (Step Cover)

11 LED Type

(Blank)	2835
1	5050

12 Input Voltage

(Blank)	120-277V
480	200-480V

13 Options

(Blank)	0.7M cord

WARRANTY PERIOD
5 YEARS WARRANTY

WARRANTY COVERAGE
LED LIGHT SOURCE, DRIVER

24h
AFTER-SALES SERVICE COMMITMENT
24H RESPONSE

72h
AFTER-SALES SERVICE COMMITMENT
72H RESOLUTION/REPLACEMENT