

EX-B SERIES

EXPLOSION-PROOF LIGHT

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

INTRODUCTION

The FGE-EX-B / B2 / B3 / B4 Series Explosion-Proof Lighting is engineered for hazardous industrial environments where explosive gases, vapors, or combustible dusts are present — including petrochemical plants, offshore platforms, warehouses, and gas stations. It ensures maximum safety, reliability, and energy efficiency in demanding conditions.

Constructed with a robust die-cast aluminum housing and impact-resistant tempered glass, the Series offers excellent explosion protection, corrosion resistance, and heat dissipation. Certified to Ex standards for Class I Division 2, Class II Division 1 & 2, Class III, Zone 2, Zone 21 or 22 applications, it provides dependable lighting performance under extreme environments.

Featuring high-efficacy LED chips with up to 140 lm/W, 170 lm/W output, the B Series delivers bright, uniform, and glare-free illumination while reducing maintenance and energy costs. Its IP66 protection rating, anti-vibration design, and multiple mounting options make it highly adaptable to diverse installation needs.



B



B3



B2



B4

COMPLIANCE

For B/B3:
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

For B2/B4:
Class I, Division 2, Groups A, B, C, D

IP66 IK08

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

FEATURES

140 lm/W
170 lm/W

High Efficacy & Energy Saving: Up to 140 lm/W, 170 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.(Only for B and B3.)

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:**
  Die-cast aluminum housing with optimized heat sink for reliable performance.

- **Versatile Mounting Options:**
  Ceiling, wall, hook, stanchion, pendant, and surface mounting for flexible installation.

- **Wide Input Voltage:**
  AC120–277V / AC200-480V, 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

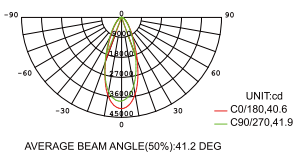
Technical Parameter - Class I Division 2

Product Model	EX-B	EX-B3	EX-B2	EX-B4
Electrical Performance				
Wattage	20/40/50/60/80/100W	20/40/50/60/80/100/120/150/180/200W	20/25/30/35/40/50/60/70W	150/180/200/250/300/350/400W
Input Voltage	AC120–277V/200-480V	AC120–277V/200-480V	AC120–277V/277-480V	AC120–277V/277-480V
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor (PF)	>0.95	>0.95	>0.9	>0.9
Surge Protection	10 kV	10 kV	10 kV	10 kV
THD	<20%	<20%	<20%	<20%
Optical Performance				
Luminous Efficacy	140 lm/W	140 lm/W	140 lm/W	140 lm/W
Luminous Flux	2800-14000lm	2800-28000lm	2800-9800lm	21000-56000lm
CCT	3000K/4000K/5000K/5700K/6500K	3000K/4000K/5000K/5700K/6500K	2700K/4000K/5000K/5700K/6500K	2700K/4000K/5000K/5700K/6500K
CRI	Ra>70	Ra>70	Ra>70	Ra>70
Beam Angle	40°/60°/90°/120°	40°/60°/90°/120°	40°/60°/90°/120°	40°/60°/90°/120°
Unified Glare Rating (UGR)	20	20	20	20
Reliability				
Lifetime	>100,000 h	>100,000 h	>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	-40°C to 40°C; -40°C to 55°C; -40°C to 65°C	-40°C to 40°C; -40°C to 50°C; -40°C to 60°C
Storage Temperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
Ingress Protection	IP66	IP66	IP66	IP66
Impact Resistance	IK08	IK08	IK08	IK08
Control				
Dimming	0-10V Dimming	0-10V Dimming	0-10V Dimming	0-10V Dimming
Sensor	No	No	No	No
Communication Protocol	-	-	-	-
Emergency Kit	Optional	Optional	No	No
Mechanical				
Housing Material	Copper-free Aluminum	Copper-free Aluminum	Copper-free Aluminum	Copper-free Aluminum
Lens Material	Flat glass/Flat polycarbonate /Convex glass/Convex polycarbonate	Flat glass/Flat polycarbonate /Convex glass/Convex polycarbonate	Flat PC/Flat Glass/Convex PC /Convex Glass/Spherical Glass	Flat PC/Flat Glass /Convex PC/Convex Glass
Coating	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040
Net Weight	5.88kg	8.8kg	6.6kg	6.7kg
Dimensions	270x270x173mm	370x370x190mm	270x270x173mm	480x480x200mm
Warranty	5 Years	5 Years	5 Years	5 Years

Technical Parameter - Class I Division 2 (Power and CCT Selectable)

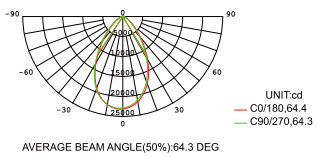
Product Model	EX-80W/60W/40W	EX-100W/80W/60W	EX-200W/150W/100W	EX-300W/250W/200W
Electrical Performance				
Wattage	80W/60W/40W	100W/80W/60W	200W/150W/100W	300W/250W/200W
Input Voltage	AC120–277V/200-480V	AC120–277V/200-480V	AC120–277V/277-480V	AC120–277V/277-480V
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor (PF)	>0.95	>0.95	>0.9	>0.9
Surge Protection	10 kV	10 kV	10 kV	10 kV
THD	<20%	<20%	<20%	<20%
Optical Performance				
Luminous Efficacy	170 lm/W	170 lm/W	170 lm/W	170 lm/W
Luminous Flux	13600lm/10200lm/6800lm	17000lm/13600lm/10200lm	34000lm/25500lm/17000lm	51000lm/42500lm/34000lm
CCT	4000K/5000K/6500K	4000K/5000K/6500K	4000K/5000K/6500K	4000K/5000K/6500K
CRI	Ra>70	Ra>70	Ra>70	Ra>70
Beam Angle	40°/60°/90°/120°	40°/60°/90°/120°	40°/60°/90°/120°	40°/60°/90°/120°
Unified Glare Rating (UGR)	20	20	20	20
Reliability				
Lifetime	>100,000 h	>100,000 h	>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	-40°C to 40°C; -40°C to 55°C; -40°C to 65°C	-40°C to 40°C; -40°C to 50°C; -40°C to 60°C
Storage Temperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
Ingress Protection	IP66	IP66	IP66	IP66
Impact Resistance	IK08	IK08	IK08	IK08
Control				
Dimming	0-10V Dimming	0-10V Dimming	0-10V Dimming	0-10V Dimming
Sensor	No	No	No	No
Communication Protocol	-	-	-	-
Emergency Kit	No	No	No	No
Mechanical				
Housing Material	Copper-free Aluminum	Copper-free Aluminum	Copper-free Aluminum	Copper-free Aluminum
Lens Material	Flat glass/Flat polycarbonate /Convex glass/Convex polycarbonate	Flat glass/Flat polycarbonate /Convex glass/Convex polycarbonate	Flat PC/Flat Glass/Convex PC /Convex Glass/Spherical Glass	Flat PC/Flat Glass /Convex PC/Convex Glass
Coating	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040
Net Weight	5.88kg	5.88kg	8.8kg	6.7kg
Dimensions	270x270x173mm	270x270x173mm	370x370x190mm	480x480x200mm
Warranty	5 Years	5 Years	5 Years	5 Years

PHOTOMETRICS



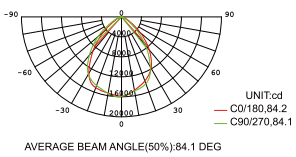
AVERAGE BEAM ANGLE(50%):41.2 DEG

40°



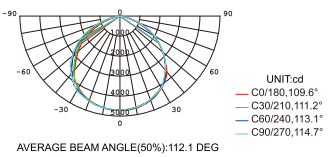
AVERAGE BEAM ANGLE(50%):64.3 DEG

60°



AVERAGE BEAM ANGLE(50%):84.1 DEG

90°



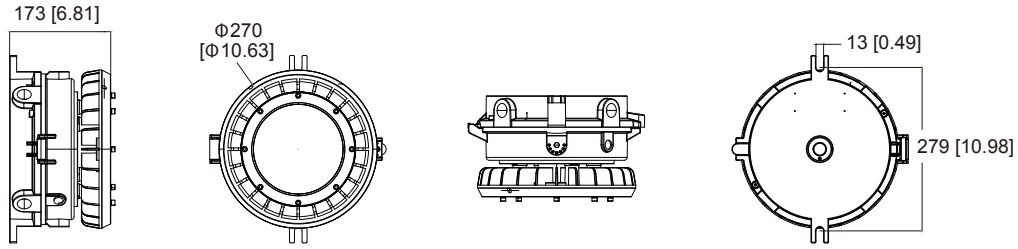
AVERAGE BEAM ANGLE(50%):112.1 DEG

120°

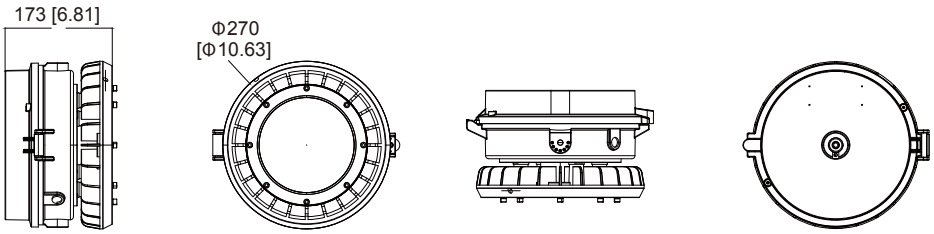
MECHANICAL DIMENSIONS

B series:

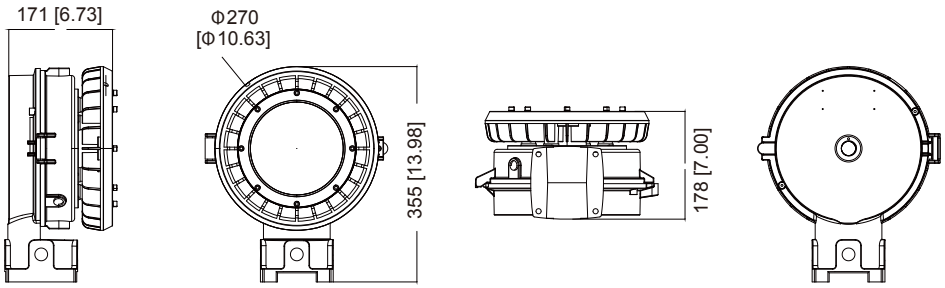
B with driver cover A and flat diffuser



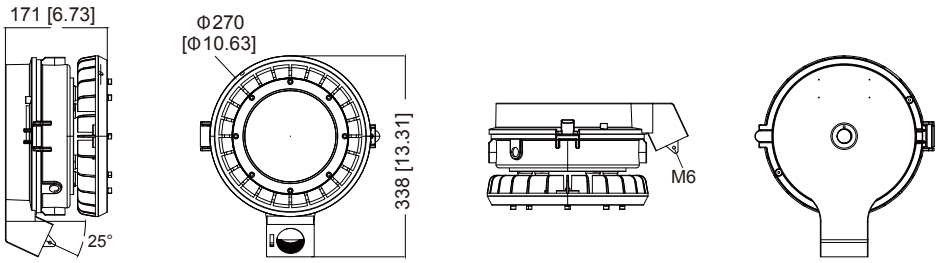
B with driver cover B and flat diffuser



B with driver cover C and flat diffuser

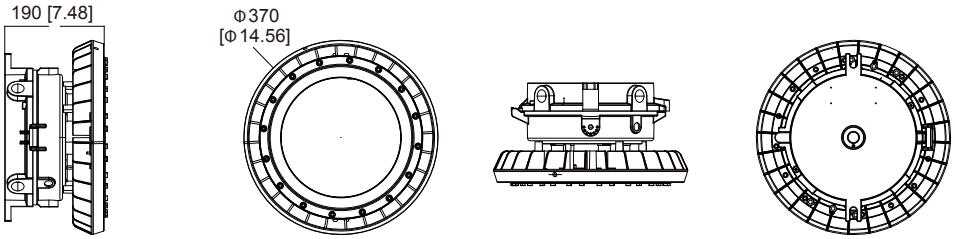


B with driver cover D and flat diffuser

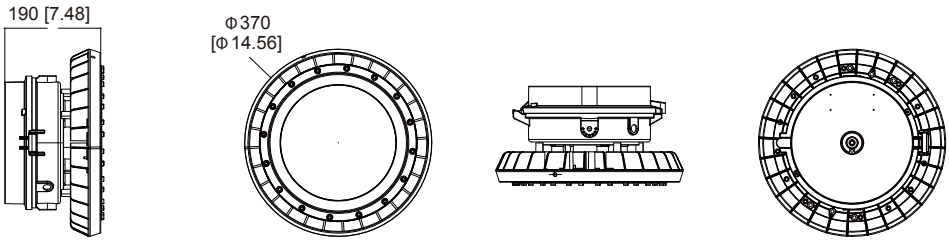


B3 series:

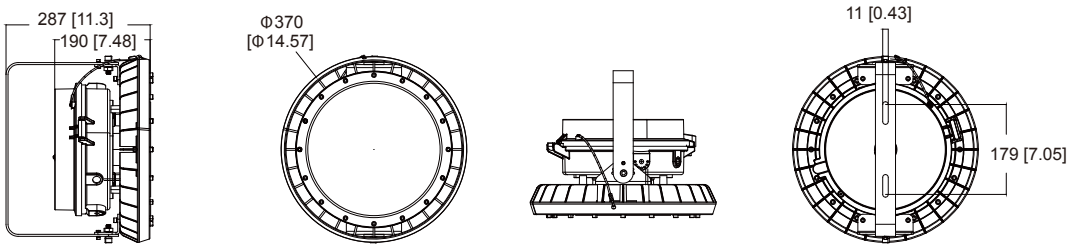
B3 with driver cover A and flat diffuser



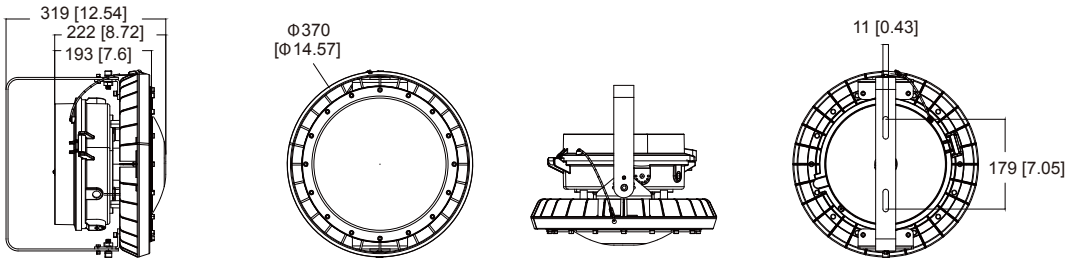
B3 with driver cover B and flat diffuser



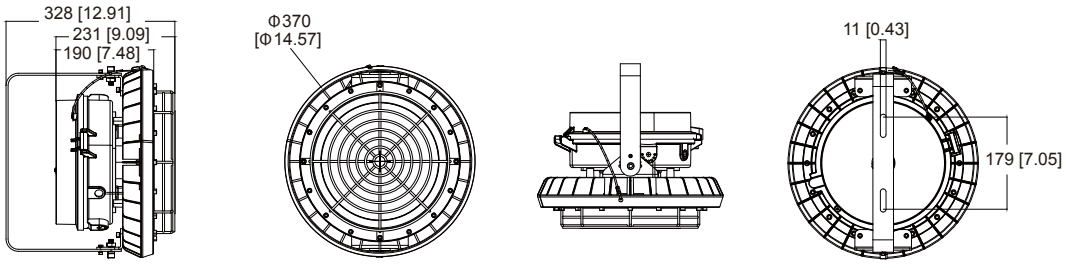
B3 with driver cover B, flat diffuser, and bracket



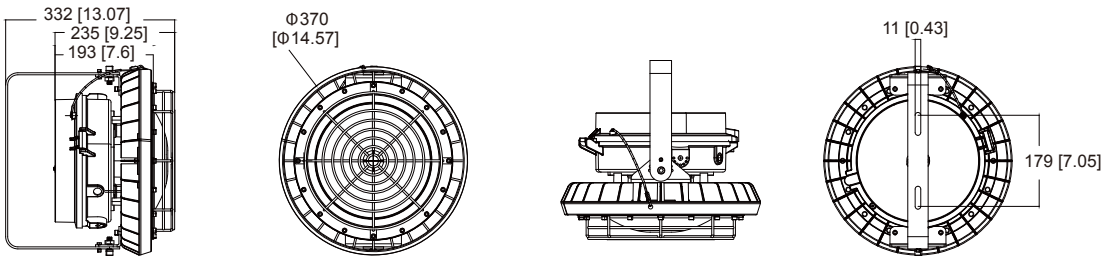
B3 with driver cover B, convex diffuser (glass or PC), and bracket



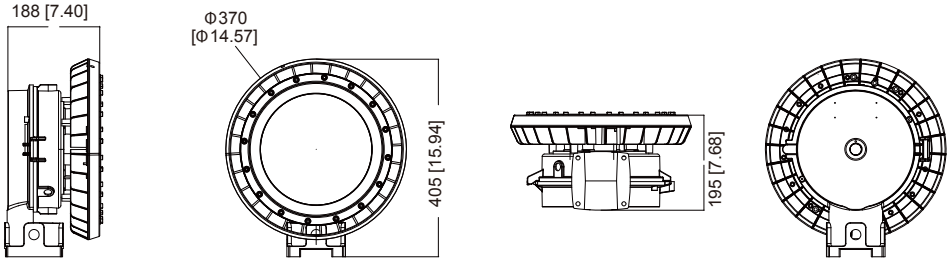
B3 with driver cover B, wire guard, flat diffuser, and bracket



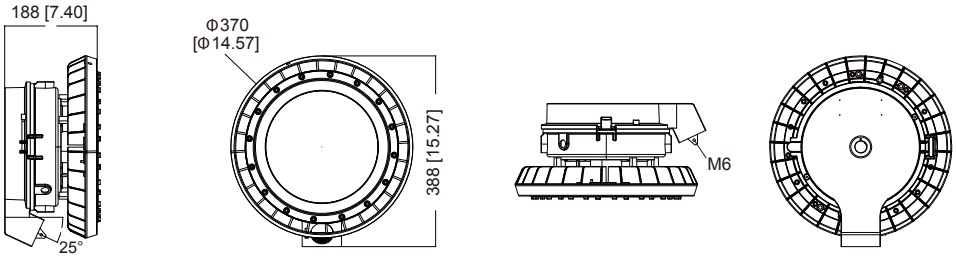
B3 with driver cover B, wire guard, convex diffuser (glass or PC), and bracket



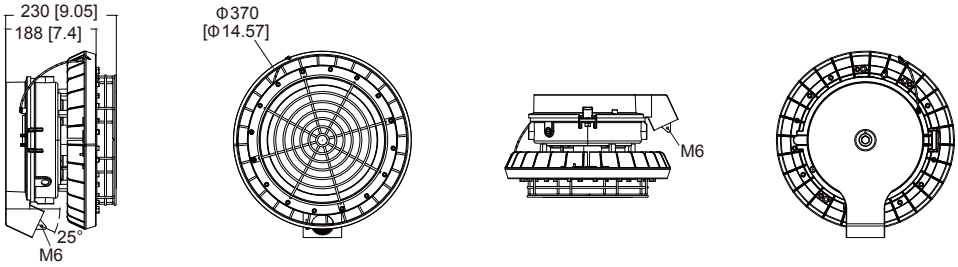
B3 with driver cover C and flat diffuser



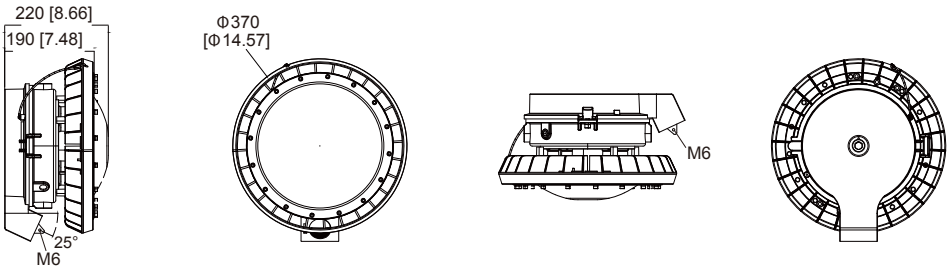
B3 with driver cover D and flat diffuser



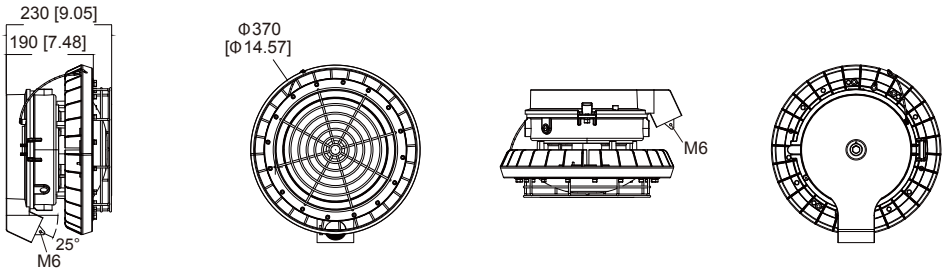
B3 with driver cover D, wire guard and flat diffuser



B3 with driver cover D and convex diffuser (glass or PC)



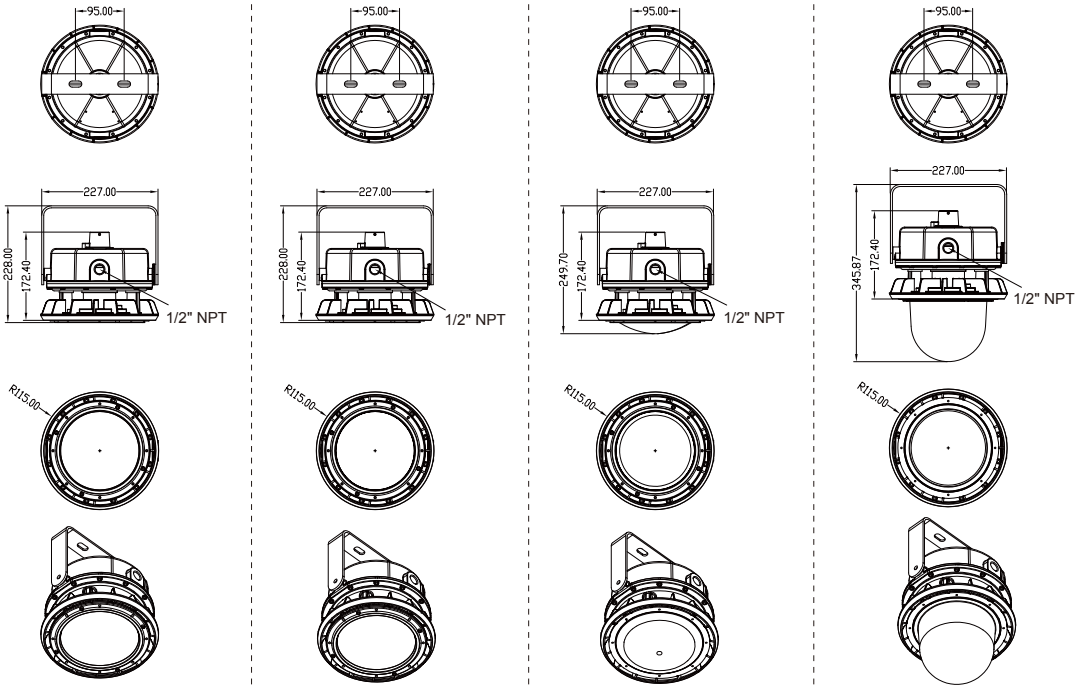
B3 with driver cover D, wire guard, and convex diffuser (glass or PC)



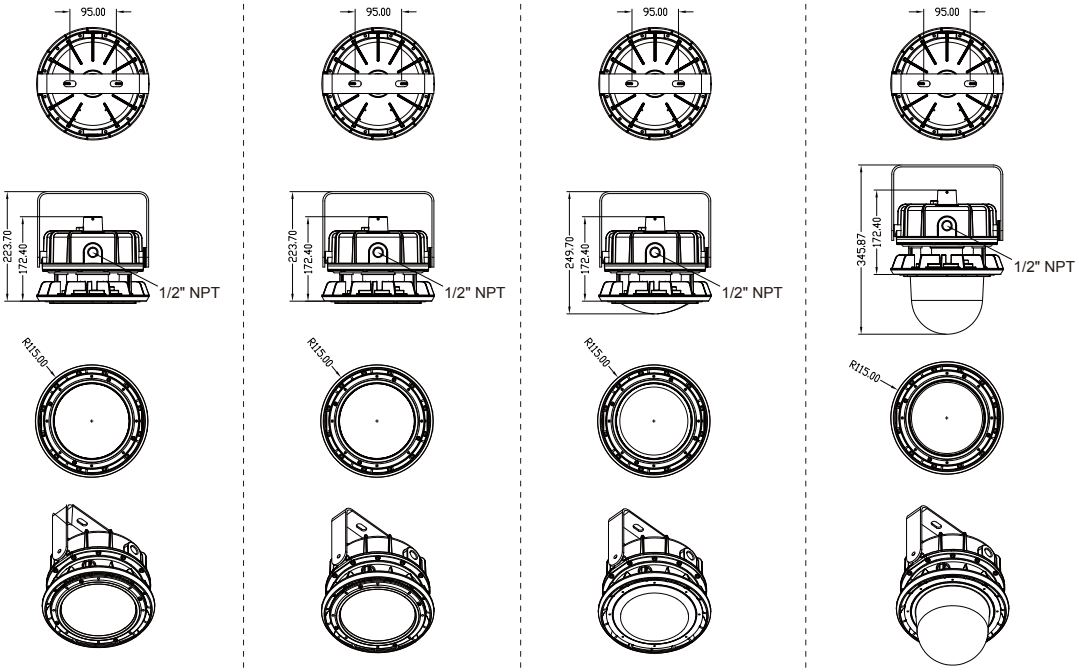
B2 series:

Flat PC	Flat Glass	Convex Glass	Spherical Glass

Dimensions for Model with Driver Cover E

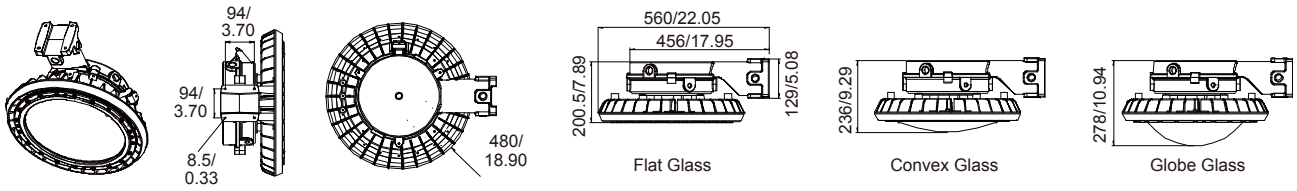


Dimensions for Model with Driver Cover H

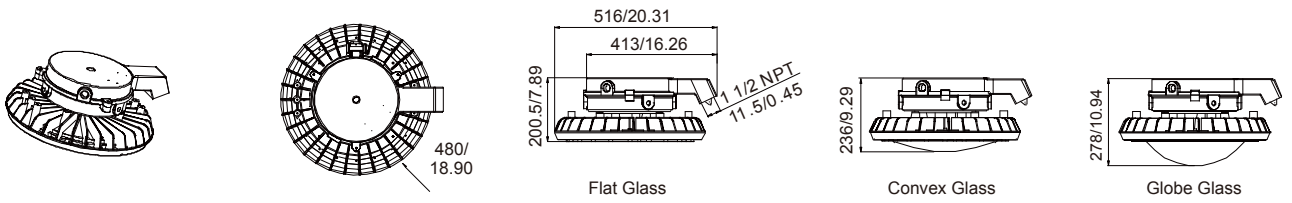


B4 series:

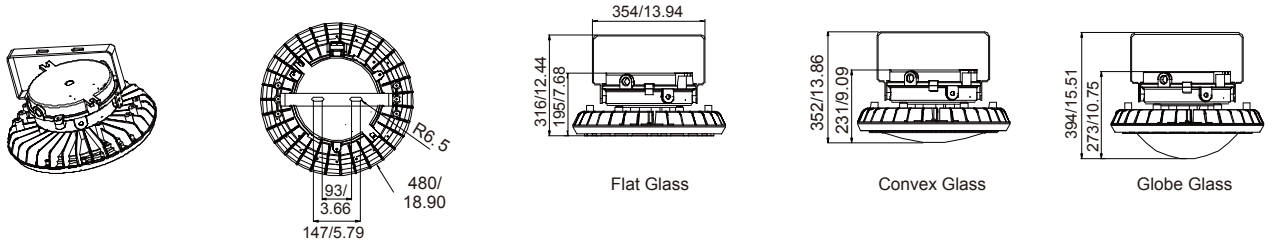
B4 with driver cover C



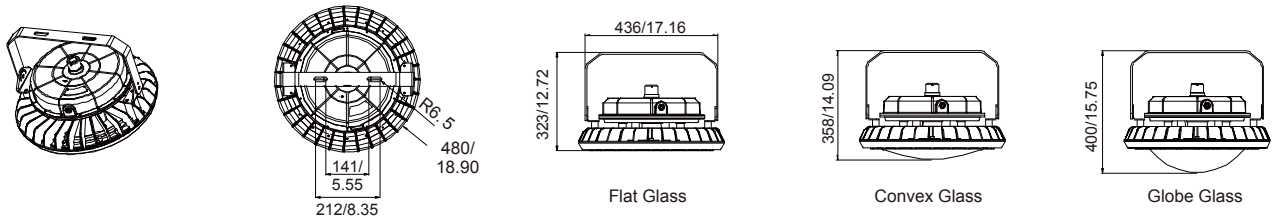
B4 with driver cover D



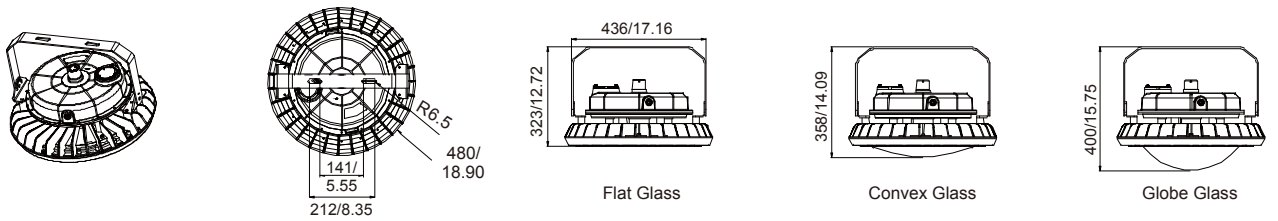
B4 with driver cover A and bracket



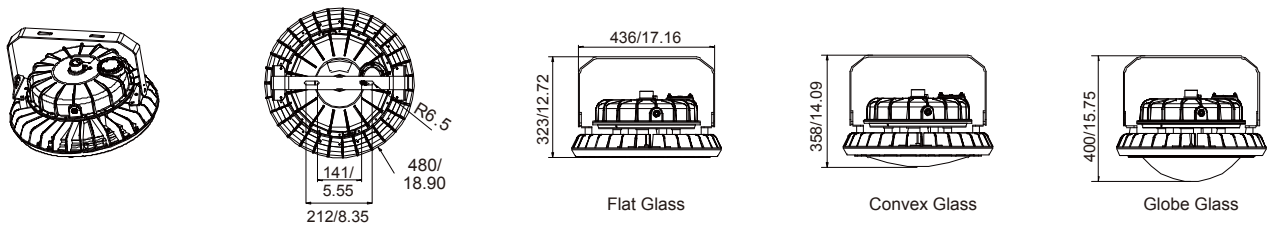
B4 with driver cover E and bracket



B4 with driver cover F and bracket



B4 with driver cover G and bracket

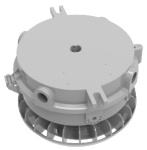


Model	Net Weight				Gross Weight				Quantity/ Carton	Package Dimensions (LxWxH)
	Driver Box Cover*				Driver Box Cover*					
	 A	 B	 C	 D	 A	 B	 C	 D		
B with flat glass diffuser & with wire guard	6kg/ 13.24lbs	6.03kg/ 13.29lbs	6.46kg/ 14.23lbs	6.20kg/ 13.66lbs	8kg/ 17.65lbs	8.03kg/ 17.7lbs	8.46kg/ 18.64lbs	8.20kg/ 18.07lbs	1 pc	470x470x310mm/ 18.50"x18.50"x12.20"
B with flat glass diffuser & without wire guard	5.88kg/ 12.96lbs	5.91kg/ 13.03lbs	6.34kg/ 13.98lbs	6.08kg/ 13.41lbs	7.88kg/ 17.37lbs	7.91kg/ 17.44lbs	8.34kg/ 18.39lbs	8.08kg/ 17.81lbs	1 pc	470x470x310mm/ 18.50"x18.50"x12.20"
B with spherical glass diffuser & with wire guard	6.73kg/ 14.83lbs	6.74kg/ 14.87lbs	7.17kg/ 15.82lbs	6.92kg/ 15.25lbs	8.73kg/ 19.24lbs	8.74kg/ 19.28lbs	9.17kg/ 20.23lbs	8.92kg/ 19.66lbs	1 pc	470x470x400mm/ 18.50"x18.50"x15.75"
B with spherical glass diffuser & without wire guard	6.61kg/ 14.57lbs	6.62kg/ 14.59lbs	7.05kg/ 15.54lbs	6.80kg/ 14.99lbs	8.61kg/ 18.98lbs	8.62kg/ 19.00lbs	9.05kg/ 19.95lbs	8.80kg/ 19.40lbs	1 pc	470x470x400mm/ 18.50"x18.50"x15.75"
B3 with flat glass diffuser & without wire guard	8.8kg/ 19.40lbs	9kg/ 19.84lbs	9.2kg/ 20.28lbs	9kg/ 19.84lbs	10.8kg/ 23.81lbs	11kg/ 24.25lbs	11.2kg/ 24.69lbs	11kg/ 24.25lbs	1 pc	470x470x330mm/ 18.50"x18.50"x12.99"

DIFFERENT MOUNTING KIT DESIGN

B/B3 series:

Ceiling
Driver Cover A


B


B3

Surface
Driver Cover B


B


B3

Pendant
Driver Cover B

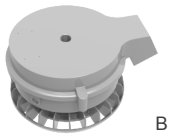


Wall
Driver Cover C


B


B3

Stanchion 25°
Driver Cover D


B


B3

B2 series:

Surface / Pendant
Driver Cover E



Surface / Pendant
Driver Cover H



B4 series:

Ceiling
Driver Cover A



Wall
Driver Cover C



Stanchion 25°
Driver Cover D



Pendant / Surface
Driver Cover E



Pendant / Surface
Driver Cover F



Pendant / Surface
Driver Cover G



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 installation, wires can be connected from this hole.

VARIOUS DIFFUSERS OPTIONAL

B:



1. Flat Glass | 2. Flat Polycarbonate | 3. Convex Glass | 4. Convex Polycarbonate | 5. Spherical Glass

B3:



1. Flat Glass | 2. Flat Polycarbonate | 3. Convex Glass | 4. Convex Polycarbonate | 5. Spherical Glass

B2:



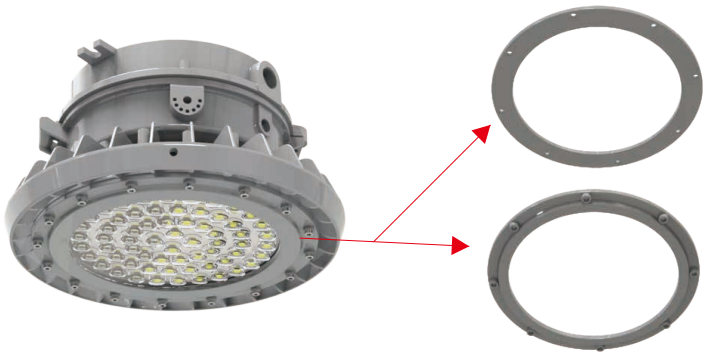
1. Flat PC / Flat Glass | 2. Convex Glass | 3. Convex PC | 4. Spherical Glass

B4:



1. Flat Glass | 2. Flat PC | 3. Convex Glass | 4. Convex PC

2 SURFACE COVERS OPTIONAL

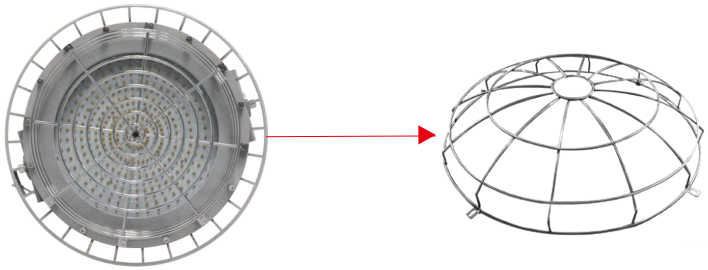


Option 1.
Without-step Design

Option 2.
With-step Design

Note: For B/B3/B2/B4, both option 1 and option 2 are available.

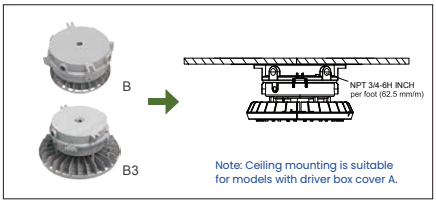
WIRE GUARD OPTIONAL



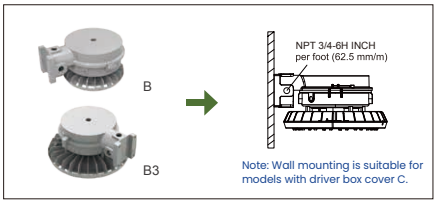
MOUNTING METHODS AND ACCESSORIES

B/B3 series:

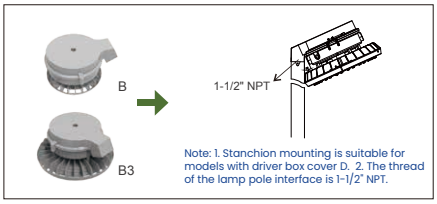
Option 1: Ceiling Mounting



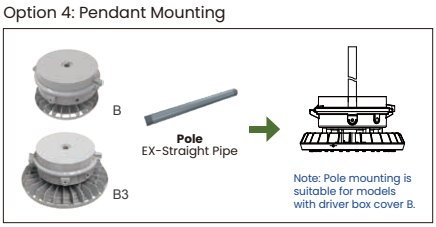
Option 2: Wall Mounting



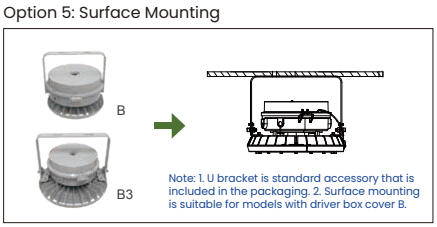
Option 3: Stanchion 25°



Option 4: Pendant Mounting

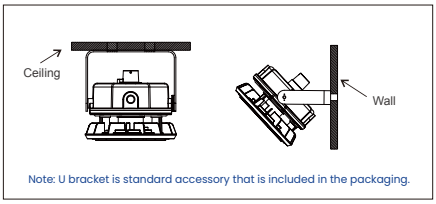


Option 5: Surface Mounting

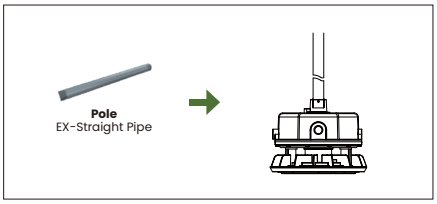


B2 series:

Option 1: Surface Mounting

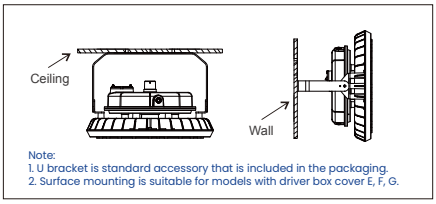


Option 2: Pendant Mounting

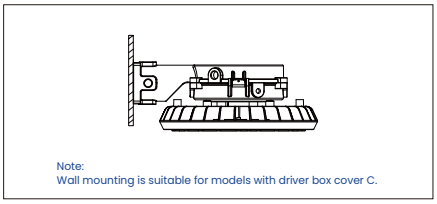


B4 series:

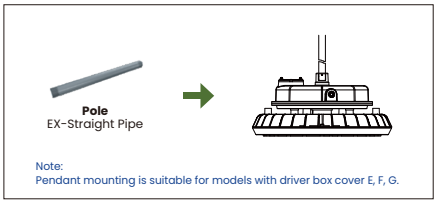
Option 1: Surface Mounting



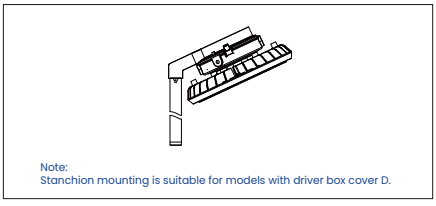
Option 2: Wall Mounting



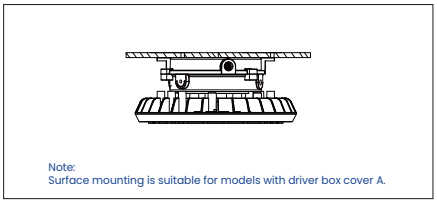
Option 3: Pendant Mounting



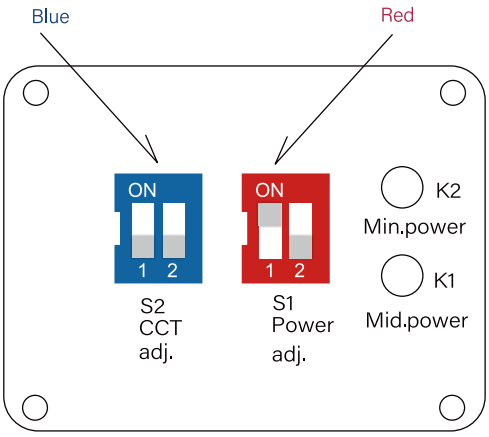
Option 4: Stanchion 25°



Option 5: Ceiling Mounting



POWER & CCT SELECTABLE



Power Selectable	CCT Selectable
80W/60W/40W	4000K/5000K/6500K
100W/80W/60W	4000K/5000K/6500K
200W/150W/100W	4000K/5000K/6500K
300W/250W/200W	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;



300W

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



250W

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



200W

- 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

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

1 EX = Explosion Proof Light

2 Wattage

20W	20W
25W	25W
30W	30W
35W	35W
40W	40W
50W	50W
60W	60W
70W	70W
80W	80W
100W	100W
120W	120W
150W	150W
180W	180W
200W	200W
250W	250W
300W	300W
350W	350W
400W	400W

3 Shell Shape Series

B	B
B2	B2
B3	B3
B4	B4

4 Color Temperature

27	2700K
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
SG	Spherical Glass (for B/B3)*
PG	Spherical Glass (for B2)*

8 Driver Box Cover

A	Cover A
B	Cover B
C	Cover A
D	Cover D
E	Cover E
F	Cover F
G	Cover G
H	Cover H

9 EM Back-up

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

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(B/B3)
480	277-480V(B2/B4)

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