Durable Lighting Made for Industrial Safety

Hazardous Location LED Luminaire

B Series (Zone 2 & Class I Division 2)

Authorized Agent :
EGE TECHNOLOGY SDN BHD (201201031202)
www.egetech.com.my

Venas International Co., Ltd

VENAS

B2

B

B3

B4

Convex Glass
(Optional)

Globe Glass with Wire Guard
(Optional)

Product Description

The B Series LED luminaire is the ideal choice for marine and hazardous applications. They can be used in locations where   moisture, dirt, dust, corrosion and vibration may be present, or areas where wind, water, snow or high ambient can be expected.

Features

- 0-10V dimming
- High luminous efficacy - Up to 140 lumensperwatt
- Battery backup function available
- Compact and robust structure, excellent reliability
- Various installation ways for different applications
- Great impact resistance with IK08/IK10 certified

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ege®

Compliance

ATEX Standard:

⟨Ex⟩ II 3G Ex ec IIC T6...T3 Gc

⟨Ex⟩ II 2D Ex tb IIIC T85℃...T103℃ Db

IECEx Standard:

Ex ec IIC T6...T3 Gc

Ex tb IIIC T85°C...T100°CDb

Zone 2, 21, 22

CB (Ref. Certif. No.: DE 2-038462-M1)

NSF

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 IIC   Class

II, Zone 21, Group IIIC   UL 1598

Wet Locations

UL 1598A Marine Outside Type

UL 924 Emergency Lighting

ETL (ATM for Report 105342415DAL-001)

ABS

NSF

DLC*

IP66

IK08 (glass cover)   IK10

(with wire guard)   1000

hours salt spray

Not all product variations listed on this spec sheet are DLC qualified. Visit www.designlights.org/search to confirm qualification.

Application

- Power Plants
- Heavy Industrials Storage Facility
- Paper mills
- Wastewater Treatment Plants
- Loading Docks Platforms
- Offshore Environments
- Chemical Processing Facility
- Petrochemical Processing Facility
- Metallurgical Industry
- Coal Mine
- Food and Alcohol industry

Warranty

5-Year Standard Warranty

LED lumen Maintenance: L70> 150,000 Operation Hours@55°C

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Technical Parameter (for Class I Division 2)

● Electrical

Specification	EX-20W B2YZDA	EX-40W B2YZDA	EX-60W BYZDA	EX-80W BYZDA
Rated Power	20W	40W	60W	80W
Input Voltage	120-277/277-480VAC			
InputFrequency	50/60Hz			
Power Factor	> 0.95			
Emergency	No emergency function	No emergency function	Optional (Billda)	Optional (Billda)

● Optical

Specification	EX-20W B2YZDA	EX-40W B2YZDA	EX-60W BYZDA	EX-80W BYZDA
Lumen Output	2800lm	5,600lm	8,400lm	11,200lm
Lumens Per Watt	140lm/W	140lm/W	140lm/W	140lm/W
CCT	2700K-7000K			
CRI	> 70			
Beam Angle	40°/60°/90°/120°			
Dimming	0-10V dimming			

● Environmental

Specification	EX-20W B2YZDA	EX-40W B2YZDA	EX-60W BYZDA	EX-80W BYZDA
Ambient Operating Temperature	T3: -40°C to +50°C (-40°F to +122°F)			

● Mechanical

Specification	EX-20W B2YZDA	EX-40W B2YZDA	EX-60W BYZDA	EX-80W BYZDA
Housing Material	Copper-free aluminum			
Diffuser	Tempered glass & PC			
Hardware	Stainless steel			
Fixture Color	Gray RAL7040 (Standard)			
Protection	IP66/IK08 (glass cover)/IK10 (with wire guard)			
Mounting	Ceiling, Wall, Pole, Hook Pendant, Stanchion, Wall, Trunnion			
Cable Entries*	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standatd); M25 (optional)			

* For cable entries, 3/4" NPT is standard. Others can be achieved with an adpater, and customer needs to indicate which is required when placing an order.

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Technical Parameter (for Class I Division 2)

● Electrical

Specification	EX-100W B3YZDA	EX-120W B3YZDA	EX-150W B3YZDA	EX-200W B3YZDA
Rated Power	100W	120W	150W	200W
Input Voltage	120-277/277-480VAC			
InputFrequency	50/60Hz			
Power Factor	> 0.95			
Emergency	Optional			

● Optical

Specification	EX-100W B3YZDA	EX-120W B3YZDA	EX-150W B3YZDA	EX-200W B3YZDA
Lumen Output	14,000lm	16,800lm	21,000lm	28,000lm
Lumens Per Watt	140lm/W	140lm/W	140lm/W	140lm/W
CCT	2700K-7000K			
CRI	> 70			
Beam Angle	40°/60°/90°/120°			
Dimming	0-10V dimming			

● Environmental

Specification	EX-100W B3YZDA	EX-120W B3YZDA	EX-150W B3YZDA	EX-200W B3YZDA
Ambient Operating Temperature	T3: -40°C to +40°C (-40°F to +104°F)			

● Mechanical

Specification	EX-100W B3YZDA	EX-120W B3YZDA	EX-150W B3YZDA	EX-200W B3YZDA
Housing Material	Copper-free aluminum			
Diffuser	Tempered glass & PC			
Hardware	Stainless steel			
Fixture Color	Gray RAL7040 (Standard)			
Protection	IP66/IK08 (glass cover)/IK10 (with wire guard)			
Mounting	Ceiling, Wall, Pole, Hook Pendant, Stanchion, Wall			
Cable Entries*	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standatd); M25 (optional)			

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Technical Parameter (for Class I Division 2)

● Electrical

Specification	EX-250W B4YZDA	EX-300W B4YZDA	EX-350W B4YZDA	EX-400W B4YZDA
Rated Power	250W	300W	350W	400W
Input Voltage	120-277/277-480VAC			
InputFrequency	50/60Hz			
Power Factor	> 0.95			
Emergency	Optional			

● Optical

Specification	EX-250W B4YZDA	EX-300W B4YZDA	EX-350W B4YZDA	EX-400W B4YZDA
Lumen Output	35,000lm	42,000lm	49,000lm	56,000lm
Lumens Per Watt	140lm/W	140lm/W	140lm/W	140lm/W
CCT	2700K-7000K			
CRI	> 70			
Beam Angle	40°/60°/90°/120°			
Dimming	0-10V dimming			

● Environmental

Specification	EX-250W B4YZDA	EX-300W B4YZDA	EX-350W B4YZDA	EX-400W B4YZDA
Ambient Operating Temperature	T3: -40°C to +55°C (-40°F to +131°F)	T3: -40°C to +55°C (-40°F to +131°F)	T3: -40°C to +40°C (-40°F to +104°F)	T3: -40°C to +40°C (-40°F to +104°F)

● Mechanical

Specification	EX-250W B4YZDA	EX-300W B4YZDA	EX-350W B4YZDA	EX-400W B4YZDA
Housing Material	Copper-free aluminum			
Diffuser	Tempered glass & PC			
Hardware	Stainless steel			
Fixture Color	Gray RAL7040 (Standard)			
Protection	IP66/IK08 (glass cover)/IK10 (with wire guard)			
Mounting	Ceiling, Wall, Pole, Hook Pendant, Stanchion, Wall			
Cable Entries*	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standatd); M25 (optional)			

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Technical Parameter (for Zone 2/21/22)

● Electrical

Specification	Ex-20WB2N**D**	Ex-40WB2N**D**	Ex-60WBN**D**	Ex-80WBN**D**
Rated Power	20W	40W	60W	80W
Input Voltage	100-277VAC			
InputFrequency	50/60Hz			
Power Factor	> 0.95			
Emergency	No emergency function	No emergency function	Optional (Billda)	Optional (Billda)

● Optical

Specification	Ex-20WB2N**D**	Ex-40WB2N**D**	Ex-60WBN**D**	Ex-80WBN**D**
Lumen Output	2800lm	5,600lm	8,400lm	11,200lm
Lumens Per Watt	140lm/W			
CCT	3000K-6500K			
CRI	> 70			
Beam Angle	40°/60°/90°/120°			
Dimming	0-10V dimming			

● Environmental

Specification	Ex-20WB2N**D**	Ex-40WB2N**D**	Ex-60WBN**D**	Ex-80WBN**D**
Ambient Operating Temperature	T3: -40°C to +55°C (-40°F to +131°F)			

● Mechanical

Specification	Ex-20WB2N**D**	Ex-40WB2N**D**	Ex-60WBN**D**	Ex-80WBN**D**
Housing Material	Copper-free aluminum			
Lens	Tempered glass & PC			
Hardware	Stainless steel			
Fixture Color	Gray RAL7040 (Standard)			
Protection	IP66/IK08 (glass cover)/IK10 (with wire guard)			
Mounting	Ceiling, Wall, Pole, Hook Pendant, Stanchion, Wall, Trunnion			
Cable Entries*	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standatd); M25 (optional)			

For cable entries, 3/4" NPT is standard. Others can be achieved with an adpater, and customer needs to indicate which is required when placing an order.

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Technical Parameter (for Zone 2/21/22)

● Electrical

Specification	Ex-100WB3N**D**	Ex-120WB3N**D**	Ex-150WB3N**D**	Ex-200WB3N**D**
Rated Power	100W	120W	150W	200W
Input Voltage	100-277VAC			
InputFrequency	50/60Hz			
Power Factor	> 0.95			
Emergency	Optional			

● Optical

Specification	Ex-100WB3N**D**	Ex-120WB3N**D**	Ex-150WB3N**D**	Ex-200WB3N**D**
Lumen Output	14,000lm	16,800lm	21,000lm	28,000lm
Lumens Per Watt	140lm/W	140lm/W	140lm/W	140lm/W
CCT	3000K-6500K			
CRI	> 70			
Beam Angle	40°/60°/90°/120°			
Dimming	0-10V dimming			

● Environmental

Specification	Ex-100WB3N**D**	Ex-120WB3N**D**	Ex-150WB3N**D**	Ex-200WB3N**D**
Ambient Operating Temperature	T3: -40°C to +55°C (-40°F to +131°F)			

● Mechanical

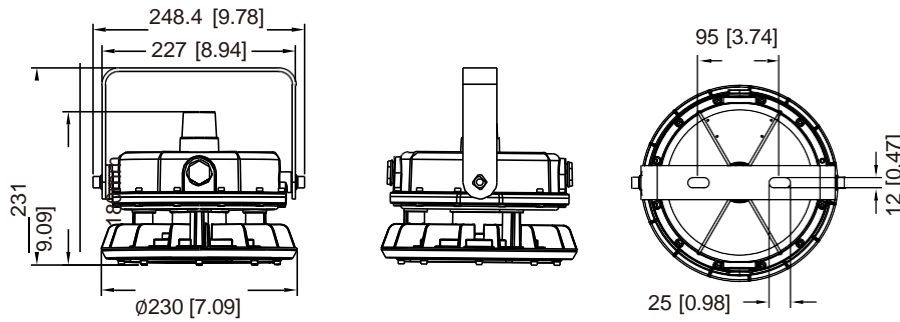| Specification	Ex-100WB3N**D**	Ex-120WB3N**D**	Ex-150WB3N**D**	Ex-200WB3N**D**
Housing Material	Copper-free aluminum			
Lens	Tempered glass & PC			
Hardware	Stainless steel			
Fixture Color	Gray RAL7040 (Standard)			
Protection	IP66/IK08 (glass cover)/IK10 (with wire guard)			
Mounting	Ceiling, Wall, Pole, Hook Pendant, Stanchion, Wall			
Cable Entries*	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standatd); M25 (optional)			

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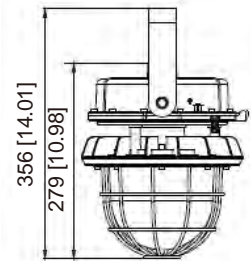**EGE TECHNOLOGY SDN BHD**(201201031202)
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Technical Parameter (for Zone 2/21/22)

● Electrical

Specification	Ex-250WB4N**D**	Ex-300WB4N**D**	Ex-350WB4N**D**	Ex-400WB4N**D**
Rated Power	250W	300W	350W	400W
Input Voltage	100-277VAC			
InputFrequency	50/60Hz			
Power Factor	> 0.95			
Emergency	Optional			

● Optical

Specification	Ex-250WB4N**D**	Ex-300WB4N**D**	Ex-350WB4N**D**	Ex-400WB4N**D**
Lumen Output	35,000lm	42,000lm	49,000lm	56,000lm
Lumens Per Watt	140lm/W	140lm/W	140lm/W	140lm/W
CCT	3000K-6500K			
CRI	> 70			
Beam Angle	40°/60°/90°/120°			
Dimming	0-10V dimming			

● Environmental

Specification	Ex-250WB4N**D**	Ex-300WB4N**D**	Ex-350WB4N**D**	Ex-400WB4N**D**
Ambient Operating Temperature	T3: -40°C to +55°C (-40°F to +131°F)			

● Mechanical

Specification	Ex-250WB4N**D**	Ex-300WB4N**D**	Ex-350WB4N**D**	Ex-400WB4N**D**
Housing Material	Copper-free aluminum			
Lens	Tempered glass & PC			
Hardware	Stainless steel			
Fixture Color	Gray RAL7040 (Standard)			
Protection	IP66/IK08 (glass cover)/IK10 (with wire guard)			
Mounting	Ceiling, Wall, Pole, Hook Pendant, Stanchion, Wall			
Cable Entries*	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standatd); M25 (optional)			

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Product Dimensions   Unit: mm [inch]

B2

Without drop lens:

248.4 [9.78]
227 [8.94]
231 [9.09]
Ø230 [7.09]

95 [3.74]
12 [0.47]
25 [0.98]

With drop lens:

356 [14.01]
279 [10.98]

B

Without drop lens:

157 [6.18]
Ø270 [10.63]
266 [10.47]
129 [5.08]
Ø270 [10.63]
30 [1.18]
11 [0.43]
70 [2.76]
160 [6.30]

With drop lens:

394 [15.51]
285 [11.22]

B3

Without drop lens:

197 [7.76]
Ø370 [14.57]
Ø370 [14.57]
Ø370 [14.57]

With drop lens:

478 [18.82]
374 [14.72]

B4

390 [15.35]
Ø480 [18.90]

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VENAS
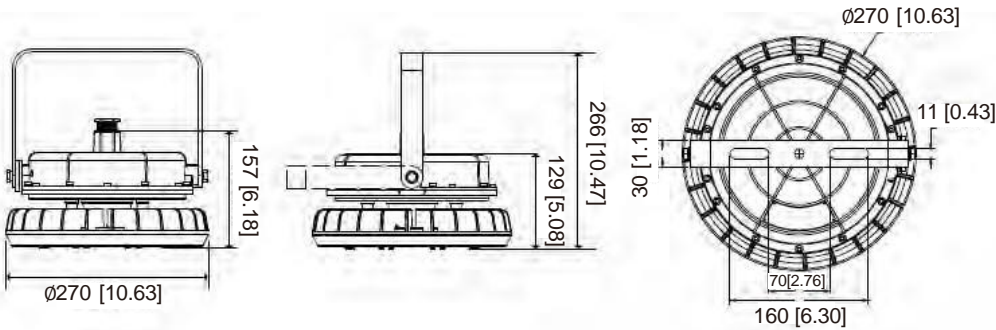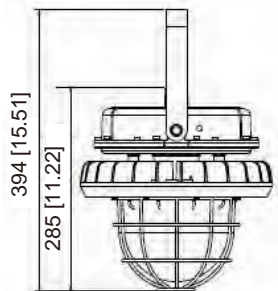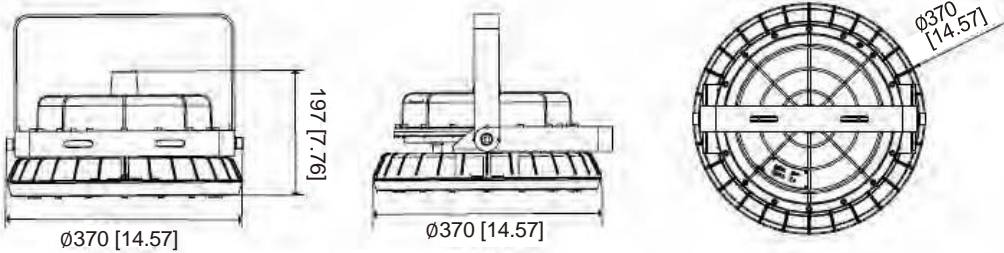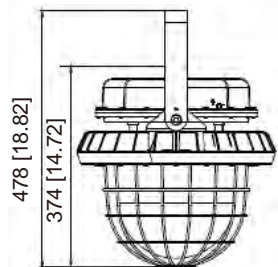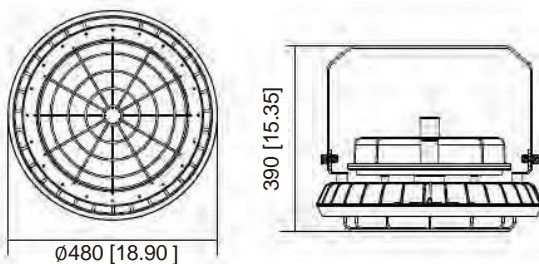
● Packing Information

Model	Net Weight*	Gross Weight*	Quantity/Carton	Package Dimensions (LxWxH)
B2	3.5 kg/7.72 lb	5.0 kg/11.02 lb	1 pc	360x354x260mm/14.17x13.94x10.24inch
B	4.4 kg/9.70 lb	5.65 kg/12.46 lb	1 pc	400x350x250mm/15.75x13.78x9.84inch
B3	8.2 kg/18.08 lb	10.6 kg/23.37 lb	1 pc	500x480x290mm/19.69x18.90x11.42inch
B4	17.0 kg/37.48 lb	20.5 kg/45.19 lb	1 pc	590x590x310mm/23.23x23.23x12.20inch

Please note that net weight and gross weight may be subject to change because of actual configuration.

Ordering Guide (for Class I Division 2)

EX - yyyW X Y Z D A -1

1   2   3 4 5 6 7 8

1. Product Categories	2. Wattage	3. Shell Shape Series	4. Dimming or Not
Explosion Proof Light	B2: 20/40W B: 60/80W B3: 100/120/150/200W B4: 250/300/350/400W	"X" Can be: B, B2, B3, B4	"Y" Can be: D: Dimmable N: Non-dimmable

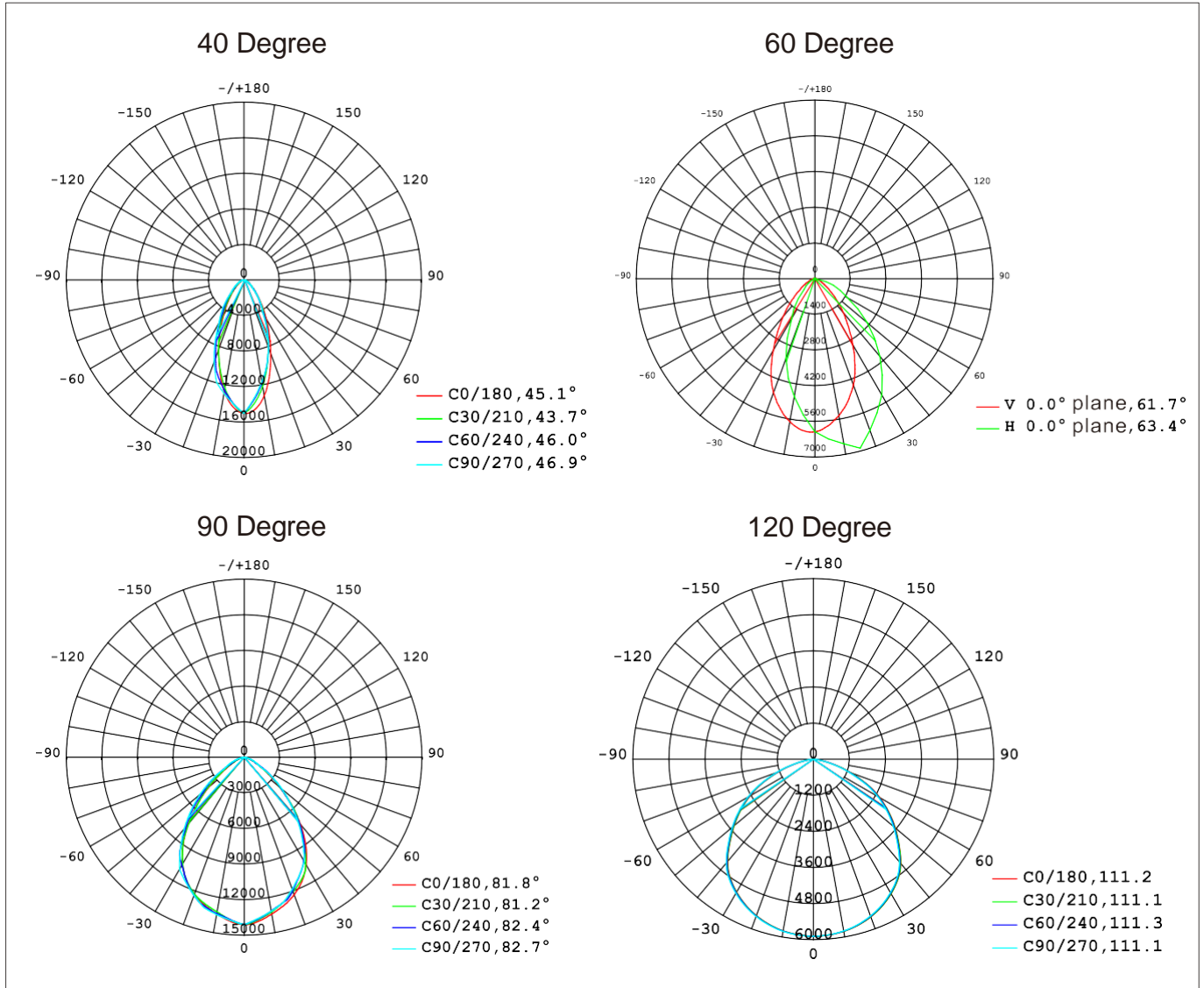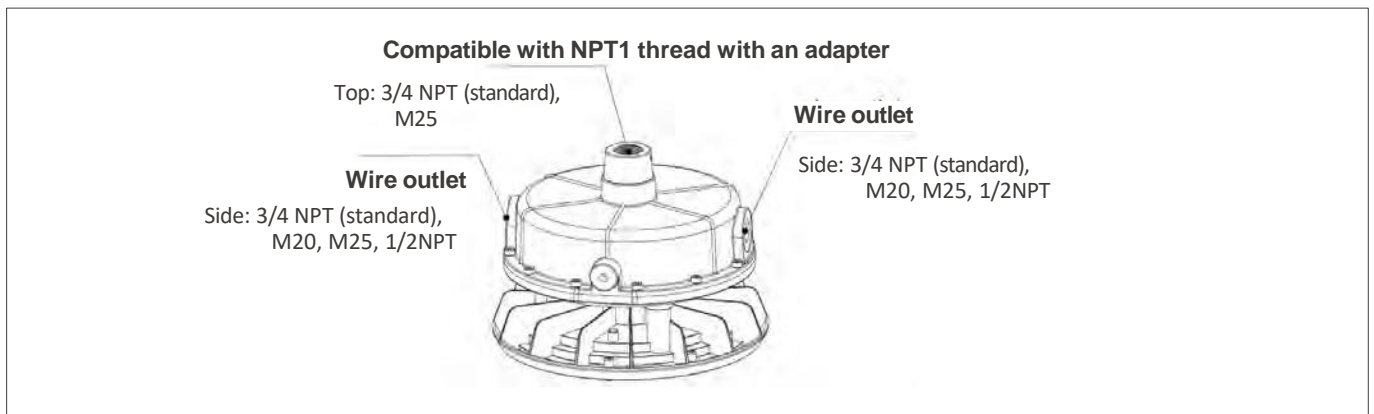| 5. Color Temp.	6. Beam Angle	7. Long Glass Cover Optioanl	8. Optional
"Z" can be 27 to 70 denotes 2700K to 7000K	D40=40°, D60=60° D90=90°, D120=120°	"A" = C: long glass cover blank: non long glass cover	"-1" NA (optional)

Ordering Guide (for Zone 2/21/22)

Ex - **W**N**D**

1   2   3   4

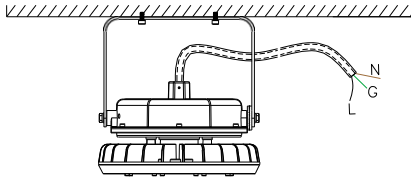| 1. Wattage (W)	2. Product Code	3. Color Temperature	4. Beam Angle (Degree)
B2: 20/40 B: 60/80 B3: 100/120/150/200 B4: 250/300/350/400	Can be: B, B2, B3, B4	Can be 30 to 65, means 3000K to 6500K	Can be: 40, 60, 90, 120

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Photometric

40 Degree

-/+180

Curve	Angle
— C0/180	45.1°
— C30/210	43.7°
— C60/240	46.0°
— C90/270	46.9°

60 Degree

-/+180

Curve	Angle
— V 0.0° plane	61.7°
— H 0.0° plane	63.4°

90 Degree

-/+180

Curve	Angle
— C0/180	81.8°
— C30/210	81.2°
— C60/240	82.4°
— C90/270	82.7°

120 Degree

-/+180

Curve	Angle
— C0/180	111.2
— C30/210	111.1
— C60/240	111.3
— C90/270	111.1

Cable Entries

Compatible with NPT1 thread with an adapter

Top: 3/4 NPT (standard), M25

Wire outlet

Side: 3/4 NPT (standard), M20, M25, 1/2NPT

Wire outlet

Side: 3/4 NPT (standard), M20, M25, 1/2NPT

Mounting Methods

- Option 1: Ceiling Mounting

N
G
L

- Accessory

Bracket

- Option 2: Wall Mounting

L
N G

- Accessory

Bracket
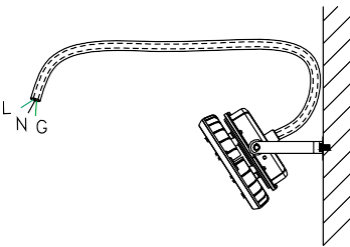
- Option 3: Pole Pendant Mounting

Vertical

Junction box

Non-vertical

Chain of balance
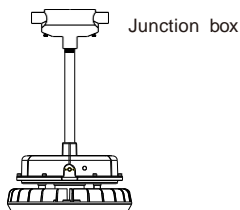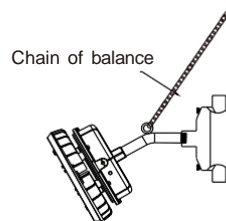
Adjustable Pole Installation

pole length adjustable

Make sure the length fit between pole and driver box more than 22mm for safety
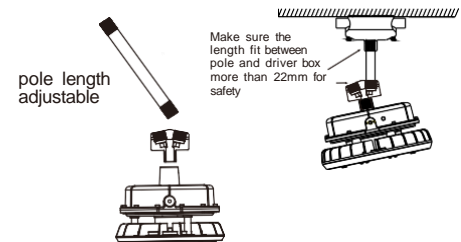
Junction Box
EX-HD51-KB1

Junction Box
EX-HD51-KB1

Junction Box
EX-HD51-KB1

Pole
Ex-Straight Pipe

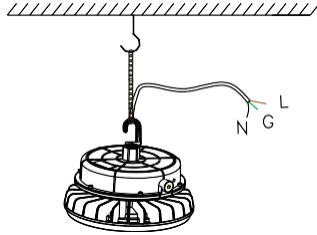**Pole**
Ex-Bended Pipe

Pole
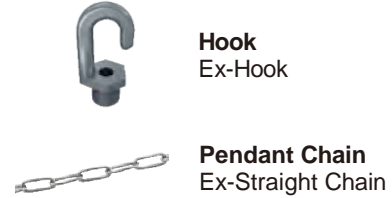Ex-Straight Pipe

Pendant Chain
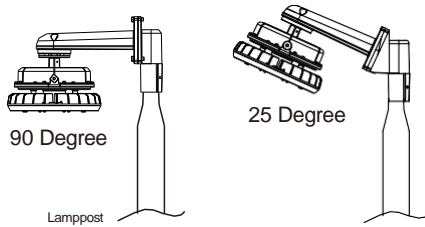Ex-Straight Chain

Pendant Direction Adapter
Ex-D01

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VENAS

Mounting Methods

- **Option 4: Hook Pendant Mounting**

N   G   L

- **Accessories**

Hook
Ex-Hook

Pendant Chain
Ex-Straight Chain

- **Option 5: Stanchion Mounting**

90 Degree   25 Degree

Lamppost

- **Accessories**

EX-90PSupport

EX-25PSupport
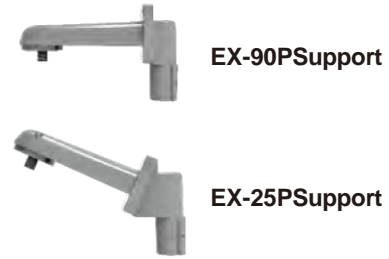
- **Option 6: Wall Mounting to Junction Box**

90 Degree   25 Degree

- **Accessories**

Stanchion Arm
EX-HD51-KYD 90

Stanchion Arm
EX-HD51-KYD 25
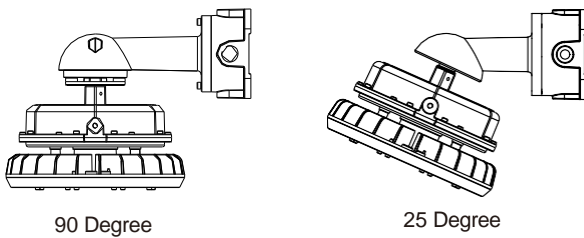
- **Option 7: Trunnion Mounting (Only for B and B2)**

EX-Slip
Fitter Mounting Kit