Explosion Proof Light

B Series

Industrial Field & Hazardous Locations

VENAS

Applications

Oil and Gas industry
• All petroleum production and refining
• Petroleum loading and transportation
• Petroleum storage and retail
• LNG industry

• All mining operations and service
Chemical industry
• All types of paint facilities
• Chemical production and storage

Ocean, marine and aerospace field
• Ocean platform operation
   facilities and structure
• Aerospace clean room and production
• Ocean vessel operations

Metal treatment
• Steel and aluminum factories
• Pumping stations in any environment
• Metal smelting, foundry and fabrication

Food and alcohol industry
• Flour and fine particle production
   and storage
• Food and distilling production
• Alcohol industry

Other high humidity, high dust,
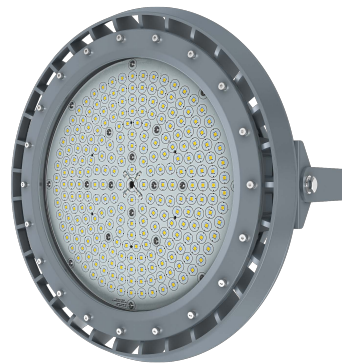high temperature, vapor locations

B2

B

B3

B4

Explosion Protection

Marking Atex
II2 G Ex mb eb IIC T4 Gb
II2 D Ex tb IIIC T135C Db IP66
II3 G Ex ec IIC T3C Gc
II2 D Ex tb IIIC T135C Db IP66

Marking IECEX
Ex mb eb IIC T4 Gb
Ex tb IIIC T135C Db IP66
Ex ec IIC T3C Gc
Ex tb IIIC T135C Db Ip66

Marking UL844 (North American)
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

Marine Marking
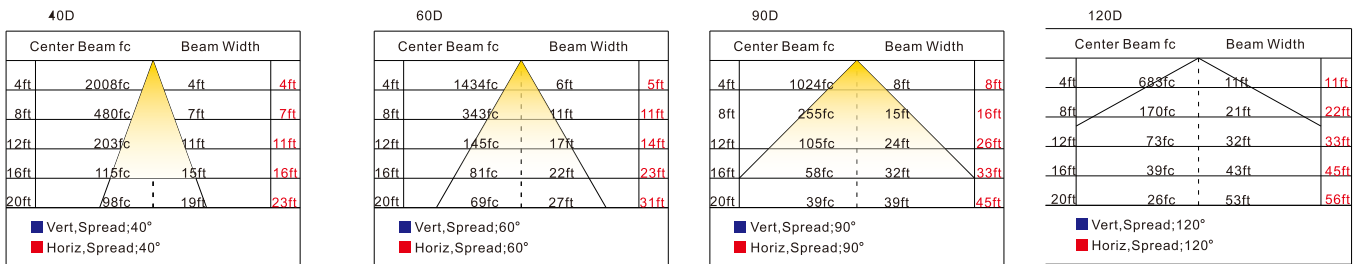UL1598, UL1598A
ABS

Other Rating
 IP 66

Materials

• Housing: Aluminum

• Lens: Tempered glass

• Hardware: stainless steel

• Mounting Bracket: stainless steel

Features

• Working Temperature: -40°C ~ +55°C.

• High quality SMT LED and Meanwell Driver.

• Light-weight design by aircraft aluminum.

• Heavy-duty and high impact resistance.

• Three connection cable entry points.

• Replaceable LED board and drivers.

• Integrated junction box for driver with emergency back up.

• Dimmable and battery back up function available.

• Marine rating powder coated appearance treatment.

• Up to 5 years limited warranty option.

• Emergency Battery back up to three hours.

• Various installation ways for different applications.

• Glass lens or Glass with polycarbonate lens to make bigger beam angle.

Light Distribution

40D

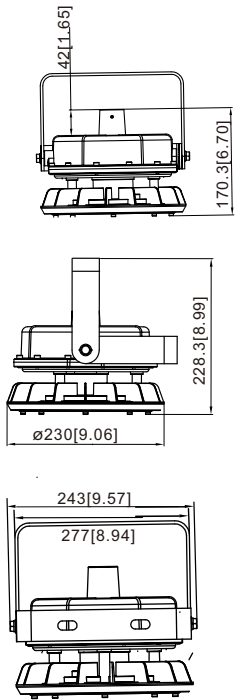| Center Beam fc		Beam Width	
4ft	2008fc	4ft	4ft
8ft	480fc	7ft	7ft
12ft	203fc	11ft	11ft
16ft	115fc	15ft	16ft
20ft	98fc	19ft	23ft

■ Vert,Spread;40°
■ Horiz,Spread;40°

60D

Center Beam fc		Beam Width	
4ft	1434fc	6ft	5ft
8ft	343fc	11ft	11ft
12ft	145fc	17ft	14ft
16ft	81fc	22ft	23ft
20ft	69fc	27ft	31ft

■ Vert,Spread;60°
■ Horiz,Spread;60°

90D

Center Beam fc		Beam Width	
4ft	1024fc	8ft	8ft
8ft	255fc	15ft	16ft
12ft	105fc	24ft	26ft
16ft	58fc	32ft	33ft
20ft	39fc	39ft	45ft

■ Vert,Spread;90°
■ Horiz,Spread;90°

120D

Center Beam fc		Beam Width	
4ft	683fc	11ft	11ft
8ft	170fc	21ft	22ft
12ft	73fc	32ft	33ft
16ft	39fc	43ft	45ft
20ft	26fc	53ft	56ft

■ Vert,Spread;120°
■ Horiz,Spread;120°

Specification

Product Number	Wattage	Color Temperature	Voltage	Lumens	Warranty	CRI
EX-20W B2YZDA	20	2200K-7000K	AC100-277V(by driver or by IC) Or DC12-48V	2800	5 years	80
EX-40W B2YZDA	40			5600		
EX-60W BYZDA	60		AC100-277V(by driver or by IC) Or DC12-48V Or AC200-480V(<65W)	8400		
EX-80W BYZDA	80			11200		
EX-100W B3YZDA	100			14000		
EX-120W B3YZDA	120			16800		
EX-150W B3YZDA	150			21000		
EX-200W B3YZDA	200		AC100-277V(by driver or by IC) Or DC12-48V Or AC200-480V	28000		
EX-250W B4YZDA	250			35000		
EX-300W B4YZDA	300			42000		
EX-350W B4YZDA	350			49000		
EX-400W B4YZDA	400			56000		

Packing Information

Model	Quantity/Carton	Length(cm)	Width(cm)	Height(cm)	Net weight(kg)	Gross weight(kg)
B	1	38.6	33	22	4.4	5.5
B2	1	36	35.4	26	3.5	5
B3	1	48	46	26.5	8.2	10.5
B4	1	53	53	44	18.8	21.5

Dimension

Model B2

42[1.65]
170.3[6.70]

228.3[8.99]
ø230[9.06]

243[9.57]
277[8.94]

Model B

265.8[10.46]
128.6[5.06]

268[10.55]
252[9.92]
30[1.18]
4[0.16]
157.4[6.2]
ø268[ø10.55]

Model B3

40[1.57]
370[14.57]

371.4[14.62]
346[13.62]
40[1.57]
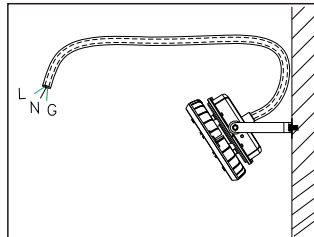197[7.76]

Model B4

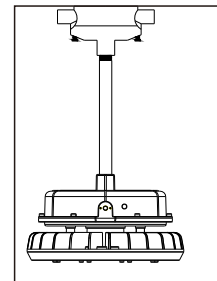241.5
393.59 [15.50]
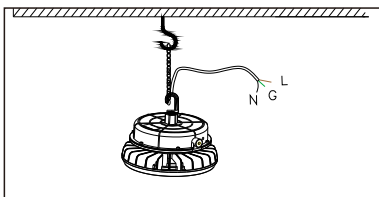210.5 [8.28]
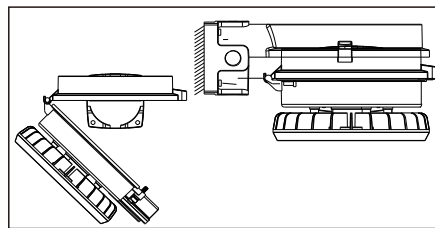[9.50]

ø480
[ø18.90]
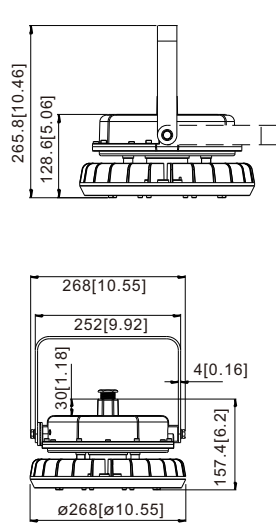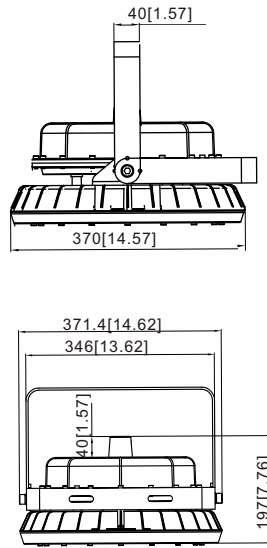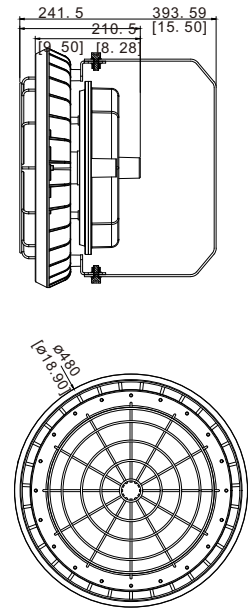
Mounting

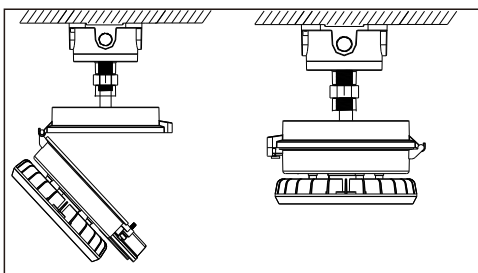No.1: Ceiling Mounting
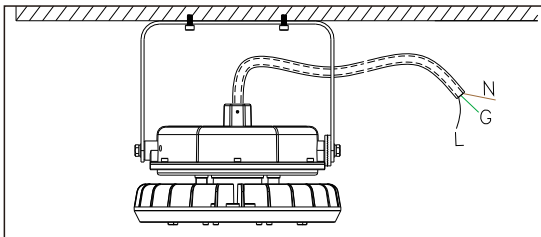
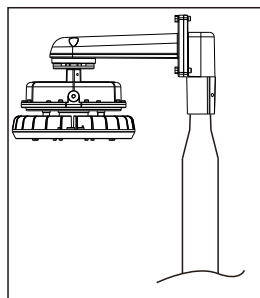No.2: Wall Mounting

No.3: Pole Pendant

No.4: Hook Pendant

No.6: Arm Mounting by Opening Driver Box

No.5: Ceiling Mounting by Opening Driver Box

No.7: Stanchion Mounting

No.8: Wall Mounting
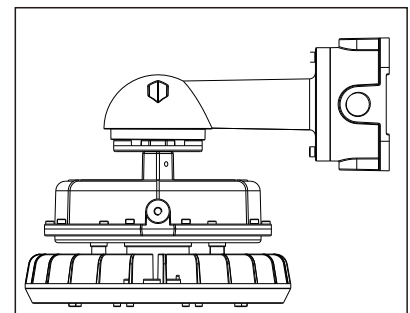
Accessories

Model: Ex-Junction01
Name: Junction Box
Material: Aircraft Aluminum A383

Model: EX-Hook
Name: Installation Hook
Material: Aircraft Aluminum A383

Model: Ex-Conduit01
Name: Metal Conduit
Material: Stainless Steel and Aluminum

Model: EX-WPipe
Name: Winding Swing Pipe
Material: Iron with Power Coating

Model: EX-SPipe
Name: Winding Swing Pipe
Material: Iron with Power Coating

Model: Ex-D01
Name: Pendant Direction Adapter
Material: Aircraft Aluminum A383

Model: EX-MArm
Name: Surface Mounting Arm
Material: Aircraft Aluminum A383

Model: EX-25PSupport
Name: 25 Degree Pole Support
Material: Aircraft Aluminum A383

Model: EX-90PSupport
Name: 90 Degree Pole Support
Material: Aircraft Aluminum A383

Model: Ex-90JSupport
Name: 90° Arm to Junction box
Material: Aircraft Aluminum A383

Model: Ex-25JSupport
Name: 25° Arm to Junction box
Material: Aircraft Aluminum A383

Model: Ex-DArm
Name: Direct Mounting Arm
Material: Aircraft Aluminum A383

Model: Ex-ShadeB/B2/B3
Name: Lamp Shade
Material: Aluminum A6061

Model: Ex-CshadeB/B2/B3
Name: Cut off lamp shade
Material: Aluminum A6061
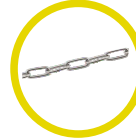
Model: Ex-Chain
Name: Pendant Chain
Material: Stainless Steel S30400

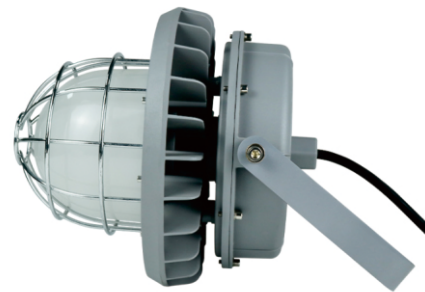# B Series

LED Explosion Proof Light

Without globe:

| B | B2 | B3 | B4 |

With globe:

**Note: The globe is optional for B, B2, B3 only.
Globe is not available for B4.**

Certifications:

◈ Marking ATEX

- ◈ II 3 G Ex ec IIC T6...T3 Gc
- ◈ II 2 D Ex tb IIIC T85°C...T100°C Db
- ◈ II 2 G Ex eb mb IIC T5...T6 Gb
- ◈ II 2 D Ex tb IIIC T80°C...T100°C Db

◈ Marking IECEx

- ◈ Ex ec IIC T6...T3 Gc
- ◈ Ex tb IIIC T85°C...T100°C Db
- ◈ Ex eb mb IIC T5...T6 Gb
- ◈ Ex tb IIIC T80°C...T100°C Db

◈ Marking UL844 (North American)

- ◈ Class I, Division 2, Groups A, B, C, D
- ◈ Class II, Division 1, Groups E, F, G
- ◈ Class II, Division 2, Groups F, G
- ◈ Class III

◈ Marine Marking   ◈ IP66

- ◈ NEMA 4X
- ◈ UL1598A
- ◈ ABS

Standard Materials:

◈ Housing: Copper-free aluminum

◈ Lens: Tempered glass

◈ Hardware: Stainless steel

◈ Mounting Bracket: Stainless steel

Web: www.venas.com   Email: rui@venas.com
Address: Flat/Room 1101D, 11/F, Lippo Sun Plaza, 28 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.

01

LED Explosion Proof Light - B Series

Key Features:

1. Dimmable and battery backup function is available.
2. High-quality SMT LED and Meanwell driver.
3. Heavy-duty and high impact resistance.
4. Replaceable LED board and drivers.
5. Integrated junction box for driver.
6. Marine rating powder coated finish treatment.
7. Various installation ways for different applications.
8. Glass lens or polycarbonate lens for making different beam angles.
9. 5-year warranty.
10. Low temperature applications to -40°C (-40°F) and high temperature up to 55°C (131°F).

Technical Data:

Model	Wattage	Working Temp.	Operating Voltage	Lumens(lm)	Driver	Efficacy	CRI	CCT	Emergency Time
EX-20W B2YZDA	20W	65°	AC100-277V DC12-48V	2,800	External emergency driver	140lm/W	>70	2200K-7000K	1.5 hours or 3 hours (optional)
EX-40W B2YZDA	40W	55°		5,600					
EX-60W BYZDA	60W	40°	AC100-277V DC12-48V AC200-480V	8,400	Internal emergency driver				
EX-80W BYZDA	80W	40°		11,200					
EX-100W B3YZDA	100W	40°		14,000					
EX-120W B3YZDA	120W	55°		16,800					
EX-150W B3YZDA	150W	50°		21,000					
EX-200W B3YZDA	200W	40°		28,000					
EX-250W B4YZDA	250W	40°		35,000					
EX-300W B4YZDA	300W	40°		42,000					
EX-350W B4YZDA	350W	40°		49,000					
EX-400W B4YZDA	400W	40°		56,000					

Ordering Guide:

EX - xxxW - Bx Y Z D A

1 — EX
2 — xxxW
3 — Bx
4 — Y
5 — Z
6 — D
7 — A

1. PRODUCT CATEGORY
   - Explosion proof light

2. WATTAGE
   - 20W-400W

3. PRODUCT SERIES
   - B • B2 • B3 • B4

4. DIMMING OPTION
   - D= dimmable
   - N= non-dimmable

5. CCT
   - From 2200K to 7000K
   - 22=2200K, 30=3000K, ..., 70=7000K

6. BEAM ANGLE
   - D40= 40°   • D90= 90°
   - D60= 60°   • D120= 120°

7. GLASS TYPE
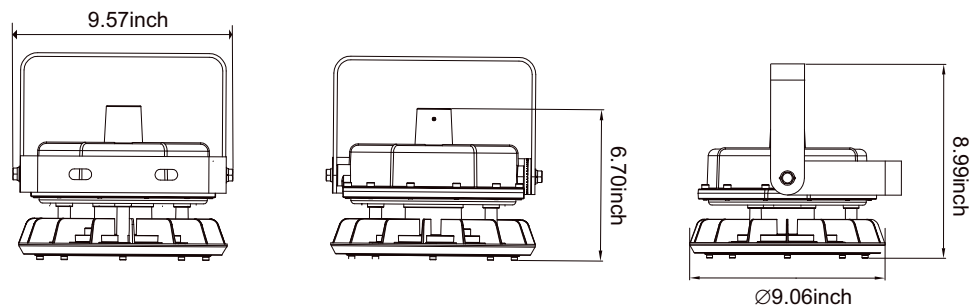   - A=blank: Flat glass
   - A=C: Spherical glass & wire guard
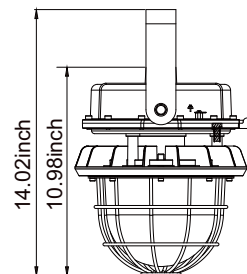
LED Explosion Proof Light - B Series
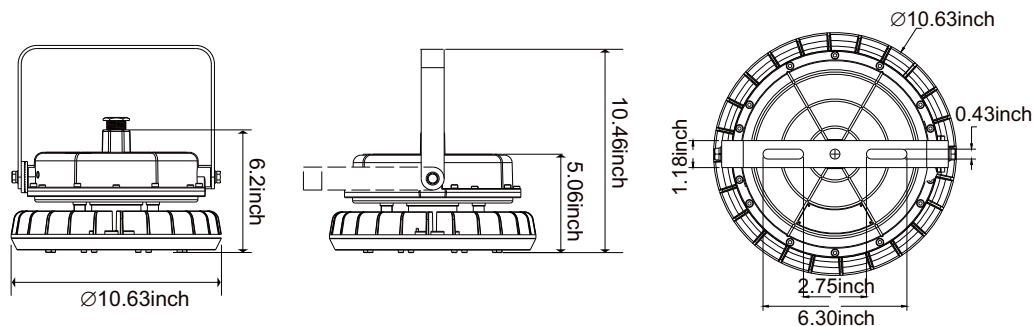
Dimensions:

B2 Series

Without globe:
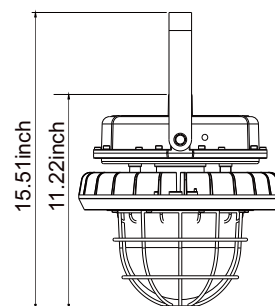
9.57inch

6.70inch

8.99inch

∅9.06inch

With globe:

14.02inch
10.98inch

B Series

Without globe:

6.2inch

∅10.63inch

10.46inch

5.06inch

∅10.63inch

1.18inch

0.43inch

2.75inch

6.30inch

With globe:

15.51inch
11.22inch

B3 Series

Without globe:

7.76inch

∅14.57inch

∅14.57inch

∅14.57inch

With globe:

18.82inch
14.73inch

B4 Series

∅18.9inch

14.62inch

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Address: Flat/Room 1101D, 11/F, Lippo Sun Plaza, 28 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.

03
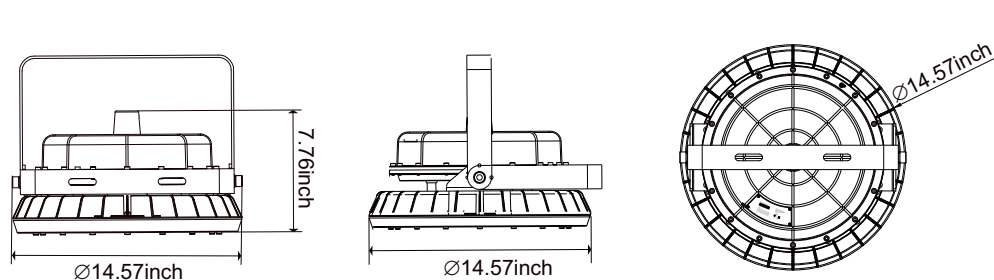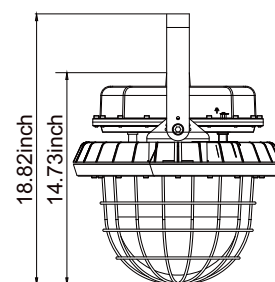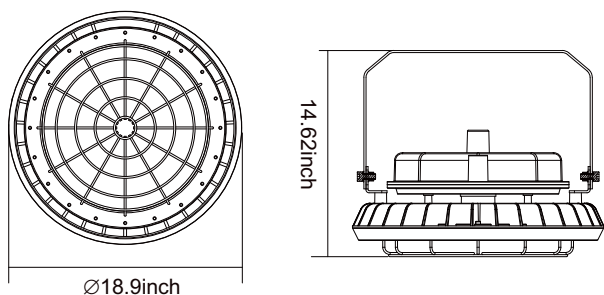
Photometry:
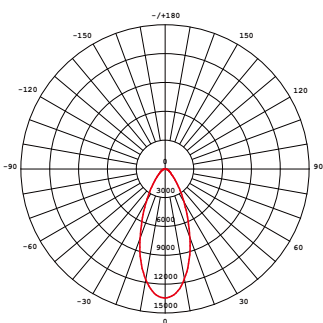
Beam angle: 40°
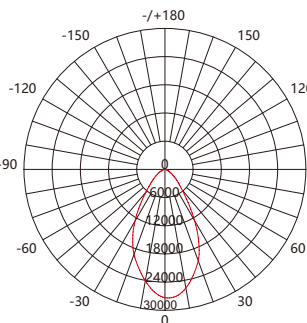
Beam angle: 60°
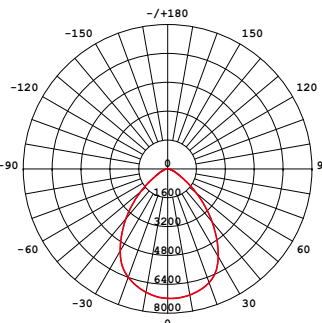
Beam angle: 90°
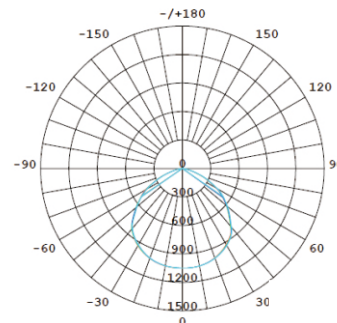
Beam angle: 120°

Packing Information:

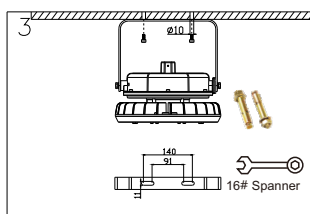| Model	Quantity/Carton	Packing Size	Net Weight	Gross Weight
B2	1 PC	14.17x13.94x10.24inch	3.5 kgs/ 7.72 lbs	5 kgs/ 11.02 lbs
B	1 PC	15.19x12.99x8.66inch	4.4 kgs/ 9.70 lbs	5.5 kgs/ 12.13 lbs
B3	1 PC	18.90x18.11x10.43inch	8.2 kgs/ 18.08 lbs	10.5 kgs/ 23.15 lbs
B4	1 PC	20.87x20.87x11.81inch	18.8 kgs/ 41.45 lbs	21.5 kgs/ 47.40 lbs

Mounting Methods:

Ceiling Mounting

⚠WARNING
Risk of fire, Electric shock or personal injury
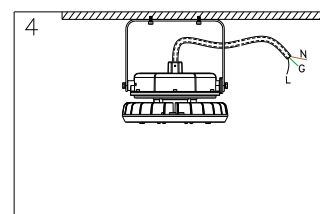Before installation, turn off power!

1

2-Fixing screw

13# Spanner

1. Take the fixture and accessory out from carton box, tighten 2x angle holder screw as Fig.1.

2

Flexible metal conduit

3/4 NPT

3/4 NTP(At least 6x Teeth need to tighten)

2. Install and tighten flexible metal conduit with the fixture.

3

Ø10

140

91

16# Spanner

3. Drill 2x hole as shown in Fig.2, the distance can be 91~140mm, fixing Ø10 expanded crews and bracket on ceiling.

4

N
G
L

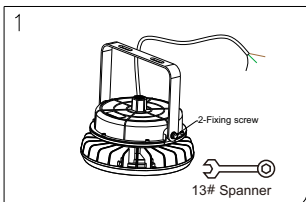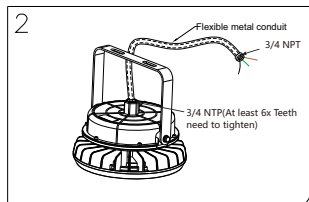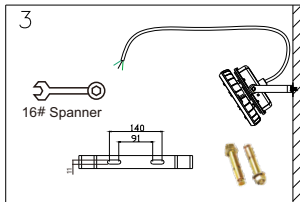4. Connect black cable to L, Connect White cable to N, Connect green cable to grounding.

5

Ceiling mounting

Mounting Direction Adjustable Screw
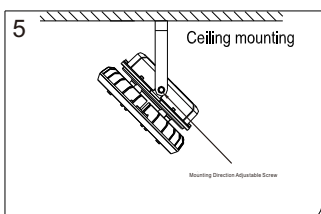
5. Adjust the beam angle from 0-180°.

Web: www.venas.com   Email: rui@venas.com
Address: Flat/Room 1101D, 11/F, Lippo Sun Plaza, 28 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.

04

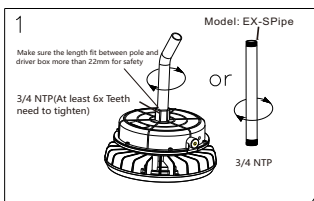# LED Explosion Proof Light - B Series

Wall Mounting

1

2-Fixing screw

13# Spanner

1. Take the fixture and accessory out from carton box, tighten 2x angle holder screw as Fig.1.

2

Flexible metal conduit
3/4 NPT

3/4 NTP(At least 6x Teeth need to tighten)

2. Install and tighten flexible metal conduit with the fixture.

3

16# Spanner

140
91
11

3. Drill 2x hole as Shown in Fig.2, the distance can be 91~140mm, fixing ∅10 expansion screws and bracket on ceiling.

4

L
N
G
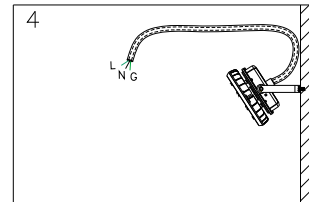
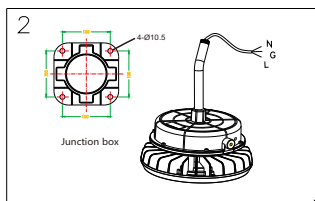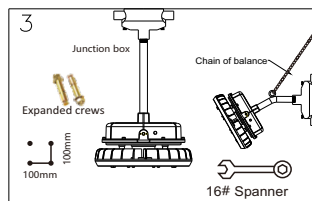4. Connect black cable to L, Connect White cable to N, Connect green cable to grounding.
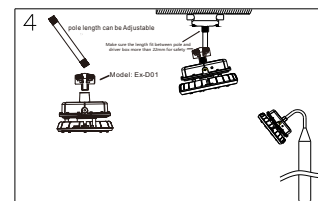
Pole Pendant

1

Model: EX-SPipe

Make sure the length fit between pole and driver box more than 22mm for safety

3/4 NTP(At least 6x Teeth need to tighten)

or

3/4 NTP

1. Take the fixture and pole accessory out from carton box, tighten pole as shown in Fig.1.

2

4-Ø10.5

N
L

Junction box

2. Connect black cable to L, Connect White cable to N, Connect green cable to grounding.

3

Junction box

Chain of balance

Expanded crews

100mm

100mm

16# Spanner

3. Drill 4x Ø10mm holes, as 100mm distance, install the junction box to the wall or ceiling as shown in Fig.3, tighten the pole to the box, and adjust the chain of balance.

4

pole length can be Adjustable

Make sure the length fit between pole and driver box more than 22mm for safety
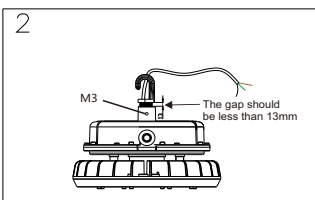
Model: Ex-D01

4. Adjustable pole installation. With this adjustable kit, you can Make any light distribution direct as you want.
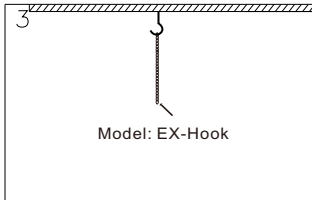Optional: Install the fixture to the long pole after cable connecting cable.
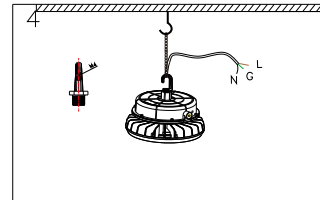
Hook Pendant
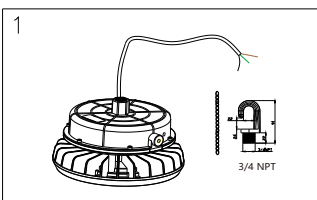
1

3/4 NPT

1. Take the fixture and accessory out from carton box, tighten 2x angle holder screw as Fig.1.

2

M3

The gap should be less than 13mm

2. Tighten the hook with the fixture, at least 6x teeth need to be tighten, fix the M3 screw to prevent the hook loosening .

3

Model: EX-Hook

3. Drill 1 expansion screw hole and install it, and hang the chain as shown in Fig.3.
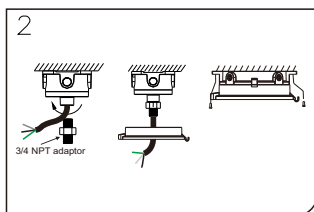
4

L
N
G

4. Connect black cable to L, Connect White cable to N, Connect green cable to grounding.

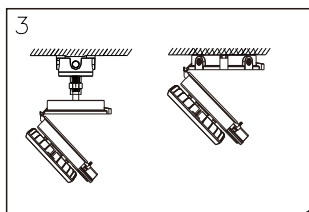## Ceiling Mounting by Oppening Driver Box

● **This installation method is only for Model B. It can not be applied on Model B2, B3, and B4 because they are too heavy.**
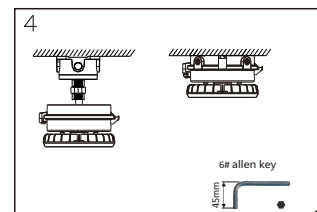● **Only one electrician is required for this installation.**

1

5# allen key

16# Spanner

45mm
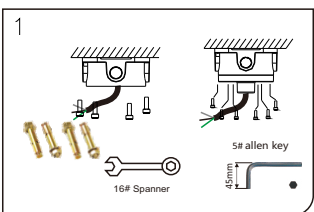
1 . Install the junction box to ceiling the via 4x expansion bolts, tighten the junction box cover screws by 5# allen key.

2

3/4 NPT adaptor

2. Install the 3/4" NPT adapter through the cable to the hole of adaptor tighten the driver enclosure cover to adaptor via M4 screw to prevent loosening.
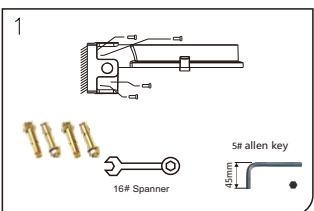
3

3. Connect black cable to L, Connect White cable to N, Connect green cable to grounding.
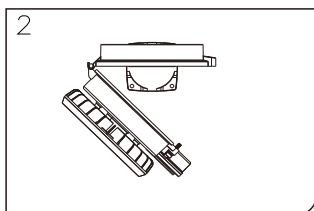
4

6# allen key

45mm

4. Tighten 3x M8 screws for driver enclosure as shown above.
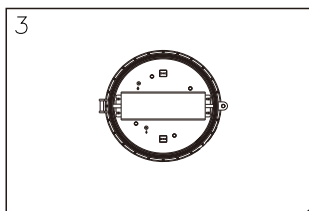
Arm Mounting by Oppening Driver Box

● **This installation method is only for Model B. It can not be applied on Model B2, B3, and B4 because they are too heavy.**
● **Only one electrician is required for this installation.**

1
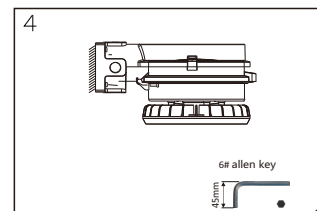
5# allen key

16# Spanner

45mm

1. Install the 3/4" NPT adapter through the cable to the hole of adaptor, tighten the driver enclosure cover to adaptor via M4 screw to prevent loosening.

2

2. Hang the luminaire to the back cover.

3

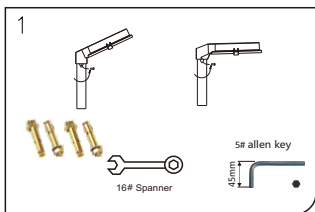3. Connect black cable to L, Connect White cable to N, Connect green cable to grounding.

4

6# allen key

45mm

4. Tighten 3x M8 screws for driver enclosure as shown above.

Web: www.venas.com   Email:rui@venas.com
Address: Flat/Room 1101D, 11/F, Lippo Sun Plaza, 28 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.

05

LED Explosion Proof Light - B Series

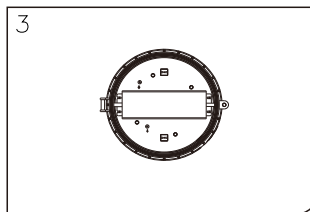# Arm Mounting by Opening Driver Box

● **This installation method is only for Model B. It can not be applied on Model B2, B3, and B4 because they are too heavy.**

● **Only one electrician is required for this installation.**
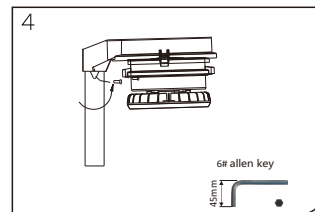
1

16# Spanner   5# allen key   45mm

1. Install the 3/4" NPT adapter through the cable to the hole of adaptor tighten the driver enclosure cover to adaptor via M4 screw to prevent loosening.

2
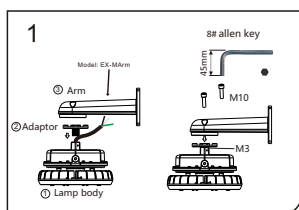
2. Hang the luminaire to the back cover.

3

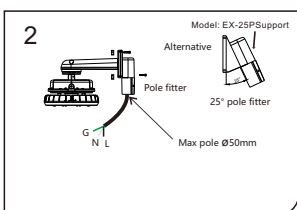3. Connect black cable to L, Connect White cable to N, Connect green cable to grounding.

4

6# allen key   45mm
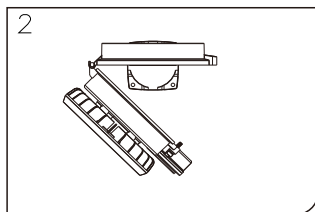
4. Tighten 3x M8 screws for driver enclosure as shown above.

Stanchion Mounting

1

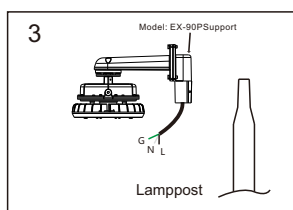8# allen key   45mm   M10   Model: EX-MArm   ③ Arm   ② Adaptor   M3   ① Lamp body

1. Tighten part 2 and assembly 1, and fix the M3 screw,install, arm to the adaptor, tighten the M10 via 8# allen key.

2

Model: EX-25PSupport   Alternative   Pole fitter   25° pole fitter   Max pole Ø50mm   G N L

2. Install the pole fitter with arm via 4x M8 screws, the max suitable pole diameter 50mm, the alternative 25 degress pole fitter.

3

Model: EX-90PSupport   G N L   Lamppost

3. Contact the cable to AC wire, black one contact to live wire, white one contact to null wire, green one contact to grounding.

4

6# allen key   45mm   M8   Lamppost

4. Slip the fitter to the lamppost and tighten M8 inner hexagonal screw.

Wall Mounting to Junction Box

1

8# allen key   45mm   Model: EX-90JSupport   ③ Arm   ② Adaptor   M10   M3   ① Lamp body
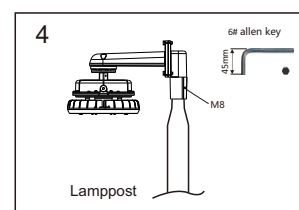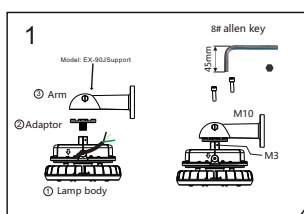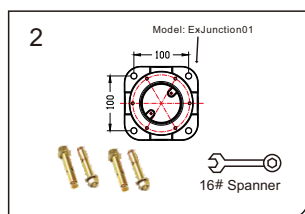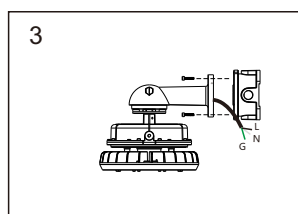
1. Tighten part 2 and assembly 1, and fix the M3 screw,install arm to the adaptor, tighten the M10 via 8# allen key.

2

Model: ExJunction01   100   100   16# Spanner

2. Drill 4x Ø10mm holes Install the junction box to the wall via M10 expanded screw.

3

N   G

3. Contact the AC wire to power system, black one to Live wire, white one to Null wire, green one to grounding.

4

Alternative: 25° Arm   Model: EX-25JSupport   5# allen key   45mm
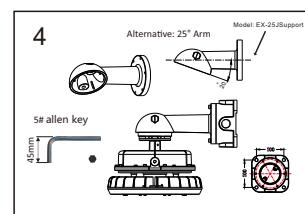
4. Tighten 6 x screws between arm and junction box, turn on the power to test the luminaires is work.

Accessories:

Pole Ex-Straight Pipe	Hook Ex-Hook	Pendant Chain Ex-Straight Chain
Pole Ex-Bended Pipe	Flexible Tube EX-NG	Bracket
Junction Box EX-HD51-KB1	Pendant Direction Adapter	Stanchion Arm Ex-MArm
Stanchion Arm EX-HD51-KYD 90°	Pole Support Ex-25P Support	Cut-off Lamp Shade
Stanchion Arm EX-HD51-KYD 25°	Pole Support Ex-90P Support	Lamp Shade