

# LED Luminaires for Hazardous Locations

## EXA05 Series Installation And Operation Instructions



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This product comply with below standard:  
IEC60079-0:2017, 7th Edition  
IEC60079-15:2017, 5th Edition  
IEC60079-31:2022, 3th Edition  
EN IEC 60079-0:2018  
EN IEC 60079-15:2019  
EN 60079-31:2014

IECEX Certificate: IECEx CSAE 22.0036X  
ATEX Certificate (Gas): CSANe 22ATEX1059X  
ATEX Certificate (Dust): CSANe 22ATEX1079X  
IECEX: Ex nR IIC T6/T5 Gc  
Ex tb IIIC T80°C/T95°C Db IP66  
ATEX: II 3G Ex nR IIC T6/T5 Gc  
II 2D Ex tb IIIC T80°C/T95°C Db IP66

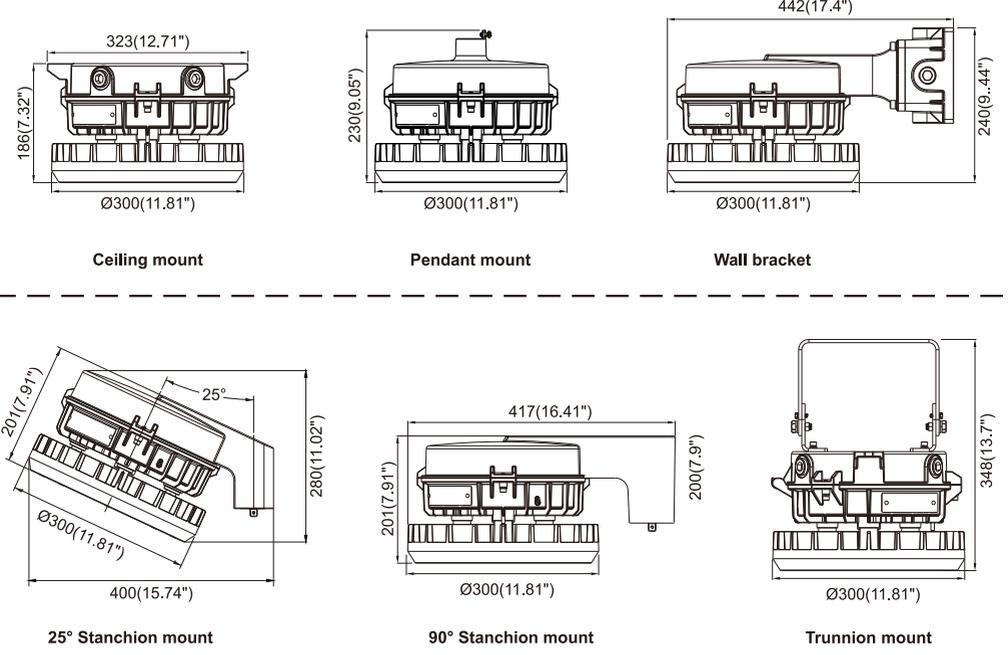
Applicable places are: Gas: Zone 2; Dust: Zone 21, 22.

Typical application sites are:  
Typical application sites are: Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, indoor/outdoor spotlighting, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present.

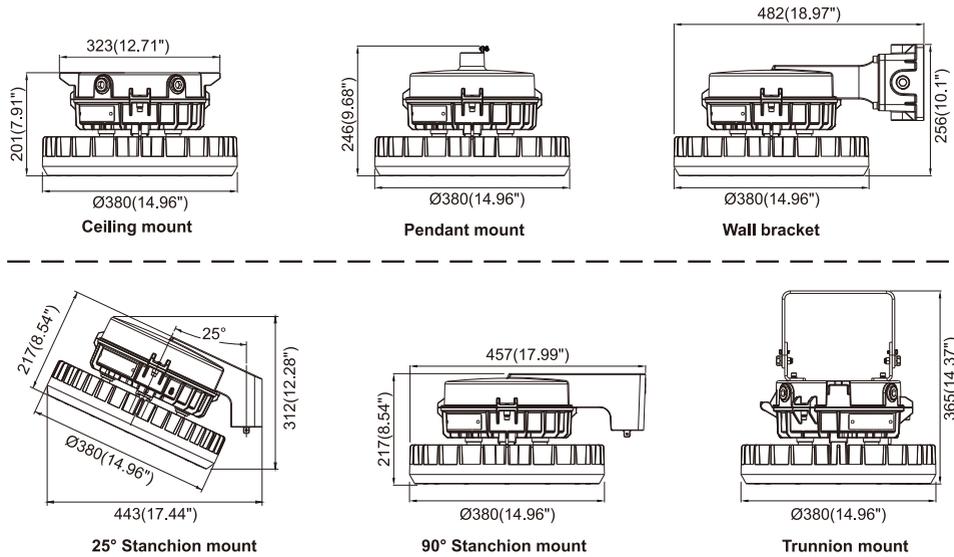


### Physical Dimensions(Unit: mm/inch)

Power: 30/50/75/100W



**Power: 120/150/180/200/240W**

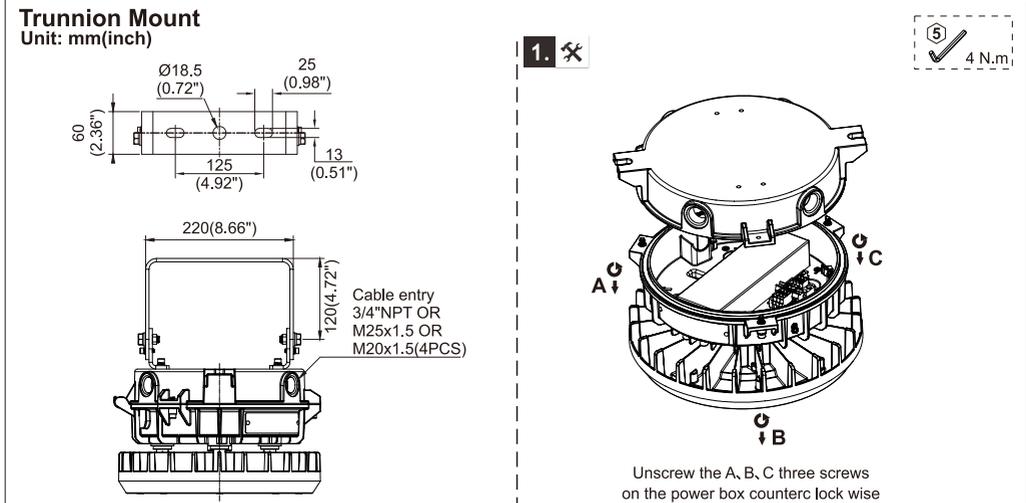
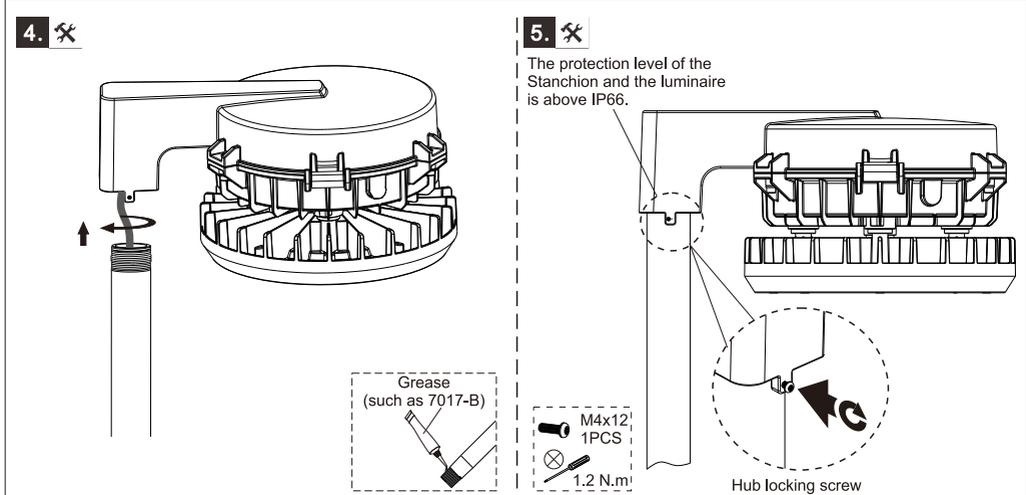
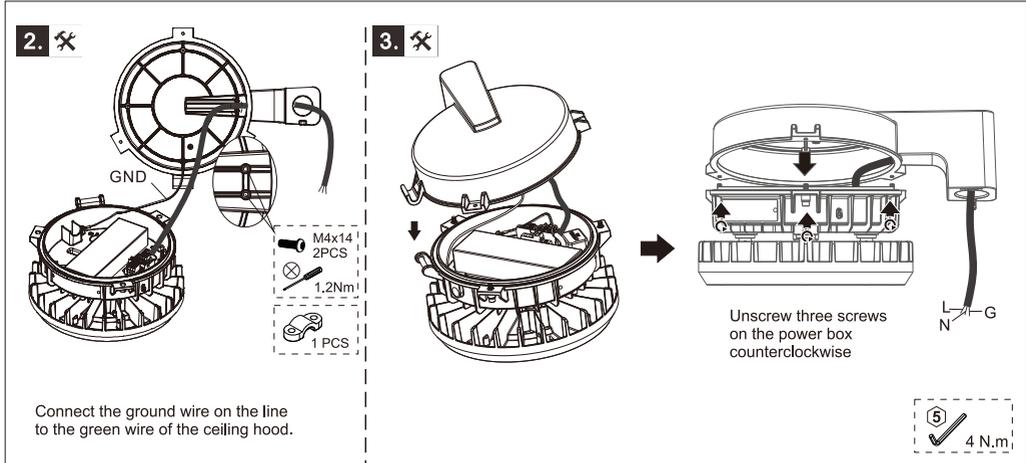


**Product Specifications**

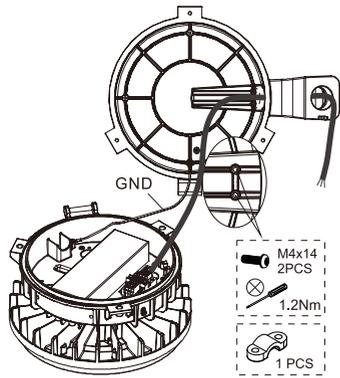
Power	30W	50W	75W	100W	120W	150W	180W	200W	240W
Input Voltage	100-277Vac, 50/60Hz								
Outlook Dimensions	Ceiling Mount: 323x300x186mm (12.71"x11.81"x7.32") Pendant Mount: Ø300x230mm (Dia.11.81"x9.05") Wall Bracket: 442x300x240mm (17.4"x11.81"x9.44") 25°Stanchion Mount: 400x300x280mm (15.74"x11.81"x11.02") 90°Stanchion Mount: 417x300x201mm (16.41"x11.81"x7.91") Trunnion Mount: Ø300x348mm (Dia.11.81"x13.7")				Ceiling Mount: Ø380x201mm (Dia.14.96"x7.91") Pendant Mount: Ø380x246mm (Dia.14.96"x9.68") Wall Bracket: 482x380x256mm (18.97"x14.96"x10.08") 25°Stanchion Mount: 443x380x312mm (17.44"x14.96"x12.28") 90°Stanchion Mount: 457x380x217mm (17.99"x14.96"x8.54") Trunnion Mount: Ø380x365mm (Dia.14.96"x14.37")				
Luminaire Net Weight (±0.3kg/±0.66Lbs)	Ceiling Mount: 6.5kg (14.33Lbs) Pendant Mount: 6.1kg (13.45Lbs) Wall Bracket: 8.5kg (18.74Lbs) 25°Stanchion Mount: 7.6±kg (16.76Lbs) 90°Stanchion Mount: 7.8kg (17.20Lbs) Trunnion Mount: 8.1kg (17.86Lbs)				Ceiling Mount: 9.7kg (21.38Lbs) Pendant Mount: 9.4kg (20.72Lbs) Wall Bracket: 11.7kg (25.79Lbs) 25°Stanchion Mount: 10.8kg (23.80Lbs) 90°Stanchion Mount: 11.1kg (24.47Lbs) Trunnion Mount: 11.3kg (24.91Lbs)				
Working Temperature	See Table 1 for details(Page 4)								
Storing Temperature	-40°C to +70°C(-40°F to +158°F)								

**Luminaire Shipping Packing List**

Name	QTY
EXA05 series luminaire	1PC
EXA05 series installation and operation instructions	1PC
EU declaration-of-conformity	1PC

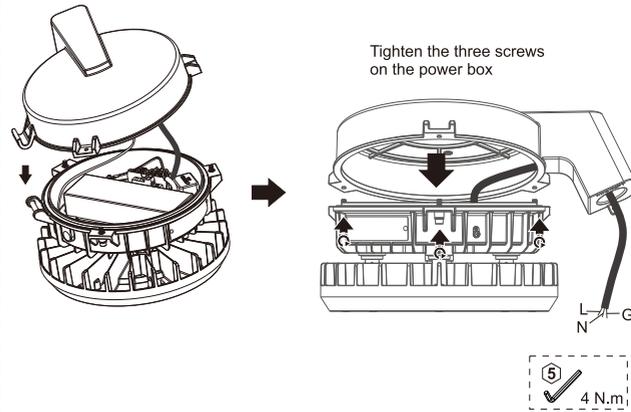


2. ✖

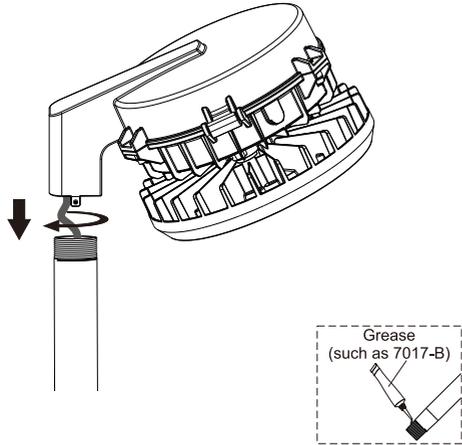


Connect the ground wire on the line to the green wire of the ceiling hood.

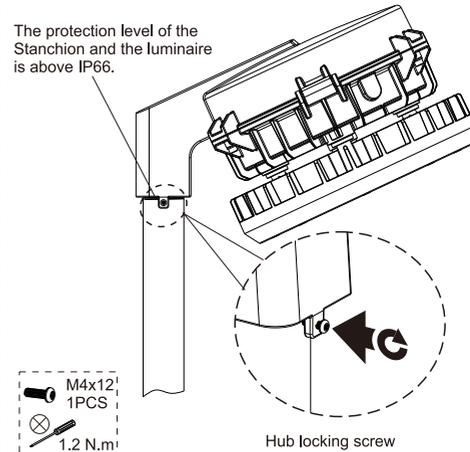
3. ✖



4. ✖

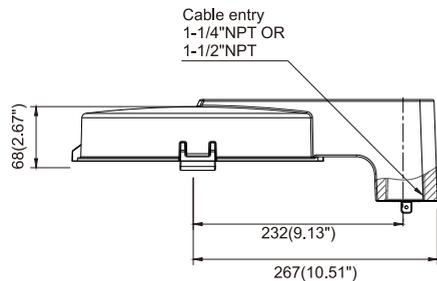


5. ✖

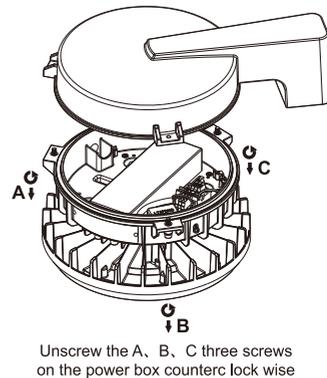


### 90° Stanchion Mount

Unit: mm(inch)



1. ✖



Unscrew the A, B, C three screws on the power box counterlock wise

## Model description

EXA 05-XXX-X-XX-XXX-XX-X-XX

Options: WG=Wire Guard; DM=Dimmable.

Mounting style: C=Ceiling mount; P=Pendant mount; W=Wall bracket; S=25° Stanchion mount; V=90° Stanchion mount; T=Trunnion mount.

Diffusion material: CG=Clear Glass.

Beam distribution: 014=T13801; 015=T13803; 016=T13805; 017=T32001; 018=T32003; 019=T32005.

CCT(K): 20=2000; ...; 65=6500; Re=Red; Gr=Green; Bl=Blue; Am=Amber.

Voltage: U=100-277Vac, 50/60Hz.

Lamp wattage: 030=30W; 050=50W; 075=75W; 100=100W; 120=120W; 150=150W; 180=180W; 200=200W; 240=240W.

Lamp code: 05

Series constant: EXA-Hazardous

## Installation And Operation Instructions

### Dear Customers and Users:

Thank you very much for purchasing our product. In order to better understand how to use this product safely, please read this manual patiently and carefully. And please keep the manual properly for future reference.

### Warnings:

1. The product can be connected to a power supply of 100-277VAC 50/60Hz, as specified on the label on the product.
2. DO NOT dismantle, modify or replace any internal electronic components. If you have any confusion during installation, please contact local dealer or contact us directly.
3. Please be sure to turn off the power before installation, maintenance or any other actions that may touch the light.
4. DO NOT install the lights on the surface that is easy to be damaged and deformed.
5. Under no circumstances can this light be covered with thermal insulation or any other similar materials.
6. If emergency or abnormality occurs, please cut off the power firstly and contact your local dealer as soon as possible.
7. The product is suitable for both indoor and outdoor use. Please do not touch the light while it is working.
8. Any installation and maintenance must be performed by certified electricians only.
9. Do not open the enclosure when the light is working.
10. Do not use this luminaire on an ungrounded circuit, otherwise it can cause a fatal electric shock.
11. Do not look directly at the LEDs when energized.

### Safety Installation Guides

It's very important to cut off the power before removing the fixtures. Also, installer needs to be a qualified electrician. Remember, cut off power for at least 5 minutes then operate the removal.

#### • On-site installing

This manual is to provide the user with professional installation information, because the lamp is used in dangerous areas, so the qualified electrician is required. The inlet screw is NPT thread or metric thread (See the nameplate for details), cable entry must be installed with certified cable gland or blanking plug

#### • Use and setting-up

This manual is to provide the user with professional installation information, because the lamp is used in dangerous areas, all wires need to be tested for proper connection and safe installation before use. In order to avoid the risk of electrical damage and installation safety problem, these jobs must be performed by a qualified electrician.

#### • Assembling and dismantling

Installer needs to read the instruction carefully before processing the assembling. Please feel free to contact the manufacturer if there is confusion during the installation.

#### • Training instructions for a safe use

Regarding the wiring diagram, please refer to installation detailed instruction below. Normally, brown (or black) wire connects to live wire, blue (or white) to neutral wire, yellow with green (or green) strips to the grounding.

**Note: The front light source cavity is not allowed to be opened during field installation.**

Other parameters: See Table 1 for details

Table 1

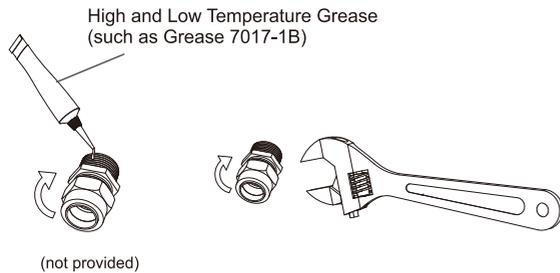
Item	Product model	Input Voltage	Rated Power	Tamb	Temperature class	Maximum surface temperature
					Gas("nR")	Dust("tb")
1	EXA05-030 series	100-277Vac	30W	-40°C to +65°C	T5	95°C
	EXA05-050 series		50W		T6	80°C
2	EXA05-075 series	100-277Vac	75W	-40°C to +60°C	T5	95°C
	EXA05-100 series		100W		T6	80°C
3	EXA05-120 series	100-277Vac	120W	-40°C to +65°C	T5	95°C
				-40°C to +60°C	T6	80°C
4	EXA05-150 series	100-277Vac	150W	-40°C to +55°C	T6	80°C
5	EXA05-180 series	100-277Vac	180W	-40°C to +45°C	T5	95°C
	EXA05-200 series		200W			
	EXA05-240 series		240W			

**SPECIFIC CONDITIONS OF USE:**

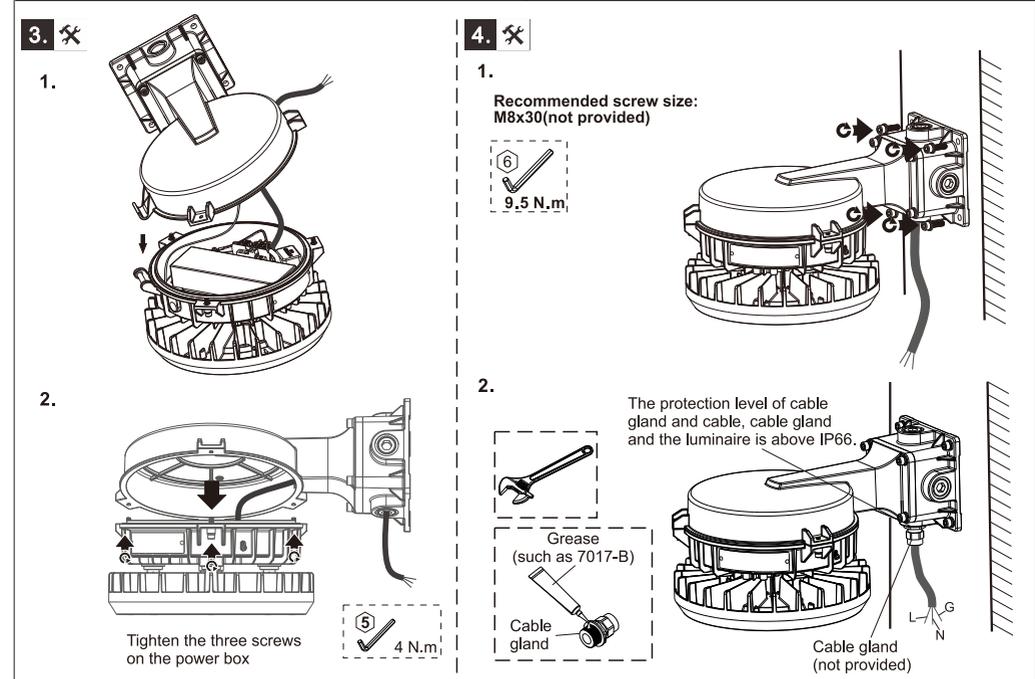
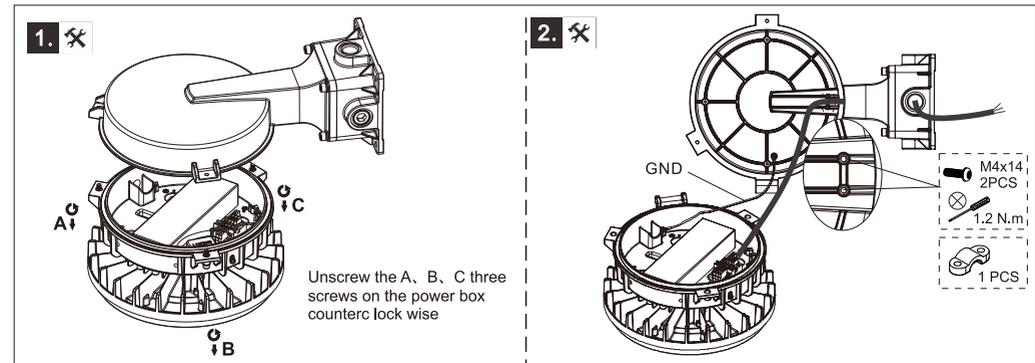
- 1.The EXA05 series LED luminaires for Hazardous Locations shall be mounted only in accordance with manufacturer's instructions.
- 2.The aluminium enclosures with a non-metallic coating featuring a non-conducting powder coat may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done with a damp cloth.
- 3.All cable entry holes shall be fitted of either suitably approved cable glands or suitably approved stopping plugs that is suitable for the application.
- 4.As part of the re-lamping procedure the gaskets are to be checked and replaced if found to be degraded.
- 5.Clean the luminaire regularly to prevent dust accumulation.
- 6.Under rated conditions, the cable entry point could reach a temperature exceeding 70°C and the branching point could reach a temperature of 80°C; this shall be considered when installing cable glands and only cables that have temperature rating 90°C shall be used.

**Dimensions and Installation for Mounting Accessories**

Evenly apply corrosion-inhibiting grease to the threads, such as High and Low Temperature Grease 7017-1B. Install the appropriate certified cable gland to the threaded hole (see the product nameplate for specific thread specifications), and tighten it.

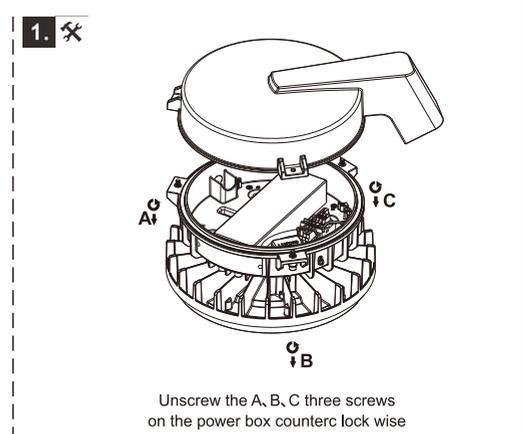
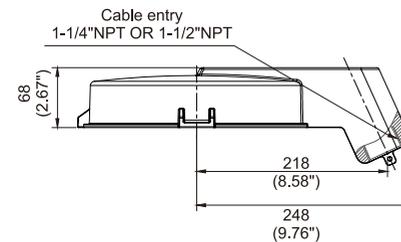


Connect the grounding wire (the cross-sectional area of the wire is not less than 4mm<sup>2</sup>) to the external grounding screw of the luminaire.



**25° Stanchion Mount**

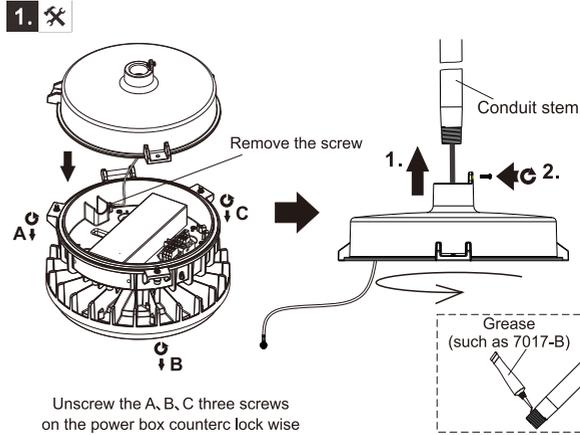
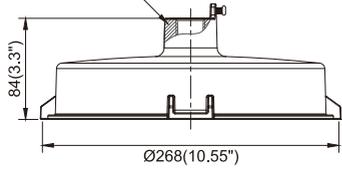
Unit: mm(inch)



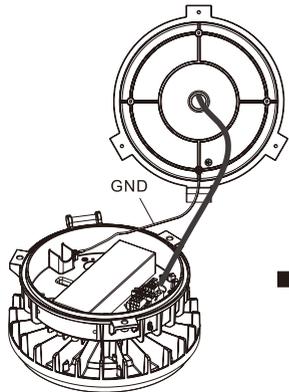
## Pendant Mount

Unit: mm(inch)

Cable entry  
3/4"NPT OR 1"NPT OR  
M25x1.5 OR M20x1.5

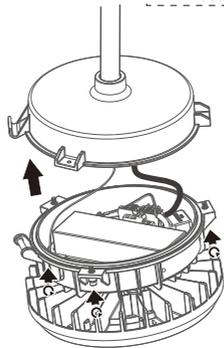


2. ✂



Connect the ground wire on the line to the green wire of the ceiling hood.

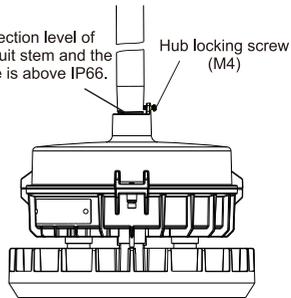
5. ✓ 4 N.m.



Tighten the three screws on the power box

3. ✂

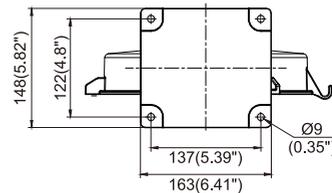
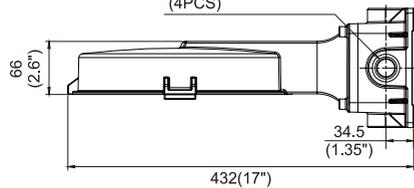
The protection level of the conduit stem and the luminaire is above IP66.



## Wall Bracket

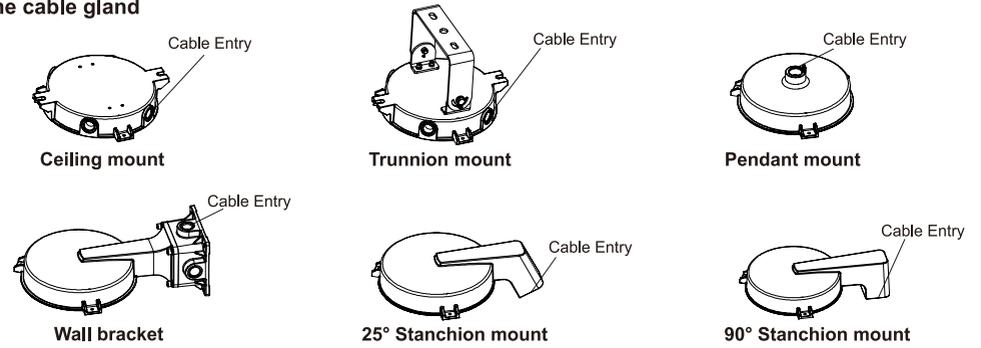
Unit: mm(inch)

Cable entry  
3/4"NPT OR 1"NPT OR  
M25X1.5 OR M20X1.5  
(4PCS)

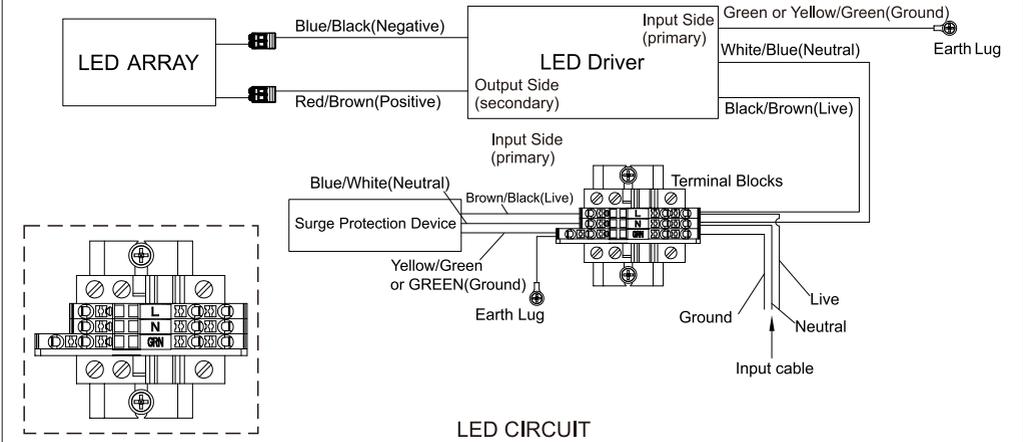


## Wiring Diagram

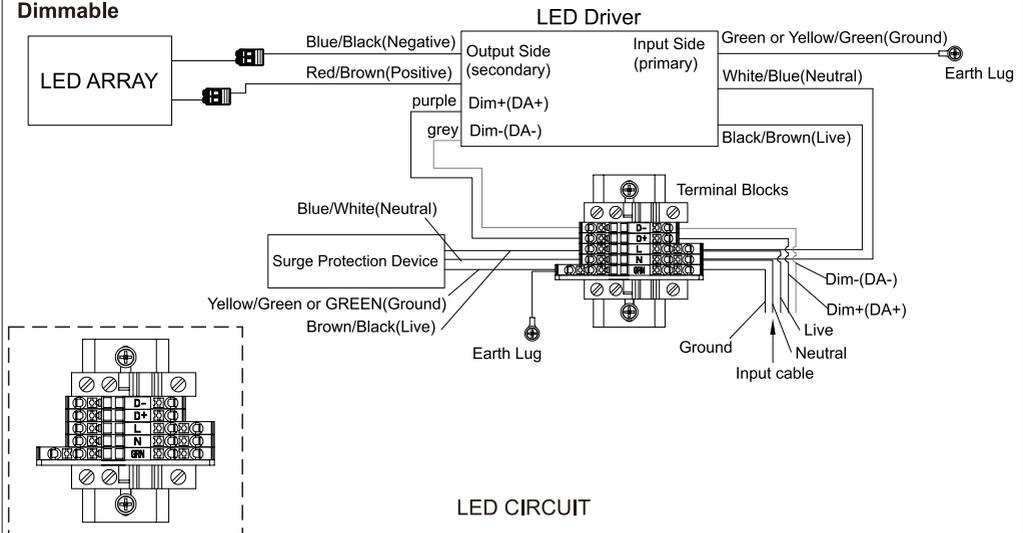
### One cable gland



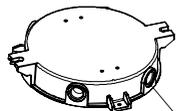
### Non-Dimmable



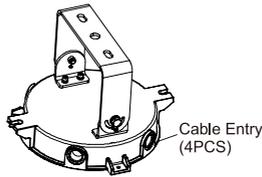
### Dimmable



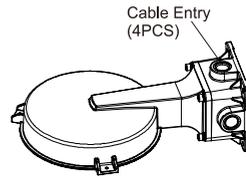
## Two or more cable gland



Ceiling mount

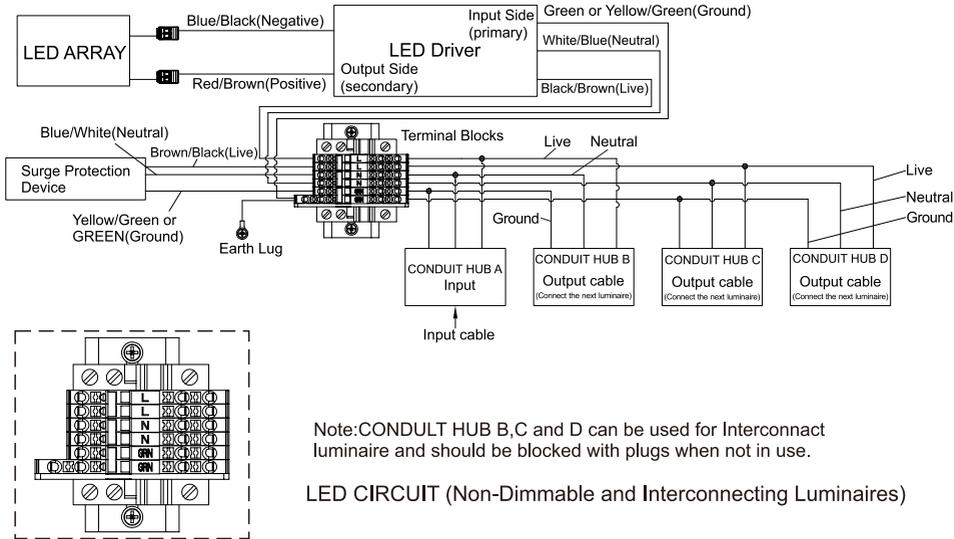


Trunnion mount

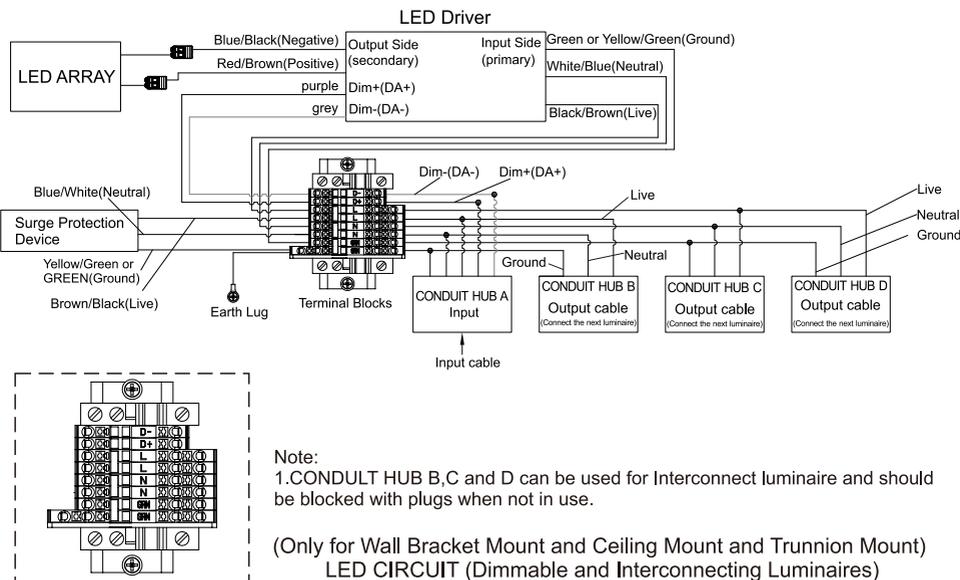


Wall bracket

## Non-Dimmable

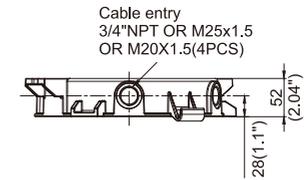
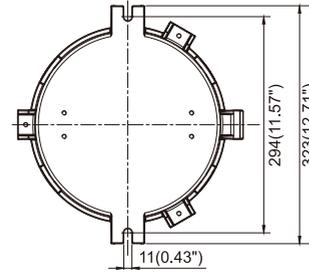


## Dimmable

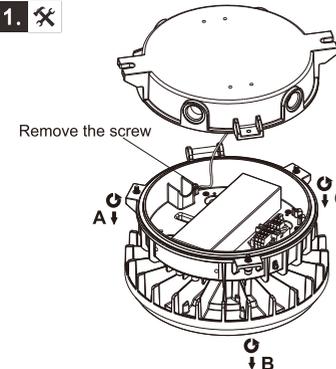


## Ceiling Mount

Unit: mm(inch)



1. ✕



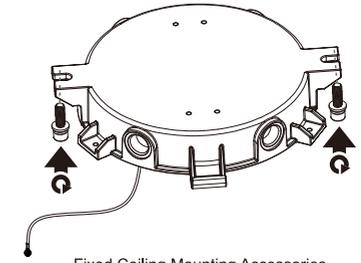
Unscrew the A, B, C three screws on the power box counter clock wise

5. ✓  
4 N.m

2. ✕

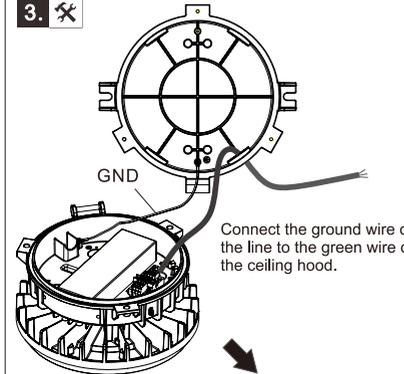
Recommended screw size: M10(not provided)

M10x35, 2PCS  
17 N.m



Fixed Ceiling Mounting Accessories

3. ✕

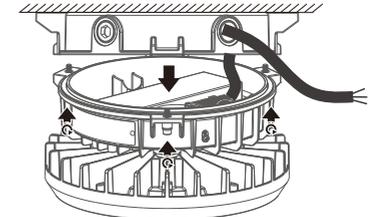


Connect the ground wire on the line to the green wire of the ceiling hood.

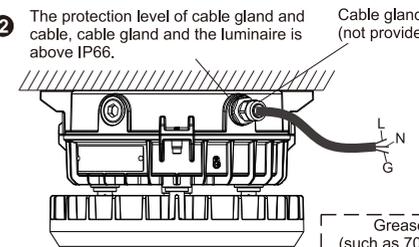
4. ✕

1. Tighten the three screws on the power box

M10x35, 2PCS  
17 N.m



2. The protection level of cable gland and cable, cable gland and the luminaire is above IP66.



Grease (such as 7017-B)  
Cable gland