

Durable Lighting Made for Industrial Safety



Hazardous Location LED Luminaire
A Series (Zone 2 & Class I Division 2)



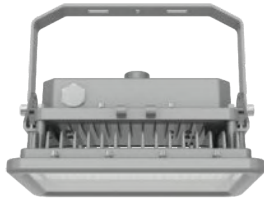
SOLEID
S O L U C I O N E S L E D



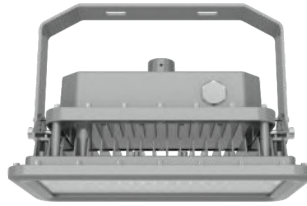
Explosion-proof Light A Series (Zone 2 & Class I Division 2)



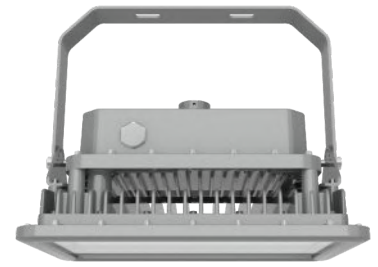
A2



A



A3



A4



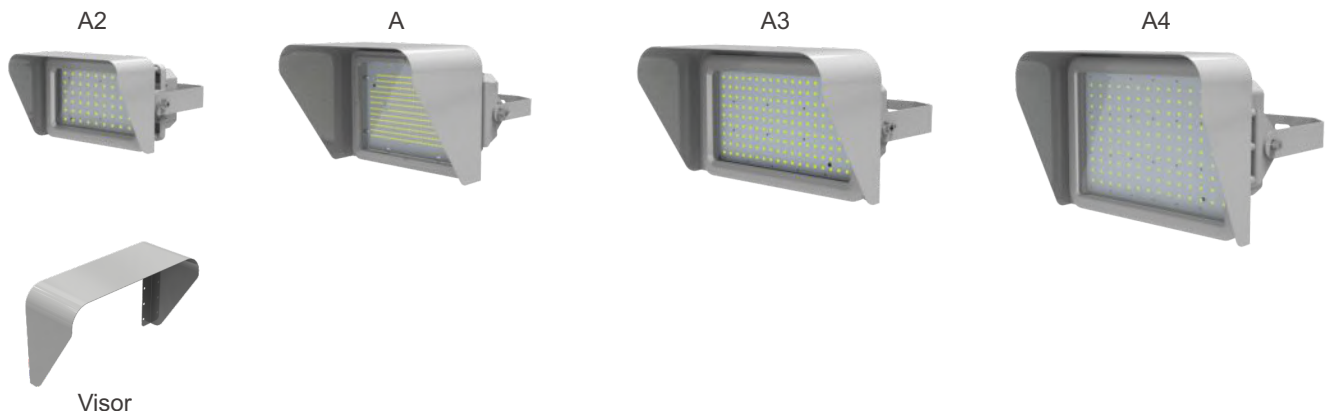
Product Description

The A 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 optional
- High luminous efficacy - Up to 140 lumens per watt
- Battery backup function: emergency only available for A3 and A4
- Compact and robust structure, excellent reliability
- Various installation ways for different applications
- Great impact resistance with IK08/IK10 certified
- Die-cast aluminum housing, great corrosion resistance and cooling performance

Visor Available





Explosion-proof Light A Series (Zone 2 & Class I Division 2)

Compliance

ATEX Standard:

⊕ II 3G Ex ec IIC T6...T3 Gc

⊕ II 2D Ex tb IIIC T85°C...T103°C Db IP66

IECEX Standard:

Ex ec IIC T6...T3 Gc

Ex tb IIIC T85°C...T100°C Db IP66

Zone 2, Zone 21&22

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

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

ETL (ATM for Report 105342415DAL-001)

ABS

DLC*

IP66

IK08 (without wire guard)

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

7-Year Standard Warranty

LED lumen Maintenance: L70> 78,000 Operation Hours@55°C



Explosion-proof Light A Series (Zone 2 & Class I Division 2)

Technical Parameter - UL844 Certified

● Electrical

Specification	EX-20W A2YZDA	EX-40W A2YZDA	EX-60W AYZDA	EX-80W AYZDA	EX-100W AYZDA
Rated Power	20W	40W	60W	80W	100W
Input Voltage	100-277/200-480VAC				
Input Frequency	50/60Hz				
Power Factor	> 0.95				
Emergency Function	No emergency function		Optional (Billda)		

● Optical

Specification	EX-20W A2YZDA	EX-40W A2YZDA	EX-60W AYZDA	EX-80W AYZDA	EX-100W AYZDA
Lumen Output	3000lm	6000lm	9000lm	12000lm	15000lm
Lumens Per Watt	150lm/W				
CCT	3000K-6500K				
CRI	> 70				
Beam Angle	40°/60°/90°/120°				
Dimming	0-10V dimming optional				

● Mechanical

Specification	EX-20W A2YZDA	EX-40W A2YZDA	EX-60W AYZDA	EX-80W AYZDA	EX-100W AYZDA
Housing Material	Die-cast aluminum				
Lens	Tempered glass & PC				
Hardware	Stainless steel				
Visor	Available				
Fixture Color	Gray RAL7040 (Standard)				
Protection	IP66/IP67/IK08 (glass cover)/IK10 (with wire guard)				
Mounting	Ceiling, Wall, Hook, Trunnion, Pole, Stanchion				
Cable Entries	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standard)				



Explosion-proof Light A Series (Zone 2 & Class I Divison 2)

Technical Parameter - UL844 Certified

• Electrical

Specification	EX-150W A3YZDA	EX-180W A3YZDA	EX-200W A3YZDA	EX-250W A4YZDA	EX-300W A4YZDA	EX-400W A4YZDA
Rated Power	150W	180W	200W	250W	300W	400W
Input Voltage	120-277/277-480VAC					
Input Frequency	50/60Hz					
Power Factor	> 0.95					
Emergency Function	Optional					

• Optical

Specification	EX-150W A3YZDA	EX-180W A3YZDA	EX-200W A3YZDA	EX-250W A4YZDA	EX-300W A4YZDA	EX-400W A4YZDA
Lumen Output	22500lm	27000lm	30000lm	37500lm	45000lm	60000lm
Lumens Per Watt	150lm/W					
CCT	3000K-6500K					
CRI	> 70					
Beam Angle	40°/60°/90°/120°					
Dimming	0-10V dimming optional					

• Mechanical

Specification	EX-150W A3YZDA	EX-180W A3YZDA	EX-200W A3YZDA	EX-250W A4YZDA	EX-300W A4YZDA	EX-400W A4YZDA
Housing Material	Die-cast aluminum					
Lens	Tempered glass & PC					
Hardware	Stainless steel					
Fixture Color	Gray RAL7040 (Standard)					
Protection	IP66/IP67/IK08 (glass cover)/IK10 (with wire guard)					
Mounting	Ceiling, Wall, Hook, Pole, Stanchion					
Cable Entries	Side: 3/4" NPT (standard); M20, M25, 1/2" NPT (optional) Top: 3/4" NPT (standard)					

• Ambient Temperature

-40°C to +40°C (-40°F to +104°F)	Models A, 40-120W
-40°C to +50°C (-40°F to +122°F)	Models A, 40-100W, Class I Division 2 Group A, B, C, D
-40°C to +40°C (-40°F to +104°F)	Models A2, 20-40W
-40°C to +40°C (-40°F to +104°F)	Models A3, 20-200W
-40°C to +55°C (-40°F to +131°F)	Models A4, 20-300W
-40°C to +40°C (-40°F to +104°F)	Models A4, 20-400W



Explosion-proof Light A Series (Zone 2 & Class I Division 2)

Technical Parameter - for Zone

● Electrical

Specification	Ex-20WA2N**D**	Ex-40WA2N**D**	Ex-60WAN**D**	Ex-80WAN**D**	Ex-100WAN**D**
Rated Power	20W	40W	60W	80W	100W
Input Voltage	100-277VAC				
Input Frequency	50/60Hz				
Power Factor	> 0.95				
Emergency Function	No emergency function		Optional (Billda)		

● Optical

Specification	Ex-20WA2N**D**	Ex-40WA2N**D**	Ex-60WAN**D**	Ex-80WAN**D**	Ex-100WAN**D**
Lumen Output	3000lm	6000lm	9000lm	12000lm	15000lm
Lumens Per Watt	150lm/W				
CCT	3000K-6500K				
CRI	> 70				
Beam Angle	40°/60°/90°/120°				
Dimming	0-10V dimming optional				

● Environmental

Specification	Ex-20WA2N**D**	Ex-40WA2N**D**	Ex-60WAN**D**	Ex-80WAN**D**	Ex-100WAN**D**
Ambient Temperature	T3: -40°C to +55°C (-40°F to +131°F)				

● Mechanical

Specification	Ex-20WA2N**D**	Ex-40WA2N**D**	Ex-60WAN**D**	Ex-80WAN**D**	Ex-100WAN**D**
Housing Material	Die-cast aluminum				
Fixture Color	Gray RAL7040 (Standard)				
Lens	Tempered glass & PC				
Hardware	Stainless steel				
Protection	IP66/IP67/IK08 (glass cover)/IK10 (with wire guard)				
Mounting	Ceiling, Wall, Hook, Pole, Stanchion				
Cable Entries	Side: M20 (standard); M25, 1/2" NPT, 3/4" NPT (optional) Top: 3/4" NPT (standard)				



Explosion-proof Light A Series (Zone 2 & Class I Division 2)

Technical Parameter - for Zone

● Electrical

Specification	Ex-150W A3N**D**	Ex-180W A3N**D**	Ex-200W A3N**D**	Ex-250W A4N**D**	Ex-300W A4N**D**
Rated Power	150W	180W	200W	250W	300W
Input Voltage	100-277VAC				
Input Frequency	50/60Hz				
Power Factor	> 0.95				
Emergency Function	Optional				

● Optical

Specification	Ex-150W A3N**D**	Ex-180W A3N**D**	Ex-200W A3N**D**	Ex-250W A4N**D**	Ex-300W A4N**D**
Lumen Output	22500lm	27000lm	30000lm	37500lm	45000lm
Lumens Per Watt	150lm/W				
CCT	3000K-6500K				
CRI	> 70				
Beam Angle	40°/60°/90°/120°				
Dimming	0-10V dimming optional				

● Environmental

Specification	Ex-150W A3N**D**	Ex-180W A3N**D**	Ex-200W A3N**D**	Ex-250W A4N**D**	Ex-300W A4N**D**
Ambient Temperature	T3: -40°C to +55°C (-40°F to +131°F)				

● Mechanical

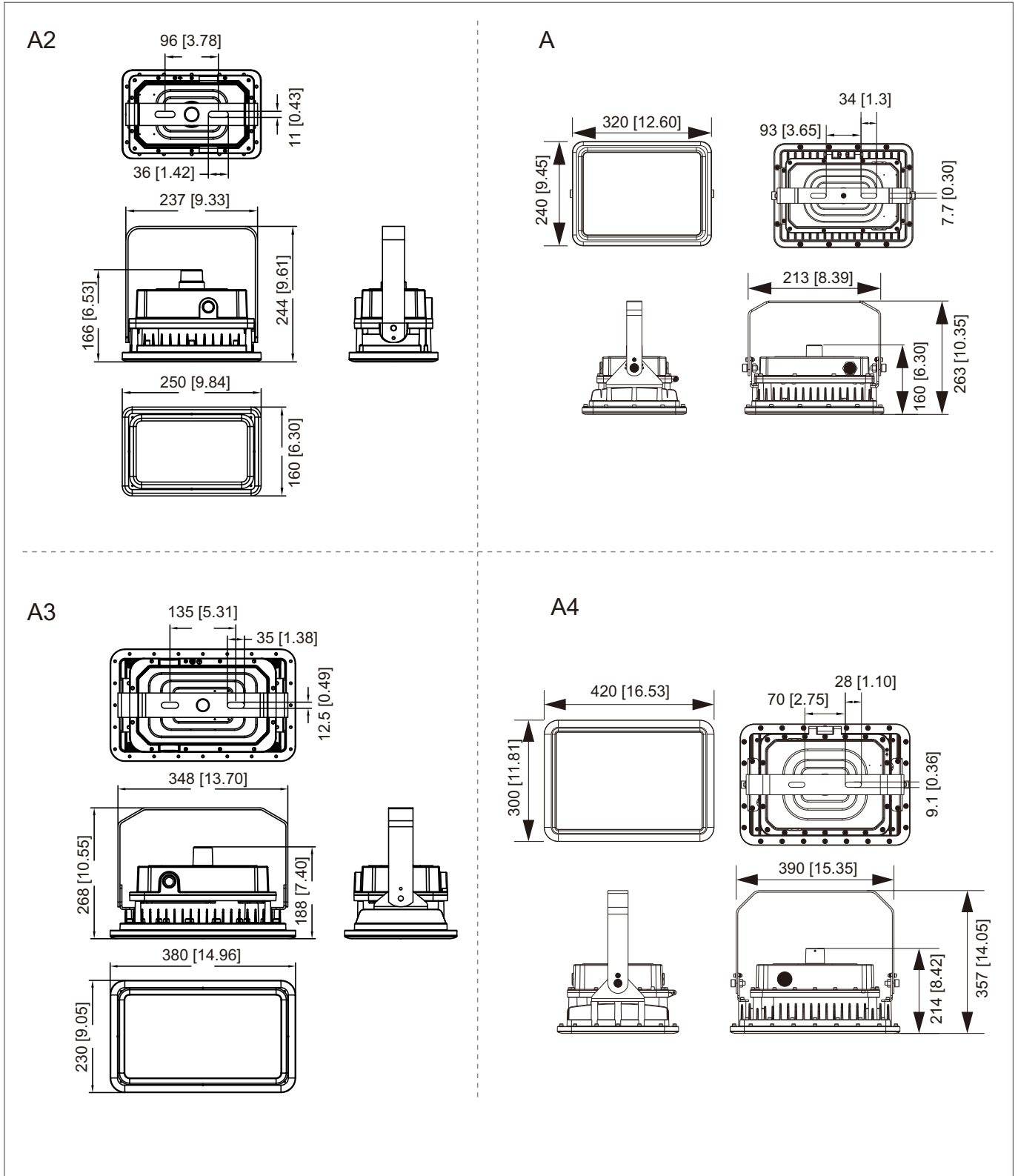
Specification	Ex-150W A3N**D**	Ex-180W A3N**D**	Ex-200W A3N**D**	Ex-250W A4N**D**	Ex-300W A4N**D**
Housing Material	Die-cast aluminum				
Fixture Color	Gray RAL7040 (Standard)				
Lens	Tempered glass & PC				
Hardware	Stainless steel				
Protection	IP66/IP67/IK08 (glass cover)/IK10 (with wire guard)				
Mounting	Ceiling, Wall, Hook, Pole, Stanchion				
Cable Entries	Side: M20 (standard); M25, 1/2" NPT, 3/4" NPT (optional) Top: 3/4" NPT (standard)				



Explosion-proof Light A Series (Zone 2 & Class I Division 2)

Product Dimensions

Unit: mm [inch]





Explosion-proof Light A Series (Zone 2 & Class I Division 2)

• Packing Information

Model	Net Weight*	Gross Weight*	Quantity/ Carton	Package Dimensions (LxWxH)
A2	4.15 kg/9.15 lb	5.30 kg/11.68 lb	1 pc	365x270x305 mm/14.37x10.63x12.01 inch
A	6.95 kg/15.32 lb	7.90 kg/17.42 lb	1 pc	375x340x215 mm/14.76x13.39x8.46 inch
A3	8.30 kg/18.30 lb	10.30 kg/22.71 lb	1 pc	485x340x365 mm/19.09x13.39x14.37 inch
A4	15.1 kg/33.29 lb	15.80 kg/34.83 lb	1 pc	510x480x350 mm/20.08x18.90x13.78 inch

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

Ordering Guide - UL844 Certified

1. Product Categories	2. Wattage	3. Shell Shape Series	4. Dimming or Not
Explosion Proof Light	A: 60/80/100W A2: 20W/40W A3: 150/180/200W A4: 250/300/400W	"X" Can be: A, A2, A3, A4	"Y" Can be: D: Dimmable N: Non-dimmable

5. Color Temp.	6. Beam Angle	7. Long Glass Cover Optionl	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" :made in USA, blank: made in China

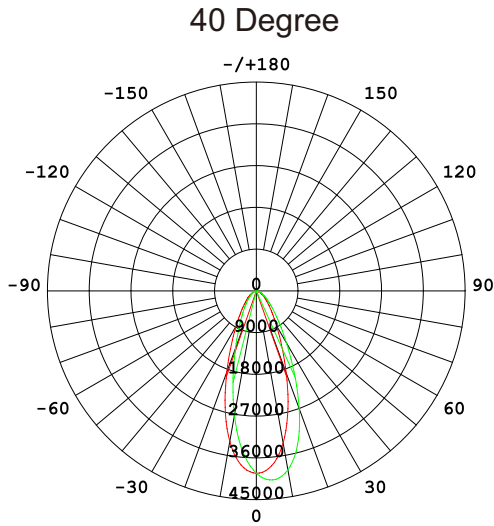
Ordering Guide - for Zone

1. Wattage (W)	2. Product Code	3. Color Temperature	4. Beam Angle (Degree)
A: 80/100W A2: 20W/40/60W A3: 150/180/200W A4: 250/300W	Can be: A, A2, A3, A4	Can be 30 to 65, means 3000K to 6500K	Can be: 40, 60, 90, 120



Explosion-proof Light A Series (Zone 2 & Class I Division 2)

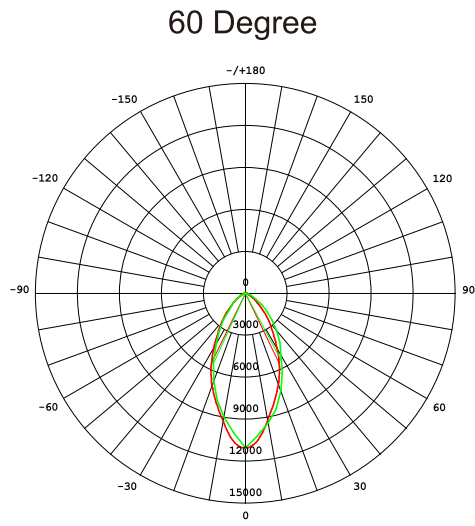
Photometric



AVERAGE BEAM ANGLE(50%):38.6 DEG

UNIT:cd

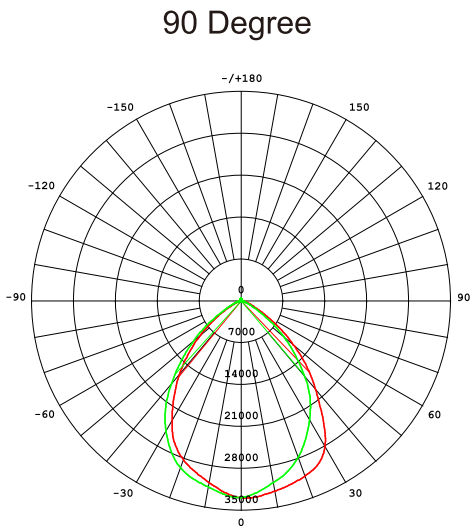
- C0/180,38.7°
- C90/270,38.5°



AVERAGE BEAM ANGLE(50%):52.5 DEG

UNIT:cd

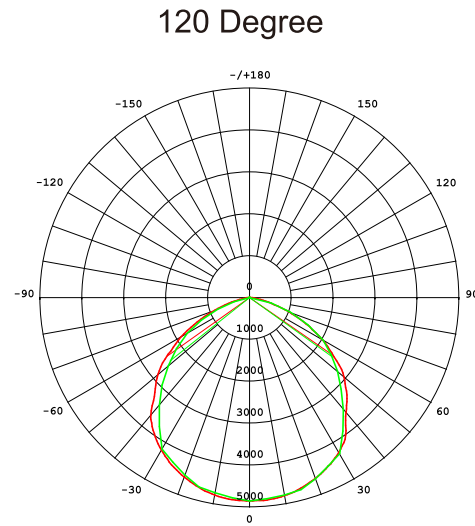
- V 0.0DEG PLAN,52.3
- H 0.0DEG PLAN,52.7



AVERAGE BEAM ANGLE(50%):82.8 DEG

UNIT:cd

- V 0.0DEG PLAN,83.2
- H 0.0DEG PLAN,82.4



AVERAGE BEAM ANGLE(50%):107.8 DEG

UNIT:cd

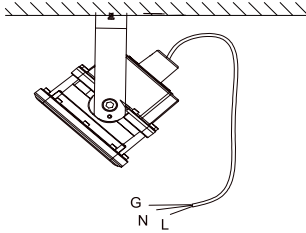
- V 0.0DEG PLAN,109.9
- H 0.0DEG PLAN,105.8



Explosion-proof Light A Series (Zone 2 & Class I Division 2)

Mounting Methods and Accessories

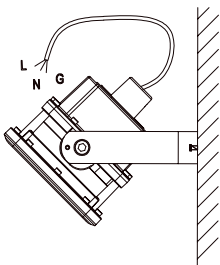
• Option 1: Ceiling Mounting



• Accessory



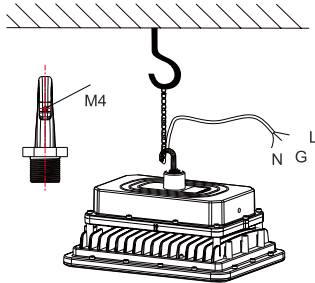
• Option 2: Wall Mounting



• Accessory



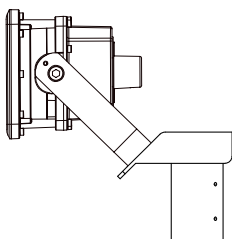
• Option 3: Hook Mounting



• Accessories



• Option 4: Trunnion Mounting (Only for A and A2)



• Accessory

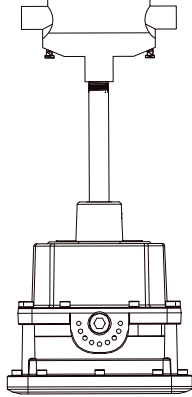




Explosion-proof Light A Series (Zone 2 & Class I Division 2)

Mounting Methods and Accessories

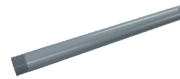
• Option 5: Pole Mounting (Vertical)



• Accessories

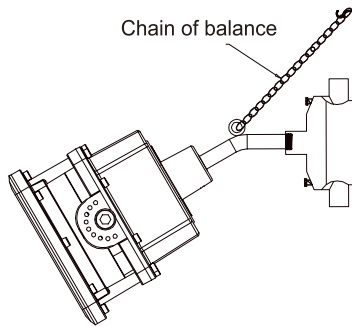


Junction Box
EX-HD51-KB1



Pole
Ex-Straight Pipe

• Option 6: Pole Mounting (Non-vertical)



• Accessories



Junction Box
EX-HD51-KB1

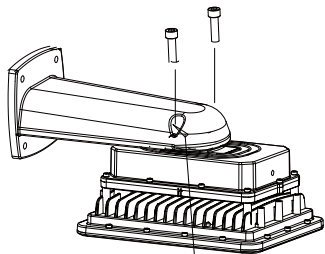


Pole
Ex-Bended Pipe



Pendant Chain
Ex-Straight Chain

• Option 7: Stanchion Mounting on the Wall



• Accessory



Stanchion Arm
Ex-MArm

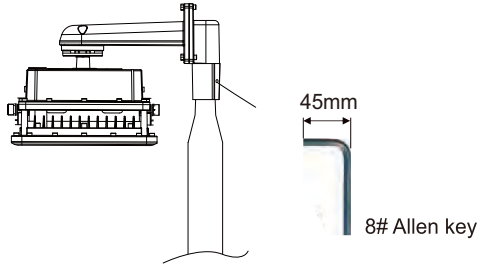
45mm

Make sure the screw is fixed well for safety.



Mounting Methods and Accessories

- Option 8: Stanchion Mounting on the Pole (90 Degree)

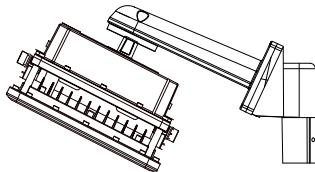


- Accessories



EX-90PSupport

- Option 9: Stanchion Mounting on the Pole (25 Degree)

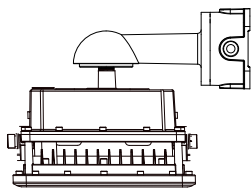


- Accessories



EX-25PSupport

- Option 10: Wall Mounting with Junction Box (90 Degree)

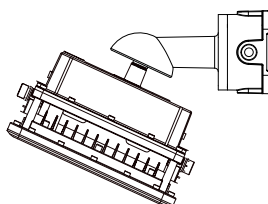


- Accessory



**Stanchion Arm
EX-HD51-KYD 90**

- Option 11: Wall Mounting with Junction Box (25 Degree)



- Accessory



**Stanchion Arm
EX-HD51-KYD 25**