

Durable Lighting Made for Industrial Safety



Hazardous Location LED Luminaire A Series (for North America)

Specsheet-2023-07 EN



A2



A



A3



A4



Product Description

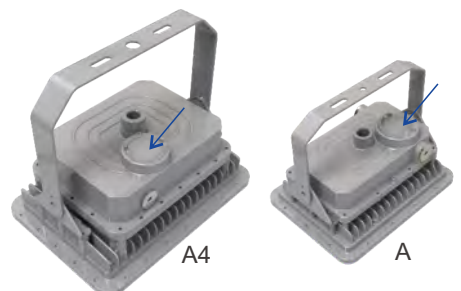
The A Series LED luminaire is the ideal choice for marine and hazardous applications. They can be used in locations where moisture, dirt, dust, corrosion and vibration may be present, or areas where wind, water, snow or high ambient can be expected.

Features

- 0-10V dimming
- High luminous efficacy - Up to 140 lumens per watt
- Battery backup function available
- Compact and robust structure, excellent reliability
- Various installation ways for different applications
- Great impact resistance with IK08/IK10 certified
- Copper-free aluminum housing, great corrosion resistance and cooling performance
- Emergency function optional for A, A3, and A4

Three Shapes Optional

- Shape 1: Surface Cover without Step
- Shape 2: Surface Cover with Step
- Shape 3: Back Side with Round Cover



Compliance

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
CSA C22.2#250.0:2021 Ed.5
CSA C22.2#137:2018 Ed.2
ETL (ATM for Report 105342415DAL-001)
ABS
DLC*
IP66/IP67
IK08 (glass cover)
IK10 (with wire guard)
1000 hours salt spray
5G vibration

** 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

Technical Parameter

• Electrical

Specification	EX-20W A2YZDA	EX-40W A2YZDA	EX-60W A2YZDA
Rated Power	20W	40W	60W
Input Voltage	120-277/277-480VAC		
Input Frequency	50/60Hz		
Power Factor	> 0.95		
Emergency Function	No emergency function		

• Optical

Specification	EX-20W A2YZDA	EX-40W A2YZDA	EX-60W A2YZDA
Lumen Output	2800lm	5,600lm	8,400lm
Lumens Per Watt	140lm/W		
CCT	3000K-6500K		
CRI	> 70		
Beam Angle	40°/60°/90°/120°		
Dimming	0-10V dimming		

• Environmental

Specification	EX-20W A2YZDA	EX-40W A2YZDA	EX-60W A2YZDA
Ambient Operating Temperature	T3: -40°C to +40°C (-40°F to +104°F)		

• Mechanical

Specification	EX-20W A2YZDA	EX-40W A2YZDA	EX-60W A2YZDA
Housing Material	Copper-free 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, Arm, Stanchion		
Cable Entries*	Side: 3/4 NPT, M20, M25, 1/2NPT Top: 3/4 NPT, M25		

*Cable Entries: For side and top, 3/4 NPT is standard. If others are required, customer needs to indicate when placing an order.

Technical Parameter

• Electrical

Specification	EX-80W AYZDA	EX-100W AYZDA
Rated Power	80W	100W
Input Voltage	120-277/277-480VAC	
Input Frequency	50/60Hz	
Power Factor	> 0.95	
Emergency Function	Optional (Billda)	

• Optical

Specification	EX-80W AYZDA	EX-100W AYZDA
Lumen Output	11200lm	14000lm
Lumens Per Watt	140lm/W	
CCT	3000K-6500K	
CRI	> 70	
Beam Angle	40°/60°/90°/120°	
Dimming	0-10V dimming	

• Environmental

Specification	EX-80W AYZDA	EX-100W AYZDA
Ambient Operating Temperature	T3: -40°C to +40°C (-40°F to +104°F) T3: -40°C to +50°C (-40°F to +122°F, for Class I Division 2 Group A, B, C, D)	

• Mechanical

Specification	EX-80W AYZDA	EX-100W AYZDA
Housing Material	Copper-free 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, Arm, Stanchion	
Cable Entries*	Side: 3/4 NPT, M20, M25, 1/2NPT Top: 3/4 NPT, M25	

*Cable Entries: For side and top, 3/4 NPT is standard. If others are required, customer needs to indicate when placing an order.

Technical Parameter

• Electrical

Specification	EX-150W A3YZDA	EX-180W A3YZDA	EX-200W A3YZDA
Rated Power	150W	180W	200W
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
Lumen Output	21000lm	25200lm	28000lm
Lumens Per Watt	140lm/W		
CCT	3000K-6500K		
CRI	> 70		
Beam Angle	40°/60°/90°/120°		
Dimming	0-10V dimming		

• Environmental

Specification	EX-150W A3YZDA	EX-180W A3YZDA	EX-200W A3YZDA
Ambient Operating Temperature	T3: -40°C to +40°C (-40°F to +104°F)		

• Mechanical

Specification	EX-150W A3YZDA	EX-180W A3YZDA	EX-200W A3YZDA
Housing Material	Copper-free 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, Arm, Stanchion		
Cable Entries*	Side: 3/4 NPT, M20, M25, 1/2NPT Top: 3/4 NPT, M25		

*Cable Entries: For side and top, 3/4 NPT is standard. If others are required, customer needs to indicate when placing an order.

Technical Parameter

• Electrical

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

• Optical

Specification	EX-250W A4YZDA	EX-300W A4YZDA	EX-400W A4YZDA
Lumen Output	35000lm	42000lm	56000lm
Lumens Per Watt	140lm/W		
CCT	3000K-6500K		
CRI	> 70		
Beam Angle	40°/60°/90°/120°		
Dimming	0-10V dimming		

• Environmental

Specification	EX-250W A4YZDA	EX-300W A4YZDA	EX-400W A4YZDA
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)

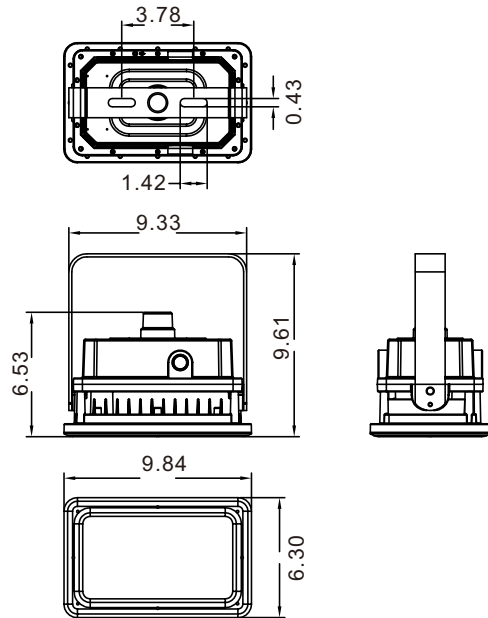
• Mechanical

Specification	EX-250W A4YZDA	EX-300W A4YZDA	EX-400W A4YZDA
Housing Material	Copper-free 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, Arm, Stanchion		
Cable Entries*	Side: 3/4 NPT, M20, M25, 1/2NPT Top: 3/4 NPT, M25		

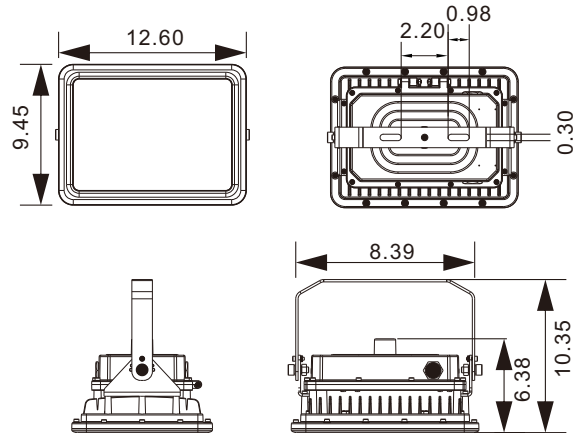
*Cable Entries: For side and top, 3/4 NPT is standard. If others are required, customer needs to indicate when placing an order.

Product Dimensions (all in inches)

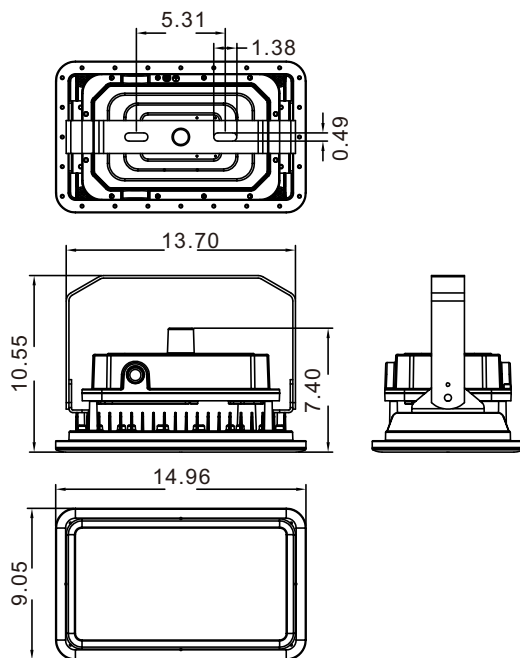
A2



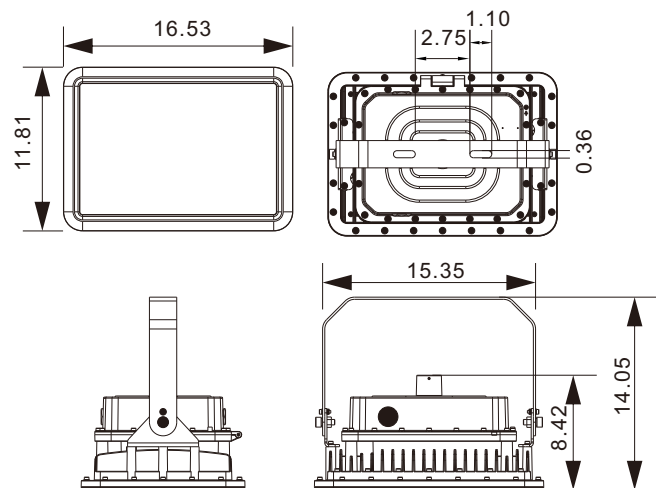
A



A3



A4



• Packing Information

Model	Net Weight*	Gross Weight*	Quantity/Carton	Package Dimensions (LxWxH)
A2	9.15 lb	11.68 lb	1 pc	14.37x10.63x12.01 inch
A	15.32 lb	17.42 lb	1 pc	14.76x13.39x8.46 inch
A3	18.30 lb	22.71 lb	1 pc	19.09x13.39x14.37 inch
A4	33.29 lb	37.48 lb	1 pc	19.29x18.11x11.45 inch

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

Ordering Guide

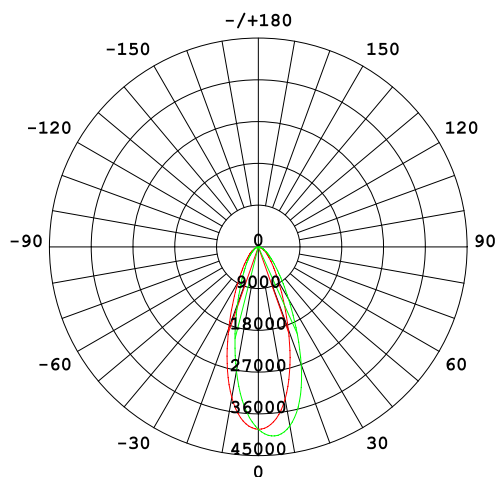
EX - yyyW XYZDA

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1. Product Categories	2. Wattage	3. Shell Shape Series	4. Dimming or Not
Explosion Proof Light	A2: 20W/40/60W A: 80/100W 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 Option	8
"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	blank: made in China

Photometric

40 Degree



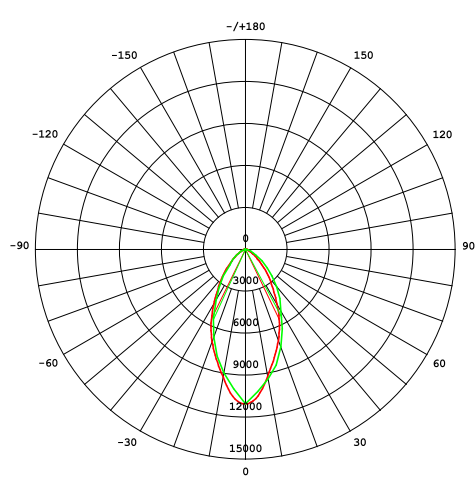
AVERAGE BEAM ANGLE(50%):38.6 DEG

UNIT:cd

— C0/180,38.7°

— C90/270,38.5°

60 Degree



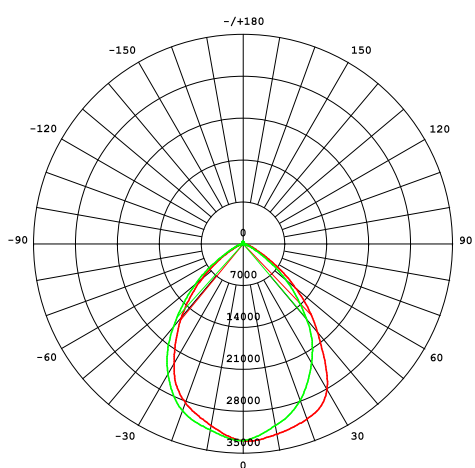
AVERAGE BEAM ANGLE(50%):52.5 DEG

UNIT:cd

— V 0.0DEG PLAN,52.3

— H 0.0DEG PLAN,52.7

90 Degree



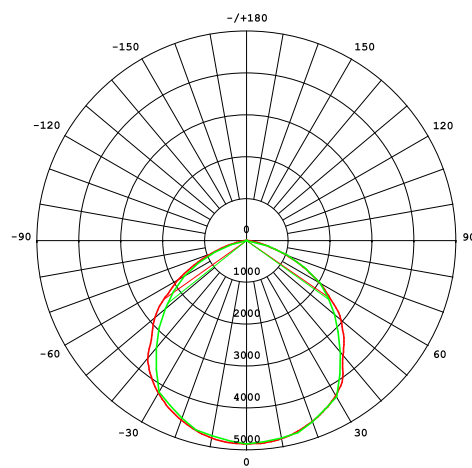
AVERAGE BEAM ANGLE(50%):82.8 DEG

UNIT:cd

— V 0.0DEG PLAN,83.2

— H 0.0DEG PLAN,82.4

120 Degree



AVERAGE BEAM ANGLE(50%):107.8 DEG

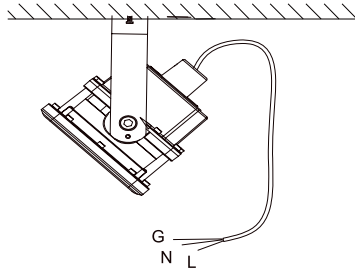
UNIT:cd

— V 0.0DEG PLAN,109.9

— H 0.0DEG PLAN,105.8

Mounting Methods and Accessories

- Option 1: Ceiling Mounting

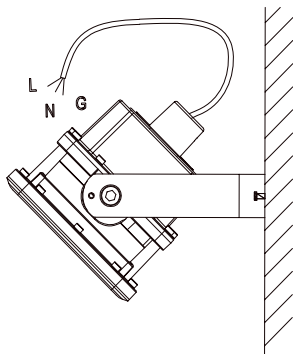


- Accessory



Bracket

- Option 2: Wall Mounting

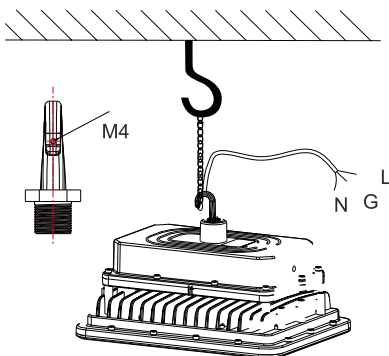


- Accessory



Bracket

- Option 3: Hook Mounting



- Accessories



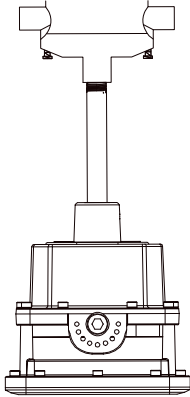
**Hook
Ex-Hook**



**Pendant Chain
Ex-Straight Chain**

Mounting Methods and Accessories

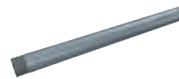
• Option 4: Pole Mounting (Vertical)



• Accessories

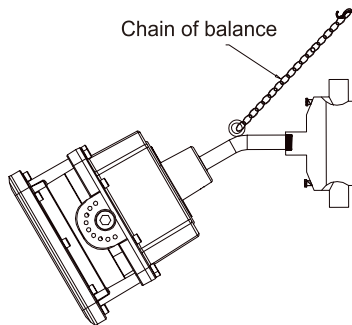


Junction Box
EX-HD51-KB1



Pole
Ex-Straight Pipe

• Option 5: Pole Mounting (Non-vertical)



• Accessories



Junction Box
EX-HD51-KB1

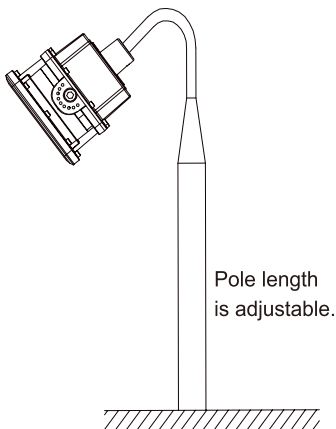


Pole
Ex-Bended Pipe



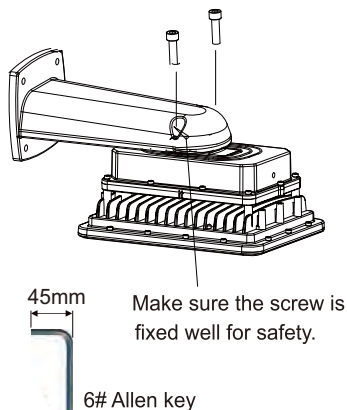
Pendant Chain
Ex-Straight Chain

• Option 6: Pole Mounting



Mounting Methods and Accessories

• Option 7: Stanchion Mounting on the Wall

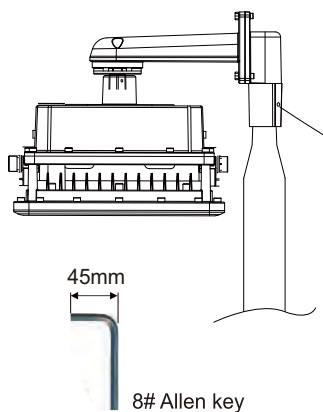


• Accessory



Stanchion Arm
Ex-MArm

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



• Accessories

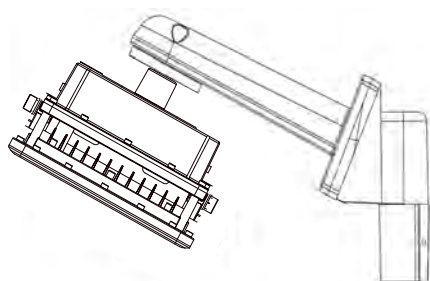


Stanchion Arm
Ex-MArm



Pole Support
Ex-90P Support

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



• Accessories



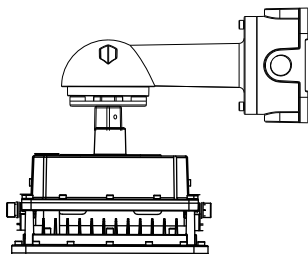
Stanchion Arm
Ex-MArm



Pole Support
Ex-25P Support

Mounting Methods and Accessories

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

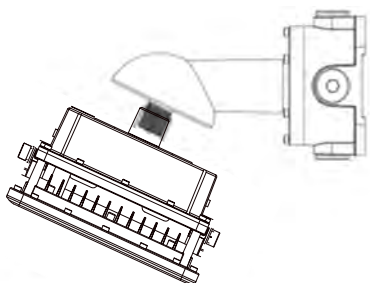


- Accessory



Stanchion Arm
EX-HD51-KYD 90

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



- Accessory



Stanchion Arm
EX-HD51-KYD 25