

L70
25°C

100,000 Hours



PRODUCT DESCRIPTION

Our MHS01 delivers versatile solutions, efficient illumination, and outstanding stability for complex and hazardous work scenarios. With an ingenious design and a solid internal structure, it readily accommodates diverse installation needs, fitting seamlessly into industrial plants and port docks alike. The durable cast aluminum housing, enhanced by a long-lasting epoxy coating, paired with a high-quality tempered glass lens, grants it exceptional weather resistance and a prolonged lifespan, providing a reliable lighting option that endures.

FEATURES

Controls

- Optional photocell.
- Optional Microwave sensor.
- Optional Emergency Battery.

Lifespan

- Estimated L70 ≥100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations at 25°C

Warranty

- Five-year limited warranty.

Certifications

- Marking UL844(North American):
Class I Division2 Groups A B C D
Class II Division1 Groups E F G
Class II Division2 Groups F G
Class III
Electric lighting fixtures for use in hazardous (classified) locations.
- UL844, UL1598, UL1598A.
- Ingress Protection: IP66 (wet location).

Note

Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C(±5°C). specifications subject to change without notice.



NOTES:

FIXTURE TYPE:

PROJECT:

FEATURES

Construction

- Robust low-copper cast aluminum housing (withstands harsh/hostile environments); Durable 3,000-hour salt-fog finish (extends service life in corrosive environments).
- The optically and electrically separated design ensures superior heat management.
- The LED housing is hermetically sealed against moisture and contaminants, with an IP66 rating.
- IK10 protection level can be achieved by using a wire guard.
- Flood lighting with Ultra-high Brightness Coverage.

Optics

- Available in lumen packages with lumen output ranging from 3,250lm to 33,000lm.
- Tempered glass possesses remarkable resistance to elevated temperatures.
- Highly engineered LED system ensures superior uniformity and maximizes spacing.
- The precision optics ensures high luminous efficacy, optimized light distribution, and optimized LED layout.

LED Module

- Light engines are available in two configurations: selectable CCT (3000K, 4000K, 5000K) or customized CCT.
- CRI>70.

Installation

- Trunnion mount/U-bracket mount(default).
- Pendant mount (optional).
- Pendant mount with box (optional).
- Wall mount (115° Pole) (optional).
- Hoop clamp mount (optional).
- Round pole mount (optional).
- Round pole mount (115°) (optional).
- Wall mount (optional).
- Wall mount (115°) (optional).

Electrical

- Universal 120-347 VAC or 277-480 VAC input voltage.
- 0-10V Dimming.
- Wattage can support 4 selectable levels.
- PF>0.9, THD<20%.
- Surge protection: 6 kV.
- NEC/CE T-CODE:
60W-100W: T6(+25°)
200W: T5(+25°)20KV (277-480V or 120-347VAC).

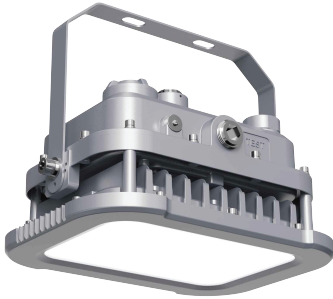
ORDERING INFORMATION

EXAMPLE: MHS01-100W-34V-DDK-GS-40-TR



Model	Wattage	Input Voltage	CCT	Finish	Intelligent Control	Light Distribution	Installation	AD
MHS01 Hazardous Location Square Luminaire	200W = (200/150/120/ 80W) selectable 100W = (100/81/61/41W) selectable 60W = (60/40/30/20W) selectable	34V = 120-347V 48V = 277-480V	DDK = Selectable CCT	GS = Gray Sand Yellow	Blank = Null M = Motion Sensor P = Photocell B = Emergency battery (5~60°C) B1 = Emergency battery (-20~60°C) MB = Motion Sensor+Emergency battery (5~60°C) MB1 = Motion Sensor+Emergency battery (-20~60°C) PM = Motion Sensor+Photocell PB = Photocell+Emergency battery (5~60°C) PB1 = Photocell+Emergency battery (-20~60°C) PMB = Motion Sensor+Photocell +Emergency battery (5~60°C) PMB1 = Motion Sensor+Photocell +Emergency battery (-20~60°C)	40 = 40 Degree 60 = 60 Degree ML = 90 Degree WL = 120 Degree	TR = Trunnion Mount/ U-bracket Mount PE = Pendant Mount PE1 =Pendant Mount with Box WM3 = Wall Mount (115° Pole) HM =Hoop Clamp Mount PM = Round Pole Mount PM1 = Round Pole Mount (115° Pole) WM = Wall Mount WM1 = Wall Mount (115°)	Power and CCT selectable
NOTE: 1. 277-480 VAC is only suitable for 100 W / 200 W. 2. 200 W model with emergency function: power rating to be reduced to ≤150 W (120 W/80 W options)								

CCT & WATTAGE SELECTABLE



Wattage selectable:
100%, 80%, 60%, 40%

CCT selectable: 3000K, 4000K, 5000K

NEC HAZARDOUS LOCATION CLASSIFICATION

NEC Protections

NEC Protections					
Hazard category	Regional category	Classifications	Representative gases	Division Group	Applications
Class I (Flammable gases, vapors)	Division 1	Gas category	Acetylene	A	Hazardous locations with flammable gases or vapors, including: - Oil and gas industry - All oil production and refining - Oil loading and transportation - Oil storage and retailing - Liquefied natural gas industry - All mining operations and services
	Division 2		Hydrogen	B	
			Vinyl	C	
			Methane	D	
Class II (Flammable dust)	Division 1	Dust category	Metal dust	E	Hazardous locations with flammable gases or vapors, including: - Highly dusty industries - Flour and fine particle production and storage - Metal smelting, casting and fabrication - Coal gathering industry - Construction
	Division 2		Coal dust	F	
			Grain dust	G	
Class III (Flammable fiber)	Division 1	Fibers and Flyings	Man-made fibers, lint fibers	/	Hazardous locations with flammable fibers, including: - Textile industry - Garment factories
	Division 2				

Notes: Division 1: Flammable concentrations may exist for long periods of time or under normal operating conditions.

Division 2: Flammable concentrations may not exist under normal operating conditions.

ELECTRICAL DATA

Number Of Drivers	Driver Output Current (mA)	Nominal Power (W)	Input Voltage	Input Current (Amps)
1	500	60	120	0.50
			208	0.29
			240	0.25
			277	0.22
			347	0.17
1	830	100	120	0.83
			208	0.48
			240	0.42
			277	0.36
			347	0.29
1	1670	200	480	0.21
			120	1.67
			208	0.96
			240	0.83
			277	0.72
			347	0.58
			480	0.42

Operating Temperature Range

Emergency Function	Types of Batteries	Battery Working Status	Wattage			
			60W	100W	150W	200W
Y	Room-temperature battery	Charge	5°C ~ 40°C	5°C ~ 40°C	5°C ~ 40°C	N
		Discharge	5°C ~ 40°C	5°C ~ 40°C	5°C ~ 40°C	N
	Low-temperature battery	Charge	-20°C ~ 40°C	-20°C ~ 40°C	-20°C ~ 40°C	N
		Discharge	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C	N
N	N	N	-40°C ~ 65°C	-40°C ~ 60°C	-40°C ~ 55°C	-40°C ~ 55°C

PERFORMANCE DATA

LV1 is NC on the power and colour temperature controller.

MHS01 60W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	60W	120- 347 VAC	8700lm	145lm/W	9300lm	155lm/W	9200lm	153lm/W
LV2	40W	120- 347 VAC	6100lm	153lm/W	6400lm	160lm/W	6350lm	159lm/W
LV3	30W	120- 347 VAC	4650lm	155lm/W	4900lm	163lm/W	4850lm	162lm/W
LV4	20W	120- 347 VAC	3250lm	163lm/W	3450lm	173lm/W	3350lm	168lm/W

MHS01 100W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	100W	120- 347 VAC	15000lm	150lm/W	16500lm	165lm/W	15600lm	156lm/W
LV2	81W	120- 347 VAC	12400lm	153lm/W	13700lm	169lm/W	13200lm	163lm/W
LV3	61W	120- 347 VAC	9500lm	155lm/W	10500lm	172lm/W	9900lm	162lm/W
LV4	41W	120- 347 VAC	6700lm	163lm/W	7300lm	178lm/W	6900lm	168lm/W

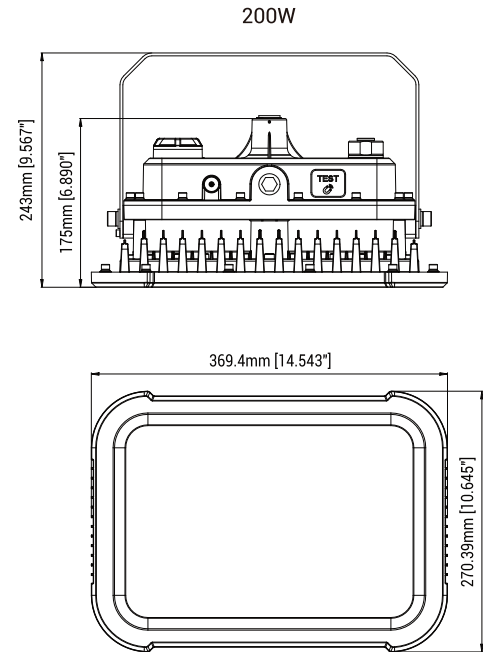
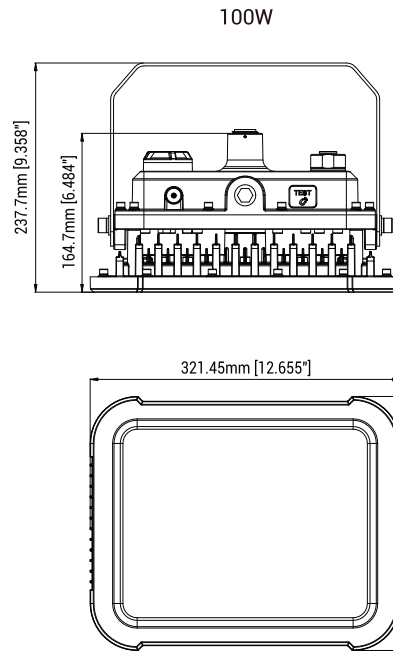
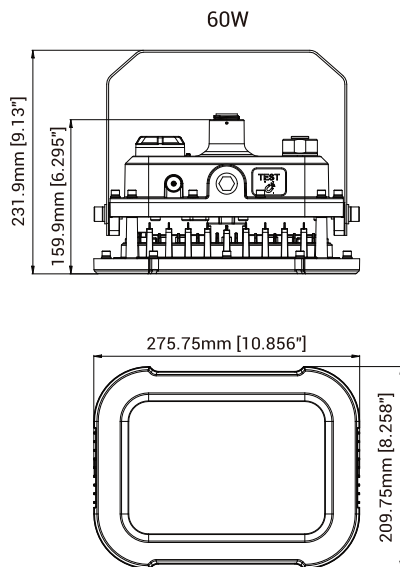
MHS01 200W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	200W	120- 347 VAC	29000lm	145lm/W	33000lm	165lm/W	31000lm	155lm/W
LV2	150W	120- 347 VAC	23000lm	153lm/W	25500lm	170lm/W	24000lm	160lm/W
LV3	120W	120- 347 VAC	19000lm	158lm/W	21000lm	175lm/W	20000lm	167lm/W
LV4	80W	120- 347 VAC	13000lm	163lm/W	14500lm	181lm/W	13600lm	170lm/W

MHS01 100W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	100W	277-480 VAC	14700lm	147lm/W	16400lm	164lm/W	15400lm	154lm/W
LV2	81W	277-480 VAC	12400lm	153lm/W	13700lm	169lm/W	13200lm	163lm/W
LV3	61W	277-480 VAC	9500lm	155lm/W	10500lm	172lm/W	9900lm	162lm/W
LV4	41W	277-480 VAC	6700lm	163lm/W	7300lm	178lm/W	6900lm	168lm/W

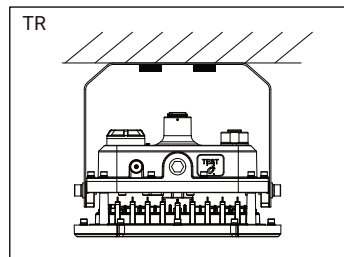
MHS01 200W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	200W	277-480 VAC	30000lm	150lm/W	33000lm	165lm/W	31400lm	157lm/W
LV2	150W	277-480 VAC	23000lm	153lm/W	25500lm	170lm/W	24000lm	160lm/W
LV3	120W	277-480 VAC	19000lm	158lm/W	21000lm	175lm/W	20000lm	167lm/W
LV4	80W	277-480 VAC	13000lm	163lm/W	14500lm	181lm/W	13600lm	170lm/W

DIMENSIONS

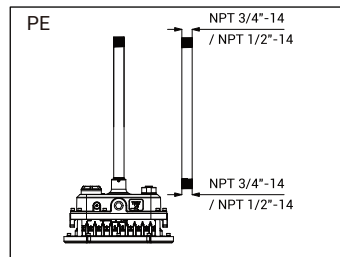
unit: mm/inch



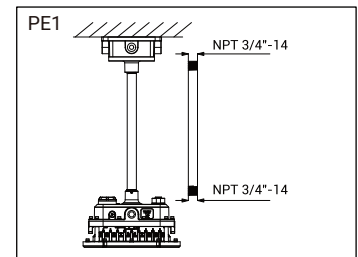
MOUNTING



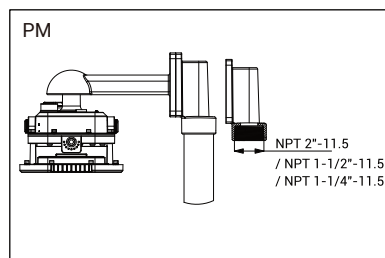
Trunnion Mount
/U-Bracket Mount



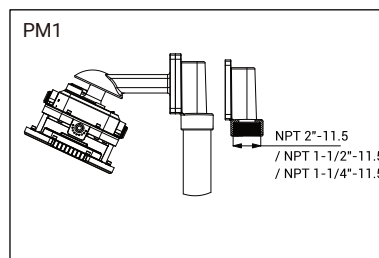
Pendant Mount



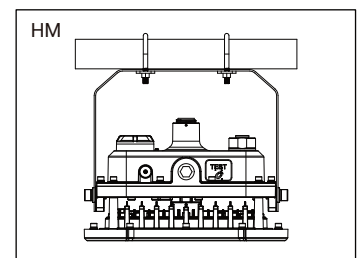
Pendant Mount with Box



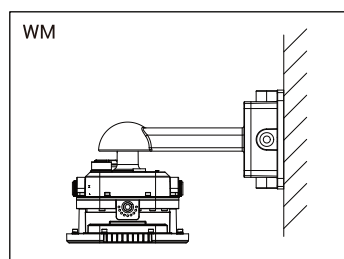
Round Pole Mount



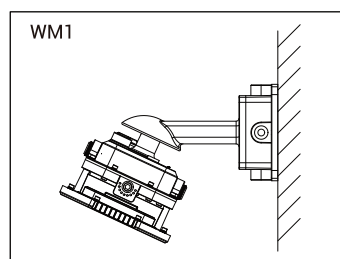
Round Pole Mount (115°)



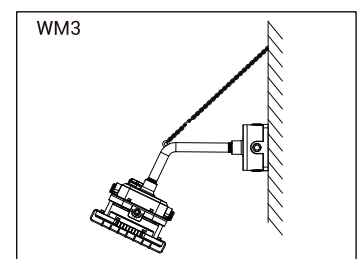
Hoop Clamp Mount



Wall Mount

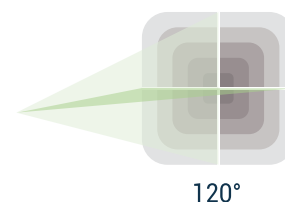
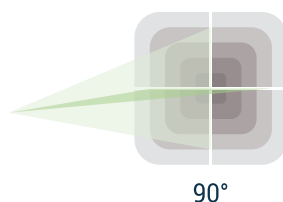
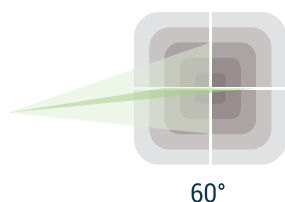
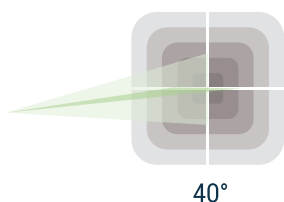


Wall Mount (115°)

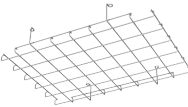


Wall Mount (115° Pole)

PHOTOMETRICS



ACCESSORIES (Optional)

	Microwave sensor Description: 12-24V DC input voltage Microwave sensor; ANT-9		Emergency Battery BLD-EX-AE08S-300Y: 5°C to 60°C BLD-EX-AE08S-300Y-LT: -20°C to 60°C 8W, 90min, suitable for 60W/100W. BLD-EX-AE20S-300Y: 5°C to 60°C BLD-EX-AE20S-300Y-LT: -20°C to 60°C 20W, 90min, suitable for 200W
	Straight Pipe Suitable for Pendant Mount Optional threads: NPT3/4"-14, NPT1/2"-14.		Hooping Suitable for Hoop Clamp Mount.
	External Glare Shield		Wire Guard
	90° Mount Arm with Pole Support Suitable for Round Pole Mount Optional threads: NPT2"-11.5, NPT1-1/2"-11.5, NPT1-1/4"-11.5.		115° Direct Mount Arm with Pole Support Suitable for Round Pole Mount (115°) Optional threads: NPT2"-11.5, NPT1-1/2"-11.5, NPT1-1/4"-11.5.
	90° Mount Arm with Box Suitable for Wall Mount		115° Direct Mount Arm with Box Suitable for Wall Mount (115°)
	115° Bended Pipe with Box Suitable for Wall Mount (115° Pole) Optional threads: NPT3/4"-14.		
	Straight Pipe with Box Suitable for Pendant Mount with Box Optional threads: NPT3/4"-14.		

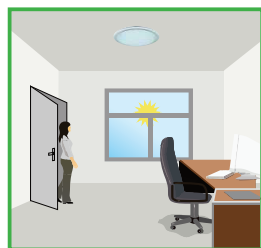
SENSOR INSTRUCTIONS

UTILIZING FIELD AND INTRODUCTION

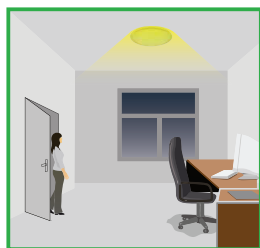
ANT-9 is a moving object sensor that can detect a range of 360°, and its working frequency is 5.8GHz. The advantage of this product is stable working state (stable working temperature: -40°C~+70°C), ANT-9 adopts a microwave sensor (high-frequency output < 0.2mW), so, it is safe and performs better than infrared sensors.

DIMMING FUNCTION

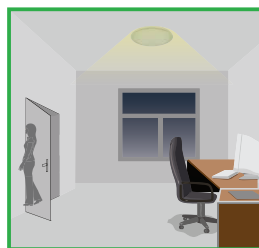
This function inside the motion sensor to achieve tri-level control, for some areas which require a light change notice before switch-off. The sensor offers 3 levels of light: 100%-->dimmed light (natural light is insufficient)-->off; and 2 periods of selectable waiting time: motion hold-time and stand-by period; Selectable daylight threshold and freedom of detection area.



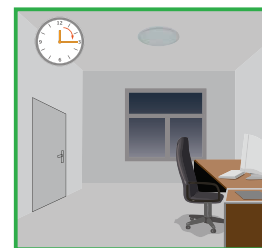
With sufficient natural light, the light does not switch on when presence is detected.



With insufficient natural light, the sensor switches on the light automatically when presence is detected.



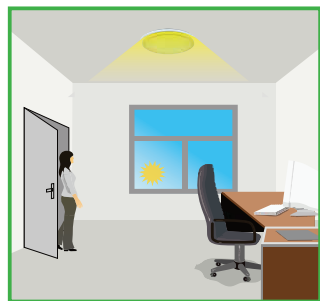
After hold-time, the light dims to stand-by level if the surrounding natural light is below the daylight threshold.



Light switches off automatically after the stand-by period elapses.

DAYLIGHT HARVESTING FUNCTION (ONLY BY USING RC100 REMOTE CONTROL)

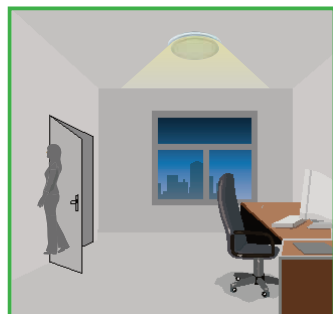
Open the daylight harvesting function only by choosing "☉" button when remote control is in setting condition. Memory and maintain current ambient brightness.



When the natural light is sufficient or dark, movement is detected and the light will turn on 100% brightness.



The light turns on at full or dims to maintain the lux level. The light output regulates according to the level of natural light available.



The light dims to stand-by period after hold-time and stays on selected minimum dimming level.



The light switches off completely after the stand-by period.

Setting on this demonstration:

BRIGHTNESS: 100%

SENSITIVITY: 100%

HOLD TIME: 30MIN

DAYLIGHT SENSOR: ☉

STAND BY DIM: 30%

STAND BY TIME: 1MIN