



NOTES:

FIXTURE TYPE:

PROJECT:



PRODUCT DESCRIPTION

The MHR21 series lighting products feature excellent design, high performance and durability, designed 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.

CONSTRUCTION

- Robust cast aluminum housing with low copper content that withstands harsh or hostile environments; Durable 3,000-hour salt-fog finish (extends service life in corrosive environments).
- The engineered rear-mounted heat sink ensures optimal heat dissipation.
- The LED housing is hermetically sealed against moisture and contaminants, with an IP66 rating.
- Highly resistant to both shock and vibration.
- IK10 protection level can be achieved by using a wire guard.

OPTICS

- Available in lumen packages with lumen output ranging from 4,000lm to 16,000lm.
- Tempered glass possesses remarkable resistance to elevated temperatures.
- Highly engineered LED system ensures superior uniformity and maximizes spacing.

LED MODULE

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

ELECTRICAL

- Universal 120-347 VAC or 277-480 VAC input voltage.
- 4-level wattage selectable: 100%-80%-60%-40% (60W & 100W, 277-480 VAC); 100%-85%-72%-65% (100W, 120-347 VAC).
- 0-10V dimming driver with 10% - 100% dimming range.
- Power factor: > 0.90, THD<20%.
- NEC/CE T-CODE:
60W: T5(+50°C) / T4A(+65°C) 100W: T5(+40°C) / T4A(+65°C)
- Operating Temperature Range:

Emergency Function	Battery Working Status	Wattage	
		60W	100W
Y	Charge	5°C ~ 45°C	5°C ~ 40°C
	Discharge	5°C ~ 45°C	5°C ~ 40°C
N	N	-40°C ~ 65°C	-40°C ~ 65°C

CONTROLS

- Microwave sensor (with photocell) optional.
- Emergency battery is optional.

MOUNTING

- Trunnion Mount (default).
- Ceiling Mount (optional).
- Hoop Clamp Mount (optional).
- Pendant Mount (optional).
- Pendant Mount With Box (optional).
- Round Pole Mount (optional).
- Round Pole Mount (115°) (optional).
- Wall Mount (optional).
- Wall Mount (115°) (optional).
- Wall Mount (115° Pole) (optional).

LIFESPAN

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

ORDERING INFORMATION

EXAMPLE: MHR21-100W-34V-DDK-GS-60-TR-AD

Model	Wattage	Input Voltage	CCT	Finish	Intelligent Control	Light Distribution	Mounting	AD
MHR21 = Hazardous Location Round Luminaire	100W = (100/85/72/65W) selectable 100W = (100/80/60/40W) selectable 60W = (60/48/36/24W) selectable	34V = 120-347V 48V = 277-480V	DDK = Selectable CCT 30K = 3000K 40K = 4000K 50K = 5000K	GS = Gray Sand Y = Yellow	Blank = Null M = Motion Sensor P = Photocell B = Emergency battery (5~600C) MB = Motion Sensor+Emergency battery PM = Motion Sensor+Photocell PB = Photocell+Emergency battery PMB = Motion Sensor+Photocell +Emergency battery	60 = 60 Degree ML = 90 Degree WL = 120 Degree	TR = Trunnion Mount CM = Ceiling Mount HM = Hoop Clamp Mount PE = Pendant Mount PE1 = Pendant Mount With Box PM = Round Pole Mount PM1 = Round Pole Mount (115°) WM = Wall Mount WM1 = Wall Mount (115°) WM3 = Wall Mount (115° Pole)	Power and CCT selectable

NOTE: 1. 277-480 VAC is only suitable for 100 W.



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).

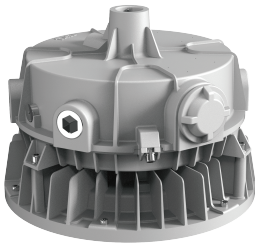
WARRANTY

- Five year limited warranty

NOTE

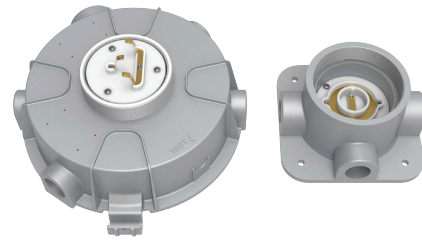
- Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C(±5°C). Specifications subject to change without notice.

CCT & WATTAGE SELECTABLE



Wattage selectable: 100%, 80%, 60%, 40%
CCT selectable: 3000K, 4000K, 5000K

QUICK INSTALLATION



Contractor-friendly design is ideal for both retrofit and new construction applications.

The quick-connect design enables easy installation: simply wire the mounting module, then screw in the luminaire. 2-start Acme threads save time.

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
			Hydrogen	B	
	Division 2		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
			Coal dust	F	
	Division 2		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.

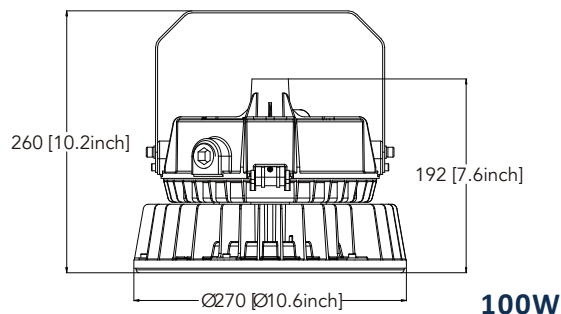
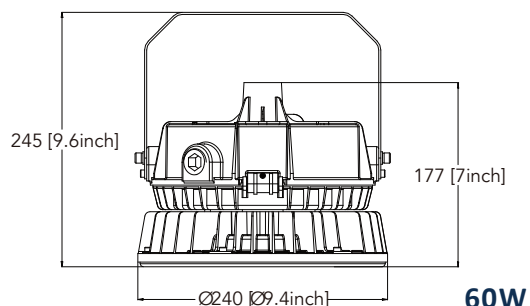
Division 2: Flammable concentrations may not exist under normal operating conditions.

ELECTRICAL DATA

Number Of Drivers	Driver Output Current (mA)	Nominal Power (W)	Input Voltage (V)	Input Current (Amps)
1	930	60	120	0.50
			208	0.29
			240	0.25
			277	0.22
			347	0.17
1	450	100	120	0.83
			208	0.48
			240	0.42
			277	0.36
			347	0.29
			480	0.21

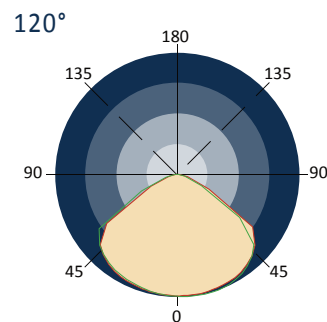
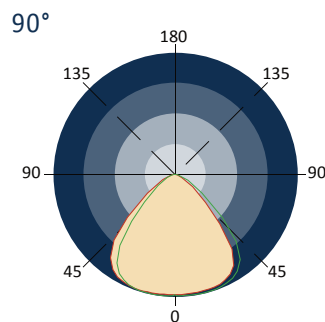
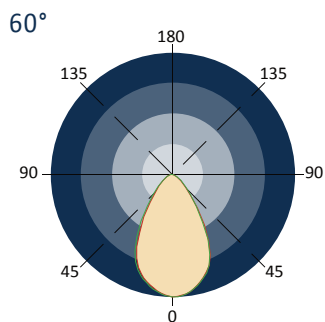
DIMENSIONS

unit: mm/inch



PHOTOMETRICS

Various optics are designed for a specific purpose and cover all your application needs.



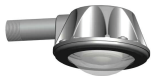
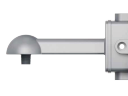
PERFORMANCE DATA

MHR21 60W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	60W	120- 347 VAC	9000lm	150lm/W	9400lm	157lm/W	9200lm	153lm/W
LV2	48W	120- 347 VAC	7800lm	163lm/W	8300lm	173lm/W	8000lm	167lm/W
LV3	36W	120- 347 VAC	6000lm	167lm/W	6300lm	175lm/W	6100lm	169lm/W
LV4	24W	120- 347 VAC	4000lm	167lm/W	4200lm	175lm/W	4100lm	171lm/W

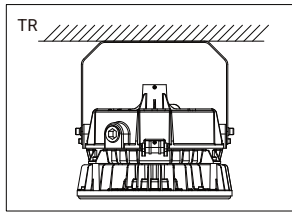
MHR21 100W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	100W	120- 347 VAC	15000lm	150lm/W	16000lm	160lm/W	15500lm	155lm/W
LV2	85W	120- 347 VAC	13000lm	153lm/W	14200lm	167lm/W	13600lm	160lm/W
LV3	72W	120- 347 VAC	11200lm	156lm/W	12200lm	169lm/W	11700lm	163lm/W
LV4	65W	120- 347 VAC	10400lm	160lm/W	11300lm	174lm/W	10800lm	166lm/W

MHR21 100W								
SETTING	SYSTEM WATTS	VOLTAGE	3000K(70CRI)		4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW	LUMENS	LPW
LV1	100W	277- 480 VAC	15000lm	150lm/W	16000lm	160lm/W	15500lm	155lm/W
LV2	80W	277- 480 VAC	12100lm	151lm/W	13100lm	164lm/W	12600lm	158lm/W
LV3	60W	277- 480 VAC	9600lm	160lm/W	10500lm	175lm/W	10000lm	167lm/W
LV4	40W	277- 480 VAC	6700lm	168lm/W	7300lm	183lm/W	7000lm	175lm/W

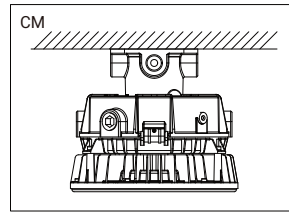
ACCESSORIES (OPTIONAL)

	External Sensor		Wire Guard for Spherical Glass
	Emergency Battery BLD-EX-AE08S-300Y 8W, 90min		Aluminum Reflector
	Wire Guard for Flat Glass		Aluminum Reflector
	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.		90° Mount Arm with Box Suitable for Wall Mount
	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.		115° Direct Mount Arm with Box Suitable for Wall Mount (115°)
	Straight Pipe with Box Suitable for Pendant Mount with Box Optional threads: NPT3/4"-14.		Hooping Suitable for Hoop Clamp Mount
	115° Bended Pipe with Box Suitable for Wall Mount (115° Pole) Optional threads: NPT3/4"-14.		Straight Pipe Suitable for Pendant Mount Optional threads: NPT3/4"-14.

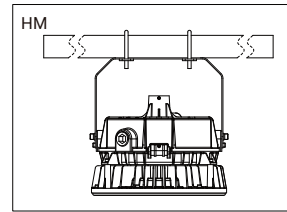
MOUNTING



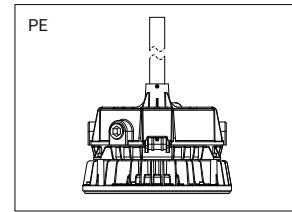
Trunnion Mount



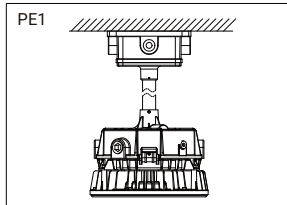
Ceiling Mount



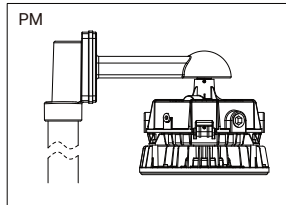
Hoop Clamp Mount



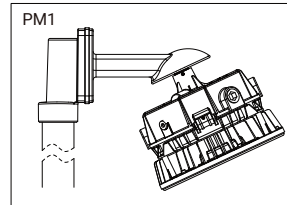
Pendant Mount



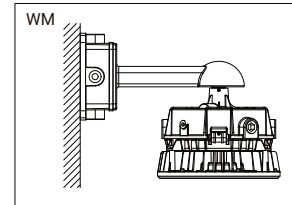
Pendant Mount with Box



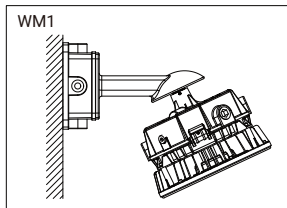
Round Pole Mount



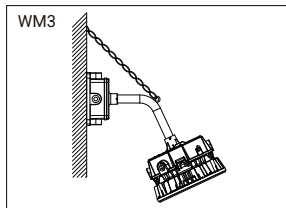
Round Pole Mount (115°)



Wall Mount



Wall Mount (115°)



Wall Mount (115° Pole)