

AREA LIGHT(MAL08)

Specifications

Construction:

- The rugged, one-piece die-cast aluminum housing features a complete heat sink that optimizes heat dissipation through convection cooling management.
- Low profile, 3G vibration rated compact design minimizes wind load requirements.
- Housing is completely sealed against moisture and environmental contaminants.

Optics:

- Available in IES Type III, IV, V distributions
- Light engines are available in adjustable color temperature (3000K&4000K&5000K) configurations.
- Scalable Lumen Packages from 20,000 to 45,000 Lumens replaces up to 1000W Metal Halide.
- Optics is precisely designed to shape the distribution, maximizing efficiency and application spacing.
- The optics can conform to dark sky requirement.

Electrical:

- Universal 120-277 VAC or 347-480 VAC input voltage
- Standard with 0-10V dimming driver
- Power adjustable: 100%, 80%, 60%, 40%.
- THD: ≤20%
- Power Factor: ≥90%

Controls:

- Optional occupancy sensor
- Optional Photocell

Ambient Temperature:

- Ambient operating temperature -40° C to 40° C (-40° F to 104° F).

Installation:

- Suitable for mounting heights ranging from 26-50' in area lighting applications
- Round pole, Square pole, slipfitter, wall mount and yoke are available.
- The design can be operated by one person to install the whole lamp

Lifespan:

- Estimated 100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Finish:

- It's available in black or optional dark bronze, silvery gray or white.



Black



Dark Bronze



Silver Gray



White

Medium Size: 100W/140W/180W



Large Size: 250W/300W



Certifications:

- UL wet location listed

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.

Structural Design

Housing

The one-piece die-cast housing with corrosion-resistant coating protection and the modular design extend the life of the luminaire while making it easy to maintain.

Photocell

Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell.

PIR Sensor

Optional PIR sensor allows for security and energy saving.

Mounting

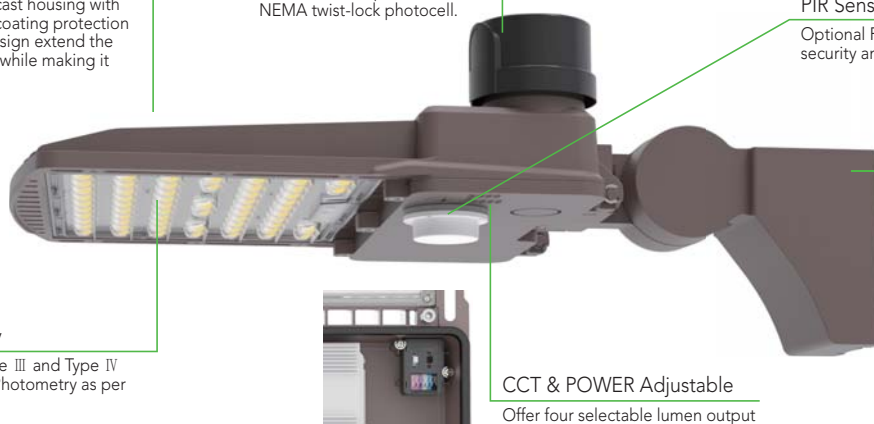
Optional for square, round pole mount, slipfitter, wall mount, yoke mount. All mounting brackets are simple to operate, which can realize single operation and reduce labor costs.

Photometry

Optional Type III and Type IV and Type V Photometry as per applications.

CCT & POWER Adjustable

Offer four selectable lumen output (40%/60%/80%/100%), and three selectable CCTs (30K/40K/50K)



PERFORMANCE DATA

SYSTEM WATTS	VOLTAGE	DIST.TYPE	CRI	LUMENS (3000K)	LPW (3000K)	LUMENS (4000K)	LPW (4000K)	LUMENS (5000K)	LPW (5000K)
100W	120-277V/347-480V	3	70	14200lm	142 lm/W	15800lm	158 lm/W	14600lm	146 lm/W
140W	120-277V/347-480V	3	70	20000lm	143 lm/W	22000lm	157 lm/W	20500lm	146 lm/W
180W	120-277V/347-480V	3	70	24000lm	133 lm/W	26500lm	147 lm/W	25000lm	139 lm/W
250W	120-277V/347-480V	3	70	33500lm	134 lm/W	37000lm	148 lm/W	35000lm	140 lm/W
300W	120-277V/347-480V	3	70	40000lm	133 lm/W	45000lm	150 lm/W	42000lm	140 lm/W

ADJUSTABLE LUMEN OUTPUT TABLE

		100W		140W		180W		250W		300W	
SETTING	DIST.TYPE	SYSTEM WATTS	LUMENS (5000K)	SYSTEM WATTS	LUMENS (5000K)	SYSTEM WATTS	LUMENS (5000K)	SYSTEM WATTS	LUMENS (5000K)	SYSTEM WATTS	LUMENS (5000K)
100%	3	100	14600	140	20500	180	25000	250	34000	300	42000
80%	3	80	12000	110	16500	155	22000	190	28000	240	36000
60%	3	60	9000	85	13500	125	19000	140	22000	180	28500
40%	3	40	6000	60	10000	95	14800	95	15300	120	20000

ELECTRICAL DATA

Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
1	1200	100	120	0.83
		100	208	0.48
		100	240	0.42
	2520	100	277	0.36
		100	347	0.29
		100	480	0.21
1	1200	140	120	1.17
		140	208	0.67
		140	240	0.58
		140	277	0.51
		140	347	0.40
		140	480	0.29
1	960	180	120	1.50
		180	208	0.87
		180	240	0.75
		180	277	0.65
		180	347	0.52
		180	480	0.38
1	1200	250	120	2.08
		250	208	1.20
		250	240	1.04
		250	277	0.90
		250	347	0.72
		250	480	0.52
1	1500	300	120	2.50
		300	208	1.44
		300	240	1.25
		300	277	1.08
		300	347	0.86
		300	480	0.63

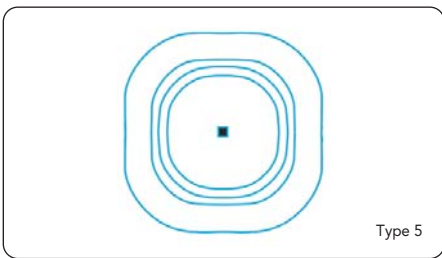
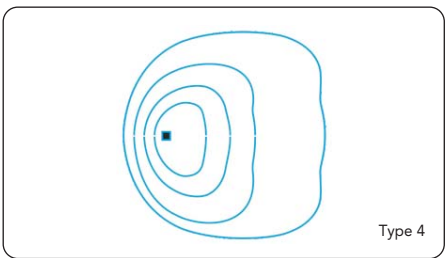
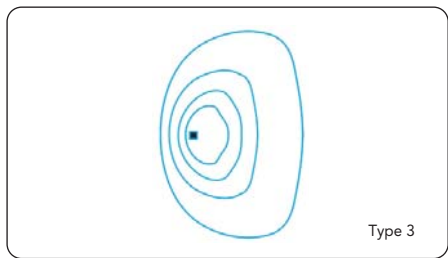
PHOTOMETRICS

Mester offers a complete set of optical systems to meet every site lighting requirement. These systems provide remarkable flexibility in precisely matching light distribution patterns to specific site requirements.

Type 3 optics produce an asymmetrical pattern that directs the majority of the light forward and equally on both sides of the luminaire. In a back-to-back configuration, it creates a rectangular pattern which can extend pole spacings.

Type 4 is suitable for applications where light is primarily required forward with minimal backlight. Typical installations include perimeter poles.

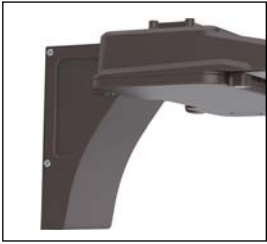
Type 5 optics produce a symmetrical square distribution pattern that distributes light equally on all sides of the luminaire. Type 5 luminaires is universal for most area lighting applications



MOUNTING

- Standard versatile mounting arm accommodates multiple drilling patterns as well as square and round poles
- Optional for cast aluminum slipfitter mounting adapter (Compatible with more MESTER mounting adaptors such as Tenon, suits for various application)

Mounting Options



Arm Mount
(4" and 5" Square and Round poles)
Standard versatile mounting arm is simple to install and can be used with existing poles for retrofit installations.



Slipfitter Mount
An optional cast aluminum mast arm adapter secures fixture head to nominal 2-3/8" O.D. horizontal steel tenon arm.



Wall Mount
Wall Mount is easy to install for direct wall mounting with 1/2" conduit wiring or standard J-box mounting

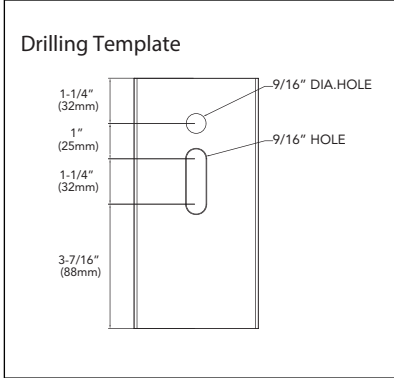
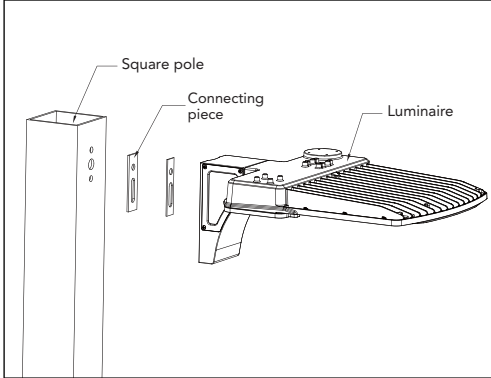
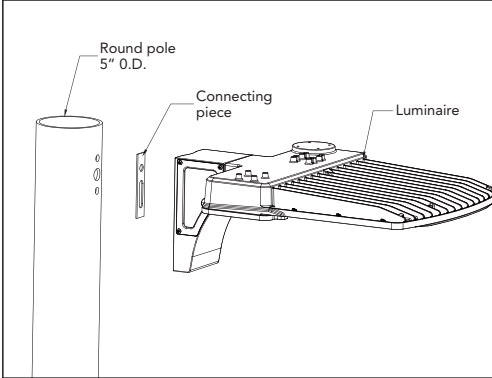


Yoke Mount
Die-cast aluminum trunnion is easily adapted to many surfaces and allows easy fixture aiming angles.



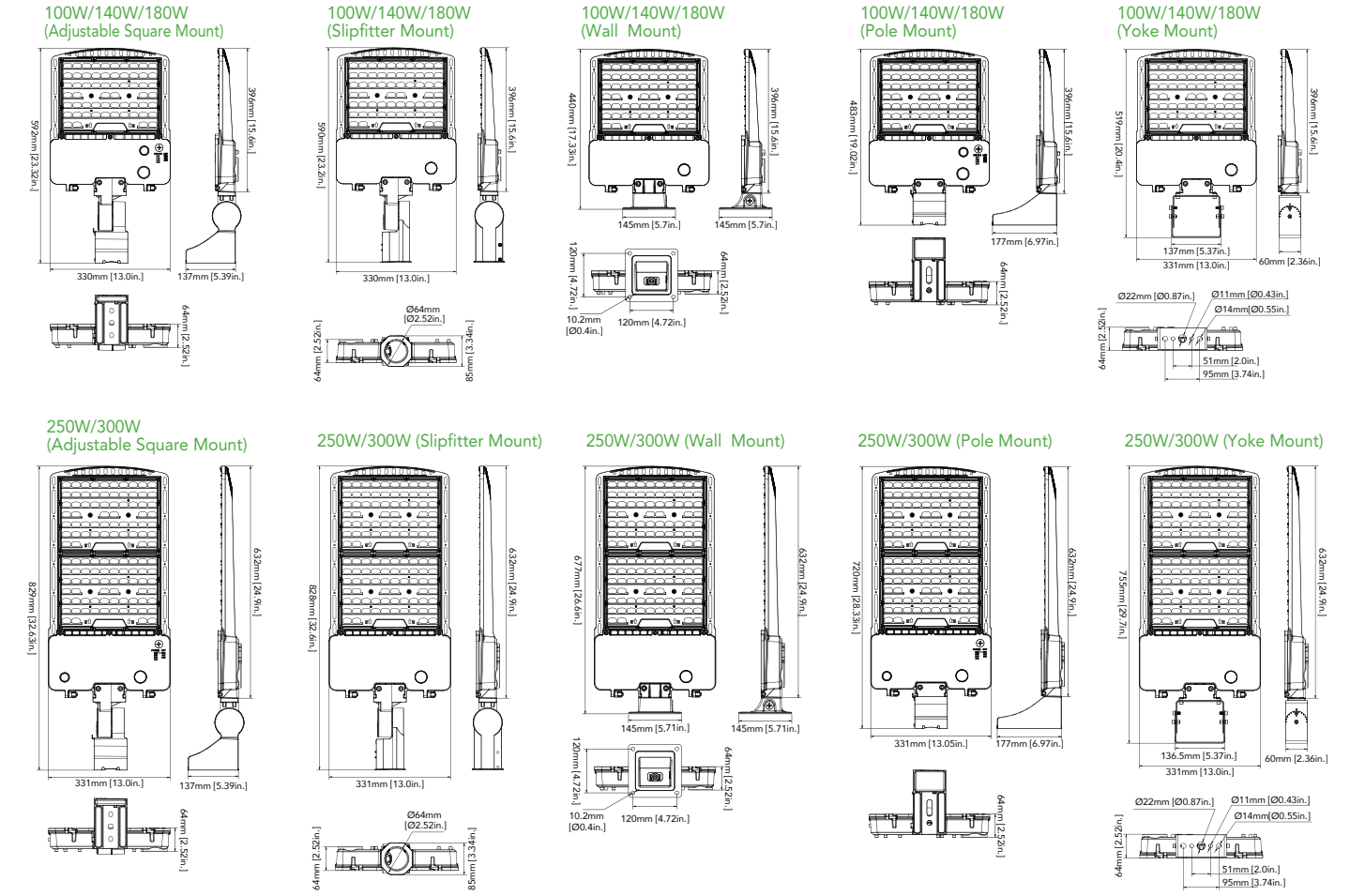
Adjustable Arm Mount
Standard versatile mounting arm is simple to install and can be used with existing poles for retrofit installations.

Mounting Dimensions



DIMENSION

unit: inch/mm



ORDERING GUIDE

Example: MAL08 140W 27V XXK Y Y Y Y Y

Fixture Type	Wattage	Voltage	CCT	Finish	Photocell (Option)	Sensor (Option)	Mounting	Photometry	CCT and Power Adjustable	Internal Code
MAL08 Area Light Series	100 100W	27V 120-277V	DDK ¹	D Dark Bronze	P0 120-277V Photocell	M With Sensor	SQ Square Pole Mount	T3 TYPE III	AD ¹	Blank
	140 140W	48V 347-480V	Adjustable color temperature	B Black	P3 347V Photocell	Blank Without Sensor	SP Slipfitter Mount	T4 TYPE IV	With adjustment dial	Alphanumeric
	180 180W			W White	P4 480V Photocell		WM Wall Mount	T5 TYPE V	Blank	
	250 250W			SG Silver Gray	Blank Without Photocell		YK Yoke Mount		Without adjustment dial	
	300 300W						SQA Adjustable Square Mount			

Note: CCT adjustable(3000K/4000K/5000K) and power adjustable(100%, 80%, 60%, 40%).

ADDITIONAL MOUNTING ACCESSORIES

POLE BRACKET • For mounting one fixture on an existing pole			
	4" Square Pole Mount with 2-3/8" O.D. Tenon NO. 4SQ-SP-D Finish: Dark Bronze USE: For use with square, non-tapered steel and aluminum poles. Furnished with four 5/16" hex head stainless-steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.		4" Round Pole Mount with 2-3/8" O.D. Tenon NO. 4SQR-SP-D Finish: Dark Bronze USE: For use with Round, non-tapered steel and aluminum poles. Furnished with three 3/8" hex head stainless-steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.
	5" Square Pole Mount with 2-3/8" O.D. Tenon NO. 5SQ-SP-D Finish: Dark Bronze USE: For use with square, non-tapered steel and aluminum poles. Furnished with four 5/16" hex head stainless-steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.		5" Round Pole Mount with 2-3/8" O.D. Tenon NO. 5SQR-SP-D Finish: Dark Bronze USE: For use with Round, non-tapered steel and aluminum poles. Furnished with three 3/8" hex head stainless-steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.
	Pole Bracket Accessories - Angle-Adjustment Adapter NO. SQA-ALDA Finish: Dark Bronze USE: Durable brackets are engineered to provide versatile mounting options. These arms are made from rugged die-cast aluminum. They allow optimal positioning of the light fixture to maximize the lighting effectiveness vertically and horizontally.		Pole Bracket accessories - Tenon & Yoke Adaptor NO. SP-TR-D Finish: Dark Bronze USE: The 2-3/8" OD Tenon Mount Adaptor for Yoke Fixtures is designed to mount MESTER light fixtures that are equipped with a yoke mount onto a 2-3/8" OD tenon. It may be utilized with the Mester Flood Light Series of light fixtures.
WALL BRACKET • Attaches to any flat surface • Provides wiring access		Mid-Pole tenon Bracket	
	90° Wall Mount Bracket with 2-3/8" O.D. Tenon NO. WM-SP-D Finish: Dark Bronze USE: The 90° wall mount bracket with 2-3/8" tenon attaches an MESTER floodlight to almost any surface: wall, roof, or wood pole. Provides wiring access and built-in 2-3/8" O.D. tenon to mount a fixture with our adjustable slipfitter. Suggested 3/8" diameter bolts for mounting. Mounting holes are spaced 3-1/4" apart.		2-3/8" OD Horizontal Tenon Mid-Pole Bracket NO. SQ-SP-D Finish: Dark Bronze USE: 2-3/8" OD Horizontal Tenon Mid-Pole Bracket is designed to mount light fixture that is equipped with an adjustable slipfitter onto a 2-3/8" OD horizontal tenon
Round External Mount Horizontal Tenon • To mount 2 3/4 fixtures on a existing pole			
	Double 90° Horizontal Tenon Adaptor NO. R60-SP2-90-D Finish: Dark Bronze USE: The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Two fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally		Triple 120° Horizontal Tenon Adaptor NO. R60-SP3-120-D Finish: Dark Bronze USE: The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally
	Double 180° Horizontal Tenon Adaptor NO. R60-SP2-180-D Finish: Dark Bronze USE: The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Two fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally		Quad 90° Horizontal Tenon Adaptor NO. R60-SP4-90-D Finish: Dark Bronze USE: The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Four fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally
	Triple 90° Horizontal Tenon Adaptor NO. R60-SP3-90-D Finish: Dark Bronze USE: The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally		