

# AREA LIGHT(MAL05)

## Specifications

### Construction:

- Rugged one-piece, die-cast aluminum housing secures the thermally conductive LED panel and electrical chamber
- 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 standard 4000 K and 5000 K (70 CRI) configurations.
- Scalable Lumen Packages from 13,900 to 42,000 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 1-10V dimming driver(s)
- Power adjustable: 100%, 80%, 60%, 40%.
- THD:  $\leq 20\%$
- Power Factor:  $\geq 90\%$

### Controls:

- Optional occupancy sensor
- Optional Photocell

### Ambient Temperature:

- Ambient operating temperature  $-40^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $104^{\circ}\text{F}$ ).

### 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

\* Items in light gray indicate that they are currently out of stock. Please contact us for more information or alternative options.

### Certifications:

- UL wet location listed
  - DesignLights Consortium™ Qualified.
- Note: DesignLights Consortium™ Qualified and classified for DLC Standard (all lumen packages), refer to [www.designlights.org](http://www.designlights.org) for details.

Small Size: 100W



Medium Size: 150W



Large Size: 250W/300W



### 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  $25^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ ) specifications subject to change without notice.

## Applications:

Auto dealerships, parking lots, walkways, roadways, campuses, facade lighting, grocery stores and other public areas.




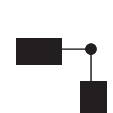
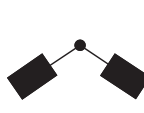


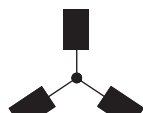

## PERFORMANCE DATA

SYSTEM WATTS	VOLTAGE	DIST.TYPE	4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW
100W	120-277V/347-480V	3	14100lm	141 lm/W	14100lm	141 lm/W
	120-277V/347-480V	4	14000lm	140 lm/W	13900lm	139 lm/W
	120-277V/347-480V	5	14200lm	142 lm/W	14200lm	142 lm/W
150W	120-277V/347-480V	3	21000lm	140 lm/W	21000lm	140 lm/W
	120-277V/347-480V	4	20500lm	137 lm/W	20500lm	137 lm/W
	120-277V/347-480V	5	21000lm	140 lm/W	21000lm	140 lm/W
250W	120-277V/347-480V	3	35000lm	140 lm/W	35000lm	140 lm/W
	120-277V/347-480V	4	35000lm	140 lm/W	35000lm	140 lm/W
	120-277V/347-480V	5	36000lm	144 lm/W	35000lm	140 lm/W
300W	120-277V/347-480V	3	42000lm	140 lm/W	42000lm	140 lm/W
	120-277V/347-480V	4	41000lm	137 lm/W	41000lm	137 lm/W
	120-277V/347-480V	5	42000lm	140 lm/W	42000lm	140 lm/W

## ELECTRICAL DATA

Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
1	850	100	120	0.83
		100	208	0.48
		100	240	0.42
		100	277	0.36
	2520	100	347	0.29
		100	480	0.21
1	1200	150	120	1.25
		150	208	0.72
		150	240	0.63
		150	277	0.54
	2600	150	347	0.43
		150	480	0.31
1	4300	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	5200	300	120	2.50
		300	208	1.44
		300	240	1.25
		300	277	1.08
		300	347	0.86
		300	480	0.63

## EPA OF AREA LIGHT

Item							
	1	2 @90°	2 @120°	2@180°	3 @90°	3 @120°	4 @90°
100W	0.2751	0.5267	0.7321	0.6164	0.9577	0.9837	0.9577
150W	0.3111	0.6343	0.6464	0.6222	0.9335	0.9696	0.9335
250W/300W	0.4097	0.7227	0.9919	0.8856	1.1986	1.3049	1.1986

# BUG

SYSTEM WATTS	VOLTAGE	DIST.TYPE	B	U	G
100W	120-277V/347-480V	3	2	0	2
		4	3	0	3
		5	4	0	2
150W	120-277V/347-480V	3	3	0	3
		4	3	0	3
		5	4	0	2
250W	120-277V/347-480V	3	4	0	4
		4	4	0	4
		5	5	0	3
300W	120-277V/347-480V	3	4	0	4
		4	4	0	5
		5	5	0	3

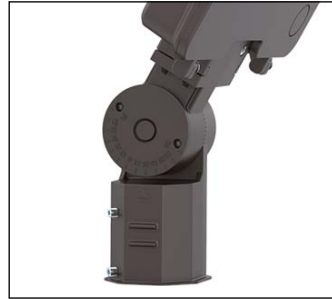
## MOUNTING

- 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.

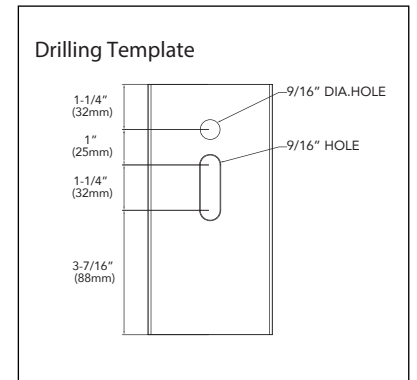
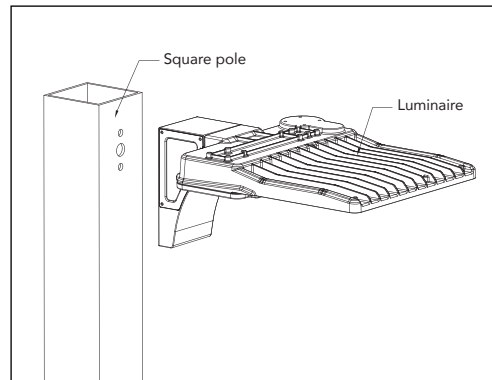
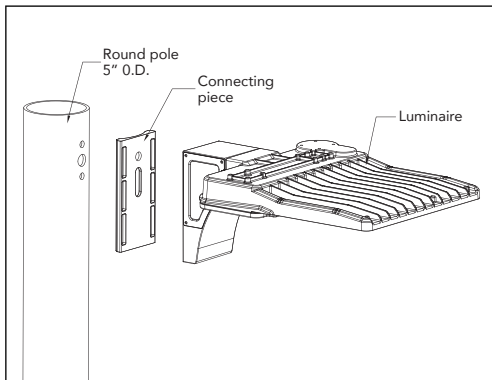


**Wall Mount**  
Wall Mount is easy to install for direct wall mounting with 1/2" conduit wiring or standard J-box mounting



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

### Mounting Dimensions



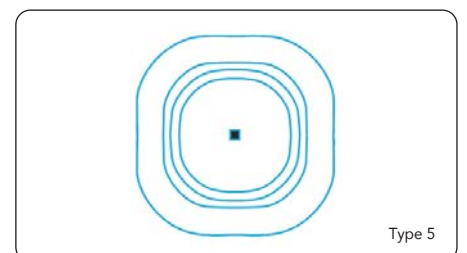
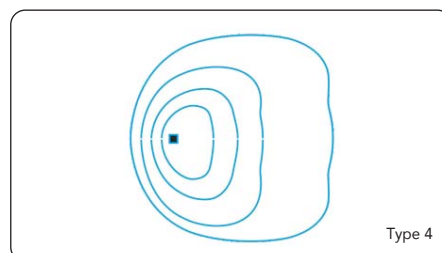
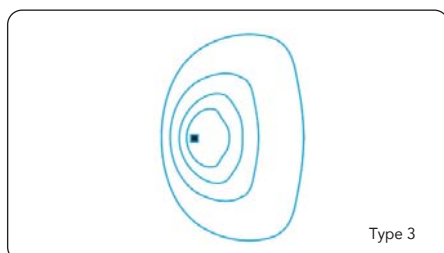
## PHOTOMETRICS

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.

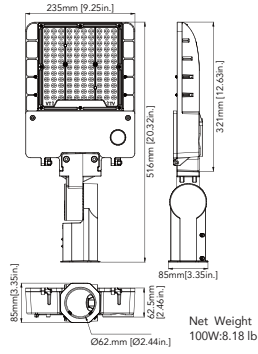
Type 5 optics produce a symmetrical square distribution pattern that distributes light equally on all sides of the luminaire. Type 5 luminaires is universal for most area lighting applications



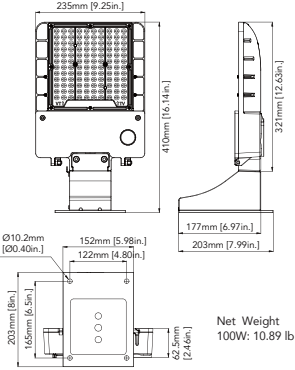
# DIMENSION

unit: inch/mm

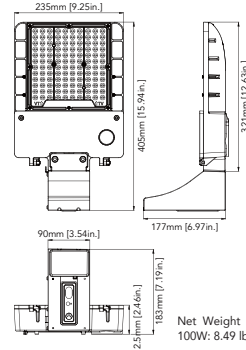
100W (Slipfitter Mount)



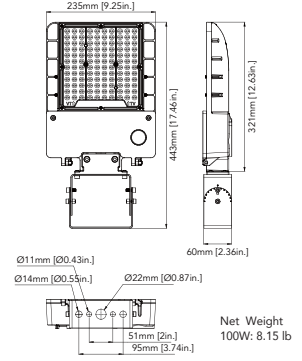
100W (Wall Mount)



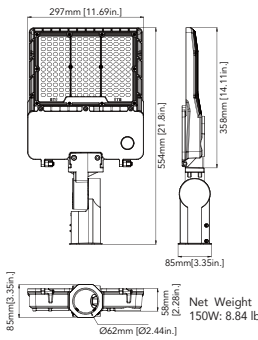
100W (Pole Mount)



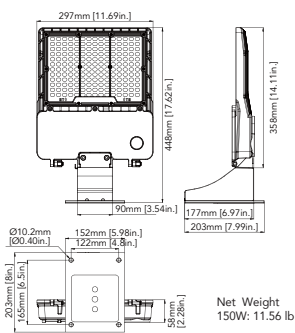
100W (Yoke Mount)



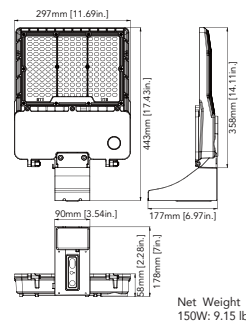
150W (Slipfitter Mount)



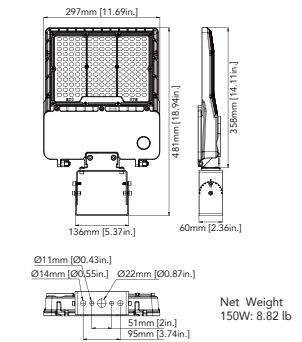
150W (Wall Mount)



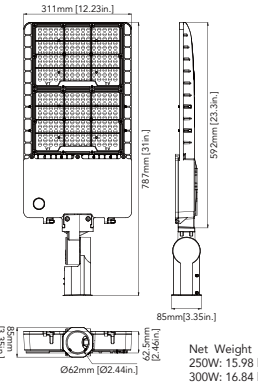
150W (Pole Mount)



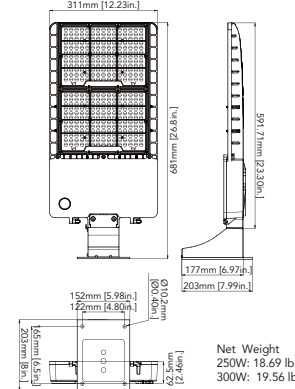
150W (Yoke Mount)



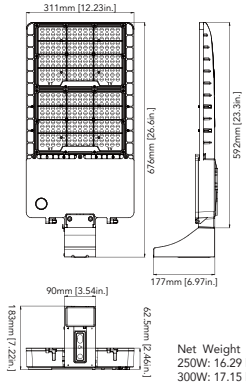
250W/300W (Slipfitter Mount)



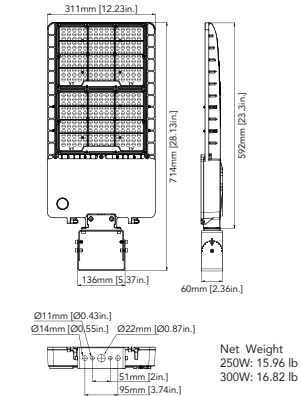
250W/300W (Wall Mount)



250W/300W (Pole Mount)



250W/300W (Yoke Mount)



## ORDERING GUIDE

Example: MAL05100W 27V XXK Y Y Y Y Y

Fixture Type	Wattage	Voltage	CCT	Finish	Photocell (Option)	Sensor (Option)	Mounting	Photometry	Surge Protection (Option)
MAL05 Area Light Series	100 100W	27V 120-277V 48V 347-480V	40K 4000K 50K 5000K	D Dark Bronze B Black W White SG Silver Gray	P0 120-277V Photocell P3 347V Photocell P4 480V Photocell Blank Without Photocell	M With Sensor Blank Without Sensor	SQ Square Pole Mount SP Slipfitter Mount WM Wall Mount YK Yoke Mount	T3 TYPE III Photometry T4 TYPE IV Photometry T5 TYPE V Photometry	S Surge protection (Blank) No Surge protection

Example: MAL05 150W 27V XXK Y Y Y Y Y

Fixture Type	Wattage	Voltage	CCT	Finish	Photocell (Option)	Sensor (Option)	Mounting	Photometry
MAL05 Area Light Series	150 150W 250 250W 300 300W	27V 120-277V 48V 347-480V	40K 4000K 50K 5000K	D Dark Bronze B Black W White SG Silver Gray	P0 120-277V Photocell P3 347V Photocell P4 480V Photocell Blank Without Photocell	M With Sensor Blank Without Sensor	SQ Square Pole Mount SP Slipfitter Mount WM Wall Mount YK Yoke Mount	T3 TYPE III Photometry T4 TYPE IV Photometry T5 TYPE V Photometry

# ADDITIONAL MOUNTING ACCESSORIES

POLE BRACKET • For mounting one fixture on an existing pole			
 <p>60mm(2 3/8in.) 183.6mm(7.228in.) 76mm(3in.) 102±1mm(4in.)</p>	<p><b>4\" Square Pole Mount with 2-3/8\" O.D. Tenon</b> 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.</p>	 <p>60mm(2 3/8in.) 222.5mm(8.76in.) 101.6mm(4in.) 106.68mm(4.2in.)</p>	<p><b>4\" Round Pole Mount with 2-3/8\" O.D. Tenon</b> 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.</p>
 <p>60mm(2 3/8in.) 183.6mm(7.228in.) 76mm(3in.) 127±1mm(5in.)</p>	<p><b>5\" Square Pole Mount with 2-3/8\" O.D. Tenon</b> 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.</p>	 <p>60mm(2 3/8in.) 222.5mm(8.76in.) 101.6mm(4in.) 131.86mm(5.19in.)</p>	<p><b>5\" Round Pole Mount with 2-3/8\" O.D. Tenon</b> 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.</p>
	<p><b>Pole Bracket Accessories - Angle-Adjustment Adapter</b> NO. SOA-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.</p>	 <p>154.5±1mm(6.08 in.) 102±1mm(4 in.) 108.6mm(4.28in.) 63mm(2.48in.)</p>	<p><b>Pole Bracket accessories-Tenon &amp; Yoke Adaptor</b> 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.</p>
WALL BRACKET • Attaches to any flat surface • Provides wiring access		Mid-Pole tenon Bracket	
 <p>60mm(2 3/8in.) 152.4mm(6in.) 102±1mm(4in.) 227.2mm(8.95 in.)</p>	<p><b>90\" Wall Mount Bracket with 2-3/8\" O.D. Tenon</b> 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 abuilt-in 2-3/8\" O.D. tenon to mount a fixture with our adjustable spliffiter. Suggested 3/8\" diameter bolts for mounting. Mounting holes are spaced 3-1/4\" apart.</p>	 <p>185mm(7.28in.) 60mm(2 3/8in.) 100mm(3.94 in.) 18mm</p>	<p><b>2-3/8\" OD Horizontal Tenon Mid-Pole Bracket</b> 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 a adjustable spliffiter onto a 2-3/8\" OD horizontal tenon</p>
Round External Mount Horizontal Tenon • To mount 2/3/4 fixtures on a existing pole			
 <p>181mm(7.25in.) 101.6mm(4in.) 60mm(2 3/8in.) 63.5mm(2.5in.)</p>	<p><b>Double 90\" Horizontal Tenon Adaptor</b> 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</p>	 <p>181mm(7.25in.) 101.6mm(4in.) 60mm(2 3/8in.) 63.5mm(2.5in.)</p>	<p><b>Triple 120\" Horizontal Tenon Adaptor</b> 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</p>
 <p>181mm(7.25in.) 101.6mm(4in.) 60mm(2 3/8in.) 63.5mm(2.5in.)</p>	<p><b>Double 180\" Horizontal Tenon Adaptor</b> 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</p>	 <p>181mm(7.25in.) 101.6mm(4in.) 60mm(2 3/8in.) 63.5mm(2.5in.)</p>	<p><b>Quad 90\" Horizontal Tenon Adaptor</b> 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</p>
 <p>181mm(7.25in.) 101.6mm(4in.) 60mm(2 3/8in.) 63.5mm(2.5in.)</p>	<p><b>Triple 90\" Horizontal Tenon Adaptor</b> 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</p>		