

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.
- For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed.

Electrical:

- Universal 120-277 VAC or 347-480 VAC input voltage
- Standard with 0-10V dimming driver for 10% to 100% dimming capabilities.
- Wattage selectable (Option): 100%, 80%, 60%, 40%.
- THD: $\leq 20\%$
- Power Factor: $\geq 90\%$

Controls:

- Optional Occupancy sensor or Microwave sensor or daylight sensor.
- Optional Bluetooth sensor or Bluetooth controller.
- Silvair Luminaire Level Lighting Control (LLLC) optional.
- Sharkward Luminaire Level Lighting Control (LLLC) optional.
- Also compatible with 3rd party smart network control system.
- Optional NEMA 3-pin photocell or 7-pin 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

Small Size: 100W



Medium Size: 150W/180W



Large Size: 250W/300W



Certifications:

- DesignLights Consortium™ Qualified.
- UL cUL wet location listed.

Note: DesignLights Consortium™ Qualified and classified for DLC Premium (all lumen packages), refer to www.designlights.org for details.

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

Applications:

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

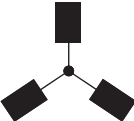
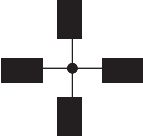


PERFORMANCE DATA			4000K(70CRI)		5000K(70CRI)	
SYSTEM WATTS	VOLTAGE	DIST.TYPE	LUMENS	LPW	LUMENS	LPW
100W	120-277V/347-480V	3	14100lm	141 lm/W	14100lm	141 lm/W
	120-277V/347-480V	4	14000lm	140 lm/W	13900lm	139 lm/W
	120-277V/347-480V	5	14200lm	142 lm/W	14200lm	142 lm/W
150W	120-277V/347-480V	3	21000lm	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
180W	120-277V/347-480V	3	25000lm	139 lm/W	25000lm	139 lm/W
	120-277V/347-480V	4	25000lm	139 lm/W	25000lm	139 lm/W
	120-277V/347-480V	5	26000lm	144 lm/W	26000lm	144 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
		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
		150	347	0.43
		150	480	0.31
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

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/180W	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
180W	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

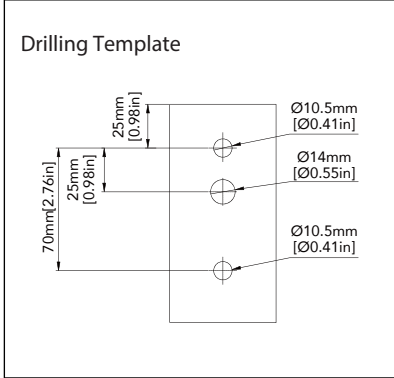
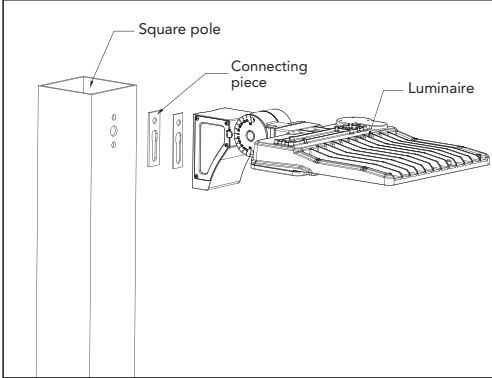
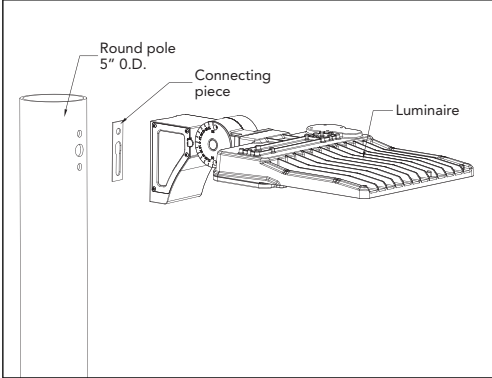


Yoke Mount
Die-cast aluminum trunnion is easily adapted to many surfaces and allows easy fixture aiming angles.



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

Mounting Dimensions



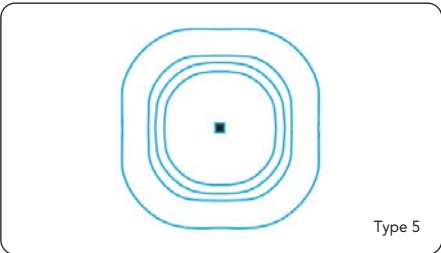
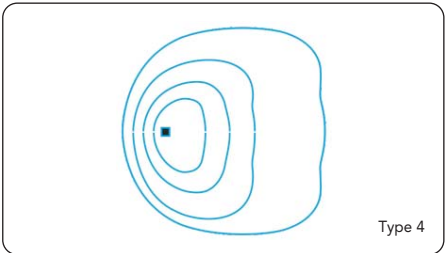
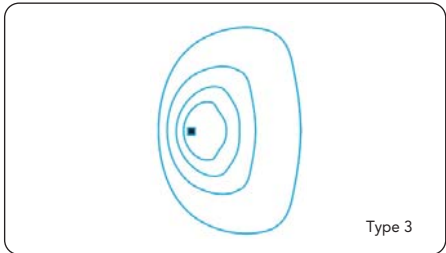
PHOTOMETRICS

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.

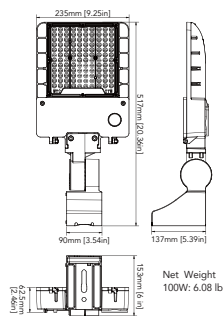
Type 5 optics produce a symmetrical square distribution pattern that distributes light equally on all sides of the luminaire. Type 5 luminaires is universal for most area lighting applications



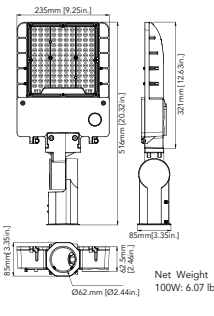
DIMENSION

unit: inch/mm

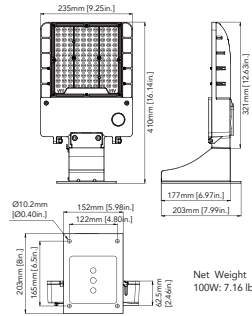
100W (Adjustable Square Mount)



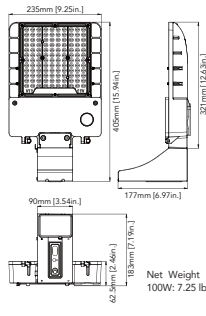
100W (Slipfitter Mount)



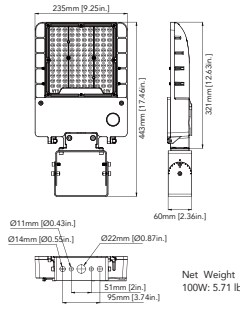
100W (Wall Mount)



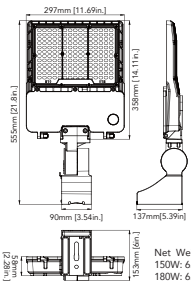
100W (Pole Mount)



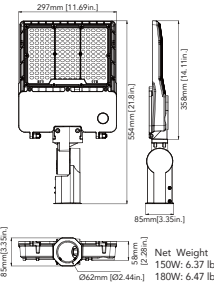
100W (Yoke Mount)



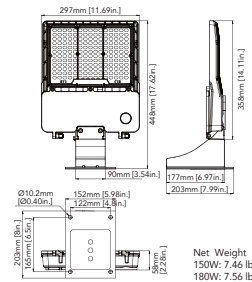
150W/180W (Adjustable Square Mount)



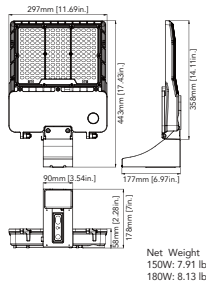
150W/180W (Slipfitter Mount)



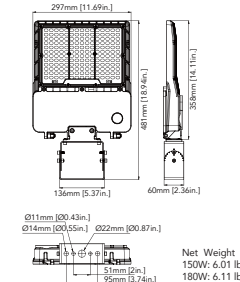
150W/180W (Wall Mount)



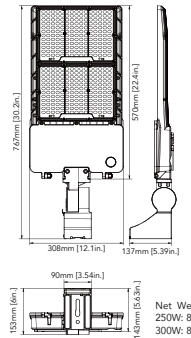
150W /180W(Pole Mount)



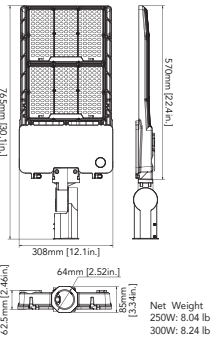
150W/180W (Yoke Mount)



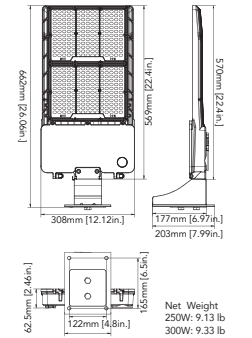
250W/300W (Adjustable Square Mount)



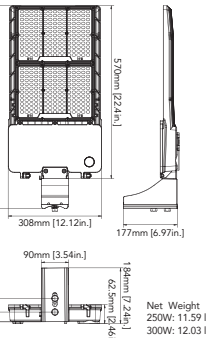
250W/300W (Slipfitter Mount)



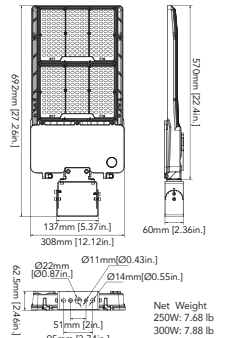
250W/300W (Wall Mount)



250W/300W (Pole Mount)



250W/300W (Yoke Mount)



EXTERNAL SHIELDS

AL05 series features a backlight control which provides reduced pixilation and increased visual comfort without compromising performance. External Glare Shield: sold separately or as an accessory.

			
External Glare Shield	Small Size	Medium Size	Large Size

ORDERING GUIDE

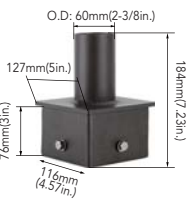
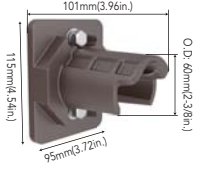
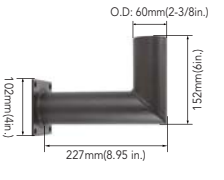
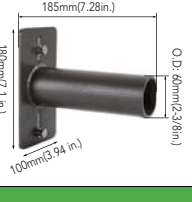
Example: MAL05100W 27V XXK Y Y Y Y Y

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 SQA Adjustable Square 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 180 180W 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 SQA Adjustable Square 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			
	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. 4SOR-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. 5SOR-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.
	Horizontal Wall or Square or Round pole mount with 2-3/8\" Tenon Bracket NO. SQ/R-SP-D Finish: Dark Bronze USE: This tenon bracket can be installed onto a wall, square pole, round pole. Provides wiring access and abuilt-in 2-3/8\" O.D. tenon to mount a fixture with our adjustable slipfitter. Suggested 3/8\" diameter bolts for mounting.		
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 abuilt-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 a 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		