

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)
- THD: $\leq 20\%$
- Power Factor: $\geq 90\%$

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

Certifications:

- UL wet location listed

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°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.








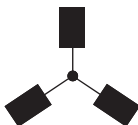
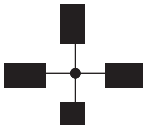
PERFORMANCE DATA

| | | | 4000K(70CRI) | | 5000K(70CRI) | |
|--------------|-------------------|-----------|--------------|----------|--------------|----------|
| SYSTEM WATTS | VOLTAGE | DIST.TYPE | LUMENS | LPW | LUMENS | LPW |
| | 120-277V/347-480V | 3 | 14100lm | 141 lm/W | 14100lm | 141 lm/W |
| 100W | 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 | 2 | 0 | 3 |
| 150W | 120-277V/347-480V | 3 | 3 | 0 | 3 |
| | | 4 | 3 | 0 | 3 |
| 250W | 120-277V/347-480V | 3 | 4 | 0 | 4 |
| | | 4 | 4 | 0 | 5 |
| 300W | 120-277V/347-480V | 3 | 4 | 0 | 5 |
| | | 4 | 4 | 0 | 5 |

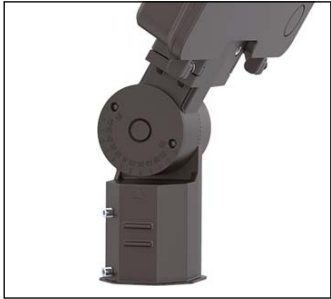
MOUNTING

- 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.

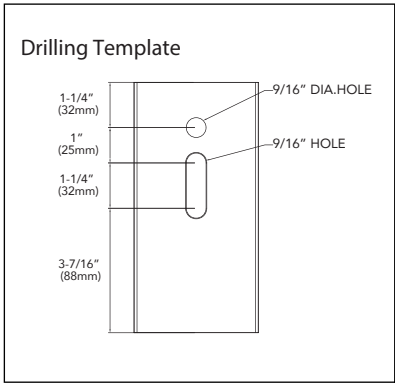
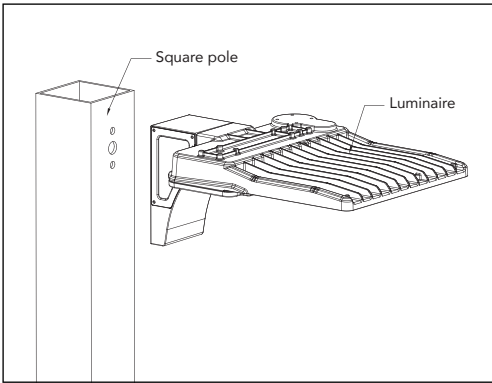
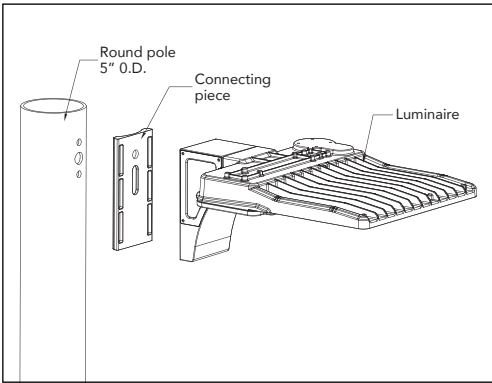


Wall Mount
Wall Mount is easy to install for direct wall mounting with 1/2" conduit wiring or standard J-box mounting



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

Mounting Dimensions



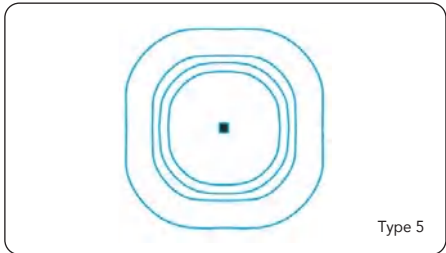
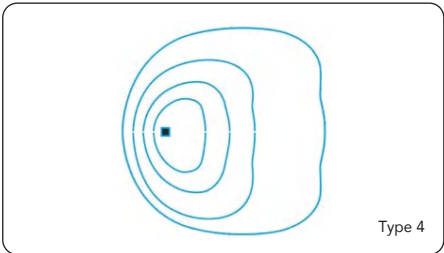
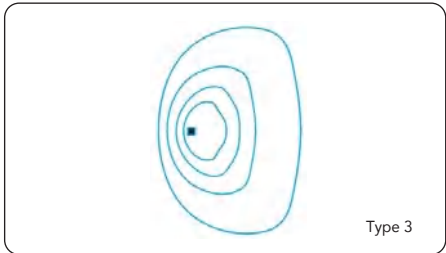
PHOTOMETRICS

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.

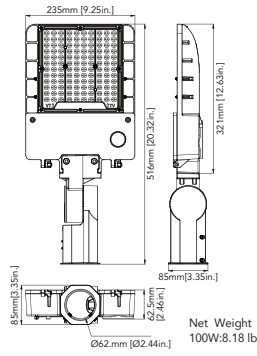
Type 5 optics produce a symmetrical square distribution pattern that distributes light equally on all sides of the luminaire. Type 5 luminaires is universal for most area lighting applications



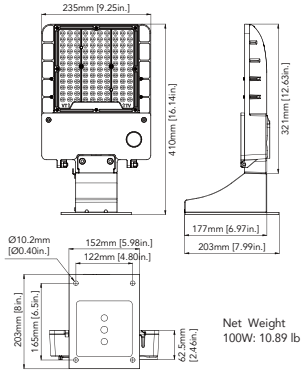
DIMENSION

unit: inch/mm

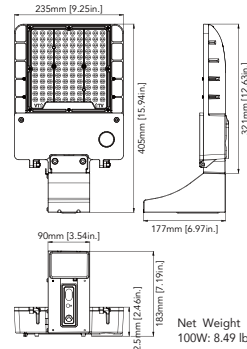
100W (Slipfitter Mount)



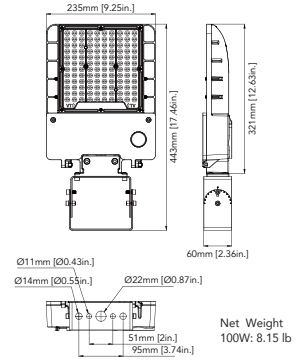
100W (Wall Mount)



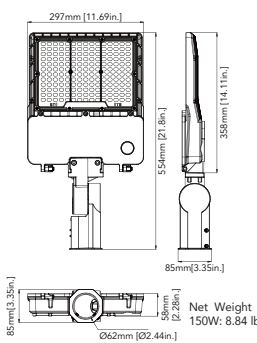
100W (Pole Mount)



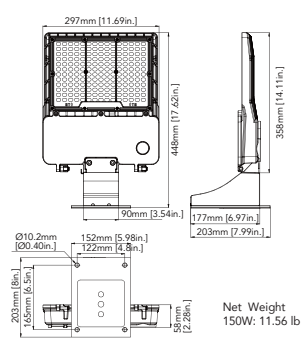
100W (Yoke Mount)



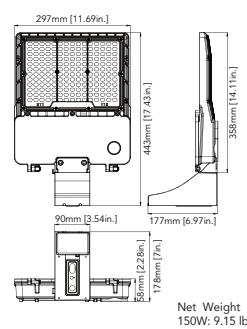
150W (Slipfitter Mount)



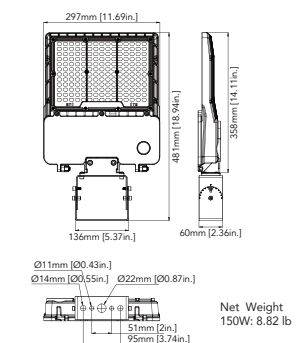
150W (Wall Mount)



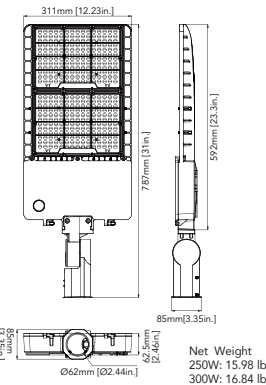
150W (Pole Mount)



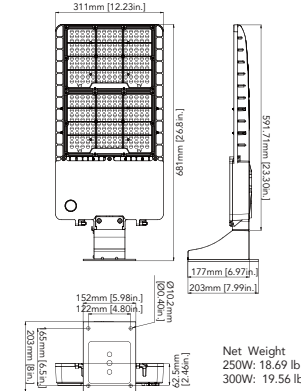
150W (Yoke Mount)



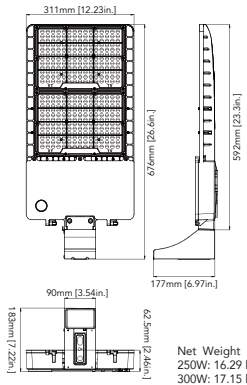
250W/300W (Slipfitter Mount)



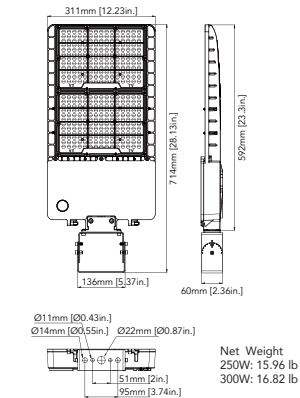
250W/300W (Wall Mount)



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) |
|--------------------------|--------------------------|------------------------------|--------------------------|---|--|--|---|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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 120-277V 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 |
|--------------------------|----------------------------------|------------------------------|--------------------------|---|--|--|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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 120-277V 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 | | | |
|---|--|--|--|
|  | 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 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 | | |