

MERLIN[®]

LED MARINE LIGHTING SOLUTIONS



Catalogue 2017

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MARINE LED LIGHTING SOLUTIONS

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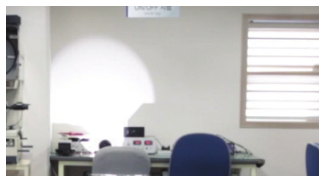
QUALITY AS A PRIORITY PRODUCT TESTING

CONSUMPTION RANGE



All products are put on a digital power meter to test that it is consuming the correct amount of power, checking for any electrical faults.

LONG TERM DURABILITY



Products are then switched on and off 20,000 times repeatedly to ensure that they remain functional after all testing.

SUBMERSION/AGING



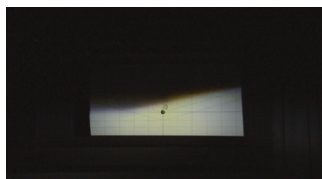
Once products are assembled every product is run through a submersion (water dunk test), then placed onto an aging rack and powered up for 30 minutes.

THERMAL IMPACT



Products are placed in a -40°C chamber for 30 minutes, and then placed in a 80°C chamber for an additional 30 minutes. Products are then left on for 72 hours.

PHOTOMETRIC



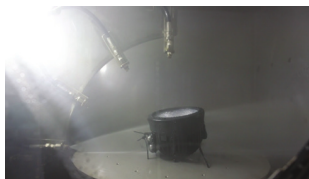
Lights are tested in the Gonio photometer to model the beam pattern and depict the overall light output.

TEMPERATURE AND HUMIDITY



Products are placed in a 60°C, 94% humidity chamber and left operational for 72 hours. Afterwards, products are inspected for moisture and damage.

INGRESS



Products are sprayed from close distances with 80~100 BAR water pressure to verify the Ingress Protection rating, ensuring they are sealed properly.

VIBRATIONS



Products are placed on the vibration shock for 4 hours to test that they can withstand the rated vibration standard. Products tested at 60 Grms are performed off-site.

HIGH LEVEL CERTIFICATIONS

PHOTO BIOLOGICAL

IEC
62471

Ensures that light output has safe levels of UV exposure for both skin and eyes.

E-MARK



European Regulatory certification for on highway use.

ROHS

RoHS

Ensures no use of restricted hazardous material in products such as lead, mercury, cadmium, PBB, PBDE and Phthalate.

ADR 13/00



Products which are in compliance with the Australian Design Rules (ADR).

DOT



US Department of Transportation certified for on road use.

IP RATING

IP-69K

Ingress Protection rates protection against outside elements. First number is solids, second is liquids.

UL



UL Certification is recognized around the world as a way to ensure standards.

CE



CE is a mandatory conformity mark for products in the European Economic Area.

ATEX (94/9/EC)



The ATEX 94 certification is given to electronic equipment that is resistant to flame and explosion.

EMC



EMC and EMI certifies that a product does not interfere with other electrical products. This includes CISPR 25 Certifications

LED TECHNOLOGY EXPLAINED

LED



Our LED lighting runs at 6000K temperature for intense, bright white light for maximum visibility and safety. LED Lights don't use a bulb, making them much more durable than other options.

INTENSITY



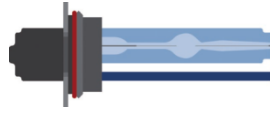
AMP DRAW



LUMENS PER WATT



HID



Our HID lighting runs at 5000K temperature a super white beam color. HID required a bulb, starter and ballast to operate. They have a higher output per wattage than halogen bulbs.

INTENSITY



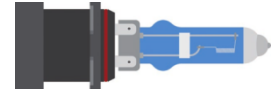
AMP DRAW



LUMENS PER WATT



HALOGEN



We offers a number of different Halogen Lighting options. The Tungsten-Halogen series use an oversized globe and specially engineered filament to enhance light output. We offers many headlight replacement.

INTENSITY



AMP DRAW



LUMENS PER WATT



WHAT MAKES OUR LEDS DIFFERENT

TOP BINNING

Not all LEDs are created equal. Each run of LEDs by the manufacturer is binned to classify the quality within that batch. We uses only top-binned LEDs to ensure the highest quality.

WEATHERPROOF DEUTSCH CONNECTORS

Each product features a weatherproof deutsch connector, ensuring the functionality of the light in harsh conditions. The manufacturer test each batch of lights to make sure its resistant to weather.

HIGH EFFICACY

Our products are engineered for the highest possible luminous efficacy – the ration of lumens per watt.

PULSE WIDTH MODULATION

When enabled, Pulse Width Modulation integrated circuitry flashes the LED faster than human eye can see for reduced heat, prolonged LED life and dimming capabilities.

ELECTRONIC THERMAL MANAGEMENT

Integrated Electronic Thermal Management automatically regulates heat levels by engaging ETM to prolong each LEDs lifespan to 50,000 hours.

DIMMING CAPABILITY

Prime Drive includes dimming capacity. Dimming works by engaging PWM to reduce power white maintaining steady output. We offers push button and dial dimmer units.

LED TYPES

90 WATT LED

The MLC-90 housing features a 90 Watt LED. Combined with IRIS Reflector Technology, this allow for 1,000 meters of usable light.

10 WATT LED

The benefits of the 10 watt LED are great intensity and bulk lighting. The 10 watt LED provides the greatest bulk lighting on the market.

3 WATT LED

The benefits of the 3 watt LED are great output and beam precision. The tight footprint allows for precision optical control.

50 WATT LED

The MLC-50 housing features a 50 Watt LED. Combined with IRIS Reflector Technology, this allow for 750 meters of usable light from a single LED.

7 AND 6 WATT LED

Utilizing the same footprint as the 5 watt, 7 and 6 watt LED lights have a an increased luminous efficacy over 5 watt LEDs. Producing up to 50% more light than 5 watt.

SMD LED

The Surface Mounted Diode (SMD) is used in MLSW fixture and MLUF to create an even, ultra wide beam pattern for area lighting applications.

25 WATT LED

The MLC-25 housing features a 25 Watt LED. Combined with IRIS Reflector Technology, this allow for 300 meters of usable light.

5 WATTS LED

Utilizing the same footprint as the 3 watt, but at twice the output, the 5 watt LED combines the advantages of a tight LED footprint with the ultimate output.

STRUCTURAL LED

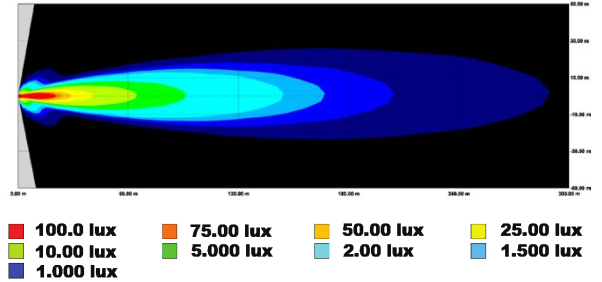
Ideal for structural applications because of the 117 lumen per watt ratio. We're able to get more light output for a lower cost than standard LEDs.

USABLE LIGHT



Usable light is defined as the light that is actually converted for use in forward projection lighting. We measure this by accounting for effective, rather than raw, lumens in our calculations. We also provide the measurement of distance at which a light achieves one lux. One lux is the level of light needed to read a newspaper. We provide lumen ratings in effective lumens, which factors in the levels of optical, electrical and heat loss. This states the true output of the light as a whole, not just a single component such as the LED.

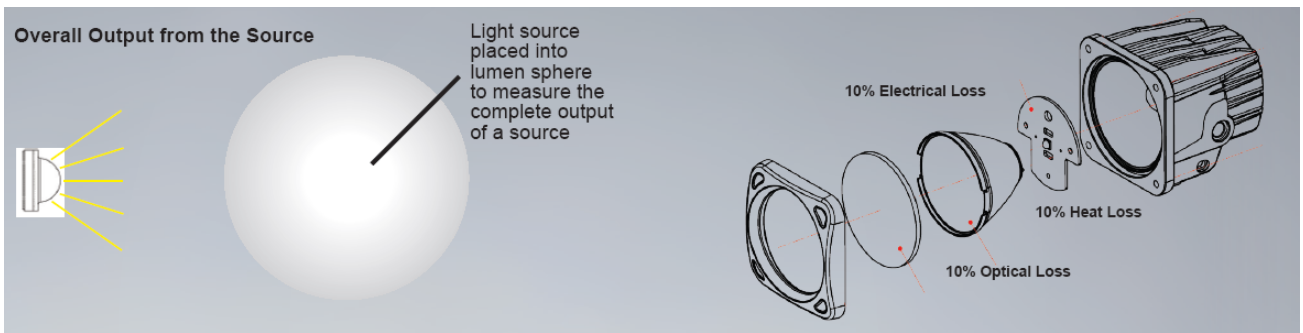
ISOLUX CHART



Measuring Lux

On our lux charts, the different colors within a light's beam on the lux chart correlates to a different lux level at that distance from the source, according to the colors above.

TOTAL LIGHT OUTPUT = LUMENS



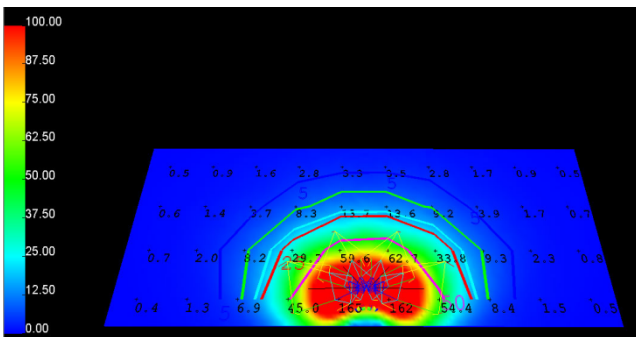
Raw Lumen Output

Lumens are a common standard for measuring light output at the source. It is important to know that the lighting source manufacturer rating is only for the light source and does not account for losses due to optical inefficiencies, electrical inefficiencies or heat.

Effective Lumen Output

The sheer output of the light source is not enough to capture the whole story. When rating the effective output of a light source, the light lost as heat, in optical light spray and electrical inefficiency must also be accounted for, as each of these reduce the total usable lumens.

LIGHT AT SPECIFIC POINT = LUX AND FOOT CANDLES



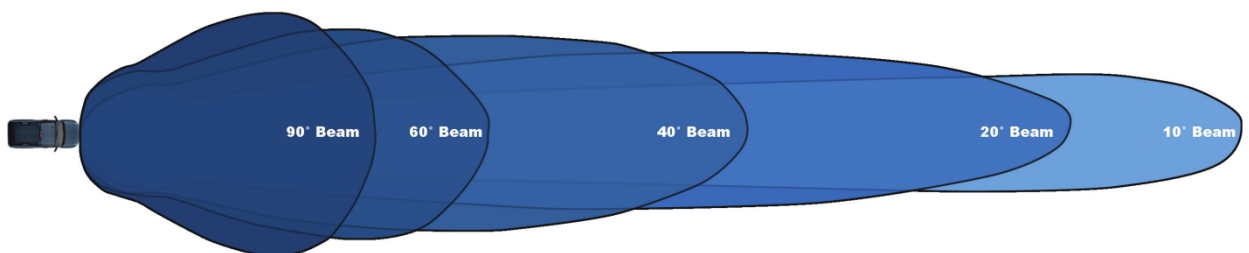
Lux

Lux measures the amount of light per square meter. Unlike lumens which measures light at the source, lux is measured at a specific area. This helps better determine whether those effective lumens are lighting up the environment with the necessary light.

Foot-Candles

Foot Candle measures the amount of light per square foot, as opposed to square meter as with lux. Foot-Candle and lux are interchangeable, with 100 lux = 10.42 foot-candles.

BEAM PATTERNS ILLUSTRATED





LED LIGHTS

MLCMAR 25 W



25-WATT SINGLE SOURCE LED PRODUCES 300m OF USABLE LIGHT
 Lightweight Hybrid Housing / Long Range IRIS Reflector / Snap-On Covers Change Beam Pattern

| | | |
|--|------------------------------------|---|
| BEAM PATTERN 10° | WARRANTY Extended | DIMENSIONS 120 x 147 x 110 mm |
| RAW LUMENS 2,500 lm (ea) | DISTANCE TO 1 LUX 300 m | INCH 4.72" x 5.75" x 4.35" |
| WATTAGE / AMPS 25 W / 11.66 A @12V | VIBRATION RATING 60 Grms | WEIGHT 0.92 kg |



BEAM PATTERN MLCMAR-25-10

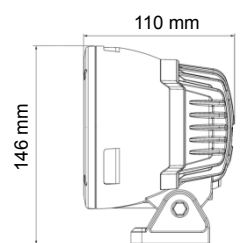
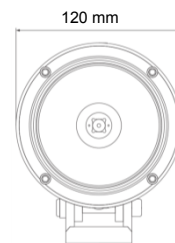


0m 200m 400m
 | 1002' Distance at 1 lux

75m
 45m
 15m
 -15m
 -45m
 -75m

59' Spread at 1 lux

2D VIEW





LED LIGHT BARS

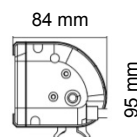
LED Light Bars come in a variety of sizes from 10cm all the way to 130cm. Our LED Light Bars have an extruded 6061 aluminium housing and are created from top-binned, perfectly crafted LEDs for a durable and highly effective LED lighting solution.

MLLB-XPMAR SERIES



BRIGHTEST LIGHT BAR ON THE MARKET

- Full Range in Road Way
- Plug and Play Harness Included
- PWM Integrated Dimming Circuitry
- 90% Efficiency Thermal Management & Dimming



5
WATT
L.E.D.S

E
EMARK
AVAILABLE

PATENTED
MOUNTING

9-32V
DC INPUT

AL
6061
HOUSING

IP-68
WATERPROOF

COVERS
AVAILABLE

50,000 HR
LIFESPAN

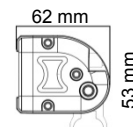
| REFERENCE | WATTS | LED | LENGTH | WEIGHT | AMP DRAW | RAWS LUMENS | EFFECTIVE LUMENS | BEAM PATTERN |
|----------------|-------|-----|----------|--------|----------|-------------|------------------|--------------|
| MLLB-XPMAR-60 | 60 | 12 | 201 mm | 2.4 kg | 5 A | 6,336 lm | 4,440 lm | MIXED |
| MLLB-XPMAR-90 | 90 | 18 | 282 mm | 3.0 kg | 7.5 A | 9,504 lm | 6,660 lm | MIXED |
| MLLB-XPMAR-180 | 180 | 36 | 525 mm | 4.8 kg | 15 A | 19,008 lm | 13,320 lm | MIXED |
| MLLB-XPMAR-270 | 270 | 54 | 768 mm | 6.6 kg | 22.5 A | 28,512 lm | 19,980 lm | MIXED |
| MLLB-XPMAR-360 | 360 | 72 | 1,011 mm | 8.4 kg | 30 A | 38,016 lm | 26,640 lm | MIXED |

MLLB-SMAR SERIES



EXTREM OUTPUT IN A COMPACT LIGHT BAR

- Sleek Low Profile Design
- 90% Efficiency Next Gen LED
- Plug and Play Harness Included
- PWM Integrated Dimming Circuitry
- Electronic Thermal Management & Dimming



5
WATT
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E
EMARK
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MOUNTING

9-32V
DC INPUT

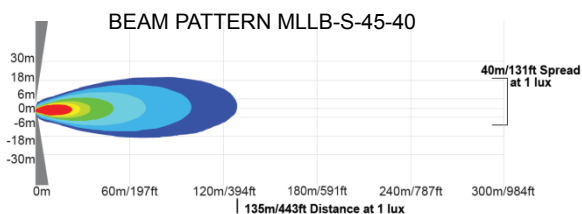
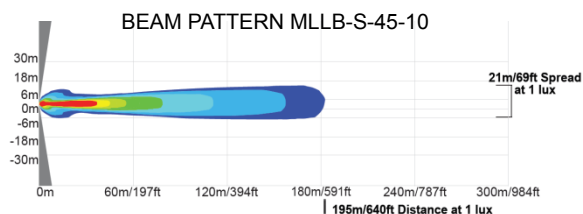
AL
6061
HOUSING

IP-68
WATERPROOF

COVERS
AVAILABLE

50,000 HR
LIFESPAN

| REFERENCE | WATTS | LED | LENGTH | WEIGHT | AMP DRAW | RAWS LUMENS | EFFECTIVE LUMENS | BEAM PATTERN |
|---------------|-------|-----|----------|--------|----------|-------------|------------------|--------------|
| MLLB-SMAR-15 | 15 | 3 | 118 mm | 0.5 kg | 1.25 A | 1,584 lm | 1,110 lm | 10° or 40° |
| MLLB-SMAR-30 | 30 | 6 | 214 mm | 0.9 kg | 2.5 A | 3,168 lm | 2,220 lm | 10° or 40° |
| MLLB-SMAR-45 | 45 | 9 | 310 mm | 1.3 kg | 3.75 A | 4,752 lm | 3,330 lm | 10° or 40° |
| MLLB-SMAR-75 | 75 | 15 | 502 mm | 2.0 kg | 6.25 A | 7,920 lm | 5,550 lm | 10° or 40° |
| MLLB-SMAR-120 | 120 | 24 | 790 mm | 2.7 kg | 10 A | 12,672 lm | 8,880 lm | 10° or 40° |
| MLLB-SMAR-135 | 135 | 27 | 886 mm | 3.5 kg | 11.25 A | 14,256 lm | 9,990 lm | 10° or 40° |
| MLLB-SMAR-165 | 165 | 33 | 1,078 mm | 4.2 kg | 13.75 A | 17,424 lm | 12,210 lm | 10° or 40° |
| MLLB-SMAR-195 | 195 | 39 | 1,270 mm | 4.9 kg | 16.25 A | 20,592 lm | 14,430 lm | 10° or 40° |

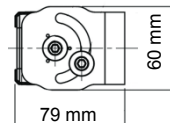


MLLB-XPMAR SERIES



BRIGHTEST LIGHT BAR ON THE MARKET

- Full Range in Road Way
- Plug and Play Harness Included
- PWM Integrated Dimming Circuitry
- 90% Efficiency Thermal Management & Dimming



5
WATT
L.E.D.S

E
EMARK
AVAILABLE

PATENTED
MOUNTING

9-32V
DC INPUT

AL
6061
HOUSING

IP-68
WATERPROOF

COVERS
AVAILABLE

50,000 HR
LIFESPAN

| REFERENCE | WATTS | LED | LENGTH | WEIGHT | AMP DRAW | RAWS LUMENS | EFFECTIVE LUMENS | BEAM PATTERN |
|--------------|-------|-----|--------|--------|----------|-------------|------------------|--------------|
| MLLB-SMAR-45 | 45 | 9 | 353 mm | 1.9 kg | 3.7 A | 4,752 lm | 3,330 lm | 10° or 40° |
| MLLB-SMAR-60 | 60 | 12 | 448 mm | 2.7 kg | 5.0 A | 6,666 lm | 4,440 lm | 10° or 40° |
| MLLB-SMAR-90 | 90 | 18 | 640 mm | 2.8 kg | 7.5 A | 9,504 lm | 6,660 lm | 10° or 40° |

MARINE HEAVY INDUSTRIAL

MARINE GRADE - ANTI CORROSIVE COATING

MLB Series lights polyester powder coating is designed for the exterior environment offering excellent long term light and either resistance. Its marine grade anti-corrosive coating has passed multiple chemical and durability tests including; Salt Spray AS3715 2.5.10 (1000 hours), Exterior durability AS3715 (12 months continuous exposure)

OUTSTANDING LIGHT OUTPUT

The latest LEDs provide a mass volume of light where you need it most. The colour temperature of LED is closer to that of sunlight which reduces eye strain and enables excellent peripheral vision.

MOULDED DT CONNECTORS

Any product is only as good as its components and Deutsch's moulded DT connectors are manufactured from high quality materials selected for their ability to withstand years of environmental exposure.

ELECTRONIC THERMAL MANAGEMENT

In an extraordinary situation where the light is subjected to massive heat overload, a self protection protocol is engaged to reduce the light output, until such time as the heat overload retreats to normal parameters.

LONG LIFE - 50,000 Hours

Using Pulse Width Modulation (PWM), the LEDs are being turned on and off at a frequency quicker than the human eye can detect. This technology allows the LEDs to be driven hard whilst still achieving a long life span of 50,000 hours.

CISPR - Class 1 Rated*

To limit the RF noise that your work light introduces into electronics/radios, enabling better communication.

IP69K RATED

The IP69K rating ensures that the work lights are dust tight with no ingress of particulates and protected against high pressure, high temperature wash downs.

REVERSE POLARITY PROTECTION

BT Series lights will not sustain accidental damage if the polarity to the light is reversed by incorrect installation.



ABOUT THE MLBMAR MARINE HEAVY INDUSTRIAL SERIES

UPGRADED STAINLESS STEEL TRUNNION BRACKET FOR MINING

The MLBMAR Marine Heavy Industrial Series offers outstanding light output in a functional design utilizing a forward rake trunnion bracket, with integrated aiming markings on the sides and base of the bracket. Utilizing the aiming system in conjunction with 3D fit outs to ensure the correct light for any environment. As well as increasing safety, be keeping light out of other operators. High quality construction and components enable the MLBMAR Marine Heavy Industrial Series to withstand vibration up to 60Grms. Built-in reverse polarity protection helps prevent accidental damage caused by incorrect installation. Electronic thermal management ensures that if the light is subjected to massive heat overload, that a self protection protocol is engaged to reduce the light output, until such time as the heat overload retreats to normal parameters.

MLBMAR 140 W

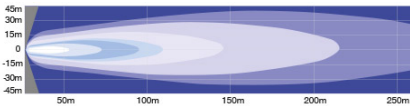


400 / 500 WATT METAL HALIDE REPLACEMENT FIXTURE
 Forward Rake Trunnion Bracket / Aiming System on Bracket / Reverse Polarity Protection

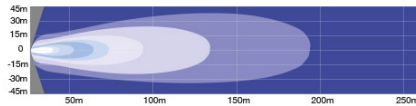
| | | |
|---|---|---|
| BEAM PATTERN 10°,25°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 239 x 173 x 125 mm |
| RAW LUMENS 16,000 lm (ea) | EFFECTIVE LUMENS 11,270 lm (ea) | INCH 9.42" x 6.81" x 4.92" |
| WATTAGE / AMPS 140 W / 11.66 A @12V | VIBRATION RATING 60 Grms | WEIGHT 4.2 kg |



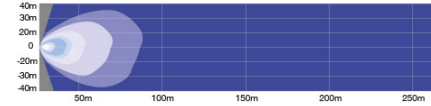
MLBMAR-140-10



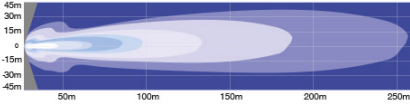
MLBMAR-140-40



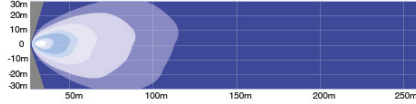
MLBMAR-140-90



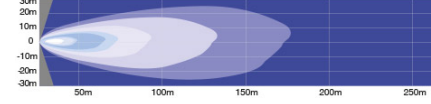
MLBMAR-140-25



MLBMAR-140-60



MLBMAR-140-E



MLBMAR 84 W

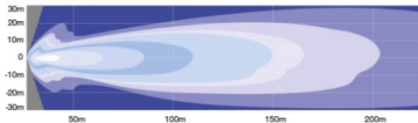


1000 WATT HALOGEN EQUIVALENT
 Forward Rake Trunnion Bracket / Aiming System on Bracket / Reverse Polarity Protection

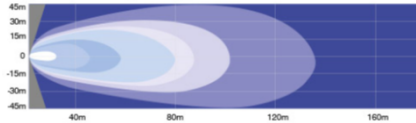
| | | |
|---|--|--|
| BEAM PATTERN 10°,25°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 177 x 132 x 102mm |
| RAW LUMENS 9,600 lm (ea) | EFFECTIVE LUMENS 6,697 lm (ea) | INCH 6.95" x 5.20" x 4.02" |
| WATTAGE / AMPS 84 W / 7.0 A @12V | VIBRATION RATING 60 Grms | WEIGHT 2.25 kg |



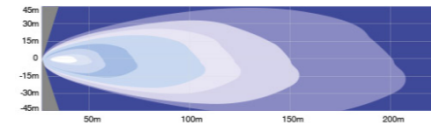
MLBMAR-84-25



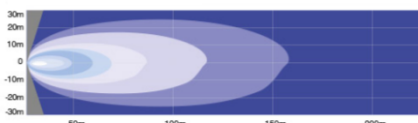
MLBMAR-84-60



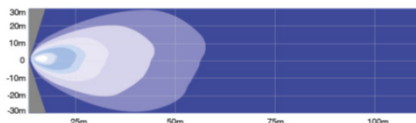
MLBMAR-84-E



MLBMAR-84-40



MLBMAR-84-90



MLBMAR 63 W



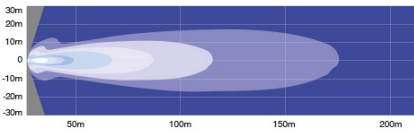
700 WATT HALOGEN EQUIVALENT

Forward Rake Trunnion Bracket / Aiming System on Bracket / Reverse Polarity Protection

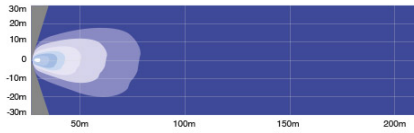
| | | |
|---|--|--|
| BEAM PATTERN 10°,25°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 154 x 132 x 85 mm |
| RAW LUMENS 7,200 lm (ea) | EFFECTIVE LUMENS 5,734 lm (ea) | INCH 6.08" x 5.20" x 3.33" |
| WATTAGE / AMPS 63 W / 5.26 A @12V | VIBRATION RATING 60 Grms | WEIGHT 1.8 kg |



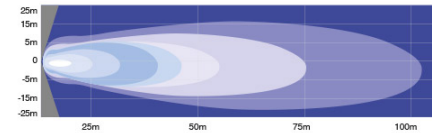
MLBMAR-63-25



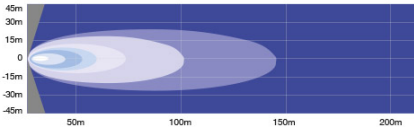
MLBMAR-63-60



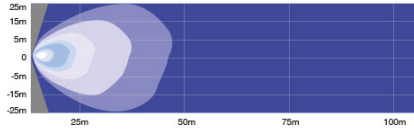
MLBMAR-63-E



MLBMAR-63-40



MLBMAR-63-90



MLBMAR 35 W



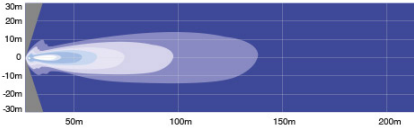
400 WATT HALOGEN EQUIVALENT

Forward Rake Trunnion Bracket / Aiming System on Bracket / Reverse Polarity Protection

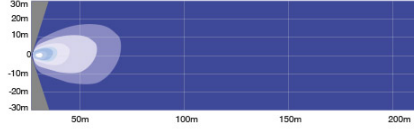
| | | |
|---|--|--|
| BEAM PATTERN 10°,25°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 123 x 112 x 101mm |
| RAW LUMENS 4,000 lm (ea) | EFFECTIVE LUMENS 3,305 lm (ea) | INCH 4.86" x 4.41" x 3.96" |
| WATTAGE / AMPS 35 W / 2.94 A @12V | VIBRATION RATING 60 Grms | WEIGHT 1.00 kg |



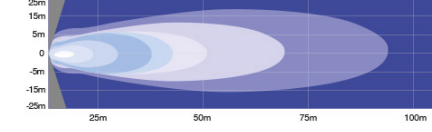
MLBMAR-35-25



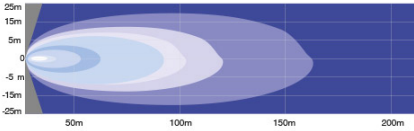
MLBMAR-35-60



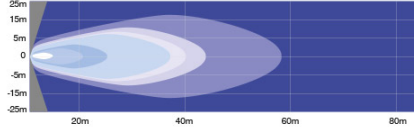
MLBMAR-35-E



MLBMAR-35-40



MLBMAR-35-90



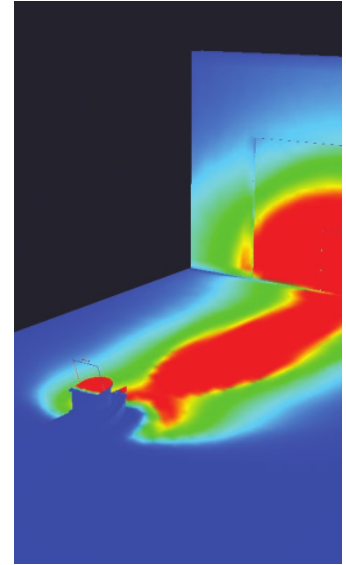
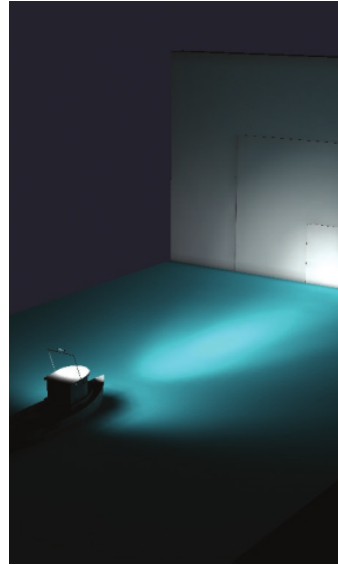
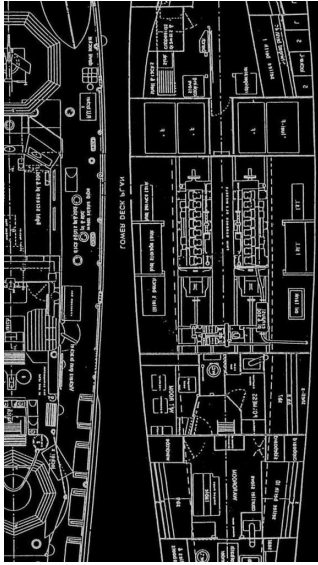


MARITIME SOLUTIONS

Maritime Lighting Series is specially manufactured to prevent effects of corrosion caused by close proximity to salt water, along with special electronics for use in or near salt water.

SOLUTION PROCESS

We create a solution for your ship or shore lighting needs while using a product specific range designed for harsh environment of saltwater. This is done through above ground copper plated circuit boards, stainless steel brackets, and a marine grade coating. Using this environment specific range to create a complete proven solution.



2D BLUEPRINT

We begin a project by requesting the exact areas of boat that need to be illuminated to what Lux/FC requirements.

3D MODEL

A 3D Model is then built to match the requirements requested and dropped into a realistic aquatic or port environment to ensure the light is where you need it.

SIMULATION RENDER

Prior to implementing a lighting solution, we create a simulation rendering of the intended result to help envision if the final product will meet resolve the problem.

SOLUTION

We create a solution that proves our lights are able to get you the spread and distance you need on the shore or on the ship.

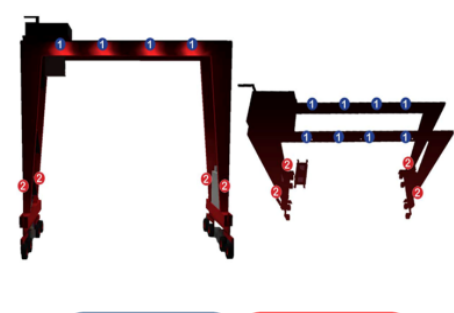
FIT OUT GUIDES AVAILABLE

MERLIN TEREX MHL 380 LED KIT



- MLES-35-40-M**
35W Wide LED
Marine Coating
SUS316 Bracket
Qty 6
- 1 x Front Facing (Attached to Cabin Floor)
- 2 x Front Facing (Attached to Superstructure)
- 1 x Front Facing (Attached to Dipperstick)

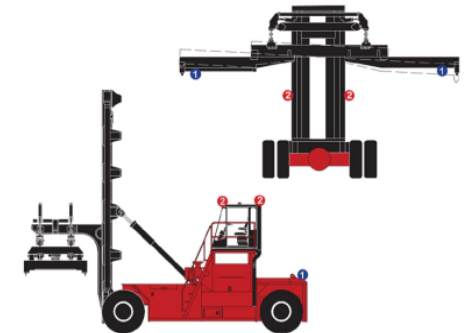
MERLIN RTG LED KIT



- MLP-300-60-M**
300W Extra Wide LED
Marine Coating
SUS316 Bracket
Qty 8 pcs
- 4x Outside of North Arm (Aiming Straight Down)
- 4x Outside of South Arm (Aiming Straight Down)

- MLP-150-60-M**
150W Extra Wide LED
Marine Coating
SUS316 Bracket
Qty 4 pcs
- 4x One on the Outside of Each Leg (3.6m High Aiming Straight Down)

MERLIN TXLC-976 LED KIT



- MLES-35-40-M**
35W Wide LED
Marine Coating
SUS316 Bracket
Qty 4 pcs
- 2x Rear Facing (Backup)
- 2x Facing in Board Twist Lock

- MLR-60-20-M**
60W Medium LED
Marine Coating
SUS316 Bracket
Qty 8 pcs
- 4x Forward Facing
- 2x Forward Facing at 45° Out Board

Merlin Equipment Pte Ltd
40 Tech Park Crescent, Singapore 638097
Tel: +65 6863 1753 Fax: +65 6863 1757
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INDUSTRIAL MARITIME SOLUTIONS

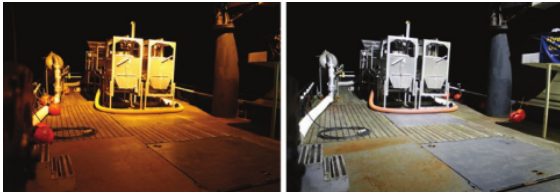
ABOUT THE MARITIME SERIES

The Maritime Series line provides the ideal solution for watercraft of all sizes. From commercial freight ships to fishing vessels for hobbyists, we carry the perfect LED fixtures. Each electronics board used in the Maritime line is constructed from copper to remove corrosion issues typically common in saltwater applications.

Additionally, the gloss coating reduces wear from constant barrage of saltwater while at sea, ensuring the light performs day in and day out. The heavy duty stainless steel bracket combines maximum strength with a bracket that won't deteriorate over time.

Maritime products operate at a 5000 K color temperature, giving the light a warmer feel.

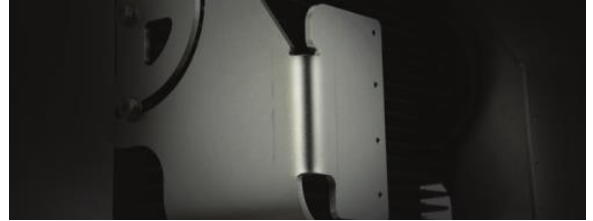
ABOVE GROUND MARITIME



SALTWATER PROTECTION

The unique gloss coating used on Maritime products greatly reduces the dramatic impact that saltwater has on traditional lighting fixture housings.

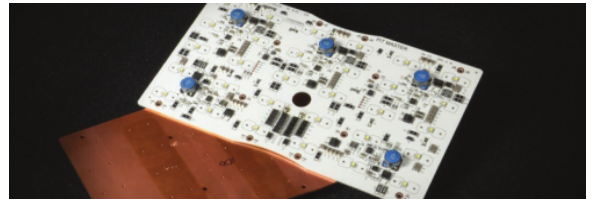
STAINLESS STEEL BRACKET



INCLUDING MOUNTING

The each fixture in the Maritime Series comes equipped with a high-strength stainless steel bracket that gives the light extra protection against salt water corrosion.

COPPER PLATED BOARD



ANTI-CORROSION

The Maritime products feature a copper electronic board to eliminate any chance of corrosion. Additionally, the copper board helps reduce above ground CISPR.



MLP 300 W MARINE

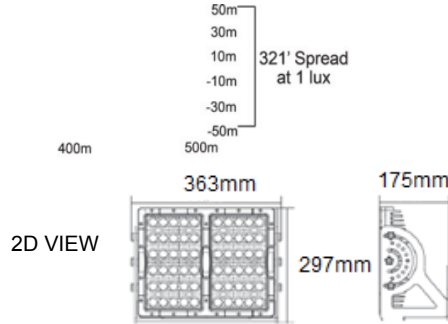
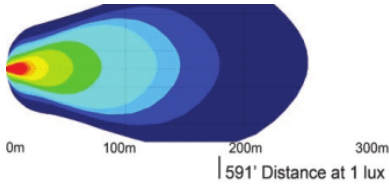


1000 WATT METAL HALIDE REPLACEMENT LIGHT FOR MARINE APPLICATIONS
Stainless Steel Bracket / AC Versions Available / Prime Drive Technology

| | | |
|---|---|--|
| BEAM PATTERN 10°,20°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 383 x 293 x 175mm |
| RAW LUMENS 31,680 lm (ea) | EFFECTIVE LUMENS 22,200 lm (ea) | INCH 15.07" x 11.54" x 6.87" |
| WATTAGE / AMPS 300 W / 25 A @12V | VIBRATION RATING 60 Grms | WEIGHT 14.7 kg |



BEAM PATTERN - MLP-300-60-M



| ITEM | BEAM PATTERN |
|--------------|--------------------|
| MLP-300-10-M | 10°, NARROW |
| MLP-300-20-M | 20°, MEDIUM |
| MLP-300-40-M | 40°, WIDE |
| MLP-300-60-M | 60°, EXTRA WIDE |
| MLP-300-90-M | 90°, EXTREM WIDE |
| MLP-300-E-M | 30x65°, ELLIPTICAL |

MLP 150 W MARINE

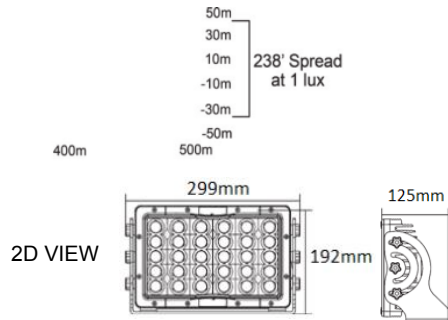
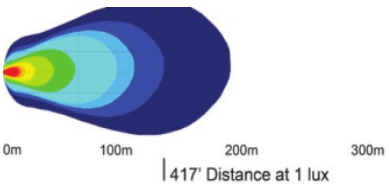


400/500 WATT METAL HALIDE REPLACEMENT LIGHT FOR MARINE APPLICATIONS
Stainless Steel Bracket / AC Versions Available / Prime Drive Technology

| | | |
|---|---|--|
| BEAM PATTERN 10°,20°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 297 x 191 x 126mm |
| RAW LUMENS 15,840 lm (ea) | EFFECTIVE LUMENS 11,100 lm (ea) | INCH 11.96" x 7.52" x 4.94" |
| WATTAGE / AMPS 150 W / 12.5 A @12V | VIBRATION RATING 60 Grms | WEIGHT 7.3 kg |



BEAM PATTERN - MLP-150-60-M



| ITEM | BEAM PATTERN |
|--------------|--------------------|
| MLP-150-10-M | 10°, NARROW |
| MLP-150-20-M | 20°, MEDIUM |
| MLP-150-40-M | 40°, WIDE |
| MLP-150-60-M | 60°, EXTRA WIDE |
| MLP-150-90-M | 90°, EXTREM WIDE |
| MLP-150-E-M | 30x65°, ELLIPTICAL |

OTHERS MLP MARINE MODELS AVAILABLE

MLP 360 W MARINE / MLP 180 W MARINE

MLR 100 W MARINE

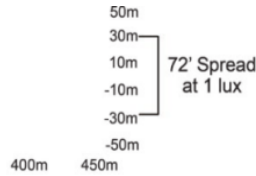
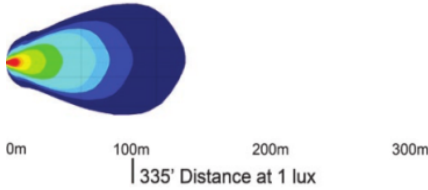


STAINLESS STEEL BRACKET WITH UPGRADED ELECTRONICS FOR MARINE USE
60 Grms High Vibration Rating / Single Bolt Mounting / Stainless Steel Trunnion Bracket

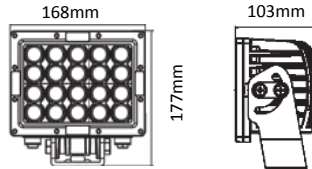
| | | |
|---|--|---|
| BEAM PATTERN 10°,20°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 177 x 168 x 102.9 mm |
| RAW LUMENS 10,560 lm (ea) | EFFECTIVE LUMENS 7,400 lm (ea) | INCH 6.97" x 6.61" x 4.05" |
| WATTAGE / AMPS 100 W / 8.34 A @12V | VIBRATION RATING 60 Grms | WEIGHT 3.8 kg |



BEAM PATTERN - MLR-100-60-M



2D VIEW



| ITEM | BEAM PATTERN |
|--------------|--------------------|
| MLR-100-10-M | 10°, NARROW |
| MLR-100-20-M | 20°, MEDIUM |
| MLR-100-40-M | 40°, WIDE |
| MLR-100-60-M | 60°, EXTRA WIDE |
| MLR-100-90-M | 90°, EXTREM WIDE |
| MLR-100-E-M | 30x65°, ELLIPTICAL |

MLR 60 W MARINE

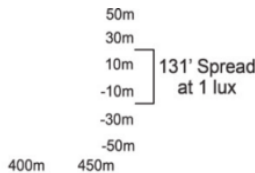
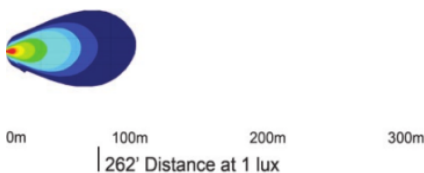


STAINLESS STEEL BRACKET WITH UPGRADED ELECTRONICS FOR MARINE USE
60 Grms High Vibration Rating / Single Bolt Mounting / Stainless Steel Trunnion Bracket

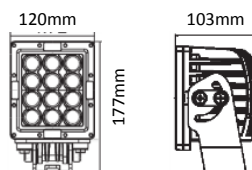
| | | |
|---|--|---|
| BEAM PATTERN 10°,20°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 176.2 x 120 x 102.9 mm |
| RAW LUMENS 6,336 lm (ea) | EFFECTIVE LUMENS 4,440 lm (ea) | INCH 6.94" x 4.72" x 4.05" |
| WATTAGE / AMPS 60 W / 5 A @12V | VIBRATION RATING 60 Grms | WEIGHT 2.5 kg |



BEAM PATTERN - MLR-60-60-M



2D VIEW



| ITEM | BEAM PATTERN |
|-------------|--------------------|
| MLR-60-10-M | 10°, NARROW |
| MLR-60-20-M | 20°, MEDIUM |
| MLR-60-40-M | 40°, WIDE |
| MLR-60-60-M | 60°, EXTRA WIDE |
| MLR-60-90-M | 90°, EXTREM WIDE |
| MLR-60-E-M | 30x65°, ELLIPTICAL |

MLES 35 W MARINE

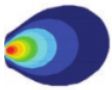


STAINLESS STEEL BRACKET WITH UPGRADED ELECTRONICS FOR MARINE USE
 Stainless Steel Trunnion Bracket / Single Bolt Mounting / CISPR 25 Rated For Marin Use

| | | |
|---|--|---|
| BEAM PATTERN 10°,25°,40°,60°,90°,30x65° | WARRANTY Extended | DIMENSIONS 120 x 159.5 x 79.7mm |
| RAW LUMENS 3,696 lm (ea) | EFFECTIVE LUMENS 2,590 lm (ea) | INCH 4.71" x 6.28" x 3.14" |
| WATTAGE / AMPS 35 W / 2.9 A @12V | VIBRATION RATING 15.6 G rms | WEIGHT 1.81 kg |



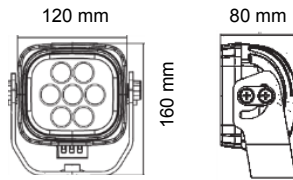
BEAM PATTERN - MLES-35-60-M



0m 100m 200m 300m 400m 450m
 195' Distance at 1 lux

50m
30m
10m } 131' Spread
-10m at 1 lux
-30m
-50m

2D VIEW



| ITEM | BEAM PATTERN |
|--------------|--------------------|
| MLES-35-10-M | 10°, NARROW |
| MLES-35-25-M | 25°, MEDIUM |
| MLES-35-40-M | 40°, WIDE |
| MLES-35-60-M | 60°, EXTRA WIDE |
| MLES-35-90-M | 90°, EXTREM WIDE |
| MLES-35-E-M | 30x65°, ELLIPTICAL |



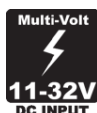
ACCESSORIES

MLUW 18 W



UNDERWATER LED MODULE FOR OE TRANSOM INTEGRATION
 Transom LED Light | New Model Produces Twice As Much Light | Multiple Colors Available

| | | |
|------------------------------------|-------------------------------------|--|
| SUBMERSIBLE 30m | WARRANTY Extended | DIMENSIONS 105 x 105 x 33 mm |
| RAW LUMENS 1,336 lm (ea) | COLORS Multiple Available | INCH 4.13" x 4.13" x 1.25" |



| ITEM | COLOR | BEAM |
|--------------|-------|------|
| MLUW-18-25-A | AMBER | 25° |
| MLUW-18-25-B | BLUE | 25° |
| MLUW-18-25-G | GREEN | 25° |
| MLUW-18-25-R | RED | 25° |
| MLUW-18-25-W | WHITE | 25° |

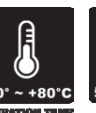


MLDL 4 W



STAINLESS STEEL BRACKET WITH UPGRADED ELECTRONICS FOR MARINE USE
 Stainless Steel Trunnion Bracket / Single Bolt Mounting / CISPR 25 Rated For Marin Use

| | | |
|--|--|---------------------------------------|
| BEAM PATTERN 180° | WARRANTY Extended | DIMENSIONS 173 x 173 x 30mm |
| RAW LUMENS 452 lm (ea) | EFFECTIVE LUMENS 316 lm (ea) | INCH 6.81" x 6.81" x 1.18" |
| WATTAGE / AMPS 4 W / 0.33 A @12V | VIBRATION RATING 8.6 G rms | WEIGHT 0.27 kg |



| ITEM | COLOR | BEAM |
|------------|---------------|------|
| MLDL-4-180 | WHITE AND RED | 180° |

Offering a diverse line of accent pod lighting. Easily attract attention to your vehicle with the wide variety of colors. Each durable pod accepts 9-32 volt input and features a strong black housing. Ideal for professional grade applications and weekend enthusiasts alike.



Reinforced Mounting
Each LED feature four equally distant mounting holes, allowing the light to be securely fastened to a large variety of surfaces and letting you put the light where it needs to be.

MLPP Series

LED POD PERFECT FOR ROCK LIGHTING OR COMPARTMENT LIGHTING
Impact Resistant Lens / Weatherproof Housing for All Conditions / 3" Cord



| | | |
|---|-----------------------------|-------------------------------------|
| COLORS Amber, Blue, Green, Red, White | WARRANTY Extended | DIMENSIONS 45 mm diameter |
| RAW LUMENS 140 lm (ea) | HOUSING Aluminum | INCH 1.76" diameter |

| ITEM | COLOR |
|--------|-------|
| MLPP-A | AMBER |
| MLPP-B | BLUE |

| ITEM | COLOR |
|--------|-------|
| MLPP-G | GREEN |
| MLPP=R | RED |
| MLPP-W | WHITE |

MLPU Series

COLORED LED LIGHTING FOR ANY APPLICATION
Impact Resistant Acrylic Lens / Weatherproof Housing for All Conditions / 10" Cord



| | | |
|---|-----------------------------|-------------------------------------|
| COLORS Amber, Blue, Green, Red, White | WARRANTY Standard | DIMENSIONS 32 mm diameter |
| RAW LUMENS 70 lm (ea) | HOUSING Aluminum | INCH 1.25" diameter |

| ITEM | COLOR |
|--------|-------|
| MLPU-A | AMBER |
| MLPU-B | BLUE |

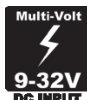
| ITEM | COLOR |
|--------|-------|
| MLPU-G | GREEN |
| MLPU-R | RED |
| MLPU-W | WHITE |

MLST Series

TOUCH ACTIVATED OR STANDARD COMMERCIAL DESIGN
Universal Application / Touch Activated Model available / Compact Design



| | | |
|--|-------------------------------|------------------------|
| ACTIVATION MODES Touch On/Off, Hardwired | WARRANTY Standard | HEIGHT 23 mm |
| RAW LUMENS 141 - 328 lm (ea) | LENGTH 189 - 303 mm | DEPTH 15 mm |



| ITEM | MODE | COLOR |
|---------|-------|--------|
| MLST-1T | Touch | 189 mm |
| MLST-2T | Touch | 303 mm |

| ITEM | MODE | COLOR |
|---------|----------|--------|
| MLST-1H | Standard | 189 mm |
| MLST-2H | Standard | 303 mm |

MERLIN[®]

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