MERLIN®

LED LIGHTING SOLUTIONS

Catalogue 2017

Merlin Equipment Pte Ltd
40 Tech Park Crescent, Singapore 638097
Tel: +65 6863 1753 Fax: +65 6863 1757
Email: sales@merlinequip.com

SLLED2017-010217

AUTOMOTIVE/OFFROAD
CONTENTS

LED LIGHTS		**8**
	MLC Series	9
	MLT Series	12
	MLOx Series	15
	MLSx Series	18
LIGHT BARS		**21**
	MLLB-XP Series	22
	MLLB-UD Series	23
	MLLB-ED Series	24
	MLLB-LG Series	25
	MLLB-S Series	26
	MLLB-X Series	27
	MLLB-R Series	28
LED HEADLIGHT		**29**
HID LIGHTING		**32**
HALOGEN LIGHTING		**34**
AUTOMOTIVE ACCESSORIES		**37**
	Polycarbonate Light Cover	38
	LED Accent Lighting	41
	Battery Pack / Harnesses	42
	Mounting Accessories	43
	Security hardware	45
	LED worklight / flashlight	46

INDUSTRIAL

CONTENTS

HEAVY DUTY & MEDIUM	**48**
MLP Series	50
MLR Series	52
MLSP Series	54
MLSW Series	56
MLEP Series	59
MLUx Series	61
MLD Series	63
INDUSTRIAL SOLUTIONS	**65**
MLBM Series	67
MLB Series	69
MARITIME	**72**
MLP Series Marine	75
MLR Series Marine	76
MLES Series Marine	77
STRUCTURAL ENGINEERED SOLUTIONS	**78**
MLLE Series	80
MLP Series	83
MLSW Series	84
Mounting Solution	85
Wall Pack Solution	86
INDUSTRIAL ACCESSORIES	**87**
MLPL / MLWL Series	88
MLUF / Video LED Light	89
Beacon Light	90
LED Number Board	91
Portable Service Light	92
CASE STUDY	**93**

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.

ROHS

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

DOT

DOT — US Department of Transportation certified for on road use.

UL

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

ATEX (94/9/EC)

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

E-MARK

E — European Regulatory certification for on highway use.

ADR 13/00

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

IP RATING

IP-69K — Ingress Protection rates protection against outside elements. First number is solids, second is liquids.

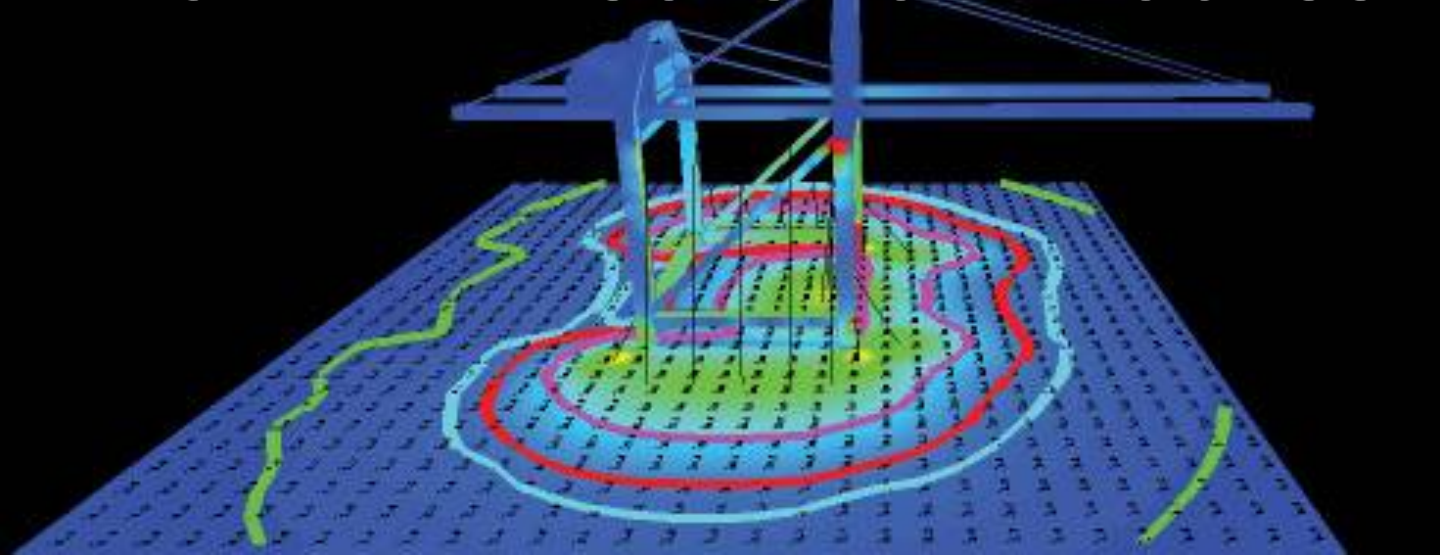
CE

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

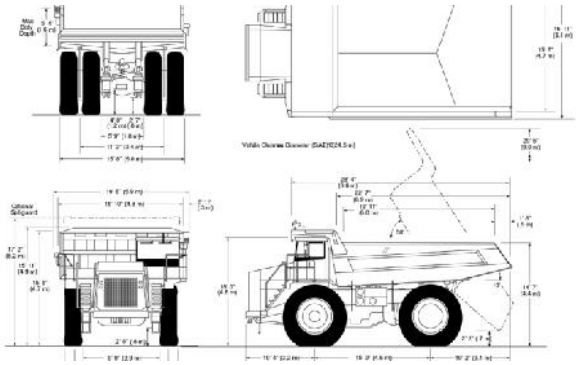
EMC

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

ENGINEERED SOLUTION PROCESS

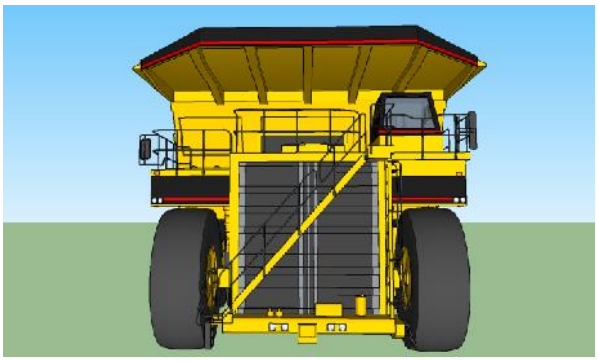


2D BLUEPRINT



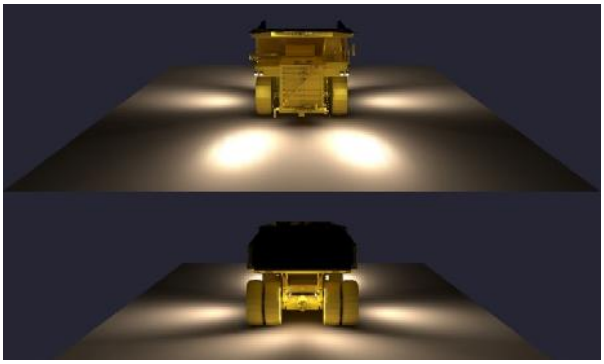
We begin a project by requesting the list of machines that will needed to be retrofitted. Then gathering the technical information for those machine.

E-MARK



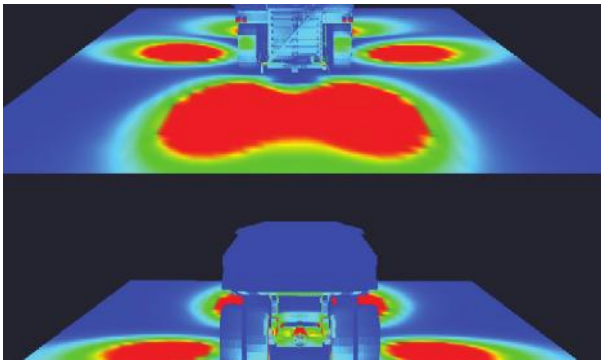
A 3D Model is then built to match the customers exact specifications. This model is then carried over into the rendering.

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 lighting requirements.

SOLUTIONS



We create a complete breakdown of what the customer needs to meet their specific requirements for safety.

LED TECHNOLOGY EXPLAINED

LED

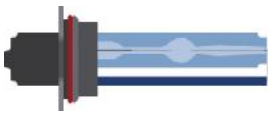
Our LED lighting runs at 6000K temperature for intense, bright white light for maximum visibility and safety. LED Lights don't use a bulb, making them much more durable than other options.

INTENSITY

AMP DRAW

LUMENS PER WATT

HID



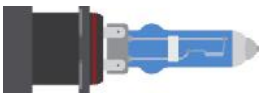
Our HID lighting runs at 5000K temperature a super white beam color. HID required a bulb, starter and ballast to operate. They have a higher output per wattage than halogen bulbs.

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.

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.

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.

ELECTRONIC THERMAL MANAGEMENT

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

HIGH EFFICACY

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

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.

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.

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.

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.

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.

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.

3 WATT LED

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

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.

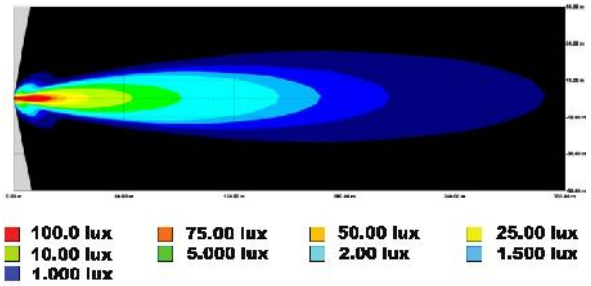
STRUCTURAL LED

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 measures 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 provides 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.

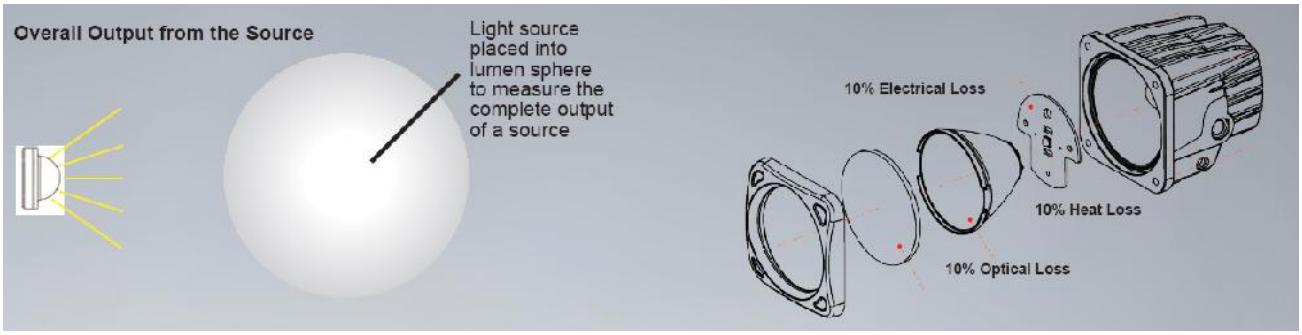
ISOLUX CHART



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



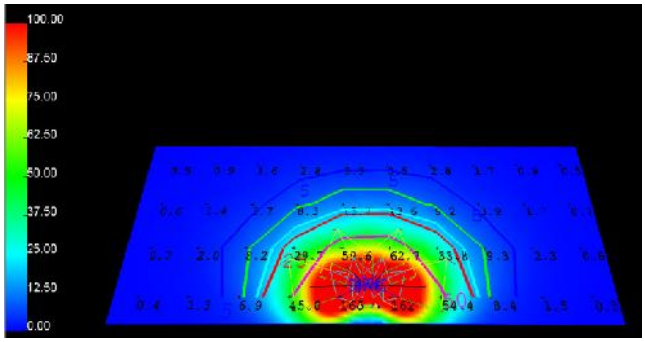
Raw Lumen Output

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



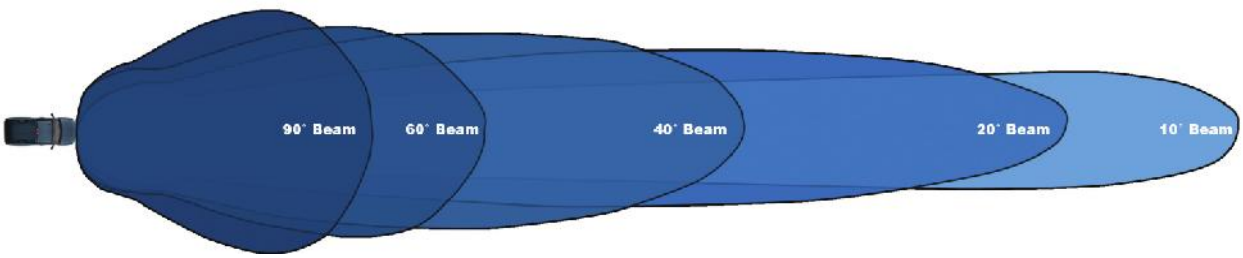
Lux

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

Automotive/Offroad LED lighting runs at a 6000K temperature for intense, bright white light for increased visibility and safety. LED technology has many advantages over traditional lighting options, including low power consumption, no voltage spike at start-up, 50,000 hour life span, and increased durability with the absence of a bulb.

AUTOMOTIVE / OFF ROAD
MLC SERIES

ABOUT THE MLC SERIES

The MLC Series is unmatched by any other fixture on the market. By utilizing the IRIS Reflector Technology and top binned Single-Source Luminous LEDs, the MLC Series can produce up to 1,000 meter of usable light.

Each Light is 25 Lights In One with the help of the available polycarbonate Snap-On covers that can alter the beam pattern and change the color of the MLC. Tackle any weather condition with the proper color cover, or quickly change your spot cover to a flood cover for a wider beam when necessary.

The MLC Series is sold as a single fixture, or as a complete Light Kit consisting of two lights and a dual wiring harness with lighted rocker switch.

BIG-CHIP SINGLE SOURCE LEDS

Luminous LEDs
Most LEDs on the market today are composed of smaller LEDs combined together to make one large unit. With the LED Light MLC Series, we uses larger Single Source LEDs that are one diode, capable of producing more light and a brighter source.

Light Kits Available
Each size of LED Light MLC is available in a two light kit that includes a dual wiring harness and a lighted rocker switch.

25 LIGHTS IN ONE

6 BEAM PATTERNS AVAILABLE

SPOT	COMBO	EURO	ELLIPTICAL	FLOOD	WIDE FLOOD

5 COVERS AVAILABLE
- CLEAR
- RED
- BLUE
- AMBER
- BLACKOUT

CLEAR COVERS
Unbreakable, dust resistant protection to protect the light from debris and particulates. Recommended for users who wish to maintain original light color.

RED COVERS
Reduces light temperature and glare back in order to enhance penetration in dust and air particulates. Ideal for vehicles in extreme dust conditions.

BLUE COVERS
Increases lighting distance when used in snow conditions by reflecting the blue light off the snow. Recommended for vehicles in heavy winter conditions.

AMBER COVERS
Battles fog conditions by reducing the amount of blue light. Mimics classic Halogen color temperature. Great for driving in dust at high speeds.

BLACKOUT COVERS
Covers the fixture with a solid black protective cover with a high contrast “X” logo. Required in select states for on-road use.

MLC 90 W

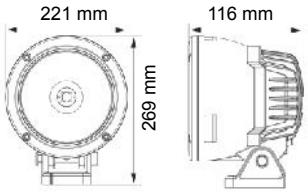
Item MLC-90-10

90-WATT SINGLE SOURCE LED PRODUCES 1000m OF USABLE LIGHT
Lightweight Hybrid Housing / Long Range IRIS Reflector / Snap-On Covers Change Beam Pattern

BEAM PATTERN	WEIGHT	DIMENSIONS
10°	4.7 kg	221 x 269 x 116 mm
RAW LUMENS	**DISTANCE TO 1 LUX**	**INCH**
5,800 lm (ea)	1000 m	8.71'' x 10.58'' x 4.57''

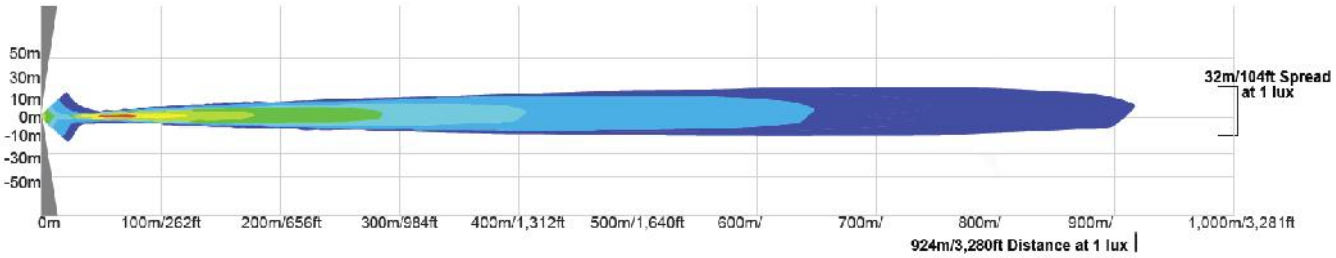
90 WATT L.E.D.S | EX EXTENDED WARRANTY | Multi-Volt 9-32V DC INPUT | Hy HYBRID HOUSING | IP-68 WATERPROOF | IRIS REFLECTOR | -40° ~ +80°C OPERATION TEMP | 50,000 HR LIFESPAN

2D VIEW



ITEM	BEAM PATTERN
MLC-90-10	SINGLE
MLC-90-10K	KIT

BEAM PATTERN MLC-90-10



MLC 50 W

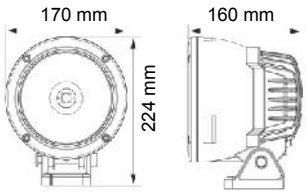
Item MLC-50-10

50-WATT SINGLE SOURCE LED PRODUCES 760m OF USABLE LIGHT
Lightweight Hybrid Housing / Long Range IRIS Reflector / Snap-On Covers Change Beam Pattern

BEAM PATTERN	WEIGHT	DIMENSIONS
10°,20°	2.5 kg	170 x 224 x 160 mm
RAW LUMENS	**DISTANCE TO 1 LUX**	**INCH**
3,200 lm (ea)	760 m	6.69'' x 8.82'' x 6.31''

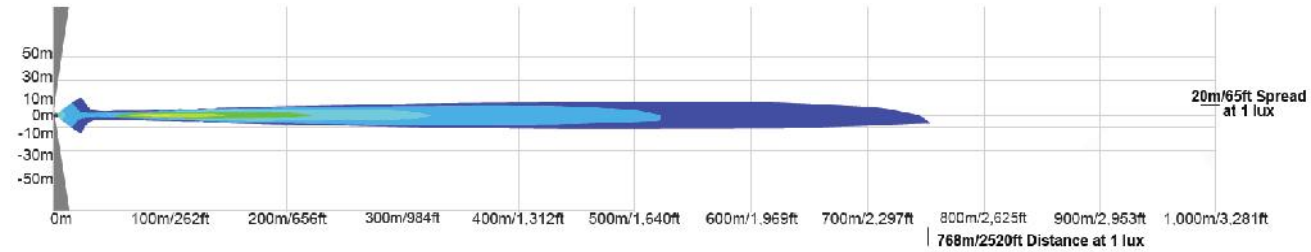
50 WATT L.E.D.S | E EMARK AVAILABLE | EX EXTENDED WARRANTY | Multi-Volt 9-32V DC INPUT | Hy HYBRID HOUSING | IP-68 WATERPROOF | -40° ~ +80°C OPERATION TEMP | 50,000 HR LIFESPAN

2D VIEW



ITEM	BEAM PATTERN
MLC-50-10	SINGLE, 10° BEAM
MLC-50-10K	KIT, 10° BEAM
MLC-50-20	SINGLE, 20° BEAM
MLC-50-20K	KIT, 20° BEAM

BEAM PATTERN MLC-50-10



MLC 40 W

Item MLC-40-10

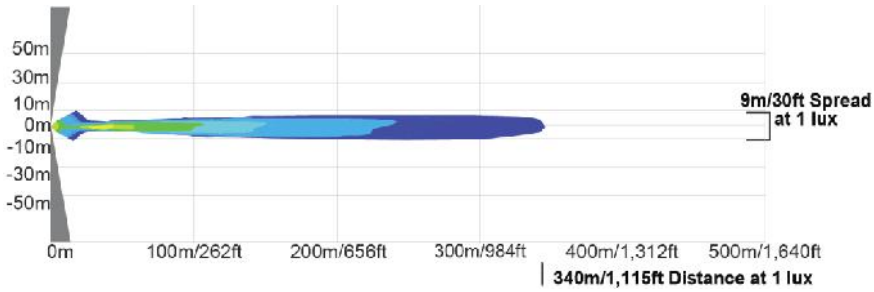
EXTREM PERFORMANCE 40-WATT SINGLE SOURCE LED PRODUCE 335m OF USEABLE LIGHT
10° Beam Pattern / Polycarbonate Covers Available (Round) / Two Light Kits Available

BEAM PATTERN 10°	WEIGHT 0.92 kg	DIMENSIONS 120 x 147 x 110mm
RAW LUMENS 3,000 lm (ea)	DISTANCE TO 1 LUX 335m	INCH 4.72" x 5.75" x 4.35"

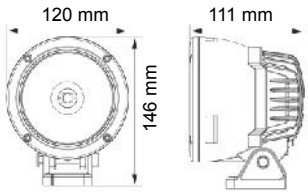
40 WATT L.E.D.S | EX EXTENDED WARRANTY | Multi-Volt 9-32V DC INPUT | Hy HYBRID HOUSING | IP-68 WATERPROOF | IRIS REFLECTOR | -40° ~ +80°C OPERATION TEMP | 50,000 HR LIFESPAN

ITEM	BEAM PATTERN
MLC-40-10	SINGLE
MLC-40-10K	KIT

BEAM PATTERN MLC-40-10



2D VIEW



MLC 25 W

Item MLC-25-10

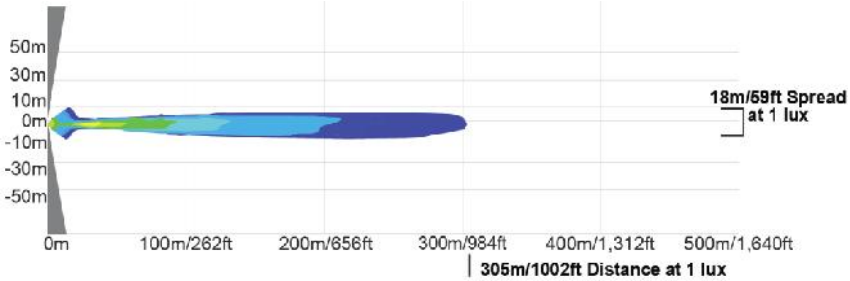
25-WATT SINGLE SOURCE LED PRODUCES 300m OF USABLE LIGHT
Lightweight Hybrid Housing / Long Range IRIS Reflector / Snap-On Covers Change Beam Pattern

BEAM PATTERN 10°	WEIGHT 0.92 kg	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"

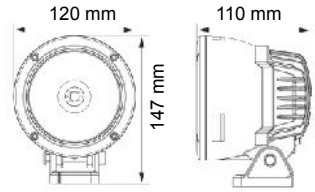
25 WATT L.E.D.S | E EMARK AVAILABLE | EX EXTENDED WARRANTY | Multi-Volt 9-32V DC INPUT | Hy HYBRID HOUSING | IP-68 WATERPROOF | -40° ~ +80°C OPERATION TEMP | 50,000 HR LIFESPAN

ITEM	BEAM PATTERN
MLC-25-10	SINGLE
MLC-25-10K	KIT

BEAM PATTERN MLC-25-10



2D VIEW



AUTOMOTIVE / OFFROAD
MLT SERIES

ABOUT THE MLT SERIES

The MLT Series utilizes high powered 5-watt LEDs to provide intense light output for commercial applications. The MLT Series is ideal for long-haul Trucking and Transport applications because the 50,000 hour lifespan takes away from unscheduled fleet maintenance like bulb replacement, etc.

Additionally, brighter driving conditions for operators ensures greater safety and reliability for drivers on the road. Proper lighting can reduce the amount of time it takes for a load to be delivered and can also reduce the chances for an accident on roadways affected by harsh conditions.

COVERS AVAILABLE

ADVANCED MOUNTING

KNURLED AIMING KNOBS

The MLT Series can be precisely adjusted to any angle within 15° thanks to the knurled adjustment knobs located at the base of the fixture.

LIGHTED ROCKER HARNESS

INCLUDED HARNESS

The MLT Series comes packaged with a single light wiring harness with lighted rocker switch for activation and a weatherproof deutsch connector, ensuring the longevity of the light. Mounting and wiring is a breeze so you'll be out on the road in no time.

RECESSED OPTICS

SMOOTH BEAM PATTERN

Each MLT produces a smooth and even beam pattern due to the recessed reflectors that are precisely angled to achieve an effective beam pattern for on-road driving.

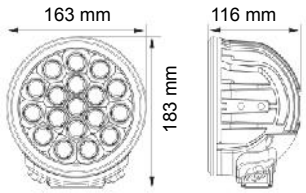
MLT 90 W

Item MLT-90-10

90-WATT LED LIGHT FOR LONG-HAUL TRUCK AND TRANSPORT
Eighteen 5 Watt LEDs / Protective Polycarbonate Covers Available / Truck and Transport Ready

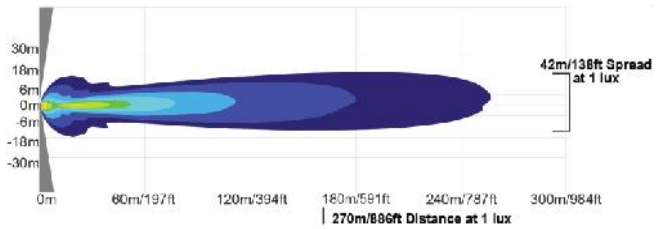
BEAM PATTERN	WEIGHT	DIMENSIONS
10°, 40°	2.8 kg	171 x 183 x 116 mm
RAW LUMENS 9,504 lm (ea)	**DISTANCE TO 1 LUX** 250 m	**INCH** 6.42" x 7.19" x 4.57"

2D VIEW

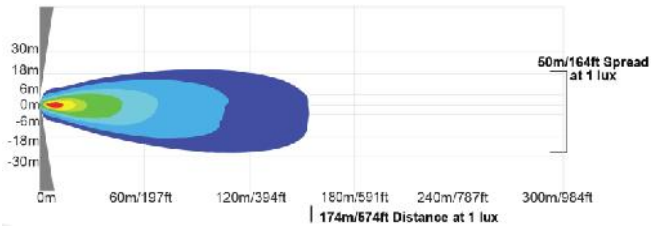


ITEM	BEAM PATTERN
MLT-90-10	10° NARROW BEAM
MLT-90-40	40° WIDE BEAM

BEAM PATTERN MLT-90-10



BEAM PATTERN MLT-90-40



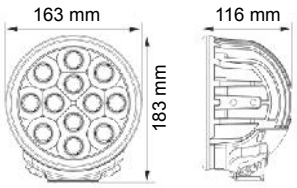
MLT 60 W

Item MLT-60-10

60-WATT LED LIGHT FOR LONG-HAUL TRUCK AND TRANSPORT
Twelve 5 Watt LEDs / Protective Polycarbonate Covers Available / Truck and Transport Ready

BEAM PATTERN	WEIGHT	DIMENSIONS
10°,40°	2.7 kg	171 x 183 x 116 mm
RAW LUMENS 6,336 lm (ea)	**DISTANCE TO 1 LUX** 235 m	**INCH** 6.42" x 7.19" x 4.57"

2D VIEW



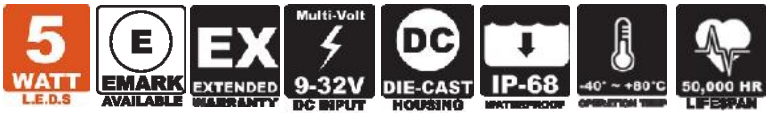
ITEM	BEAM PATTERN
MLT-60-10	10° NARROW BEAM
MLT-60-40	40° WIDE BEAM

MLT 45 W

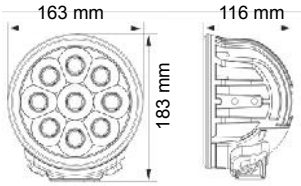
45-WATT LED LIGHT FOR LONG-HAUL TRUCK AND TRANSPORT
Nine 5 Watt LEDs / Protective Polycarbonate Covers Available / Truck and Transport Ready

Item MLT-45-10

BEAM PATTERN 10°,40°	WEIGHT 2.7 kg	DIMENSIONS 163 x 183 x 116 mm
RAW LUMENS 4,752 lm (ea)	DISTANCE TO 1 LUX 200 m	INCH 6.42'' x 7.19'' x 4.57''



2D VIEW



ITEM	BEAM PATTERN
MLT-45-10	10° NARROW BEAM
MLT-45-40	40° WIDE BEAM

AUTOMOTIVE / OFFROAD
MLO SERIES

ABOUT THE MLO SERIES

By combining Single-Source LEDs with the IRIS Reflector Technology, the MLO Series is capable of reaching powerful distances from a small housing. The MLO Series is available in three different beam patterns, allowing users to choose between distance or spread.

Kits consisting of two lights and a wiring harness are available for each member of the MLO family, and each is also available in Black, Chrome or White housing colors. The MLO Series is often used in Vehicle Specific Kits, kits available.

COVERS AVAILABLE

TWO LIGHT KIT

COMPLETE KIT

Each model in the MLO Series can be purchased in a complete lighting kit considering of the two fixtures, a dual-wiring harness, and necessary mounting. Everything you need to explore the night.

MLOH 10 W

Item MLORH-10-15

Item MLOSH-10-15

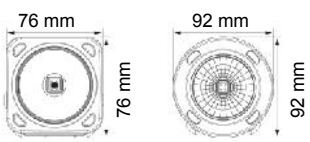
LONG-RANGE 10-WATT LED WITH BRIGHT LED HALO RING

15° Beam Pattern / Polycarbonate Covers Available (Round) / Two Light Kits Available

BEAM PATTERN	WEIGHT	ROUND DIMENSIONS
15°	0.62 kg	92 x 92 x 96mm
RAW LUMENS	**DISTANCE TO 1 LUX**	**SQUARE DIMENSIONS**
1,052 lm (ea)	207m	76 x 76 x 97mm

ITEM	BEAM PATTERN
MLORH-10-15	15° - ROUND HOUSING
MLOSH-10-15	15° - SQUARE HOUSING
MLORH-10-15K	15°, KIT - ROUND HOUSING
MLOSH-10-15K	15°, KIT - SQUARE HOUSING

2D VIEW



MLOS 10 W

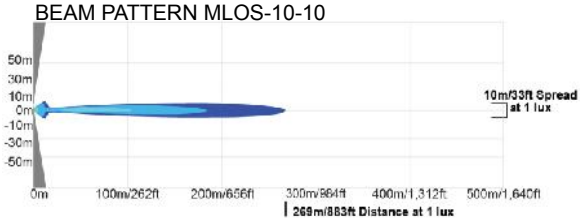
10-WATT UNIVERSAL LED DRIVING LIGHT PRODUCES ULTIMATE DISTANCE
Compact 3.0'' Housing / High-Strength Adjustable Trunnion Mount / Two Light Kits Available

Item MLOS-10-10

BEAM PATTERN	WEIGHT	DIMENSIONS
10°,20°,60°	0.62 kg	76 x 76 x 97 mm
RAW LUMENS	**DISTANCE TO 1 LUX**	**INCH**
1,052 lm (ea)	267 m	2.99'' x 2.99'' x 3.82''

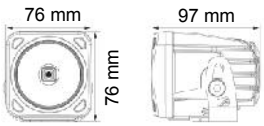
HOUSING	ITEM	KITS	BEAM PATTERN
BLACK	**MLOS-10-10**	**MLOS-10-10-K**	10°, NARROW
	MLOS-10-20	**MLOS-10-20-K**	20°, MEDIUM
	MLOS-10-60	**MLOS-10-60-K**	60°, EXTRA WIDE
CHROME	**MLOS-10-10-C**	**MLOS-10-10-KC**	10°, NARROW
	MLOS-10-20-C	**MLOS-10-20-KC**	20°, MEDIUM
	MLOS-10-60-C	**MLOS-10-60-KC**	60°, EXTRA WIDE
WHITE	**MLOS-10-10-W**	**MLOS-10-10-KW**	10°, NARROW
	MLOS-10-20-W	**MLOS-10-20-KW**	20°, MEDIUM
	MLOS-10-60-W	**MLOS-10-60-KW**	60°, EXTRA WIDE

BEAM PATTERN MLOS-10-10



BEAM PATTERN MLOS-10-60

2D VIEW



MLOR 10 W

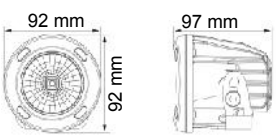
10-WATT UNIVERSAL LED DRIVING LIGHT PRODUCES ULTIMATE DISTANCE
Compact 3.0'' Housing / High-Strength Adjustable Trunnion Mount / Two Light Kits Available

Item MLOR-10-10

BEAM PATTERN	WEIGHT	DIMENSIONS
10°,20°,60°	0.69 kg	92 x 92 x 97 mm
RAW LUMENS	**DISTANCE TO 1 LUX**	**INCH**
1,052 lm (ea)	269 m	3.62'' x 3.62'' x 3.82''

HOUSING	ITEM	KITS	BEAM PATTERN
BLACK	**MLOR-10-10**	**MLOR-10-10-K**	10°, NARROW
	MLOR-10-20	**MLOR-10-20-K**	20°, MEDIUM
	MLOR-10-60	**MLOR-10-60-K**	60°, EXTRA WIDE
CHROME	**MLOR-10-10-C**	**MLOR-10-10-KC**	10°, NARROW
	MLOR-10-20-C	**MLOR-10-20-KC**	20°, MEDIUM
	MLOR-10-60-C	**MLOR-10-60-KC**	60°, EXTRA WIDE
WHITE	**MLOR-10-10-W**	**MLOR-10-10-KW**	10°, NARROW
	MLOR-10-20-W	**MLOR-10-20-KW**	20°, MEDIUM
	MLOR-10-60-W	**MLOR-10-60-KW**	60°, EXTRA WIDE

2D VIEW



Covers available

MLOS 20 W

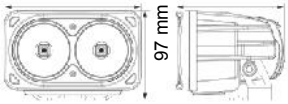
20-WATT UNIVERSAL LED DRIVING LIGHT PRODUCES ULTIMATE DISTANCE
Power of two MLOS-10 in one / Available in kits / High strength adjustable trunnion mount

Item MLOS-20-10

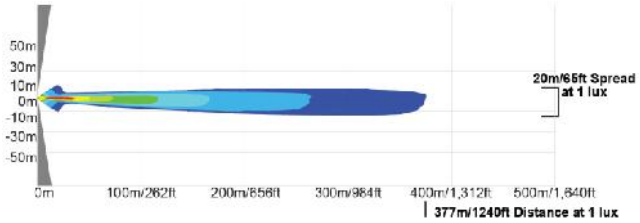
BEAM PATTERN	WEIGHT	DIMENSIONS
10°,20°,60°	1.02 kg	148 x 97 x 122 mm
RAW LUMENS	**DISTANCE TO 1 LUX**	**INCH**
2,104 lm (ea)	378 m	5.83" x 3.82" x 4.80"

HOUSING	ITEM	KITS	BEAM PATTERN
BLACK	**MLOS-20-10**	**MLOS-20-10-K**	10°, NARROW
	MLOS-20-20	**MLOS-20-20-K**	20°, MEDIUM
	MLOS-20-60	**MLOS-20-60-K**	60°, EXTRA WIDE
CHROME	**MLOS-20-10-C**	**MLOS-20-10-KC**	10°, NARROW
	MLOS-20-20-C	**MLOS-20-20-KC**	20°, MEDIUM
	MLOS-20-60-C	**MLOS-20-60-KC**	60°, EXTRA WIDE
WHITE	**MLOS-20-10-W**	**MLOS-20-10-KW**	10°, NARROW
	MLOS-20-20-W	**MLOS-20-20-KW**	20°, MEDIUM
	MLOS-20-60-W	**MLOS-20-60-KW**	60°, EXTRA WIDE

2D VIEW



BEAM PATTERN MLOS-20-10



BEAM PATTERN MLOS-20-60

AUTOMOTIVE / OFFROAD
MLS SERIES

ABOUT THE MLS SERIES

Compact yet powerful, the MLS Series provides intense light output from a small housing. Each Solo produces the equal light output of a pair of headlights from a modern vehicle.

The MLS Series excels at multiple applications thanks to the wide selection of different beam patterns. Perfect for dirt bikes, reverse lights, marine lights, or rock lights - the applications are endless.

OMNI-LINK CONNECTORS

ENDLESS CONFIGURATIONS

With the Omni-Link Connector, simply connect MLSS together to create unique lengths and configurations, as well as add numerous accessories for various applications.

FLEXIBLE MOUNTING

SINGLE-BOLT MOUNTING SYSTEM

The MLS uses a single-bolt mounting system with an adjustable aiming system allowing for precision aiming in hard to reach spots.

ACCESSORIES

FLUSH MOUNT
LASR-10-FLUSH

HANDLEBAR
LASR-10-HANDLEBAR

HANDLE
LASR-10-HANDLE

MLSR 10 W

ULTIMATE 10-WATT LED POD FOR UNIVERSAL APPLICATIONS
Omni-Link Interlocking System / Electronic Thermal Management / Flush Mount Bracket Available

Item MLSR-10-10

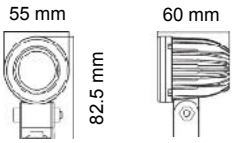
BEAM PATTERN	WEIGHT	DIMENSIONS
10°,20°,40°	0.32 kg	55 x 82.5 x 60 mm
RAW LUMENS 1,052 lm (ea)	**DISTANCE TO 1 LUX** 7 m	**INCH** 2.16" x 3.25" x 2.36"

10 WATT L.E.D.S | E EMARK AVAILABLE | EX EXTENDED WARRANTY | Multi-Volt 9-42V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

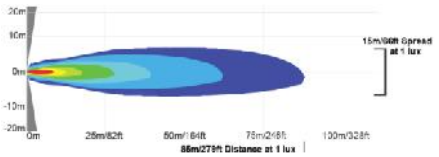
ITEM	BEAM PATTERN
MLSR-10-10	10°, NARROW
MLSR-10-20	20°, MEDIUM
MLSR-10-40	40°, WIDE

ITEM	BEAM PATTERN
MLSR-10-10-W	10° – WHITE HOUSING
MLSR-10-20-W	20° – WHITE HOUSING
MLSR-10-40-W	40° – WHITE HOUSING

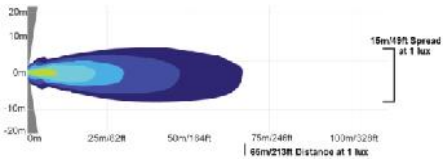
2D VIEW



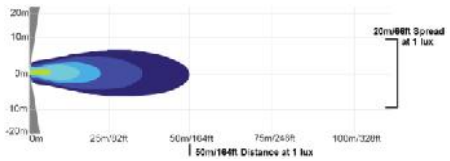
BEAM PATTERN MLSR-10-10



BEAM PATTERN MLSR-10-20



BEAM PATTERN MLSR-10-40



MLSS 10 W

COMPACT 10-WATT LED FOR UNIVERSAL APPLICATIONS
Omni-Link Interlocking System / Small Die-Cast Housing / Flush mount bracket available

Item MLSS-10-10

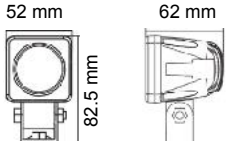
BEAM PATTERN	WEIGHT	DIMENSIONS
10°,30°,60°,30x65°	0.34 kg	52.1 x 82.5 x 62 mm
RAW LUMENS 1,052 lm (ea)	**DISTANCE TO 1 LUX** 6.5 m	**INCH** 2.05" x 3.25" x 2.44"

10 WATT L.E.D.S | EX EXTENDED WARRANTY | Multi-Volt 9-42V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

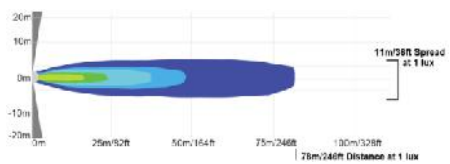
ITEM	BEAM PATTERN
MLSS-10-10	10°, NARROW
MLSS-10-30	30°, WIDE
MLSS-10-60	60°, EXTRA WIDE
MLSS-10-E	30x65°, ELLIPTICAL

ITEM	BEAM PATTERN
MLSS-10-10-W	10° – WHITE HOUSING
MLSS-10-30-W	30° – WHITE HOUSING
MLSS-10-60-W	60° – WHITE HOUSING
MLSS-10-E-W	30x65° – WHITE HOUSING

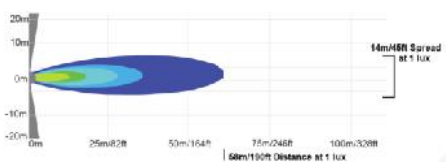
2D VIEW



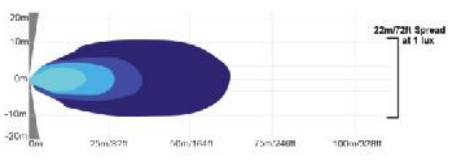
BEAM PATTERN MLSS-10-10



BEAM PATTERN MLSS-10-20



BEAM PATTERN MLSS-10-40



MLSR 5 W

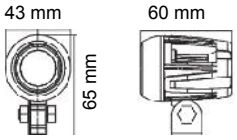
COMPACT 5-WATT LED PERFECT FOR TIGHT SPOT
Omni-Link Interlocking System / Ultra Compact Housing / Mounting Accessories

Item MLSR-5-10

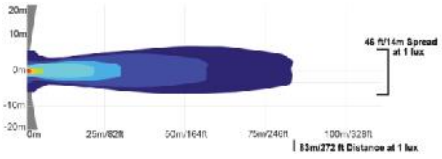
BEAM PATTERN	WEIGHT	DIMENSIONS
10°,25°,40°,60°,90°,30x65°	0.18 kg	43 x 65 x 60.5 mm
RAW LUMENS	**DISTANCE TO 1 LUX**	**INCH**
528 lm (ea)	5 m	1.69" x 2.56" x 2.38"

ITEM	BEAM PATTERN
MLSR-5-10	10°, NARROW
MLSR-5-20	20°, MEDIUM
MLSR-5-40	40°, WIDE
MLSR-5-60	60°, EXTRA WIDE
MLSR-5-90	90°, EXTREME WIDE
MLSR-5-E	30x65°, ELLIPTICAL

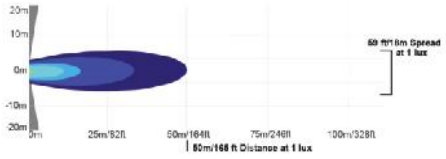
2D VIEW



BEAM PATTERN MLSR-5-10



BEAM PATTERN MLSR-5-20



BEAM PATTERN MLSR-5-40

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-XP 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**

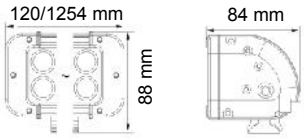
BEAM PATTERN	WARRANTY
10°, 40°, Custom	Extended
HEIGHT	**WIDTH**
95 mm	84 mm

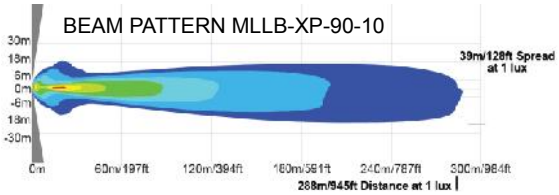
END CAP MOUNTS

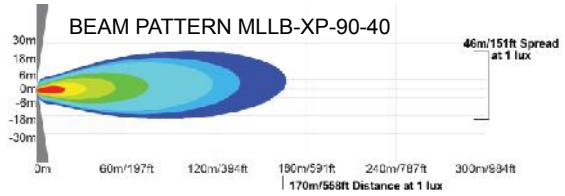
Item LALB-XP-ECM

AVAILABLE IN AMBER

2D VIEW







WATTS	LENGTH	WEIGHT	AMP DRAW	RAWS LUMENS	BEAM PATTERN 10°	BEAM PATTERN 40°	BEAM PATTERN MIXED
30	120 mm	1.2 kg	2.5 A	3,168 lm	MLLB-XP-30-10	MLLB-XP-30-40	MLLB-XP-30-M
60	201 mm	2.4 kg	5 A	6,336 lm	MLLB-XP-60-10	MLLB-XP-60-40	MLLB-XP-60-M
90	282 mm	3.0 kg	7.5 A	9,504 lm	MLLB-XP-90-10	MLLB-XP-90-40	MLLB-XP-90-M
150	444 mm	4.5 kg	12.5 A	15,840 lm	MLLB-XP-150-10	MLLB-XP-150-40	MLLB-XP-150-M
180	525 mm	4.8 kg	15 A	19,008 lm	MLLB-XP-180-10	MLLB-XP-180-40	MLLB-XP-180-M
270	768 mm	6.6 kg	22.5 A	28,512 lm	MLLB-XP-270-10	MLLB-XP-270-40	MLLB-XP-270-M
360	1,011 mm	8.4 kg	30 A	38,016 lm	MLLB-XP-360-10	MLLB-XP-360-40	MLLB-XP-360-M
450	1,254 mm	10.2 kg	37.5 A	47,520 lm	MLLB-XP-450-10	MLLB-XP-450-40	MLLB-XP-450-M

MLLB-UD SERIES

10 WATT L.E.D.S | E EMARK AVAILABLE | PATENTED MOUNTING | Multi-Volt 11-32V DC INPUT | AL 6061 HOUSING | IP-68 WATERPROOF | IRIS REFLECTOR | 50,000 HR LIFESPAN | COVERS AVAILABLE

UPGRADED FOR UNSURPASSED DISTANCE

- **Halo Models Available**
- **Dual Mounting Standard**
- **Plug and Play Harness Included**
- **40-95% More distance than MLLB-LG Series**
- **Upgraded IRIS Reflector Technology with 10W LED**

BEAM PATTERN	WARRANTY
Straight	Extended
HEIGHT	**WIDTH**
95 mm	81 mm

END CAP MOUNTS

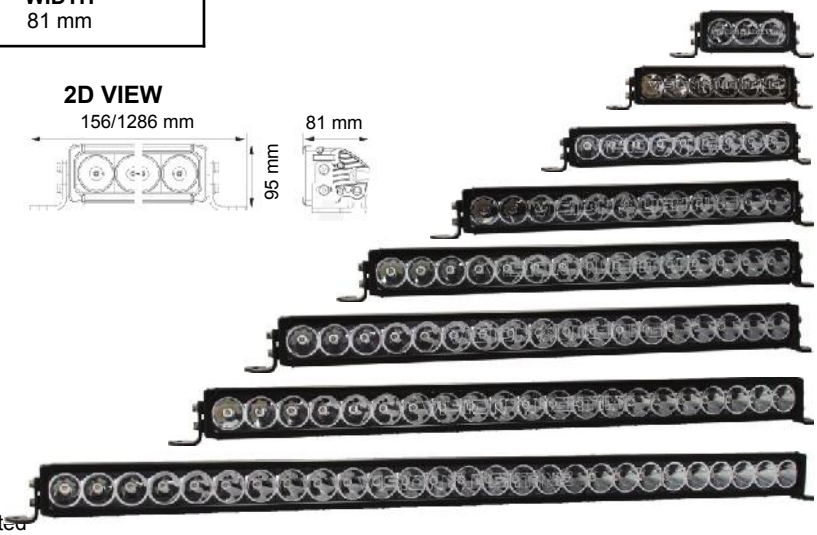
Item LALB-UD-ECM

2D VIEW

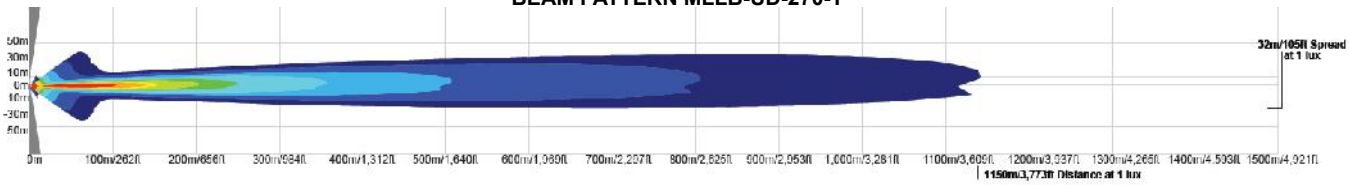
SIDE WING MOUNTS INCLUDED

DUAL MOUNTING INCLUDED

Each MLLB-UD comes packaged with dual side-wing mounts as well as patented feet mounts. Amount of feet mounts vary by length of the light bar.



BEAM PATTERN MLLB-UD-270-T



WATTS	LENGTH	WEIGHT	AMP DRAW	RAWS LUMENS	REFERENCE	BEAM PATTERN
30	156 mm	0.82 kg	2.5 A	3,237 lm	MLLB-UD-30-S	STRAIGHT
60	291 mm	1.54 kg	5 A	6,474 lm	MLLB-UD-60-S	STRAIGHT
90	476 mm	2.31 kg	7.5 A	9,711 lm	MLLB-UD-90-S	STRAIGHT
120	611 mm	3.13 kg	10 A	12,948 lm	MLLB-UD-120-S	STRAIGHT
150	746 mm	3.95 kg	12.5 A	16,185 lm	MLLB-UD-150-S	STRAIGHT
180	881 mm	4.45 kg	15 A	19,422 lm	MLLB-UD-180-S	STRAIGHT
210	1,016 mm	5.26 kg	17.5 A	22,659 lm	MLLB-UD-210-S	STRAIGHT
270	1,286 mm	6.90 kg	22.5 A	29,133 lm	MLLB-UD-270-S	STRAIGHT

MLLB-ED SERIES

IRIS REFLECTOR FOR EXTREM DISTANCE

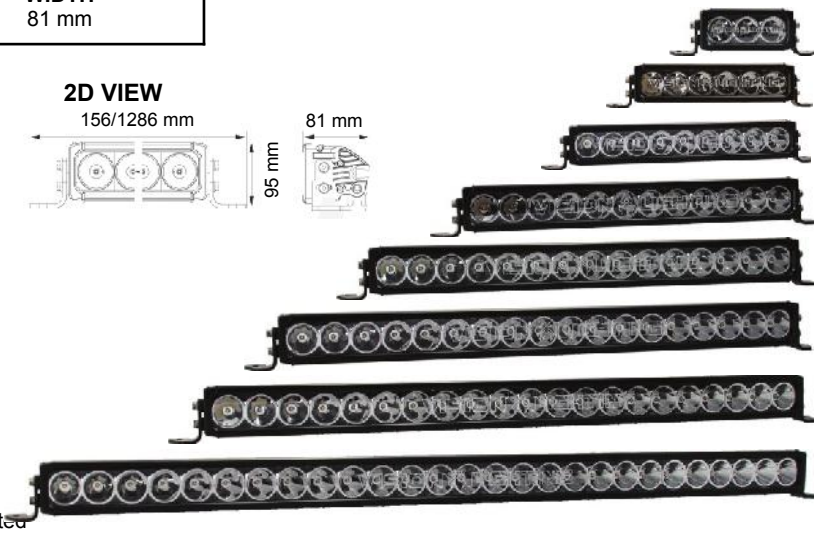
- **Dual Mounting Standard**
- **5 Watt Light Bar Available**
- **Plug and Play Harness Included**
- **IRIS Reflector Technology with 10W LED**
- **New Lifespan-Boosting Heat Sink Technology**

BEAM PATTERN	WARRANTY
Straight, Tilted	Extended
HEIGHT	**WIDTH**
95 mm	81 mm

END CAP MOUNTS

Item LALB-UD-ECM

2D VIEW

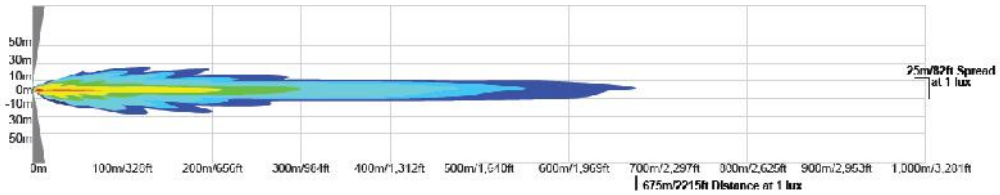


SIDE WING MOUNTS INCLUDED

DUAL MOUNTING INCLUDED

Each MLLB-UD comes packaged with dual side-wing mounts as well as patented feet mounts. Amount of feet mounts vary by length of the light bar.

BEAM PATTERN MLLB-ED-270-T



WATTS	LENGTH	WEIGHT	AMP DRAW	RAWS LUMENS	REFERENCE	BEAM PATTERN
30	156 mm	0.82 kg	2.5 A	3,237 lm	MLLB-ED-30-S	STRAIGHT
60	291 mm	1.54 kg	5 A	6,474 lm	MLLB-ED-60-S	STRAIGHT
90	476 mm	2.31 kg	7.5 A	9,711 lm	MLLB-ED-90-T	TILTED
120	611 mm	3.13 kg	10 A	12,948 lm	MLLB-ED-120-T	TILTED
150	746 mm	3.95 kg	12.5 A	16,185 lm	MLLB-ED-150-T	TILTED
180	881 mm	4.45 kg	15 A	19,422 lm	MLLB-ED-180-T	TILTED
210	1,016 mm	5.26 kg	17.5 A	22,659 lm	MLLB-ED-210-T	TILTED
270	1,286 mm	6.90 kg	22.5 A	29,133 lm	MLLB-ED-270-T	TILTED

MLLB-LG SERIES

IRIS REFLECTOR FOR LONG DISTANCE

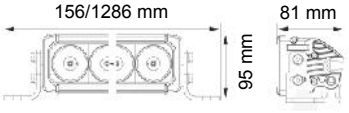
- **Dual Mounting Standard**
- **Plug and Play Harness Included**
- **IRIS Reflector Technology with 10W LED**

BEAM PATTERN	WARRANTY
Straight, Tilted	Extended
HEIGHT	**WIDTH**
95 mm	81 mm

END CAP MOUNTS

Item LALB-UD-ECM

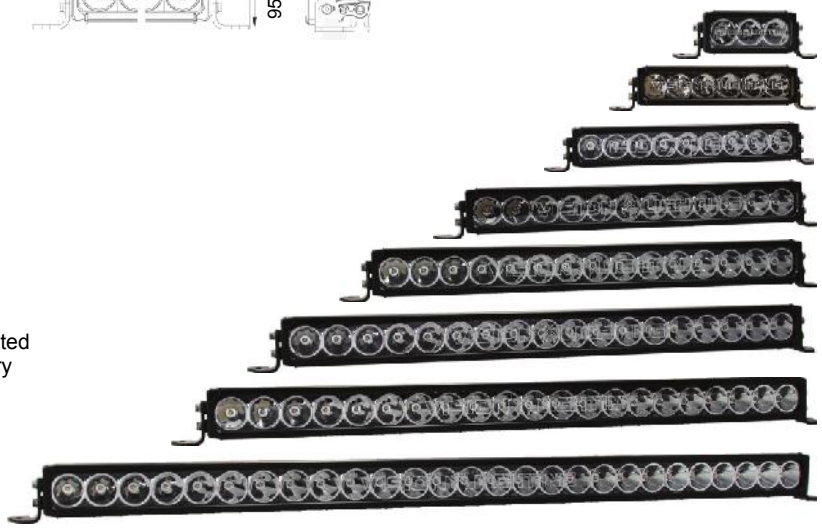
2D VIEW



SIDE WING MOUNTS INCLUDED

DUAL MOUNTING INCLUDED

Each MLLB-UD comes packaged with dual side-wing mounts as well as patented feet mounts. Amount of feet mounts vary by length of the light bar.



WATTS	LENGTH	WEIGHT	REFERENCE	BEAM PATTERN
15	156 mm	0.82 kg	MLLB-LG-15-S	STRAIGHT
30	291 mm	1.54 kg	MLLB-LG-30-S	STRAIGHT
45	476 mm	2.31 kg	MLLB-LG-45-T	TILTED
60	611 mm	3.13 kg	MLLB-LG-60-T	TILTED
75	746 mm	3.95 kg	MLLB-LG-75-T	TILTED
90	881 mm	4.45 kg	MLLB-LG-90-T	TILTED
105	1,016 mm	5.26 kg	MLLB-LG-105-T	TILTED
135	1,286 mm	6.90 kg	MLLB-LG-135-T	TILTED

MLLB-S SERIES

5 WATT L.E.D.S | E EMARK AVAILABLE | PATENTED MOUNTING | 9-32V DC INPUT | AL 6061 HOUSING | IP-68 WATERPROOF | 50,000 HR LIFESPAN | COVERS AVAILABLE

BEAM PATTERN	WARRANTY
10°, 40°, Mixed	Extended
HEIGHT	**WIDTH**
52 mm	62 mm

EXTREM OUTPUT IN A COMPACT LIGHT BAR

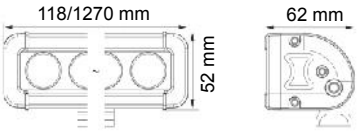
- **Sleek Low Profile Design**
- **90% Efficiency Next Gen LED**
- **Plug and Play Harness Included**
- **PMW Integrated Dimming Circuitry**
- **Electronic Thermal Management & Dimming**

END CAP MOUNTS

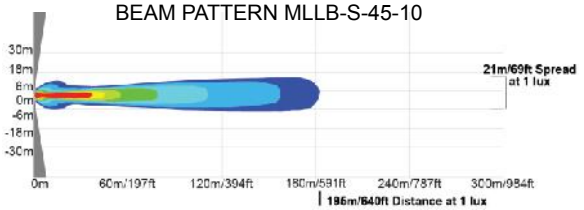
Item LALB-S-ECM

AVAILABLE IN AMBER

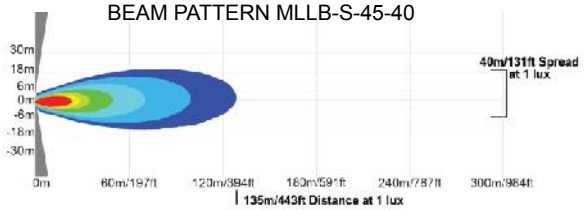
2D VIEW



BEAM PATTERN MLLB-S-45-10



BEAM PATTERN MLLB-S-45-40



WATTS	LENGTH	WEIGHT	AMP DRAW	RAW LUMENS	10° SPOT	40° FLOOD	MIXED
15	118 mm	0.5 kg	1.25 A	1,584 lm	MLLB-S-15-10	MLLB-S-15-40	-
30	214 mm	0.9 kg	2.5 A	3,168 lm	MLLB-S-30-10	MLLB-S-30-40	MLLB-S-30-M
45	310 mm	1.3 kg	3.75 A	4,752 lm	MLLB-S-45-10	MLLB-S-45-40	-
75	502 mm	2.0 kg	6.25 A	7,920 lm	MLLB-S-75-10	MLLB-S-75-40	MLLB-S-75-M
120	790 mm	2.7 kg	10 A	12.672 lm	MLLB-S-120-10	MLLB-S-120-40	MLLB-S-120-M
135	886 mm	3.5 kg	11.25 A	14.256 lm	MLLB-S-135-10	MLLB-S-135-40	-
165	1,078 mm	4.2 kg	13.75 A	17,424 lm	MLLB-S-165-10	MLLB-S-165-40	-
195	1,270 mm	4.9 kg	16.25 A	20,592 lm	MLLB-S-195-10	MLLB-S-195-40	MLLB-S-195-M

MLLB-X SERIES

BEAM PATTERN	WARRANTY
Euro, Flood	Extended
HEIGHT	**WIDTH**
69 mm	76 mm

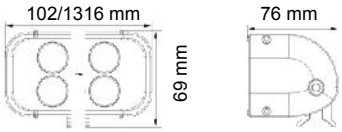
ORIGINAL LIGHT BAR WITH SEAMLESS BEAM

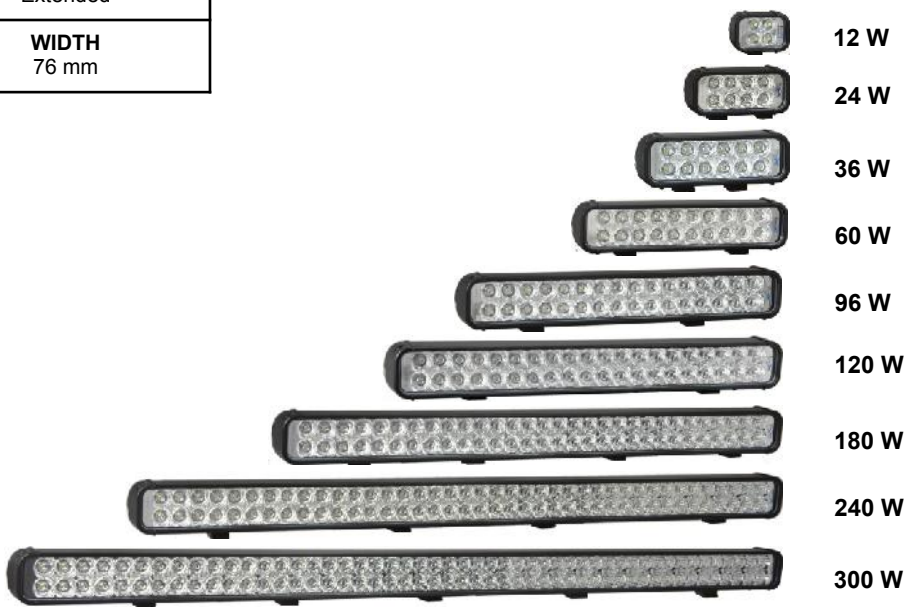
- **Seamless Beam Pattern**
- **Plug and Play Harness Included**
- **Weatherproff Deutsch Connector**
- **Used by Nasa, Border Patrol, and Pro Racer**
- **Infrared, Amber, Red, Blue and Green Available**

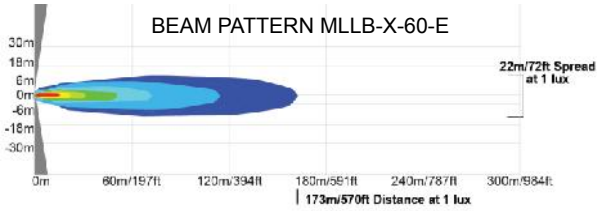
END CAP MOUNTS

Item LALB-X-ECM

2D VIEW







WATTS	LENGTH	WEIGHT	AMP DRAW	RAW LUMENS	EURO	FLOOD
12	101.6 mm	0.57 kg	1.25 A	720 lm	MLLB-X-12-E	MLLB-X-12-F
24	147.6 mm	0.95 kg	2.5 A	1,440 lm	MLLB-X-24-E	MLLB-X-24-F
36	198.4 mm	1.2 kg	3.75 A	2,160 lm	MLLB-X-36-E	MLLB-X-36-F
60	300 mm	1.65 kg	6.25 A	3,600 lm	MLLB-X-60-E	MLLB-X-60-F
96	446 mm	2.5 kg	10 A	5,760 lm	MLLB-X-96-E	MLLB-X-96-F
120	550 mm	3.0 kg	11.25 A	7,200 lm	MLLB-X-120-E	MLLB-X-120-F
180	808 mm	4.35 kg	13.75 A	10,800 lm	MLLB-X-180-E	MLLB-X-180-F
240	1,062 mm	5.65 kg	16.25 A	14,400 lm	MLLB-X-240-E	MLLB-X-240-F
300	1,316 mm	6.60 kg	16.25 a	18,000 lm	MLLB-X-300-E	MLLB-X-300-F

MLLB-R SERIES

LOW PROFILE REAR LED BAR SYSTEM

- **Sleek Low Profile Design**
- **High Output Color LEDs**
- **Racer Models include Blue LEDs**
- **Running Brake Lights in Single Bar**
- **Red, Amber and White LEDs in Single Housing**

BEAM PATTERN 60°	**WARRANTY** Extended	**HEIGHT** 52 mm
RAW LUMENS Up to 7,056 lm	**EFFECTIVE LUMENS** Up to 4,939 lm	**WIDTH** 62 mm
AMPS **7.25 A**	**VIBRATION RATING** 15.6 Grms	**WEIGHT** Start at 2.8 kg

21 LEDs

27 LEDs

21 LEDs
Racer Model

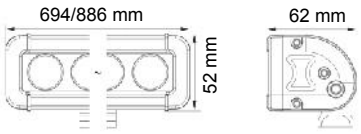
27 LEDs
Racer Model

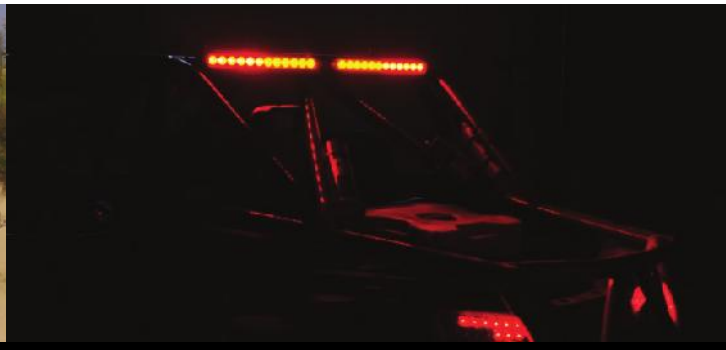
WATTS	LENGTH	STANDARD	RACER
63	694 mm	MLLB-R-63-F	MLLB-R-63-F
81	886 mm	MLLB-R-81-F	MLLB-R-81-F

END CAP MOUNTS

Item LALB-S-ECM

2D VIEW





LED HEAD LIGHT

Take your desire for high powered LEDs to the streets with the DOT Approved LED headlight. The headlight boasts halo, low and high beam modes and a robust aluminium polycarbonate hybrid housing. E-Mark and ADR approved models also available.

AUTOMOTIVE / OFFROAD LED HEADLIGHT

ABOUT THE HEADLIGHT

The DOT Approved LED Headlight leads the LED Headlight industry in both style and performance. With an integrated LED Halo Ring, the LED headlight is sure to turn heads while also delivering a dramatically improved night driving experience over factory headlights. The LED headlight is currently available in 7” Round and 5.75” Round with more models on the way, each available with a Polished Chrome finish or a Black Chrome finish.

ADR and E-MARK Approved models are available for those who live in Australia and Europe. We spent the time to get the certification and pass all regulations so that you can enjoy your LED Headlight regardless of location.

Multiple direct plug-and-play accessories are available that help give you the most out of your LED Headlight.

7’’ E-MARK APPROVED MODELS

AVAILABLE KITS

Special models for Left-hand and Right-hand driving regulations are available with E-Mark Approval in the 7” Round housing.

MULTIPLE LEDs

Integration of two LEDs with flood optics into the sides of the fixture in order to provide ample peripheral lighting by filling in the sides of the roadway in between the vehicle and the low beam.

BEAM MODES

HALO / LOW / HIGH

The LED headlight has three beam modes that each serve a different purpose. The Halo works as a daytime running light while the Low and High beams handle the job of providing you with light output.

ACCESSORIES

Item: LAHL-A

Item: LAHL-C

IMPROVE PERFORMANCE

For those looking to take their LED Headlight to the next level we recommend the following accessories.

REFERENCE	PURPOSE	QTY
LAHL-A	Engages all three beam modes simultaneously to dramatically increase visibility and light output.	1
LAHL-C	Levels electrical current to remove electrical interference from vehicle and eliminate flickering in the light.	1

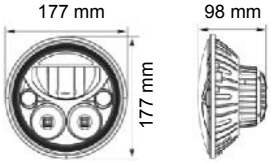
MLHL-R7

Item MLHL-R7

DOT APPROVED LED HEADLIGHT WITH BRIGHT LED HALO RING
Multiple LEDs Fill in Roadway / Polycarbonate Lens / E-Mark & ADR Models Available

BEAM PATTERN Halo, Low, High	WEIGHT 1.0 kg	DIMENSIONS 177 x 177 x 98 mm
RAW LUMENS 4,210 lm (ea)	REFLECTOR FINISH Chrome	INCH 6.96" x 6.96" x 3.86"

2D VIEW



ITEM	BEAM PATTERN	QTY
MLHL-R7	SINGLE – POLISHED CHROME	1
MLHL-R7K	KIT – POLISHED CHROME	2
MLHL-R7B	SINGLE – BLACK CHROME	1
MLHL-R7KB	KIT – BLACK CHROME	2

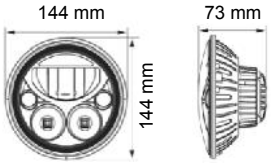
MLHL-R5.75

Item MLHL-R5.75

DOT APPROVED LED HEADLIGHT WITH BRIGHT LED HALO RING
Multiple LEDs Fill in Roadway / Polycarbonate Lens / E-Mark & ADR Models Available

BEAM PATTERN Halo, Low, High	WEIGHT 0.88 kg	DIMENSIONS 144 x 144 x 73 mm
RAW LUMENS 4,210 lm (ea)	REFLECTOR FINISH Chrome	INCH 5.65" x 5.65" x 2.88"

2D VIEW



ITEM	BEAM PATTERN	QTY
MLHL-R5.75	SINGLE – POLISHED CHROME	1
MLHL-R5.75K	KIT – POLISHED CHROME	2
MLHL-R5.75B	SINGLE – BLACK CHROME	1
MLHL-R5.75KB	KIT – BLACK CHROME	2

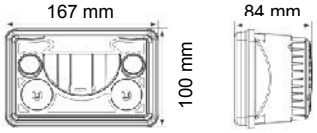
MLHL-46

Item MLHL-46

DOT APPROVED LED HEADLIGHT WITH BRIGHT LED HALO RING
Multiple LEDs Fill in Roadway / Polycarbonate Lens / E-Mark & ADR Models Available

BEAM PATTERN Halo, Low, High	WEIGHT 1.0 kg	DIMENSIONS 167 x 100 x 84 mm
RAW LUMENS 4,210 lm (ea)	REFLECTOR FINISH Chrome	INCH 6.57" x 3.94" x 3.29"

2D VIEW



ITEM	BEAM PATTERN	QTY
MLHL-46	SINGLE – POLISHED CHROME	1
MLHL-46K	KIT – POLISHED CHROME	2
MLHL-46B	SINGLE – BLACK CHROME	1
MLHL-46KB	KIT – BLACK CHROME	2

HID LIGHTING

Offering a high quality HID lighting solutions, providing over 2,500 hours of intense illumination and a die-cast 6061 aluminium housing for a reliable and durable lighting solution.

ABOUT THE MHID SERIES

The Extreme Performance HID was engineered with input from Baja 1000 winning racers to further enhance the race proven MHID Series. Each light includes a weatherproof Deutsch Connector with Plug-and-Play Harness and features a durable lightweight polycarbonate lens.

The MHID Series is currently trusted by professional rally teams in the United States and Canada.

Internal Ballast & Starter
The ballast takes the standard 12V input power and increases this to the 32,000V that the bulb operates at and the starter is used to ignite the bulb. MHID Series uses all internal components for an all-in-one package.

LONG RANGE PROTECTION

The MHID Series is capable of producing long range distances of up to 1,200 meters of usable light from the 8.7" model and 1,000 meters from the 6.7" housing.

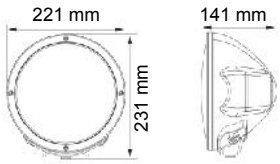
MHID-R8.7

Item MHID-R8.7

1200 METERS OF LIGHTS FOR UNMATCHED DISTANCE
Polycarbonate Lens / Die-Cast Aluminium Housing / Internal Ballast & Starter

BEAM PATTERN Spot, Euro	**WARRANTY** Extended	**DIMENSIONS** 221 x 231 x 141 mm
RAW LUMENS 5,000 lm (ea)	**EFFECTIVE LUMENS** 3,500 lm	**INCH** 8.70" x 9.09" x 5.55"
WATTAGE / AMPS 50W / 4.17 A	**VIBRATION RATING** 8.6 Grms	**WEIGHT** 2.81 kg

2D VIEW



ITEM	BEAM PATTERN
MHID-R8.7-E	EURO
MHID-R8.7-S	SPOT

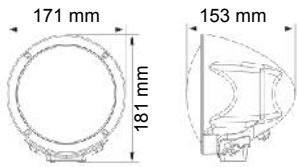
MHID-R6.7

Item MHID-R6.7

1000 METERS OF LIGHTS FOR UNMATCHED DISTANCE
Polycarbonate Lens / Die-Cast Aluminium Housing / Internal Ballast & Starter

BEAM PATTERN Spot	**WARRANTY** Extended	**DIMENSIONS** 170 x 178 x 160 mm
RAW LUMENS 5,000 lm (ea)	**EFFECTIVE LUMENS** 3,500 lm	**INCH** 6.70" x 7.00" x 6.30"
WATTAGE / AMPS 50W / 4.17 A	**VIBRATION RATING** 8.6 Grms	**WEIGHT** 1.81 kg

2D VIEW



ITEM	BEAM PATTERN
MHID-R6.7-S	SPOT

HALOGEN LIGHTING

With various bulbs and headlight products, we caters to your needs when upgrading or replacing your bulbs or headlights.

AUTOMOTIVE / OFFROAD HALOGEN HEADLIGHT BULBS

DIRECT REPLACEMENT

Increase brightness by up to 50% with the MHHB Series headlight bulbs. The MHHB Series headlight bulbs provide a super white, more natural light for increased visibility and safety. With three lines to choose from, we offer the perfect mix of cost and performance for any driver.

DOT APPROVED

Unlike other Halogen Bulbs on the market, the MHHB Series bulbs are DOT Approved. Enhance your night time driving experience while cooperating with all laws and regulations.

LIFETIME WARRANTY

MHHB Series bulbs feature a Lifetime Limited Warranty. Meaning you never have to buy another set of bulbs.

MHHB SERIES HALOGEN BULBS

MHHB-9004

MHHB-9005

MHHB-9006

MHHB-9007

MHHB-H1

MHHB-H3

MHHB-H4

MHHB-H7

MHHB-H10

MHHB-H11

MHHB-H13

ITEM	REPLACES	WATTS	FILAMENT
MHHB-9004-S	9004	65/45	DUAL
MHHB-9005-S	9005	65	SINGLE
MHHB-9006-S	9006	55	SINGLE
MHHB-9007-S	9007	65/55	DUAL
MHHB-H1-S	H1	55	SINGLE
MHHB-H3-S	H3	66	SINGLE
MHHB-H4-S	H4	60/55	DUAL
MHHB-H7-S	H7	55	SINGLE
MHHB-H10-S	H10	42	SINGLE
MHHB-H11-S	H11	55	SINGLE
MHHB-H13-S	H13	55/60	DUAL

MHHL-R7

Item MHHL-R7

OEM REPLACEMENT
Hardened Borosilicate Glass Lens / High/Low Beam / DOT Approved

BULB TYPE H4 (Not Included)	**WARRANTY** Standard	**DIMENSIONS** 127 x 178 x 114 mm
BULB AVAILABLE MHHB-H4	**OEM CROSS REFERENCE** H6017 / H6024	**INCH** 5.00'' x 7.00'' x 4.50''
CERTIFICATION DOT Approved	**BEAM MODE** High / Low	**WEIGHT** 1.54 kg

ITEM	QTY
MHHL-R7-S	2

MHHL-R5.75

Item MHHL-R5.75

OEM REPLACEMENT
Hardened Borosilicate Glass Lens / High/Low Beam / DOT Approved

BULB TYPE 9007 (Not Included)	**WARRANTY** Standard	**DIMENSIONS** 146 x 146 x 80 mm
BULB AVAILABLE MHHB-9007	**OEM CROSS REFERENCE** H5001 / H5006	**INCH** 5.75'' x 5.75'' x 3.13''
CERTIFICATION DOT Approved	**BEAM MODE** High / Low	**WEIGHT** 0.68 kg

ITEM	QTY
MHHL-R5.75-S	2

MHHL-57

Item MHHL-57

OEM REPLACEMENT
Hardened Borosilicate Glass Lens / High/Low Beam / DOT Approved

BULB TYPE H4 (Not Included)	**WARRANTY** Standard	**DIMENSIONS** 127 x 178 x 114 mm
BULB AVAILABLE MHHB-H4	**OEM CROSS REFERENCE** H6054	**INCH** 5.00'' x 7.00'' x 4.50''
CERTIFICATION DOT Approved	**BEAM MODE** High / Low	**WEIGHT** 1.54 kg

ITEM	QTY
MHHL-57-S	2

MHHL-46

Item MHHL-46

OEM REPLACEMENT
Hardened Borosilicate Glass Lens / High/Low Beam / DOT Approved

BULB TYPE 9007 (Not Included)	**WARRANTY** Standard	**DIMENSIONS** 102 x 152 x 108 mm
BULB AVAILABLE MHHB-9007	**OEM CROSS REFERENCE** H4656 / H4651	**INCH** 4.00'' x 6.00'' x 4.25''
CERTIFICATION DOT Approved	**BEAM MODE** High / Low	**WEIGHT** 0.91 kg

ITEM	QTY
MHHL-46-S	2

AUTOMOTIVE ACCESSORIES

Providing an assortment of automotive accessories including accent lights, mounting solutions, and light covers for that extra detail you've been looking for.

POLYCARBONATE LIGHT COVERS

ABOUT POLYCARBONATE LIGHT COVERS

The polycarbonate translucent covers not only protect your light, but they also improving vision in dust, fog, or snow. Another benefit of adding a cover is the capability to change your beam pattern. All covers are made with a UV Protective Coating to prevent fading. Each cover is finished with a glow in the dark printed “X” for a unique look at night when the lights are off.

COVER COLORS

CLEAR COVERS
Unbreakable, dust resistant protection to protect the light from debris and particulates. Recommended for users who wish to maintain original light color.

BLACKOUT COVERS
Covers the fixture with a solid black protective cover with a high contrast “X” logo. Required in select states for on-road use.

AMBER COVERS
Battles fog conditions by reducing the amount of blue light. Mimics classic Halogen color temperature. Great for driving in dust at high speeds.

BLUE COVERS
Increases lighting distance when used in snow conditions by reflecting the blue light off the snow. Recommended for vehicles in heavy winter conditions.

RED COVERS
Reduces light temperature and glare back in order to enhance penetration in dust and air particulates. Ideal for vehicles in extreme dust conditions.

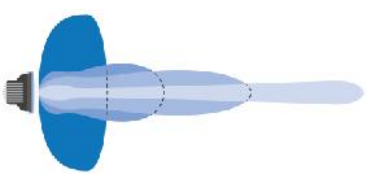
COVER BEAMS

SPOT
Spot covers maintain original lighting beam pattern while protecting the lens from harmful debris.

COMBO
Combo covers combine the distance of a spot cover with the peripheral illumination of a euro cover.

EURO *ELLIPTICAL
Euro covers illuminate peripherals while losing some distance effectiveness.
*Reduces left peripheral illumination for oncoming traffic.

FLOOD *WIDE FLOOD
Wide Flood covers illuminate a wide field of view in exchange for distance effectiveness.
* Flood covers is the vertical beam equivalent to flood covers.



FOR MLOR 10W

ITEM	COLOR	BEAM
LAOR-10-CC	CLEAR	SPOT
LAOR-10-CB	CLEAR BLUE	SPOT
LAOR-10-CY	CLEAR AMBER	SPOT
LAOR-10-CR	CLEAR RED	SPOT
LAOR-10-CCEU	CLEAR	EURO
LAOR-10-CBEU	CLEAR BLUE	EURO
LAOR-10-CYEU	CLEAR AMBER	EURO
LAOR-10-CREU	CLEAR RED	EURO
LAOR-10-CCFL	CLEAR	FLOOD
LAOR-10-CBFL	CLEAR BLUE	FLOOD
LAOR-10-CYFL	CLEAR AMBER	FLOOD
LAOR-10-CRFL	CLEAR RED	FLOOD
LAOR-10-CCWFL	CLEAR	WIDE FLOOD
LAOR-10-CBWFL	CLEAR BLUE	WIDE FLOOD
LAOR-10-CYWFL	CLEAR AMBER	WIDE FLOOD
LAOR-10-CRWFL	CLEAR RED	WIDE FLOOD
LAOR-10-CCEL	CLEAR	ELLIPTICAL
LAOR-10-CBEL	CLEAR BLUE	ELLIPTICAL
LAOR-10-CYEL	CLEAR AMBER	ELLIPTICAL
LAOR-10-CREL	CLEAR RED	ELLIPTICAL
LAOR-10-C	BLACK	PROTECTIVE

FOR MLC 25W/40W

ITEM	COLOR	BEAM
LAC-25-CC	CLEAR	SPOT
LAC-25-CB	CLEAR BLUE	SPOT
LAC-25-CY	CLEAR AMBER	SPOT
LAC-25-CR	CLEAR RED	SPOT
LAC-25-CCCO	CLEAR	COMBO
LAC-25-CBCO	CLEAR BLUE	COMBO
LAC-25-CYCO	CLEAR AMBER	COMBO
LAC-25-CRCO	CLEAR RED	COMBO
LAC-25-CCEU	CLEAR	EURO
LAC-25-CBEU	CLEAR BLUE	EURO
LAC-25-CYEU	CLEAR AMBER	EURO
LAC-25-CREU	CLEAR RED	EURO
LAC-25-CCFL	CLEAR	FLOOD
LAC-25-CBFL	CLEAR BLUE	FLOOD
LAC-25-CYFL	CLEAR AMBER	FLOOD
LAC-25-CRFL	CLEAR RED	FLOOD
LAC-25-CCWFL	CLEAR	WIDE FLOOD
LAC-25-CBWFL	CLEAR BLUE	WIDE FLOOD
LAC-25-CYWFL	CLEAR AMBER	WIDE FLOOD
LAC-25-CRWFL	CLEAR RED	WIDE FLOOD
LAC-25-CCEL	CLEAR	ELLIPTICAL
LAC-25-CBEL	CLEAR BLUE	ELLIPTICAL
LAC-25-CYEL	CLEAR AMBER	ELLIPTICAL
LAC-25-CREL	CLEAR RED	ELLIPTICAL
LAC-25-C	BLACK	PROTECTIVE

FOR MLLB-S SERIES

ITEM	COLOR	BEAM
LALB-S-15-C	BLACK	PROTECTIVE
LALB-S-30-C	BLACK	PROTECTIVE
LALB-S-45-C	BLACK	PROTECTIVE
LALB-S-75-C	BLACK	PROTECTIVE
LALB-S-90-C	BLACK	PROTECTIVE
LALB-S-120-C	BLACK	PROTECTIVE
LALB-S-165-C	BLACK	PROTECTIVE
LALB-S-180-C	BLACK	PROTECTIVE

ITEM	COLOR	BEAM
LALB-S-15-CY	AMBER	SPOT
LALB-S-30-CY	AMBER	SPOT
LALB-S-45-CY	AMBER	SPOT
LALB-S-75-CY	AMBER	SPOT
LALB-S-90-CY	AMBER	SPOT
LALB-S-120-CY	AMBER	SPOT
LALB-S-165-CY	AMBER	SPOT
LALB-S-180-CY	AMBER	SPOT

FOR MLC 50W / MLT SERIES

ITEM	COLOR	BEAM
LAC-50-CC	CLEAR	SPOT
LAC-50-CB	CLEAR BLUE	SPOT
LAC-50-CY	CLEAR AMBER	SPOT
LAC-50-CR	CLEAR RED	SPOT
LAC-50-CCCO	CLEAR	COMBO
LAC-50-CBCO	CLEAR BLUE	COMBO
LAC-50-CYCO	CLEAR AMBER	COMBO
LAC-50-CRCO	CLEAR RED	COMBO
LAC-50-CCEU	CLEAR	EURO
LAC-50-CBEU	CLEAR BLUE	EURO
LAC-50-CYEU	CLEAR AMBER	EURO
LAC-50-CREU	CLEAR RED	EURO
LAC-50-CCFL	CLEAR	FLOOD
LAC-50-CBFL	CLEAR BLUE	FLOOD
LAC-50-CYFL	CLEAR AMBER	FLOOD
LAC-50-CRFL	CLEAR RED	FLOOD
LAC-50-CCWFL	CLEAR	WIDE FLOOD
LAC-50-CBWFL	CLEAR BLUE	WIDE FLOOD
LAC-50-CYWFL	CLEAR AMBER	WIDE FLOOD
LAC-50-CRWFL	CLEAR RED	WIDE FLOOD
LAC-50-CCEL	CLEAR	ELLIPTICAL
LAC-50-CBEL	CLEAR BLUE	ELLIPTICAL
LAC-50-CYEL	CLEAR AMBER	ELLIPTICAL
LAC-50-CREL	CLEAR RED	ELLIPTICAL
LAC-50-C	BLACK	PROTECTIVE

FOR MLOC 90W / MHID-R8.7

ITEM	COLOR	BEAM
LAC-90-CC	CLEAR	SPOT
LAC-90-CB	CLEAR BLUE	SPOT
LAC-90-CY	CLEAR AMBER	SPOT
LAC-90-CR	CLEAR RED	SPOT
LAC-90-CCCO	CLEAR	COMBO
LAC-90-CBCO	CLEAR BLUE	COMBO
LAC-90-CYCO	CLEAR AMBER	COMBO
LAC-90-CRCO	CLEAR RED	COMBO
LAC-90-CCEU	CLEAR	EURO
LAC-90-CBEU	CLEAR BLUE	EURO
LAC-90-CYEU	CLEAR AMBER	EURO
LAC-90-CREU	CLEAR RED	EURO
LAC-90-CCFL	CLEAR	FLOOD
LAC-90-CBFL	CLEAR BLUE	FLOOD
LAC-90-CYFL	CLEAR AMBER	FLOOD
LAC-90-CRFL	CLEAR RED	FLOOD
LAC-90-CCWFL	CLEAR	WIDE FLOOD
LAC-90-CBWFL	CLEAR BLUE	WIDE FLOOD
LAC-90-CYWFL	CLEAR AMBER	WIDE FLOOD
LAC-90-CRWFL	CLEAR RED	WIDE FLOOD
LAC-90-CCEL	CLEAR	ELLIPTICAL
LAC-90-CBEL	CLEAR BLUE	ELLIPTICAL
LAC-90-CYEL	CLEAR AMBER	ELLIPTICAL
LAC-90-CREL	CLEAR RED	ELLIPTICAL
LAC-90-C	BLACK	PROTECTIVE

FOR MLLB-XP SERIES

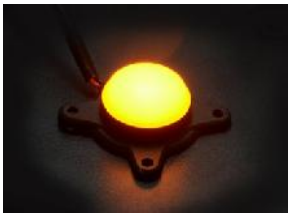
ITEM	COLOR	BEAM
LALB-XP-30-C	BLACK	PROTECTIVE
LALB-XP-60-C	BLACK	PROTECTIVE
LALB-XP-90-C	BLACK	PROTECTIVE
LALB-XP-150-C	BLACK	PROTECTIVE
LALB-XP-180-C	BLACK	PROTECTIVE
LALB-XP-270-C	BLACK	PROTECTIVE
LALB-XP-360-C	BLACK	PROTECTIVE
LALB-XP-450-C	BLACK	PROTECTIVE

ITEM	COLOR	BEAM
LALB-XP-30-CY	AMBER	SPOT
LALB-XP-60-CY	AMBER	SPOT
LALB-XP-90-CY	AMBER	SPOT
LALB-XP-150-CY	AMBER	SPOT
LALB-XP-180CY	AMBER	SPOT
LALB-XP-270-CY	AMBER	SPOT
LALB-XP-360-CY	AMBER	SPOT
LALB-XP-450-C	AMBER	SPOT

LED ACCENT LIGHTING

ABOUT ACCENT LIGHTING

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

Item MLPP-W

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

Item MLPU-W

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

Item MLST-2T

Item MLST-1T

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

BATTERY PACKS

Long Life Battery
Power a MLSP 10W for up to 13 hours with a portable power packs that run off of high rate lithium-ion batteries.

Compact Design
Models such as the LABP-22 are engineered for compact, light-weight form factors for take anywhere performance.

12V Device
The Battery Packs are designed for use with 12 volt devices, with which most these product comply.

Easy to Charge
Charge time is between 3 and 4.5 hours with a power input of 110-220 VAC for an easily rechargeable power source

ITEM	LABP-22	LABP-30	LABP-65	LABP-86
1 MLSS 10W RUN TIME	3 Hours	5 Hours	6 Hours	13 Hours
CAPACITY	2.2 Ah	3.1 Ah	6.5 Ah	8.6 Ah
MAX LOAD	5 A	5 A	8 A	10 A
CHARGE TIME	4 Hours	3 Hours	4 Hours	4.5 Hours
VOLTAGE	14.8 VDC	14.8 VDC	11.1 VDC	14.8 VDC
WEIGHT	0.52 kg	0.52 kg	0.45 kg	0.91 kg
SWITCH	On Body	On Body	On Body	On Body

Item MLSS-10

Item LABP-22

Item LABP-30

Item LABP-65

Item LABP-86

Technical Information

WARRANTY	Standard
INCLUDE	Power Pack Charger
CHARGER INPUT VOLTAGE	110-220 VAC

Features
- Portable Power Packs to for Universal Applications
- Weatherproof Deutsch Connector
- Rechargeable

UNIVERSAL HARNESSES

Item LA-H-2

UNIVERSAL WIRING HARNESS
30A 12V Relay Included / Light Rocker Switch / Weatherproof Deutsch Connector

ITEM	CONNECTORS	APPLICATION
LA-H-1	Terminals	1 Light Harness
LA-H-2	Terminals	2 Lights Harness
LA-H-3	Terminals	High Amps 1 Light Harness
LA-H-4	Deutsch DT Series	Y Adapter
LA-H-5	Cigarette Adapter	Cigarette Power Cord

MLSR FLUSH MOUNT

Item LASR-10-FLUSH2

4" FLUSH MOUNT FOR MLSR LED
Install Flush into a 2.75" Hole / Ideal for Ceiling Mounts / Black Anodized Finish

ITEM	DIAMETER	APPLICATION
LASR-10-FLUSH	3.68" / 93.47 mm	Front Mount
LASR-10-FLUSH2	3.68" / 93.47 mm	Light Mount
LASR-10-FLUSH3	4.00" / 101.6 mm	Front Mount

MAGNETIC BASE

Item LA-MB-34

UNIVERSAL TEMPORARY LIGHT MOUNT
Secure Light Temporary / Multiple to Support Large Lights / Protective Rubber Boot

ITEM	PULL	INCLUDED
LA-MB-43	43 kgs	Magnet & Sleeve
LA-MB-29.5	29.5 kgs	Magnet & Sleeve
LA-MB-34	34 kgs	Magnet & Rubber Boot

MLD FLUSH MOUNT

Item LAD-20-FLUSH

FLUSH MOUNT FOR MLD SERIES
Install Flush / Ideal for Bumpers / Black Powder coat Finish

ITEM	USE
LAD-12-FLUSH	Bracket, MLD-12 Flush Light
LAD-20-FLUSH	Bracket, MLD-20 Flush Light
LAD-30-FLUSH	Bracket MLD-30 Flush Light

MLLB END CAP MOUNT

Item LALB-XP-ECM

END CAP MOUNT FOR LIGHT BARS
M10x1.5x20mm Thread / Sold in Pairs / Ideal for Roof Mounting

ITEM	DESIGNED FOR
LALB-S-ECM	MLLB-S Series
LALB-XP-ECM	MLLB-XP Series
LALB-UD-ECM	MLLB-LG, MLLB-ED, MLLB-UD Series
LALB-X-ECM	MLLB-X Series

MLO HANDLE

Item LAOS-20-HANDLE

MLO HANDLE FOR PORTABLE APPLICATIONS
Sure-Grip form / Convenient Handle for use with MLO Series / Portable Application

ITEM	FITS
LAOS-10-HANDLE	MLOR-10 and MLOS-10
LAOS-20-HANDLE	MLOS-20

MLU HANDLE

Item LAUR-HANDLE

MLUS HANDLE LIGHT ACCESSORY FOR ADDITIONAL APPLICATIONS
Sure-Grip form / Convenient Handle for use with MLUS Series / Portable Application

ITEM	FITS
LAUR-HANDLE	MLUR-35 and MLUR-21
LAUS-HANDLE	MLUS-35 and MLUS-21

MLSS MOUNT

Various Mounts Shown

MLSS MOUNTS
Combine with the battery packs / Portable on-the-go lighting / Extends Applications

ITEM	USE
LASS-10-HANDLE	Pistol Grip Handle
LASS-10-HELMET	Helmets
LASS-10-HANDLEBAR	Handlebars
LASS-10-CLAMP	Tube Mounting 0.75”-1.25”
LASS-10-COMBO	Helmets + Handlebars

MLSR MOUNT

Various Mounts Shown

MLSR MOUNTS
Combine with the battery packs / Portable on-the-go lighting / Extends Applications

ITEM	USE
LASR-5-HANDLEBAR	Handlebars
LASR-5-HELMET	Helmets
LASR-5-COMBO	Helmets + Handlebars
LASR-5-CLAMP	Tube Mounting 0.75”-1.25”

TUBE CLAMP MOUNT

Item LA-TC-175

360° TUBE FRAME MOUNT SYSTEM FOR LIGHTS, LIGHT BARS, AND MORE
Includes All Rubber Gasket and Hardware / Anodized Aluminium / Sold in Pairs

ITEM	COLOR
LA-TC-075	0.75" / 19mm
LA-TC-100	1.00" / 25mm
LA-TC-125	1.25" / 38mm
LA-TC-150	1.50" / 45mm
LA-TC-175	1.75" / 50mm
LA-TC-200	2.00" / 57mm
LA-TC-250	2.50" / 64mm
LA-TC-300	3.00" / 76mm

SECURITY BOLTS

Item LA-ATB-8x20

SECURITY HARDWARE REDUCES THEFT BY REQUIRING SPECIAL TOOL TO REMOVE
Fit Virtually Any Bolt / 304 Stainless Steel Construction / Sold as 2 Bolts with 1 Tool

ITEM	POPULAR APPLICATIONS
LA-ATB-6x15	L Bracket Mounting Bolt to side of light for MLLB-LG, MLLB-ED, MLLB-UD Light bars
LA-ATB-6x20	Any M6x20mm Bolt
LA-ATB-8x15	Bracket to Light Bolts for MLO Series, MLD Series
LA-ATB-8x20	Bracket to Light on MLP Series
LA-ATB-8x25	Any M8x25mm Bolt

SECURITY BOLTS

Item LA-ATN-8

SECURITY HARDWARE REDUCES THEFT BY REQUIRING SPECIAL TOOL TO REMOVE
Fit Virtually Any Nut / Carbon Steel Construction / Sold as 2 Nuts with 1 Tool

ITEM	POPULAR APPLICATIONS
LA-ATN-6	Fits to mounting bolts for MLUF, MLSR, MLSS, MLD, MLLB-X, MLLB-XP, MLLB-LG, MLLB-ED, MLLB-UD
LA-ATN-8	Fits to mounting bolts for all MLO, MLD Fits to bracket to light bolts for MLC-25, MLUS
LA-ATN-10	Fits to mounting bolts for all MLC, MLOS-20, MLT, MLUS Series
LA-ATN-12	Any M12 Mounting Hardware

LED WORK LIGHTS & FLASHLIGHTS

Featuring rubberized sure grip handles, The Flashlights are the perfect addition to anyone's tool belt. Durable, rugged, bright and long lasting, the Flashlights will constantly perform job after job. With special features such as an integrated hook, you'll be able to see more and work faster.

LED WORK LIGHT

Item MLWL

FEATURES
- Ergonomic rubber coated handle
- Rechargeable Lithium-Ion (Battery non included)
- 6 hours run time
- High intensity LED array
- Flashing Top
- 120° LED BEAM for Illuminating Wide Areas
- Rubberized Sure Grip – No Roll Handle
- Shock Resistant – Drop Proof
- Dimension 27x5.7x3.8 cm – 0.45 kg
- Color Black

ITEM	DESCRIPTION	COLOR
MLWLi	LED WORK LIGHT	BLACK

LED WORK LIGHT

Item MLWLH

FEATURES
- Shatter proof Housing
- Rechargeable Lithium-Ion (Battery non included)
- 8 hours run time
- Cigarette Lighter & Wall Charger Included
- Acrylic Body & Rubberized Handle
- Integrated Hook For Hanging
- Dimension 43x5x5 cm – 0.4 kg
- Color Black

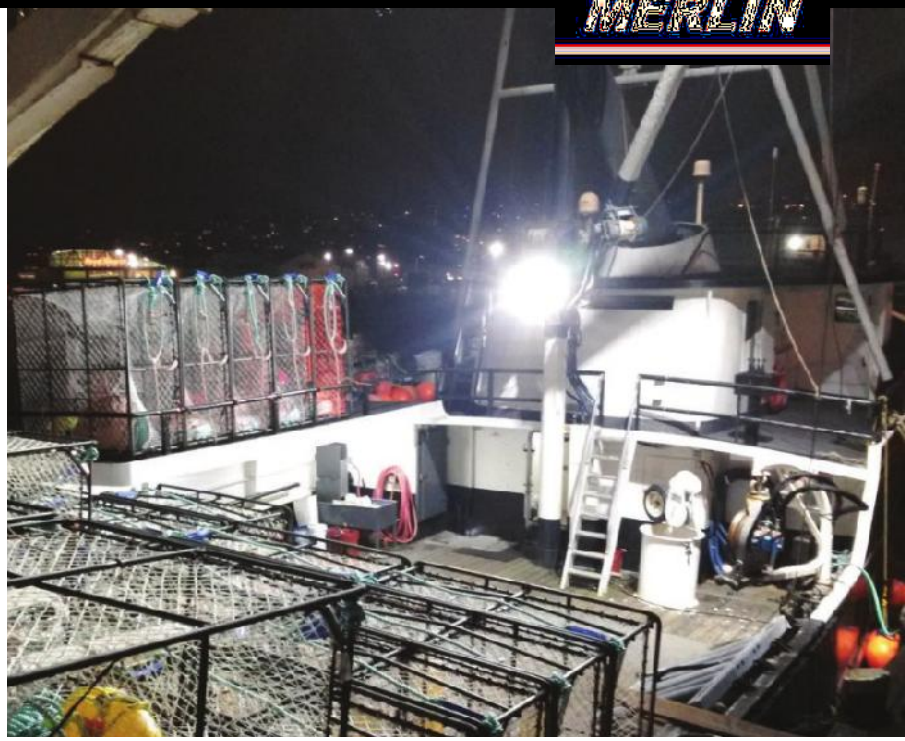
ITEM	DESCRIPTION	COLOR
MLWLH-US	LED WORK LIGHT With 110V US charger	BLACK
MLWLH-EU	LED WORK LIGHT With 220V European plug charger	BLACK

LED FLASH LIGHT

Item MLFLB

FEATURES
- Twin Pack – 2 Flashlights for the price of one
- 24 hour run time
- Durable Aluminium Housing
- Simple On-Off Operation
- Cool to the Touch
- Color Black or Chrome

ITEM	DESCRIPTION	COLOR
MLFLB	LED FLASH LIGHT	BLACK
MLFLC	LED FLASH LIGHT	CHROME



INDUSTRIAL SOLUTIONS

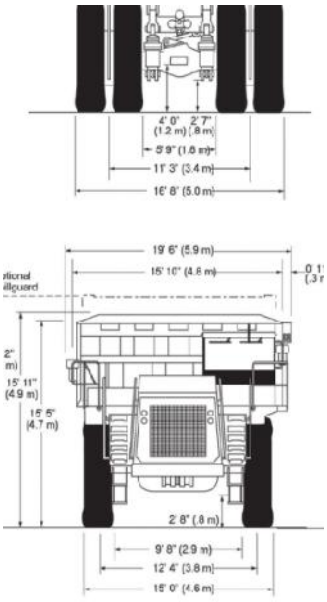
HEAVY DUTY / MEDIUM DUTY / LIGHT INDUSTRIAL
MARITIME / STRUCTURAL / INDUSTRIAL ACCESSORIES

HEAVY DUTY & MEDIUM DUTY SOLUTIONS

Engineered for high-vibration and harsh environments, our Heavy Duty range features advanced specifications including specialized brackets and electrical components for unmatched illumination on a large scale

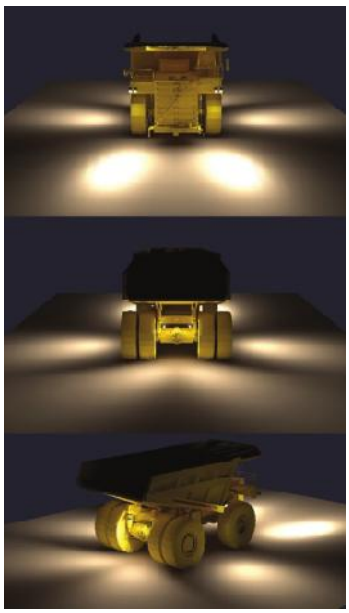
SOLUTION PROCESS

We offers complete lighting solutions tailored to the exact needs of your location This allows you to know prior to purchasing exactly what each light package will do for you. Letting you know in confidence that the lights will meet all the OSHA/MSHA and any other requirements that you may need.

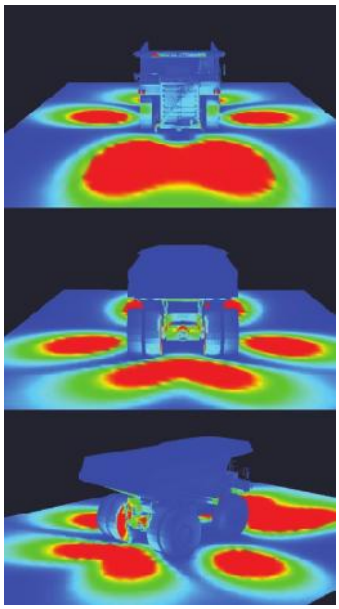


2D BLUEPRINT
We begins a project by requesting the list of machines that we will needed to be retrofitted. Then gathering the technical information for those machines

3D MODEL
A 3D Model is then built to match the customer exact specifications. This model is then carried over into the rendering.

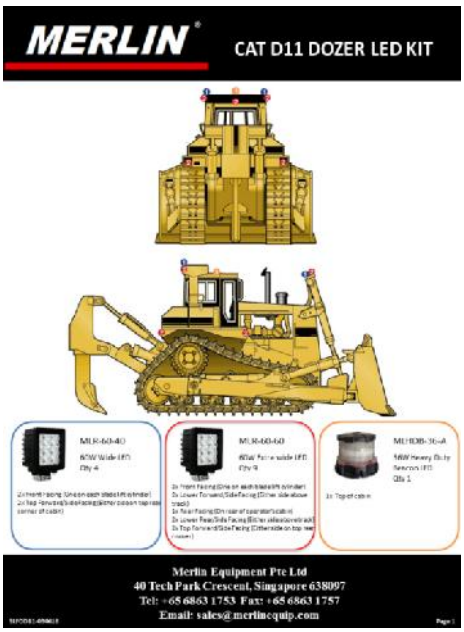


SIMULATION RENDER
Prior to implementing a lighting solution, we creates a simulation rendering of the intended result to help envision if the final product will meet lighting requirement.



SOLUTION
We creates a complete breakdown of what the customer needs to meet their specific requirement for safety.

FIT OUT GUIDES AVAILABLE



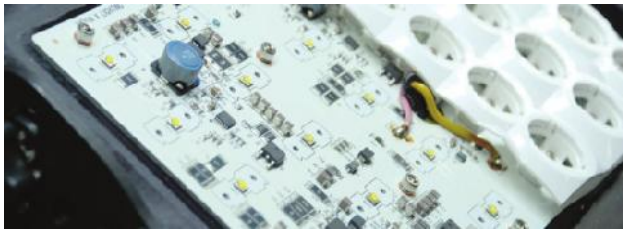
INDUSTRIAL / HEAVY DUTY
MLP SERIES

ABOUT THE MLP SERIES

HARSH ENVIRONMENT 500 & 1000 WATT HPS REPLACEMENT
The MLP Series has earned it's reputation for being the ultimate Heavy Duty LED light from the combination of it's die-cast aluminium housing, unbreakable polycarbonate lens, integrated deutsch connector, reinforced gasketed bezel, and a strengthened trunnion mounting bracket.

Designed to outshine and outlast the competition, the MLP Series features advanced electronic technology like Pulse Width Modulation, Electronic Thermal Management, and a Redundant Circuit Design (60 LED) that allows the fixture to function even if half of the light should fail for unknown reasons. This is part of the effort to ensure that the MLP Series exceeds half life engine on mining vehicles.

REDUNDANT CIRCUIT DESIGN



FAILSAFE FIXTURE

The MLP 150W & 300W each have five and ten internal circuits respectively for redundancy. If one circuit fails, other circuits continue to function allowing equipment to operate until preventive maintenance eliminating unscheduled maintenance and downtime.

FOR USE WITH

UNDERGROUND JUMBOS & DRILL RIGS
HARSH ENVIRONMENT STRUCTURAL
HYDRAULIC AND ROPE SHOVELS
WORKOVER DRILL RIGS
LIGHT PLANT RETROFIT
LIGHT POLES
WASH BAYS

INCREASED PERFORMANCE OVER HPS

Each MLP Series delivers 30% more light to effective work area over high-pressure sodium and metal-halide fixtures, while consuming only 30% of the energy .

PACKAGES & MOUNTS
ADAPTIVE MOUNTING

Multiple mounting options are available for the MLP 150W and MLP 300W such as hanging mounts, flush mounts, and application specific mounts crafted from hardened steel. Also, we can create custom brackets or mounting for your specific needs.

Surface Mount

Cobra Head
Pole Mount

Hanging Mount

AC PACKAGES

Packages are also available for purchase and include the fixture, a power supply, necessary mounting, and a junction box to protect the wiring from weather The AC Power Inverter changes the MLP Series Input Voltage from 11-65V DC to 90-277V AC for a wider range.

REFERENCE	APPLICATION	PACKAGE INCLUDES	VOLTAGE
MLP-150-60-HBAC	High Bay	LED 150W, Power Supply, Hanging Mount, Junction Box	90-277 VAC
MLP-150-60-LBAC	Low Bay	LED 150W, Power Supply, Flush Mount, Junction Box	90-277 VAC
MLP-150-60-SLAC	Street Lighting	LED 150W, Power Supply, Cobra Head Mount, Junction Box	90-277 VAC
MLP-150-60-STAC	Structural	LED 150W, Power Supply, Junction Box	90-277 VAC
MLP-300-60-HBAC	High Bay	LED 300W, Power Supply (x2), Hanging Plate, Junction Box (x2)	90-277 VAC
MLP-300-60-STAC	Structural	LED 300W, Power Supply (x2), Junction Box (x2)	90-277 VAC
MLP-300-90-WPAC	Wall Pack	LED 300W, Power Supply (x2), Wall Pack, Junction Box (x2)	90-277 VAC

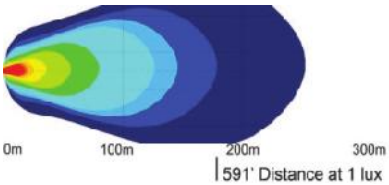
MLP 300 W

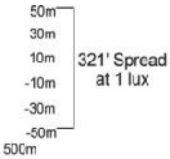
Item MLP-300-60

1000 WATT METAL HALIDE REPLACEMENT LIGHT
Increases Operator Safety / 360° Fully Adjustable Mounting System / Prime Drive Equipped

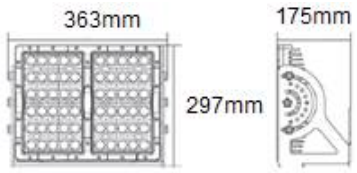
BEAM PATTERN 10°,20°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 362.7 x 296.7 x 174.5mm
RAW LUMENS 31,680 lm (ea)	**EFFECTIVE LUMENS** 22,200 lm (ea)	**INCH** 14.28'' x 11.68'' x 6.87''
WATTAGE / AMPS 300 W / 25 A @12V	**VIBRATION RATING** 60 Grms	**WEIGHT** 12.0 kg

BEAM PATTERN - MLP-300-60





2D VIEW



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

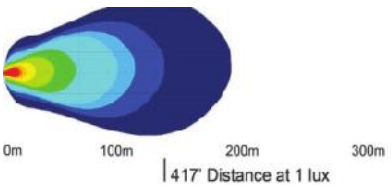
MLP 150 W

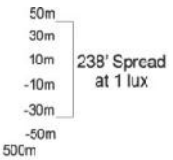
Item MLP-150-60

500 WATT METAL HALIDE REPLACEMENT LIGHT
Increases Operator Safety / 360° Fully Adjustable Mounting System / Prime Drive Equipped

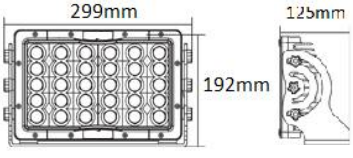
BEAM PATTERN 10°,20°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 298.5 x 191.5 x 125.5mm
RAW LUMENS 15,840 lm (ea)	**EFFECTIVE LUMENS** 11,100 lm (ea)	**INCH** 11.75'' x 7.54'' x 4.94''
WATTAGE / AMPS 150 W / 12.5 A @12V	**VIBRATION RATING** 60 Grms	**WEIGHT** 5.6 kg

BEAM PATTERN - MLP-150-60





2D VIEW



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

OTHERS MLP MODELS AVAILABLE

MLP 540 W / MLP 450 W / MLP 360 W / MLP 180 W

INDUSTRIAL / HEAVY DUTY
MLR SERIES

ABOUT THE MLR SERIES

DESIGNED SPECIFICALLY FOR TRACKED DOZERS, WILL LAST IN ANY APPLICATIONS.

Built to last. The MLR Series is the hardest working LED fixtures you will find on the market. Rated 60 Grms, the MLR is capable of standing up to intense amount of vibration and still perform like it is its first day on the job.

The MLR Series is a direct replacement for HID and Halogen fixtures on heavy vibration commercial and industrial machinery. It features Prime Drive ETM (Electronic Thermal Management) that controls the LED temperature to ensure a prolonged LED lifespan. Additionally, the unique vertical and horizontal channelled heat sink increases heat dissipation and further prolongs the life span of the light.

FOR USE WITH

HARSH ENVIRONMENT STRUCTURAL
RUBBER TIRE & TRACK DOZERS
STANCHION LIGHT POLES
WORKOVER DRILL RIGS
HYDRAULIC SHOVELS
WASH BAYS

MLR SERIES MOUNT

DUAL MOUNTING

Each MLR comes packaged with a fully-adjustable Trunnion mount with isolated rubber shock absorbers. Combined with the standard Suspension mount, the MLR Series can operate in intense vibration applications.

VARIETY OF OPTICS

BEAM PATTERN
The MLR 60W and MLR 100W LEDs Lights are available in large variety of Beam Patterns, each excelling in specific applications. Currently, 10,25,40,60 and 90° beams patterns are available.

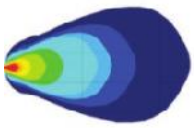
MLR 100 W

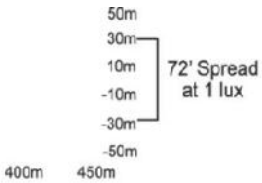
Item MLR-100-60

60 Grms RATED FOR HIGH VIBRATION 100 WATT WORK LIGHT
Dual Mounting System / High Vibration / OE Upgrade

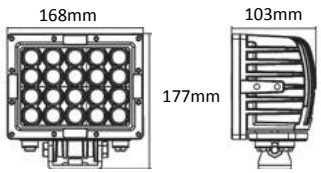
BEAM PATTERN 10°,20°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 177 x 168 x 102.9mm
RAW LUMENS 10,560 lm (ea)	**EFFECTIVE LUMENS** 7,400 lm (ea)	**INCH** 6.97'' x 6.61'' x 4.05''
WATTAGE / AMPS 100 W / 8.34 A @12V	**VIBRATION RATING** 60 Grms	**WEIGHT** 3.4 kg

BEAM PATTERN - MLR-100-60





2D VIEW



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

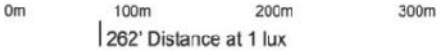
MLR 60 W

Item MLR-60-60

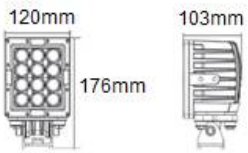
60 Grms RATED FOR HIGH VIBRATION 100 WATT WORK LIGHT
Dual Mounting System / High Vibration / OE Upgrade

BEAM PATTERN 10°,20°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 176.2 x 120 x 102.9mm
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** 15.6 Grms	**WEIGHT** 2.5 kg

BEAM PATTERN - MLR-60-60



2D VIEW



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

INDUSTRIAL / HEAVY DUTY
MLSP SERIES

ABOUT THE MLSP SERIES

DESIGNED FOR HEAVY DUTY FLEET, OE FITMENT DESIGN.

The MLSP Series combines traditional form factor and single bolt mounting with the energy-efficient benefits of LED for the ultimate OE upgrade option for commercial and industrial vehicles that use HID and Halogen Fixture.

The MLSP Series is available in 50W or 70W models, and each feature Prime Drive ETM (Electronic Thermal Management) that controls the LED temperature to ensure a prolonged LED lifespan. Additionally, the unique vertical and horizontal channelled heat sink increases heat dissipation and further prolongs the lifespan.

FOR USE WITH

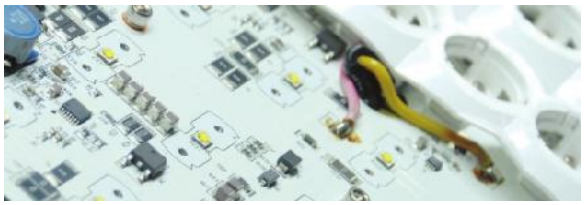
UNDERGROUND HAUL TRUCKS
OPEN PIT HAUL TRUCKS
MISC WHITE IRON
WATER TRUCK
EXCAVATORS
GRADERS
MUCKER

MLSP SERIES MOUNTING

TRUNNION BRACKET

The MLSP Series comes equipped with a full-adjustable 105° Trunnion Bracket that can be easily tuned with a 5mm allen wrench for optical angle for the more direct and efficient light. Additionally, each bolt on the bracket uses isolated rubber shock absorbers to minimize vibration.

ETM & REDUNDANT CIRCUITRY



ETM & PRIME DRIVE

Integrated Electronic Thermal Management helps prolong life of the LEDs by regulating heat levels. Redundant circuit design allows partial light operation until preventative maintenance.

MLSP 70 W

Item MLSP-70-40

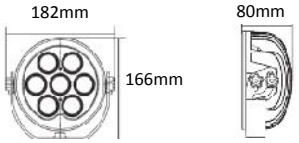
OE UPGRADE FOR HEAVY DUTY COMMERCIAL & INDUSTRIAL APPLICATIONS
105° Adjustable Trunnion Bracket / PMW Integrated Dimming / Vertical Fins Maximize Heat Dissipation

BEAM PATTERN 20°,40°	**WARRANTY** Extended	**DIMENSIONS** 181.4 x 165.9 x 79.5mm
RAW LUMENS 7,364 lm (ea)	**EFFECTIVE LUMENS** 5,155 lm (ea)	**INCH** 7.14" x 6.53" x 3.13"
WATTAGE / AMPS 70 W / 5.8 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 2.05 kg

BEAM PATTERN - MLSP-70-40

ITEM	BEAM PATTERN
MLSP-70-20	20°, MEDIUM
MLSP-70-40	40°, WIDE

2D VIEW



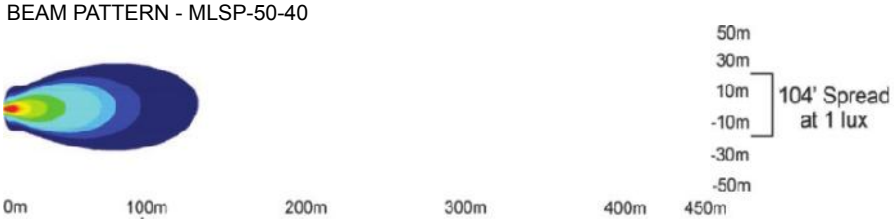
MLSP 50 W

Item MLSP-50-40

OE UPGRADE FOR HEAVY DUTY COMMERCIAL & INDUSTRIAL APPLICATIONS
105° Adjustable Trunnion Bracket / PMW Integrated Dimming / Vertical Fins Maximize Heat Dissipation

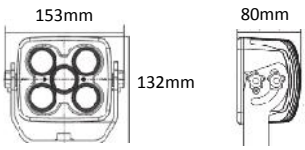
BEAM PATTERN 20°,40°	**WARRANTY** Extended	**DIMENSIONS** 152.4 x 131.3 x 79.5 mm
RAW LUMENS 5,260 lm (ea)	**EFFECTIVE LUMENS** 3,682 lm (ea)	**INCH** 6.00" x 5.17" x 3.13"
WATTAGE / AMPS 50 W / 4.17 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 1.4 kg

BEAM PATTERN - MLSP-50-40



ITEM	BEAM PATTERN
MLSP-50-20	20°, MEDIUM
MLSP-50-40	40°, WIDE

2D VIEW



INDUSTRIAL / HEAVY DUTY
MLSW SERIES

ABOUT THE MLSW SERIES

REPLACES FLUORESCENT FIXTURES IN HARSH ENVIRONMENTS

The MLSW Series excels at being a durable fluorescent upgrade for flat mount applications. The MLSW Series was designed to replace fluorescent tube in heavy commercial and industrial work environment.

Each MLSW has the option of using Frosted lens that diffuse the light to help reduce shadow areas. Additionally, multiple mounting option are available, including a Flush, and standard brackets.

Fluorescent tubes often break and need replacement. With the MLSW Series, you can save on unscheduled maintenance with 50,000 hours of LED life for a brighter, longer-lasting light.

FLUORESCENT REPLACEMENT

FOR HARSH CONDITION MACHINERY

The MLSW Series have been designed to replace ineffective fluorescent fixtures on heavy duty machinery. With the MLSP Series, you get more output for much less power.

MLSWS - SINGLE

The Single panel LED produce a 120° beam pattern spread, rugged industrial design, and universal mounting options/

MLSWD - DUAL

The Dual off axis LED produce a 150° beam pattern spread with integrated Electronic Thermal Management (ETM) and low power consumption.

MLSWD - DUAL

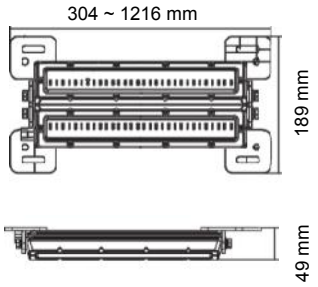
Item MLSWD-40-150C

PREMIUM FLUORESCENT REPLACMENT WITH 210° FULL-SPREAD BEAM PATTERN
High Efficacy Cube LEDs / Power Supply Packages Available / Clear Bezel for Wider Dispersion

BEAM PATTERN Ultra Wide 210°	**WARRANTY** Extended	**DIMENSIONS** 304 / 608 / 912 / 1216 mm
TESTED LUMENS Up to 43,392 lm	**INPUT VOLTAGE** 9~32 VDC	**INCH** 12" / 24" / 36" / 48"
WATTAGE / AMPS Up to 384 W / 32 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 2.6 / 5.3 / 7.7 / 10.3 kg

ULTRA WIDE FLOOD SMD L.E.D.S | EX EXTENDED WARRANTY | 9-32V DC INPUT | DC DIE-CAST HOUSING | IP-68 | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C

2D VIEW



REFERENCE	LENGTH	LENS	RAW LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWD-96-210	Dual 304mm	Clear	10,848 lm	96	8 A	2.6
MLSWD-192-210	Dual 608mm	Clear	21,696 lm	192	16 A	5.3
MLSWD-288-210	Dual 912mm	Clear	32,544 lm	288	24 A	7.7
MLSWD-384-210	Dual 1216mm	Clear	43,392lm	384	32 A	10.3

MLSWS - SINGLE

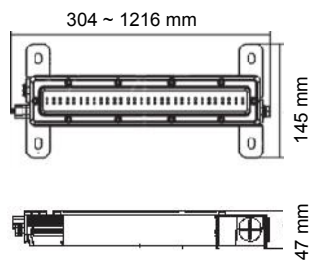
Item MLSWS-10-120F

PREMIUM FLUORESCENT REPLACMENT WITH 180° FULL-SPREAD BEAM PATTERN
High Efficacy Cube LEDs / Power Supply Packages Available / Clear Bezel for Wider Dispersion

BEAM PATTERN Ultra Wide 180°	**WARRANTY** Extended	**DIMENSIONS** 304 / 608 / 912 / 1216 mm
TESTED LUMENS Up to 21,696 lm	**INPUT VOLTAGE** 9~32 VDC	**INCH** 12" / 24" / 36" / 48"
WATTAGE / AMPS Up to 192W / 16A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 1.4 / 2.8 / 4.2 / 5.5 kg

ULTRA WIDE FLOOD SMD L.E.D.S | EX EXTENDED WARRANTY | 9-32V DC INPUT | DC DIE-CAST HOUSING | IP-68 | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C

2D VIEW



REFERENCE	LENGTH	LENS	RAW LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWS-48-180	Dual 304mm	Clear	5,424 lm	48	4 A	1.4
MLSWS-96-180	Dual 608mm	Clear	10,848 lm	96	8 A	2.8
MLSWS-144-180	Dual 912mm	Clear	16,272 lm	144	12 A	4.2
MLSWS-192-180	Dual 1216mm	Clear	21,696 lm	192	16 A	5.5

MLSWD - DUAL

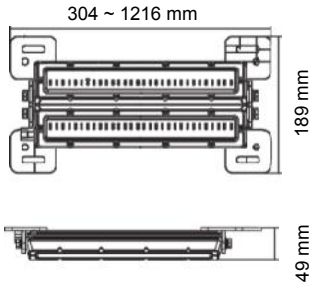
Item MLSWD-40-150C

MODULAR LED UPGRADE FOR FLUORESCENT LIGHTS
Power Supply & Mount Available / Frosted or Clear Lens / Direct replacement Fluorescent

BEAM PATTERN Ultra Wide 150°	**WARRANTY** Extended	**DIMENSIONS** 304 / 608 / 912 / 1216 mm
RAW LUMENS Up to 7,000 lm	**EFFECTIVE LUMENS** Up to 4,900 lm	**INCH** 12'' / 24'' / 36'' / 48''
WATTAGE / AMPS 20~80W / 1.67~6.67A @12V	**VIBRATION RATING** 15.6 G rms	**WEIGHT** 2.6 / 5.3 / 7.7 / 10.3 kg

ULTRA WIDE FLOOD SMD L.E.D.S | EX EXTENDED WARRANTY | 9-32V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

2D VIEW



REFERENCE	LENGTH	LENS	RAW LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWD-20-150C	Dual 304mm	Clear	1,750 lm	20	1.67 A	2.6
MLSWD-40-150C	Dual 608mm	Clear	3,500 lm	40	3.34 A	5.3
MLSWD-60-150C	Dual 912mm	Clear	5,250 lm	60	5.0 A	7.7
MLSWD-80-150C	Dual 1216mm	Clear	7,000 lm	80	6.67 A	10.3

REFERENCE	LENGTH	LENS	RAW LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWD-20-150F	Dual 304mm	Frosted	1,750 lm	20	1.67 A	2.6
MLSWD-40-150F	Dual 608mm	Frosted	3,500 lm	40	3.34 A	5.3
MLSWD-60-150F	Dual 912mm	Frosted	5,250 lm	60	5.0 A	7.7
MLSWD-80-150F	Dual 1216mm	Frosted	7,000 lm	80	6.67 A	10.3

MLSWS - SINGLE

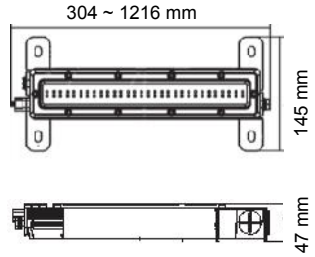
Item MLSWS-10-120F

MODULAR LED UPGRADE FOR FLUORESCENT LIGHTS
Power Supply & Mount Available / Frosted or Clear Lens / Direct replacement Fluorescent

BEAM PATTERN Ultra Wide 120°	**WARRANTY** Extended	**DIMENSIONS** 304 / 608 / 912 / 1216 mm
RAW LUMENS Up to 3,500 lm	**EFFECTIVE LUMENS** Up to 2,450 lm	**INCH** 12'' / 24'' / 36'' / 48''
WATTAGE / AMPS 10~40W / 0.42~1.67A @12V	**VIBRATION RATING** 15.6 G rms	**WEIGHT** 1.4 / 2.8 / 4.2 / 5.5 kg

ULTRA WIDE FLOOD SMD L.E.D.S | EX EXTENDED WARRANTY | 9-32V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

2D VIEW



REFERENCE	LENGTH	LENS	RAW LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWS-10-120C	Dual 304mm	Clear	875 lm	10	0.83 A	1.4
MLSWS-20-120C	Dual 608mm	Clear	1,750 lm	20	1.67 A	2.8
MLSWS-30-120C	Dual 912mm	Clear	2,625 lm	30	2.50 A	4.2
MLSWS-40-120C	Dual 1216mm	Clear	3,500 lm	40	3.34 A	5.5

REFERENCE	LENGTH	LENS	RAW LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWS-10-120F	Dual 304mm	Frosted	875 lm	10	0.83 A	1.4
MLSWS-20-120F	Dual 608mm	Frosted	1,750 lm	20	1.67 A	2.8
MLSWS-30-120F	Dual 912mm	Frosted	2,625 lm	30	2.50 A	4.2
MLSWS-40-120F	Dual 1216mm	Frosted	3,500 lm	40	3.34 A	5.5

INDUSTRIAL / HEAVY DUTY
MLEP SERIES

ABOUT THE MLEP SERIES

ATEX APPROVED FOR FLAMMABLE ENVIRONMENT

The MLEP Series Flameproof Light fixture provides you with a powerful and energy efficient alternative to traditional hazardous lights.
The MLEP Series offers a compact design making it the perfect replacement for older fixtures that are too bulky or require high maintenance. The MLEP is designed to be mounted on the interior or exterior for area illumination.

This fixtures features High Output LEDs for a total of 40 Watts and has an integrated 85-264V AC input range. The Die-Cast Aluminium Housing combined with a soda-lime glass lens allow the light to operate in any environment.

ATEX 95 APPROVAL

DIRECTIVE 94/9/EC

The MLEP Series fixture has undergone extensive product testing and has earned the ATEX 95 certification to become a flameproof electrical equipment.

FOR USE WITH

FUEL DELIVERY SYSTEM
FRACKING DRILL RIGS
OIL PLATFORMS
OIL REFINERIES
TANK FARMS

FLAME/EXPLOSION CERTIFICATIONS

Zone 1 – Gases, Mists, Vapors, Occasional, Present
Zone 2 – Gases, Mists, Vapors, Only present for a short period
Ex d – Prevents transmission of the explosion outside
II d – For Complete list of explosion group examples see ATEX 94/9/EC

MLEP FLAMEPROOF LIGHT

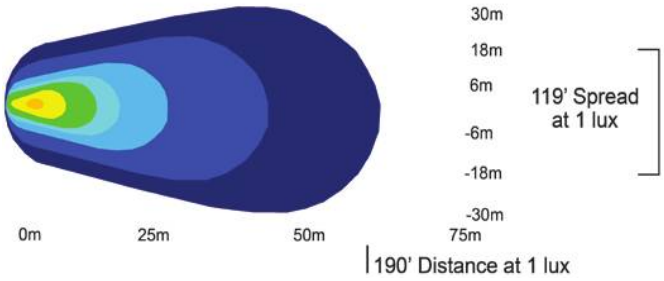
40 WATTS FLAMEPROOF ATEX 94/9/EC CERTIFIED LED FIXTURE
Soda-Lime Glass (15.0t) Lens / Integrated 85-264VAC Power Input / Single Stud Mounting System

Item MLEP-40-60

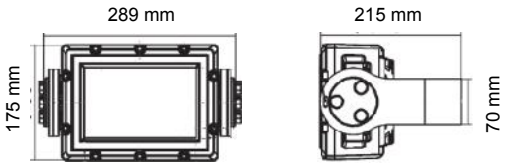
BEAM PATTERN 10°, 25°, 60°	**WARRANTY** Extended	**DIMENSIONS** 289 x 174.8 x 215mm
RAW LUMENS 3,500 lm (ea)	**EFFECTIVE LUMENS** 2,450 lm (ea)	**INCH** 11.38'' x 6.88'' x 8.46''
WATTAGE / AMPS 40 W / 8.43 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 9.16 kg

ITEM	BEAM PATTERN
MLEP-40-10	10°, NARROW
MLEP-40-25	25°, MEDIUM
MLEP-40-60	60°, EXTRA WIDE

BEAM PATTERN – MLEP-40-60



2D VIEW



INDUSTRIAL / MEDIUM DUTY
MLU SERIES

ABOUT THE MLU SERIES

OEM/AFTERMARKET REPLACMENT LIGHTING FOR HALOGEN/HID

The MLU Series excels in a multitude of applications and is a premium OE upgrade for commercial and industrial applications. Both the MLUR, round and the MLUS, square are capable of delivering greatly increased output and in a smoother beam pattern than comparable halogen fixtures/

The MLU Series are used everywhere from large-scale mining sites to commercial fog light applications that take advantages of the available 10° beam pattern.

Over 528 raw lumens come out of each LED inside the MLU Series, making it a leader in the 5 Watt LED field.

FOR USE WITH

AGRICULTURAL EQUIPMENT
AIRPORT EQUIPMENT
GARBAGE TRUCKS
FLEET VEHICLES
SERVICES BODIES
EXCAVATORS
SWEEPERS
WRECKERS

MLUR-21 W & MLUS-21 W AVAILABLE

Reduced energy consumption using 3W LED in the same housings as the MLU-35 Series.

COLORS AVAILABLE

MLUR-21 and MLUS-21 Series are available in Amber, Red, Blue Colors.

BEAMS PATTERNS

MLUR-21 and MLUS-21 Series are available in All beams pattern as the MLU-35 Series.

FACTORY REPLACEMENT LED FIXTURE

REPLACES OEM HALOGEN & HID

The MLU Series features a single stud mount allowing it to replace OEM fixtures with ease, including integrated deutsch plug mated to factory wiring on most equipment manufacturers.

MLUR 35 W

Item MLUR-35-60

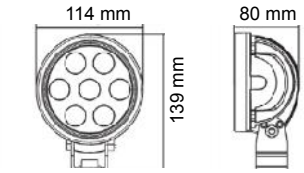
EXTREME LIGHT OUTPUT OE UPGRADE FOR COMMERCIAL AND & INDUSTRIAL
Die-Cast Aluminium Housing / Reduced Energy Consumption / 3-Watt Model available

BEAM PATTERN 10°,25°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 114 x 139 x 79.7mm
RAW LUMENS 3,696 lm (ea)	**EFFECTIVE LUMENS** 2,590 lm (ea)	**INCH** 4.49" x 5.47" x 3.14"
WATTAGE / AMPS 35 W / 3.8 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 1.1 kg

5 WATT L.E.D.S | E-MARK AVAILABLE | EX EXTENDED WARRANTY | 11-65V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

BEAM PATTERN - MLUR-35-60

2D VIEW



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

MLUS 35 W

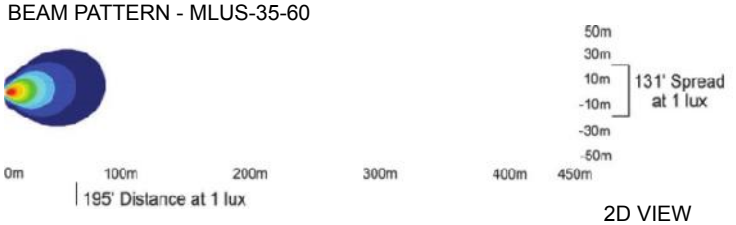
Item MLUS-35-60

EXTREME LIGHT OUTPUT OE UPGRADE FOR COMMERCIAL AND & INDUSTRIAL
Die-Cast Aluminium Housing / Reduced Energy Consumption / 3-Watt Model available

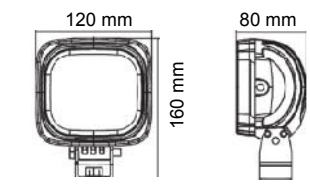
BEAM PATTERN 10°,25°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 119.6 x 159.5 x 79.7mm
RAW LUMENS 3,696 lm (ea)	**EFFECTIVE LUMENS** 2,590 lm (ea)	**INCH** 4.71" x 6.28" x 3.14"
WATTAGE / AMPS 35 W / 3.8 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 1.2 kg

5 WATT L.E.D.S | E-MARK AVAILABLE | EX EXTENDED WARRANTY | 11-65V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

BEAM PATTERN - MLUS-35-60



2D VIEW



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

INDUSTRIAL / MEDIUM DUTY
MLD SERIES

ABOUT THE MLD SERIES

OEM/AFTERMARKET REPLACMENT LIGHTING FOR HALOGEN/HID

The MLD Series gives more output than 100 Watt Halogen lights while drawing much less power and reducing wear on associated components. Additionally, the MLD Series was designed with fleet vehicles in mind, reducing cost, energy consumption, and boosting output at an attractive price.

Available in three different housing sizes and three different beam patterns, the MLD Series is one of the most adaptive fixtures. The Die-Cast Aluminium housing combines durability with afford-ability for a wide variety of applications.

For those with limited space, the MLD-12 produces 2,000 raw lumens while only 1.0 amperage at 12V.

FOR USE WITH

AGRICULTURAL EQUIPMENT
AIRPORT EQUIPMENT
GARBAGE TRUCKS
FLEET VEHICLES
SERVICES BODIES
EXCAVATORS
SWEEPERS
WRECKERS

TWO LIGHT KITS

AVAILABLE MLD KITS

Currently, the MLD-30 and MLD-20 LEDs are available in two light kits with a dual wiring harness with 10°, 40° or 60° optics at an affordable price.

FLUSH BRACKETS AVAILABLE

PROFESSIONAL MOUNTING SOLUTION
Extend the application range of the MLD Series with the addition of a Flush Mounting Bracket.
LAD-30-F
LAD-20-F

MLD 12 W

Item MLD-12-60

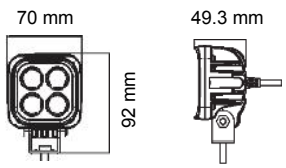
ULTIMATE COMPACT FIXTURE FOR UNIVERSAL APPLICATIONS
60° Flood Beam Pattern / IP-69K High Pressure waterproof High Pressure Spray

BEAM PATTERN 60°	**WARRANTY** Extended	**DIMENSIONS** 70 x 92 x 49.4mm
RAW LUMENS 2,000 lm (ea)	**EFFECTIVE LUMENS** 950 lm (ea)	**INCH** 2.75'' x 3.62'' x 1.94''
WATTAGE / AMPS 12 W / 1.0 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 0.4 kg

ITEM	BEAM PATTERN
MLD-12-60	60°, EXTRA WIDE

BEAM PATTERN - MLD-12-60

2D VIEW



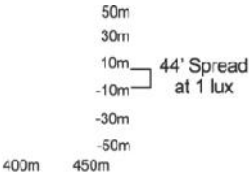
MLD 30 W

Item MLD-30-60

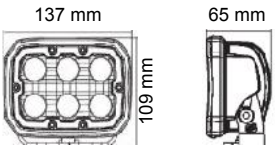
30 WATT HIGH PERFORMANCE UNIVERSAL LED LIGHT
Minimal Amperage Draw / 150 Watt Halogen Comparable Fixture / Durable Die-Cast Housing

BEAM PATTERN 10°,25°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 137 x 108.7 x 65.3 mm
RAW LUMENS 3,696 lm (ea)	**EFFECTIVE LUMENS** 2,590 lm (ea)	**INCH** 5.39" x 4.28" x 2.57"
WATTAGE / AMPS 30 W / 2.5 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 1.2 kg

BEAM PATTERN - MLD-30-10



2D VIEW



ITEM	BEAM PATTERN
MLD-30-10	10°, NARROW
MLD-30-10KIT	KIT, 10°, Qty 2
MLD-30-25	25°, MEDIUM
MLD-30-40	40°, WIDE
MLD-30-60	60°, EXTRA WIDE
MLD-30-90	90°, EXTREM WIDE
MLD-30-E	30x65°, ELLIPTICAL

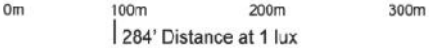
MLD 20 W

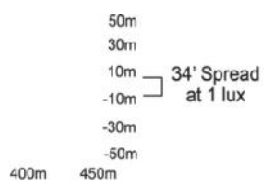
Item MLD-20-60

20 WATT HIGH PERFORMANCE UNIVERSAL LED LIGHT
Minimal Amperage Draw / 100 Watt Halogen Comparable Fixture / Durable Die-Cast Housing

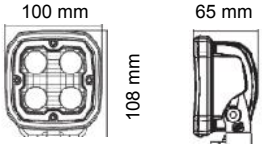
BEAM PATTERN 10°,25°,40°,60°,90°,30x65°	**WARRANTY** Extended	**DIMENSIONS** 119.6 x 159.5 x 79.7mm
RAW LUMENS 2,112 lm (ea)	**EFFECTIVE LUMENS** 1,480 lm (ea)	**INCH** 3.94" x 4.24" x 3.14"
WATTAGE / AMPS 20 W / 1.6 A @12V	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 0.68 kg

BEAM PATTERN – MLD-20-10





2D VIEW



ITEM	BEAM PATTERN
MLD-20-10	10°, NARROW
MLD-20-10KIT	KIT, 10°, QTY 2
MLD-20-25	25°, MEDIUM
MLD-20-40	40°, WIDE
MLD-20-60	60°, EXTRA WIDE
MLD-20-90	90°, EXTREM WIDE
MLD-20-E	30x65°, ELLIPTICAL

INDUSTRIAL SOLUTIONS

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)

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.

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.

CISPR - Class 1 Rated*

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

HEAVY INDUSTRIAL
MLBM HEAVY INDUSTRIAL SERIES

ABOUT THE MLBM HEAVY INDUSTRIAL SERIES

UPGRADED STAINLESS STEEL TRUNNION BRACKET FOR MINING
The MLBM 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 MLBM 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.

INDUSTRIAL SOLUTIONS

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.

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.

ELECTRONIC THERMAL MANAGMENT

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.

REVERSE POLARITY PROTECTION

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

LIGHT INDUSTRIAL
MLB LIGHT INDUSTRIAL SERIES

ABOUT THE MLB LIGHT INDUSTRIAL SERIES

OEM/AFTERMARKET REPLACEMENT LIGHTING FOR HALOGEN/HID

The BT Light Industrial Series offers outstanding light output in a functional design which can be easily adjusted, with either of the supplied trunnion or single bolt bracket options. High quality construction and components enable the BT Light Industrial Series to withstand vibration up 21Grms.Built-in reverse polarity protection helps prevent accidental damage caused by incorrect installation. Electronic thermal management ensures that if the light in 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.

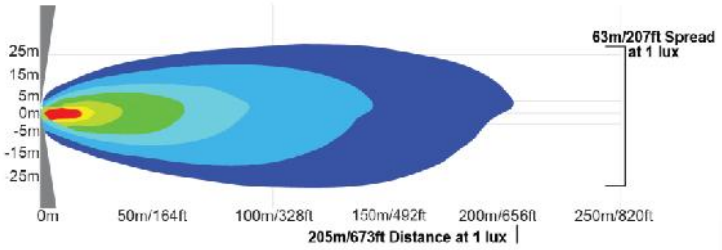
MLBM 140 W

Item MLBM-140-60

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

BEAM PATTERN - MLBM-140-40



ITEM	BEAM PATTERN
MLBM-140-10	10°, NARROW
MLBM-140-25	25°, MEDIUM
MLBM-140-40	40°, FLOOD
MLBM-140-60	60°, WIDE FLOOD
MLBM-140-90	90°, SUPER WIDE FLOOD
MLBM-140-E	30x65°, ELLIPTICAL

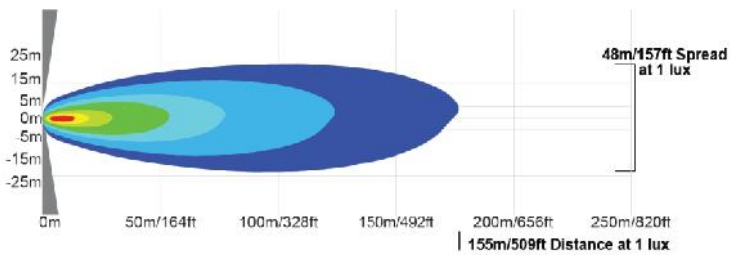
MLBM 84 W

Item MLBM-84-60

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

BEAM PATTERN – MLBM-84-40



ITEM	BEAM PATTERN
MLBM-84-10	10°, NARROW
MLBM-84-25	25°, MEDIUM
MLBM-84-40	40°, FLOOD
MLBM-84-60	60°, WIDE FLOOD
MLBM-84-90	90°, SUPER WIDE FLOOD
MLBM-84-E	30x65°, ELLIPTICAL

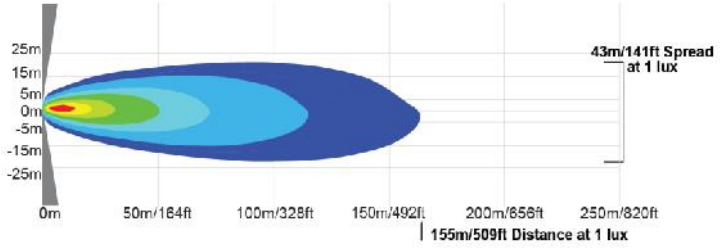
MLBM 63 W

Item MLBM-63-60

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

BEAM PATTERN - MLBM-63-40



ITEM	BEAM PATTERN
MLBM-63-10	10°, NARROW
MLBM-63-25	25°, MEDIUM
MLBM-63-40	40°, FLOOD
MLBM-63-60	60°, WIDE FLOOD
MLBM-63-90	90°, SUPER WIDE FLOOD
MLBM-63-E	30x65°, ELLIPTICAL

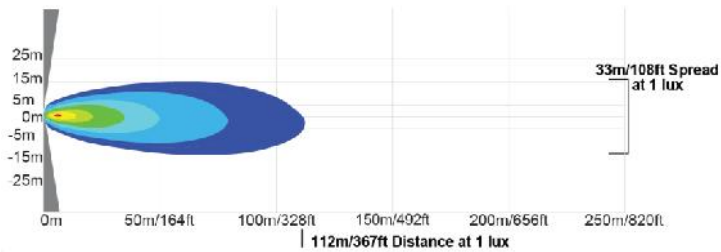
MLBM 35 W

Item MLBM-35-60

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

BEAM PATTERN – MLBM-35-40



ITEM	BEAM PATTERN
MLBM-35-10	10°, NARROW
MLBM-35-25	25°, MEDIUM
MLBM-35-40	40°, FLOOD
MLBM-35-60	60°, WIDE FLOOD
MLBM-35-90	90°, SUPER WIDE FLOOD
MLBM-35-E	30x65°, ELLIPTICAL

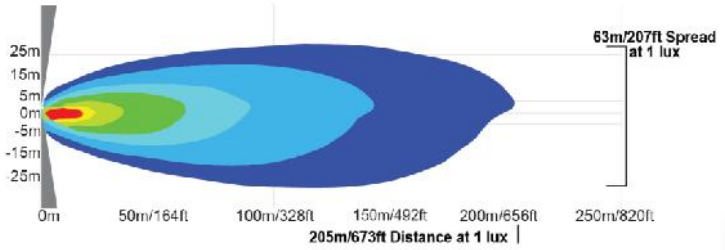
MLB 140 W

Item MLB-140-60

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

BEAM PATTERN - MLB-140-40



ITEM	BEAM PATTERN
MLB-140-10	10°, NARROW
MLB-140-25	25°, MEDIUM
MLB-140-40	40°, FLOOD
MLB-140-60	60°, WIDE FLOOD
MLB-140-90	90°, SUPER WIDE FLOOD
MLB-140-E	30x65°, ELLIPTICAL

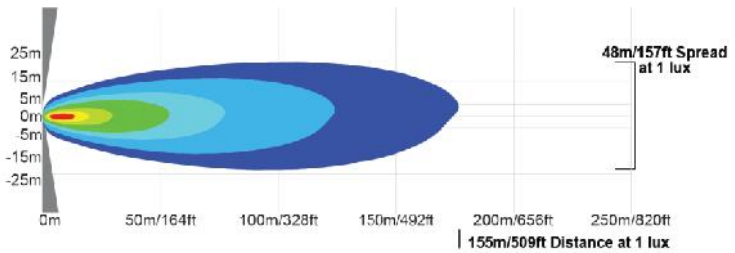
MLB 84 W

Item MLB-84-60

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

BEAM PATTERN – MLB-84-40



ITEM	BEAM PATTERN
MLB-84-10	10°, NARROW
MLB-84-25	25°, MEDIUM
MLB-84-40	40°, FLOOD
MLB-84-60	60°, WIDE FLOOD
MLB-84-90	90°, SUPER WIDE FLOOD
MLB-84-E	30x65°, ELLIPTICAL

MLB 63 W

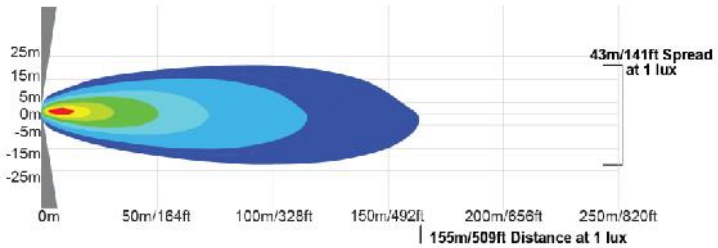
Item MLB-64-60

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

7 WATT L.E.D.S | EX EXTENDED WARRANTY | 9-32V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

BEAM PATTERN - MLB-63-40



ITEM	BEAM PATTERN
MLB-63-10	10°, NARROW
MLB-63-25	25°, MEDIUM
MLB-63-40	40°, FLOOD
MLB-63-60	60°, WIDE FLOOD
MLB-63-90	90°, SUPER WIDE FLOOD
MLB-63-E	30x65°, ELLIPTICAL

MLB 35 W

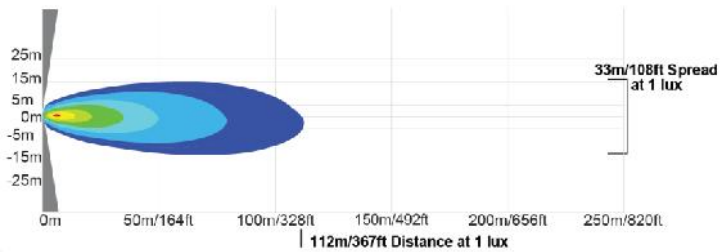
Item MLB-35-60

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

7 WATT L.E.D.S | EX EXTENDED WARRANTY | 9-32V DC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

BEAM PATTERN – MLB-35-40



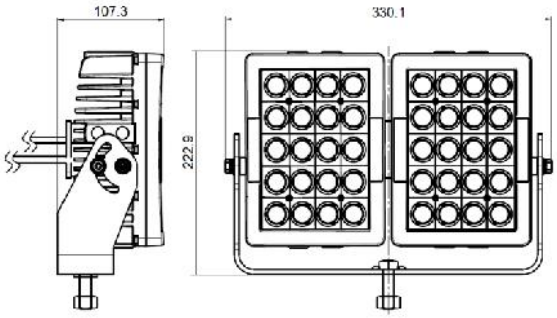
ITEM	BEAM PATTERN
MLB-35-10	10°, NARROW
MLB-35-25	25°, MEDIUM
MLB-35-40	40°, FLOOD
MLB-35-60	60°, WIDE FLOOD
MLB-35-90	90°, SUPER WIDE FLOOD
MLB-35-E	30x65°, ELLIPTICAL

DUAL – MLB-280 W

MULTIPLES CONFIGURATIONS AVAILABLE

The MLB-140W can be mounted in Dual to increase the Light Output.
In this configuration, the MLB-140 Dual model provide 280W of lighting.
The MLB-280W is available in several configurations including

- Dual mounted on bracket for Fit Out (ex crane)
- Dual with power supply for direct replacement Metal Halide

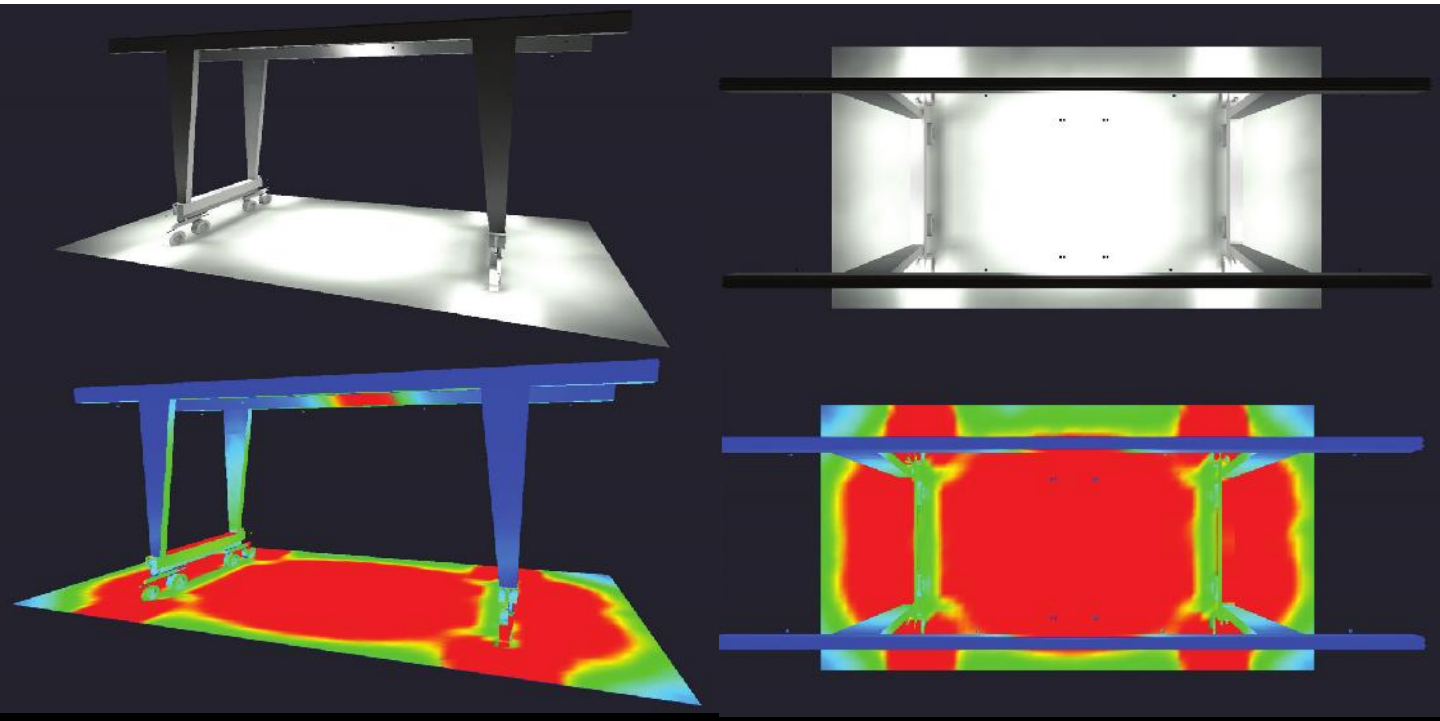


MLB-140W DUAL = 280W OUTPUT

REFERENCE	BEAM PATTERN
MLB-280-10	10° - PENCIL
MLB-280-25	25° - NARROW
MLB-280-40	40° - FLOOD BEAM
MLB-280-60	60° - WIDE FLOOD BEAM
MLB-280-90	90° - SUPER WIDE
MLB-280-E	30/65 - ELLIPTICAL

REFERENCE	BEAM PATTERN
MLB-280-10-AC	10° - PENCIL
MLB-280-25-AC	25° - NARROW
MLB-280-40-AC	40° - FLOOD BEAM
MLB-280-60-AC	60° - WIDE FLOOD BEAM
MLB-280-90-AC	90° - SUPER WIDE
MLB-280-E-AC	30/65 - ELLIPTICAL

MLB-140W DUAL WITH POWER SUPPLY = 280W OUTPUT
DIRECT REPLACEMENT METAL HALIDE

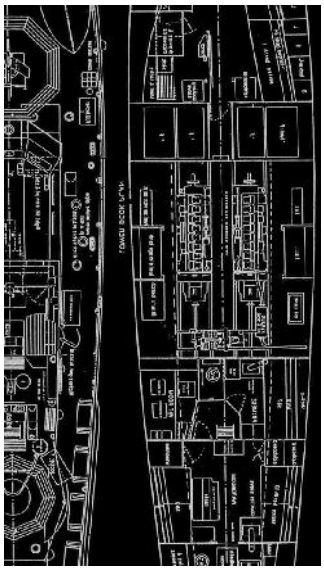


MARITIME SOLUTIONS

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

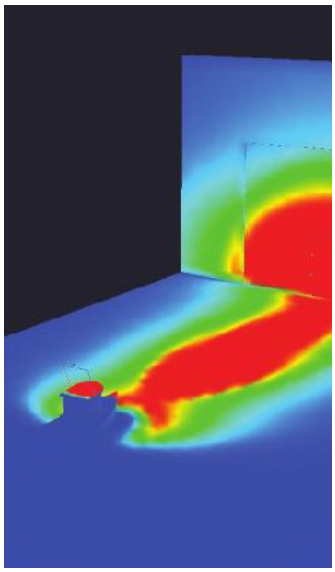
We create a solution for your ship or shore lighting needs while using a product specific range designed for harsh environment of saltwater. This is done through above ground copper plated circuit boards, stainless steel brackets, and a marine grade coating. Using this environment specific range to create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



2D BLUEPRINT
We begins a project by requesting the exact areas of boat that need to be illuminated to what Lux/FC requirements.

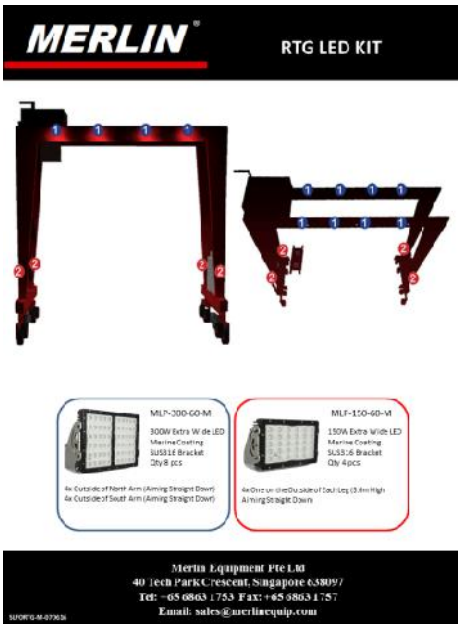
3D MODEL
A 3D Model is then built to match the requirements requested and dropped into a realistic aquatic or port environment to ensure the light is where you need it.

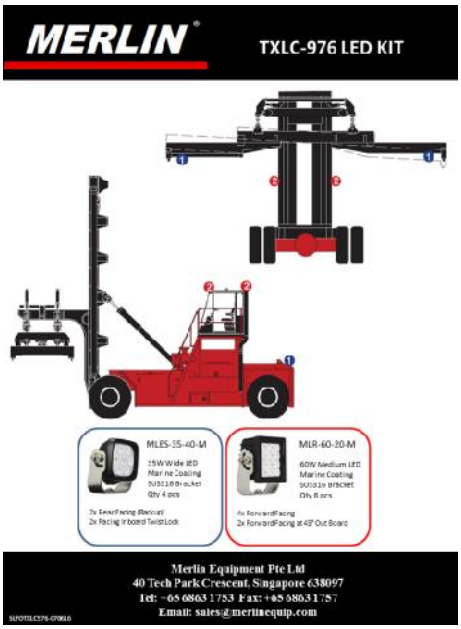
SIMULATION RENDER
Prior to implementing a lighting solution, we creates a simulation rendering of the intended result to help envision if the final product will meet resolve the problem.



SOLUTION
We creates 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





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 wont 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

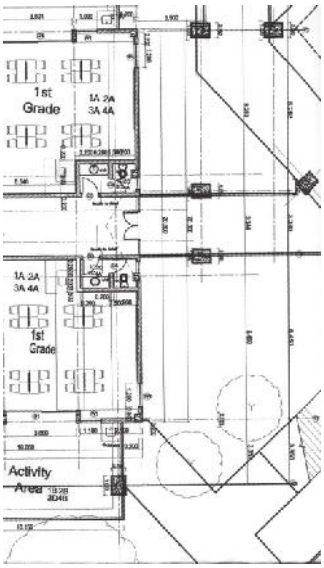
The Maritime products feature a copper electronic board to eliminate any chance of corrosion. Additionally, the copper board helps reduce above ground CISPR.

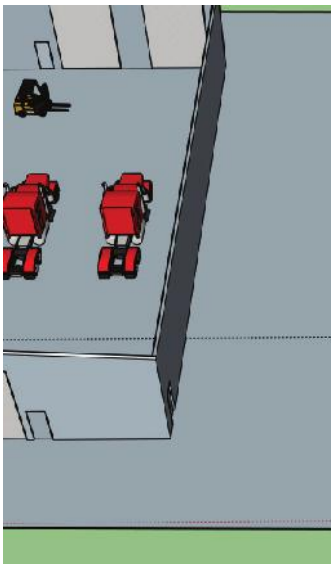
STRUCTURAL ENGINEERED SOLUTIONS

AC LED Lighting Solutions for harsh environments with greatly lower annual power consumption and increased efficiency to provide more light output for more eco-friendly alternative to HPS and metal halide lighting.

SOLUTION PROCESS

We exceed expectation by creating solutions for the specific needs of the customers. A digital rendering of accurate light output can be requested for specific projects to help demonstrate the effectiveness of our products and help you to visualize the solution before purchasing.





2D BLUEPRINT
We begins a project by gathering information and details that will be used to digitally create the project in order to accurately portray the solution.

3D MODEL
A 3D Model is then built to scale in order for lighting fixtures to be rendered and placed accordingly. This model is then carried over into the rendering.

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

SOLUTION
We creates a cost effective solution that provides ample light output while saving energy and valuable time.

CASE STUDIES AVAILABLE

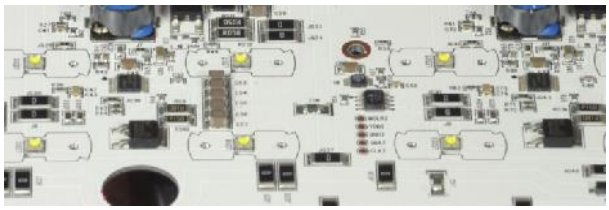
INDUSTRIAL
MLLE SERIES

ABOUT THE MLLE SERIES

We are able to provide professional solutions die to the effectiveness of Cube LED Technology. Cube LEDs differ from standard diodes primarily in size and output per watt. A Cube LED has a larger surface area, allowing more light to be emitted per individual watt. Additionally, having a larger surface area gives the LED a much wider beam pattern, allowing more lux to illuminate a full 180° wide spread area.

For larger application, the MLP Series AC lights have multiple beam patterns available, and currently produce 106 lumens per watt making them very efficient.

HIGH EFFICACY



HIGH EFFICACY
The MLLE Series solutions AC products are ideal for structural application because of the 117 lumen per watt ration.

EASE OF INSTALLATION

BUILT IN CONNECTIONS
The MLLE Series of AC products was designed with installation and mounting as key requirements. These products feature multiple options and each features multiple ¾'' NPT threaded connections. So power can be supplied via conduit, or mounted easily as well as additional connections can be passed through the junction box.

AC INTEGRATED

110-277V AC BUILT IN
Structural solutions are bundled with power supplies that allow for a 110V-277V AC Power input range, as well as junction boxes to protect the electrical connections.

MLLE 10 W

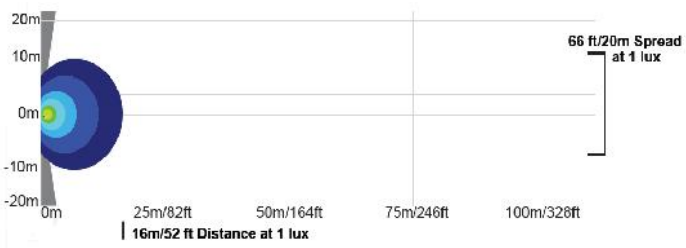
10-WATT UL C CERTIFIED LED FLOOD LIGHT
Frosted Lens for Smooth Beam/Integrated 110-277VAC Power Input/Conduit or Flush Mounting System

Item MLLE-10-180-AC

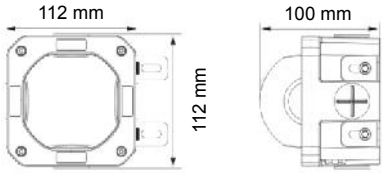
BEAM PATTERN Frosted Lens	**WARRANTY** Extended	**DIMENSIONS** 112 x 112 x 100mm
RAW LUMENS 1,050 lm (ea)	**INPUT VOLTAGE** 110-277V AC	**INCH** 4.41'' x 4.41'' x 3.94''
WATTAGE / AMPS 10 W / 0.09 A @110VAC	**VIBRATION RATING** 8.7 Grms	**WEIGHT** 0.93 kg

ITEM	BEAM PATTERN
MLLE-10-180-AC	180°, ULTRA WIDE FLOOD

BEAM PATTERN - MLLE-10-180-AC



2D VIEW



MLLE 60 W

Item MLLE-60-180-AC

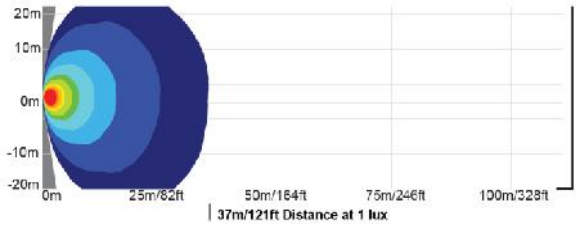
LOW MOUNT OR WALL PACK LED LIGHT FIXTURE
High Efficacy Cube LEDs / Integrated110-277V AC / Integrated NPT for conduit installation

BEAM PATTERN 180°	**WARRANTY** Extended	**DIMENSIONS** 288 x 180 x 75mm
TESTED LUMENS 5,294 lm (ea)	**INPUT VOLTAGE** 110-277 VAC	**INCH** 11.34'' x 7.09'' x 2.95''
WATTAGE / AMPS 60 W / 0.55 A @ 110VAC	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 3.8 kg

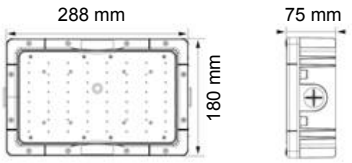
CUBE L.E.D.S | EX EXTENDED WARRANTY | 110V-277V AC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

ITEM	DESCRIPTION
MLLE-60-180-AC	180° Beam Pattern

BEAM PATTERN - MLLE-60-180-AC



2D VIEW



MLLE 180 W / 360 W

Item MLLE-180-60-AC

HARSH ENVIRONMENT 500-WATT AND 1000-WATT REPLACEMENT FIXTURES
Harsh environment PC lens / Integrated 90-264V AC Power Input / Multiple Mounting Options

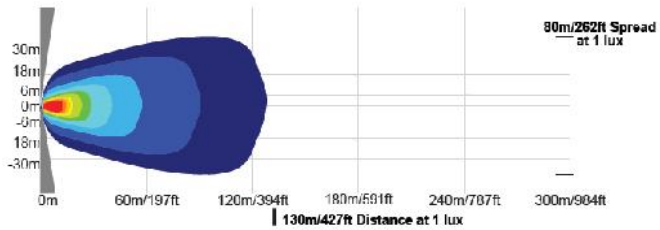
BEAM PATTERN 25°, 40°, 60°, 90°	**WARRANTY** Extended	**DIMENSIONS** 363 x 175 x 214mm
TESTED LUMENS 15,368 lm (ea)	**INPUT VOLTAGE** 110-277 VAC	**INCH** 11.38'' x 6.88'' x 8.46''
WATTAGE / AMPS 180 W / 1.63 A @ 110V	**VIBRATION RATING** 15.6 G ms	**WEIGHT** 13.23 kg

6 WATT L.E.D.S | EX EXTENDED WARRANTY | 110V-277V AC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

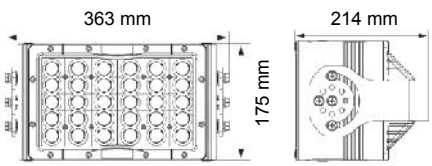
ITEM	DESCRIPTION
MLLE-180-25-AC	25°, MEDIUM
MLLE-180-40-AC	40°, WIDE
MLLE-180-60-AC	60°, EXTRA WIDE
MLLE-180-90-AC	90°, EXTREM WIDE

ITEM	DESCRIPTION
MLLE-360-25-AC	25°, MEDIUM
MLLE-360-40-AC	40°, WIDE
MLLE-360-60-AC	60°, EXTRA WIDE
MLLE-360-90-AC	90°, EXTREM WIDE

BEAM PATTERN - MLLE-180-60-AC



2D VIEW



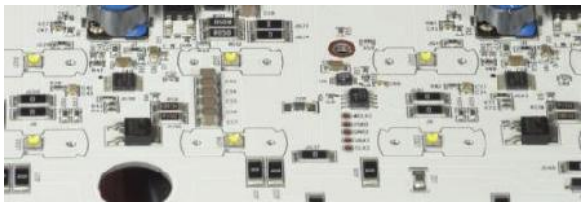
INDUSTRIAL - STRUCTURAL SOLUTIONS

ABOUT THE CUBE LED TECHNOLOGY

We are able to provide professional solutions due to the effectiveness of Cube LEDs Technology. Cube LEDs differ from standard diodes primarily in size and output per watt. A Cube LED has a larger surface area, allowing more light to be emitted per individual watt. Additionally, having a larger surface area gives the LED a much wider beam pattern, allowing more lux to illuminate a more wide-spread area.

Currently, Cube LEDs output an impressive 117 lumens per watt, making them ideal LED for structural applications.

117 LUMENS PER WATT



HIGH EFFICACY

Cube LEDs are 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.

HIGH TEMP GLASS

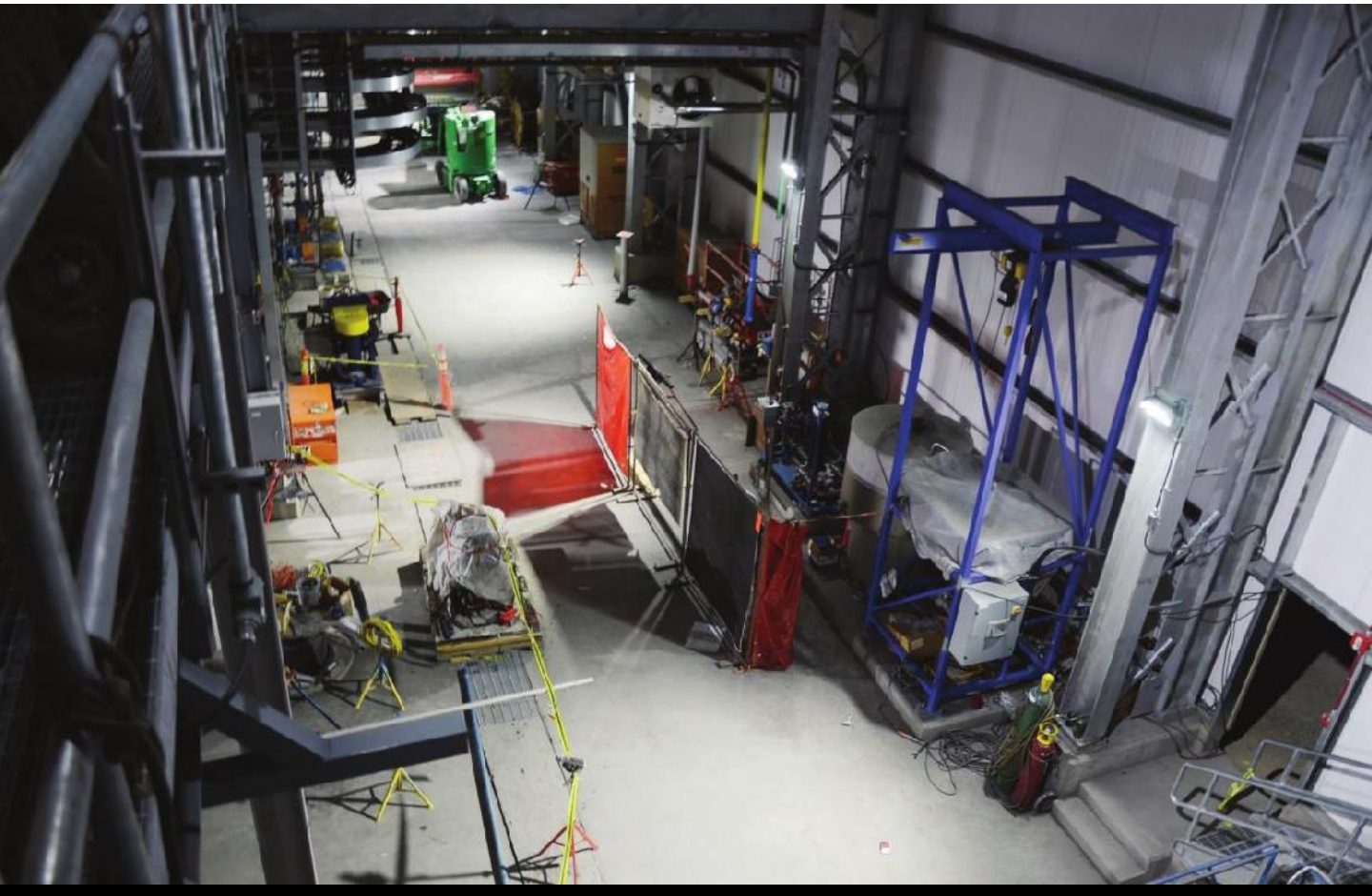
HEAT RESISTANT

The optional Soda-Lime Glass lens helps protect the LEDs, as well as internal components, from extreme heat. We recommend Soda-Lime Glass for applications that require intense heat.

PACKAGES

INTEGRATED POWER SUPPLIES

Structural Solutions are bundled with power supplies that allow for a 110V-277V AC Power input range, as well as junction boxes to protect the electrical connections.



MLP 320 W

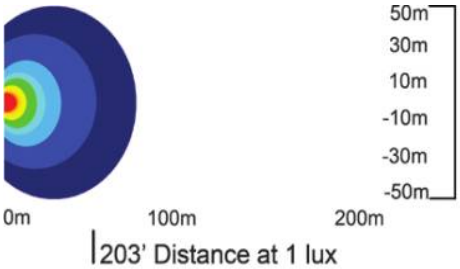
Item MLP-320-180-PAC

320 CUBE LEDS FOR 37,440 LUMENS & UNMATCHED BEAM SPREAD
High Efficacy Cube LEDs / AC Power Supply Included / High Temp Glass Lens Option

BEAM PATTERN 180°	**WARRANTY** Extended	**DIMENSIONS** 363 x 297 x 174.5mm
TESTED LUMENS 37,440 lm (ea)	**INPUT VOLTAGE** 110-277 VAC	**INCH** 14.28" x 11.68" x 6.87"
WATTAGE / AMPS 320 W / 2.9 A @ 110VAC	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 13.23 kg

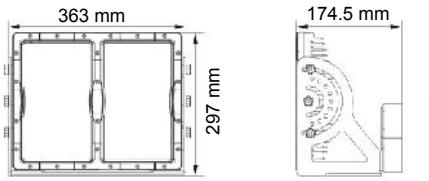
CUBE L.E.D.S | EX EXTENDED WARRANTY | 110V-277V AC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

BEAM PATTERN - MLP-320-180-PAC



ITEM	DESCRIPTION
MLP-320-180-PAC	180° Beam Pattern Polycarbonate Lens
MLP-320-180-GAC	180° Beam Pattern High-Temp Glass Lens

2D VIEW



MLP 160 W

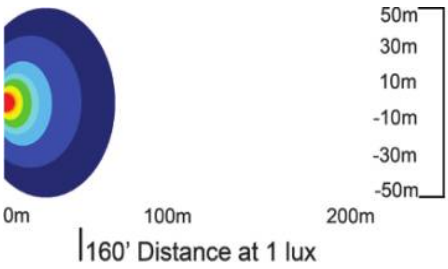
Item MLP-160-180-PAC

320 CUBE LEDS FOR 37,440 LUMENS & UNMATCHED BEAM SPREAD
High Efficacy Cube LEDs / AC Power Supply Included / High Temp Glass Lens Option

BEAM PATTERN 180°	**WARRANTY** Extended	**DIMENSIONS** 298.5 x 191.5 x 125.5mm
TESTED LUMENS 18,720 lm (ea)	**INPUT VOLTAGE** 110-277 VAC	**INCH** 11.75" x 7.54" x 4.94"
WATTAGE / AMPS 160 W / 1.45A @ 110VAC	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 6.82 kg

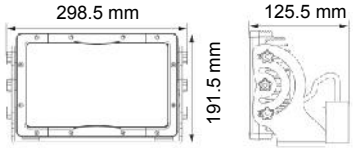
CUBE L.E.D.S | EX EXTENDED WARRANTY | 110V-277V AC INPUT | DC DIE-CAST HOUSING | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

BEAM PATTERN - MLP-160-180-PAC



ITEM	DESCRIPTION
MLP-160-180-PAC	180° Beam Pattern Polycarbonate Lens
MLP-160-180-GAC	180° Beam Pattern High-Temp Glass Lens

2D VIEW



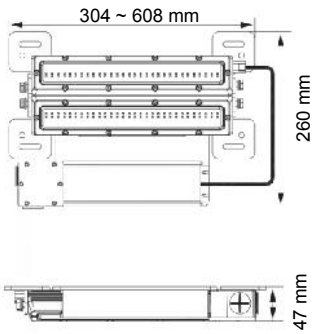
MLSWD - DUAL

PREMIUM FLUORESCENT REPLACMENT WITH 210° FULL-SPREAD BEAM PATTERN
High Efficacy Cube LEDs / Power Supply Packages Available / Clear Bezel For Wider Dispersion

Item MLSWD-192-210-AC

BEAM PATTERN 210°	**WARRANTY** Extended	**DIMENSIONS** 304 / 608 mm
TESTED LUMENS 10,848 / 21,696 lm	**INPUT VOLTAGE** 110-277 VAC	**INCH** 12" / 24'
WATTAGE / AMPS 96W/0.87A – 192W/1.75A	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 2.6 / 5.3 kg

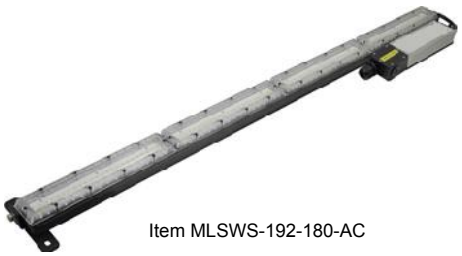
2D VIEW



REFERENCE	LENGTH	TESTED LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWD-96-210-AC	Dual 304mm	10,848 lm	96	2 A	2.6
MLSWD-192-210-AC	Dual 608mm	21,696 lm	192	4 A	5.3

MLSWS - SINGLE

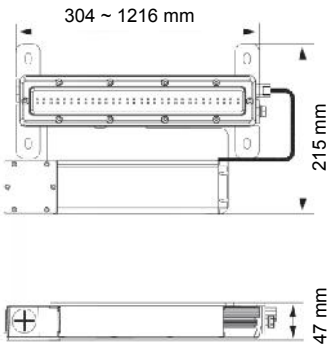
PREMIUM FLUORESCENT REPLACMENT WITH 180° FULL-SPREAD BEAM PATTERN
High Efficacy Cube LEDs / Power Supply Packages Available / Clear Bezel For Wider Dispersion



Item MLSWS-192-180-AC

BEAM PATTERN 180°	**WARRANTY** Extended	**DIMENSIONS** 304 / 608 / 912 / 1216 mm
TESTED LUMENS 5,424 / 10,848 16,272 / 21,696 lm	**INPUT VOLTAGE** 110-277 VAC	**INCH** 12" / 24" / 36" / 48"
WATTAGE / AMPS 92~371 W / 0.84~3.37 A	**VIBRATION RATING** 15.6 Grms	**WEIGHT** 1.4 / 2.8 / 4.2 / 5.5 kg

2D VIEW



REFERENCE	LENGTH	TESTED LUMENS	WATTS	AMP DRAW	WEIGHT
MLSWS-48-180-AC	Single 304mm	5,424 lm	48	0.44 A	1.4
MLSWS-96-180-AC	Single 608mm	10,848 lm	96	0.87 A	2.8
MLSWS-144-180-AC	Single 921mm	16,272 lm	144	1.31 A	4.2
MLSWS-192-180-AC	Single 1216mm	10,696 lm	192	1.75 A	5.5

MOUNTING SOLUTIONS

Multiple solutions have been created for a variety of applications in which the Cube LED Technology excels.

Additionally, we can create custom mounting to suit your applications and help lower the cost of retrofit a project with LED Lighting.

FLUSH MOUNT

HANGING MOUNT

COBRA HEAD MOUNT

WALL MOUNT

REFERENCE	FITS	APPLICATIONS	MATERIAL
LAP-150-FM	MLP 150 W	FOR USE IN LOW BAY APPLICATIONS	STEEL
LAP-150-HM	MLP 150 W	FOR HANGING MOUNT APPLICATIONS	STEEL
LAP-300-CHM	MLP 300 W	FOR STREET LIGTHING OR LIGHT POLE APPLICATIONS	STEEL
LAP-300-HP	MLP 300 W	FOR HANGING MOUNT APPLICATIONS	STEEL

WALL PACK SOLUTIONS

100-500 WATT METAL HALIDE REPLACEMENT

Designed to be a retrofit for existing halogen or metal halide wall packs, or for new installation. These outdoor rated units mount directly to building wall, and feature threaded connections for conduit to connect to power.

Item MLD-40-WPAC

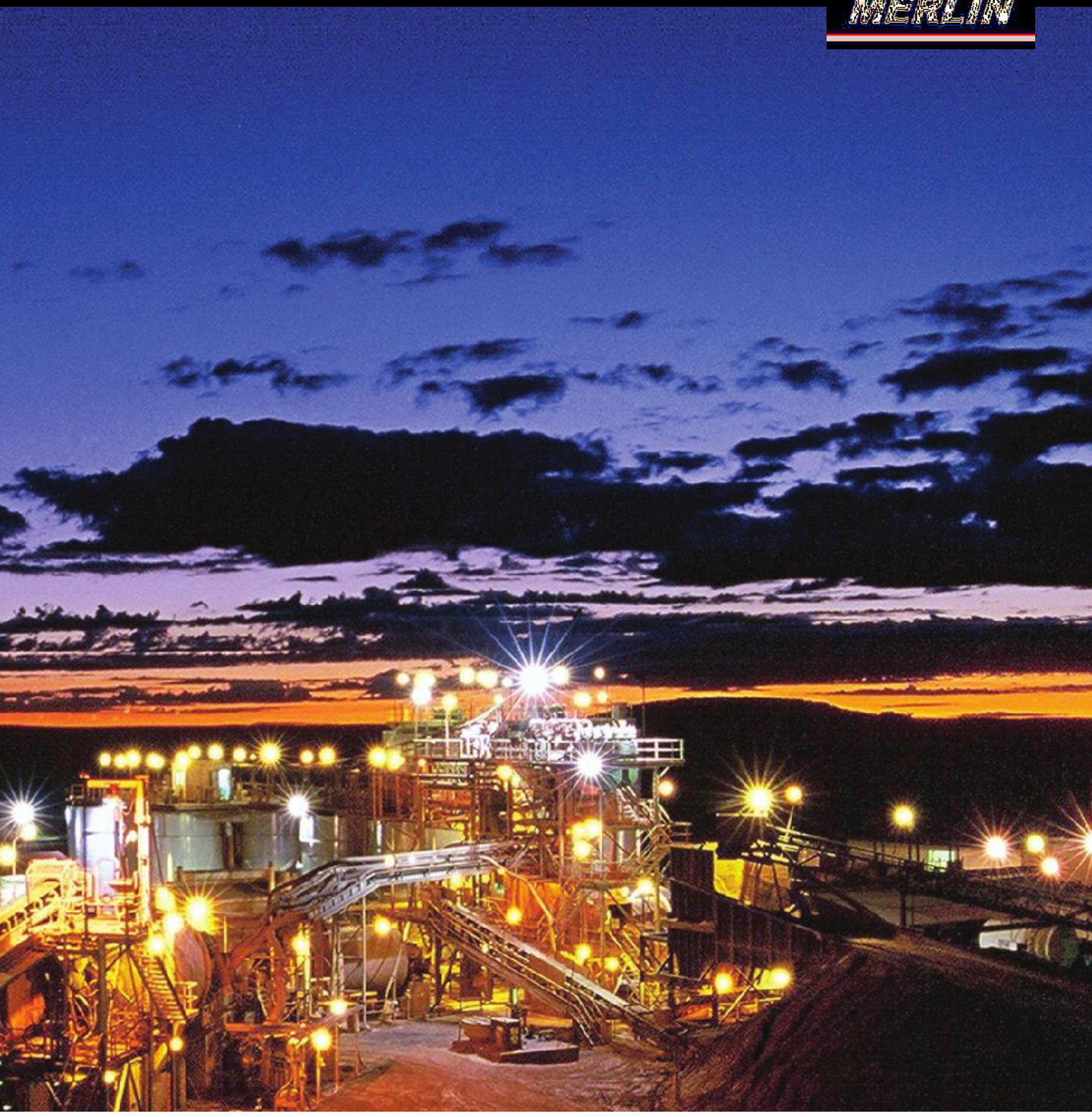
Item MLD-60-WPAC

Item MLUS-70-WPAC

FEATURES

- Reduced Power Consumption than Halogen or Metal Halide
- 100 to 500 Watt Replacements
- Long Lasting Aluminium Housing
- Industrial Grade Warranty

REFERENCE	LED USED	WATTAGE	WEIGHT	INPUT VOLTAGE
MLD-40-WPAC	MLD-20-60 x2	40	2.49	90-264 VAC
MLD-60-WPAC	MLD-40-60 x2	60	2.94	90-264 VAC
MLUS-70-WPAC	MLUS-35-60 x2	70	4.53	90-264 VAC
MLR-120-WPAC	MLR-60-60 x2	120	11.33	90-264 VAC



INDUSTRIAL ACCESSORIES

We offer a variety of accessories including LED Number Boards, LED beacon Lights, and the new addition of our Video LED Light.

MLPL – 192 W

Item MLPL-192-210-AC

POLE MOUNTED PORTABLE LED LIGHT SOLUTION
Includes 5’ to 9’ Extendable Pole / Flexible Ball Joints / Folds into Included Storage case

BEAM PATTERN 210°	**WARRANTY** Extended	**LIGHT DIMENSIONS** 300 x 118 x 48 mm
TESTED LUMENS 21,696 lm	**INPUT VOLTAGE** 110-277 VAC	**INCH** 11.81”x 4.65” x 1.89”
WATTAGE / AMPS 192W / 1.74A @ 110VAC	**VIBRATION RATING** 15.6 G rms	**MAXIMUM POLE EXTENTION** 9’ / 2.4 m

REFERENCE	WATTS
MLPL-192-210-AC	192

WHIP LED LIGHT

The Whip LED Light is a safety light that increases your visibility considerably when driving in sand quarries, mines, workplaces, airports, etc. It is mounted on the end of a pennant mast. Since it is an LED lamp is resistant to vibration and shock and draws very little power. Increasing the security significantly, the Whip LED Light is Built to Withstand the Harshest of Environments. Available in different colors: yellow, blue, green, red, and white. Let those around you know your exact location with The Whip LED Light.

LED LIFETIME 30 000 Hours	**WARRANTY** Standard	**DIMENSIONS** 89 x 25 x 25 mm
AREA OF EFFECT Full 360° Visibility	**RAW LUMENS** 150 lm	**MOUNTING** BA 15S
WATTAGE 1.5 W	**HOUSING** Die Cast Aluminum Base	**LENS** Polycarbonate

ITEM	COLOR
MLWL-1.5-A	Yellow
MLWL-1.5-B	Blue
MLWL-1.5-G	Green
MLWL-1.5-R	Red
MLWL-1.5-W	White

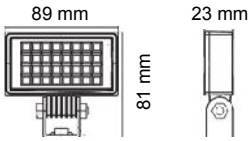
MLUF 6 W

LIGHTWEIGHT UTILITY LED LIGHT WITH 120°FLOOD PATTERN
0.5 Amps Draw at 12 V / Available in White, Amber, Blue, Green. Red / Universal Applications

BEAM PATTERN 120°	**WARRANTY** Extended	**DIMENSIONS** 86 x 48 x 23 mm
RAW LUMENS 500 lm (ea)	**EFFECTIVE LUMENS** 456 lm (ea)	**INCH** 3.4" x 1.0" x 0.9"
WATTAGE / AMPS 6 W / 0.5 A	**VIBRATION RATING** 8.6 G rms	**WEIGHT** 0.19 kg

Item ML-UF32

2D VIEW



ITEM	COLOR
MLUF-6-W	White
MLUF-6-A	Amber
MLUF-6-B	Blue
MLUF-6-G	Green
MLUF-6-R	Red
MLUF-6-P	Purple

VIDEO LED LIGHT

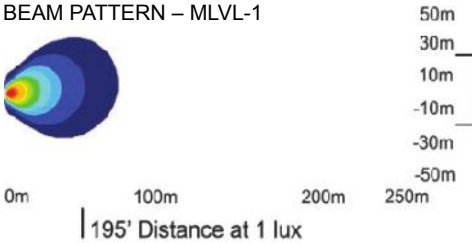
ILLUMINATES AREA WHILE SIMULTANEOUSLY PROVIDING LIVE VIDEO FEED
Kit Available with 7" Monitor / Glare Blocking Shield / Infrared Model Available

BEAM PATTERN 60°, Infrared	**WARRANTY** Extended	**DIMENSIONS** 119.6 x 159.5 x 79.7 mm
RAW LUMENS 3,168 lm (ea)	**EFFECTIVE LUMENS** 2,590 lm (ea)	**INCH** 4.71" x 6.28" x 3.14"
WATTAGE / AMPS 30 W / 2.5 A	**VIBRATION RATING** 15.6 G rms	**WEIGHT** 1.1 kg

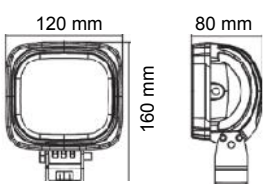
Item MLVL-1

Item MLVL-M

BEAM PATTERN – MLVL-1



2D VIEW



ITEM	DESCRIPTION
MLVL-1	Video Light 4" Square 60 degree Optics 72 degree Camera Angle Short Shield
MLVL-2	Video Light 4" Square 60 degree Optics 72 degree Camera Angle Short Shield using Infrared 850nm LED
MLVL-K	Video Light and Monitor Kit 60 degree Optics 72 degree Camera Visible Light with 20' Cord
MLVL-M	7" LED Monitor for Video Light
MLVL-B	Trunnion Bracket for Video Light

HEAVY DUTY BEACON

Item MLHDB-36-A

180 LED HEAVY DUTY STROBING SAFETY BEACON
360° Visibility / Rugged Die-Cast Aluminium Housing / Shatterproof Polycarbonate Lens

LEDs 180	**WARRANTY** Extended	**DIMENSIONS** 135 x 130 x 135 mm
AREA OF EFFECT Full 360° Visibility	**FLASH TYPE** Dual	**INCH** 5.31" x 5.12" x 5.31"
WATTAGE / AMPS 36 W / 3.0 A	**VIBRATION RATING** 15.6 G rms	**WEIGHT** 1.34 kg

ULTRA WIDE FLOOD SMD L.E.D.S | EX EXTENDED WARRANTY | DC DIE-CAST HOUSING | Multi-Volt 12-32V DC INPUT | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

ITEM	COLOR
MLHDB-36-A	Amber
MLHDB-36-B	Blue

ITEM	COLOR
MLHDB-36-G	Green
MLHDB-36-R	Red
MLHDB-36-W	White

SAFETY BEACON

Item MLSB-7.2-AB

3 TIMES THE OUTPUT OVER STANDARD LED BEACONS
Powered By 2x 9V Batteries / Wide Reflectors Increase Visibility / Available in Five Color

LEDs 36	**WARRANTY** Extended	**DIMENSIONS** 133 x 97 x 73 mm
AREA OF EFFECT Full 360° Visibility	**FLASH TYPE** Dual	**INCH** 5.25" x 3.81" x 2.86"
WATTAGE / AMPS 7.2 W / 0.8 A @ 9V	**VIBRATION RATING** 15.6 G rms	**WEIGHT** 0.2 kg

ULTRA WIDE FLOOD SMD L.E.D.S | EX EXTENDED WARRANTY | N NYLON HOUSING | Multi-Volt 12-32V DC INPUT | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

ITEM	COLOR
MLSB-7.2-AB	Amber
MLSB-7.2-BB	Blue

ITEM	COLOR
MLSB-7.2-GB	Green
MLSB-7.2-RB	Red
MLSB-7.2-WB	White

SAFETY BEACON

Item MLSB-7.2-A

3 TIMES THE OUTPUT OVER STANDARD LED BEACONS
Waterproof Deutsch Connector / Wide Reflectors Increase Visibility / Available in Five Color

LEDs 36	**WARRANTY** Extended	**DIMENSIONS** 133 x 97 x 73 mm
AREA OF EFFECT Full 360° Visibility	**FLASH TYPE** Dual	**INCH** 5.25" x 3.81" x 2.86"
WATTAGE / AMPS 7.2 W / 0.6 A @ 12V	**VIBRATION RATING** 15.6 G rms	**WEIGHT** 0.2 kg

ULTRA WIDE FLOOD SMD L.E.D.S | EX EXTENDED WARRANTY | N NYLON HOUSING | Multi-Volt 12-32V DC INPUT | IP-68 WATERPROOF | IP69K SPRAY TESTED | EMI/RFI CISPR 25 RATED | 50,000 HR LIFESPAN | -40° ~ +80°C OPERATION TEMP

ITEM	COLOR
MLSB-7.2-A	Amber
MLSB-7.2-B	Blue

ITEM	COLOR
MLSB-7.2-G	Green
MLSB-7.2-R	Red
MLSB-7.2-W	White

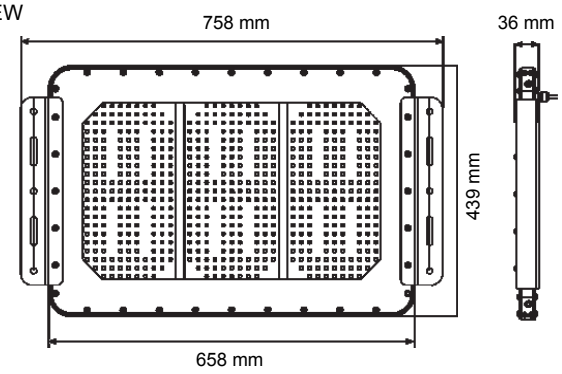
LED NUMBER BOARD

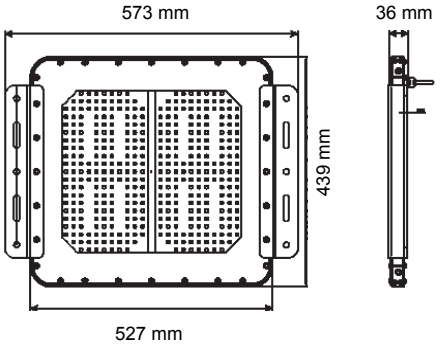
ALLOWS FOR QUICK VEHICLE IDENTIFICATION IN ANY WEATHER CONDITION
195 Crisp LEDs Per Digit / Magnetic Sensor To Change Digits / Engineered For 24/7 Operation

ITEM	DESCRIPTION
MLNB-02A	LED NUMBER BOARD 2-DIGIT AMBER LED WITH MOUNTING BRACKETS
MLNB-02R	LED NUMBER BOARD 2-DIGIT RED LED WITH MOUNTING BRACKETS
MLNB-03A	LED NUMBER BOARD 3-DIGIT AMBER LED WITH MOUNTING BRACKETS
MLNB-03R	LED NUMBER BOARD 3-DIGIT RED LED WITH MOUNTING BRACKETS

FEATURES:
- Numerical LEDs Controlled Via Magnetic Sensor
- Quick digit modification
- Designed For Constant 24 Hour Usage
- Durable Die-Cast Aluminium Housing
- Amber & Red LEDs Available
- Multiple Mounting Locations
- 195 LEDs Per Digit
- IP-67 Waterproof

2D VIEW





PORTABLE SERVICE LIGHT

Item MLPSL-40

PORTABLE EMERGENCY SCENE LIGHTING
Deploys in 30 seconds Without Tools / Self-contained Power Cell / 12 Hours Run Time

POLE LENGTH	WARRANTY	DIMENSIONS
2.44 m	Standard	559 x 351 x 229 mm
RUN TIME	**CHARGE TIME**	**WEIGHT**
Up To 8.5 Hours	10 Hours	21.77 kg

ITEM	LIGHTS INCLUDED	RAW LUMENS	RUN TIME
MLPSL-48	MLX-24 x2	2,880 lm	8 Hours
MLPSL-40	MLS-10 x4	3,600 lm	8.5 Hours

MINI PORTABLE SERVICE LIGHT

Item MLPSLmD-40

PORTABLE EMERGENCY SCENE LIGHTING
Deploys in 30 seconds Without Tools / Self-contained Power Cell / 12 Hours Run Time

POLE LENGTH	WARRANTY	DIMENSIONS
2.44 m	Standard	445 x 635 x 203 mm
RUN TIME	**CHARGE TIME**	**WEIGHT**
Up To 12 Hours	10 Hours	19.05 kg

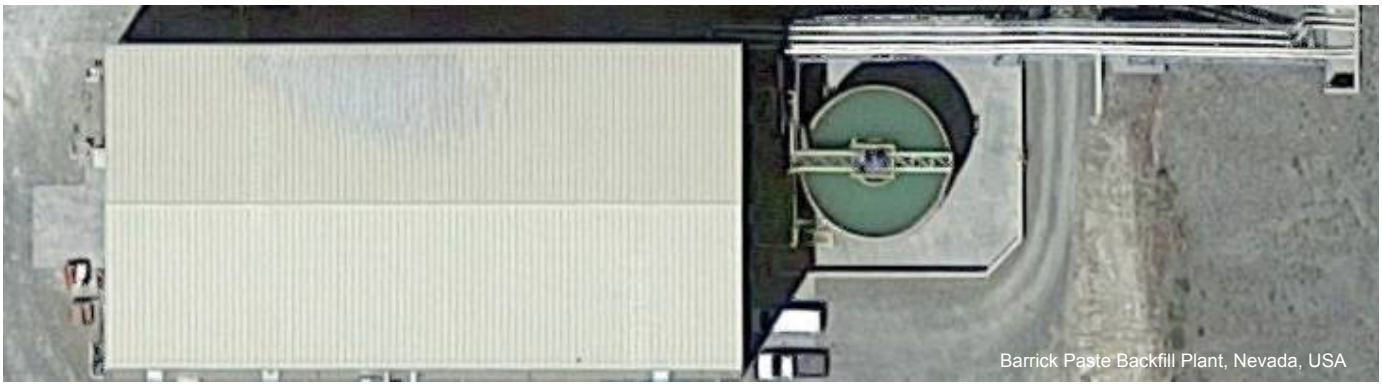
ITEM	LIGHTS INCLUDED	RAW LUMENS	RUN TIME
MLPSLmD-40	MLD-20-60 x2	5,916 lm	12 Hours
MLPSLmSP-40	MLSP-10-60 x4	1,720 lm	12 Hours
MLPSLmUS-70	MLUS-35-60 x2	6,902 lm	7.5 Hours

CASE STUDY

BARRICK GOLD PASTE PLANT	94
CARB MILLEN PLANT	95
USIBELLI COAL MINE DRAGLINE	100
RIO TINTO DISTRIBUTION CENTER	103

CASE STUDY – BARRICK GOLD PASTE PLANT

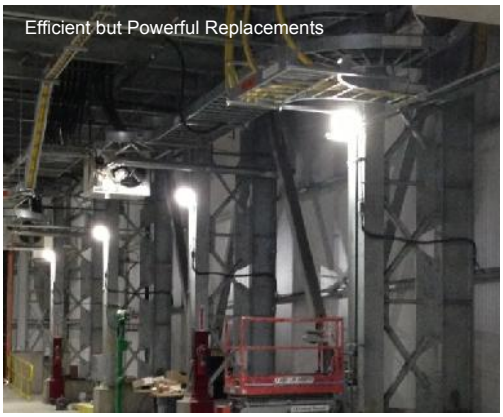
Innovative LED Lighting Technology Helps One of the World's Largest Gold Producers Increase Energy Efficiency



Barrick Paste Backfill Plant, Nevada, USA

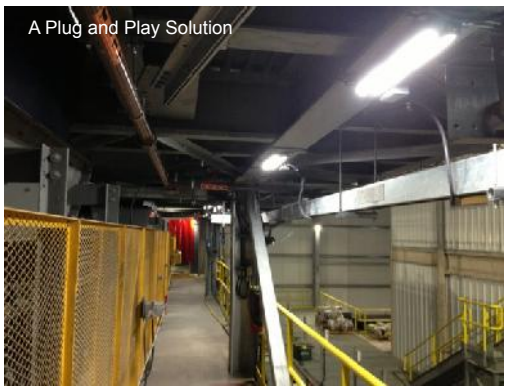
LED Lighting helped Barrick Gold to increase energy efficiency and reduce environmental impact at their paste backfill plant at the Goldstrike mining complex in Nevada by upgrading their existing inefficient lighting fixtures to premium LED technology.

By switching to LED lighting Barrick Gold was able to increase energy efficiency by about 65% while also increasing light output by 30%. This upgrade is actively helping reduce Barrick Gold's carbon footprint while also ensuring a safe, well-lit workplace.



Efficient but Powerful Replacements

Existing wall fixtures were replaced by the highly effective and efficient MLP Series LED fixtures. These fixtures are also tried and true on mining equipment



A Plug and Play Solution

Fluorescent lights were easily replaced using existing hardware with the low wattage but powerful MLSW Series LED lights.

About The Project

Barrick Gold is a gold mining company headquarted in Toronto, Canada and is one of the largest gold producers on the planet. Barrick Gold owns the Goldstrike mining complex in Nevada, the largest gold mine in North America. The Goldstrike complex is comprised of three mines: one open pit and two underground mines. One of the mining methods used in the underground mines is "paste backfill", where a paste is pumped into mined out areas to provide stability and ground support. This paste is produced at a paste plant just south of the complex's gold ore roasting facility, where it is then pumped down into mine workings via pipeline. Barrick Gold was interested in replacing the facility's existing, older technology fixtures with Lighting's premium LED lighting fixtures.

The Project At Hand

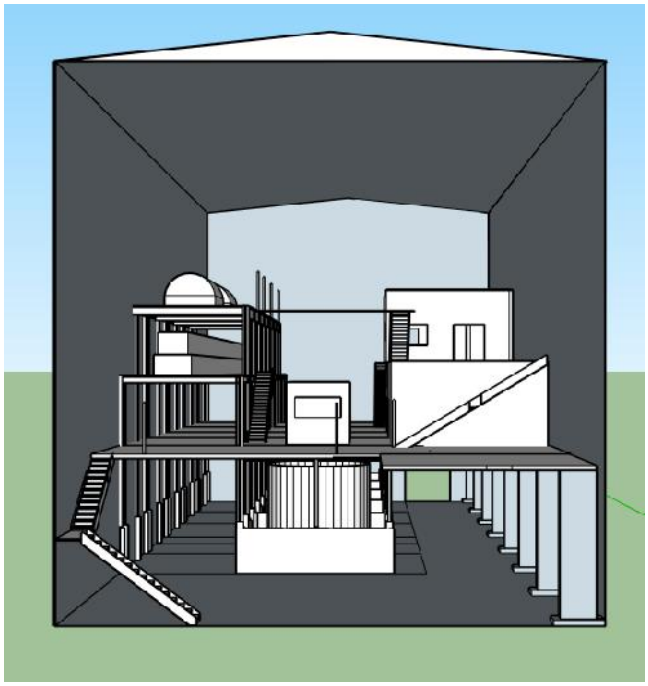
The paste plant is a large 6-story structure located just south of Barrick's large gold ore roasting facility, and north of the large open-pit Betze-Post mine operation. Because mine operations are active 24 hours a day, the structure's interior needs to be kept well lit at all times to ensure a safe and productive work environment. This task was previously accomplished by inefficient, older technology fixtures. Not only did these previous fixtures waste large amounts of energy, they also provided less lighting output and poor coverage compared to that afforded by newer LED technologies.

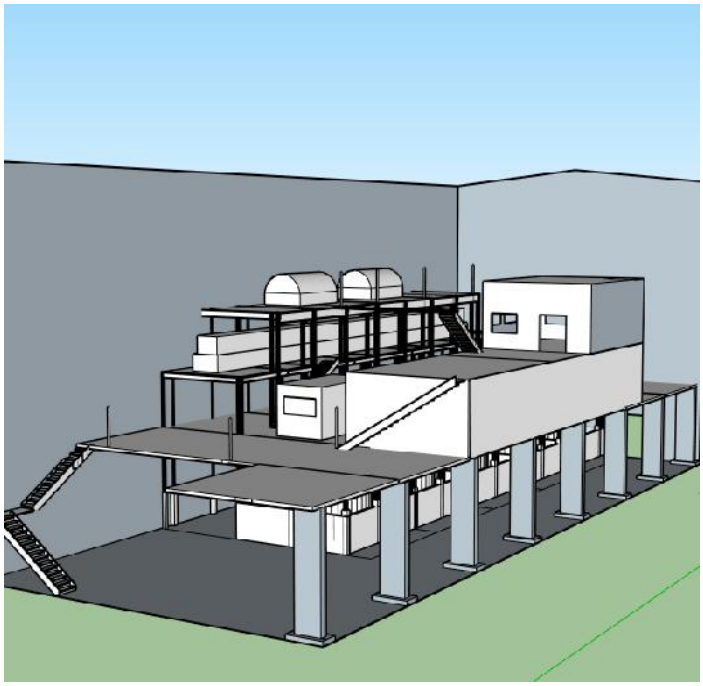
Developing A Solution

In order to fulfill Barrick Gold's desire to reduce the high energy consumption of their paste plant's lighting systems while also increasing light output, the manufacturer developed a plug and play retrofit solution for existing fixtures. In this way all lighting fixtures were easily replaced while continuing to utilize existing hardware and wiring. This applied to all previously existing light fixtures, from 400-watt wall packs to smaller, low wattage fluorescent lights.

A Green Solution

Barrick Gold has invested in a sustainable future by upgrading their facility to LED technology. The many kWh saved per year translates to preventing large amounts of greenhouse gas emissions from being released into the atmosphere. The dramatic reduction in greenhouse emissions shows that Barrick continues to strive towards its corporate goal to lead the industry in environmental practices. In addition to their energy efficiency all LEDs fixtures contain no lead or mercury, are not a risk to the environment upon disposal and require no special disposal procedures.





Dedication to Safety

Barrick Gold is committed to leading the mining industry in safety practices, and similarly the manufacturer is committed to providing safe products to its customers. Our LEDs lights are fully tested for photo-biological safety according to standards set by the International Electrotechnical Commission and are considered safe for human skin and eyes. LEDs lights utilize low voltages and thermally regulated housings, preventing risk of shock and burns during maintenance. LEDs lighting systems operate in the 6000K color temperature range, mimicking sunlight and reducing eye strain and worker fatigue. LED technologies also offer a 30% increase in light levels over older technologies, ensuring well lit working areas and decreasing the chances of near-miss events.

Maintenance Prevention

LEDs lights are highly dependable, long lasting products that do not require frequent maintenance. LED lighting systems have long lives typically in excess of 50,000 operating hours, or nearly 6 years of continuous use. LEDs lights also contain built in redundancies and thermal management systems that prevent fixture failures and overheating. LED lighting systems are IP68 rated and are completely protected from ingress of dust or liquids.

Cost Savings

In addition to the cost savings inherent in increasing electrical efficiency, LED systems are less expensive than many of their older technology counterparts. The sturdy and long-lasting nature of LEDs lights also reduces costly unscheduled maintenance for lighting systems. LED technology also increases productivity and cost savings by reducing worker fatigue and streamlining inventory counts.

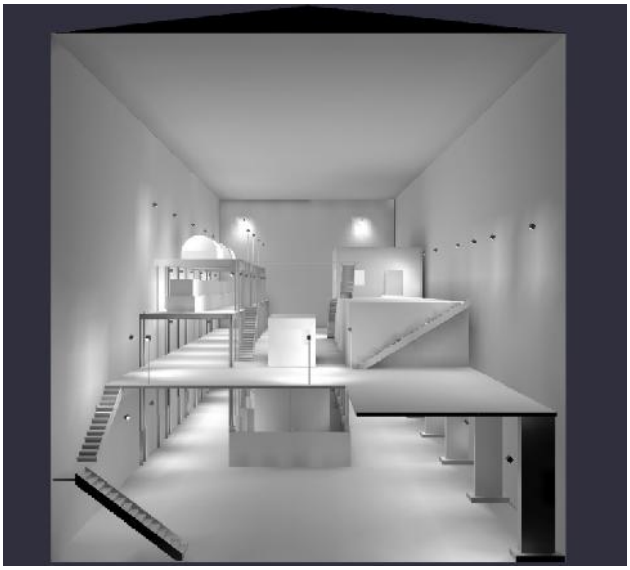
LED Lighting Fixtures Installed

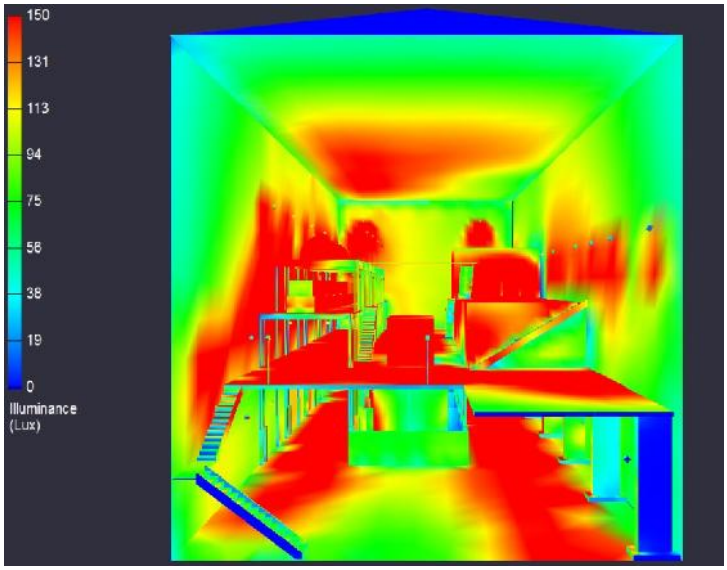
MLSWD 40 Watt LED Fixture

The MLSW Series is a direct replacement for flourescent fixtures. It features an extremely low power consumption while putting out a respectable 3,500 lumens. By utilizing high-powered Surface Mount Device LEDs, the MLSWD is able to perform better than flourescent fixtures while having a lower impact on energy costs and overall footprint. The MLSWD is available in single or dual row configurations, and 12”, 24”, 36” and 48” lengths are available. Perfect for parking garages, walkways and stairwells.

MLP 150 Watt LED Fixture

The MLP Series has been put to the test in the harshest of work environments. Engineered in the United States to be the most dependable LED fixture on the market, the MLP-150 outputs 15,840 lumens of light with a voltage range of 100-277vAC or 277-480vAC. Available in a large variety of optics, 10, 25, 40, 60, 90 and Elliptical 30/65 beam patterns offer a solution for any application from high bay lighting to exterior wall packs and parking lot pole lighting.





In Conclusion - The Ultimate Lighting Solution

LEDs lighting fixtures are not merely lighting systems, they are lighting solutions. They provide increased efficiency, increased safety, decreased environmental impact, and decreased costs. LEDs lights offer a large increase in energy efficiency over older technologies while also increasing the safety and productivity of the working environment by outputting 30% more light than the fixtures used previously. The upgrade of Barrick Gold’s paste backfill plant at the Goldstrike mine in Nevada to a LEDs lighting solution has helped the company with its corporate initiatives to improve the environment and invest in a sustainable future. The upgrade fully supports Barrick Gold’s corporate goal of leading the mining industry in safety and environmental practices.

CASE STUDY – CARB MILLEN PLANT

Innovative LED Lighting Technology Helps Large Proppant Plant increase Energy Efficiency and Light Output

Carbo Ceramics Proppant Plant Millen, Georgia, USA

The manufacturer helped Carbo Ceramics to increase energy efficiency and reduce environmental impact at their large proppant plant in Millen, Georgia by upgrading their existing inefficient lighting fixtures to premium LED technology.

By switching to LED lighting Carbo Ceramics was able to increase energy efficiency by about 65% while also increasing light output by 30%. This upgrade is actively helping reduce Carbo Ceramics' carbon footprint while also ensuring a safe, well-lit workplace.

Efficient but Powerful Replacements

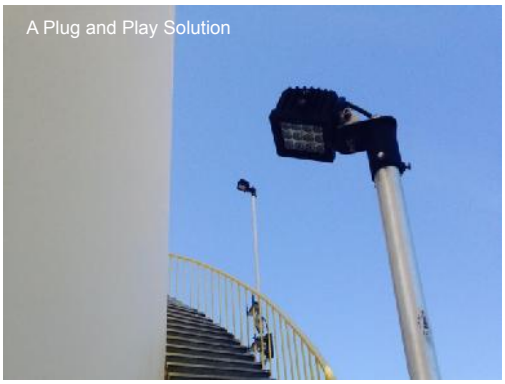
Existing 1000 Watt high bay fixtures were replaced by the highly effective and efficient MLP Series LEDs fixtures.

About The Project

Carbo Ceramics, headquartered in Houston, Texas is the operator of a large proppant manufacturing plant located just outside of Millen, Georgia. A proppant is a material that is used in the oil industry to keep induced hydraulic fractures open. The sprawling Carbo Millen facility produces ceramic-based proppant material for a wide variety of oil drilling and hydraulic fracturing ("Fracking") operations. Carbo Ceramics was interested in replacing their facility's older, inefficient lights with Lighting's premium LED lighting fixtures.

The Project At Hand

The plot containing the large Carbo Millen proppant plant covers over 50 acres. A large proportion of the site, as well as the interiors of all plant structures, need to be kept well lit at all times to ensure a safe and productive work environment. Previously this task was accomplished by large amounts of inefficient, older technology fixtures. Not only did these fixtures waste large amounts of energy, they also provided less lighting output and poor coverage compared to that afforded by newer LED technologies.


A Plug and Play Solution

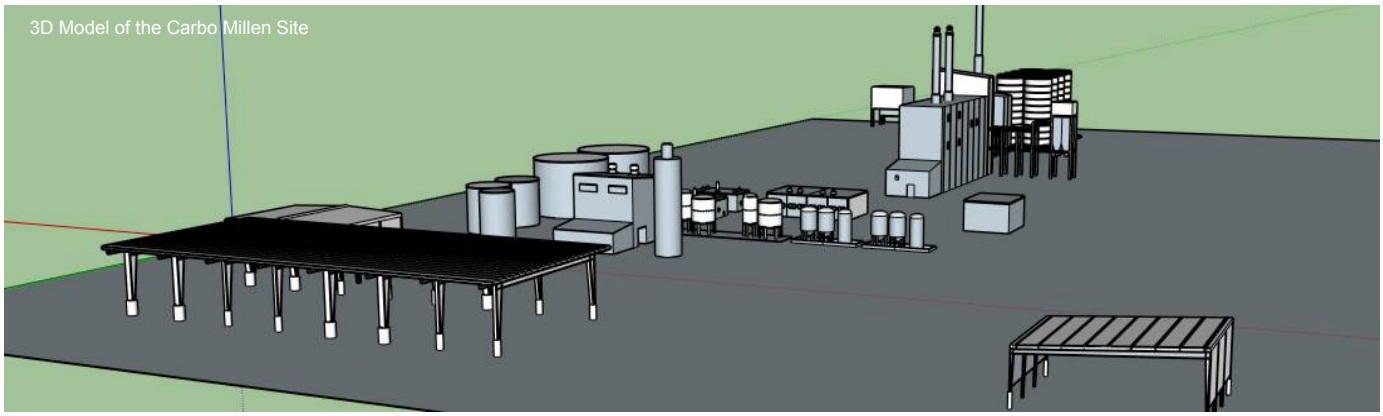
Smaller lights were easily replaced with the small but powerful lights of the MLR series, which offer excellent light output at very low wattages.

Developing A Solution

In order to fulfill Carbo Ceramic's desire to reduce the high energy consumption of their proppant plant's lighting systems while also increasing light output, the manufacturer developed a plug and play retrofit solution for existing fixtures. In this way all lighting fixtures were easily replaced while continuing to utilize existing hardware and wiring. This applied to all previously existing light fixtures, from large 1000 Watt high bay lights in the facility's crude shed to 400 Watt wall packs to smaller, lower-wattage fixtures inside of plant structures.

A Green Solution

Carbo Ceramics has invested in a sustainable future by upgrading their facility to LED technology. The many kWh saved per year translates to preventing large amounts of greenhouse gas emissions from being released into the atmosphere. This dramatic reduction in greenhouse emissions shows that Carbo Ceramics continues to uphold its corporate goals of environmental sustainability and minimal impact. In addition to their energy efficiency all LEDs fixtures contain no lead or mercury, are not a risk to the environment upon disposal and require no special disposal procedures.



3D Model of the Carbo Millen Site

The upgraded Carbo Millen Site

Dedication to Safety

Carbo Ceramics is committed to providing safe and healthy workplaces, and similarly the manufacturer is committed to providing safe products to its customers. Our LEDs lights are fully tested for photo-biological safety according to standards set by the International Electrotechnical Commission and are considered safe for human skin and eyes. LEDs lights utilize low voltages and thermally regulated housings, preventing risk of shock and burns during maintenance. LEDs lighting systems operate in the 6000K color temperature range, mimicking sunlight and reducing eye strain and worker fatigue. LED technologies also offer a 30% increase in light levels over older technologies, ensuring well lit working areas and decreasing the chances of near-miss events.

Maintenance Prevention

LEDs lights are highly dependable, long lasting products that do not require frequent maintenance. LED lighting systems have long lives typically in excess of 50,000 operating hours, or nearly 6 years of continuous use. LEDs lights also contain built in redundancies and thermal management systems that prevent fixture failures and overheating. LEDs lighting systems are IP68 rated and are completely protected from ingress of dust or liquids.

Cost Savings

In addition to the cost savings inherent in increasing electrical efficiency, LEDs systems are less expensive than many of their older technology counterparts. The sturdy and long-lasting nature of LEDs lights also reduces costly unscheduled maintenance for lighting systems. LED technology also increases productivity and cost savings by reducing worker fatigue and streamlining inventory counts. .

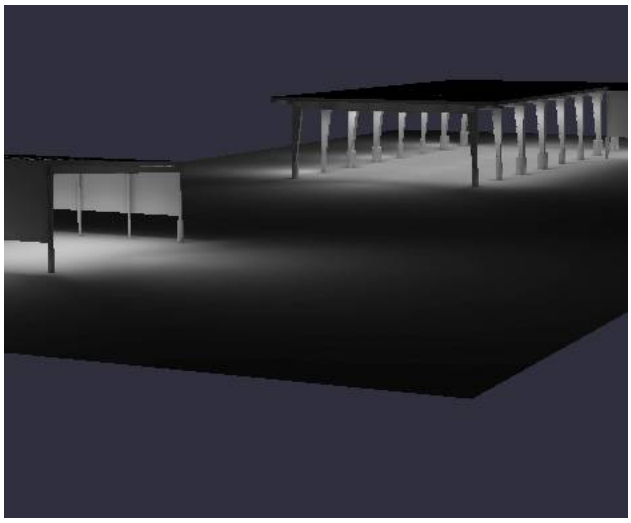
LED Lighting Fixtures Installed

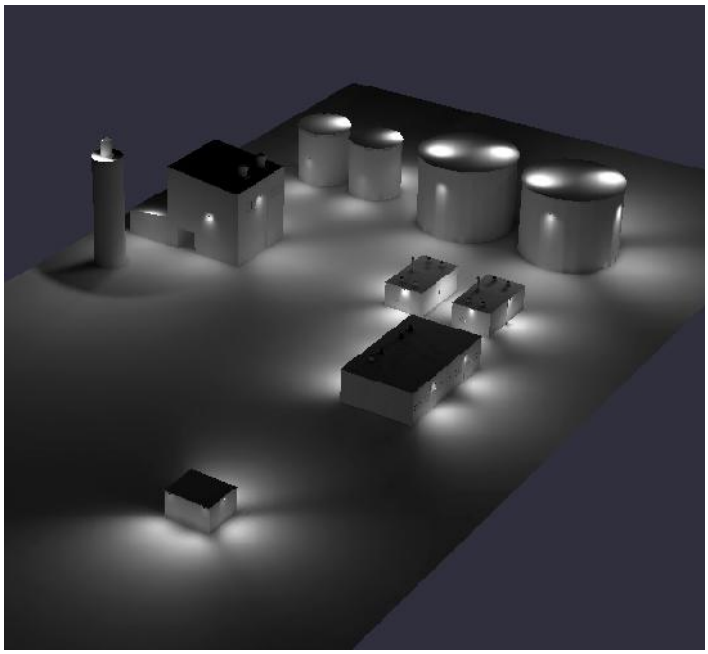
MLR 60 Watt LED Fixture

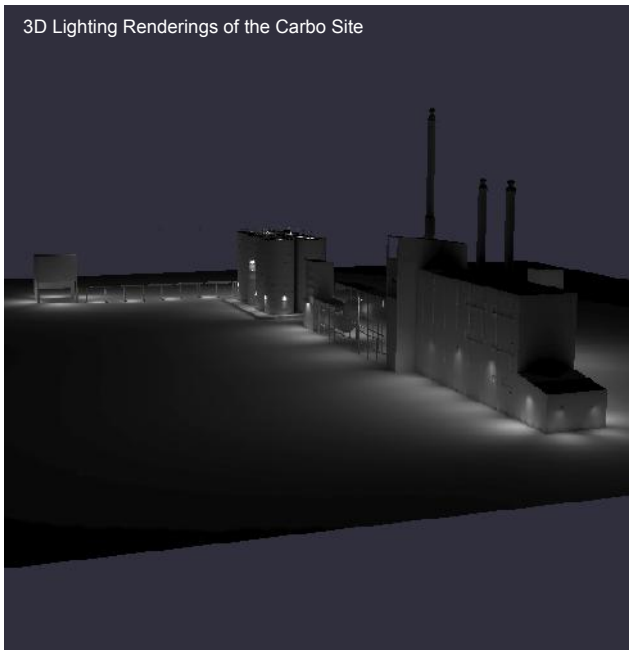
MLR 100 Watt LED Fixture

MLP 150 Watt LED Fixture

MLP 300 Watt LED Fixture







3D Lighting Renderings of the Carbo Site

In Conclusion - The Ultimate Lighting Solution

LEDs lighting fixtures are not merely lighting systems, they are lighting solutions. They provide increased efficiency, increased safety, decreased environmental impact, and decreased costs. LEDs lights offer a large increase in energy efficiency over older technologies while also increasing the safety and productivity of the working environment by outputting 30% more light than the fixtures used previously. The upgrade of Carbo Ceramics' proppant plant in Millen, Georgia to a premium lighting solution has helped the company with its corporate initiatives to improve the environment and invest in a sustainable future. The upgrade is also fully in-line with Carbo Ceramics' policy of operating their facilities in a responsible manner that places priority on worker safety and health. .

CASE STUDY – USIBELLI COAL MINE Ace-in-the-Hole DRAGLINE

Innovative LED Lighting Technology Helps Alaska's Only Operational Coal Mine to improve Energy Efficiency

The Ace-in-the-Hole Dragline at Usibelli coal mine near Healey, Alaska

The manufacturer helped the only operational coal mine in Alaska reduce energy inefficiency and environmental impact while improving light output by upgrading their electric dragline's inefficient lighting fixtures to premium LED technology.

By switching to LED lighting for its 20 lighting fixtures, the resultant efficiency increase onboard Usibelli Coal Mine's Bucyrus-Erie 1300W dragline alone saves 61,320 kWh of electricity and prevents the release of 42 metric tons of greenhouse gas emissions every year. The technology upgrade also resulted in a 30% increase in light output, which has increased safety and productivity

LEDs illuminating the work area

Inefficient exterior lights were replaced with LED fixtures to ensure a well lit and safe exterior environment.

About The Project

Usibelli Coal Mine, located near Healy, Alaska (115 miles south of Fairbanks) is the only active coal mining operation in the state of Alaska. The Usibelli mine is a surface mining operation that produces about 2 million tons of coal annually, which is delivered to six interior power plants as well as exported overseas. To strip overburden (waste rock) from the coal seams, Usibelli makes use of a very large exavator known as a dragline. The Usibelli dragline is specifically an electrically powered Bucyrus-Erie 1300W walking dragline, equipped with a 33 cubic yard bucket. Usibelli turned to replace the machine's many aging, inefficient light fixtures with premium LED technology.

The Project At Hand

The Usibelli dragline, affectionately known as the "Ace-in-the-Hole", is a monster machine and is currently the largest land-mobile machine in the state of Alaska. It was previously equipped with 20, 1000-watt inefficient fixtures along its crane-like boom to illuminate the machine's working area during the long Alaskan winter nights. These fixtures consumed nearly 87,600 kWh per year.

Largest Land Machine in Alaska

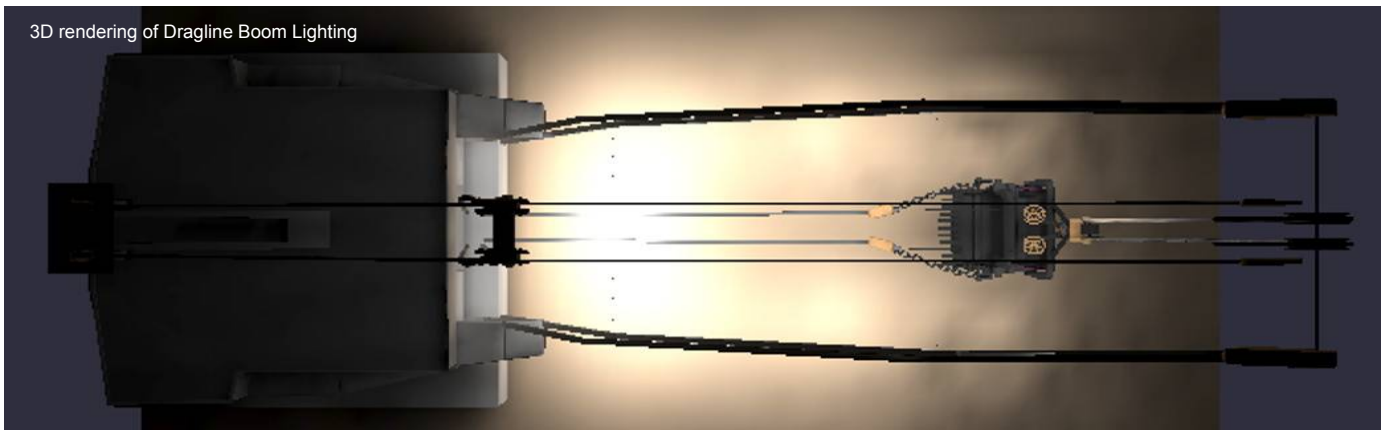
This huge machine is the largest land mobile machine in the state of Alaska, and is now equipped with efficient LED technology all along its large boom.

Developing A Solution

In order to reduce the high energy consumption of the dragline's lighting systems, the manufacturer developed a plug and play retrofit solution for existing fixtures. In this way all 20 lighting fixtures were easily replaced while continuing to use existing hardware and wiring. LED lighting systems ended up using about 23,280 kWh per year, representing a 70% increase in energy efficiency from the old fixtures.

A Green Solution

The Usibelli Coal Mine is investing in a sustainable future by upgrading their equipment to LED technology. The 23,280 kWh saved per year translates to preventing approximately 42 metric tons of greenhouse gas emissions from being released into the atmosphere. This reduction in greenhouse emissions adds to Usibelli's environmental track record as a pioneer in land reclamation programs before federal law required them. In addition to their energy efficiency all LED fixtures contain no lead or mercury, are not a risk to the environment upon disposal and require no special disposable procedures.


3D rendering of Dragline Boom Lighting

How much is 42 Metric Tons Of CO2 Emissions?

42 Metric Tons of CO2 is an outstanding reduction, but exactly what does that equate to?

Greenhouse Gases From…

- 9 Passenger Vehicles
- 100,074 Miles Driven
- 15 Tons of Waste In Landfills

CO2 Emissions From…

- 4,758 Gallons Of Gasoline
- 45,438 Pounds of Burned Coal
- 198 Barrels of Oil Consumed

Carbon Sequestered By…

- 35 Acres of U.S Forests in 1 Year
- 1,085 Saplings Growing For 10 years.

Energy data pulled from [www.epa.gov/cleanenergy/energy-resources/calculator.html]

Dedication to Safety

Usibelli Coal Mine is highly dedicated to the safety of its employees, and similarly the manufacturer is committed to the safety of its customers. LED Lights are fully tested for photo-biological safety according to standards set by the International Electrotechnical Commission and are considered safe for human skin and eyes. LED lights utilize low voltages and thermally regulated housings, preventing risk of shock and burns during maintenance. LED lighting systems operate in the 6000K color temperature range, mimicking sunlight and reducing eye strain and worker fatigue. LED technologies also offer a 30% increase in light levels over older technologies, ensuring well lit working areas and decreasing the chances of near-miss events.

Maintenance Prevention

LED lights are highly dependable, long lasting products that do not require frequent maintenance. LED lighting systems have long lives typically in excess of 50,000 operating hours, or nearly 6 years of continuous use. LED lights also contain built in redundancies and thermal management systems that prevent fixture failures and overheating. LED lighting systems are IP68 rated and are completely protected from ingress of dust or liquids.

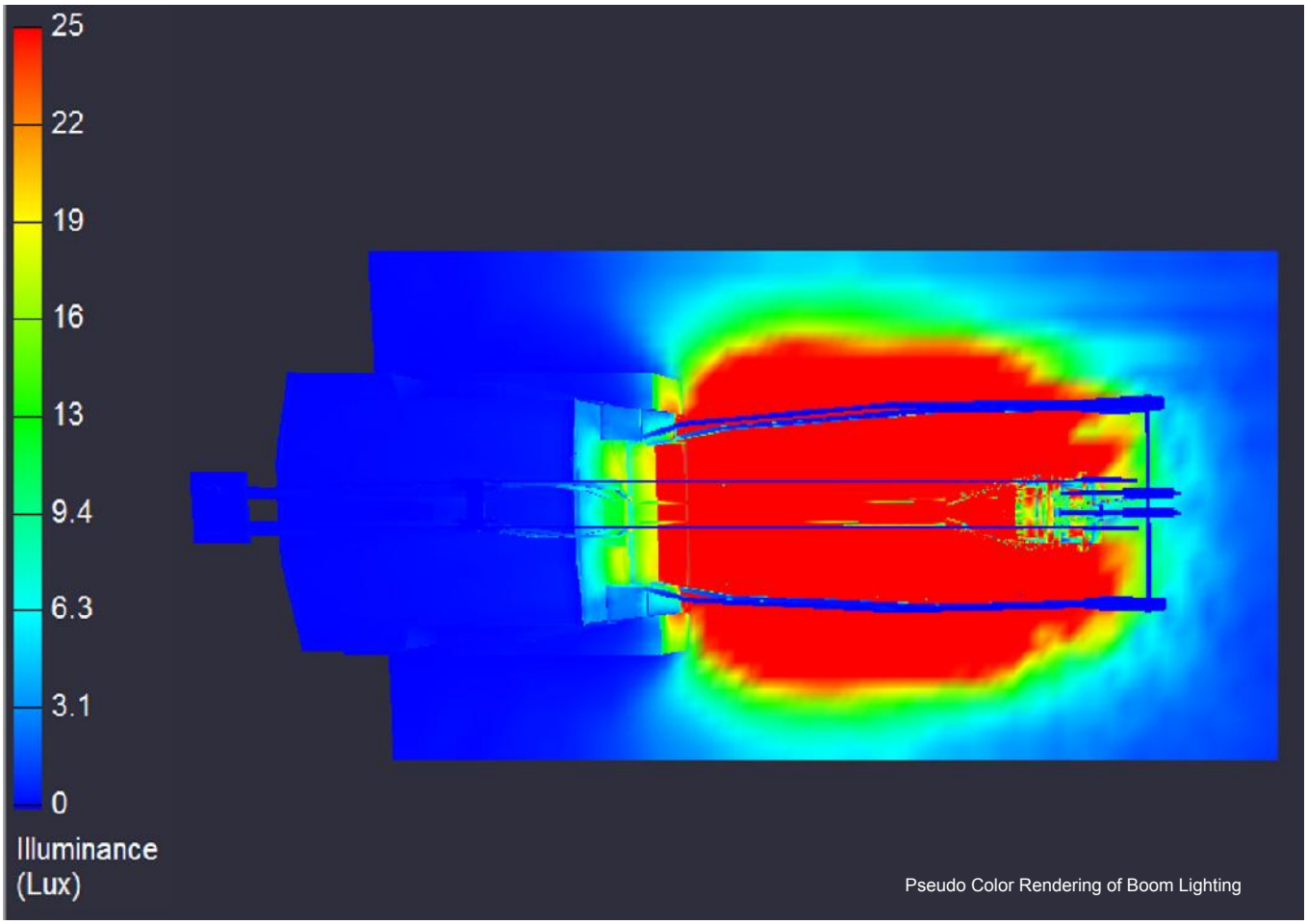
Cost Savings

In addition to the cost savings inherent in increasing electrical efficiency, LED systems are less expensive than their OE and HID counterparts. The sturdy and long-lasting nature of LED lights also reduces costly unscheduled maintenance for lighting systems. Additionally, LED technology increases productivity and cost savings by reducing operator fatigue and streamlining inventory counts.

LED Lighting Fixtures Installed

MLP 300 Watt LED Fixture

The MLP Series has been put to the test in the harshest of work environments. Engineered in the United States to be the most dependable LED fixture on the market, the MLP-300 outputs 31,680 lumens of light with a voltage range of 100-277vAC or 277-480vAC. Available in a large variety of optics, 10, 25, 40, 60, 90 and Elliptical 30/65 beam patterns offer a solution for any application from high bay lighting to exterior wall packs and parking lot pole lighting.



Pseudo Color Rendering of Boom Lighting

In Conclusion – 61,320 kWh saved each year

LED lighting fixtures are not merely lighting systems, they are lighting solutions. They provide increased efficiency, increased safety, decreased environmental impact, and decreased costs. In the case of Usibelli's "Ace in the Hole" dragline they account for a savings of 61,320 kWh of electricity and preventing the release of 42 metric tons of greenhouse gas emissions. In addition to this 70% increase in energy efficiency, LED lights also increase the safety and productivity of the working environment by outputting 30% more light than the fixtures they replaced.

The upgrade of the "Ace-in-the-Hole" dragline to a LED lighting solution shows that the Usibelli Coal Mine continues to be dedicated to improving the environment and investing in a sustainable future. The upgrade also helps Usibelli in its goal to make sure every worker goes home safe every single day.

CASE STUDY – RIO TINTO DISTRIBUTION CENTER

Innovative LED Lighting Technology Helps One of World's Largest Miners Improve Energy Efficiency

Rio Tinto Distribution Center, South Jordan, Utah, USA

The manufacturer is looking into helping one of Utah's largest employers and one of the world's largest miners, Rio Tinto, to reduce their carbon footprint and environmental impact by upgrading their existing inefficient lighting fixtures to premium LED technology.

By switching to LED lighting for its 890 lighting fixtures, the resultant efficiency increase at Rio Tinto's Distribution Center alone would save 785,000 kWh of electricity and prevent the release of 524 metric tons of greenhouse gas emissions every year.

Current wall pack fixture

Inefficient exterior lights will be replaced with LED fixtures to ensure a well lit and safe exterior environment.

Existing 1000 W High Bay Lights

High bay lights such as this are highly inefficient and will be replaced with much more efficient LED technology that use less energy and provide more light.

About The Project

Kennecott Utah Copper Corporation (KUCC), headquartered in South Jordan, Utah is the operator of one of the largest open pit mining operations in the world, the Bingham Canyon copper mine. KUCC is a division of the Rio Tinto Group, itself one of the largest and oldest multinational mining companies. One of Rio Tinto's Distribution Centers in South Jordan currently uses older, inefficient halogen and metal halide lighting fixtures. In an effort to increase energy efficiency and reduce their carbon footprint, KUCC is interested in replacing their older, inefficient lights with Lighting's premium LED lighting fixtures. The eventual hope is to apply this lighting technology to the rest of the company's facilities and the mine site itself.

The Project At Hand

The Rio Tinto Distribution Center itself covers over 240,000 square feet. Additionally, its parking lot and exterior storage area account for another 200,000 square feet. All of this area is currently lit by a combination of different lights from 1000 W fixtures in the high bay and on exterior signs to 400 W fixtures in exterior wall packs and in the parking lot. All together the facility's current fixtures consume about 1.2 million kWh per year, while LED fixtures would consume just under 412,000 kWh per year, a 65% decrease. LED fixtures would also safely provide more and better lighting than the older technologies currently in use.

Developing A Solution

In order to fulfill Rio Tinto's desire to reduce the high energy consumption of their distribution center's lighting systems, the manufacturer developed a plug and play retrofit solution for existing fixtures. In this way all 890 lighting fixtures can be easily replaced and continue to utilize existing hardware and wiring. This applies to all existing light fixtures, from the large 1000 W bay lights to the smaller 32 W fluorescent tube lights in the facility's mezzanine.