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LEDLB-4E-IR-M-PWM6

12W Infrared Dimmable LED Light Emitter - Extreme Environment - Magnetic Base - 90'L X 70'W Beam

Product ID: 144823



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

LEDLB-4E-IR-M-PWM6 Dimmable Infrared LED Light Bar

LEDs: 4 Edixeon® 3 Watt Infrared LED Emitters
Dimensions: 4"-L 3"-H 3.56"-D H
Weight: 2.4 lbs
Watts: 12W
Voltage: 9-42V DC
Spot Beam: 90` L x 70` W
Flood Beam: 70` L x 60` W
Total Lumens: 720
Luminous Efficacy: 60 Lm/W
Wiring (Between Light & Dimmer): 10` Straight Cable w/ Deutsch Connectors
Wiring/Plug: 16ft Coil Cord w/Cigarette Plug, 21ft Cord with Ring Terminals, 16ft Cord w/Battery Clamps, 16ft Cord with Cigarette Plug
Amps: 1A @ 12 Volts & 0.5A @ 24 Volts
Wavelength: 750Nm, 850Nm, or 940Nm
Optics Efficiency: 90%
Lighting Configuration: 10° Spot or 35° Flood
LED Life Expectancy: 50,000 Hours
Lux - Flood: @ Lens: 185,800 & @ 1 Meter: 2,672
Lux - Spot: @ Lens: 190,400 & @ 1 Meter: 8,440
Dimmer Frequency: 135 Hz
Operating Temperature: -40°C to +80°C
LED Chip Operating Temperature: -40°C to +125°C
Waterproof Rating: IP68
Mounting: 200 lbs Magnetic Mount
Dimmer Installation: Remote (Up To 10` Away From Fixture)
Materials: Aluminum Housing
Lens Material: Polycarbonate

LEDLB LED Features:

Edixeon® 3 Watt Infrared LED Emitters
LEDs Driven At 80%
-40°C - +80°C Operating Temp Range
RoHS Compliant
70% Lumen Retention @ 50,000 hours
LED Chip Op Temp -40°C to +125°C
IP68 Rated Waterproof to 3 Feet
CE Certified

Special Orders - Special Requirements

Contact us for special requirements
Toll Free: 1-800-369-6671
Intl: 1-214-616-6180
E-mail: sales@larsonelectronics.com

Buy American Compliant

The LEDLB-4E-IR-M-PWM6 from Larson Electronics is an Infrared LED Light Bar with Dimmer that offers high light output and extreme durability combined with a versatile magnetic mounting system that provides convenience and secure attachment to vehicles, equipment and any flat metallic surface. This IP68 rated infrared dimmable LED light bar produces an infrared light beam that can only be seen through the use of night vision goggles.The 750Nm and 850Nm versions have a very slight red glow around the LED emitters when viewed from a certain angle while 940Nm versions are completely invisible to the naked eye. This light can run on any voltage from 9 to 42 volts and provides an extremely rugged infrared lighting solution that is ideal for use in commercial and industrial security applications as well as military environments.

The LEDLB-4E-IR-M-PWM6 infrared dimmable LED light bar from Larson Electronics produces light in the infrared 750Nm, 850Nm or 940Nm end of the light spectrum depending upon the version selected. Four Edison Edixeon® 3 watt infrared emitters producing 180 lumens each are arranged in rows and paired with high purity 10 degree optics to produce a tightly focused spot beam 90` long by 70` wide with limited spread or light spillage. We offer optional floodlight versions of this light that have 35 degree optics to produce a wider beam spread and more light over a larger area nearer the fixture. These infrared LED light bars are IP68 rated waterproof to three feet, sealed against intrusion by dust and dirt and very ruggedly constructed to withstand the most demanding environments, conditions and applications. The entire Larson Electronics LEDLB-E series are constructed of extruded aluminum and feature heavier housings, rubber isolated mounts and unbreakable polycarbonate lenses to provide increased durability against vibrations, impacts, waves, hard rains, sand and high winds. This light is equipped with a 200lbs grip magnetic mount base and inline dimmer switch. This magnetic base allows fast and easy setup of this light on vehicles and equipment and will hold the fixture in place at speeds up to 80 mph provided the mount is properly affixed and secure.

The LEDLB-4E-IR-M-PWM6 offers operators the ability to adjust the brightness of the infrared light via an included pulse width modulator controller. This pulse width modulator controller is designed to dim any LED lights up to 72 watts. Basically, this is a voltage regulator for LED lights drawing 12 amps or less. PWM controllers are CPU controlled, digital alternatives to resistance based rheostats. This PWM controller has a rotating switch that enables the operator to control the brightness of the LED light. A dial extending from the side of the PWM enables operators to control the brightness of the attached LED light. It works on any input voltage ranging from 9-42 Volts and produces 135Hz. There is ten feet of straight cable quick disconnects using Deutsch connectors between the dimmer and the light fixture and the dimmer can be used handheld or surface mounted.

LED Benefits: Unlike gas burning and arc type lamps that have glass bulbs, LEDs have no filaments or fragile housings to break during operation and/or transportation. Instead of heating a small filament or using a combination of gases to produce light, light emitting diodes (LEDs) use semi-conductive materials that illuminate when electric current is applied, providing instant illumination with no warm up or cool down time before re-striking. Because there is no warm up period, this light can be cycled on and off with no reduction in lamp life.

LED lights run at significantly cooler temperatures than traditional metal halide and high pressure sodium lights and contain no harmful gases, vapors, or mercury, making them both safer and more energy efficient. No extra energy is wasted in cooling enclosed work areas due to external heat emissions from bulb type lights, and the operator risks associated with traditional lighting methods, such as accidental burns and exposure to hazardous substances contained in the glass bulbs, are eliminated. In addition, LEDs are also safer for the environment as they are 100% recyclable, which eliminates the need for costly special disposal services required with traditional gas burning and arc type lamps.

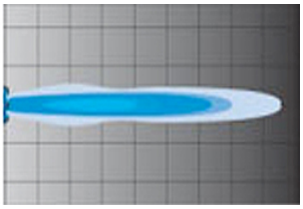
Heat Management: Heat is the single largest factor in premature LED failure and color shifting. As a result, many manufacturers reduce the output of their LEDs to reduce the

amount of heat produced. These LED light bars utilize an extruded aluminum housing that incorporates an advanced heat radiating fin design which dissipates heat efficiently to produce the maximum amount of power and longevity from the integrated Edison Edixeon® Emitters. The end result is more light and longer LED life with higher average lumen maintenance after 50,000 hours.
Click here to view an article on the Generations of Night Vision and Infrared.
Voltage Control: These units are able to monitor and adjust input current to maintain the correct LED voltage levels regardless of input levels across a specific range. These LEDLB series light bars can operate on current ranging from 9 to 42V DC without any modifications necessary as a result. This multi-voltage capability makes these units ideal for mobile and standalone applications such as those found on commercial boats, heavy equipment and vehicles where power systems don`t always operate with 12 volts and external generators, transformers or inverters are impractical.

LEDLB-4E-IR-M 35° Flood Beam (Opt)



LEDLB-4E-IR-M 10° Spot Beam (Stnd)



Durability: The LEDLB-E series of LED light bars from Larson Electronics offer IP68 rated construction that is designed to withstand extremes of environmental and operating conditions. The LED lights with the `E` part number designation are designed for extreme durability and are larger and nearly twice as heavy as their standard counterparts. These units can withstand rapid temperature changes of -40 degrees Celsius to 85 degrees Celsius, are waterproof to three meters and resist ingress of dust, dirt and humidity. The housings are formed from thick extruded aluminum and the lenses are unbreakable polycarbonate. The Edixeon® LEDs offer inherent LED resistance to shocks and vibrations contributing to these units 15.6Grms rating of vibration tolerance. We recommend these LED lights for high stress - high vibratory conditions, high humidity climates, very cold areas and rough saltwater conditions. They are also well suited to environments where equipment is used in one temperature extreme and stored in another temperature extreme.
Magnetic Mounting: The 200 lbs magnet mounting design on the LEDLB-4E-IR-M-PWM6 allows for easy fixture placement and removal. This mounting system includes a power cord with a cigarette plug connector which makes this unit ideal for vehicle and equipment lighting applications where the unit can simply be attached or removed as needed. Please note, the magnetic base on this unit increases the units overall height.



16ft Coil Cord w/Cigarette Plug



21ft Cord with Ring Terminals



16ft Cord w/Battery Clamps



16ft Cord with Cigarette Plug

Click Images to Enlarge

Each light comes with a detachable 16 foot coil cord with cigarette plug. The cord is detached via a weatherproof, 2 pin Deutsch connector which easily and securely attaches and detaches the coil cord from the spotlight. Other cords, including 21 foot cords with ring terminals (C-21RT), 16 foot cord with spring battery clamps (alligator clips) (C-16BC) and a 16 foot straight cord with cigarette plug (C-16CP) are available. This light can be ordered in either 12 volt or 24 volt configuration, allowing it to be used

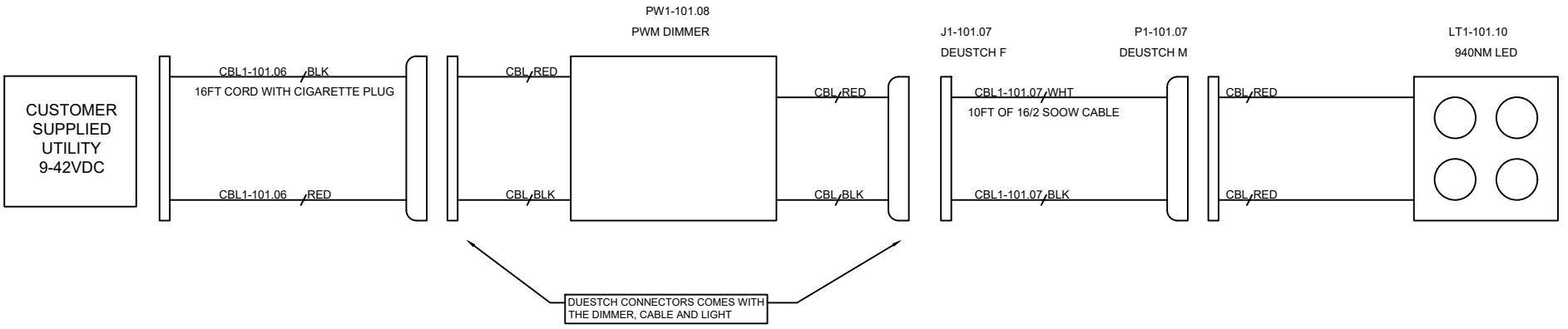
with any vehicle or ATV equipped with a cigarette plug. Choose voltage below when ordering.
Note: Most Larson Electronics LEDLB, LEDP3W, LEDP10W, and LED10W series LED spotlights and floodlights are terminated with a Deutsch IPD / LADD DT04-2P connector. The mating connector plug is DT06-2S. Most LEDLB and LED10W series lights ship with mating connector as part of a harness or pigtail, depending on the model. Some larger LED lights like the LEDLB-160X2 or LEDLB-200X2 or multiple function LED lights (i.e. high/low beam, modulating, IR/Visible combos) will have different Deutsch connectors.
Measurements:

Taken at 5 feet from the lens.
850nm Spot - 1270 uWatts/cm^2
850nm Flood - 110 uWatts/cm^2
940nm Flood - 33 uWatts/cm^2
At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.

REV	DESCRIPTION	DATE
A	PRODUCTION RELEASE	4/3/2024

LEDLB-4E-IR-M-PWM6-16.CP-940nm-F

LARSON ELECTRONICS®



TAGS	QTY	CATALOG	DESCRIPTION
J1-101.07	1	UNV00005476	2WAY DEUTSCH-FEMALE
P1-101.07	1	UNV00005480	2 WAY DEUTSCH MALE
LT1-101.10	1	UNV00010482	9-42VDC IR FLOOD 4 LED ELITE, 940NM
PW1-101.08	1	UNV00010671	PWM DIMMER SWITCH 6AMP
CBL1-101.07	10ft	UNV00002075	CORD 16/2 SOOW UL 90C BLK CABLE
CBL1-101.06	1	UNV00007976	16' cig plug charger, waterproof..C-16-CP

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KEMP, TX 75143

TITLE: LEDLB-4E-IR-M-PWM6-16.CP-940nm-F

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CHECKED BY	SHEET #	DRAWING #
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14AWG
AWM


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Material Safety Data Sheet

To Whom It May Concern,

The Larson Electronics LLC LEDLB, LED3W, LED5W, LED10W, LEDP, and LEDxxWRE industrial line of LED light bars and light fixtures without emergency battery backup are considered "ARTICLES" under 29 CFR 1910-1200, the OSHA Hazard Communication Standard, and do not require a Material Safety Data Sheet (MSDS). This document does not expire.

Articles are specifically exempt from the regulations of this standard. OSHA defines an article as follows:

1910-1200(c) – Article means a manufactured item other than a fluid or particle:

i. Which is formed to a specific shape or design during manufacture;
ii. Which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
iii. Which under normal conditions does not release more than very small quantities.

Regards,

Ray Smith
Larson Electronics, LLC.

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Certification

Manufacturer: Larson Electronics LLC
Address: 9419 US-HWY 175
Kemp, Texas 75143

Declare the following equipment conforms to the standard(s) as listed:

Model: LEDLB, LED3W, LED5W, LED10W, LEDP, and LEDxxWRE Series
Description: LED Light Bars

Evaluated Listings:

CE: DIRECTIVE 2014/35/EU - LOW VOLTAGE DIRECTIVE
CE: DIRECTIVE 2014/30/EU - EMC DIRECTIVE
CE: Regulation (EC) No 1907/2006 - REACH REGULATION
CE: DIRECTIVE 2015/863/EU - ROHS DIRECTIVE

The LEDLB, LED3W, LED5W, LED10W, LEDP, and LEDxxWRE series complies with the essential protection requirements of the European Parliament of the Council Directive for Low Voltage Directive, EMC Directive, REACH Regulation, and RoHS Directive. This certification applies to all specimens manufactured in accordance to the manufacture's drawings.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature: James Thomas

Name: James Thomas
Position: Operations Manager

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Manufacturer: Larson Electronics LLC
Address: 9419 US-HWY 175
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Declare the following equipment conforms to the standard(s) as listed:

Model: LEDLB, LED3W, LED5W, LED10W, LEDP, and LEDxxWRE
Description: LED Light Bars

Evaluated Listings:

CE: DIRECTIVE 2015/863/EU - ROHS DIRECTIVE

This is to certify that products offered by Larson Electronics LLC comply with the Reduction of Hazardous Substances (RoHS) directives. Directive 2002/95/EC became effective on 1 July 2006. It restricts the use of six substances in the manufacture of electrical and electronic equipment. This directive was revised in June 2011 and is now referred to as directive 2011/65/EU. Directive 2015/863/EU amending Annex II to Directive 2011/65/EU announced plans to add four substances from 22 July 2019.

We hereby certify that the equipment specified above conforms to the Directive(s) by containing less of the restricted substances than the stated limits.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature: James Thomas

Name: James Thomas
Position: Operations Manager

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Model: LEDLB, LED3W, LED5W, LED10W, LEDP, and LEDxxWRE Series
Description: LED Light Bars

Evaluated Listings:

CE: Regulation (EC) No 1907/2006 - REACH REGULATION

This letter establishes the opinion of Larson Electronics LLC regarding the status, under the current European Union ("EU") Regulations on Registration, Evaluation, Authorization, and Restriction of Chemical Substances ("REACH").

REACH does not apply to manufactured products which are referred to as "completed articles". Substances (chemicals) are subject to REACH registration, NOT products.

In addition, Articles are exempt from the REACH requirements if (a) the Article does not contain a substance of very high concern or candidate substance in an amount exceeding 0.1% weight by weight, and (b) if substances present in the Article in excess of 1 ton per year per importer are not expected nor intended to be released.

Based on communication with our raw material suppliers, we conclude that to the best of our knowledge our products requiring REACH compliance do not contain any of the currently listed SVHC in concentrations of 0.1% or above.

Accordingly, we foresee no registration or pre-registration requirement for the products we supply.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature: James Thomas

Name: James Thomas
Position: Operations Manager

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Frequently Asked Questions (FAQ)