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LEDLB-40X2E-IR-DIMM-PWM

120 Watt Dimmable Infrared LED Light Emitter - Extreme Environment - 9-42V DC - PWM

Product ID: 105417

Please see last page for supporting documentation for this product(certificates, CAD files & drawings, IES files, wiring diagrams, etc).



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-40X2E-IR-DIMM-PWM LED Infrared Light Bar

LEDs: 40 Edixeon® 3 Watt IR LEDs
Dimensions: 12.5"-L x 5"-H x 3.57"-D
Watts: 120
Voltage: 9-42 V DC
Spot Beam: 1300'L x 180'W
Flood Beam: 420'L x 380'W
Weight: 11 lb
Lighting Configuration: 10° Spot or 35° Flood
Mounting: Stud Bracket
Wiring: Deutsch IPD / LADD DT04-2P connector w/ PWM Control Wire
Amps: 10 (on 12 volts) 5 (on 24 volts)
Lumens: 7200 Lumens
LED Light Color: Infrared - 750Nm, 850Nm or 940Nm
LED Life Expectancy: 50,000 hours
Optics Efficiency: 90%
Materials: Aluminum Housing, Polycarbonate Lens
LUX measurements: @Lens: 193,300 @1 Meter: 47,400
Housing Color: Black

LEDLB LED Features

Edixeon® 3 Watt IR LEDs
LEDs Driven At 80%
-40°C ~ +80°C Operating Temp Range
RoHS Compliant
70% Lumen Retention @ 65,000 hours
LED Chip Op Temp -40°C to +110°C
IP68 Rated Waterproof to 3 Meters
Dimming / Tunable via PWM Control Wire
CE Certified

Special Orders - Special Requirements

Contact us for special requirements

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Buy American Compliant

The Larson Electronics LEDLB-40X2E-IR-DIMM-PWM Dimmable Infrared LED Light Bar offers high 7200 lumen infrared light output and extreme durability for demanding operating conditions. This IP68 rated infrared LED light bar is waterproof to three meters and produces an infrared light beam that can only be seen through the use of night vision goggles. 850Nm versions have a very slight red glow around the LEDss 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.

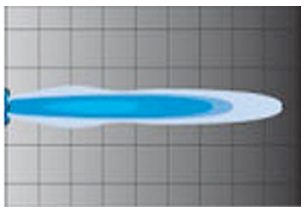
The LEDLB-40X2E-IR-DIMM-PWM infrared LED light bar with dimming capabilities from Larson Electronics produces light in the infrared 850Nm or 940Nm end of the light spectrum depending upon the version selected. Forty Edison Edixeon® 3 watt infrared LEDs producing 180 lumens each are arranged in stacked rows and paired with high purity 10 degree optics to produce a tightly focused spot beam 1300` long by 180` 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 LED light bars are IP68 rated and waterproof to 3 meters, 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.

LEDLB-40X2E-IR-DIMM-PWM 35° Flood Beam



LEDLB-40X2E-IR-DIMM-PWM 10° Spot Beam



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.

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 42 V DC without any modifications necessary as a result. This multi-voltage capability makes these units ideal for mobile and stand alone applications such as those found on boats, heavy equipment and vehicles where power systems don`t always operate with 12 volts and external generators, transformers or inverters are impractical.

PWM Control: The pulse width modulation drivers in this unit also provide secondary benefits through the ability to tap into a provided input wire with an external pulse generator and adjust the duty cycle of the current being applied to the LEDs. Thus you can connect an external dimmer, switch or pulse control and adjust the perceived output of the light, effectively causing the light to flash, dim or brighten to the desired levels. Additionally, this method of controlling light

output results in a corresponding drop in amperage draw, so if the duty cycle is cut back to 50% there will be a matching 50% reduction in amperage draw. These units are also able to monitor and adjust input current to maintain the correct LED voltage levels regardless of input levels across a specific range. These dimmable light bars can operate on current ranging from 9 to 42V DC without any modifications necessary as a result. This ability to sense and adjust input current also provides protection against voltage spikes and drops that can occur in vehicle electrical systems which would otherwise result in burning up or premature LED failure without it.

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.
Mounting: Larson Electronics LEDLB series light bars are equipped standard with aluminum mounting blocks which slide within the aluminum housing to allow users to adjust their positioning to match existing or user drilled mounting holes. Each aluminum mounting block has an integrated rubber bushing to absorb vibrations and shocks. To secure the lights in place users simply slide the mounting bolts through the aluminum mounting block and rubber isolator, through the mounting surface, then secure the bolt with a locking nut on the opposite side of the mounting surface. This mounting system enables mounting to flat or round surfaces and allows for minimal 7 degrees of flexibility of angle placement of the light. We also offer a BC-2 bar clamp mounting system you can view here for even greater mounting versatility.
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.
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.

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Frequently Asked Questions (FAQ)

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LEDLB-40X2E-IR-DIMM-PWM

Product ID: 105417

Harmonized System (HS) Code: 9405.41.84.10

Export Control Classification Number (ECCN): EAR99

Options:

LEDLB-40X2E-IR-DIMM-PWM-Beam Config-Wavelength

Example: LEDLB-40X2E-IR-DIMM-PWM-SP-750nm

Beam Config	
SPOT	-SP
FLOOD	-FL

Wavelength	
750NM	-750nm
850NM	-850nm
940NM	-940nm

Links (Click on the below items to view):

- CE Certificate
- Eye Safety Information/Certificate
- Military Specification Certificate 1
- MSDS (Material Safety Data Sheet
- RoHS Certificate (Restriction of Hazardous Substances)
- Spectrum Curve (Wavelength Graph)
- HigResPic1
- HigResPic2
- HigResPic3
- HigResPic4
- HigResPic5
- HigResPic6
- ISO 9001 Certification
- Business Certificate
- Shipping Time Map