

LED10WSA-160

160 Watt High Intensity LED Light - 16 LEDs - 14,723 Lumens - Degreed Aiming - Soft Start LEDs

Product ID: 71101



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.

LED10WSA-160 High Output LED Light

Lamp Type: CREE XL-L2® LED

Dimensions: 14.65"-L x 5.43"-H x 4.80"-D

Watts: 160

Led Drive %: 90%

Voltage: Universal Voltage 11-65V DC

Beam Spread: 10° Spot, 40° Flood, 60° Flood, 30°/60° Elliptical

Mounting: Flat Surface 304 SS Bracket - 360 Degree Adjustable

Wiring: Gold Plated Deutsch IPD / LADD DT04-2P connector

Amps: 13.34 (on 12 volts) - 6.67 (on 24 volts)

Lumens: 14,723

LED Light Color: 5000K or 4100K

LED Life Expectancy: 50,000 hours

Optics Efficiency: 90%

Materials: Aluminum Housing, Polycarbonate Lens

Housing Colors: Black

Weight: 13.23 Lbs

Ratings/Features

Automatic Current Sensing and Adjusting

Active Heat Management

Ambient Op Temp -40°C to +80°C

IP69K High Temp High Pressure Wash Down

EMC/EMI CISPR 25 Class 3 Rated

304 Stainless Steel Mounting Hardware

Shock Dampening Mounting System

Dark Sky Compliant

IEC62471 - Safety of Lamps

EN55015 - EMC/EMI

IEC-60068-2-6 - Environmental Vibration Test

Special Orders- Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671

Intl: 1-903-270-1187

Fax: 1-903-498-3364

E-mail: sales@larsonelectronics.com

Buy American Compliant

The LED10WSA-160 LED Light offers high output from a compact form factor and is ideal for use in mining applications as well as heavy equipment, hunting, boating, vehicle, military, law enforcement and industrial manufacturing uses. A 14,723 lumen output, 13.34 amp draw, 50,000 hour service life and 12-24 volt compatibility provides operators

with a rugged and powerful LED alternative to 400 watt metal halide lamps that uses little power and can withstand rugged use and abusive mining conditions.

The LED10WSA-160 high output LED light from Larson Electronics produces 14,723 lumens of high intensity light while drawing only 160 watts @13.34 amps from a 12 volt electrical system. Sixteen CREE XM-L2® ten watt LEDs producing 920 lumens each are arranged in rows and paired with high purity optics to produce a well focused 10° spot beam that is ideal for providing far reaching concentrated illumination while still covering a substantial amount of area. We also offer optional floodlight versions with a 40° or 60° beam spread to provide more light over a larger area nearer the fixture, making flood versions ideal for use as dedicated work and area lights. These LED light bars are waterproof to 3 meters, sealed against intrusion by dust and dirt, and very ruggedly constructed to withstand the most demanding environments, conditions and applications. LED10WSA-160 lights are ideal replacements for fragile and hot running 400 watt metal halide lamps. They offer soft start technology, a small profile, low power requirements, high durability and a shock dampening mounting system that makes these LED light emitters a superior lighting solution for rough applications where power and reliability is critical. The heavy duty design and high power of these LED lights also makes them suitable for a wide array of applications including but not limited to: military, industrial manufacturing, machine visioning, mining, security and law enforcement, boating, vehicles and commercial structure illumination.



[Click Photo to Enlarge](#)

Protection: These high output LED light bars feature soft start technology, allowing the LEDs to gradually increase to maximum intensity instead. Low inrush current at start-up reduces wear on associated components, increasing overall life of the internal electronics and improves downtime. Built in redundancy lessens chance of full fixture failure, while the reverse polarity operation protects the fixture from shorting the internal components.

Heat Management: Heat is the single largest factor in premature LED failure and color shifting. These LED units contain advanced drivers which use pulse width modulation to control heat buildup rather than simple voltage regulators which are typically harsh on sensitive electronics and can contribute to early LED failure. These units automatically sense the temperature of each LED and adjust the energy frequency or "duty cycle" accordingly to maintain heat levels within acceptable ranges. This system in essence flashes current at an extremely fast on and off rate to each LED based upon the LED's core temperature. This flash rate is too fast to detect with the human eye, but provides precise control of the current flowing to each LED and thus the heat it generates. This allows the LEDs to be driven at up to 90% capacity without overheating or visible loss of light output. The LEDs are always driven at the same voltage but the duty cycle, however, is changed to alter how long the LEDs are actually on or off. The end result is more light with less heat and longer LED life with an average 70% lumen maintenance after 50,000 hours.

Voltage: The drivers in this unit provide the ability to automatically monitor and adjust input current to maintain the correct LED voltage levels regardless of input

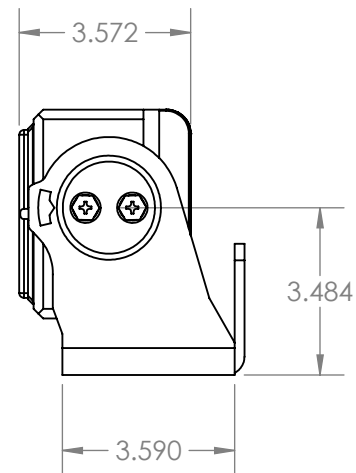
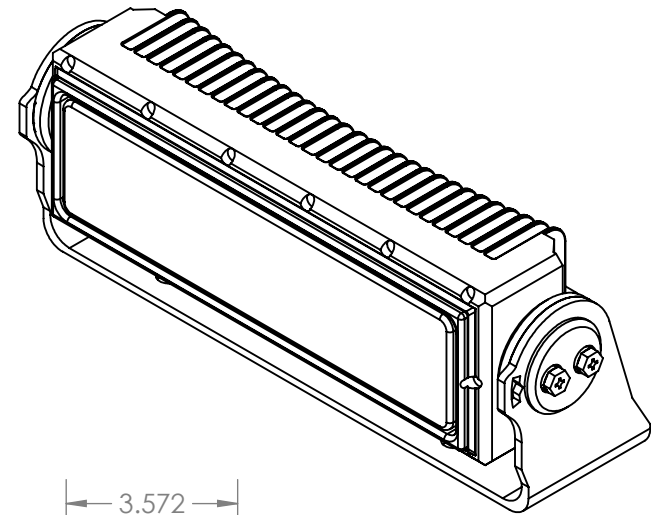
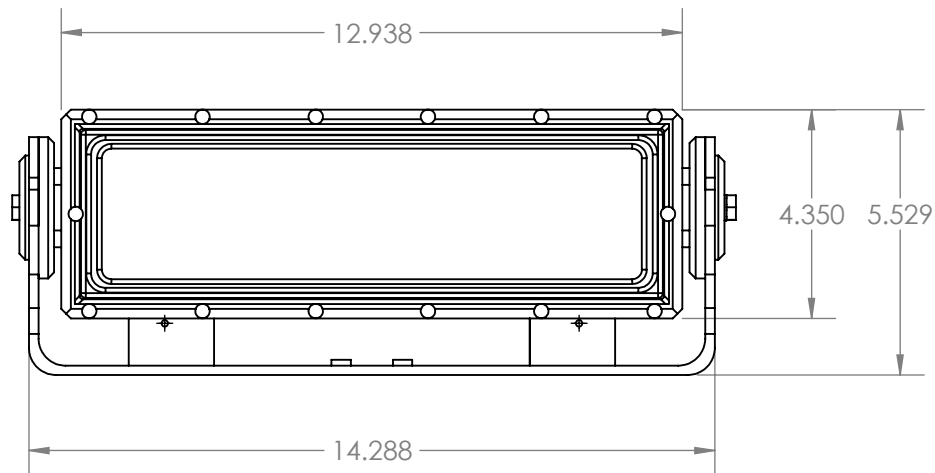
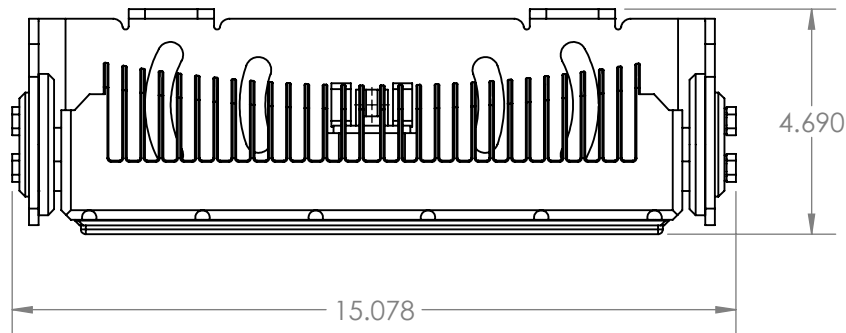
levels across a specific range. These LED10WSA series light bars can operate on voltage ranging from 11 to 65 VDC without any modifications necessary as a result. This ability to sense and adjust input current also provides protection against voltage spikes and drops that can occur in vehicle electrical systems which would otherwise result in burning up or premature LED failure without it.

Durability: As well as unparalleled heat control, the LED10WSA series of LED lights from Larson Electronics also offer IP69K rated construction that is designed to withstand extremes of environmental and operating conditions. These units can withstand rapid temperature changes of -40°C to +80°C, are waterproof to three meters, can withstand high pressure and high temperature wash downs, and resist ingress of dust, dirt and humidity. The housings are formed from extruded aluminum and the lenses are unbreakable polycarbonate. The CREE XM-L2® LEDs help these units achieve up to 60Grms rated resistance to vibrations and are rated at 70% lumen maintenance after 50,000 hours of use. We recommend these LED lights for use in applications that require regular intensive cleaning and are exposed to a lot of vibration, dust, dirt, and abusive working conditions are encountered.

Mounting: Each unit is equipped with an innovative trunnion style mounting bracket that allows the light to be attached to flat surfaces and adjusted through 360 degrees of vertical movement. The LED light head is secured to the mounting bracket with shock dampening rotating inserts. The insert provides precision aiming down to 1° while providing increased longevity to the LED fixture. To vertically adjust the unit after mounting, the user simply loosens the screws located on either side of the unit, moves it into the desired position, then retightens the screws. The base of the mounting trunnion is equipped with several machined slots which allow users to utilize existing mounting holes and slide the unit for precise mount positioning. The stainless steel trunnion bracket has preset angles marked in 5° intervals, allowing operators to precisely aim each fixture.

Note: The LED10WSA series feature gold plated DT connectors to provide better conductivity. Most Larson Electronics LEDP5W-30, 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.

Applications for the LEDP10WSA include but are not limited to mining, dump trucks, construction machinery, cement mixers, and car washes.

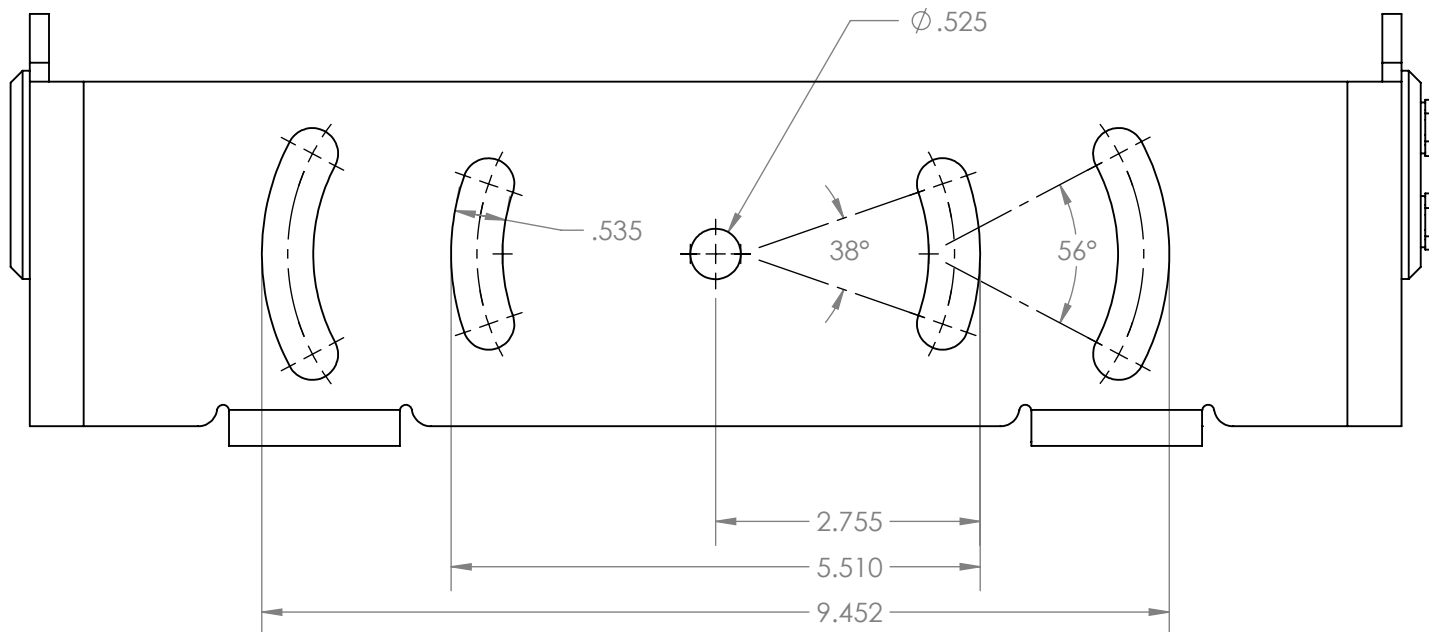


FINISH			
SURFACE AREA [sq. in.]		NAME	
DIMENSIONS ARE IN INCHES	DRAWN	CHRISTOPHER THAUER	
MATERIAL	CHECKED	N/A	
DO NOT SCALE DRAWING	DATE	3/27/2019	

TITLE:			
LED10WSA-160			
SIZE	DWG. NO.	REV	
A			
SCALE: NTS		SHEET 1 OF 2	

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LARSON ELECTRONICS LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LARSON ELECTRONICS LLC IS PROHIBITED.

UNLESS OTHERWISE NOTED:
Angle +/- .5 deg
.X +/- .02
.XX +/- .01
.XXX +/- .005



TITLE:			
LED10WSA-160			
SIZE	DWG. NO.	REV	
A			
SCALE: NTS		SHEET 2 OF 2	

FINISH			
SURFACE AREA [sq. in]			NAME
DIMENSIONS ARE IN INCHES		DRAWN	CHRISTOPHER THAUER
MATERIAL		CHECKED	N/A
DO NOT SCALE DRAWING		DATE	3/27/2019

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LARSON ELECTRONICS LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LARSON ELECTRONICS LLC IS PROHIBITED.

UNLESS OTHERWISE NOTED:

Angle $\pm .5$ deg
 .X $\pm .02$
 .XX $\pm .01$
 .XXX $\pm .005$



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.



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



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
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



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: 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

Frequently Asked Questions (FAQ)