Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364

BL70-LED

70 Watt LED Blasting Light - 7, 10-Watt CREE LEDs - 6020 Lumen - IP68 - PWM Circuitry

Product ID: 48767

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.

BL70-LED

Lamp Type: CREE XLamp MC-E® LED
Dimensions: 7 "-Diameter
Watts: 70
Led Drive %: 90%

Voltage: 120 - 277 VAC With Transformer, 9-46 VDC Without

Lighting Configuration: 20° Spot or 40° Flood

Mounting: 200 lbs Grip Magnetic Base

Wiring: 50` SOOW Cord - Deutsch IPD / LADD DT04-2P connector

Amps: 6 (on 12 volts) 3.35 amps (on 24 volts)

Lumens: 6,020
LED Light Color: 6000K

LED Life Expectancy: 50,000 hours

Optics Efficiency: 90%

Materials: Aluminum Housing, Polycarbonate Lens

Housing Colors: Black or White
Flood Beam: Lux @1 meter= 17,500 @3 meters= 1,900
Spot Beam: Lux @1 meter= 31,000 @3 meters= 4,000

3 year warranty replacement on this LED light. After 30 days, the customer ships the failed LED light and/or LED bulb to Larson Electronics at their expense. If the failure is a manufacturer defect, we will ship a new replacement to the customer. If failure occurs within 30 days of receipt, Larson Electronics will provide a return label via email to the

Internal LED Driver Features

Fast average current control
Programmable off-time switching
Linear dimming input
PWM dimming input

Short protection w/Skip mode

Ambient Op Temp -40C to +125C

Pin-compatible with the HV9910B

View Avg-Mode Driver Control PDF

Special Orders - Special Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671

Intl: 1-903-270-1187

E-mail: sales@larsonelectronics.com

customer. When the failed light is returned, Larson Electronics will ship a new replacement.

Buy American Compliant

The BL70-LED blasting light is ideal for use in sand and media blasting applications where a powerful light capable withstanding the harsh conditions of the blasting are is needed. Producing 6,020 lumens of light output, this light has a 50,000 hour rated service life and the capability of operating with common 120-277 volt AC using the included inline transformer or 9-46 VDC without it.

The BL70-LED blasting light from Larson Electronics produces 6,020 lumens of bright light while drawing only 70 watts @6 amps from a 12 volt electrical system. Seven CREE XLamp MC-E® ten watt LEDs producing 860 lumens each are paired with high purity optics to produce a flood beam 300 feet long by 200 feet wide. We also offer a 20 degree spread spot beam configuration to produce a beam approximately 750' long by 100' in width. These LED light blasting lights 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. A single 200 pound grip magnetic base enables the operator to use the light as portable base stand unit on the floor, or they can use this LED blasting light as a magnetic mount back light.
This LED blasting light normally runs on any voltage ranging from 9 Volts to 46 Volts DC, but with the inlcuded DCP-11-DP inline transformer and 50 feet of SOOW cord, can also run from common 120V/277V AC. Operators can run these lights directly from a battery, generator vehicle, or by using the included DCP-11-DP transformer, plug this unit into any available wall outlet, 220V, or 277VAC power source.
Optional LED colors include Amber and Green for more effective light penetration in the dusty environment of a media blasting room. An integral Pulse Width Modulation controller, small profile, versatile power options, high durability and versatile mounting magnetic system makes these LED light emitters a superior lighting solution for a wide array of applications including but not limited to: sand/media blasting, military, industrial manufacturing, machine visioning, security and law enforcement, boating, vehicles and commercial structure illumination.



This photo shows an open field illuminated only by ambient light at approximately 9:00 pm`.

Click Photo to Enlarge



This photo shows the BL70-LED in spot configuration illuminating the same field, easily reaching distances of 750` in length

Click Photo to Enlarge

Heat Management: Heat is the single largest factor in premature LED failure and color shifting. These LED units contain advanced PWM 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 100% 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.

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.

When equipped with the inline transformer, the LEDP10W series of light bars can operate on current ranging from 9 to 46 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 LEDP10W series of LED light bars from Larson Electronics also offer IP68 rated construction that is designed to withstand extremes of environmental and operating conditions. 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 extruded aluminum and the lenses are unbreakable polycarbonate. The CREE XLamp MC-E® LEDs offer resistance to shocks and vibrations and are rated at 70% lumen maintenance after 50,0000 hours of use.

Mounting: This LED blasting light has a single 200 lbs grip magnetic base that can hold the unit in place even under high vibratory conditions. An integrated trunnion bracket allows operators to adjust the light through a full range of vertical movement, providing the ability to aim the light regardless of where it is mounted for best light coverage.

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.

Protective Mylar covers are available to protect the lens faceplate and catch overspray in coating applications. The adhesive backed Mylar lens covers can be peeled off and replaced easily. Order protective covers below in the related products category.

BL70-LED 40° Flood Beam (STND)

BL70-LED 20° Wide Spot Beam (OPT)

Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364





CONDITIONS

Vin min (V) = 9	**toff (us) = 2.9**
Vin nom (V) = 12	**R1 (kohm) = 50.2**
Vin max (V) = 50	**L1 (uH) = 3.0**
Vo min (V) = 6.5	**L-Pk (A) = 2.9**
Vo nom (V) = 6.8	**L-rms (A) = 2.9**
Vo max (V) = 7	**Ipk (A) = 2.5**
I-LED (A) = 2.2	**R2 (ohm) = 0.10**
Efficiency = .85	**I-FET (A) = 2.2**
fsw nom (kHz) = 150	**fs min (kHz) = 77**
Ts nom (us) = 6.666667	**fs max (kHz) = 301**
Base frequency-	= 36~37Khz @ 12V
Amplitude of pulse width-	= 27Ms
Outside: External dimmer-	= 500Hz
Inside : Current sensing from-	77KHz at 12V to 300KHz at 50V

Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364

Frequently Asked Questions (FAQ)



Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364




MISTER

Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364



Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364

BL70-LED

Product ID: 48767

Harmonized System (HS) Code: 9405.41.84.10
Export Control Classification Number (ECCN): EAR99

Options:

BL70-LED-Finish-Beam Pattern-Beam Color

Example: BL70-LED-Black-S-AMB

Finish	
BLACK	-Black
WHITE	-White

Beam Pattern	
SPOT	-S
FLOOD	-F

Beam Color	
AMBER	-AMB
GREEN	-GRN
WHITE	-WHT

Links (Click on the below items to view):

- **Wiring Diagram (Oneline)**
- **HigResPic1**
- **HigResPic2**
- **HigResPic3**
- **HigResPic4**
- **HigResPic5**
- **HigResPic6**
- **HigResPic7**
- **HigResPic8**
- **HigResPic9**
- **HigResPic10**
- **Video1**
- **Video2**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**