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EPL-HB-B-300LED-RT

300W Explosion Proof High Bay LED Light Fixture - Class I, II, III - Paint Spray Booth Approved - Group B/T5

Product ID: 239070

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



Image: EPL-HB-B-300LED-RT

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.

EPL-HB-B-300LED-RT - Explosion Proof Round High Bay LED Light

Listing: United States and Canada
Lamp Technology: Cree LED
Dimensions: 18"-D x 7"-H
Weight: -
Voltage: 100-277 Volts AC, 50/60Hz or 11-25 Volts AC/DC
Total Watts: 300W
Total Lumens: 42,000 lms
Luminous Efficacy: 140 Lm/W
Lamp Life: 60,000+ Hours
Color Temp: 5600K, 5000K, 4500K, 4000K, 3500K, 3000K or 2700K
Color Rendering Index: >75 CRI
Lamp Type: -
Lamp Base: -
Replacement Lamp: -
Beam Angle: 60°, 125° or 140°
Lighting Configuration: Flood Pattern
Power Efficiency: >95%
Power Factor: 0.992
Amps: 2.5A @ 120V, 1.25A @ 240V, 1.08A @ 277V
Ambient Operating Temp Range: -50°C to +65°C

Ratings/Approvals

Class I, Division 1, Groups B,C,D
Class I, Division 2, Groups A,B,C,D
Class II, Divisions 1 & 2, Groups E,F,G
Class III, Divisions 1 & 2
Certified to UL 844 Ed. 13
Certified to UL 1598
Certified to C22.2 No. 137 Rev 2009
Certified to C22.2 No. 250.0
Certified to C22.2 No. 30-M-1986 Rev 2012
T5 Temperature Rating
Group B Rated for Hydrogen
Paint Spray Booth Approved
IEC 60529 Tested
IP67 Rated Waterproof
Multiple Driver Banks
80% Lumen Retention after 60,000 Hours
Factory Sealed Light Fixture
3.5kV Surge Protection (NTC Circuit)
Recommended 20` to 65` Mounting Height

Operating Temp Rating: T5
Housing Material: Copper Free Cast Aluminum
Housing Finish: Epoxy Powder Coated
Lens Material: Hardened Borosilicate Glass
Gasket Material: Silicone
Mounting: 3/4" Pendant Mount
Wiring: 10` 16/3 SOOW w/ Flying Leads
Wiring Hub: 3/4" NPT
Housing Color: Grey

Special Orders - Special Requirements
Contact us for special requirements
Toll Free: 1-800-369-6671
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The EPL-HB-B-300LED-RT from Larson Electronics is an Explosion Proof High Bay LED Light Fixture that provides operators with a powerful and energy efficient alternative to traditional hazardous location luminaries. Cree LED technology and solid-state architecture makes this lamp an excellent replacement upgrade option for bulky incandescent, metal halide and high pressure sodium lights, which are associated with higher operating costs and frequent maintenance. This 300-watt LED fixture is suitable for use in Group B rated hydrogen environments including: aerospace, petroleum refineries, fertilizer production plants, welding/heat treatment and pharmaceuticals.

The Class I, Divisions 1 & 2 and Class II, Divisions 1 & 2 explosion proof light fixture provides 42,000 lumens of high quality light while drawing only 300 watts. The copper free aluminum alloy body is powder coated for added durability and an attractive aesthetic appearance. A special heat dissipating design in conjunction with LED technology helps this fixture to achieve an excellent 60,000-hour rated lifespan with 80% lumen retention. The low-profile housing makes this lightweight unit an attractive alternative to larger, heavier and older fixtures and requires less hardware to install.

This explosion proof LED light fixture is paint spray booth listed, IP67 rated, dust-proof, and protected against high pressure jets and temporary submersion. The heavy-duty housing and solid-state design gives this light excellent durability and resistance to vibration and impacts.

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.

LED Drivers: Even in LED fixtures, heat is the single largest factor in premature light failure and color shifting. As a result, many manufacturers reduce the output of their LEDs in order to reduce the amount of heat produced. Rather than lower light output or quality, Larson Electronics addresses this problem with the addition of electronic LED drivers. These internal drivers 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. This not only reduces the energy dissipation, effectively lowering the operating temperature of the fixture, but also prevents AC over-voltage and short circuit loading making this fixture virtually maintenance free. Because the electronic drivers allow the EPL-HB-B-300LED-RT to run at a cooler internal temperature and regulates the electrical current, energy efficiency and LED service hours are maximized while at the same time reducing operating costs and downtime incurred from the frequent servicing intervals required with other hotter running lights.

The explosion proof LED light fixture features multiple LED drivers which helps to increase the operational life of the fixture. With traditional LED lights, in the event an LED array or driver fails, the entire fixture no longer illuminates. With the EPL-HB-B-300LED-RT series of explosion proof lamps from Larson Electronics, each LED fixture contains individual LED boards configured in a series of four banks. In the event of a driver failure, only one bank of LEDs will be effected while the other banks will continue to operate. In the event that of an LED failure, the mating LED will continue to operate.

Click Photos to Enlarge



60° Beam Angle



125° Beam Angle



140° Beam Angle

Beam Angles: As a permanent lighting solution, selecting proper beam angles can help support specific tasks and safe operations at combustible facilities. The 60° beam provides the most intense beam of the three options. It is perfect for narrow, confined spaces and is ideally suited for tank cleaning purposes. It offers focused light to provide ample illumination to tight work spaces and other environments. The 125° beam offers a more diffused source of light that is also less intense in brightness. It is a great general area work light and performs well when used for outdoor illumination. The 140° beam offers a very wide lighting pattern and is ideal for situations where lighting distance is not a concern, but illumination of a wider area and even light distribution is. The 140° beam is great for situations that call for working in close proximity to lights such as in a paint booth.

This unit produces 42,000 lumens with a color temperature of 5000K standard and a color rendering index of 75 which produces colors and details much more accurately than high pressure sodium or mercury vapor luminaries. We also offer 2700K, 3000K and 3500K warm white and 4000K or 4500K natural white color temperature options (longer lead times may apply for non-standard temperatures). This lamp uses Cree LED units that have been chosen for their high lumen per watt ratio and extreme longevity. These Cree LEDs generate a robust 140 lumens per watt effective lumen output and have a 80% lumen retention at 60,000 hours, giving them better efficiency and operational life than traditional light sources.

Field Serviceability: This explosion proof LED light fixture is field serviceable. All major internal

components can be purchased from Larson Electronics and installed by a licensed electrician with basic tools. With most explosion proof fixtures, the fixture must be returned to the manufacturer for repair work, which presents downtime and long turn around times for repair work. Larson Electronics addresses this issue with the EPL-HB-B-300LED-RT series with field serviceability, allowing operators to perform service work without having to return the fixture to the manufacturer in the event of damage or failure.

Energy Consumption Comparison

	Metal Halide	LED
Wattage	400 watts	150 watts
Amp Draw @ 120V AC	3.83 amps	1.25 amps
Amp Draw @ 220V AC	2.09 amps	0.68 amps
Amp Draw @ 240V AC	1.92 amps	0.63 amps
Amp Draw @ 277V AC	1.66 amps	0.54 amps
Amp Draw @ 12V DC	38.33 amps	12.5 amps
Amp Draw @ 24V DC	19.12 amps	6.25 amps
Lamp Life Expectancy	20,000 hours	60,000+ hours
Operation cost per year (12hs/day @ 12c/kWh)	$241.78	$78.84

Each LED light fixture has the potential to save $150.00+ per year in electricity alone, not including maintenance costs, operational downtime, reduced productivity, HVAC loads, or carbon footprint. When retrofitting an entire facility with 100s of light fixtures, the return on investment of LED over metal halide becomes evident.

Voltage: This explosion proof LED light is universal voltage capable and can be operated with 100-277V AC, 50/60 Hz without modifications to the fixture. A low voltage version of this LED fixture that operates on AC/DC voltages from 11-25 volts is also available. Units compatible with 18-48V AC/DC voltage are available for network systems and marine vessels. We also offer an additional 347-480V high voltage, 125-250V DC, and 0-10V dimmable versions of this explosion proof LED light fixture.

Wiring: The Class I, II and III rated explosion proof high bay LED fixture comes with 10` of 16/3 SOOW cord with flying leads for seamless connection to customer-provided power sources. Wiring is fed through rigid pipe to the junction box and tied in to the fixture`s lead wires, completing the electrical connection.

Mounting: The EPL-HB-B-300LED-RT comes standard with pendant mounting features. Pendant applications are mounted from the ceiling and are suspended by rigid pipe via the 3/4" NPT hub on the back of the explosion proof fixture. For best results, this explosion proof LED light is recommended for mounting at heights ranging from 20` to 65`.

Larson Electronics offers a wide selection of explosion proof high bay LED fixtures, from 100 watts to 300 watts, with various lumen output capabilities and explosion proof ratings. Emergency units with battery backup features are available, which are ideal for combustible facilities requiring protection from utility outage and unreliable power supply. High bay LED fixtures with emergency battery backup also ensure illumination along narrow egress pathways (exit routes, hallways, etc.)

and compliance with safety standards or building codes. Our series of explosion proof high bay LED fixtures extend to units with built-in occupancy sensors. Combining cutting-edge motion sensors with explosion proof LED lights contribute to long-term cost savings and facilitate automated operation, resulting in a safer workplace. Additional mounting types are available for this model, such as: wall, ceiling and stanchion.

Suggested Applications: The EPL-HB-B-300LED-RT is approved for use within environments where flammable or combustible gases, vapors, dusts, fibers, and flying exist or stand the potential to exist, and is ideal for a wide variety of applications.

Applications include but not limited to Group B rated hydrogen environments, aircraft maintenance, alcohol processing, aerospace, chemical manufacturing, coke processing, cold storage, compressed natural gas (CNG) facilities, cranes, cryogenics, distilleries, food processing (with food grade gasketed polycarbonate lens: EPL-HB-B-300LED-RT-188), fuel storage, gas processing plants, grain processing, laboratories, liquefied natural gas (LNG) facilities, liquid propane gas (LPG), manufacturing, marine vessels, methane production, mining, offshore, oil drilling rigs, oil refineries, paint spray booths, paper processing, petrochemical, pharmaceuticals, power plants, production refineries, sand blast cabinets, sewage and septic tanks, shipyards, solvent and cleaning areas, storage facilities, tank farms, tankers, textile, washdown areas, waste treatment plants, and woodworking. Click here to read the NEC description for explosion proof and hazardous locations.

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)

There are no Faqs

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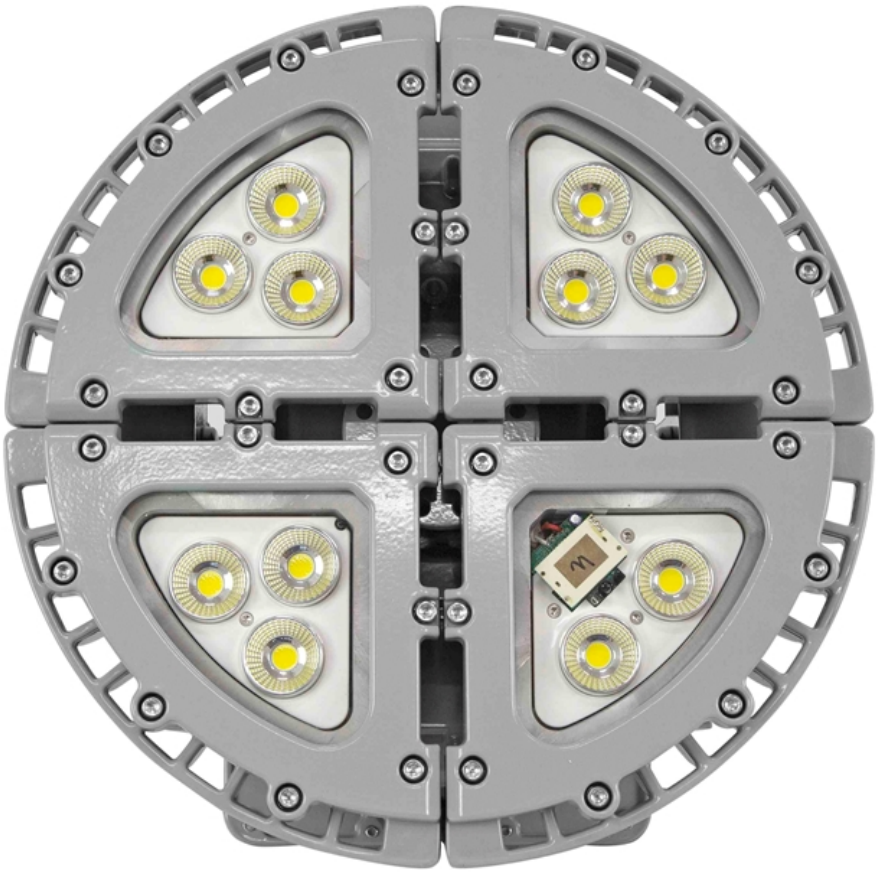


Image: EPL-HB-B-300LED-RT

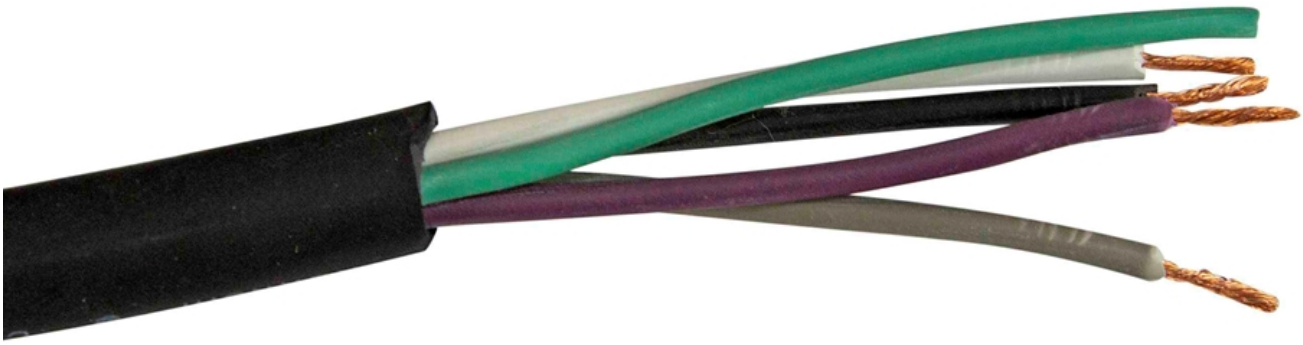


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EPL-HB-B-300LED-RT

Product ID: 239070

Warranty: 60 Months.

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

Options:

EPL-HB-B-300LED-RT-Voltage-Beam Angle-Color Temp
Example: EPL-HB-B-300LED-RT-1227-60B-56K

Voltage	
120-277V AC	-1227
11-25V AC/DC	-1224

Beam Angle	
60°	-60B
125°	-125B
140°	-140B

Color Temp	
5600K	-56K
5000K	-50K
4500K	-45K
4000K	-40K
3500K	-35K
3000K	-30K
2700K	-27K

Links (Click on the below items to view):

- **Dimensional Drawing 2D**(https://www.larsonelectronics.com/images/product/DimensionalDrawing/239070.PDF)
- **IES (Photometric File)**(https://www.larsonelectronics.com/images/product/ies/239070.ZIP)
- **Operations Manual**(https://www.larsonelectronics.com/images/product/Manual/239070.PDF)
- **Photometric Flood Report**(https://www.larsonelectronics.com/images/product/FloodReport/239070.PDF)
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- **Video1**(https://www.youtube.com/watch?v=ELnNtnf8A58)
- **Video2**(https://www.youtube.com/watch?v=itO6BuaUOC8)
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