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

HL-85-3W1-IR-110V

110V Handheld Infrared LED Spotlight - 700'L X 150'W Spotlight - 25' Cord - 3 Watts

Product ID: 49602

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.

This lightweight, ultra rugged, ergonomic handheld Larson Electronics infrared LED spotlight operates on 110VAC wall plug in. Alternatively, the step down transformer can be removed and operator can run unit off a 12 volt system (with a 12 volt plug-in cord). This Larson Electronics spotlight ships with a 25 foot cord, a 110VAC/12VDC step down transformer, and the 3W infrared LED handheld unit itself. The unique reflector and lens configuration produces a 700 foot beam in spotlight mode, with 180 lumen. This light, being IR LED, produces a wide spot pattern. Backed by a 3 year warranty, our new Larson Electronics handheld spotlight is ideal for security, hunting, police work, military operations and various other applications where a 110VAC powerful infrared handheld spotlight is needed. This unit produces light output in the 850 or 940 nanometer (NM) range. 850NM is visible through most consumer IR cameras, 940NM requires more advanced, generation 4, military grade night vision optics in order to view the beam produced by the unit. Please choose your nanometer wavelength below.
This handheld spotlight was designed for a specific purpose and the materials were chosen for the same purpose. There are many handheld lights with similar configuration, however we noticed that quality and durability does not meet the needs of most of our work oriented and industrial users.

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This handheld spotlight was designed to be lightweight and durable. The materials were chosen for the same purpose. This 3 watt IR LED handheld light has a high impact nylon handle and machined aluminum LED housing. The driver board for the LED is potted within the LED head. The LED head is rated at 120,000 hours (15 years of non-stop use). The 16 gauge internal wiring and connectors are simple, well insulated and well constructed.

The reflector is uniquely shaped and shallow, capturing and focusing the light efficiently and effectively. Combined with a convex lens and inset lens positioning, this light optimally and efficiently captures and projects the right amount of light where the operator wants it. The position of the bulb and the shape of reflector are different than most handheld lighting products. The difference is in how much of the emitted light is captured and focused. In many ways, light shares the properties of the water. With many spotlights, a great deal of the light "spills" on the ground around the light source. While a beam continues to project, much of the light "spills" out around the source, robbing the desired, projected beam of its power. Often times, as much as 50 percent of the light is lost. In the Larson Electronics spotlight configuration, more than 90 percent of the emitted light is captured and focused. A side benefit of this is a reduction of "casting," a phenomenon that occurs when the light "spills" around the light source. Often times, when surrounded by water, snow or other reflective surfaces, the light spillage will cause "casting" which effectively prevents the human eye from adjusting and seeing the objects at distance the spotlight was used to see.

The infrared LED is packaged and bound within a patented reflector system. This is a single 3 Watt LED configuration, not a cluster of low grade LEDs. The reflector captures and focuses the light efficiently and effectively. A thick Lexan lens protects the LED and reflector package and the entire assembly is potted into the machined aluminum head. The black powder coating protects the aluminum from oxidation.

The light output on this handheld infrared LED light is shockingly strong. We see a lot of lighting technology, and while we saw the longevity and low current draw advantages, we weren`t big fans of LEDs because they didn`t project light well. They did better as short range flood lights. But recently, the developments in LEDs and related reflector technology are amazing. This light projects a bright, white beam to 700 feet and covers an area about 75 feet wide. Unlike halogen or HID lights, there is not a distinct beam edge. The beam sort of tapers off as it fans out. The 700 foot beam length means that we could read license plates, addresses and other markings at that range easily. This LED light produces an infrared light in the 850NM or 940NM range. These units require night vision optics in able to view the light produced from these units.

This ultra-durable handheld spotlight weighs only 13 ounces, which makes it easy to carry and operate. The unit is balanced for ergonomic comfort and handling. The ergonomic handle is 4.5 inches long, 1.5 inches deep and 5/8 inch thick, making it easy to hold, even in wet, slipper conditions. The nylon handle has a no-slip textured surface to improve grip as well. Complete with the 25` cord and the converter, this unit`s total weight is approx. 9lbs.

The booted push button switch is conveniently placed so the user can easily access the switch with their fore finger for quick on/off action.

We have changed the wiring and the plug on the current model. Internally, we added 2 strain reliefs and a wire tie.

A 3/8-16 inch brass nut fixture is imbedded in the base of the handle enabling the operator to mount a magnetic base, like our MM-2 or MM-5 to the light. Alternatively, the operator can tripod mount this spotlight as well.

This Larson Electronics spotlight has a lanyard attachment at the top of the handle for

users that want to secure the light in the event they lose their grip.
The materials used in the construction of the light are UV, water, impact and chemical resistant.
This handheld spotlight draws 0.03 amps on a 110 volt system.
CE CERTIFIED

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Frequently Asked Questions (FAQ)



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HL-85-3W1-IR-110V

Product ID: 49602

Harmonized System (HS) Code: 9405.10.8020
Export Control Classification Number (ECCN): EAR99

Options:

HL-85-3W1-IR-110V-Wavelength

Example: HL-85-3W1-IR-110V-850NM

Wavelength	
850NM	-850NM
940NM	-940NM

Links (Click on the below items to view):

- **Catalog Page - Product Series**
- **DXF (2D CAD Model)**
- **Operations Manual**
- **SpecSheetSpanish**
- **STEP File (3D CAD Model)**
- **HigResPic1**
- **HigResPic2**
- **HigResPic3**
- **HigResPic4**
- **HigResPic5**
- **HigResPic6**
- **HigResPic7**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**