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

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664

RL-85

5 Million Candlepower Handheld Rechargeable Spotlight - 100W Halogen - Spot / Flood

Product ID: 1919



Image: RL-85

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.

RL-85 Spotlight
Lamp Type: Tungsten H3
Dimensions: Handle- 4.5"-L 1.5"-Depth 5/8" W
Weight: 18 Oz
Watts: 100 watts
Voltage: Rechargeable- 120 VAC Wall Outlet Charging Unit
Output: 5 Million Candlepower
Lamp Life Expectancy: 1200 Hours
Beam Lux in Spot: 22,800 (Lens), 4,720 (10ft), 1,618 (15ft)
Beam Lux in Flood: 15,170 (Lens), 458 (10ft), 212 (15 ft)
Battery: Lithium Ion
Charge Time: 8 Hours
Beam Type: Adjustable, Spot or Flood
Lens Temp: 148° F
Head Temp: 99° F

Features
100 Watt Tungsten H3 Bulb
Lightwieght Ergonomic Design
No Tools Field Serviceable
45 Minute Runtime
Heavy Duty Nylon/ Polycarbonate Construction
Rechargeable Lithium Ion Battery

Special Orders - Special Requirements
Contact us for special requirements
Toll Free: 1-800-369-6671
Intl: 1-903-270-1187
Fax: 1-903-765-7664
E-mail: sales@larsonelectronics.com

Buy American Compliant

The Larson Electronics RL-85 is an extremely rugged and powerful spotlight designed to provide maximum output and complete portability. This spotlight produces a light beam capable of reaching over 900 feet in length. An included rechargeable lithium ion battery pack provides over 45 minutes of runtime and high impact nylon and unbreakable polycarbonate construction provides light weight operation and extreme durability.

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

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664

This lightweight, ultra rugged, ergonomic handheld Larson Electronics spotlight operates on an internal lithium ion battery and can be used as a Spotlight or Floodlight for 45 minutes of run time. This Larson Electronics spotlight ships with a wall outlet charger and either a 5" or 7" lens diameter. The unique reflector and lens configuration produces a 900 foot beam in spotlight mode, making it approximately 5 million retail candlepower rating. Backed by a 3 year warranty, our new Larson Electronics handheld spotlight is ideal for work, security and hunting and spotting. Users can also lift the locking tab behind the lamp housing and rotate the lamp head to adjust the beam configuration. Rotating the housing adjusts the beam from a wide, soft flood pattern to a tight, spot beam reaching up to 900 feet in length. Continued rotation to the extreme disconnects the lamp head from the handle assembly, allowing operators to quickly and easily replace the bulb when necessary.



Click Photo to Enlarge



Click Photo to Enlarge



Click Photo to Enlarge

This handheld spotlight was designed for a specific purpose and the materials were chosen for the same purpose. There are many handheld lights with a similar configuration, however we noticed that quality and durability does not meet the needs of most of our work oriented and industrial users. The handle and lamp housing support are made from high impact nylon. The polycarbonate lamp housing is thick and contoured for extra support. The 16 gauge internal wiring and connectors are simple and well constructed. The industrial grade, tungsten filament bulb is designed for 1200 hours of life while producing over 5 million candlepower in this configuration. The impact resistant polycarbonate lens is lightweight, shatter resistant and thermal resistant. Backed by a 3 year warranty, our RL-85 rechargeable handheld spotlight is ideally suited for hunting applications and spotting.

"When it comes to hunting predators I want every advantage I can get. I trust my success to Larson Electronics. They are without a doubt the best spotlight you can find for night hunting." - Dustin Butler, Team Foxpro

---



Click Photo to Enlarge



Click Photo to Enlarge



Click Photo to Enlarge



An unlit parking lot with the window of a house 300 feet away.

Click Photo to Enlarge



The same parking lot lit by the RL-85 with the building clearly visible.

Click Photo to Enlarge

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 operator can lift the locking tab behind the lamp housing and rotate the lamp head. Rotating the housing enables the operator to adjust the beam from a wide, soft flood pattern to a tight, spot beam to goes out 900 feet. Continued rotation to the extreme disconnects the lamp head from the handle assembly, enabling the operator to replace the bulb when necessary. 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.

This ultra-durable handheld spotlight weighs only 18 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. The booted push button switch is conveniently placed so the user can easily access the switch with their fore finger for quick on/off or even momentary use.

The materials used in the construction of the light are UV, water, impact and chemical resistant. H3 replacement bulbs are readily available at any automotive store in the US. We do offer a spare tungsten based bulb with a H3 base, but any H3 bulb will work fine. The RL-85 spotlight is designed for easy field maintenance. Simple internal connectors are accessed through the snap-in base at the bottom of the handle. The lamp housing is easily removed to access the bulb and wiring.

This rechargeable Larson Electronics RL-85 model includes a rechargeable lithium ion battery and

standard wall charger. While other models on the market have sealed lead acid, nickel metal hydride or rechargeable alkaline batteries, we selected lithium ion for three reasons. Lithium ion is lighter than any other available battery option, which is suitable for our lightweight, ergonomic design. Second, lithium ion batteries do not have “memory” and you can recharge them fully or partially as time permits. Total recharge time is 8 hours and run time is 45 minutes. Finally, lithium ion batteries can hold their charge up to 18 months, unlike Nimh or SLA batteries, which usually hold a charge less than 3 months. This is particularly important for infrequent users who rely on the light for emergency purposes. On a last note, lithium ion batteries offer a greater number of deep cycle recharges than other battery types, which means longer battery life.



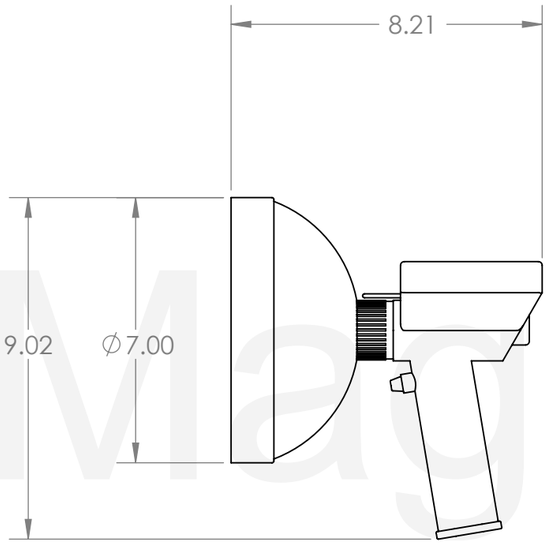
5 inch lens

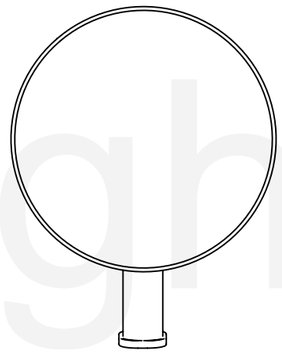


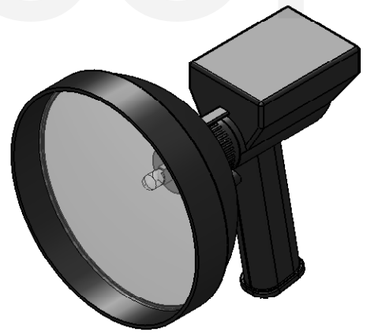
Click Photos to Enlarge

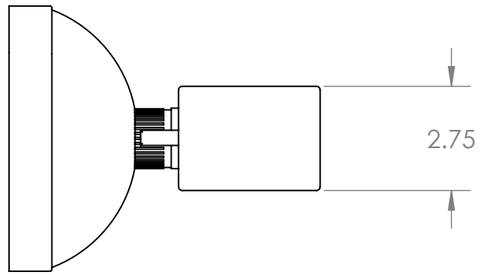
7 inch lens (Optional)

We also now offer a 5 inch diameter and a 7 inch diameter lens. Although the difference is not significant, the 5 inch lens produces a tighter spot beam while the 7 inch lens produces a wider coverage flood pattern.









Magnalight.com

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF Magnalight.com. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION IS PROHIBITED.

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN		
			CHECKED		
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
		MATERIAL	COMMENTS:		
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			

Magnalight.com

TITLE:

HL series (7") - if rechargeable - RL series (7")

SIZE	DWG. NO.	REV
B		D

SCALE: 1:4	WEIGHT:	SHEET 1 OF 1

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

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664



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

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664



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

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664



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

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664



MATERIAL SAFETY DATA SHEET

Model ICR18650S3 Lithium Ion Rechargeable Battery

LG CHEMICAL LTD

1. Chemical Product and Company Identification

Product Identification

LG CHEM ICR18650S3 Lithium-Ion Battery

Manufacturer

LG Chemical Ltd.
Twin Tower
Youido-Dong 120, Youngdeungpo-Ku
Seoul, Korea

Emergency Telephone Number

82-2-3773-7256

2. Composition Information

Hazardous Ingredients	%	CAS Number
Aluminum Foil	2-10	7429-90-5
Metal Oxide (proprietary)	20-50	
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Copper Foil	2-10	7440-50-8
Carbon (proprietary)	10-30	7440-44-0
Electrolyte (proprietary)	10-20	
Stainless steel, Nickel and inert materials	Remainder	N/A

* Equivalent Lithium Content: 0.66g, Electric Power Capacity: 7.92Wh

3. Hazards Identification

Emergency Overview

May explode in a fire, which could release hydrogen fluoride gas.
Use extinguishing media suitable for materials burning in fire.

Primary routes of entry

Skin contact	:	NO
Skin absorption	:	NO
Eye contact	:	NO
Inhalation	:	NO
Ingestion	:	NO

Symptoms of exposure

Skin contact
No effect under routine handling and use.

Skin absorption
No effect under routine handling and use.

Eye contact
No effect under routine handling and use.

Inhalation
No effect under routine handling and use.

Reported as carcinogen
Not applicable

4. First Aid Measures

Inhalation
Not a health hazard.

Eye contact
Not a health hazard.

Skin contact
Not a health hazard.

Ingestion
If swallowed, obtain medical attention immediately.

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED ;

Inhalation
Leave area immediately and seek medical attention.

Eye contact
Rinse eyes with water for 15 minutes and seek medical attention.

Skin contact
Wash area thoroughly with soap and water and seek medical attention.

Ingestion
Drink milk/water and induce vomiting; seek medical attention.

5. Fire Fighting Measures

General Hazard
Cell is not flammable. Combustion products include, but are not limited to hydrogen fluoride, carbon monoxide and carbon dioxide.

Extinguishing Media
Use extinguishing media suitable for the materials that are burning.

Special Firefighting Instructions
If possible, remove cell(s) from fire fighting area. If heated above 160°C, cell(s) may explode/vent.

Firefighting Equipment
Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

6. Accidental Release Measures

On Land
Place material into suitable containers and call local fire/police department.

In Water
If possible, remove from water and call local fire/police department.

7. Handling and Storage

Handling
No special protective clothing required for handling individual cells.

Storage
Store in a cool, dry place.

8. Exposure Controls / Personal Protection

Engineering controls

Keep away from heat and open flame. Store in a cool dry place.

Personal Protection

Respirator

Not required during normal operations. SCBA required in the event of a fire.

Eye/face protection

Not required beyond safety practices of employer.

Gloves

Not required for handling of cells.

Foot protection

Steel toed shoes recommended for large container handling.

9. Physical and Chemical Properties

State	Solid
Odor	N/A
PH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

10. Stability and Reactivity

Reactivity
None

Incompatibilities
None during normal operation. Avoid exposure to heat, open flame, and corrosives.

Hazardous Decomposition Products
None during normal operating conditions. If cells are opened, hydrogen fluoride and carbon monoxide may be released.

Conditions To Avoid
Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

11. Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

Sensitization	Teratogenicity	Reproductive toxicity	Acute toxicity
NO	NO	NO	NO

If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

12. Ecological Information

Some materials within the cell are bioaccumulative. Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

13. Disposal Considerations

California regulated debris

RCRA Waste Code : Nonregulated

Dispose of according to all federal, state, and local regulations.

14. Transport Information

Lithium Ion batteries are considered to be "Rechargeable batteries" and meet the requirements of transportation by the U.S. Department of Transportation(DOT), International Civil Aviation Administration(ICAO), The 50th edition of International Air Transportation Association(IATA, 2009) special provision A45/A154 and belong to non-dangerous goods.

15. Regulatory Information

OSHA hazard communication standard (29 CFR 1910.1200)

_____Hazardous ____✔___Non-hazardous

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

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664

Frequently Asked Questions (FAQ)

There are no Faqs