

## RAB Lighting LS300

# RAB Lighting LS300 Lighting Sensor User Manual

Model: LS300

## 1. INTRODUCTION

The RAB Lighting LS300 is a high-performance lighting sensor designed for outdoor applications. It features a 300W switching capacity, adjustable positioning, and a double-layer infrared detection pattern to enhance security and convenience. This manual provides essential information for the safe and effective installation, operation, and maintenance of your LS300 sensor.

## 2. SAFETY INFORMATION

**WARNING:** Risk of electric shock. Installation requires knowledge of electrical systems. If you are not qualified, do not attempt installation. Contact a qualified electrician. Disconnect power at the circuit breaker before installation or servicing.

- Ensure all wiring connections are secure and comply with local electrical codes.
- Do not install near flammable materials or in areas with explosive gases.
- This product is designed for outdoor, wet area usage. Ensure all seals and gaskets are properly seated during installation to maintain its weather resistance.
- Operate within the specified voltage (120 Volts) and wattage (300 watts) limits.

## 3. PRODUCT FEATURES

The RAB LS300 Lighting Sensor offers the following key features:

- **300W Switching Capacity:** Capable of controlling lighting fixtures up to 300 watts.
- **Adjustable Positioning:** Allows for precise aiming of the sensor's detection area.

- **Double-Layer Infrared Detection Pattern:** Enhances detection accuracy and reduces false triggers.
- **Damage-Resistant Lens and Grill:** Constructed from corrosion-resistant polycarbonate for durability.
- **Manual Override with Automatic Reset:** Provides temporary control over the lighting, reverting to automatic operation after a set period.
- **Radio Frequency Immunity:** Designed to resist interference from radio signals.
- **6000 Volt Surge Protection:** Protects the sensor from electrical surges.

## 4. SETUP AND INSTALLATION

The LS300 sensor is designed for wall mount installation. Follow these steps for proper setup:

1. **Prepare for Installation:** Turn off power at the circuit breaker before beginning any electrical work. Ensure the mounting surface is stable and suitable for the sensor.
2. **Mount the Sensor:** Securely attach the LS300 sensor to the desired wall location using appropriate hardware. The sensor should be mounted at a height that allows for optimal detection coverage.
3. **Wire the Sensor:** Connect the sensor to your lighting fixture and power supply according to the wiring diagram provided with the product packaging. Ensure all connections are tight and insulated. The sensor operates on 120 Volts.
4. **Adjust Positioning:** Once mounted, adjust the sensor head to cover the desired detection area. The sensor offers a 110-degree view.



Image 1: The RAB Lighting LS300 Luminator Sensor, showing its design and adjustable arm.



Image 2: Diagram illustrating the 110-degree motion sensor detection range of the LS300.

## 5. OPERATING INSTRUCTIONS

The LS300 sensor is designed for automatic operation, but offers adjustable settings for customization.

- **Sensitivity Adjustment:** The sensor's sensitivity can be adjusted from 100% down to 50%. Use the control dial (refer to product diagram in packaging) to set the desired detection range. Higher sensitivity detects motion at greater distances, while lower sensitivity reduces the detection area, which can be useful in high-traffic areas or near moving objects like trees.
- **Manual Override:** The LS300 includes a manual override feature. To activate, typically you would cycle the power switch (ON-OFF-ON) within a short period. The light will then stay on continuously. The sensor will automatically reset to its normal automatic operation after a set time, or when the power is cycled again.
- **Detection Pattern:** The double-layer infrared detection pattern helps to differentiate between small animals and human movement, minimizing false activations.



Image 3: Illustration showing the adjustable sensitivity feature of the Luminator sensor, ranging from 100% to 50%.

## 6. MAINTENANCE

The RAB LS300 Lighting Sensor is designed for minimal maintenance due to its durable construction.

- **Cleaning:** Periodically clean the sensor lens with a soft, damp cloth to remove dirt, dust, or debris that may obstruct its detection capabilities. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly inspect the sensor for any signs of physical damage or loose connections. The damage-resistant lens and grill, made of corrosion-resistant polycarbonate, provide protection against environmental elements.



Image 4: Close-up view of the vandal-resistant lens of the Luminator sensor, made from corrosion-resistant polycarbonate.

## 7. TROUBLESHOOTING

If your LS300 sensor is not functioning as expected, consider the following common issues and solutions:

- **Light Stays On Continuously:**

*Possible Cause:* Manual override activated. Sensor sensitivity too high.

*Solution:* Cycle power to reset manual override. Reduce sensitivity setting. Check for constant heat sources or movement within the detection zone.

- **Light Does Not Turn On:**

*Possible Cause:* No power. Sensor head misaligned. Sensitivity too low. Bulb failure.

*Solution:* Check circuit breaker. Ensure sensor is aimed correctly. Increase sensitivity. Test or replace the light bulb.

- **False Triggers (Light Turns On Without Apparent Motion):**

*Possible Cause:* Sensor sensitivity too high. Movement of trees/shrubs, passing cars, or animals. Heat sources like vents or reflections.

*Solution:* Reduce sensitivity. Re-aim sensor to avoid problematic areas. Trim foliage.

- **Limited Detection Range:**

*Possible Cause:* Sensor head misaligned. Sensitivity too low. Obstructions.

*Solution:* Adjust sensor head for optimal coverage. Increase sensitivity. Clear any obstructions blocking the sensor's view.

## 8. SPECIFICATIONS

Specification	Value
Model Number	LS300
Manufacturer	RAB Lighting
Item Weight	9.6 ounces
Color	Bronze
Material	Metal
Power Source	Corded Electric
Voltage	120 Volts
Wattage	300 watts
Type of Bulb	Incandescent (compatible)
Mounting Type	Wall Mount
Plug Format	A- US style
Certification	UL
Usage	Outdoor, Wet areas, Pathway, Patio, Deck, Yard, Garden, Garage
Detection Angle	110 Degrees

## 9. WARRANTY INFORMATION

The RAB Lighting LS300 Lighting Sensor is covered by a manufacturer's warranty. Please refer to the warranty documentation included with your product packaging for specific terms, conditions, and duration. Keep your proof of purchase for warranty claims.

## 10. SUPPORT

For technical assistance, troubleshooting beyond this manual, or to inquire about replacement parts, please contact RAB Lighting customer support. Visit the official RAB Lighting website for contact information and additional resources.

**Website:** [www.rablighting.com](http://www.rablighting.com)