Greluma ZL859LUM

Greluma AC 220V 25A Photocell Sensor Switch

User Manual

Model: ZL859LUM | Brand: Greluma

1. Product Overview

The Greluma AC 220V 25A Photocell Sensor Switch is an automatic control device designed to manage lighting based on ambient light conditions. It ensures that connected luminaires activate automatically in darkness and deactivate during daylight hours, promoting energy efficiency and convenience.

This switch is suitable for various applications, including building facades, outdoor plots, gardens, and industrial areas. Its robust construction ensures durability and reliable performance in diverse environments.

Image 1.1: The Greluma AC 220V 25A Photocell Sensor Switch, showcasing its compact design.

Key Features:

- **Automatic Detection:** Automatically turns lights on at dusk and off at dawn.
- **Energy Efficiency:** Reduces power consumption by ensuring lights are only active when needed.
- **Durable Construction:** Made from high-quality, weather-resistant plastic for extended lifespan.
- **Easy Installation:** Compact and lightweight design facilitates straightforward setup.
- **Wide Application:** Versatile for use in public lighting, gardens, roads, factories, and schools.

2. Safety Information

Please read all safety instructions carefully before installing or operating this device. Failure to follow these instructions may result in electric shock, fire, or other hazards.

- **Electrical Hazard:** Installation should only be performed by a qualified electrician or competent person.
- **Power Disconnection:** Always disconnect power at the circuit breaker or fuse box before installation, maintenance, or troubleshooting.

- **Voltage Compatibility:** Ensure the supply voltage (AC 220V) matches the device's specifications.
- **Current Rating:** Do not exceed the maximum current rating of 25A.
- **Environmental Conditions:** Install the device in a location protected from direct water spray and extreme temperatures, although it is weather-resistant.
- **Secure Mounting:** Ensure the device is securely mounted to prevent accidental dislodgement.

3. Package Contents

Verify that all components are present and undamaged upon opening the package:

- 1 x Greluma Photocell Sensor Switch (Model: ZL859LUM)
- 1 x Mounting Bracket
- Mounting Screws and Wall Plugs

4. Product Components

Familiarize yourself with the main parts of the photocell sensor switch.

Image 4.1: Disassembled view of the photocell sensor switch, showing the main housing, sensor cap, and wiring terminal.

Image 4.2: Exploded view illustrating the individual components including the sensor unit, base, mounting bracket, and cable gland.

5. Specifications

Parameter	Value
Model Number	ZL859LUM
Input Voltage	AC 220V
Max Current Load	25A
Light Sensitivity	Adjustable 5-50 Lux
Dimensions (L x W x H)	10 x 8.5 x 8.5 cm
Weight	152 g

Parameter	Value
Material	High-quality, weather-resistant plastic
Country of Origin	China

6. Setup

Before proceeding with installation, ensure you have the necessary tools and have reviewed the safety information.

1. **Choose Location:** Select a mounting location where the sensor will receive natural ambient light without being obstructed by shadows or directly illuminated by the controlled light source. Avoid locations near reflective surfaces or other light sources that could interfere with its operation.
2. **Prepare Wiring:** Identify the power supply wires (Line, Neutral) and the load wires (to the light fixture).
3. **Power Off:** Crucially, turn off the main power supply to the circuit at the breaker before any wiring work.

7. Installation

Follow these steps for proper installation of the photocell sensor switch.

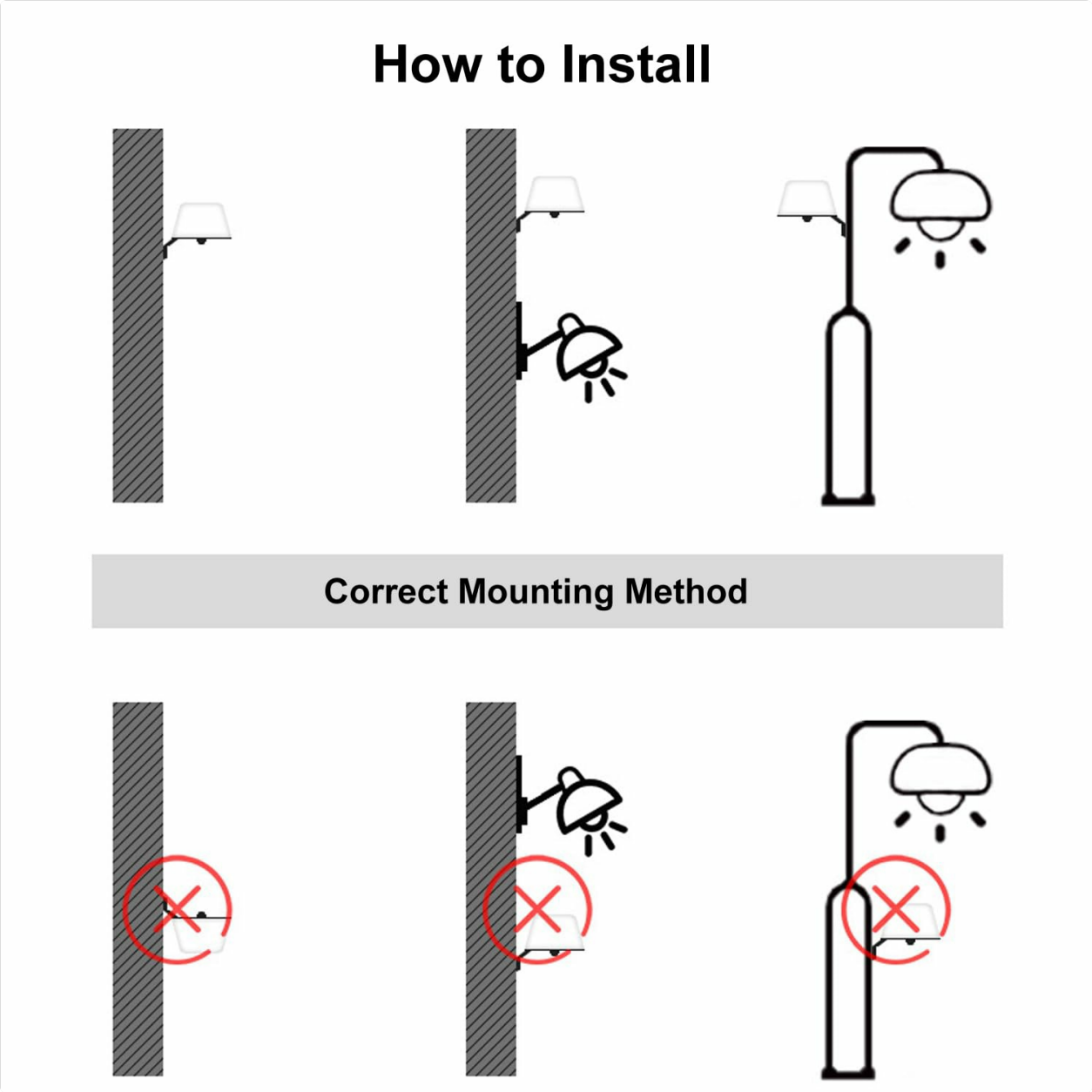

Image 7.1: Illustration of correct and incorrect mounting methods. Ensure the sensor is not obstructed or facing the controlled light source.

1. **Mounting:** Use the provided mounting bracket and screws to securely attach the sensor switch to a wall or pole. Ensure the 'UP' arrow on the bracket points upwards. The sensor should be positioned to detect ambient light effectively, away from direct light of the fixture it controls.
2. **Wiring:** Refer to the wiring diagram below. Connect the input power (Line and Neutral) and the output load wires to the corresponding terminals inside the sensor switch. Ensure all connections are tight and secure.

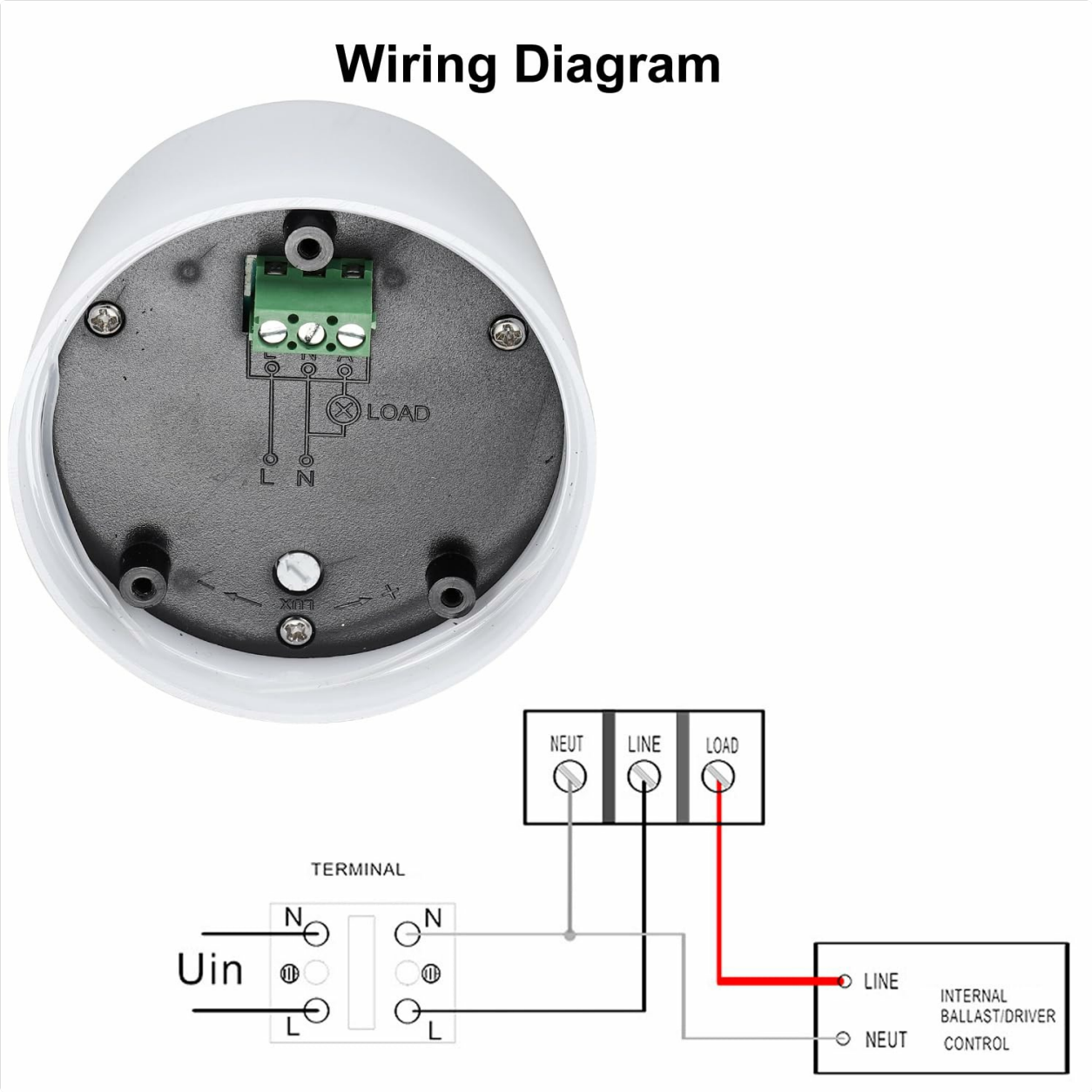

Image 7.2: Detailed wiring diagram showing connections for Neutral (N), Line (L), and Load. Follow local electrical codes.

3. **Secure Cover:** Once wiring is complete, carefully reattach the sensor cover, ensuring it is properly sealed to maintain weather resistance.
4. **Test:** Restore power to the circuit. The light should turn on if it is dark, or off if it is bright. You can test by covering the sensor to simulate darkness.

Image 7.3: Example of a correctly installed photocell sensor switch on an exterior wall.

8. Operating Instructions

The Greluma Photocell Sensor Switch operates automatically based on ambient light levels.

Image 8.1: The sensor automatically detects ambient light to control connected lighting.

- **Automatic On/Off:** The sensor will automatically turn on the connected lights when the ambient light level falls below the set sensitivity threshold (dusk) and turn them off when the light level rises above the threshold (dawn).
- **Sensitivity Adjustment:** The twilight sensitivity can be adjusted between 5 and 50 Lux. This adjustment is typically done via a small dial or screw located on the sensor unit (refer to product components for exact location if available). Adjusting this allows you to fine-tune when the lights turn on or off based on your specific environmental conditions and preferences.

9. Maintenance

Regular maintenance ensures optimal performance and longevity of your photocell sensor switch.

- **Cleaning:** Periodically clean the sensor lens with a soft, damp cloth to remove dust, dirt, or debris that may accumulate and interfere with light detection. Do not use abrasive cleaners.
- **Inspection:** Annually inspect the wiring connections for any signs of corrosion or loosening. Check the housing for cracks or damage.
- **Obstruction Check:** Ensure no new obstructions (e.g., growing foliage, new structures) are blocking the

sensor's view of ambient light.

- **Power Off:** Always disconnect power before performing any cleaning or inspection.

10. Troubleshooting

If you encounter issues with your photocell sensor switch, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Lights stay on during the day.	Sensor is obstructed or not receiving enough light. Sensitivity setting is too low.	Clear any obstructions from the sensor. Adjust the sensitivity setting to a higher Lux value.
Lights do not turn on at night.	Sensor is receiving too much light (e.g., from a nearby street light). Wiring issue. Sensitivity setting is too high.	Relocate the sensor or shield it from interfering light sources. Check all wiring connections. Adjust the sensitivity setting to a lower Lux value.
Lights flicker.	Intermittent power supply. Sensor is near a fluctuating light source. Faulty wiring.	Check power supply stability. Relocate the sensor. Inspect and secure wiring connections.
No power to the light.	Blown fuse or tripped circuit breaker. Incorrect wiring. Faulty light fixture.	Check and reset circuit breaker/replace fuse. Verify wiring against the diagram. Test the light fixture independently.

If the problem persists after attempting these solutions, contact a qualified electrician or Greluma customer support.

11. Applications

The Greluma Photocell Sensor Switch is versatile and can be used in a variety of indoor and outdoor settings to automate lighting.

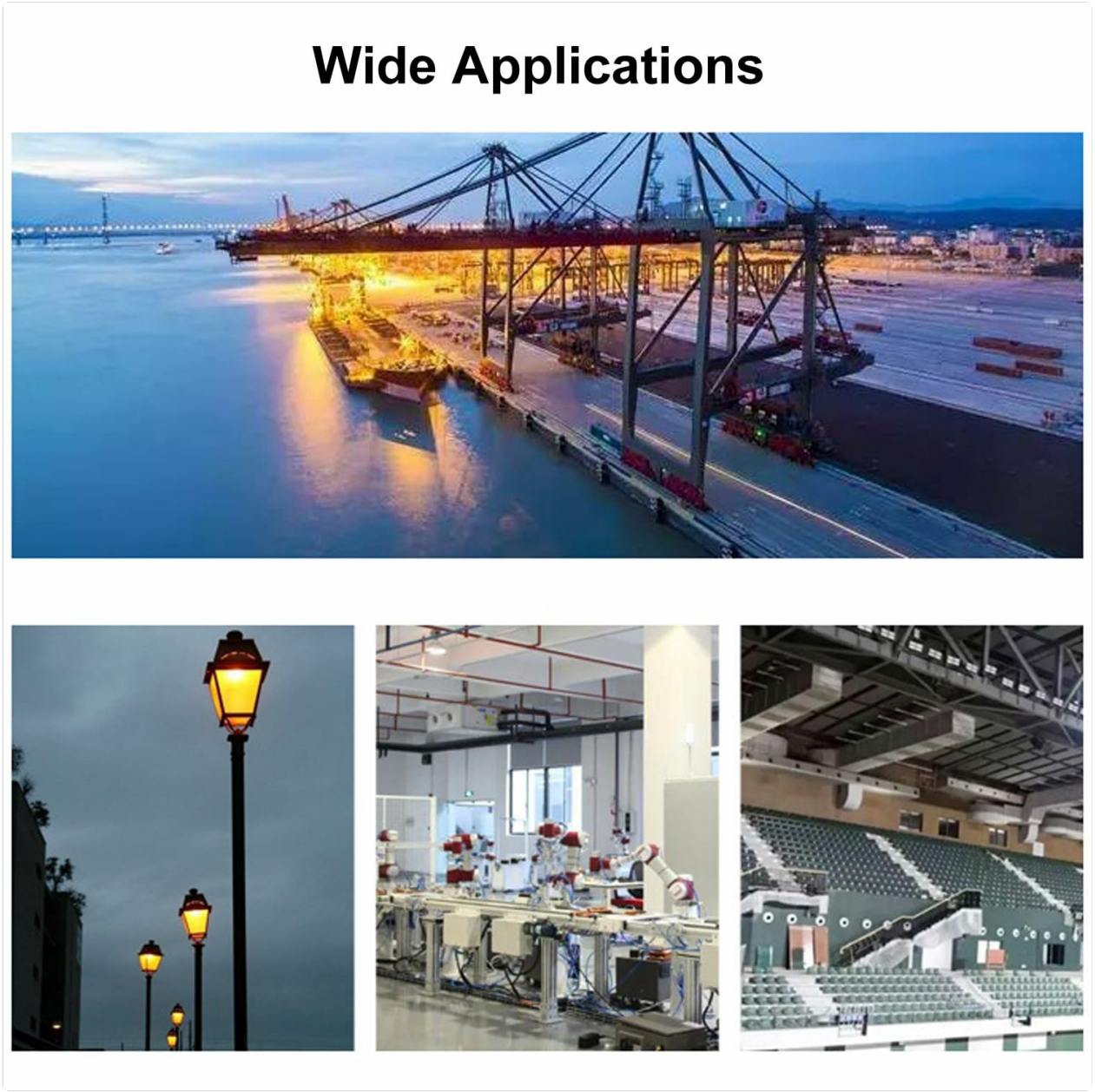

Image 11.1: The sensor switch is suitable for diverse environments such as public lighting, industrial facilities, and large outdoor areas.

- **Public Lighting:** Ideal for streetlights, park lights, and pathway illumination.
- **Commercial Buildings:** Controls exterior lighting for facades, parking lots, and security.
- **Residential Use:** Automates garden lights, porch lights, and landscape lighting.
- **Industrial Settings:** Manages lighting in factories, warehouses, and outdoor work areas.
- **Educational Institutions:** Suitable for school grounds and campus lighting.

12. Warranty and Support

Greluma products are manufactured to high-quality standards. This product comes with a standard manufacturer's warranty against defects in materials and workmanship. Please retain your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or warranty inquiries, please contact Greluma customer service through the retailer where the product was purchased or visit the official Greluma website for contact information.