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› Raycharm 9.1-inch Low-Profile LED Awning Light Fixture (Model 289W-01) User Manual

Raycharm 289W-01

Raycharm 9.1-inch Low-Profile LED Awning Light Fixture

Brand: Raycharm | **Model:** 289W-01

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Raycharm 9.1-inch Low-Profile LED Awning Light Fixture. This fixture is designed for 12V/24V DC mobile lighting applications, such as RVs and boats, providing a 40-degree down-angle focused flood beam with 6000K cool-white illumination.

2. SAFETY INFORMATION

- This light is primarily designed for 12-24 VDC mobile lighting systems. For household installations, it is strongly recommended that a professional electrician performs the work in strict accordance with safety standards.
- Always cut off the power source before performing any installation or wiring procedures to prevent electrical shock.
- Avoid direct eye exposure to the LED light beam when the lights are illuminated, as the high intensity can cause discomfort or temporary vision impairment.

3. SPECIFICATIONS

Feature	Detail
Wattage	18 Watt per Light
Voltage	12V/24V DC
Current Draw	1,500 mA@12V, 700 mA@24V
Switch Type	No Switch Available (Hardwired)
Color Temperature	6000K Cool-White
Finish	White
Working Temperature	-40°C ~ +50°C
Housing Materials	Aluminum
Lens Materials	Polycarbonate
Lens Color	Clear
Power Wire Length	15.7 in. (40 cm)
Wire Gauge	18 AWG
Lumen Output	1450 lm
Waterproof Rating	IP67
Product Type	Exterior Light
Net Weight per light	0.93 lbs. (0.42 kg)
Product Length	9.08 in. (230.7 mm)
Quality Warranty	2 Years

4. PACKAGE CONTENTS

- Raycharm 9.1-inch Low-Profile LED Awning Light Fixture
- Mounting screws
- Mounting caps
- Rubber backing seal (for waterproof installation)

5. INSTALLATION

The Raycharm LED Awning Light Fixture is designed for simple surface-mount installation. Ensure the power source is disconnected before beginning.

5.1. Dimensions and Components

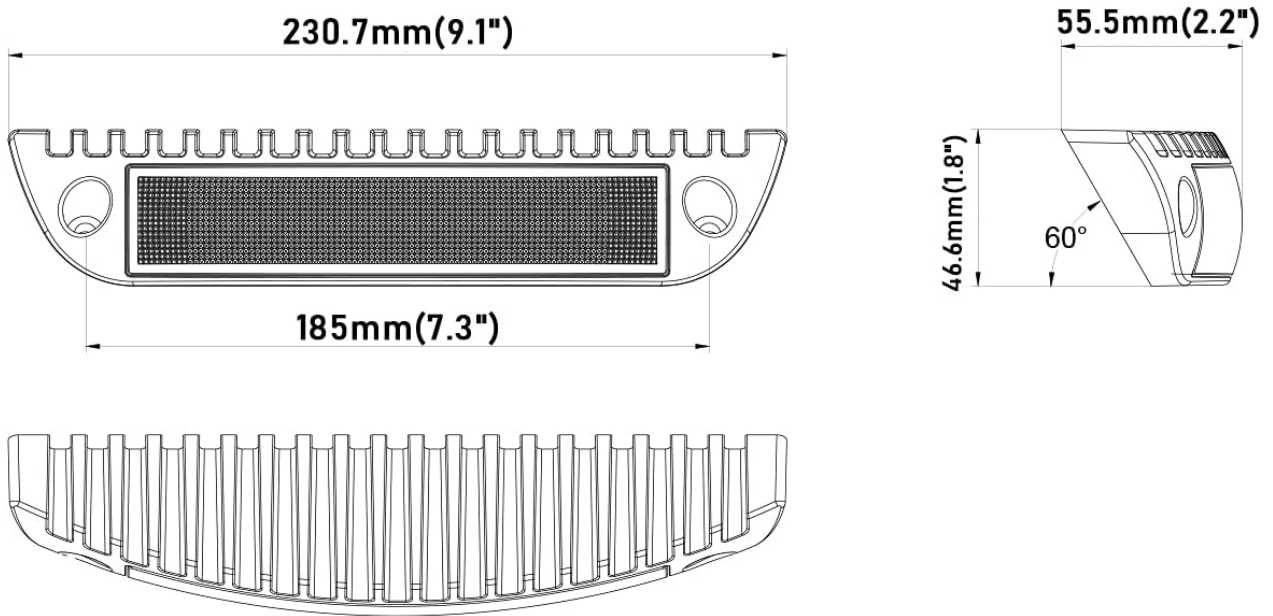


Figure 1: Product Dimensions



Figure 2: Back of the Light Fixture and Mounting Hardware

5.2. Mounting Steps

1. **Select Location:** Choose a flat surface on your RV or boat where the light will be mounted. Ensure there is sufficient space and access for wiring.
2. **Mark Drill Points:** Use the light fixture or the rubber backing seal as a template to mark the two mounting screw locations.
3. **Drill Pilot Holes:** Carefully drill pilot holes at the marked locations.
4. **Prepare Wiring:** Route the power wires (red for positive, black for negative) from your 12V/24V DC power source to the mounting location. Ensure the power is OFF.
5. **Connect Wires:** Connect the light fixture's red wire to the positive (+) power wire and the black wire to the negative (-) power wire. Secure connections with appropriate connectors (not included).
6. **Mount Fixture:** Place the rubber backing seal between the light fixture and the mounting surface. Align the fixture with the pilot holes and secure it using the provided screws.

7. **Cover Screws:** Insert the mounting caps into the screw holes for a clean finish and added protection.

5.3. Installation Demonstration Video

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Video 1: This video demonstrates the simple installation process of a similar Raycharm RV LED exterior light, including wiring and mounting.

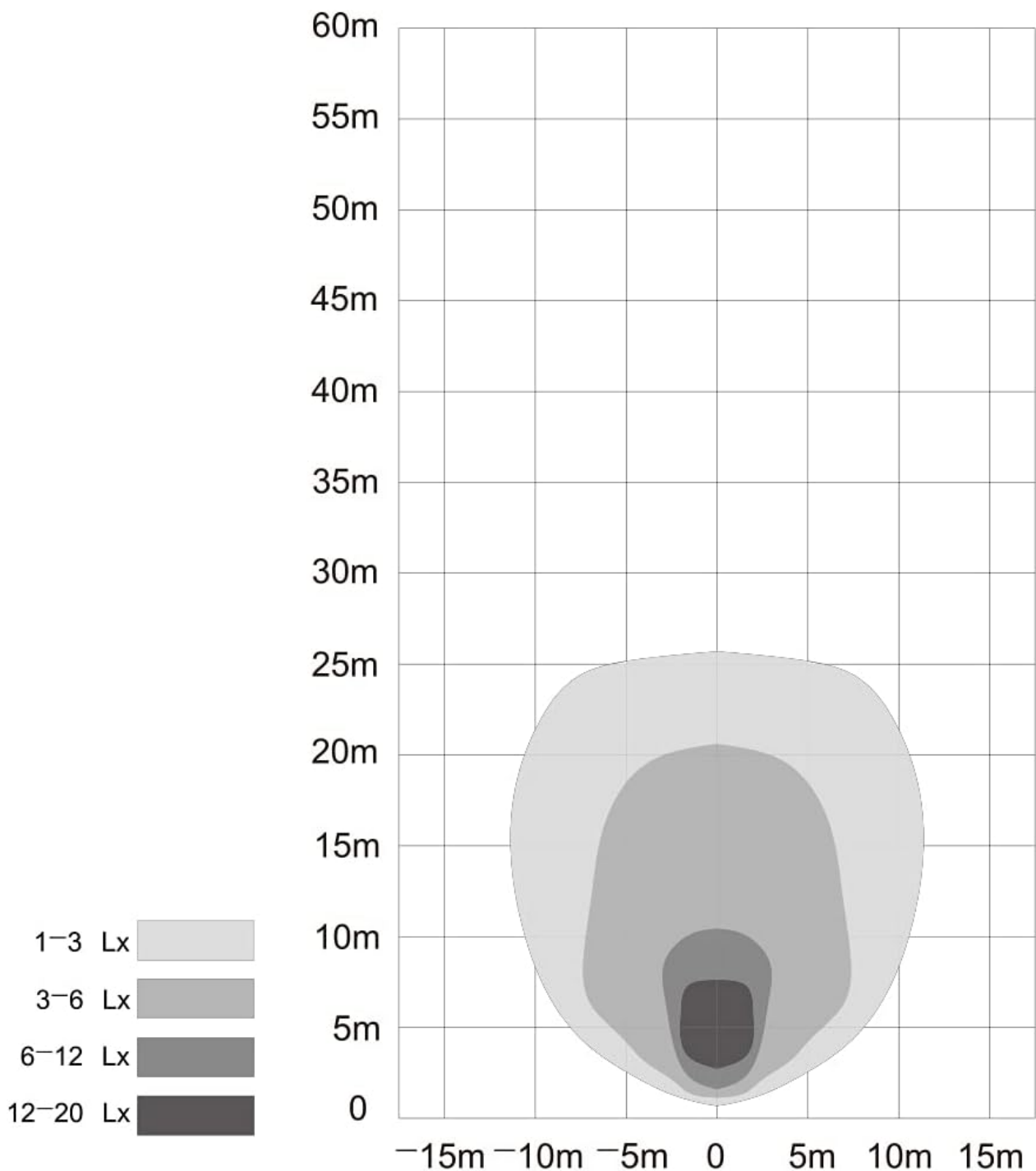
6. OPERATION

Once properly installed and wired to a 12V/24V DC power source, the light fixture will illuminate when power is supplied. This model does not include an integrated switch and is designed for hardwired operation, typically controlled by an external switch in your vehicle's electrical system.

6.1. Light Output and Beam Pattern



Figure 3: Illuminated Light Fixture



Beam Pattern Diagram

Figure 4: Beam Pattern Diagram

7. MAINTENANCE

- **Cleaning:** Clean the lens and housing periodically with a soft cloth and mild soap solution. Avoid abrasive cleaners or solvents that could damage the polycarbonate lens or white finish.
- **Inspection:** Regularly inspect the wiring and mounting for any signs of wear, corrosion, or looseness. Ensure the rubber backing seal remains intact to maintain its waterproof rating.
- **Water Ingress:** While the product has an IP67 waterproof rating, some users have reported issues with water ingress over time. If you notice moisture inside the lens, inspect the seals and mounting points. Re-sealing with a marine-grade sealant may be necessary to prevent damage.

8. TROUBLESHOOTING

- **Light Not Illuminating:**

- Check the power source to ensure it is supplying 12V/24V DC.
- Verify all wiring connections are secure and correctly polarized (red to positive, black to negative).
- Inspect for any blown fuses in the circuit.

- **Flickering Light:**

- Check for loose wiring connections.
- Ensure the voltage supply is stable and within the 12V/24V DC range.

- **Reduced Brightness:**

- Clean the lens surface to remove any dirt or debris.
- Verify the power supply is adequate and not experiencing voltage drop.

9. WARRANTY AND SUPPORT

The Raycharm 9.1-inch Low-Profile LED Awning Light Fixture comes with a **2-year quality warranty**. For warranty claims, technical support, or any product-related inquiries, please contact Raycharm customer service through your original point of purchase or visit the official Raycharm website for contact information.