Cleiscry UVA3W365NM

Cleiscry 10pcs 3W UV LED Ultraviolet Bulbs Lamp Chips User Manual

Model: UVA3W365NM

1. Introduction

This manual provides essential information for the safe and effective use of your Cleiscry 10pcs 3W UV LED Ultraviolet Bulbs Lamp Chips. Please read these instructions carefully before installation and operation to ensure optimal performance and longevity of the product.

2. Safety Information

- **UV Radiation Warning:** Ultraviolet (UV) light can be harmful to eyes and skin. Avoid direct exposure to the UV light emitted by these LEDs. Always wear appropriate UV protective eyewear and skin protection when operating these lights.
- **Electrical Safety:** These are high-power LED components. Ensure proper electrical connections and use a suitable power supply. Incorrect wiring or voltage can damage the LEDs or pose an electrical hazard.
- **Heat Management:** 3W LEDs generate significant heat. A heat sink system is absolutely essential for proper operation and to achieve the stated 50,000-hour lifespan. Operating without adequate heat dissipation will lead to rapid degradation and failure.
- **Handling:** Handle LED chips with care. Avoid touching the LED surface directly to prevent contamination or damage.
- **Indoor/Outdoor Use:** These LEDs are rated for outdoor usage, but ensure all connections and power supplies are appropriately sealed and protected from environmental elements if used outdoors.

3. Product Overview

The Cleiscry 3W UV LED Ultraviolet Bulbs Lamp Chips are designed for various applications requiring high-power UV light in the 365nm-370nm range. Each package contains 10 individual LED chips mounted on a 20mm PCB base, facilitating easier integration into custom lighting projects.

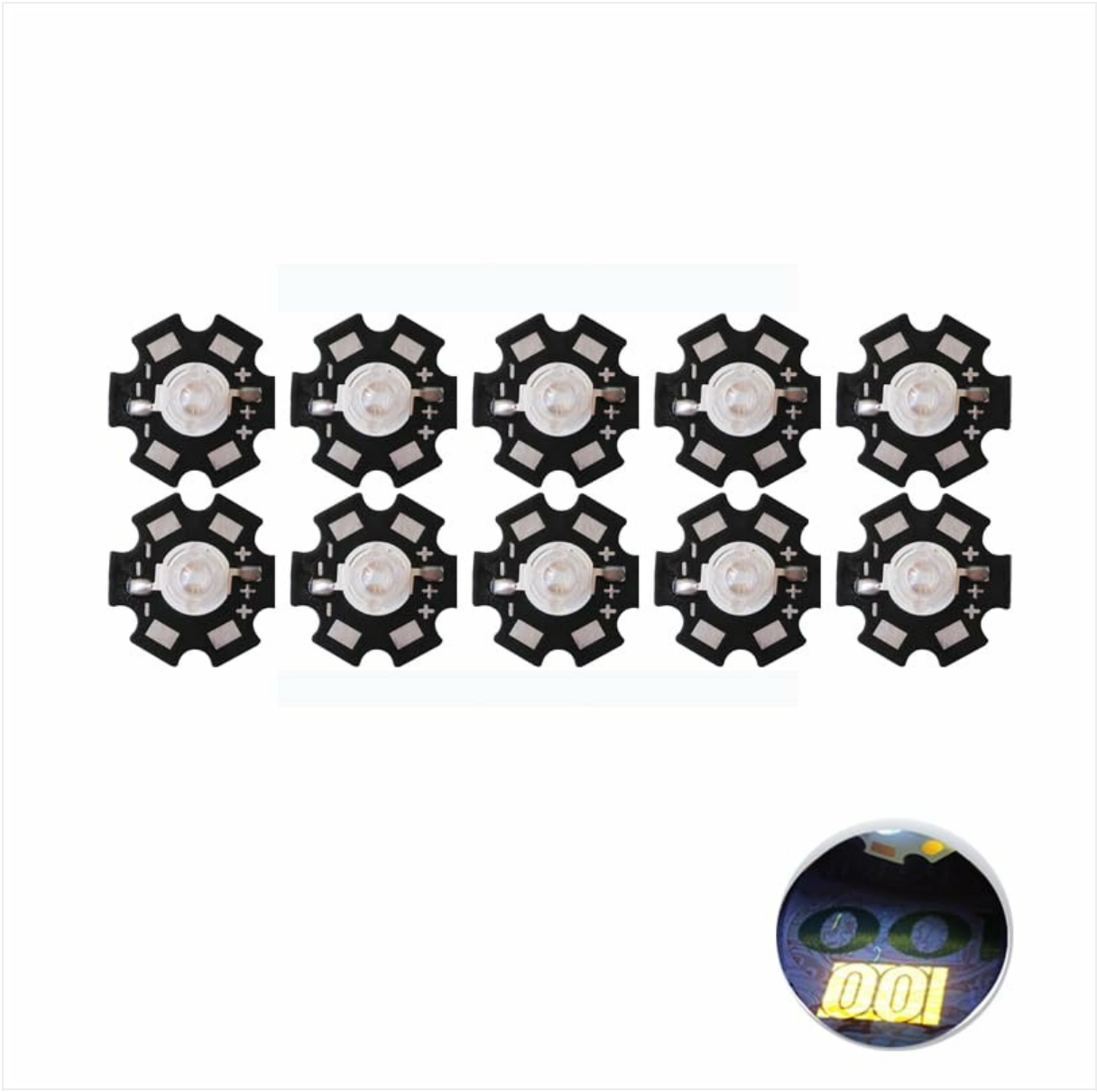

Figure 1: Cleiscry 10pcs 3W UV LED Ultraviolet Bulbs Lamp Chips with 20mm PCB.

4. Specifications

Detailed technical specifications for the Cleiscry 3W UV LED chips:

Feature	Specification
Quantity	10 pieces
Power	3 Watt (Max)
Emitting Color	Ultraviolet (UV)
Wavelength	365nm - 370nm
Recommended Current	400-700mA
Forward Voltage	3.2V - 3.8V
Emitting Angle	120-140 degree
Life Span	50,000 Hours (with proper heat management)

Feature	Specification
PCB Base Diameter	20mm
Accepted Voltage Frequency	100 to 240 Volts and 50 Hertz to 60 Hertz (for power supply, not LED directly)
Control Method	Touch (implies external control, not integrated)
Indoor/Outdoor Usage	Outdoor

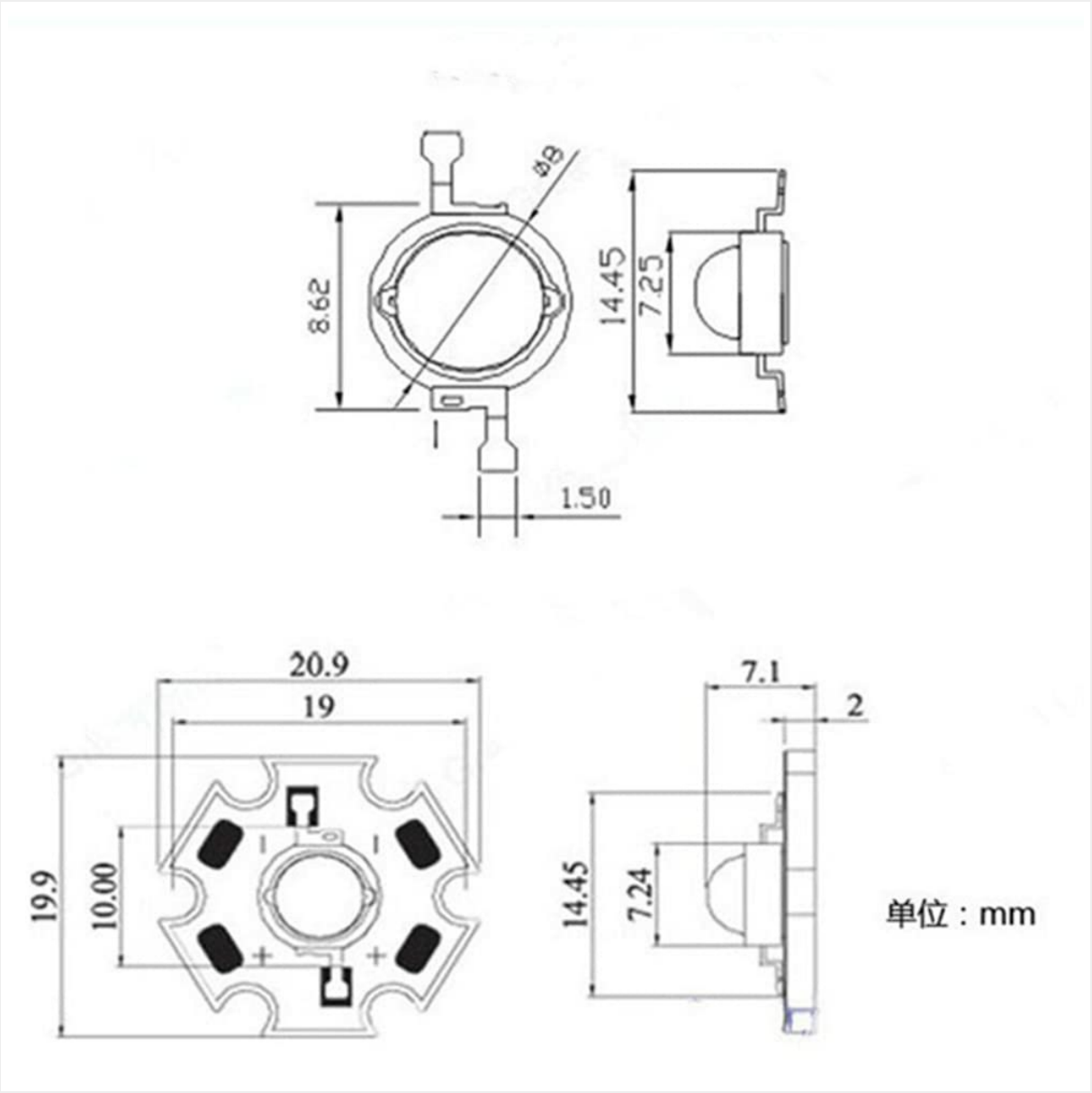

Figure 2: Dimensions of the 3W UV LED Chip and PCB.

5. Setup

Proper setup is crucial for the performance and longevity of your UV LEDs.

1. **Heat Sink Attachment:** Each 3W UV LED *must* be mounted onto an appropriate heat sink. Use thermal paste or a thermal adhesive pad between the LED PCB and the heat sink to ensure efficient heat transfer. Without a heat sink, the LED will overheat and fail prematurely.
2. **Electrical Connection:** Identify the positive (+) and negative (-) terminals on the LED PCB. Connect the LED to a constant current LED driver or a suitable power supply that provides the recommended current

(400-700mA) and voltage (3.2-3.8V). Ensure correct polarity. Incorrect polarity will prevent the LED from lighting up and may cause damage.

3. **Series/Parallel Wiring:** If connecting multiple LEDs, consult an electronics guide for proper series or parallel wiring configurations based on your power supply's specifications.
4. **Mounting:** Secure the LED and heat sink assembly in your desired application. Ensure the mounting allows for adequate airflow around the heat sink for cooling.

6. Operating

Once properly installed and connected, operating the UV LEDs is straightforward.

1. **Power On:** Apply power to your LED driver/power supply. The UV LEDs should illuminate.
2. **Observe Heat:** During initial operation, monitor the temperature of the heat sink. It should become warm but not excessively hot. If the heat sink is too hot to touch, your heat management system may be insufficient, or the LED is being overdriven. Immediately disconnect power and re-evaluate your setup.
3. **UV Protection:** Always wear UV protective eyewear when the LEDs are active.

7. Maintenance

These UV LEDs require minimal maintenance, but proper care ensures their longevity.

- **Cleaning:** If the LED surface or heat sink accumulates dust, gently clean it with a soft, dry cloth. For stubborn dirt on the LED surface, use a lint-free cloth lightly dampened with isopropyl alcohol. Ensure the LED is powered off and cooled before cleaning.
- **Heat Sink Inspection:** Periodically check the heat sink for any obstructions to airflow. Ensure it remains securely attached to the LED PCB.
- **Connection Check:** Occasionally inspect electrical connections for any signs of corrosion or loosening.

8. Troubleshooting

If you encounter issues with your UV LEDs, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
LED does not light up	No power; Incorrect polarity; Faulty wiring; Faulty LED driver/power supply; Damaged LED.	Check power source; Verify positive/negative connections; Inspect all wiring; Test LED driver; Replace LED if damaged.
LED is dim or flickers	Insufficient current; Loose connection; Overheating.	Ensure power supply provides adequate current; Check all connections; Verify heat sink is properly installed and functioning.
LED overheats rapidly	No heat sink; Inadequate heat sink; Overcurrent from power supply.	Install a suitable heat sink; Upgrade to a larger/more efficient heat sink; Verify power supply output current matches LED specifications.
Short lifespan	Consistent overheating; Overcurrent; Voltage spikes.	Ensure proper heat management; Use a regulated power supply within specified current/voltage; Protect from electrical surges.

9. Warranty and Support

This product is typically covered by a 10-day replacement policy from the date of purchase, subject to the terms and conditions of the retailer. For specific warranty claims or technical support, please contact your point of purchase or the manufacturer, Cleiscry, with your purchase details and model number (UVA3W365NM). Please retain your proof of purchase for any warranty-related inquiries.