

White LED Array



Description

Thorlabs' LIUCWHA LED array light source has a broadband white output with an intensity of 3.0 mW/cm². Conveniently mounted in Ø1.5" housing for compatibility with Thorlabs cage systems, these light sources can be used for a variety of lighting applications.

The array is composed of 20 LEDs mounted close to each other and protected by special LED driver integrated circuits. The LEDs are divided into several strings, with the LEDs within each string connected in series; all of the strings are then driven in parallel. Due to this design, the LED array is not dimmable. To avoid overheating, the maximum current is limited to 20 mA on each string, despite the higher maximum current rating of the individual LEDs.

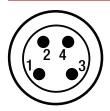
This LED array should only be driven by the LIU-PS power supply, which must be purchased separately.

Specifications

LIUCWHA	
Color	White
Central Wavelength	N/A
Intensity ^a	3.0 mW/cm ²
Total Output Power	250 mW
Supply Voltage ^b	24 V
Typical Max Current	80 mA
Operating Temperature (Non-Condensing)	0 to 40 °C
Storage Temperature	-40 to 70 °C
Weight	0.052 kg
Risk Group ^c	RG2 - Moderate Risk Group

- a. Measured at a distance of 100 mm from the LED along the emission axis.
- b. The LEDs are controlled by IC drivers. The supply voltage of 24 V is required for proper operation.
- c. According to the standard IEC 62471:2006, Photobiological Safety of Lamps and Lamp Systems.

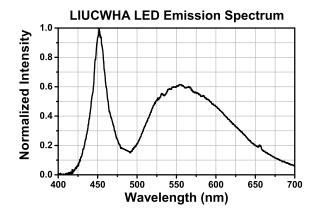
Pin Diagram

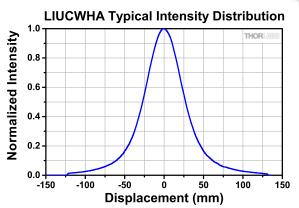


Pin	Description
1	+24 VDC
2	Ground
3	Not Connected
4	Not Connected



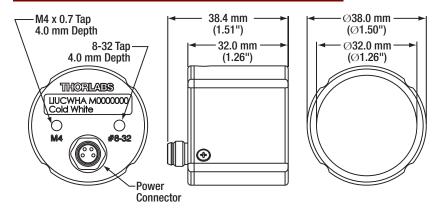
Spectrum





Intensity distribution of the LED in the plane located 100 mm from the LED along the emission axis.

Drawing



Warning Statement

This LED radiates intense light during operation. Precautions must be taken to prevent looking directly at the light. If viewing the LED directly is necessary, protective glasses must be worn to avoid eye damage. Do not look directly into the LED or look through the optical system during operation, as this can be harmful to the eyes, even for brief periods of exposure due to the high intensity of the light.

Please note that this product is not suitable for household room illumination.





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