

# Datasheet

## **LuxaLight Aluminium LED Panel UV-A 365nm 300W 500 x 500mm Nano Waterproof (48V, 2835, IP64)**

**LP-48-365-300-500x500-2835**

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## Product description

The **LuxaLight Industrial Curing LED Panel 300W** is designed for intensive industrial applications that require high radiation intensity for curing materials. With a powerful output of 300W, a wavelength of 365nm, and a size of 500mm x 500mm, this LED panel provides a reliable and efficient solution for curing a wide range of coatings, resins, and other materials in industrial settings. The panel features an industrial-grade silicone coating that offers added durability and protection in harsh environments.

Additionally, the panel is equipped with an **NTC sensor**, which is essential for the **MaNima Pollux Industry System**. This sensor enables the system to monitor the temperature in real-time, allowing the optimal operating temperature to be maintained. This ensures consistent and efficient curing, with a controlled radiation intensity that optimizes the LED's lifespan.

### Key Features:

- **300W Power Output:** This powerful curing LED panel delivers 300W of output, making it ideal for industrial applications that require high intensity and rapid curing.
- **365nm Wavelength:** The 365nm wavelength is perfect for UV curing applications, such as curing resins, coatings, and other materials in the printing, 3D printing,
- **Size of 500mm x 500mm:** The panel has an ideal size for a wide range of industrial applications, offering sufficient coverage for larger surfaces and excellent curing results.
- **48V Power Supply:** The panel operates on a reliable 48V power supply, ensuring stable and consistent operation, perfect for demanding industrial applications.
- **Silicone Coating (IP64):** The panel is coated with a silicone layer, making it resistant to moisture, dust, and other harsh environmental conditions. It provides extra protection against the elements, making it suitable for use in tough industrial environments.
- **Integration with MaNima Pollux Industry Pulsing (Strobing):** The LED panel supports integration with the **MaNima Pollux Industry System** for pulsing (strobing), allowing the radiation intensity to be significantly increased. This feature results in faster curing and improved efficiency in industrial production processes.
- **Real-Time Temperature Monitoring via NTC Sensor:** The integrated **NTC sensor** ensures continuous temperature measurement and adjustment through the **MaNima Pollux Industry System**. This allows the optimal operating temperature to be maintained for maximum radiation output and consistent curing speed.

### Applications:

- **UV Curing of Coatings:** Ideal for curing coatings in the printing industry, such as in the paint industry, where rapid curing is essential for productivity.
- **3D Printing:** Perfect for accelerating the curing of 3D printed objects, especially for resins that require a specific 365nm wavelength to fully cure.
- **Packaging Industry:** The LED panel is ideal for curing packaging materials, such as in the food or pharmaceutical industries, where the panel ensures rapid curing of printed materials.
- **Automotive Industry:** The panel can be used for curing coating materials in automotive paint shops and other applications requiring high radiation intensity.
- **Disinfection:** The 365nm wavelength can also be used for disinfecting certain surfaces, particularly in controlled industrial environments such as laboratories and cleanrooms.

### Benefits:

- **High Radiation Intensity:** The ability to pulse with the **MaNima Pollux Industry System** allows the radiation intensity to be significantly increased, resulting in faster curing and increased productivity.
- **Real-Time Temperature Monitoring for Consistent Performance:** The **NTC sensor**, combined with the **MaNima Pollux Industry System**, ensures continuous temperature measurement, helping to maintain the optimal operating temperature and preventing overheating, which prolongs the LED's lifespan and improves efficiency.
- **Efficiency and Speed:** The 300W panel provides sufficient power for fast and efficient curing, which is essential for industrial production systems that need to cure large volumes of material quickly.
- **Long-Term Reliable Performance:** The use of high-quality materials and robust design features ensures long-term performance and reliability, even in demanding industrial applications.

## Technical specifications

### General

Brand	LuxaLight
Application	Curing & Aging
LED type	2835
PCB color	White
Material	Aluminum
Dimensions	500 × 500 × 5 mm
LEDs per piece	1830.00

### Lighting

Wave length	365nm
Beam angle	120 °

### Measurement results

Irradiance	Value	Measuring distance
	262 W/m <sup>2</sup>	50 mm
255 W/m <sup>2</sup>	75 mm	
239 W/m <sup>2</sup>	100 mm	
178 W/m <sup>2</sup>	200 mm	
135 W/m <sup>2</sup>	300 mm	
104 W/m <sup>2</sup>	400 mm	
73 W/m <sup>2</sup>	600 mm	

- By combining Pulse Mode with Real-Time Monitoring, the efficiency of LED systems can be increased, resulting in higher output.
- We have the expertise and equipment to perform measurements tailored to the specific requirements of the application.

### Electronics

Working voltage	48V
Current per piece	6.25 A / piece
Power consumption per piece	300.00 W / piece
PCB material	Copper

Pinout	Symbol	Function
	V+	V+
GND	Ground	
NTC	NTC sensor	
NTC_GND	NTC ground	

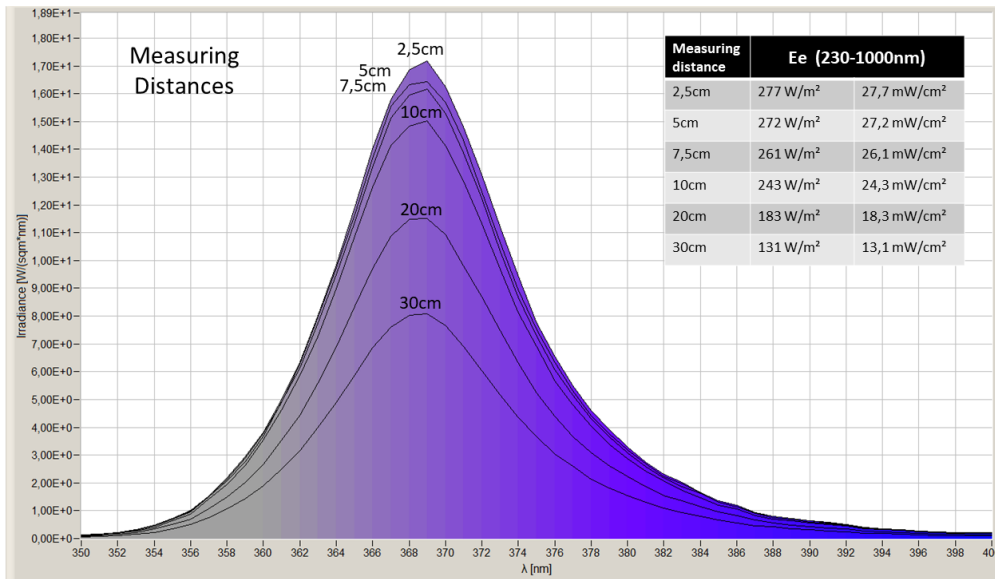
NTC parameters	Resistance: 5000 Ohm Beta value: 3950
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### Environmental

Operating temperature	-20 ~ +60 °C
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Storage temperature	-40 ~ +80 °C
IP class	IP 64

## Measurement results



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