

Datasheet

LuxaLight UV LED-strip 365nm Protected (24 Volt, 240 LEDs, 2835, IP64)

LS24UV240X2835PLX

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Product description

The **LuxaLight Industrial 365nm LED Strip** is engineered for demanding industrial environments, providing a highly effective UV-A lighting solution with a wavelength of 365nm. This LED strip is ideal for applications such as curing, sterilization, reactor processes, and inspection. With **240 high-performance LEDs**, the strip delivers uniform and consistent UV-A radiation with an impressive output of **60.3 W/m²** at a **distance of 2.5 cm**, ensuring powerful and reliable illumination for a wide range of industrial processes.

The strip is designed with **IP64-rated protection**, offering resistance against dust, moisture, and other environmental contaminants, making it suitable for use in harsh and challenging conditions. This robust and durable design is perfect for industrial applications such as UV curing, surface sterilization, reactor processes, and fluorescence detection.

Key Features:

- **365nm Wavelength:** Provides effective UV-A radiation, ideal for curing, sterilization, reactor processes, and applications requiring precise UV light.
- **240 High-Performance LEDs:** Ensures uniform UV-A output with consistent radiation intensity, making the strip highly efficient and reliable for industrial uses.
- **Radiation Output of 60.3 W/m² at 2.5 cm Distance:** Delivers high radiation output of **60.3 W/m²** at **2.5 cm**, making it ideal for processes that require focused and consistent UV-A energy.
- **IP64 Protection:** The strip is IP64-rated, offering protection against dust and water splashes, making it suitable for use in industrial environments and other challenging settings.
- **Energy-Efficient:** Designed for high performance with low power consumption, the LED strip provides an energy-efficient lighting solution for UV-related applications.
- **Durable and Long-Lasting:** The LED strip is built for durability, ensuring long-term reliability even under continuous operation in harsh conditions.
- **PCB thickness:** The PCB has a thickness of **3 oz/ft²**, providing robust support and efficient heat dissipation.

Applications:

- **UV Curing:** Perfect for curing adhesives, coatings, inks, and other materials in various industrial manufacturing processes.
- **Sterilization:** Ideal for surface sterilization in environments where disinfection is crucial, such as medical and laboratory settings.
- **Reactor Processes:** The 365nm UV-A output is ideal for driving photochemical reactions in UV reactors, including those used in wastewater treatment, chemical synthesis, or polymerization processes. The precise and reliable UV-A energy ensures consistent results in these applications.
- **Fluorescence Detection:** Suitable for applications in research and quality control, where UV light is required for fluorescence-based imaging and detection.
- **Inspection Systems:** This LED strip is also perfect for machine vision systems, providing UV illumination to inspect materials, surfaces, or products in detail.
- **Printing and Coating Industry:** Enhances the efficiency of UV-based curing processes, especially in industries such as printing and coating, where rapid curing is essential.

Benefits:

- **High and Consistent Output:** The **60.3 W/m² radiation output at 2.5 cm** ensures reliable and high-efficiency UV-A energy, optimizing the effectiveness of industrial processes.
- **Protection in Harsh Environments:** The **IP64 rating** ensures protection from dust and water splashes, providing reliable performance in industrial and other challenging settings.
- **Compact and Flexible:** The LED strip's flexible design allows for easy installation in tight spaces and can be customized to fit specific application needs.
- **Long Service Life:** The robust construction of the LED strip guarantees long-lasting performance, reducing the need for frequent replacements and offering greater cost efficiency.
- **Energy Efficiency:** High radiation output combined with low power consumption ensures an energy-efficient solution for UV applications in various industrial sectors.

Technical specifications

General

Brand	LuxaLight
Application	Curing & Aging Machine Vision UV Inspection
LEDs / meter	240
LED type	2835
Length per reel	5 m
Length per segment	25 mm
LED strip width	10.00 mm
LED strip thickness	4.00 mm
PCB color	White
Mantle material	Silicon
Mounting	3M tape VHB4905

Lighting

Wave length UV	365 nm
Beam angle	120 °

Measurement results

Irradiance	<i>Product length: 200 mm</i>	
	Value	Measuring distance
	60,3 W/m ²	25 mm
	27,8 W/m ²	50 mm
	15,9 W/m ²	75 mm
	11,8 W/m ²	100 mm
	5,72 W/m ²	200 mm
	3,31 W/m ²	300 mm

Electronics

Working voltage	24V	
Current / meter	1.00 A / meter	
Power consumption per meter	24.00 W / meter	
PCB material	Copper	
Pinout	Symbol	Function
	V+	V+
	GND	Ground

Environmental

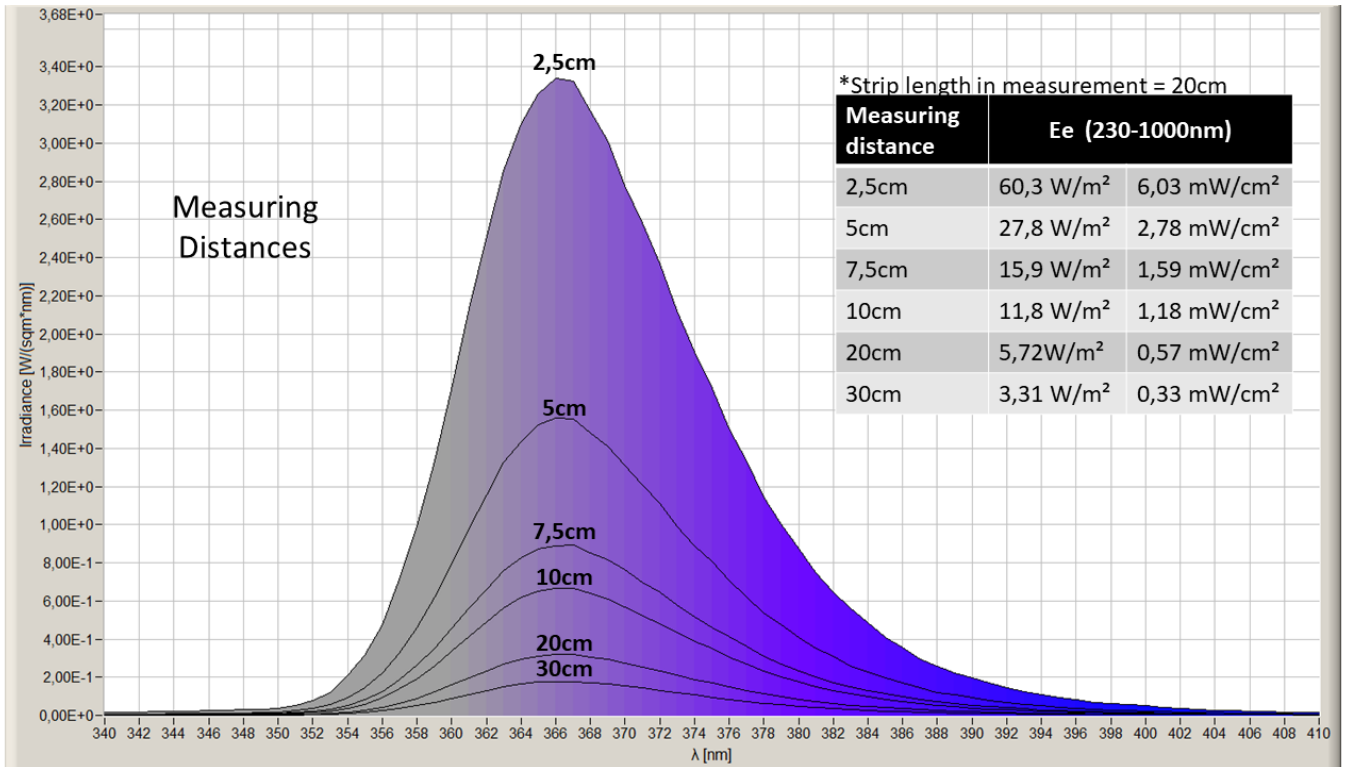
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C
IP class	IP 64

Directives - standards - certificates

Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

Measurement results

Wave Length



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