Datasheet

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

LS24UV240X2835PZQ

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Product description

The **Zirqle Industrial 365nm LED Strip** provides advanced UV-A lighting for industrial applications with a **365nm wavelength**. This makes the LED strip ideal for applications such as curing, sterilization, reactor processes, inspection, and machine vision. With **240 LEDs**, the strip delivers an impressive **output of 129 W/m² at a distance of 2.5 cm**, ensuring powerful and reliable illumination perfect for processes that require intense UV-A energy.

Designed with **IP64-rated protection**, the LED strip is resistant to dust, moisture, and other environmental contaminants, making it highly reliable in demanding and rugged industrial environments. Its durable design makes this strip ideal for applications in curing, sterilization, and reactor processes.

Key Features:

- **365nm Wavelength:** Delivers powerful UV-A radiation, perfect for applications such as curing, sterilization, reactor processes, and machine vision.
- **240 High-Performance LEDs:** Ensures a strong, consistent UV-A output, ideal for applications requiring reliable and intense UV-A energy.
- **Radiation Output of 129 W/m² at 2.5 cm Distance:** Provides a powerful **129 W/m²** output at **2.5 cm distance**, perfect for driving industrial processes that require maximum efficiency.
- **IP64 Protection:** The LED strip is **IP64-rated**, making it resistant to dust and water, ideal for use in harsh industrial environments.
- **Energy-Efficient:** Designed to be energy-efficient while still delivering excellent performance for UV-related applications.
- **PCB thickness:** The PCB has a thickness of **3 oz/ft²**, providing robust support and efficient heat dissipation.
- **Durable and Reliable:** The robust design ensures the strip is suitable for continuous operation in heavy industrial environments.

Applications:

- **UV Curing:** The Zirqle LED strip is perfect for curing inks, adhesives, coatings, and other materials in various industrial manufacturing processes.
- **Sterilization:** Ideal for surface sterilization in medical and laboratory environments, where a powerful UV-A light source is needed for effective disinfection.
- **Reactor Processes:** The **365nm UV-A output** is perfect for photochemical processes in UV reactors, such as those used in wastewater treatment, chemical synthesis, or polymerization processes.
- **Fluorescence Detection:** Suitable for research applications and quality control, where UV light is needed for fluorescence-based imaging and detection.
- **Inspection Systems:** The LED strip provides the perfect solution for machine vision systems, using UV illumination to inspect materials, surfaces, or products in detail.
- **Coating and Printing Industry:** Ideal for applications in the coating and printing industries, where UV-based curing processes are essential.

Benefits:

- **High Radiation Output:** The **129 W/m² radiation output at 2.5 cm** provides a powerful and efficient UV-A energy source, ideal for industrial applications requiring precise and intense UV radiation.
- **Robust and Durable:** The **IP64 design** ensures the strip can withstand harsh environments, making it reliable for industrial processes.
- **Flexible and Customizable:** The flexible LED strip is suitable for installation in various environments and can be customized to meet specific application needs.
- **Energy-Efficient:** This LED strip delivers high performance with low power consumption, making it a cost-effective solution for UV-based applications.
- **Long-Lasting Reliability:** The robust construction ensures the strip is reliable for long-term use, even in continuous operation.

Technical specifications

General

Brand	Zirqle
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

Measurement results

Peak wavelength
(Object length: 200 mm)

369 nm

Peak irradiance
(Object length: 200 mm)

	24V
5cm	4.09047 W/sqm
10cm	1.51711 W/sqm
15cm	0.805427 W/sqm
20cm	0.475113 W/sqm
25cm	0.314083 W/sqm
30cm	0.228885 W/sqm

Total irradiance
(Object length: 200 mm)

	24V
5cm	54.96 W/sqm
10cm	19.88 W/sqm
15cm	10.47 W/sqm
20cm	6.283 W/sqm
25cm	4.148 W/sqm
30cm	3.081 W/sqm

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

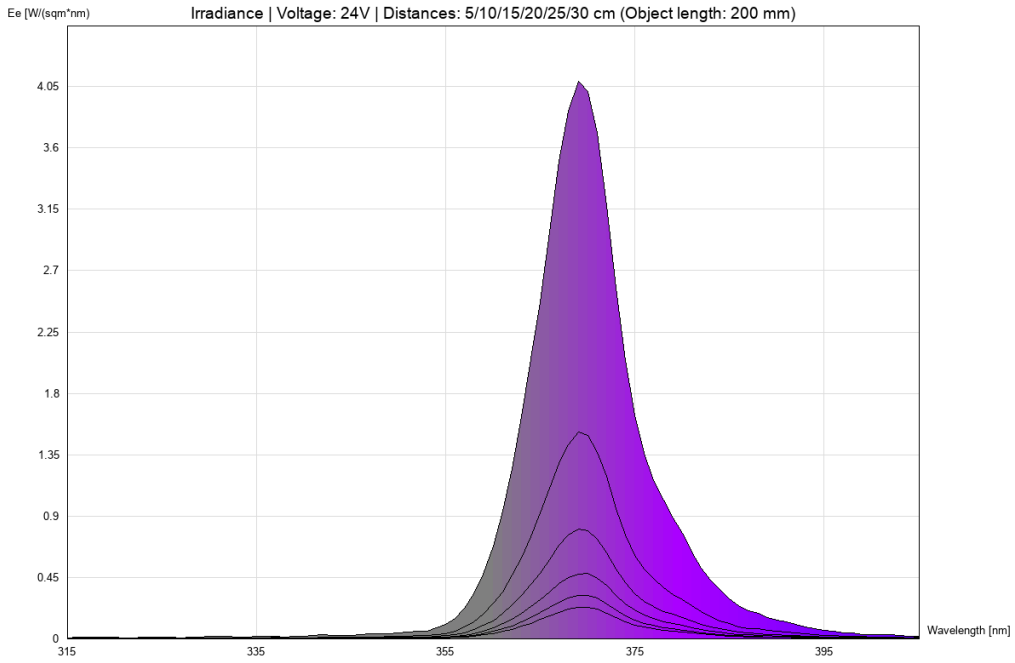
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C
IP class	IP 64

Directives - standards - certificates

Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

Measurement results

irradiance - 315-405-uv-a (24V)



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