

# Datasheet

## LuxaLight LED Engine 24V UV-C 275nm (24 Volt, 57 LEDs, 3535, IP20)

**LE-24-275-57X3535ILX60**

**Version: 2025-02-25.1**

## Product description

Our advanced UV-C LED engine, with a wavelength of 275 nm, provides a powerful solution for a wide range of industrial and research-related applications. This LED engine is designed for use in environments where precision, flexibility, and reliability are essential, but without the housing, making it an ideal choice for applications requiring customized integration. The LED engine offers a range of unique benefits:

**Optimal Wavelength for Industrial Use:** The 275 nm wavelength is ideal for applications requiring UV light for sterilization, disinfection, or specific chemical processes. This wavelength provides high energy intensity, which is essential for activating photochemical reactions in various industrial environments.

**Stroboscopic Pulse Function:** Thanks to the innovative strobing pulse technology, we can generate radiation with higher peak intensity. This technique enhances efficiency in processes that are sensitive to short light pulses. The ability to emit rapid, repetitive pulses increases effectiveness in applications such as surface treatment, cleaning, or material processing. This functionality is fully supported when integrated with the Manima Pollux Industry system, allowing for precise control and optimization of pulse intensity to maximize performance.

**Increased Radiation Capacity:** When integrated with the Manima Pollux Industry system, our LED engine achieves a radiation capacity that significantly exceeds conventional systems. This offers advantages such as accelerated reactions, improved industrial machine performance, and more precise control over treatment parameters.

**Reliable Performance and Long Lifespan:** The robust construction of the LED engine ensures reliable performance, even without the protective housing. The long lifespan of the LEDs reduces the need for frequent replacements and minimizes downtime, contributing to higher operational efficiency and lower maintenance costs.

**Energy Efficiency and Sustainability:** Our technology is designed with a focus on energy efficiency, reducing operational costs while maintaining optimized energy output. This makes it a sustainable choice for industrial applications that aim to minimize energy consumption and environmental impact.

**Built-in NTC Sensor:** The product comes equipped with a standard NTC (Negative Temperature Coefficient) sensor for precise temperature control, ensuring the system operates within optimal temperature ranges for maximum performance.

**Real-Time Monitoring and Maximum Radiation:** When used in combination with the Manima Pollux Industry system, real-time monitoring allows for the maximum radiation output from the UV LED fixture to be achieved. This integration ensures precise control, enabling the system to operate at peak efficiency under varying conditions.

The combination of the 275 nm UV-C LED engine, stroboscopic pulse function, and real-time monitoring provides an unparalleled solution for applications requiring precision, power, and efficiency.

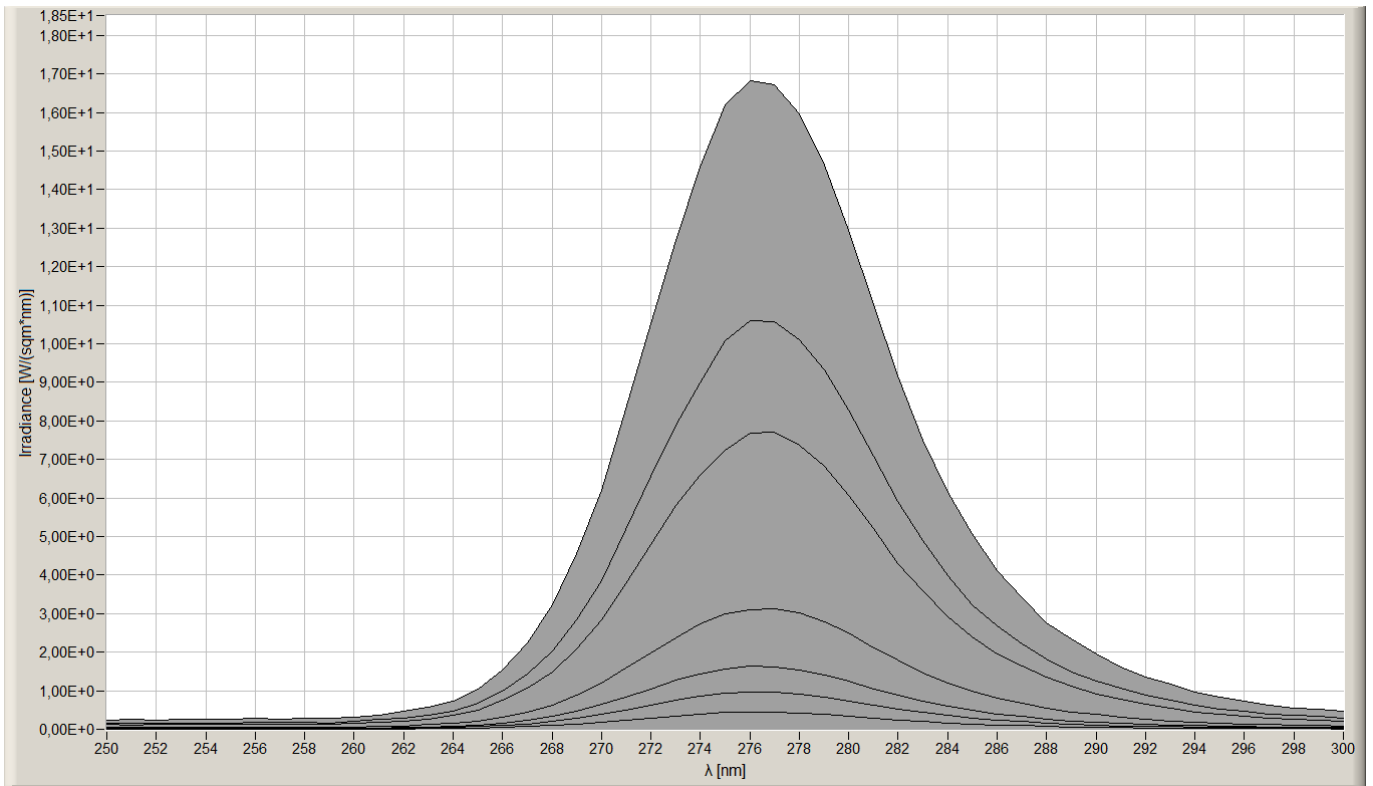
### Applications:

- Sterilization and disinfection of industrial surfaces
- Chemical processes and photochemical reactions
- Material processing and surface treatment
- Research and R&D work with the 275 nm wavelength
- Enhancement of industrial production systems through increased radiation

## Technical specifications

General																	
Brand	LuxaLight																
Application	Disinfection																
LED type	3535																
PCB color	White																
Material	Aluminum																
Dimensions	200 × 20 × 2 mm																
Mounting	3M tape VHB4905																
LEDs per piece	57.00																
Lighting																	
Wave length	275 nm																
Beam angle	60 °																
Measurement results																	
Irradiance	<table border="1"> <thead> <tr> <th>Value</th> <th>Measuring distance</th> </tr> </thead> <tbody> <tr> <td>239 W/m<sup>2</sup></td> <td>50 mm</td> </tr> <tr> <td>151 W/m<sup>2</sup></td> <td>75 mm</td> </tr> <tr> <td>110 W/m<sup>2</sup></td> <td>100 mm</td> </tr> <tr> <td>45 W/m<sup>2</sup></td> <td>200 mm</td> </tr> <tr> <td>23 W/m<sup>2</sup></td> <td>300 mm</td> </tr> <tr> <td>14 W/m<sup>2</sup></td> <td>400 mm</td> </tr> <tr> <td>6,4 W/m<sup>2</sup></td> <td>600 mm</td> </tr> </tbody> </table>	Value	Measuring distance	239 W/m <sup>2</sup>	50 mm	151 W/m <sup>2</sup>	75 mm	110 W/m <sup>2</sup>	100 mm	45 W/m <sup>2</sup>	200 mm	23 W/m <sup>2</sup>	300 mm	14 W/m <sup>2</sup>	400 mm	6,4 W/m <sup>2</sup>	600 mm
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Electronics																	
Working voltage	24V																
Current per piece	2.30 A / piece																
Power consumption per piece	55.20 W / piece																
PCB material	Aluminium																
Environmental																	
Operating temperature	-20 ~ +60 °C																
Storage temperature	-40 ~ +80 °C																
IP class	IP 20																
Directives - standards - certificates																	
Directives	RoHS CE																
Safety standards	EN60598-1 EN62031 IEC62471																

## Measurement results



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