Datasheet

LuxaLight LED Engine 24V UV-B 300nm (24 Volt, 57 LEDs, 3535, IP20)

LE-24-300-57X3535ILX60

Version: 2025-07-03.1

LuxaLight B.V.
Hastelweg 260B
5652 CN Eindhoven
Nederland

KvK-nummer: 57580561
BTW-nummer: NL852642209B01
IBAN: NL87 INGB 0007 8159 75
BIC/SWIFT code: INGBNL2A

Email: info@luxalight.eu
Website: www.luxalight.eu
Tel.: +31 (0)40 - 202 49 04

Product description

Our advanced UV-B LED engine with a wavelength of 300 nm provides a powerful solution for a wide range of industrial and research-related applications. This product is ideal for applications requiring flexibility, such as research and R&D, where precise control over different wavelengths is essential. The LED engine offers a range of unique benefits:

Optimal Wavelength for Industrial Use: The 300 nm wavelength is ideal for applications requiring UV light for sterilization, disinfection, photochemical reactions, or specific chemical processes. This wavelength offers 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 300 nm UV-B 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 water and air
- Disinfection of medical equipment and surfaces in laboratories
- Treatment of water in aquatic systems
- Activating chemical processes where 300 nm UV light is essential
- Photochemical reactions where a longer wavelength like 300 nm is needed
- Research and R&D where the specific properties of 300 nm UV light are required

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	
Peak wavelength (Object size: 1 piece)	300 nm

Peak irradiance
(Object size: 1 piece)

	24V
5cm	11.8117 W/sqm
10cm	7.04761 W/sqm
15cm	4.41456 W/sqm
20cm	3.20697 W/sqm
25cm	2.24704 W/sqm
30cm	1.71245 W/sqm

Total irradiance
(Object size: 1 piece)

	24V
5cm	208.1 W/sqm
10cm	123.7 W/sqm
15cm	78.16 W/sqm
20cm	56.79 W/sqm
25cm	40.05 W/sqm
30cm	30.58 W/sqm

- 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	24V
Current per piece	2.30 A / piece
Power consumption per piece	55.20 W / piece
PCB material	Aluminium

Pinout	

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

NTC parameters	Resistance: 5000 Ohm Beta value: 3950

Environmental

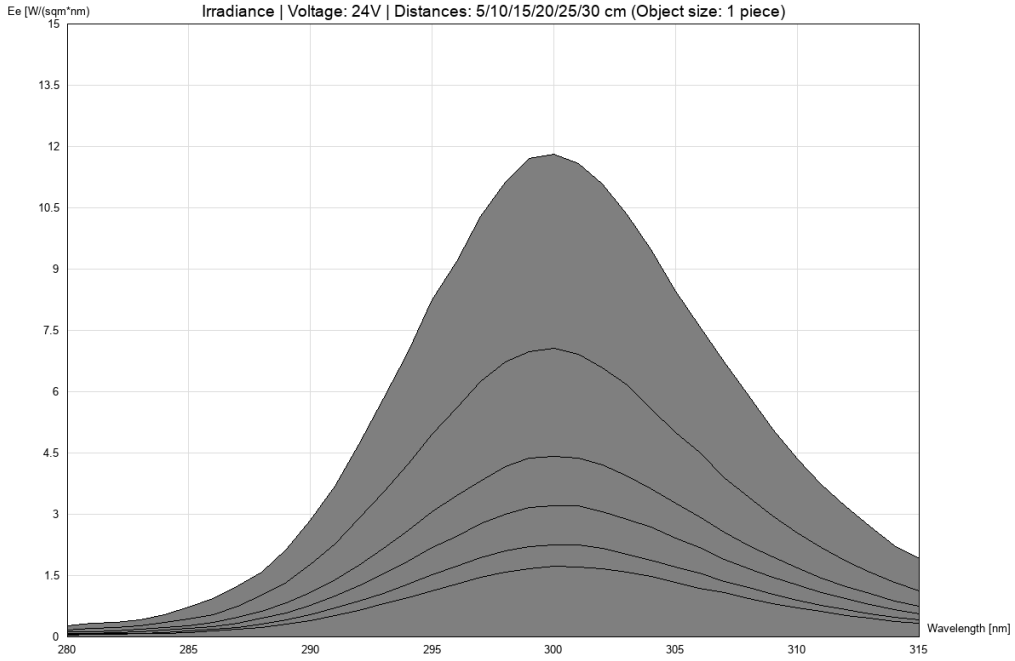
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C

Directives - standards - certificates

Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

Measurement results

irradiance - 280-315-uv-b (24V)



cie1931