

# Datasheet

## **LuxaLight Industrial LED Fixture Opaline cover UV-A 395nm 24.2x16mm (24 Volt, 2835, IP64)**

**LF-24-395-24.2X16-OC**

**Version: 2025-07-10.3**

## Product description

The **LuxaLight Industrial UV LED Fixture** is designed for intensive industrial applications that require high radiation intensity for a wide range of processes, including material curing, reactors, disinfection, and more. With a wavelength of **395nm**, this LED fixture offers a reliable and efficient solution for curing coatings, resins, and other materials, but also for applications such as accelerating chemical reactions in photochemical processes, disinfecting surfaces, and supporting reactors.

The LED fixture is equipped with a silicone layer on the PCB, providing additional protection against moisture, dust, and other harmful environmental factors. The **opal covering** creates a diffused effect of the radiation, which is useful in applications requiring even exposure of the treated surface. This covering does not enhance the transmission of radiation but rather distributes it, making it ideal for certain processes.

### Key Features:

- **395nm Wavelength:** The **395nm wavelength** is ideal for a wide range of industrial applications, including curing resins, coatings, and materials, as well as for photochemical processes, reactors, and disinfection.
- **24V Power Supply:** The fixture operates on a reliable 24V power supply, ensuring stable and consistent performance, perfect for demanding industrial applications.
- **Silicone Coating on PCB:** The PCB is coated with silicone, providing protection against environmental factors like moisture and dust, adding durability for tough industrial environments.
- **Opal Covering:** The **opal covering** creates a diffused effect of radiation, useful for applications requiring even radiation exposure across the treated surface.
- **Integration with MaNima Pollux Industry Pulsing (Strobing):** The LED fixture supports integration with the MaNima Pollux Industry System for pulsing (strobing), allowing the radiation intensity to be significantly increased. This feature ensures faster reactions and enhanced efficiency in industrial processes.
- **Real-Time Temperature Monitoring via NTC Sensor:** The integrated NTC sensor ensures continuous temperature measurement and adjustment via the MaNima Pollux Industry System. This allows for optimal operating temperature maintenance, maximizing radiation output and consistent performance.

### 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 requiring a specific **395nm wavelength** to fully cure.
- **Packaging Industry:** The LED fixture is ideal for curing packaging materials, such as in the food or pharmaceutical industries, ensuring rapid curing of printed materials.
- **Disinfection:** The **395nm wavelength** can also be used for disinfecting surfaces, particularly in controlled industrial environments such as laboratories and cleanrooms.
- **Reactor Applications:** Accelerating chemical reactions and photochemical processes in reactors, where the **395nm wavelength** plays a crucial role.

### Benefits:

- **High Radiation Intensity:** The ability to pulse the radiation intensity via the MaNima Pollux Industry System ensures faster curing times and increased productivity.
- **Real-Time Temperature Monitoring for Consistent Performance:** The NTC sensor, combined with the MaNima Pollux Industry System, ensures continuous temperature measurement and adjustment, maintaining optimal operating temperature and preventing overheating.
- **Industrial Durability:** The silicone coating provides extra protection against dust, moisture, and other environmental factors, making the fixture suitable for heavy-duty industrial environments.
- **Efficiency and Speed:** The fixture 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 Machine Vision UV Inspection
LED type	2835
Material	Aluminum
Dimensions	220 × 24,2 × 16 mm
Mounting	Surface mounted
Cover type	PMMA opal
LEDs per piece	108.00

### Lighting

Wave length	395nm
Beam angle	120 °

### Measurement results

Peak wavelength (Object size: 1 piece)	397 nm														
Peak irradiance (Object size: 1 piece)	<table> <tr> <th></th><th>24V</th></tr> <tr> <td>5cm</td><td>29.4479 W/sqm</td></tr> <tr> <td>10cm</td><td>11.1859 W/sqm</td></tr> <tr> <td>15cm</td><td>5.70155 W/sqm</td></tr> <tr> <td>20cm</td><td>3.45532 W/sqm</td></tr> <tr> <td>25cm</td><td>2.33018 W/sqm</td></tr> <tr> <td>30cm</td><td>1.70424 W/sqm</td></tr> </table>		24V	5cm	29.4479 W/sqm	10cm	11.1859 W/sqm	15cm	5.70155 W/sqm	20cm	3.45532 W/sqm	25cm	2.33018 W/sqm	30cm	1.70424 W/sqm
	24V														
5cm	29.4479 W/sqm														
10cm	11.1859 W/sqm														
15cm	5.70155 W/sqm														
20cm	3.45532 W/sqm														
25cm	2.33018 W/sqm														
30cm	1.70424 W/sqm														
Total irradiance (Object size: 1 piece)	<table> <tr> <th></th><th>24V</th></tr> <tr> <td>5cm</td><td>486.4 W/sqm</td></tr> <tr> <td>10cm</td><td>194 W/sqm</td></tr> <tr> <td>15cm</td><td>100.3 W/sqm</td></tr> <tr> <td>20cm</td><td>61.2 W/sqm</td></tr> <tr> <td>25cm</td><td>40.96 W/sqm</td></tr> <tr> <td>30cm</td><td>30.29 W/sqm</td></tr> </table>		24V	5cm	486.4 W/sqm	10cm	194 W/sqm	15cm	100.3 W/sqm	20cm	61.2 W/sqm	25cm	40.96 W/sqm	30cm	30.29 W/sqm
	24V														
5cm	486.4 W/sqm														
10cm	194 W/sqm														
15cm	100.3 W/sqm														
20cm	61.2 W/sqm														
25cm	40.96 W/sqm														
30cm	30.29 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	1.25 A / piece
Power consumption per piece	30.00 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
---------------------	--------------

IP class	IP 68
----------	-------

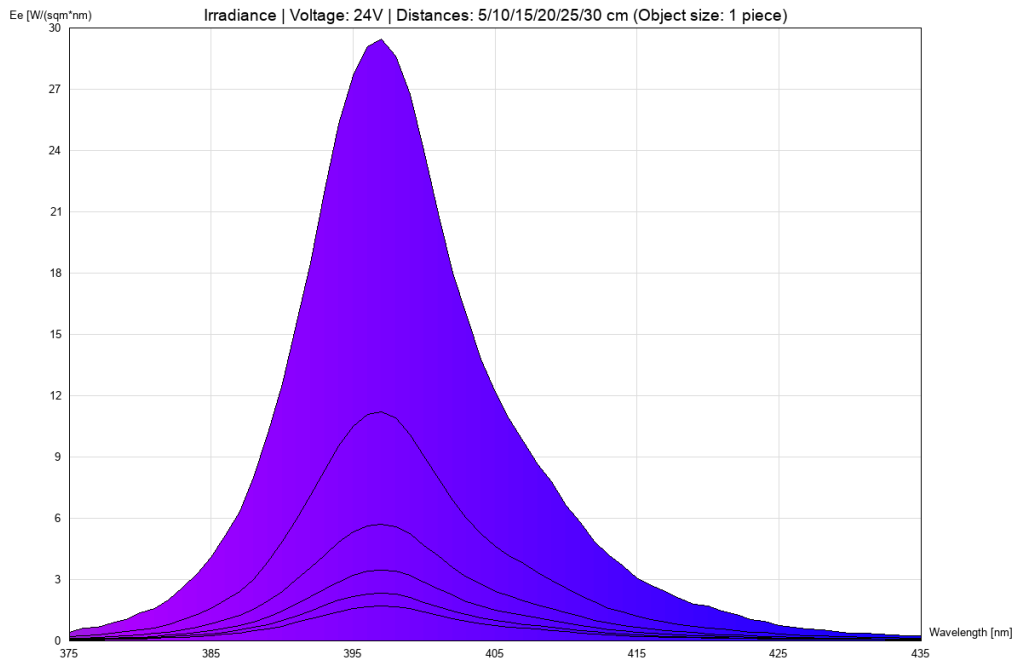
Directives - standards - certificates

Directives	RoHS CE
------------	------------

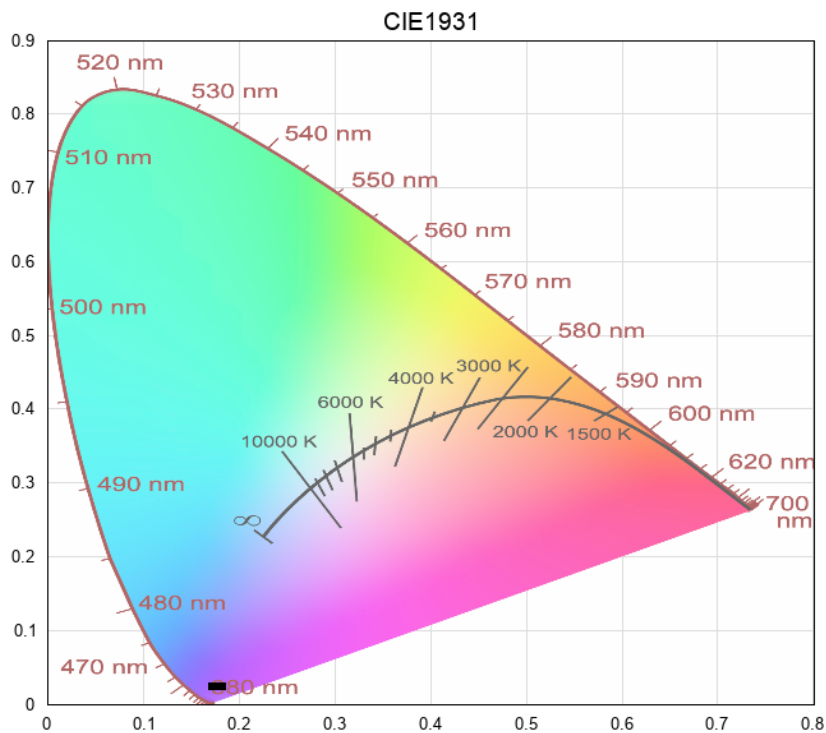
Safety standards	EN60598-1 EN62031 IEC62471
------------------	----------------------------------

## Measurement results

### irradiance - 375-435-uv-ablue (24V)



## cie1931



While LuxaLight has made every reasonable effort to ensure the accuracy of the information in this brochure, LuxaLight does not guarantee that it is error - free, nor does LuxaLight make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. LuxaLight reserves the right to make any adjustments to the information contained herein at any time without notice. LuxaLight expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this catalogue are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult LuxaLight for the latest dimensions and design specifications.