

## **Datasheet**

LuxaLight Industrial LED Fixture Opaline cover Near Infrared 860nm 24.2x16mm (24 Volt, 2835, IP64)

LF-24-860-24.2X16-OC

Version: 2025-07-10.2

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



## **Product description**

The **LuxaLight Industrial LED Fixture** is designed for intensive industrial applications requiring high radiation intensity for a wide range of processes. With a **860nm near-infrared (NIR)** wavelength, this LED fixture provides a reliable and efficient solution for industrial processes that benefit from **near-infrared light**, such as material curing, quality inspection, and more.

The fixture is made from a **durable aluminum housing**, ensuring efficient heat dissipation and long-lasting performance. The **opal cover** provides protection against dust and moisture (IP64), ensuring that the fixture remains safe and operational in a variety of environments.

#### **Key Features:**

- 860nm Near-Infrared Wavelength: The 860nm wavelength is ideal for industrial applications requiring near-infrared light, enhancing processes such as material curing, photochemical reactions, and quality inspection.
- Opal Cover (IP64): The fixture features an opal cover offering protection against dust and moisture (IP64), making it suitable for industrial applications where exposure to environmental factors is possible, but full waterproofing (IP68) is not required.
- Aluminum Housing: The durable aluminum housing ensures optimal heat dissipation, contributing to stable and long-term
  operation
- 24V Power Supply: The fixture operates on a reliable 24V power supply, ensuring stable and consistent performance, ideal for demanding industrial applications.
- Integration with MaNima Pollux Industry Pulsing (Strobing): The LED fixture supports integration with the MaNima Pollux Industry System for pulsing (strobing), significantly increasing radiation intensity. This feature enables faster reactions and enhanced efficiency in industrial processes.
- Real-Time Temperature Monitoring via NTC Sensor: The integrated NTC sensor allows continuous temperature measurement
  and adjustment via the MaNima Pollux Industry System. This helps maintain the optimal operating temperature for maximum
  radiation output and consistent performance.

#### **Industrial Applications:**

- Material Curing & Drying: 860nm near-infrared light is commonly used in the curing process of coatings, adhesives, and materials that respond to infrared radiation, accelerating curing times in production environments.
- Photochemical Processes: The 860nm wavelength can be used in industrial and scientific environments where specific photochemical reactions are required, accelerating reactions in laboratories or production lines.
- Quality Control & Inspection: 860nm NIR is ideal for inspecting materials or products for defects or irregularities in industrial environments, improving quality control.
- Food Processing & Sterilization: The fixture is used in food production for sterilization and pasteurization, enhancing food safety
  and processing efficiency by delivering consistent near-infrared radiation.
- Non-UV Material Curing & Drying: The 860nm light is used for curing various materials that do not require UV light but benefit
  from NIR wavelengths, such as plastics, rubbers, and other composite materials, speeding up the curing process.
- Natural & Artificial Drying: The 860nm wavelength helps dry a wide range of materials such as paper, textiles, and wood, by
  accelerating moisture evaporation without damaging the product. This is especially useful in printing and textile industries.
- Metal & Material Processing: 860nm NIR is applied to improve the properties of coatings or accelerate the curing of certain
  materials, reducing processing times in manufacturing and enhancing efficiency.

#### Benefits:

- High Radiation Intensity for Faster Processes: The fixture can pulse with the MaNima Pollux Industry System to increase radiation intensity, reducing processing time and increasing productivity in industrial applications.
- Real-Time Temperature Monitoring for Consistent Performance: Continuous temperature monitoring with the integrated NTC sensor helps maintain optimal operating temperatures, preventing overheating and ensuring a longer lifespan for the fixture.
- Industrial Durability: The aluminum housing provides a robust and durable construction, capable of withstanding the challenges
  of harsh industrial environments, while the opal cover ensures protection against dust and moisture, increasing the fixture's
  reliability.

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• Efficiency & Speed: The LED fixture delivers efficient performance, with quick and reliable operation contributing to increased productivity and processing efficiency, essential for industrial production systems.

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# **Technical specifications**

Pupper   Spectral Imaging   Matchine Vision	General		
Material	Brand	LuxaLight	
Material         Aluminum           Dimensions         220 × 24.2 × 16 mm           Mounting         Surface mounted           Cover type         PMMA opal           LEDs per piece         108.00           LEDs per piece           Wave length           880mm           Measurement results           Peak wavelength           Peak wavelength         852 mm           Peak wavelength         852 mm           Peak wavelength         852 mm           Peak wavelength         100mm           15cm         1,8001 W/sqm           10cm         3,23765 W/sqm           15cm         1,6001 W/sqm           25cm         0,675721 W/sqm           30cm         0,502538 W/sqm           10cm         139 W/sqm           10cm         139 W/sqm           10cm         139 W/sqm           20cm         43,26 W/sqm           20cm         43,26 W/sqm           20cm         43,26 W/sqm           20cm         1,25 W/sqm           30cm         2,144 W/sqm           25cm         30,00 W/sqm           25cm         1,25 W/sqm	Application		
Dimensions   220 x 24.2 x 16 mm	LED type	2835	
Nounting   Surface mounted	Material	Aluminum	
	Dimensions	220 × 24,2 × 16 mm	
	Mounting	Surface mounted	
	Cover type	PMMA opal	
Wave length         860nm           Beam angle         120 °           Measurement results           Peak wavelength Object size: 1 piece)         852 nm           Som         8.03401 W/sqm           10cm         3.29765 W/sqm           15cm         1.6601 W/sqm           20cm         1.00985 W/sqm           25cm         0.675721 W/sqm           30cm         0.502538 W/sqm           10cm         33.9 W/sqm           10cm         343.3 W/sqm           10cm         345.3 W/sqm           10cm         13.9 W/sqm           15cm         70.86 W/sqm           20cm         43.26 W/sqm           20cm         21.44 W/sqm           20cm         21.44 W/sqm           20cm         22cm           30cm         21.44 W/sqm           20cm         49.26 W/sqm           20cm         49.26 W/sqm           20cm         49.26 W/sqm           20cm         20cm           40cm         40cm	LEDs per piece	108.00	
Measurement results	Lighting		
Measurement results	Wave length	860nm	
Peak wavelength	Beam angle	120 °	
Peak irradiance	Measurement results		
Som	Peak wavelength (Object size: 1 piece)	852 nm	
10cm   3.29765 W/sqm     15cm   1.6601 W/sqm     20cm   1.0985 W/sqm     25cm   0.675721 W/sqm     30cm   0.502538 W/sqm     24V     5cm   345.3 W/sqm     10cm   139 W/sqm     10cm   139 W/sqm     15cm   70.86 W/sqm     20cm   43.26 W/sqm     25cm   28.72 W/sqm     30cm   21.44 W/sqm     25cm   28.72 W/sqm     25cm	Peak irradiance		24V
1.6601 W/sqm	(Object size: 1 piece)	5cm	8.03401 W/sqm
20cm 1.00985 W/sqm 25cm 0.675721 W/sqm 30cm 0.502538 W/sqm  Total irradiance Object size: 1 piece)  Form 345.3 W/sqm 10cm 139 W/sqm 15cm 70.86 W/sqm 20cm 43.26 W/sqm 20cm 43.26 W/sqm 20cm 28.72 W/sqm 30cm 21.44 W/sqm  Total irradiance  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		10cm	3.29765 W/sqm
25cm 0.675721 W/sqm 30cm 0.502538 W/sqm  Total irradiance Object size: 1 piece)  From 345.3 W/sqm 10cm 139 W/sqm 15cm 70.86 W/sqm 20cm 43.26 W/sqm 25cm 28.72 W/sqm 30cm 21.44 W/sqm  Telectronics  Electronics  Working voltage 24V  Current per piece 1.25 A / piece  Power consumption per piece 30.00 W / piece			
Total irradiance Object size: 1 piece)  5cm 345.3 W/sqm 10cm 139 W/sqm 15cm 70.86 W/sqm 20cm 43.26 W/sqm 25cm 28.72 W/sqm 30cm 21.44 W/sqm			
Total irradiance Object size: 1 piece)  5cm 345.3 W/sqm 10cm 139 W/sqm 15cm 70.86 W/sqm 20cm 43.26 W/sqm 25cm 28.72 W/sqm 30cm 21.44 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			
Scm   345.3 W/sqm   10cm   139 W/sqm   15cm   70.86 W/sqm   20cm   43.26 W/sqm   25cm   28.72 W/sqm   30cm   21.44 W/sqm   21.44 W/sqm   21.44 W/sqm   22.44 W/sqm   23.45 W/sqm   24.45 W/sqm   24.45 W/sqm   25.45 W/sqm   25.			
10cm 139 W/sqm  15cm 70.86 W/sqm  20cm 43.26 W/sqm  25cm 28.72 W/sqm  30cm 21.44 W/sqm	Total irradiance (Object size: 1 piece)		
15cm 70.86 W/sqm 20cm 43.26 W/sqm 25cm 28.72 W/sqm 30cm 21.44 W/sqm			
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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			
Working voltage 24V  Current per piece 1.25 A / piece  Power consumption per piece 30.00 W / piece		resulting in higher output.  • We have the expertise and e	with Real-Time Monitoring, the efficiency of LED systems can be increased,
Current per piece 1.25 A / piece Power consumption per piece 30.00 W / piece	Electronics		
Power consumption per piece 30.00 W / piece	Working voltage	24V	
	Current per piece	1.25 A / piece	
PCB material Aluminium	Power consumption per piece	30.00 W / piece	
	PCB material	Aluminium	



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 64

**Directives - standards - certificates** 

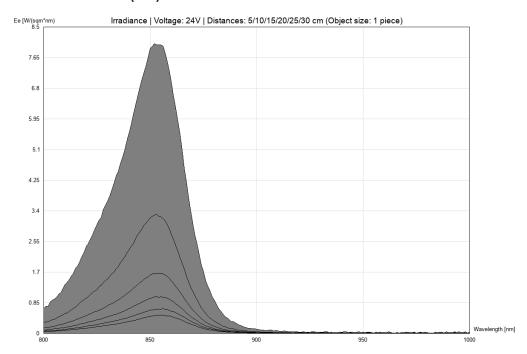
Directives RoHS CE

Safety standards EN60598-1 EN62031 IEC62471



#### **Measurement results**

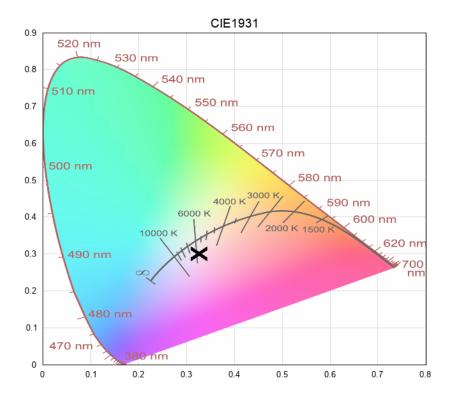
### irradiance - 800-nir (24V)



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