

Datasheet

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

LF-24-860-24.2X16-OC

Version: 2025-08-27.2

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



Product description

The LuxaLight Industrial LED Fixture **Opaline Cover Near Infrared 860 nm** $(24.2 \times 16 \text{ mm})$ provides **uniform, diffused NIR illumination**. The opaline PMMA diffuser eliminates glare and hotspots, creating a smooth field of near-infrared light. With modular scalability (220 mm up to 3000 mm) and full compatibility with the **MaNima Pollux Industrial System**, this fixture is especially suited for machine vision, imaging, biomedical research, and optical calibration.

Key Specifications

Property Value / Description

 $\label{eq:wavelength} \mbox{Wavelength} \mbox{Near Infrared 860 nm (peak $\sim 852 nm)} \\ \mbox{Irradiance (5 cm)} \mbox{$\sim 345 W/m^2$ (Total); $\sim 8.03 W/m^2$ (Peak)} \\$

Illuminance (5 cm) N/A (non-visible spectrum)

Cover Opaline PMMA for diffused, homogeneous emission

Beam angle 120°

Dimensions $220 \times 24.2 \times 16 \text{ mm (fixture profile)}$

Supply & Protection 24 V DC / ~30 W, integrated NTC sensor, IP64

Electronics (ref.) 24 V, 1.25 A; NTC 5 k Ω , β = 3950

Environmental rating IP64; operating -20 °C...+60 °C; storage -40 °C...+80 °C

Applications

- Machine vision & industrial inspection diffuse 860 nm light enhances sensor performance for material, surface, and quality control.
- Hyperspectral and NIR imaging homogeneous NIR field ideal for analysis of food, plastics, textiles, and biological samples.
- Biomedical & photobiological research used for studies of tissue interaction, blood flow, and absorption properties.
- Moisture and defect detection diffuse NIR improves contrast for hidden flaws or contamination in imaging systems.
- Optical calibration setups uniform NIR illumination for laboratory reference and sensor calibration.

Also applicable in R&D and specialized lighting setups.

Benefits for Engineers

- Uniform NIR output minimizes artifacts in imaging and measurements.
- Modular, scalable design adapts to various system requirements.
- Rugged IP64-rated construction with opaline diffuser for industrial durability.
- Integrates seamlessly with MaNima Pollux for real-time monitoring and pulse operation.

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• Plug-and-play functionality for production environments and laboratories.

Integration with MaNima Pollux Industrial System

- Real-time NTC sensor monitoring for thermal safety.
- Pulse/strobe operation for higher peak intensities.
- Thermal regulation protects LEDs and ensures stable performance.
- PLC/SCADA-compatible data for automation systems.
- Open UDP-based API for custom integration.



Technical specifications

Email Ema	General				
Application		Luval ight			
Material Aluminum Cover type		Hyper - spectral Imaging			
Dimensions 220 × 24.2 × 16 mm Mounting Surface mounted Cover type PMMA opal LEDs per piece 108.00 Uptition Wave length Beam angle 860 nm Beam angle 860 wavelength (Object sizes 1 piece) 5cm 0.48 Wagm Peak irradiance Cological sizes 1 piece) 5cm 0.48 Wagm 10cm 0.2 Wisgm 10cm 0.20 Wisgm 15cm 0.1 Wisgm 0.00 Wis	LED type	2835			
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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

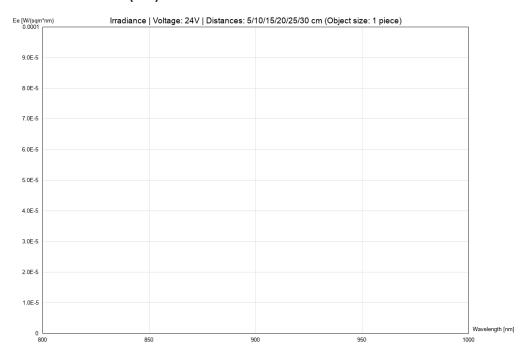
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C
IP class	IP 64

Directives - standards - certificates	
Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471



Measurement results

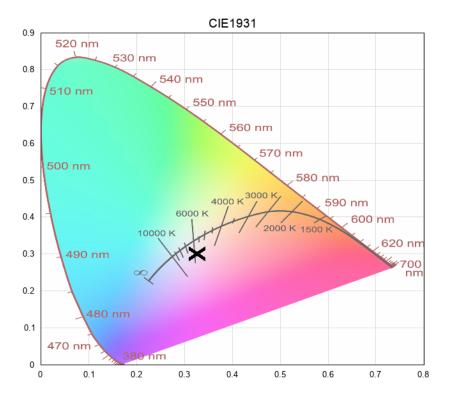
irradiance - 800-nir (24V)



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