

Datasheet

LuxaLight Industrial LED Fixture Transparent cover Far Red 735nm 24.2x16mm (24 Volt, 2835, IP64)

LF-24-735-24.2X16-TC

Version: 2025-08-27.10

Product description

The **LuxaLight Industrial LED Fixture Transparent Cover Far Red 735nm (24.2 × 16mm)** is engineered for industrial uses demanding robust, precise, high-intensity deep-red light. Its **modular design** (scalable from 220 mm to 3000 mm), transparent cover optimized for far-red transmission, and seamless integration with the **MaNima Pollux Industrial System** deliver versatility for horticulture, biological research, phototherapy, and non-UV material curing.

Specifications

Property	Value / Description
Wavelength	735 nm (far red, measured peak 739 nm)
Optical Output	High radiant intensity, optimized for far-red industrial applications
Cover	Transparent cover allowing efficient 735 nm transmission
PCB Protection	Industrial-grade silicone coating (dust, moisture, chemical resistance)
Thermal Monitoring	Integrated NTC sensor, controllable via MaNima Pollux Industrial System
Pulsing/Strobing	Supported when integrated with MaNima Pollux Industrial System
Design	Modular and scalable, adaptable from 220 mm up to 3000 mm
Dimensions	24.2 × 16 mm (fixture profile)
Environment	Designed for harsh industrial conditions (dust, vibration, moisture)

Applications

- **Horticulture & flowering stimulation** – far-red promotes flowering, fruiting, and morphological responses
- **Photobiomodulation & biological research** – deep tissue stimulation, plant photoperiod control, PBM studies
- **Medical & cosmetic therapy** – wound healing, skin regeneration, anti-aging treatments
- **Material curing (non-UV)** – curing red-sensitive materials and coatings
- **Machine vision & inspection** – used for contrasting imaging and optical scanning

Also applicable in specialized R&D lighting setups.

Benefits for Engineers

- **Process efficiency:** pulsating + monitoring optimizes output without overheating
- **Reliable performance:** thermal feedback safeguards LED lifespan
- **Industrial robustness:** durable against dust, moisture, mechanical stress
- **Modular scalability:** flexible length and layouts for diverse systems
- **Plug-and-play integration:** ready for MaNima Pollux workflows and industrial automation

Integration with MaNima Pollux Industrial System

- Real-time NTC sensor control and feedback
- Pulsing/strobing capabilities for enhanced peak intensity
- Thermal protection to avoid overheating
- Compatible with PLC/SCADA systems for process control
- **Open API (UDP-based)** for custom integration

Technical specifications

General		
Brand	LuxaLight	
Application	Barcode Scanning Machine Vision	
LED type	2835	
Material	Aluminum	
Dimensions	220 × 24,2 × 16 mm	
Mounting	Surface mounted	
Warranty	5 years	
Cover type	PMMA transparent	
LEDs per piece	108.00	
Lifetime	70000 hours	
Lighting		
Wave length	735 nm	
Beam angle	120 °	
Measurement results		
Peak wavelength (Object size: 1 piece)	739 nm	
Peak irradiance (Object size: 1 piece)		24V
	5cm	9.29 W/sqm
	10cm	3.57 W/sqm
	15cm	1.84 W/sqm
	20cm	1.13 W/sqm
	25cm	0.76 W/sqm
	30cm	0.57 W/sqm
Total irradiance (Object size: 1 piece)		24V
	5cm	399.65 W/sqm
	10cm	153.31 W/sqm
	15cm	79.34 W/sqm
	20cm	49.04 W/sqm
	25cm	33.1 W/sqm
	30cm	24.63 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
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Environmental

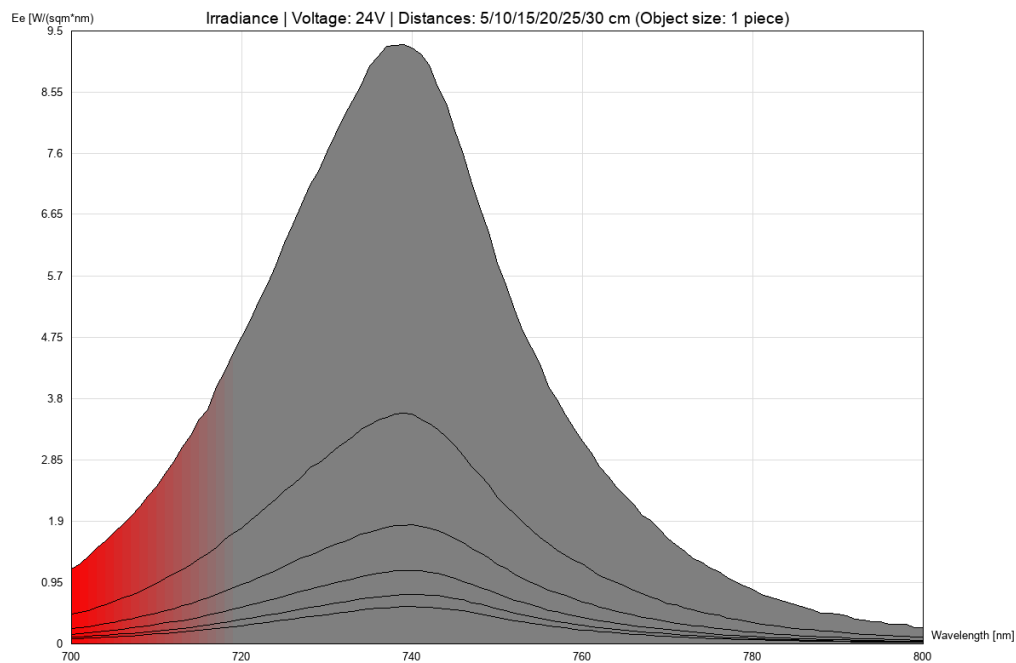
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C
IP class	IP 64

Directives - standards - certificates

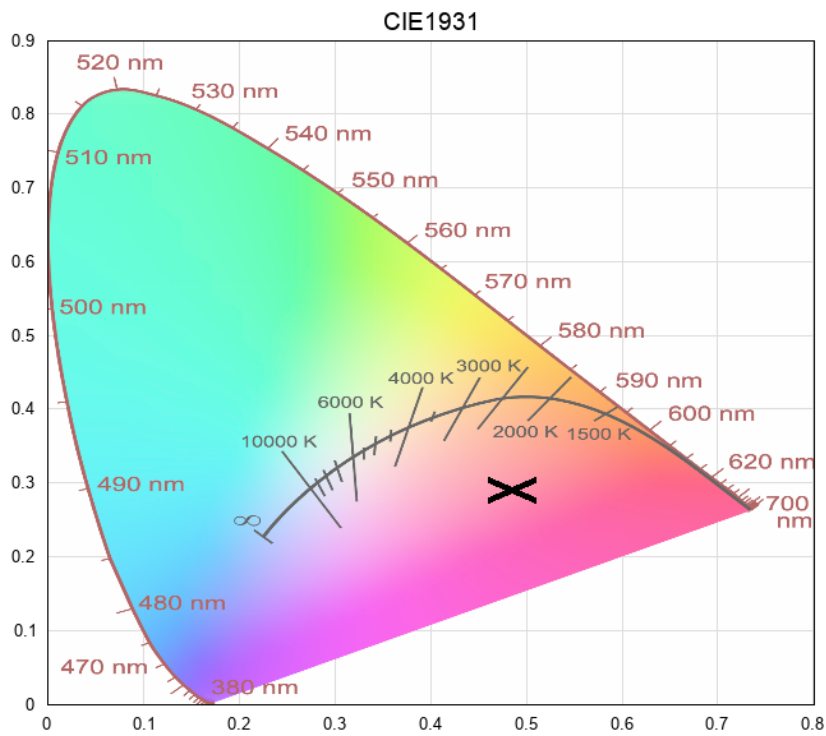
Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

Measurement results

irradiance - 700-800-deep-far-red (24V)



cie1931



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