

Datasheet

LuxaLight Industrial LED Fixture Transparent cover Deep Red 660nm 24.2x16mm (24 Volt, 2835, IP64)

LF-24-660-24.2X16-TC

Version: 2025-08-26.2

Product description

The **LuxaLight Industrial LED Fixture Transparent Cover Deep Red 660 nm (24.2 × 16 mm)** is engineered for industrial applications that require durable, precise, and high-intensity red light. Its **modular design** (scalable from 220 mm up to 3000 mm), transparent cover optimized for deep red light, and integration with the **MaNima Pollux Industrial System** provide a versatile solution for horticulture, biological research, phototherapy, and industrial curing.

Specifications

Property	Value / Description
Wavelength	660 nm (deep red, measured peak 662 nm)
Optical Output	High radiant intensity, tailored for deep red industrial applications
Cover	Transparent cover optimized for efficient 660 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	Built for harsh industrial conditions (dust, vibration, moisture)

Applications

- **Horticulture & indoor farming** – enhances photosynthesis, biomass, crop yield
- **Biological research & photobiomodulation (PBM)** – tissue regeneration, wound healing, cell culture
- **Medical & cosmetic therapy** – skin treatments, collagen stimulation, recovery, anti-aging
- **Material curing (non-UV)** – red-sensitive coatings and materials
- **Machine vision & inspection** – contrast imaging, barcode scanning

Also applicable in R&D and specialized lighting setups.

Benefits for Engineers

- **Efficiency:** pulsing + monitoring boosts output with thermal safety
- **Reliability:** thermal feedback protects LED lifetime
- **Durability:** resistant to dust, moisture, mechanical stress

- **Scalability:** modular lengths up to 3000 mm
 - **Integration ready:** seamless with MaNima Pollux + automation systems
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Integration with MaNima Pollux Industrial System

- Real-time NTC monitoring and control
- Pulsing/strobing for higher peak radiance
- Prevents thermal overload, stable output
- PLC/SCADA integration ready
- **Open API (UDP-based)** for custom control

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	660 nm
Beam angle	120 °
LB waarde	L80B50

Measurement results

Illuminance (Lux)
(Object size: 1 piece)

	24V
5cm	26980 lx
10cm	10420 lx
15cm	5294 lx
20cm	3242 lx
25cm	2179 lx
30cm	1653 lx

Total PPFD umol/m2 (PAR 400-700nm)
(Object size: 1 piece)

	24V
5cm	2485.19 umol/m2
10cm	928.214 umol/m2
15cm	473.499 umol/m2
20cm	295.018 umol/m2
25cm	198.704 umol/m2
30cm	150.551 umol/m2

Peak wavelength
(Object size: 1 piece)

662 nm

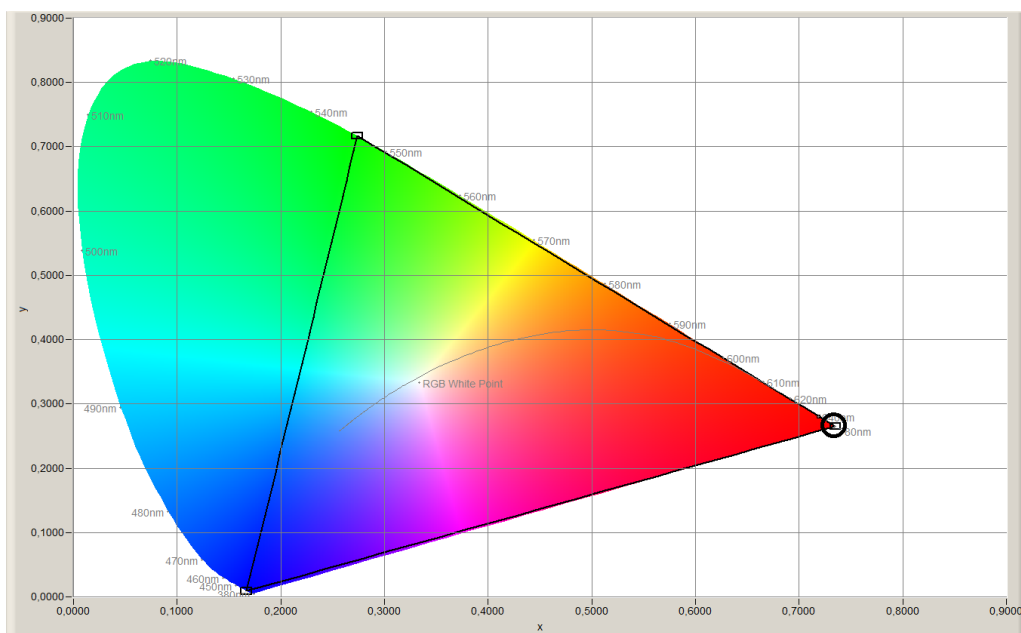
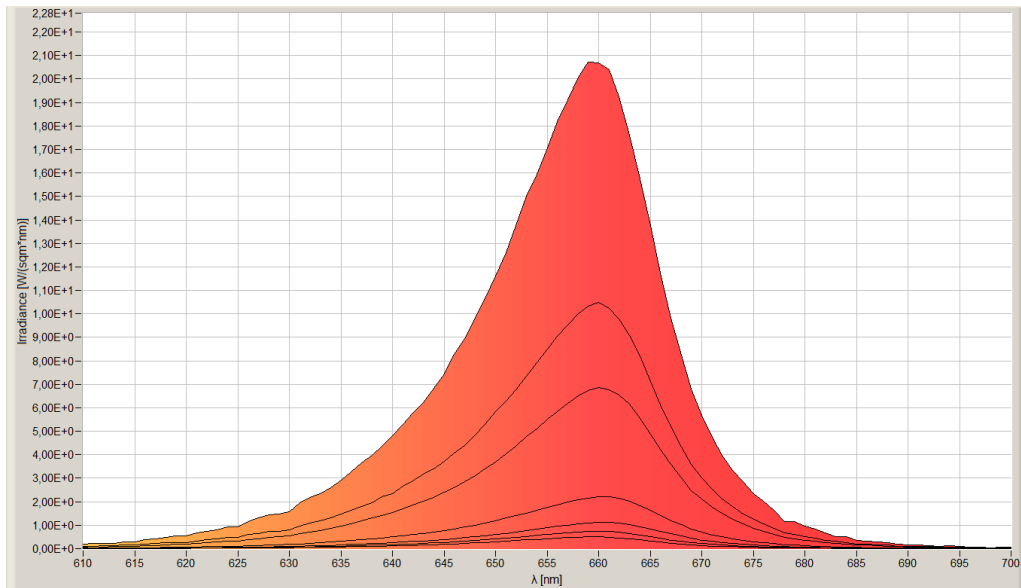
- By combining Pulse Mode with Real-Time Monitoring, the efficiency of LED systems can be increased, resulting in higher output.
- We have the expertise and equipment to perform measurements tailored to the specific requirements of the application.

Electronics

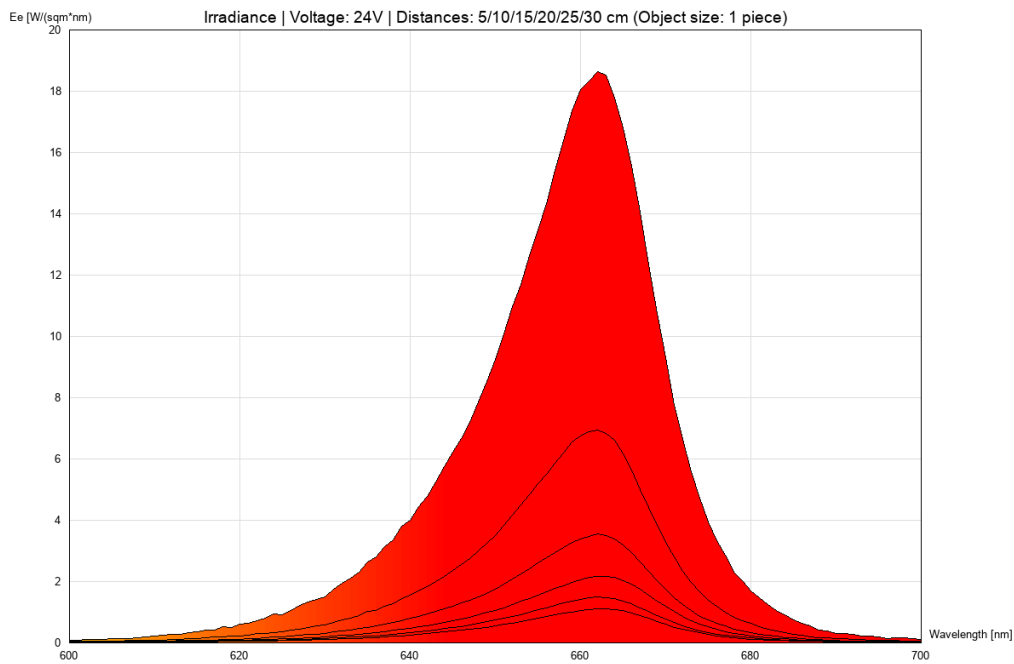
Working voltage	24V
Current per piece	1.25 A / piece
Power consumption per piece	30.00 W / piece

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 64	
Directives - standards - certificates		
Directives	RoHS CE	
Safety standards	EN60598-1 EN62031 IEC62471	

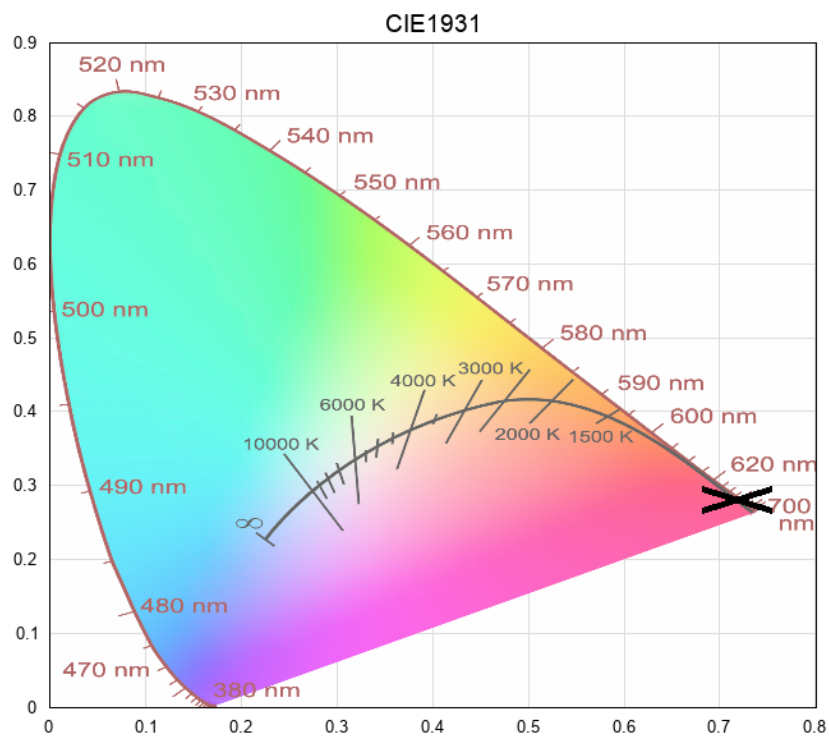
Measurement results



irradiance - 600-700-red (24V)



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