

Datasheet

LuxaLight Industrial LED Fixture Transparent IP68 Green 525nm 24.2x16mm (24 Volt, 2835, IP68)

LF-24-525-24.2x16-PU

Version: 2025-08-26.1

Product description

The **LuxaLight Industrial LED Fixture Transparent IP68 Green 525 nm (24.2 × 16 mm, 2835 LEDs)** is a fully encapsulated LED solution engineered for harsh and demanding environments. Featuring a **polyurethane-moulded housing (IP68)**, stable green illumination, and full integration with the **MaNima Pollux Industrial System**, this fixture ensures reliable performance, uniform output, and long-term durability in outdoor, industrial, and submerged applications.

Key Specifications

Property	Value / Description
Wavelength	525 nm green (measured peak ~521 nm)
Illuminance / Output	~232 900 lx @ 5 cm; PPFD ~2015 µmol/m²/s @ 5 cm; Irradiance ~455 W/m² @ 5 cm
Cover	Fully moulded transparent polyurethane encapsulation
LED Type / Protection	2835 LEDs; IP68 encapsulated (dust- and waterproof)
Beam Angle	120°
Voltage / Power	24 V DC, ~30 W per fixture
Thermal Monitoring	Integrated NTC sensor, controllable via MaNima Pollux
Design	Modular & scalable, 220–3000 mm
Dimensions	24.2 × 16 mm fixture profile
Operating Environment	Outdoor, marine, industrial, and submerged conditions (–20...+60 °C)

IP68 Moulded Design – Fully Encapsulated Housing

This fixture is **completely encapsulated in transparent polyurethane**, offering:

- **IP68 waterproofing** – ideal for underwater or wash-down areas in industry and food processing
- **IK10 mechanical resistance** – highly robust against shock, vibration, and impact
- **Stable illumination** – consistent and uniform green light distribution
- **Maintenance-free design** – sealed housing resistant to dust, moisture, and corrosion
- **Long operational life** – electronics fully protected from environmental stress
- **Built for extremes** – dependable in marine, outdoor, and chemical industrial environments

Applications

- **Machine Vision in Harsh Conditions** – robust green reference lighting for inspection in wet, dusty, or corrosive production lines
- **Outdoor & Industrial Inspection** – defect and surface detection in environments with humidity or contamination
- **Food & Pharmaceutical Processing** – IP68 design enables safe use in wash-down and hygienic areas
- **Aquaculture & Marine Monitoring** – stable lighting for submerged systems and marine biology applications
- **Display & Electronics Testing** – green light for calibration and defect inspection in rugged production facilities
- **Calibration & Metrology in Field Conditions** – consistent green reference source for optical alignment outdoors or in mobile setups

Also applicable in optical bonding and advanced R&D environments.

Benefits for Engineers

- **Sealed polyurethane design (IP68)** – waterproof, dustproof, and maintenance-free
- **High mechanical robustness** – vibration- and shock-resistant (IK10)
- **Consistent green output** – glare-free, stable light distribution through encapsulation
- **Long-term reliability** – resistant to corrosion, moisture, and environmental stress
- **Modular & scalable** – flexible lengths up to 3000 mm
- **Automation-ready** – full integration with Pollux, PLC, and SCADA

Technical specifications

General

Brand	LuxaLight
Application	Horticulture Machine Vision
LED type	2835
Material	Aluminum
Dimensions	220 × 24,2 × 16 mm
Mounting	Surface mounted
Cover type	Polyurethane
LEDs per piece	108.00

Lighting

Wave length	525nm
Beam angle	120 °

Measurement results

Illuminance (Lux)
(Object size: 1 piece)

	24V
5cm	232900 lx
10cm	79170 lx
15cm	38300 lx
20cm	23070 lx
25cm	15130 lx
30cm	11210 lx

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

	24V
5cm	2015.42 umol/m2
10cm	685.15 umol/m2
15cm	331.437 umol/m2
20cm	199.541 umol/m2
25cm	130.774 umol/m2
30cm	96.8179 umol/m2

Peak wavelength
(Object size: 1 piece)

521 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
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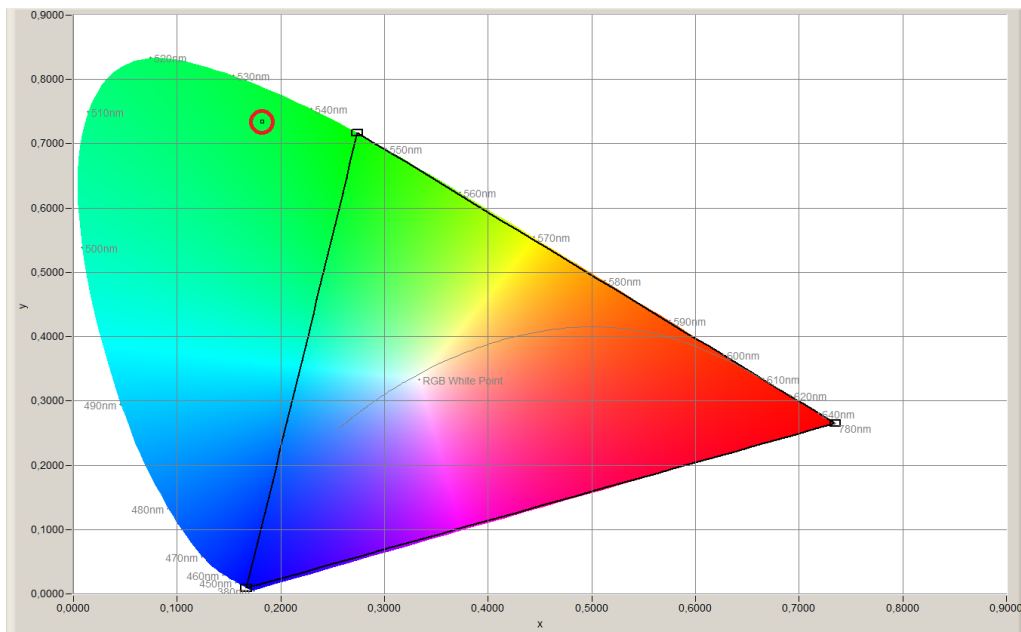
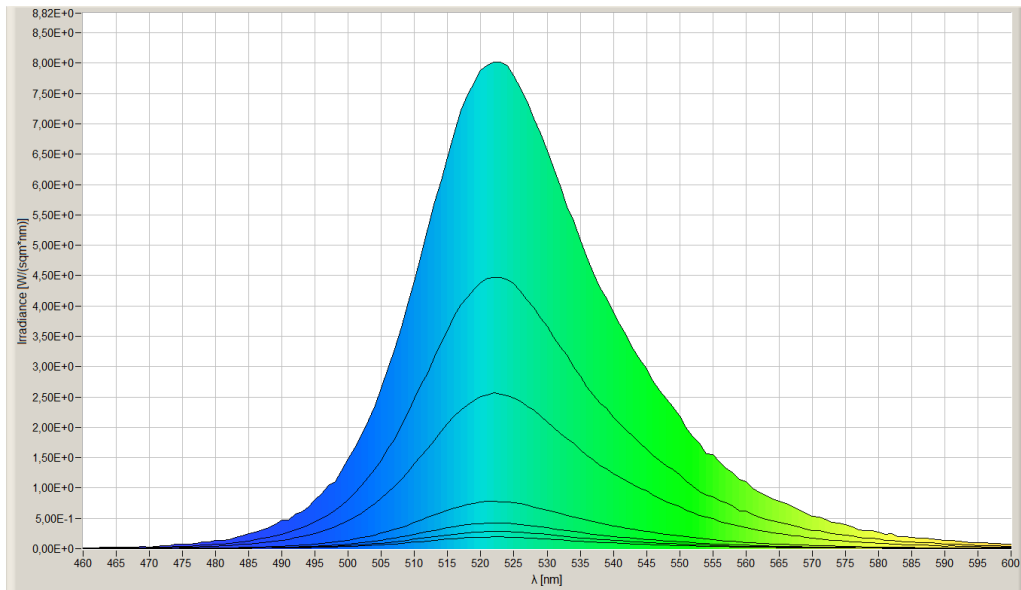
Environmental

Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C
IP class	IP 68

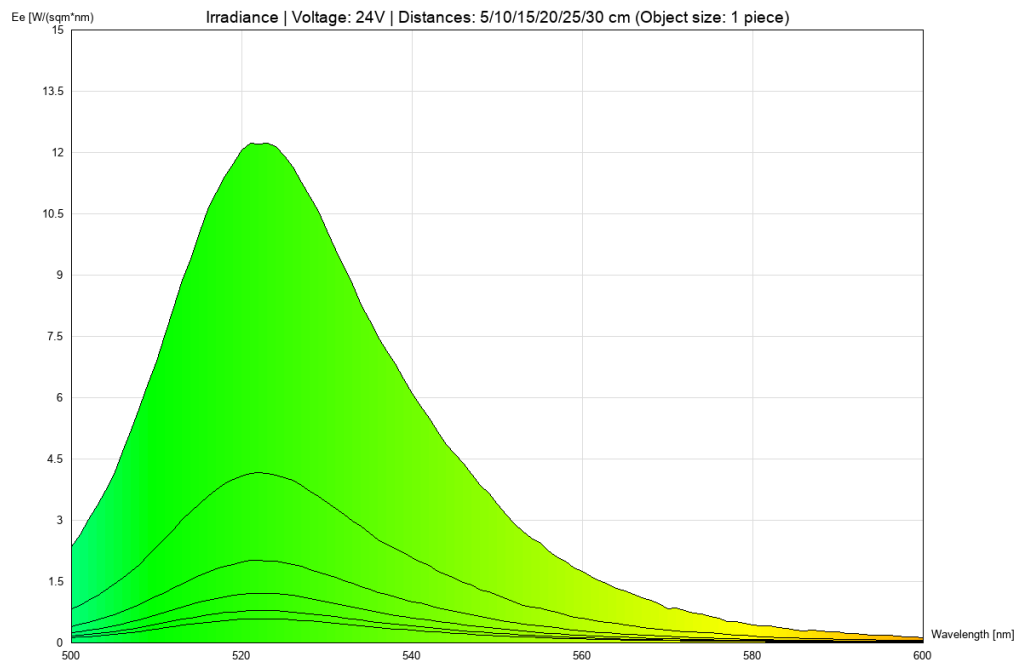
Directives - standards - certificates

Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

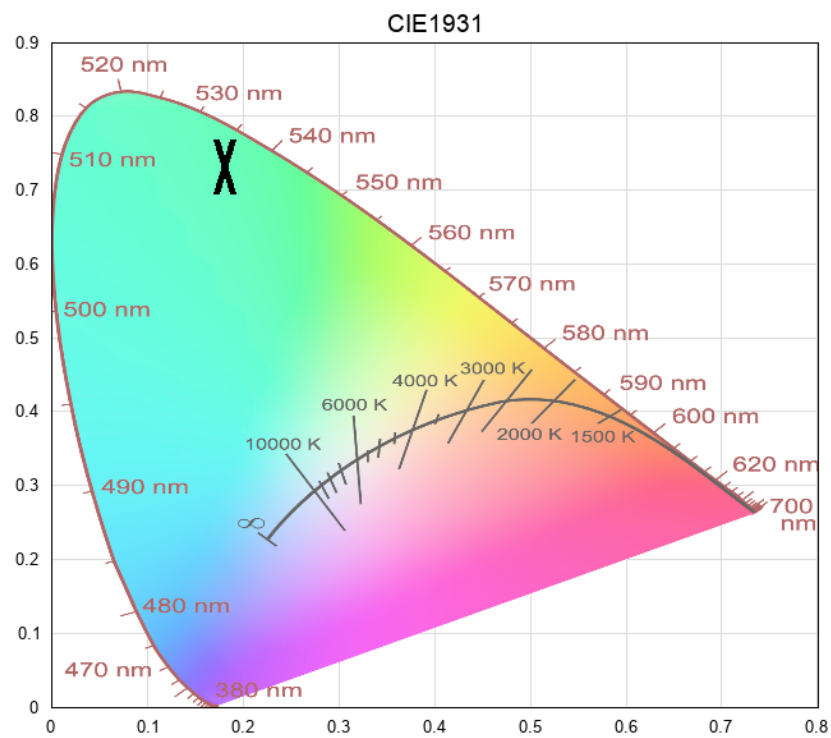
Measurement results



irradiance - 500-600-green (24V)



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