

Datasheet

LuxaLight LED-strip Blue Protected 140 LEDs (24 Volt, 140 LEDs, 2835, IP64)

LS24B140X2835PLX

Version: 2025-08-28.1

Product description

The LuxaLight LED Strip Blue Protected delivers powerful blue illumination within the 455–470 nm spectrum. With 140 high-quality 2835 LEDs per meter and an IP64 silicone coating, this strip is designed for industrial environments where stable and intense blue light is required. Its flexible construction (10 m reels, cuttable every 50 mm) allows easy integration into production lines and machine vision systems.

An optional NTC sensor can be applied for thermal monitoring and integration with the MaNima Pollux Industrial System.

Key Specifications

Property	Value / Description
Wavelength	Blue 455–470 nm
Illuminance (5 cm)	6 988 lx
PPFD (5 cm)	486 $\mu\text{mol}/\text{m}^2$
Beam Angle	120°
LED Specifications	140 LEDs/m, type 2835 SMD
Dimensions	10 m per reel; cuttable every 50 mm; width: 10 mm; height: 4 mm
Power & Consumption	24 V DC; ± 1 A/m; ± 24 W/m
Protection	IP64 – silicone coating, dust- and splash-water resistant
Mounting	3M VHB-4905 tape
Thermal Monitoring	Optional via external NTC sensor (Pollux-compatible)
Operating Temp.	–20 °C ... +60 °C (storage –40 °C ... +80 °C)
Standards	RoHS, CE, EN60598-1, EN62031, IEC62471

Applications

- Machine vision for contrast enhancement and object detection
- Inline quality control with color and surface recognition
- Automation systems using blue light as detection or marking source
- Signaling and process visualization in industrial installations
- R&D and test setups for industrial lighting applications

Also applicable in R&D and specialized lighting setups.

Benefits for Engineers

- High-intensity blue light with uniform 120° distribution
- Flexible, cuttable strip (50 mm segments, 10 m reels)
- Industrial-grade IP64 construction
- Optional NTC integration for thermal monitoring
- Easy integration with standard 24 V systems
- Reliable and low-maintenance for continuous industrial use

Integration with MaNima Pollux Industrial System

- Pulse and strobe modes for flexible illumination scenarios
- Automatic thermal protection through system control
- Optional NTC integration for real-time monitoring
- Seamless PLC/SCADA integration for industrial automation

- Open UDP API for advanced system control and logging

Technical specifications

General	
Brand	LuxaLight
LEDs / meter	140
LED type	2835
Length per reel	10 m
Length per segment	50 mm
LED strip width	10.00 mm
LED strip thickness	4.00 mm
PCB color	White
Mantle material	Silicon
Warranty	5 years
Lifetime	70000 hours
Lighting	
Wave length	455~470 nm
BIN	3 SDCM
Beam angle	120 °
LB waarde	L90B50
Measurement results	
Illuminance (Lux) (Object length: 200 mm)	24V
	5cm 6988 lx
	10cm 2542 lx
	15cm 1299 lx
	20cm 794.4 lx
	25cm 535.3 lx
	30cm 419.9 lx
Total PPFD umol/m2 (PAR 400-700nm) (Object length: 200 mm)	24V
	5cm 485.9 umol/m2
	10cm 178 umol/m2
	15cm 91.36 umol/m2
	20cm 56.3 umol/m2
	25cm 38 umol/m2
	30cm 29.72 umol/m2
Peak wavelength (Object length: 200 mm)	459 nm
Electronics	
Working voltage	24V
Current / meter	1.00 A / meter
Power consumption per meter	24.00 W / meter
PCB material	Copper

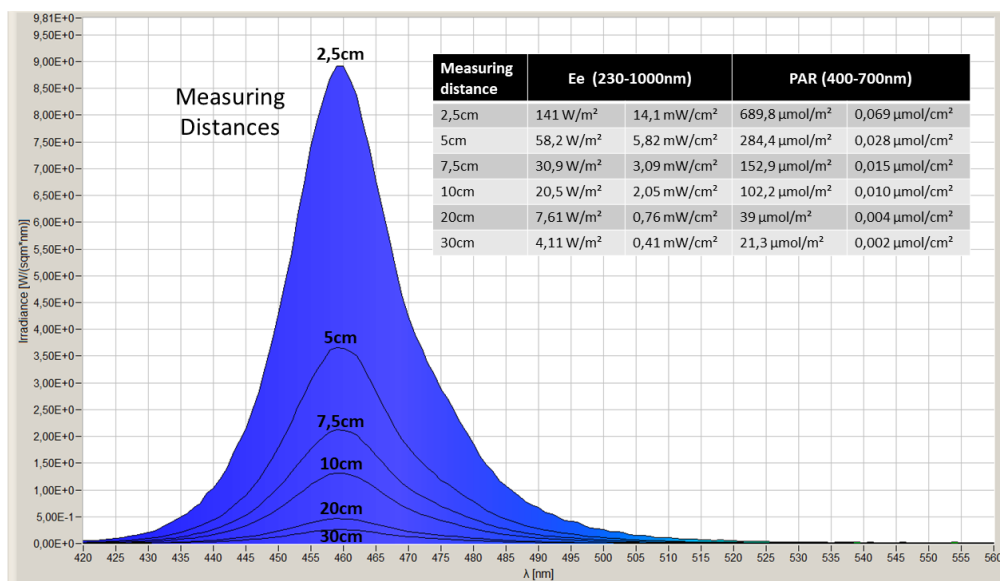
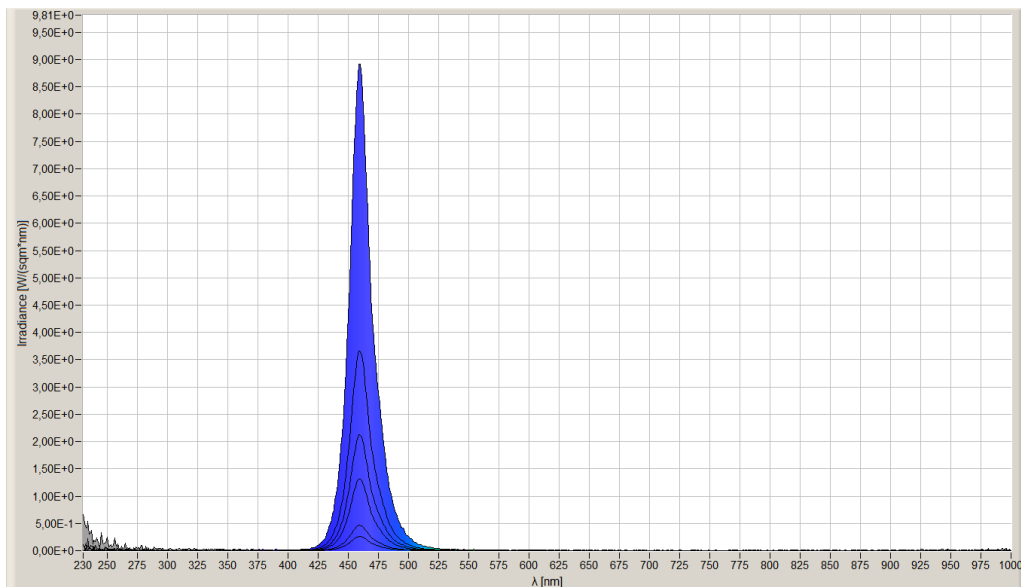
Environmental

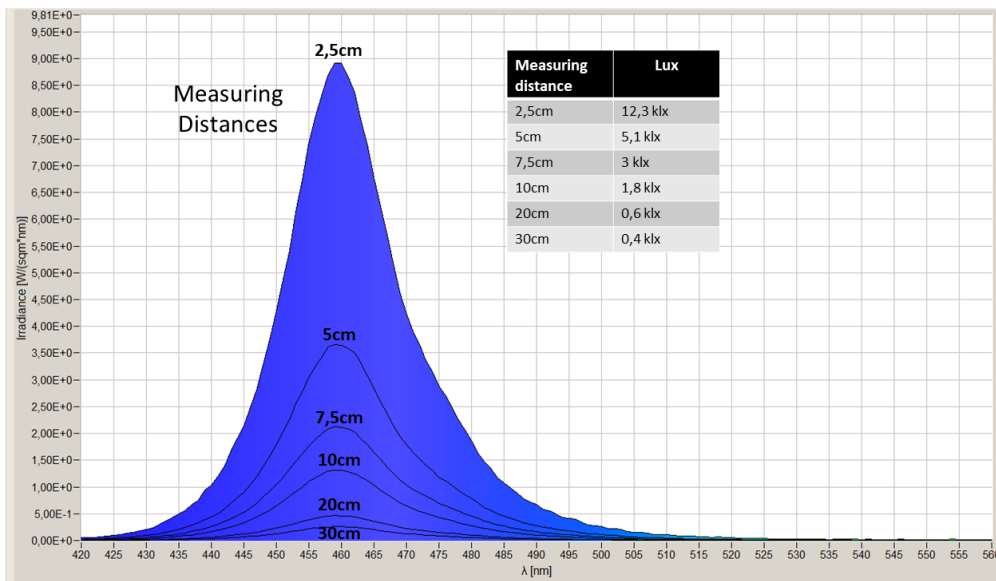
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C
IP class	IP 64

Directives - standards - certificates

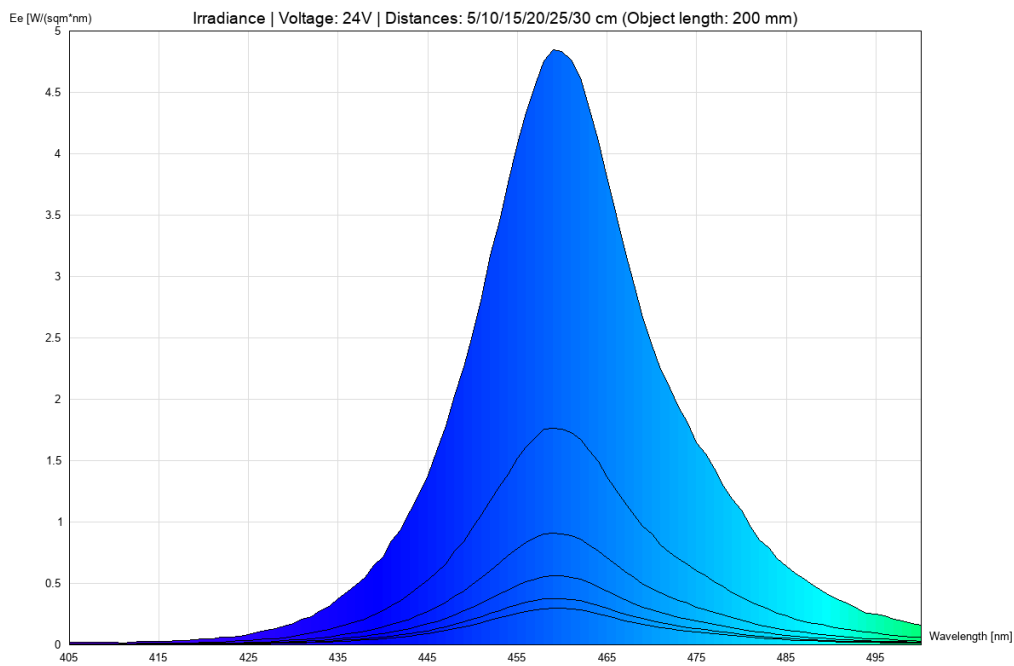
Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

Measurement results

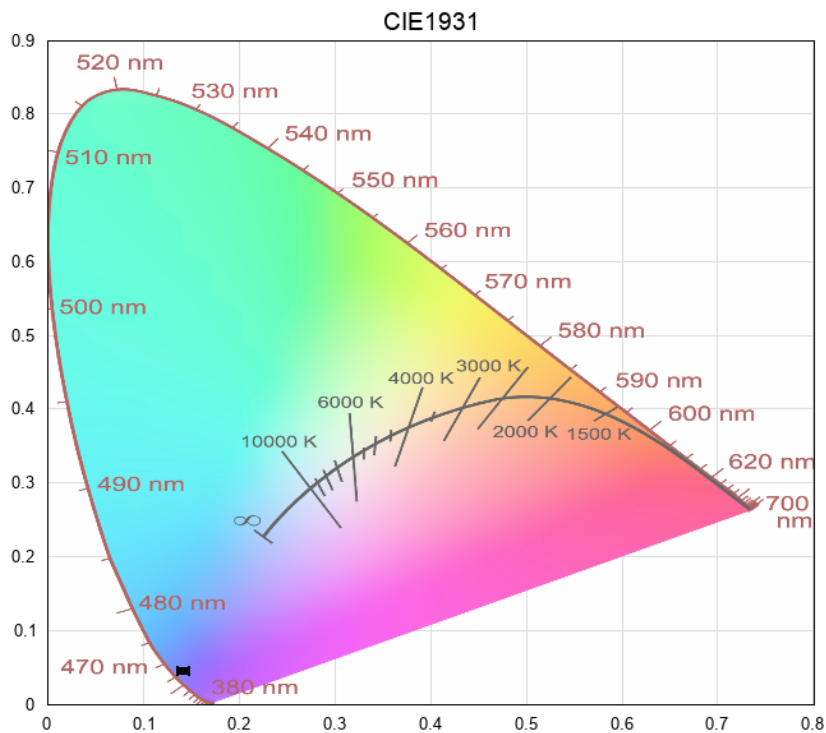




irradiance - 405-500-blue (24V)



cie1931



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