

## Datasheet

LED engine specification

Product type:  
**LF-24-4800K-24.2X16-OC**

Description:  
**LuxaLight Industrial LED Fixture Opaline cover 24V 4800K 24.2x16mm**



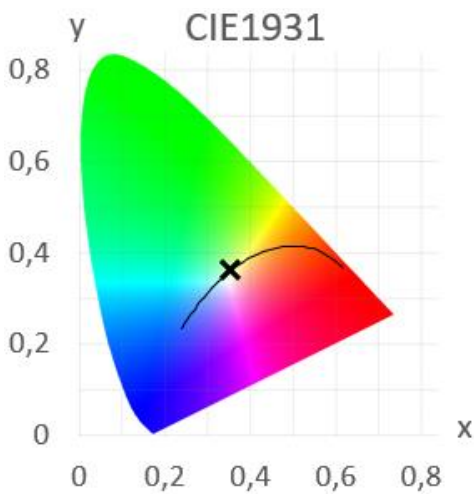
Date:  
05-12-2023

Technical Specifications					
LF-24-4800-24.2x16-OC		Opaline cover OC			
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	220mm - 3000mm * 24,2mm * 16mm (L x B x H)			
	Weight	Variable, depending on moulding and lenght			
	Infosheet	<a href="#">LuxaLight Industrial LED Fixtures infopage</a>			
Environment	Working Temperature	-5°C ~ +60°C			
	Storing Temperature	-5°C ~ +60°C			
	IP Grade	IP64			
	Mechanical Protection	PMMA opaline cover			
	Moulding Resin	N.A.			
Housing material	Anodized aluminium				
Electronic	Working Voltage	DC24V			
	Working Current	1,25 A / Engine			
	Working Wattage	30 W / Engine			
	LED Engine type	<a href="#">LuxaLight LED Engine Full Spectrum 4800K IP64 24V 2835</a>			
	Driving Method	Constant Voltage			
	Cable type	<a href="#">PUR Cable 4x 0.5mm<sup>2</sup> Gray I LuxaLight</a>			
	NTC Resistance	5KOhm			
	NTC Beta	3950			
Lighting	Engine Colour temperature (nm)	4800k Neutral White			
	CRI	≥ 95 Ra			
	BIN	3 SDCM			
	Voltage at measurement	24V	29V	34V	
	Current at measurement	1,25A	1,9A	2,65A	
	Wattage at measurement	30W	55,1W	90,1W	
	Measured Colour temperature (5cm)	4550k			
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	5	501 W/m <sup>2</sup>	770 W/m <sup>2</sup>	968 W/m <sup>2</sup>
		7,5	261 W/m <sup>2</sup>	401 W/m <sup>2</sup>	504 W/m <sup>2</sup>
		10	175 W/m <sup>2</sup>	269 W/m <sup>2</sup>	338 W/m <sup>2</sup>
		20	56 W/m <sup>2</sup>	86 W/m <sup>2</sup>	108 W/m <sup>2</sup>
		30	29 W/m <sup>2</sup>	45 W/m <sup>2</sup>	57 W/m <sup>2</sup>
		40	19 W/m <sup>2</sup>	29 W/m <sup>2</sup>	37 W/m <sup>2</sup>
		60	13 W/m <sup>2</sup>	20 W/m <sup>2</sup>	26 W/m <sup>2</sup>
	Total Lux per distance (CIE1931 2°) (1 LED Engine)	5	160 klx	224 klx	288 klx
		7,5	87 klx	122 klx	157 klx
		10	54 klx	76 klx	98 klx
		20	17 klx	24 klx	31 klx
		30	8,7 klx	12 klx	16 klx
		40	5,8 klx	8 klx	12 klx
		60	3,8 klx	5,2 klx	7,8 klx
	Total PPFd (400nm - 700nm) (1 LED Engine)	5	2216 μmol/m <sup>2</sup>	3367 μmol/m <sup>2</sup>	4236 μmol/m <sup>2</sup>
7,5		1155 μmol/m <sup>2</sup>	1755 μmol/m <sup>2</sup>	2208 μmol/m <sup>2</sup>	
10		772 μmol/m <sup>2</sup>	1173 μmol/m <sup>2</sup>	1476 μmol/m <sup>2</sup>	
20		250 μmol/m <sup>2</sup>	380 μmol/m <sup>2</sup>	478 μmol/m <sup>2</sup>	
30		129 μmol/m <sup>2</sup>	196 μmol/m <sup>2</sup>	247 μmol/m <sup>2</sup>	
40		82,4 μmol/m <sup>2</sup>	125 μmol/m <sup>2</sup>	158 μmol/m <sup>2</sup>	
60		56,1 μmol/m <sup>2</sup>	85 μmol/m <sup>2</sup>	107 μmol/m <sup>2</sup>	
Output Reduction Approx. Due to cover	30% - 35%				
Viewing Angle (θ)	120 ±5°				
<i>Keep the LED Fixture within operating temperatures, for more information about heat management, read the 'LuxaLight modular LED Fixtures infosheet'.</i>					

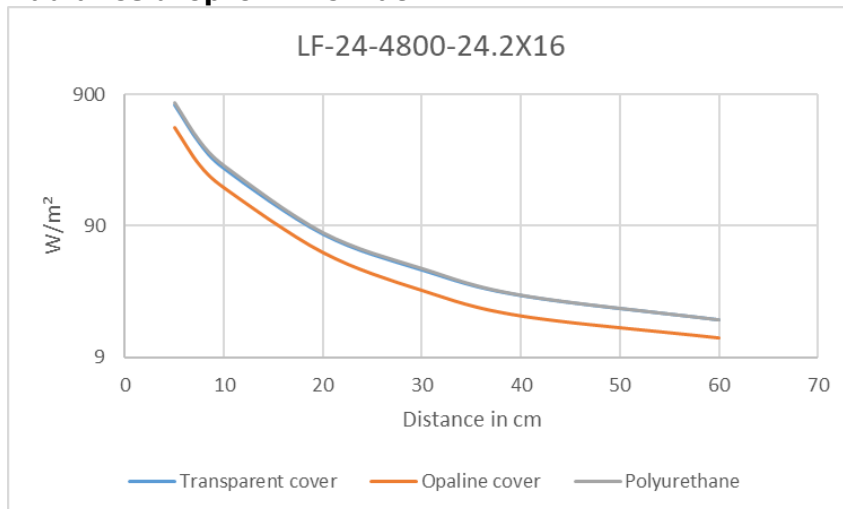
Additional Benefits of LuxaLight Industrial LED Fixture	
Benefits of LED Fixture	Multiple wavelengths in one housing
	No optics required due to high output
	Applicable in Humid environments (PU Version)
	Custom cable output and/or connector
	Wide range of mounting options
	In-house expertise to personally advice on LED fixture customization
	*By using the pulse mode in combination with real-time monitoring extremely high output
	*Different wavelengths in one fixture that can be controlled/pulsed separately

*\*In combination with the MaNima Pollux Industry*

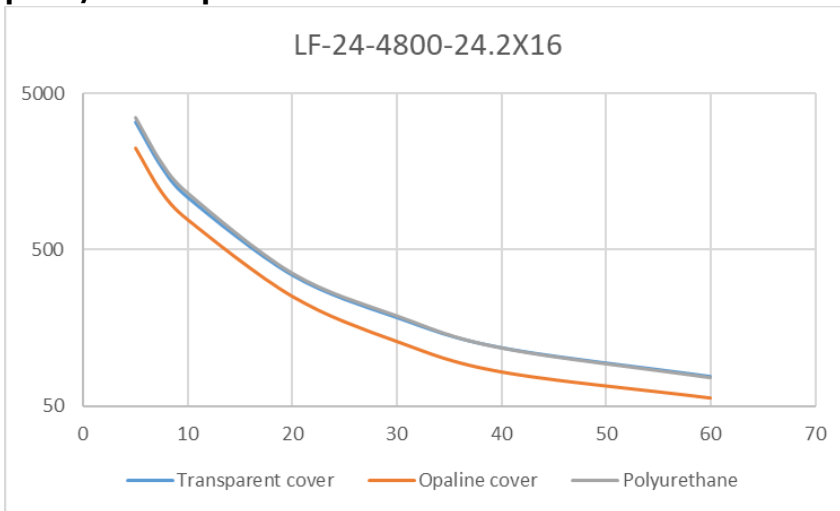
### CIE1931 White:



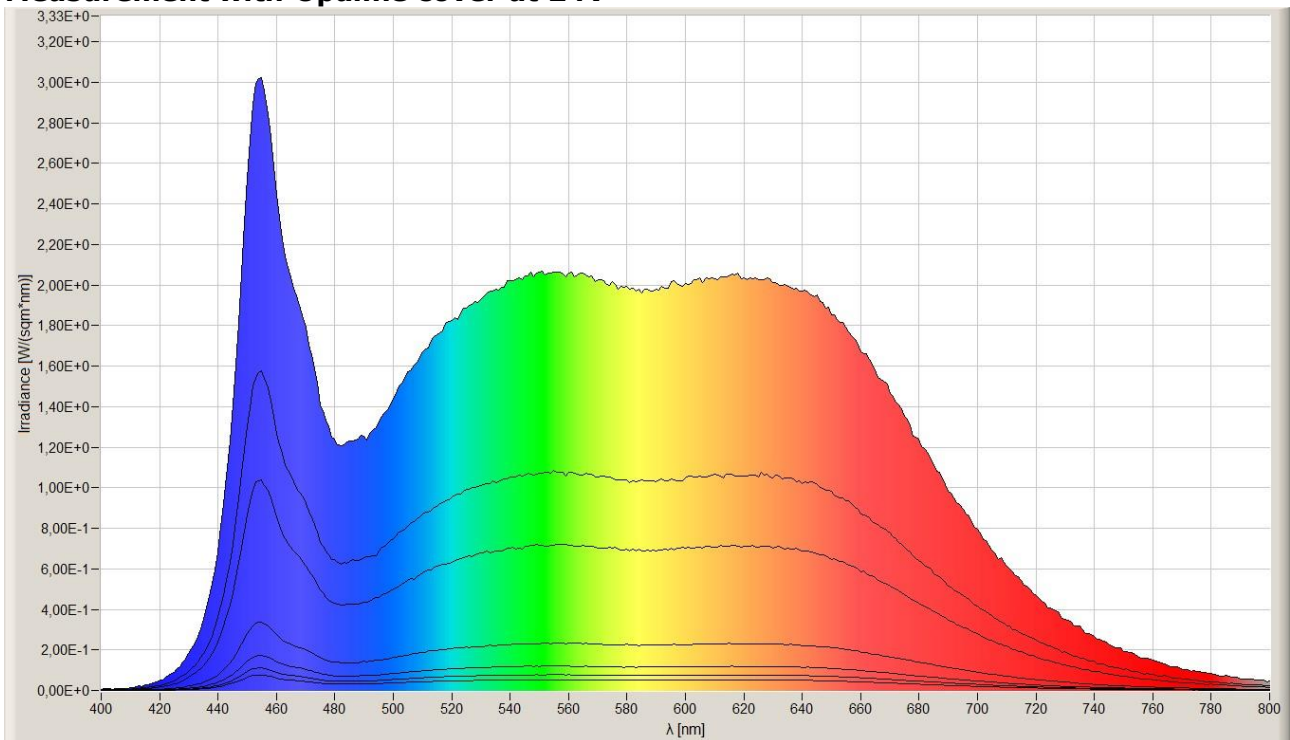
### Radiance drop-off in cm at 24V



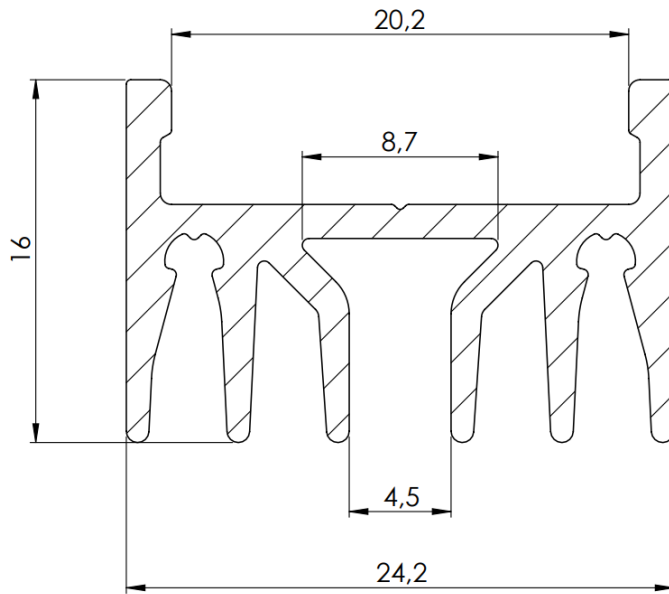
## μmol/m<sup>2</sup> drop-off in cm at 24V



## Measurement with Opaline cover at 24V

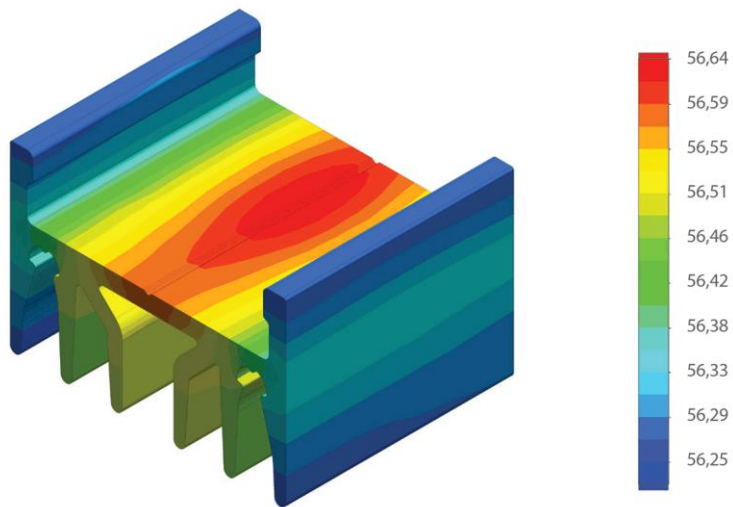


## Dimensions



## Temperature Distribution

Temperature (Solid) [°C]  
Temperature ambient: 25°C  
Total power: 36 W/m



**Certificate of Conformity:**

EC Council Directive 2004/108/EC  
Electromagnetic Compatibility

**Complies to the standards:**

- NEN-EN-IEC 61000-3-2:2019/A1:2021
- NEN-EN-IEC 61000-3-3:2013+A1:2017+A2:2021
- NEN-EN-IEC 61547:2009

While LuxaLight has made every reasonable effort to ensure the accuracy of the information in this brochure, LuxaLight does not guarantee that it is error-free, nor does LuxaLight make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. LuxaLight reserves the right to make any adjustments to the information contained herein at any time without notice. LuxaLight expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this catalogue are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult LuxaLight for the latest dimensions and design specifications.