

## Datasheet

LED engine specification

Product type:  
**LF-24-660-24.2X16-PU**

Description:  
**LuxaLight Industrial LED Fixture Transparent IP68 Deep Red 660nm  
24.2x16mm  
(24 Volt, 2835, IP68)**



Date:  
11-12-2023

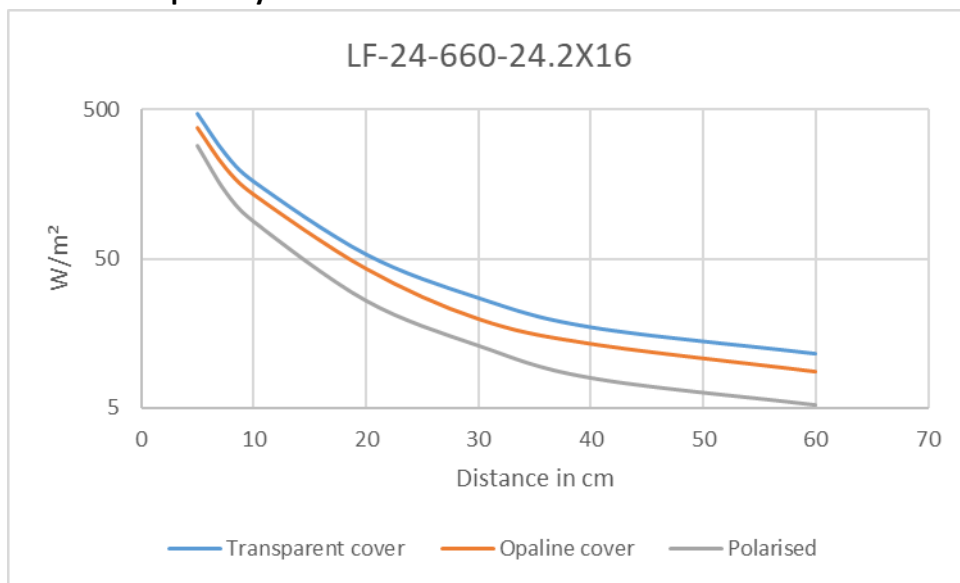
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Technical Specifications					
LF-24-660-24.2x16-PU		Polyurethane PU			
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	220mm - 3000mm * 24,2mm * 16mm (L x B x H)			
	Weight	Variable, depending on length			
	Infosheet	<a href="#">Luxalight Industrial LED Fixtures infopage</a>			
Environment	Working Temperature	-5°C ~ +60°C			
	Storing Temperature	-5°C ~ +60°C			
	IP Grade	IP68			
	Mechanical Protection	PU Shore 85			
	Moulding Resin	Robnor 420LVS			
	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 Deep Red 660nm 2835 IP64</a>			
	Driving Method	Constant Voltage			
	Cable type	<a href="#">PUR Cable 4x 0.5mm² Gray   LuxaLight</a>			
	NTC Resistance	5KOhm			
	NTC Beta	3950			
Lighting	Voltage at measurement	24V	29V	34V	
	Current at measurement	1,25A	1,9A	2,65A	
	Wattage at measurement	30W	55,1W	90,1W	
	Engine Wavelength (nm)	660nm Deep Red			
	Peak Measured Wavelength (5cm)	660nm			
	Peak Measured Radiance per distance (cm) (1 LED Engine)	5	27 W/m²	37,5 W/m²	46,9 W/m²
		7,5	12,6 W/m²	17,5 W/m²	21,9 W/m²
		10	7,7 W/m²	10,7 W/m²	13,4 W/m²
		20	2,3 W/m²	3,2 W/m²	4 W/m²
		30	1,2 W/m²	1,7 W/m²	2,1 W/m²
		40	0,8 W/m²	1,1 W/m²	1,4 W/m²
		60	0,5 W/m²	0,7 W/m²	0,9 W/m²
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	5	582 W/m²	813 W/m²	1031 W/m²
		7,5	272 W/m²	380 W/m²	482 W/m²
		10	179 W/m²	250 W/m²	317 W/m²
		20	54,9 W/m²	76,6 W/m²	97,2 W/m²
		30	27,1 W/m²	38 W/m²	48,2 W/m²
		40	17,3 W/m²	24,3 W/m²	30,8 W/m²
		60	11,2 W/m²	15,7 W/m²	20 W/m²
	Total Lux per distance (CIE1931 2°) (1 LED Engine)	5	38,7 klx	52,6 klx	66,5 klx
		7,5	18,1 klx	24,6 klx	31,1 klx
		10	11,7 klx	15,9 klx	20,1 klx
		20	3,6 klx	4,9 klx	6,2 klx
30		1,8 klx	2,5 klx	3,1 klx	
40		1,1 klx	1,5 klx	1,9 klx	
60		0,8 klx	1,1 klx	1,4 klx	
Total PPFD (400nm - 700nm) (1 LED Engine)	5	3150 µmol/m²	4435 µmol/m²	5641 µmol/m²	
	7,5	1473 µmol/m²	2074 µmol/m²	2638 µmol/m²	
	10	929 µmol/m²	1308 µmol/m²	1664 µmol/m²	
	20	282 µmol/m²	397 µmol/m²	505 µmol/m²	
	30	141 µmol/m²	199 µmol/m²	253 µmol/m²	
	40	91 µmol/m²	128 µmol/m²	163 µmol/m²	
	60	60 µmol/m²	84 µmol/m²	107 µmol/m²	
Output Reduction Approx.	0% - 5%				
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>					

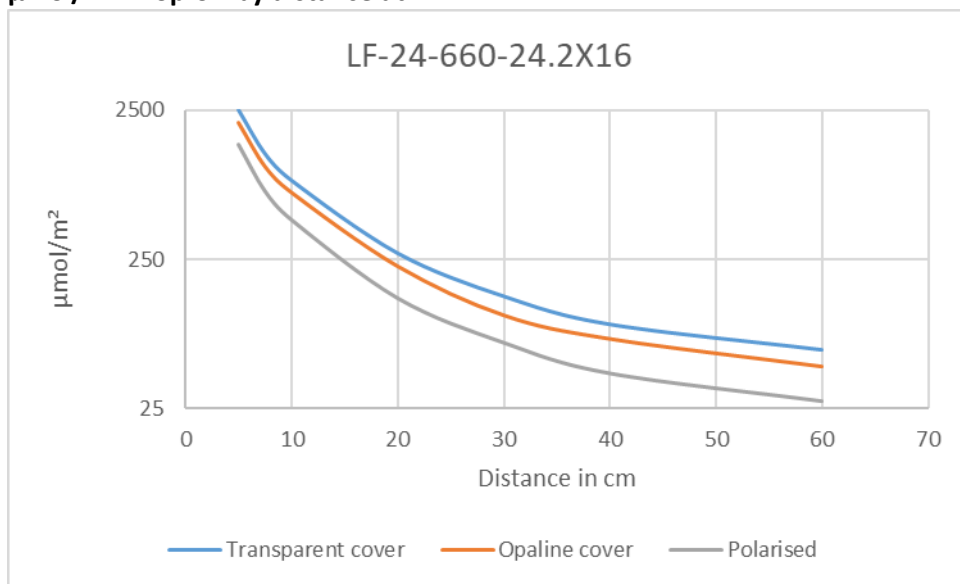
Additional Benefits of LuxaLight Industrial LED Fixture	
Benefits of LED Fixture	Multiple wavelengths in one housing
	No optics required due to high output
	Applicable in Humid environments (PU Version)
	Custom cable output and/or connector
	Wide range of mounting options
	In-house expertise to personally 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*

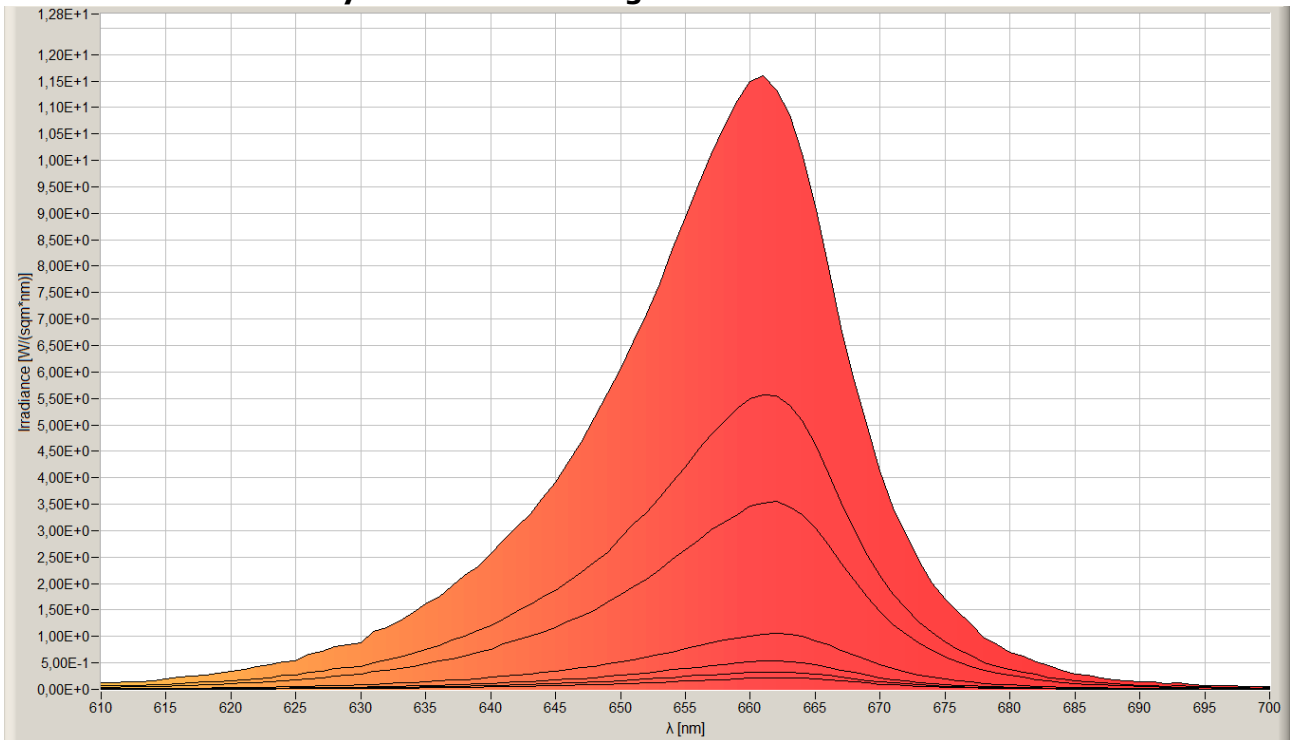
### Radiance Drop-off by distance at 24V



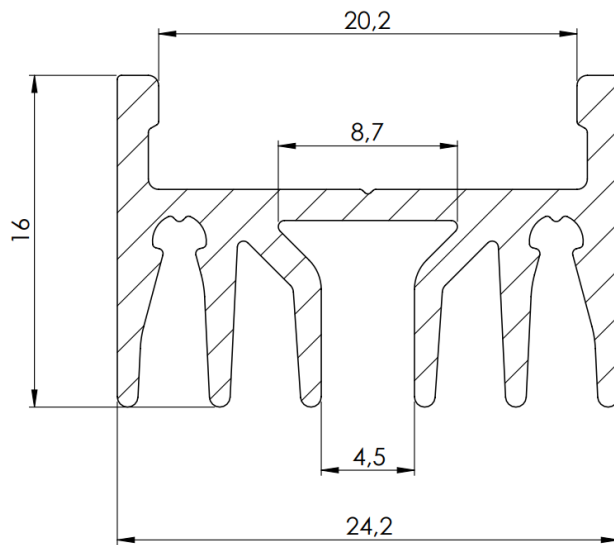
### µmol/m² Drop-off by distance at 24V



## Measurement with Polyurethane moulding at 24V



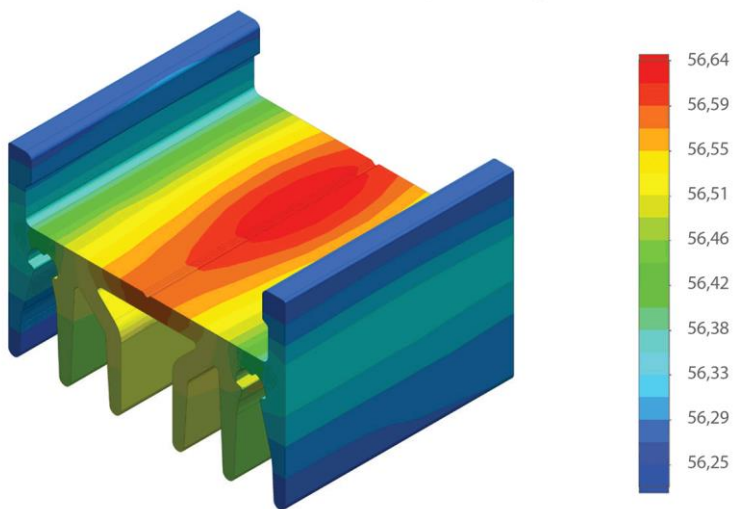
## Dimensions



## 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

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