

Datasheet

LED engine specification

Product type:
LF-24-640-24.2X16-POL

Description:
**LuxaLight Industrial LED Fixture Polarised cover Red 640nm 24.2x16mm
(24 Volt, 2835, IP64)**



Date:
13-12-2023

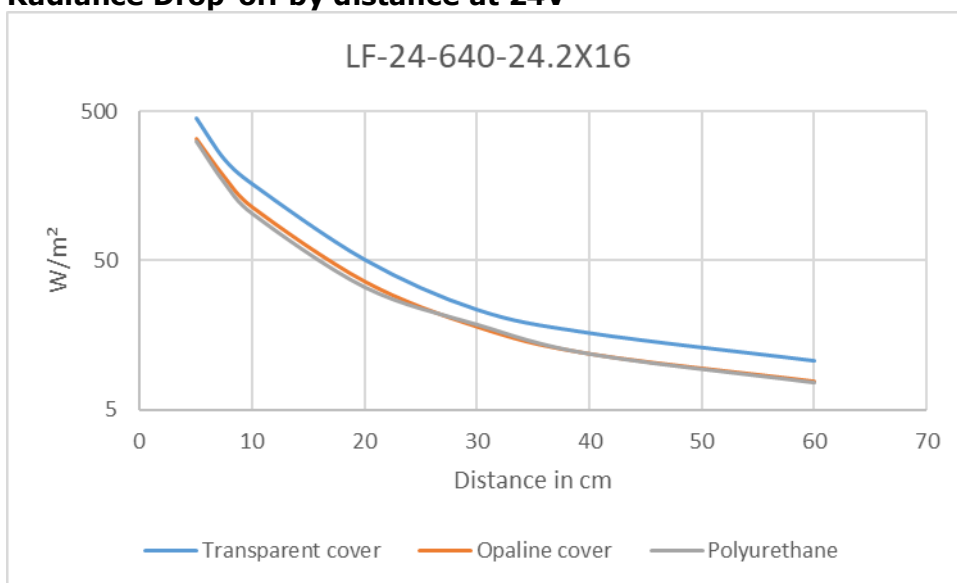
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Technical Specifications					
LF-24-640-24.2x16-POL		Polarised Cover POL			
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	220mm - 3000mm * 24,2mm * 16mm (L x B x H)			
	Weight	Variable, depending on moulding and length			
	Infosheet	LuxaLight Industrial LED Fixtures infopage			
Environment	Working Temperature	-5°C ~ +60°C			
	Storing Temperature	-5°C ~ +60°C			
	IP Grade	IP64			
	Mechanical Protection	PMMA Transparent 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	LuxaLight LED Engine Red 640nm 2835 IP64			
	Driving Method	Constant Voltage			
	Cable type	PUR Cable 4x 0.5mm² Gray LuxaLight			
	NTC Resistance	5KOhm			
	NTC Beta	3950			
Lighting	Voltage at measurement	24VDC	29VDC	34VDC	
	Current at measurement	1,25A	1,9A	2,65A	
	Wattage at measurement	30W	55,1W	90,1W	
	Engine Wavelength (nm)	640nm Red			
	Peak Measured Wavelength (5cm)	642nm			
	Peak Measured Radiance per distance (cm) (1 LED Engine)	5	11,1 W/m²	14,5 W/m²	17,9 W/m²
		7,5	5,3 W/m²	6,9 W/m²	8,5 W/m²
		10	3,3 W/m²	4,3 W/m²	5,3 W/m²
		20	1 W/m²	1,3 W/m²	1,6 W/m²
		30	0,5 W/m²	0,7 W/m²	0,8 W/m²
		40	0,3 W/m²	0,4 W/m²	0,5 W/m²
		60	0,2 W/m²	0,3 W/m²	0,4 W/m²
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	5	256 W/m²	332 W/m²	410 W/m²
		7,5	124 W/m²	161 W/m²	199 W/m²
		10	75 W/m²	98 W/m²	121 W/m²
		20	23 W/m²	30 W/m²	37 W/m²
		30	12 W/m²	16 W/m²	19 W/m²
		40	7 W/m²	9 W/m²	11 W/m²
		60	5 W/m²	6,4 W/m²	7,8 W/m²
	Total Lux per distance (CIE1931 2°) (1 LED Engine)	5	32 klx	45 klx	51 klx
		7,5	15 klx	21 klx	24 klx
		10	9,5 klx	13 klx	15 klx
		20	3 klx	4 klx	4,7 klx
		30	1,5 klx	2 klx	2,4 klx
		40	1 klx	1,3 klx	1,6 klx
		60	0,6klx	0,8 klx	1 klx
	Total PPF (400nm - 700nm) (1 LED Engine)	5	1261 µmol/m²	1624 µmol/m²	2020 µmol/m²
7,5		612 µmol/m²	788 µmol/m²	980 µmol/m²	
10		376 µmol/m²	484 µmol/m²	602 µmol/m²	
20		118 µmol/m²	152 µmol/m²	189 µmol/m²	
30		60 µmol/m²	77 µmol/m²	96 µmol/m²	
40		37 µmol/m²	47 µmol/m²	59 µmol/m²	
60		25 µmol/m²	32 µmol/m²	40 µmol/m²	
Output Reduction Approx.	50% - 60%				
Viewing Angle (θ)	90°				
<i>Keep the LED Fixture within operating temperatures, for more information about heat management, read the 'Luxalight modular LED Fixtures infosheet'.</i>					

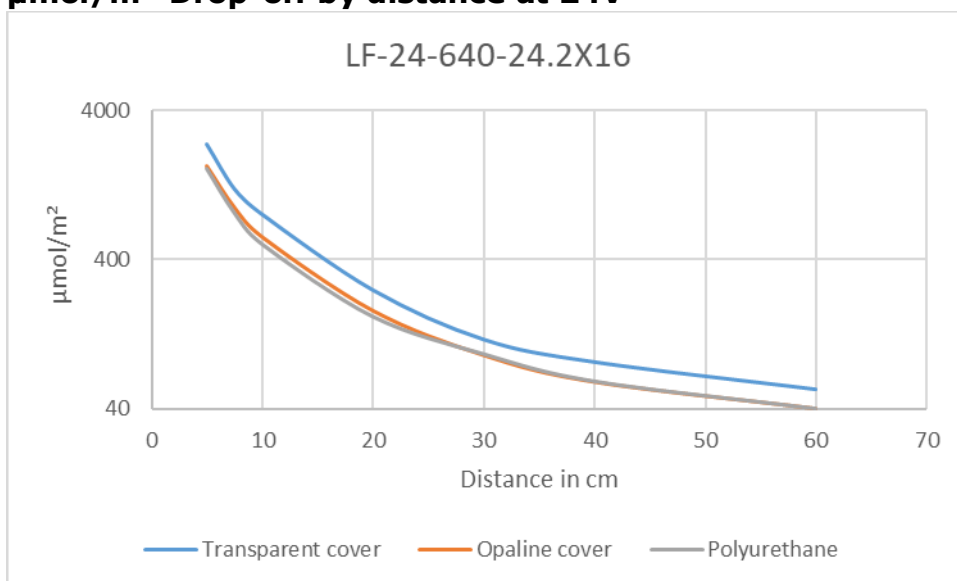
Additional Benefits of LuxaLight Industrial LED Fixture	
Benefits of LED Fixture	Multiple wavelengths in one housing
	No optics required due to high output
	Applicable in Humid environments (PU Version)
	Custom cable output and/or connector
	Wide range of mounting options
	In-house expertise to personally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

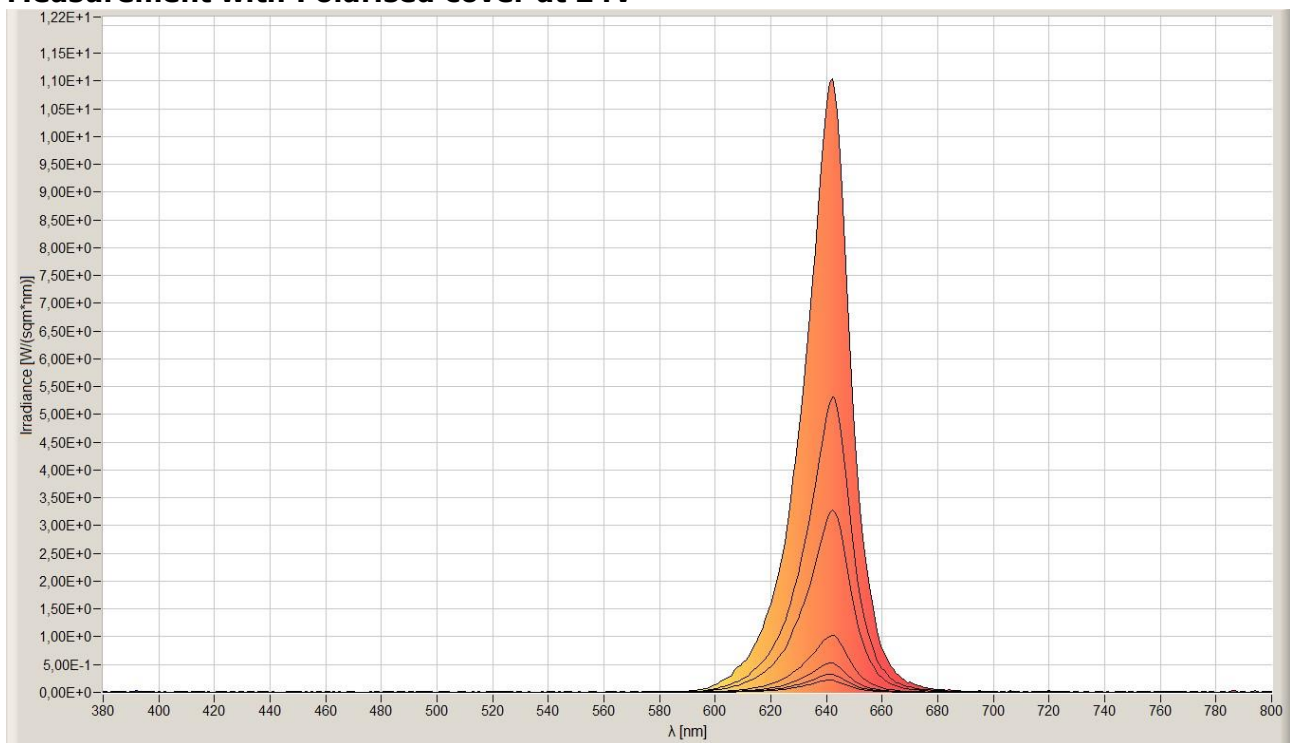
Radiance Drop-off by distance at 24V



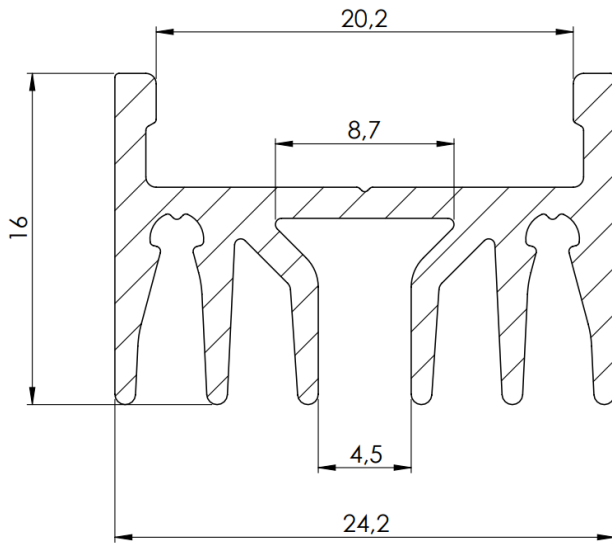
µmol/m² Drop-off by distance at 24V



Measurement with Polarised cover at 24V



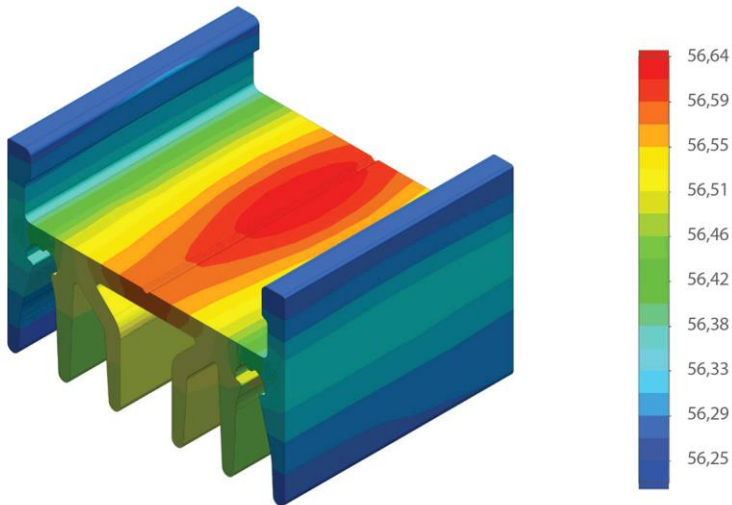
Dimensions:



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

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