

Datasheet

LED engine specification

Product type:
LF-24-450-24.2X16-PU

Description:
**LuxaLight Industrial LED Fixture Transparent IP68 Blue 450nm 24.2x16mm
(24 Volt, 2835, IP64)**



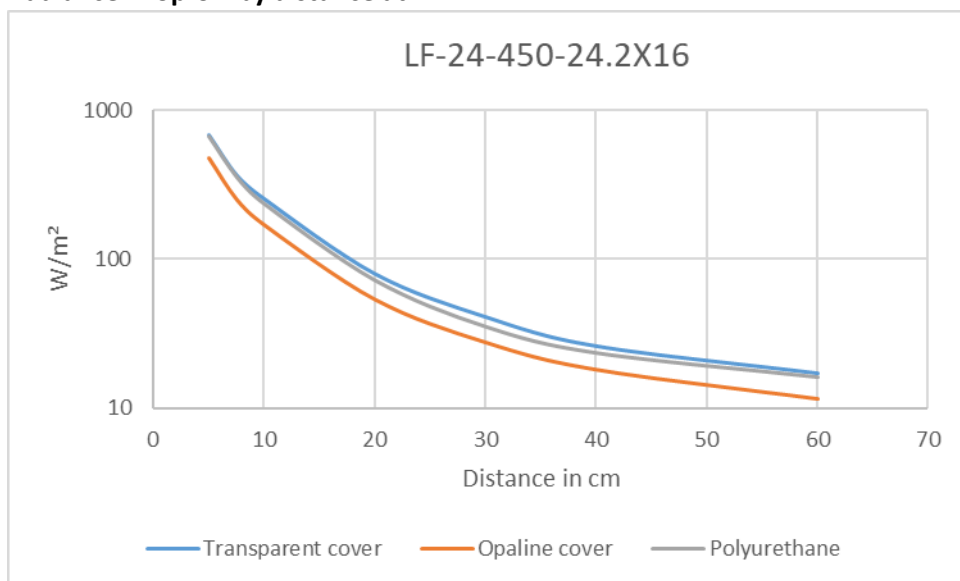
Date:
04-05-2023

Page 1 of 6

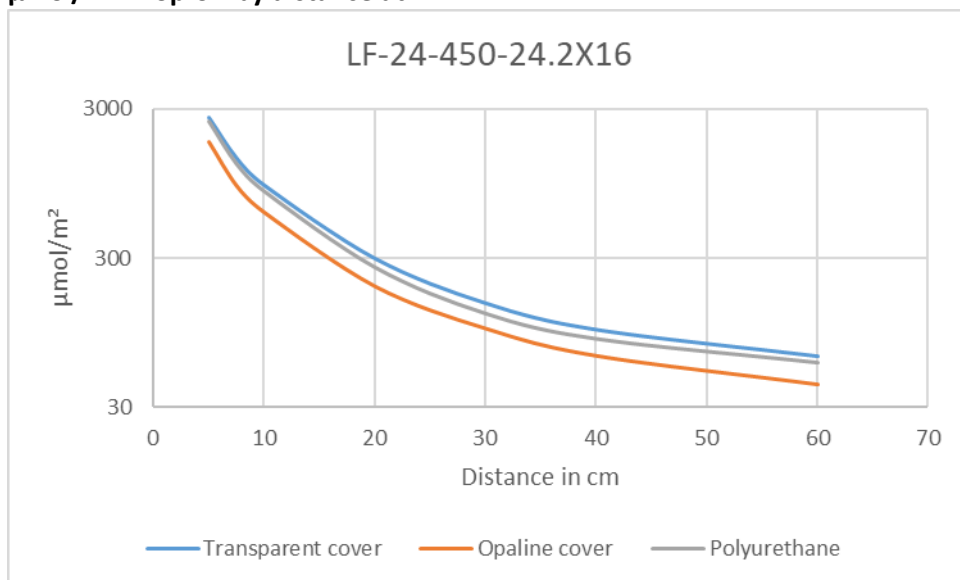
Technical Specifications					
LF-24-450-24.2x16-PU		Polyurethane moulding PU			
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	220mm - 3000mm * 24,2mm * 16mm (L x B x H)			
	Weight	Variable, depending on moulding and length			
	Infosheet	LuxaLight Industrial LED Fixtures infopage			
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	LuxaLight LED Engine Blue 450nm 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)	450nm Blue			
	Peak Measured Wavelength (5cm)	452nm			
	Peak Measured Radiance per distance (cm) (1 LED Engine)	5	28,7 W/m²	38,3 W/m²	50,9 W/m²
		7,5	14,6 W/m²	19,5 W/m²	25,9 W/m²
		10	9,6 W/m²	12,8 W/m²	17 W/m²
		20	3 W/m²	4 W/m²	5,3 W/m²
		30	1,5 W/m²	2 W/m²	2,7 W/m²
		40	1 W/m²	1,3 W/m²	1,8 W/m²
		60	0,7 W/m²	0,9 W/m²	1,2 W/m²
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	5	662 W/m²	920 W/m²	1271 W/m²
		7,5	355 W/m²	493 W/m²	681 W/m²
		10	234 W/m²	325 W/m²	449 W/m²
		20	72 W/m²	100 W/m²	138 W/m²
		30	35 W/m²	49 W/m²	68 W/m²
		40	24 W/m²	34 W/m²	47 W/m²
	Total Lux per distance (CIE1931 2°) (1 LED Engine)	5	25 klx	34 klx	45,6 klx
		7,5	13,4 klx	18,2 klx	24,4 klx
		10	8,9 klx	12,1 klx	16,2 klx
		20	2,8 klx	3,8 klx	5,1 klx
		30	1,4 klx	1,9 klx	2,6 klx
		40	0,9 klx	1,2 klx	1,6 klx
	Total PPFd (400nm - 700nm) (1 LED Engine)	5	2495 µmol/m²	3483 µmol/m²	4743 µmol/m²
		7,5	1293 µmol/m²	1805 µmol/m²	2458 µmol/m²
		10	849 µmol/m²	1185 µmol/m²	1614 µmol/m²
20		263 µmol/m²	367 µmol/m²	500 µmol/m²	
30		129 µmol/m²	180 µmol/m²	245 µmol/m²	
40		87 µmol/m²	121 µmol/m²	165 µmol/m²	
60	61 µmol/m²	85 µmol/m²	116 µmol/m²		
Output Reduction Approx.	5% - 10%				
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

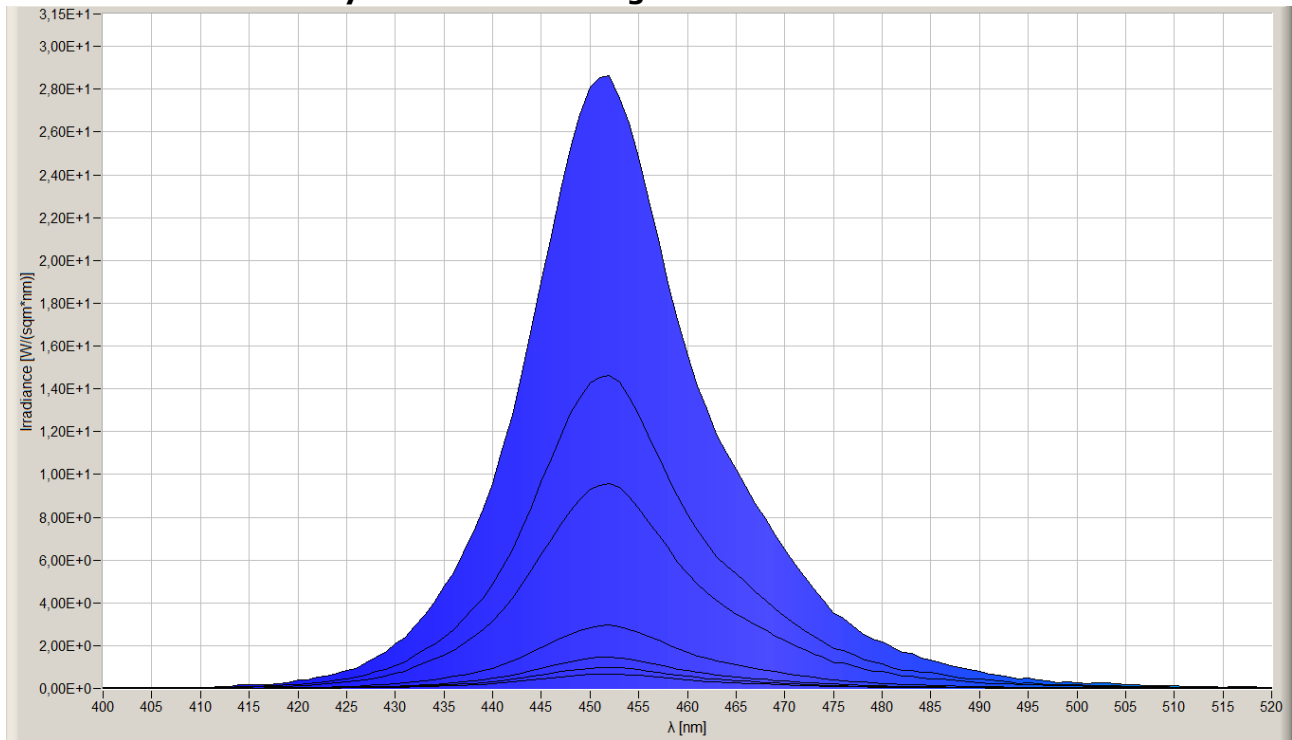
Radiance Drop-off by distance at 24V



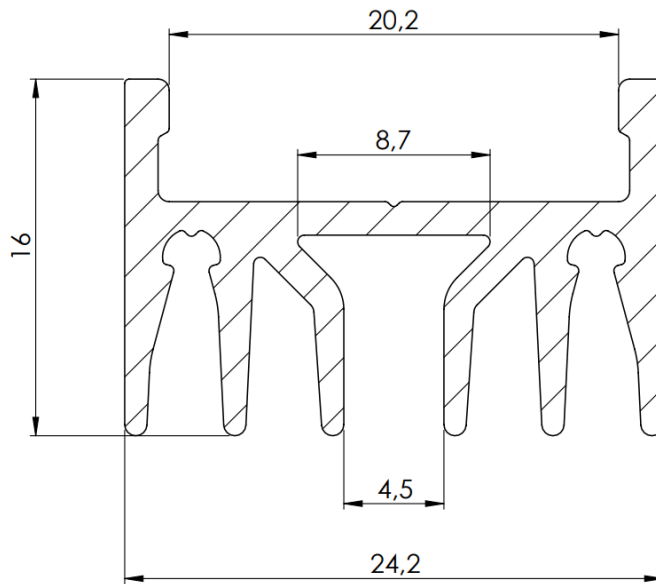
µmol/m² Drop-off by distance at 24V



Measurement with Polyurethane moulding at 24V

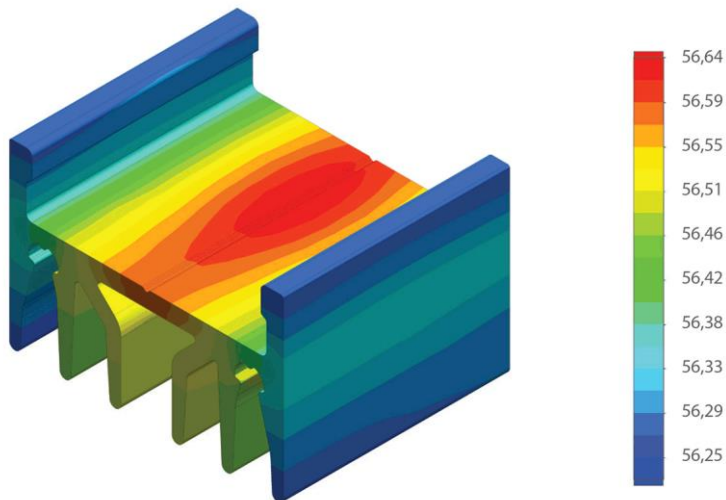


Dimensions:



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

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.