

Datasheet

LED engine specification

Product type:
LF-24-735-24.2X16-PU

Description:
**LuxaLight Industrial LED Fixture Transparent IP68 Far Red 735nm
24.2x16mm
(24 Volt, 2835, IP64)**



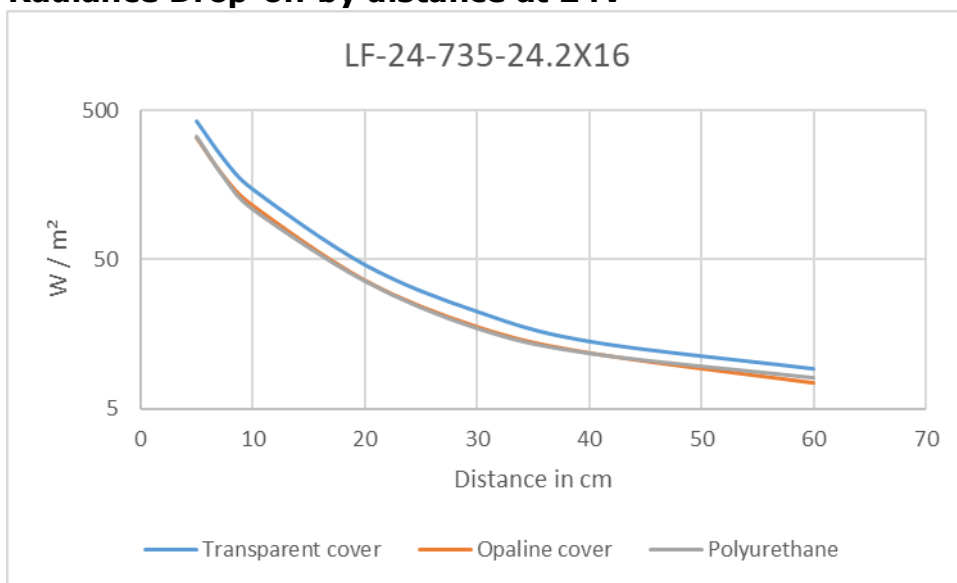
Date:
07-12-2023

Page 1 of 6

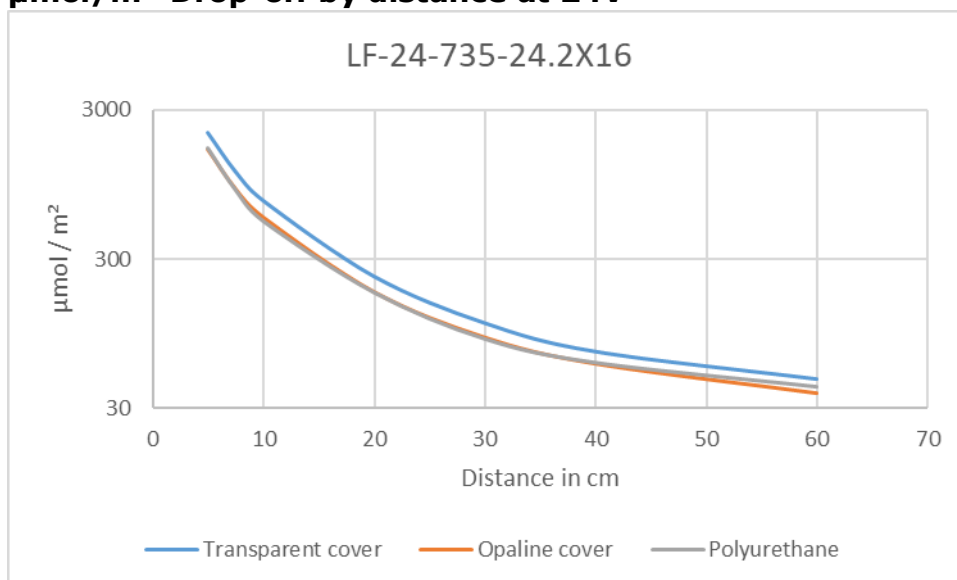
Technical Specifications					
LF-24-735-24.2x16-PU		Polyurethane moulding PU			
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	220mm - 3000mm * 24,2mm * 16mm (L x B x H)			
	Weight	Variable, depending on moulding and length			
	Infosheet	LuxaLight Industrial LED Fixtures 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 Far Red 735nm 24V 2835 IP64			
	Driving Method	Constant Voltage			
	Cable type	PUR Cable 4x 0.5mm² Gray LuxaLight			
	NTC Resistance	5KOhm			
	NTC Beta	3950			
Lighting	Engine Wavelength (nm)	735nm Far Red			
	Voltage at measurement	24V	29V	34V	
	Current at measurement	1,25A	1,9A	2,65A	
	Wattage at measurement	30W	55,1W	90,1W	
	Peak Measured Wavelength (5cm)	734nm			
	Peak Measured Radiance per distance (cm) (1 LED Engine)	5	8,9 W/m²	11,7 W/m²	14,5 W/m²
		7,5	4,7 W/m²	6,2 W/m²	7,7 W/m²
		10	2,9 W/m²	3,8 W/m²	4,7 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	331 W/m²	447 W/m²	571 W/m²
		7,5	174 W/m²	235 W/m²	300 W/m²
		10	108 W/m²	146 W/m²	186 W/m²
		20	35,8 W/m²	48,2 W/m²	61,5 W/m²
		30	17,2 W/m²	23,2 W/m²	29,6 W/m²
		40	11,8 W/m²	15,9 W/m²	20,3 W/m²
		60	8,1 W/m²	10,9 W/m²	13,9 W/m²
	Total PPFD ePAR (700nm - 750nm) (1 LED Engine)	5	1662 µmol/m²	2282 µmol/m²	2900 µmol/m²
		7,5	874 µmol/m²	1200 µmol/m²	1525 µmol/m²
		10	541 µmol/m²	742 µmol/m²	943 µmol/m²
		20	178 µmol/m²	244 µmol/m²	310 µmol/m²
30		88 µmol/m²	121 µmol/m²	154 µmol/m²	
40		61 µmol/m²	84 µmol/m²	107 µmol/m²	
60		42 µmol/m²	58 µmol/m²	74 µmol/m²	
Output Reduction Approx. Due to cover	15% - 20%				
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

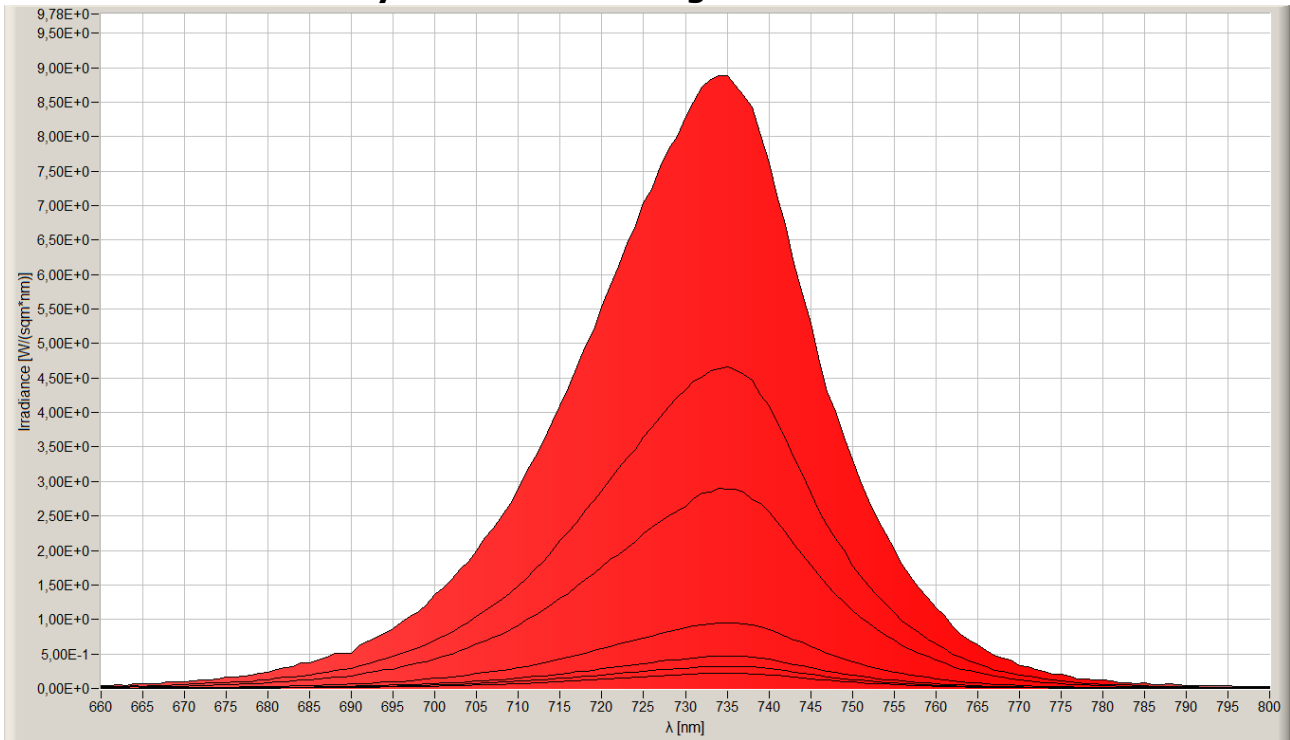
Radiance Drop-off by distance at 24V



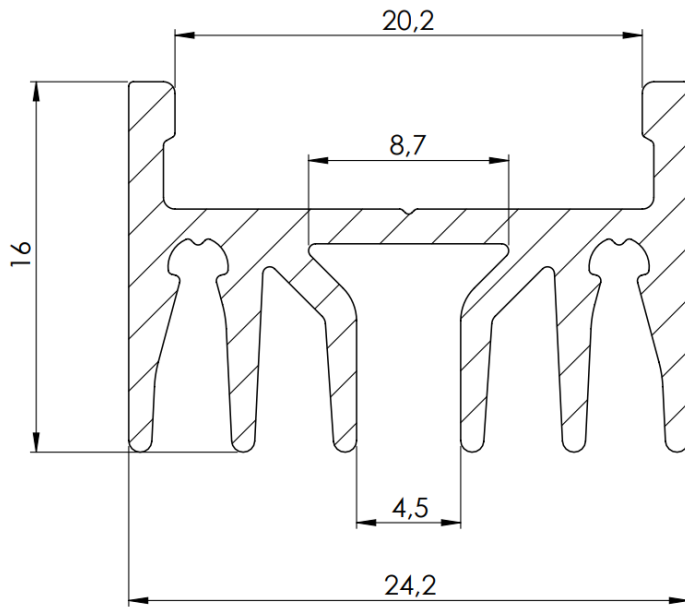
μmol/m² Drop-off by distance at 24V



Measurement with Polyurethane moulding at 24V

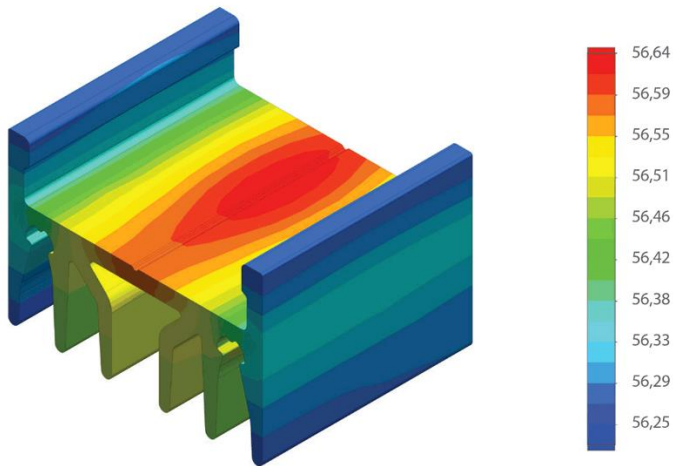


Dimensions



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

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