

Datasheet

LED engine specification

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

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



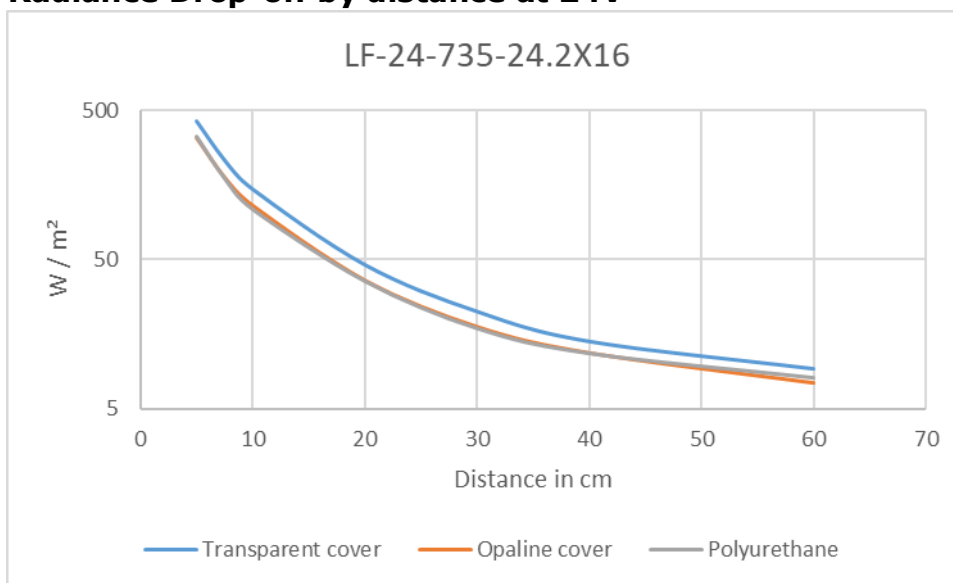
Date:
07-12-2023

Page 1 of 6

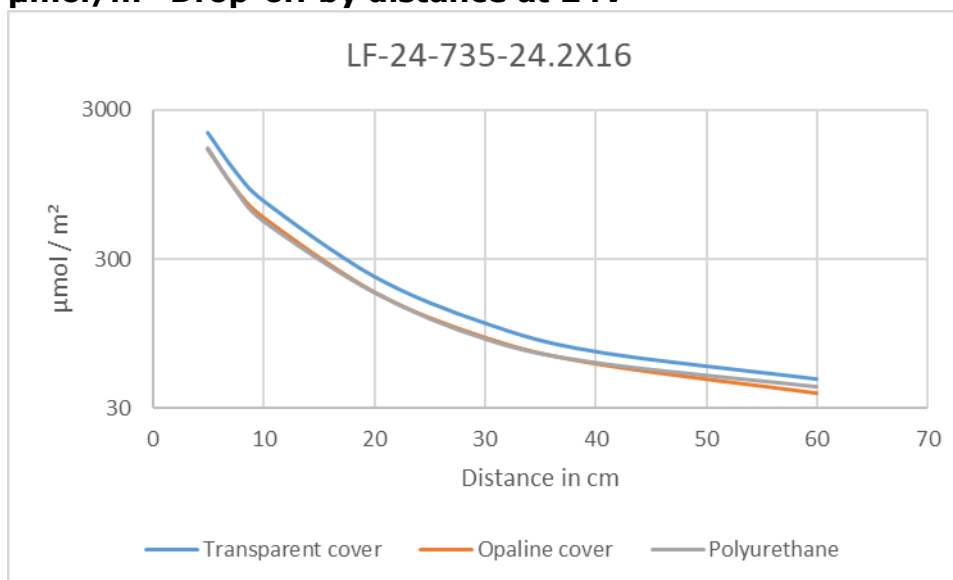
Technical Specifications					
LF-24-735-24.2x16-POL		Polarised cover POL			
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	220mm - 3000mm * 24,2mm * 16mm (L x B x H)			
	Weight	Variable, depending on moulding and lenght			
	Infosheet	LuxaLight Industrial LED Fixtures infopage			
Environment	Working Temperature	-5°C ~ +60°C			
	Storing Temperature	-5°C ~ +60°C			
	IP Grade	IP64			
	Mechanical Protection	Polarised PMMA 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 Deep Red 735nm 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)	737nm			
	Peak Measured Radiance per distance (cm) (1 LED Engine)	5	6,3 W/m²	8,3 W/m²	10,4 W/m²
		7,5	2,9 W/m²	3,9 W/m²	4,9 W/m²
		10	2 W/m²	2,7 W/m²	3,4 W/m²
		20	0,6 W/m²	0,8 W/m²	1 W/m²
		30	0,3 W/m²	0,4 W/m²	0,5 W/m²
		40	0,17 W/m²	0,2 W/m²	0,3 W/m²
		60	0,12 W/m²	0,14 W/m²	0,23 W/m²
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	5	283 W/m²	328 W/m²	407 W/m²
		7,5	139 W/m²	161 W/m²	200 W/m²
		10	88 W/m²	102 W/m²	126 W/m²
		20	26 W/m²	30 W/m²	37 W/m²
		30	13 W/m²	15 W/m²	19 W/m²
		40	7,9 W/m²	9,1 W/m²	12 W/m²
		60	5,2 W/m²	6 W/m²	7,9 W/m²
	Total PPFD ePAR (700nm - 750nm) (1 LED Engine)	5	1144 µmol/m²	1428 µmol/m²	1794 µmol/m²
7,5		528 µmol/m²	659 µmol/m²	828 µmol/m²	
10		356 µmol/m²	444 µmol/m²	558 µmol/m²	
20		109 µmol/m²	136 µmol/m²	171 µmol/m²	
30		53 µmol/m²	66 µmol/m²	83 µmol/m²	
40		32 µmol/m²	40 µmol/m²	50 µmol/m²	
60		22 µmol/m²	28 µmol/m²	35 µmol/m²	
Output Reduction Approx.	50% - 60%				
Polariser	90°				
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

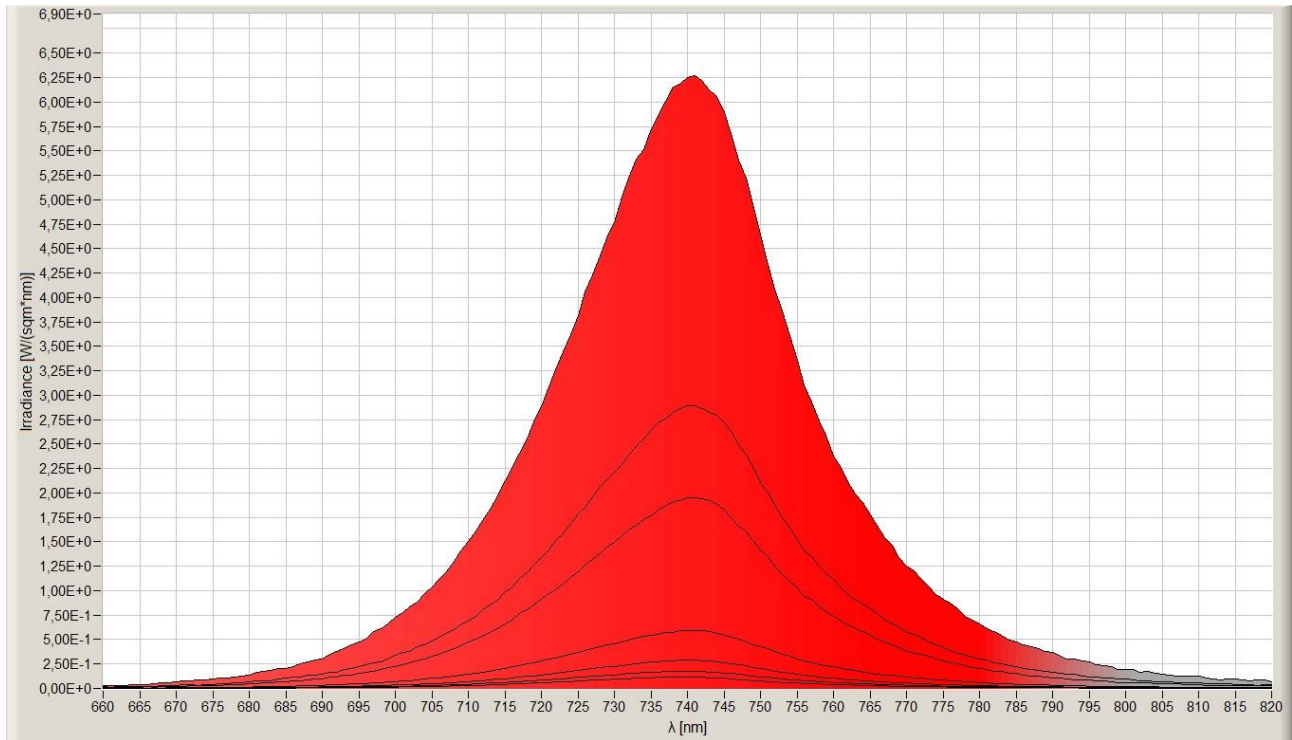
Radiance Drop-off by distance at 24V



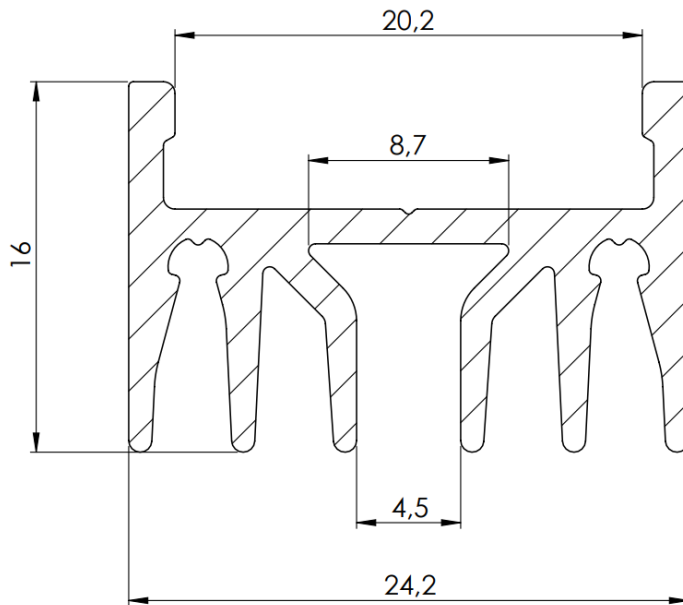
µmol/m² Drop-off by distance at 24V



Measurement with Polarised cover at 24V

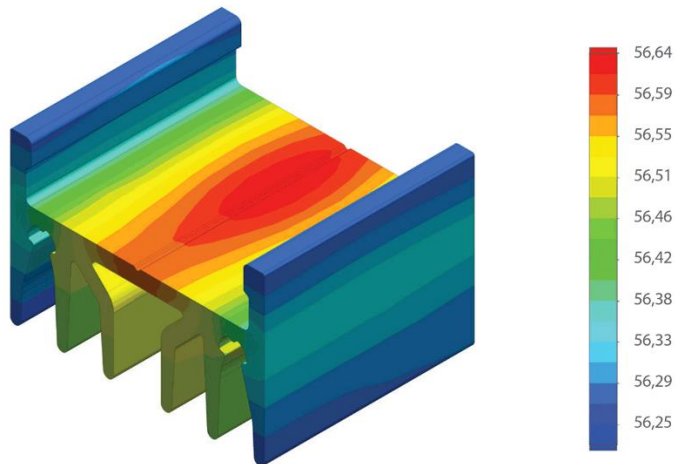


Dimensions



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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