

## Datasheet

LED engine specification

Product type:  
**LF-24-735-24.2X16-OC**

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



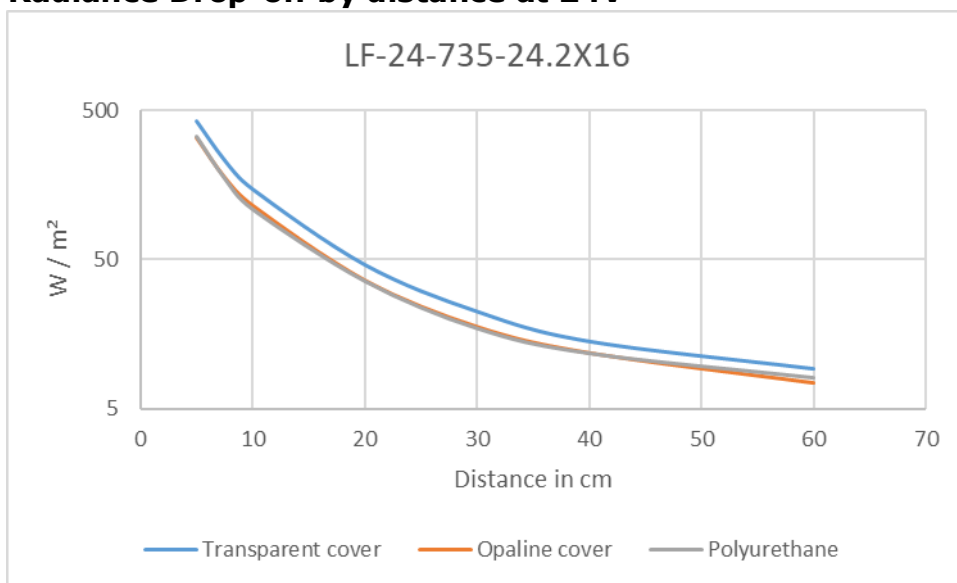
Date:  
07-12-2023

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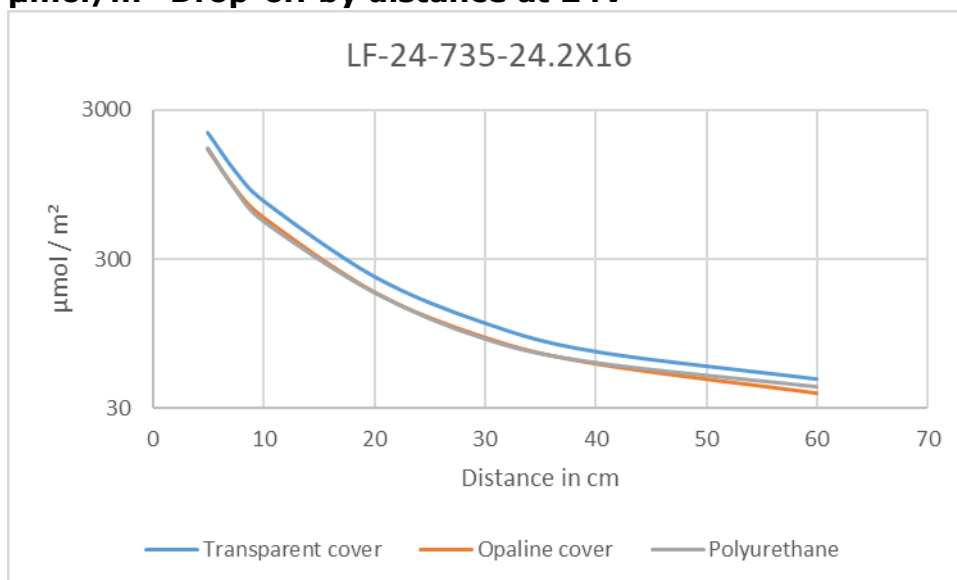
Technical Specifications					
LF-24-735-24.2x16-OC		Opaline Cover OC			
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	220mm - 3000mm * 24,2mm * 16mm (B x L x H)			
	Weight	Variable, depending on moulding and length			
	Infosheet	<a href="#">LuxaLight Industrial LED Fixtures infosheet</a>			
Environment	Working Temperature	-5°C ~ +60°C			
	Storing Temperature	-5°C ~ +60°C			
	IP Grade	IP64			
	Mechanical Protection	PMMA Opaline 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	<a href="#">LuxaLight LED Engine Far Red 735nm 24V 2835 IP64</a>			
	Driving Method	Constant Voltage			
	Cable type	<a href="#">PUR Cable 4x 0.5mm<sup>2</sup> Gray   LuxaLight</a>			
	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	8,77 W/m <sup>2</sup>	10,8 W/m <sup>2</sup>	13,7 W/m <sup>2</sup>
		7,5	4,77 W/m <sup>2</sup>	5,9 W/m <sup>2</sup>	7,5 W/m <sup>2</sup>
		10	3,07 W/m <sup>2</sup>	3,8 W/m <sup>2</sup>	4,8 W/m <sup>2</sup>
		20	0,96 W/m <sup>2</sup>	1,2 W/m <sup>2</sup>	1,5 W/m <sup>2</sup>
		30	0,48 W/m <sup>2</sup>	0,6 W/m <sup>2</sup>	0,75 W/m <sup>2</sup>
		40	0,32 W/m <sup>2</sup>	0,4 W/m <sup>2</sup>	0,5 W/m <sup>2</sup>
		60	0,20 W/m <sup>2</sup>	0,25 W/m <sup>2</sup>	0,3 W/m <sup>2</sup>
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	5	328 W/m <sup>2</sup>	474 W/m <sup>2</sup>	574 W/m <sup>2</sup>
		7,5	178 W/m <sup>2</sup>	257 W/m <sup>2</sup>	322 W/m <sup>2</sup>
		10	115 W/m <sup>2</sup>	166 W/m <sup>2</sup>	208 W/m <sup>2</sup>
		20	36 W/m <sup>2</sup>	52 W/m <sup>2</sup>	65 W/m <sup>2</sup>
		30	17,7 W/m <sup>2</sup>	26 W/m <sup>2</sup>	33 W/m <sup>2</sup>
		40	11,8 W/m <sup>2</sup>	17 W/m <sup>2</sup>	22 W/m <sup>2</sup>
	Total PPFd ePAR (700nm - 750nm) (1 LED Engine)	5	1640 µmol/m <sup>2</sup>	2074 µmol/m <sup>2</sup>	2640 µmol/m <sup>2</sup>
		7,5	892 µmol/m <sup>2</sup>	1128 µmol/m <sup>2</sup>	1436 µmol/m <sup>2</sup>
		10	575,8 µmol/m <sup>2</sup>	728 µmol/m <sup>2</sup>	927 µmol/m <sup>2</sup>
		20	182 µmol/m <sup>2</sup>	230 µmol/m <sup>2</sup>	293 µmol/m <sup>2</sup>
		30	90 µmol/m <sup>2</sup>	114 µmol/m <sup>2</sup>	145 µmol/m <sup>2</sup>
40		60 µmol/m <sup>2</sup>	76 µmol/m <sup>2</sup>	97 µmol/m <sup>2</sup>	
60	38 µmol/m <sup>2</sup>	48 µmol/m <sup>2</sup>	61µmol/m <sup>2</sup>		
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

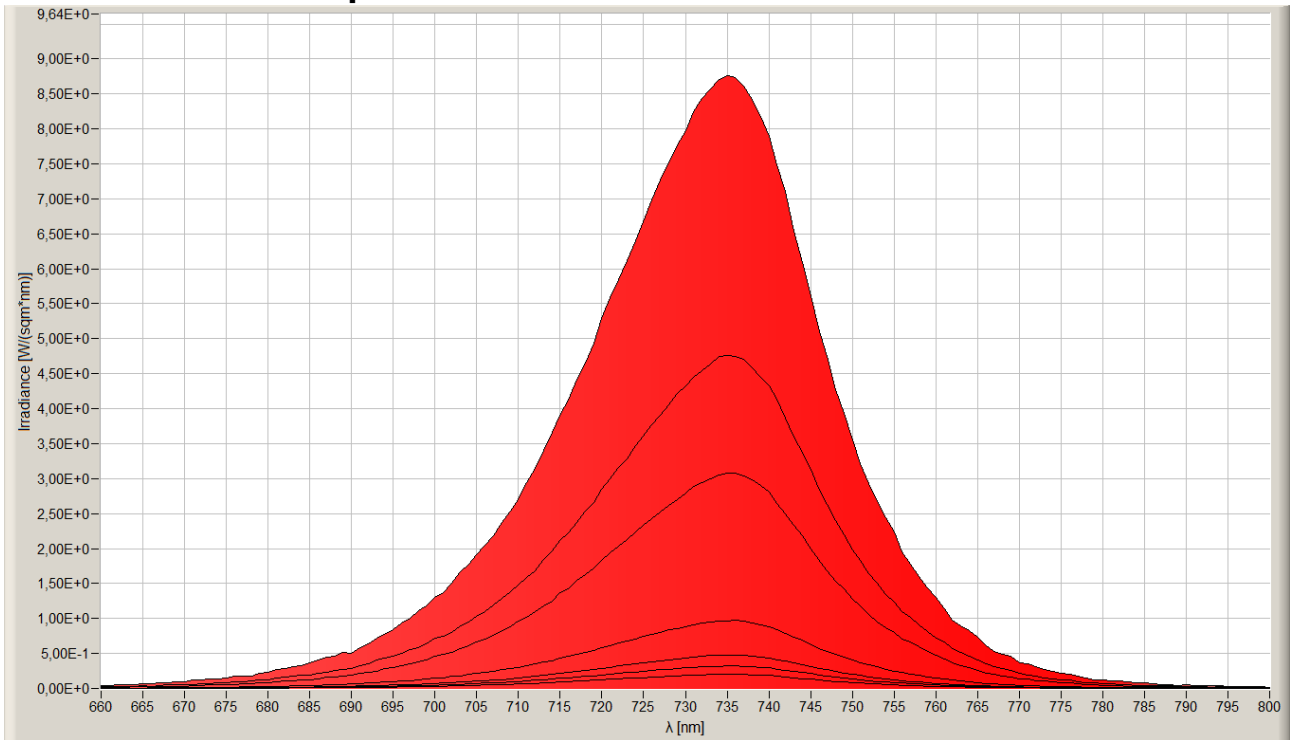
## Radiance Drop-off by distance at 24V



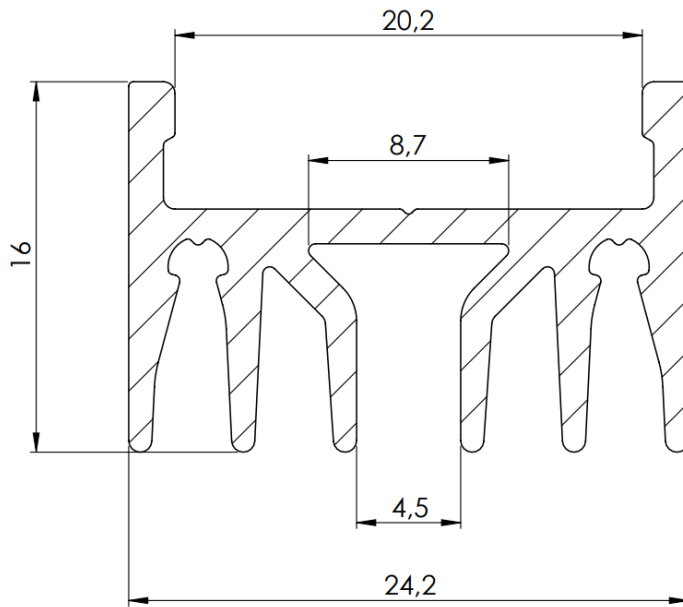
## µmol/m² Drop-off by distance at 24V



## Measurement with Opaline cover at 24V

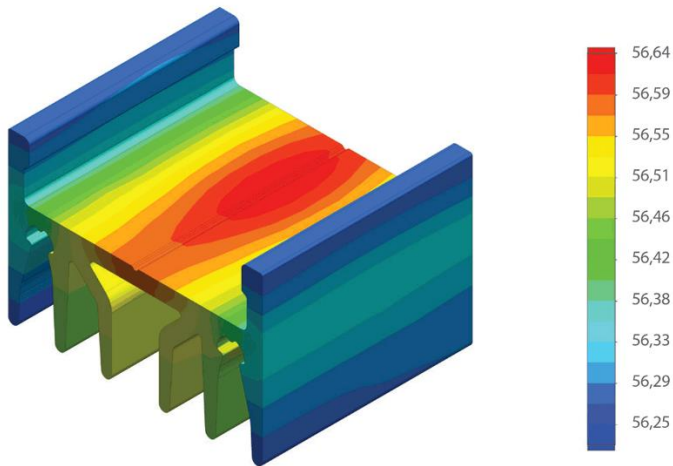


## Dimensions



## 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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