

## Datasheet

LED engine specification

Product type:  
**LF-24-660-24.2X16-POL**

Description:  
**LuxaLight Industrial LED Fixture Polarised cover Deep Red 660nm  
24.2x16mm  
(24 Volt, 2835, IP64)**



Date:  
04-05-2023

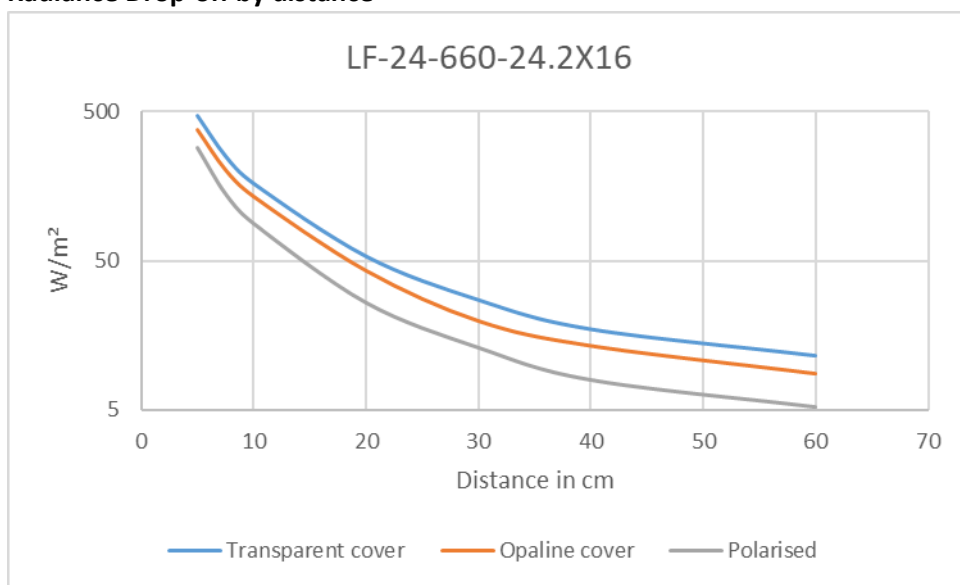
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Technical Specifications						
LF-24-660-24.2x16-(...)		Polarised cover POL	Transparent Cover TC	Opaline Cover OC		
General	LED Type	2835 SMD				
	LED Quantity	108 LEDs / Engine				
	Dimensions	Variable (see table) * 24,2mm * 16mm (B x L x H)				
	Weight	Variable, depending on moulding and lenght				
	Mounting	Surface mounted				
Environment	Working Temperature	-5°C ~ +60°C				
	Storing Temperature	-5°C ~ +60°C				
	IP Grade	IP64	IP64	IP64		
	Mechanical Protection	Polarised PMMA cover	PMMA Transparant cover	PMMA Opaline cover		
	Moulding Resin	N.A.	N.A.	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 Deep Red 660nm 2835 IP64</a>				
	Driving Method	Constant Voltage				
	Cable type	<a href="#">PUR Cable 4x 0.5mm² Gray   LuxaLight</a>				
	NTC Resistance	5KOhm				
	NTC Beta	3950				
Lighting	Engine Wavelength (nm)	660nm Deep Red				
	Peak Measured Wavelength (5cm)	661nm	660nm	660nm		
	Peak Measured Radiance per distance (cm) (1 LED Engine)*	5	11,6 W/m²	20,7 W/m²	17,34 W/m²	
		7,5	5,6 W/m²	10,48 W/m²	8,6 W/m²	
		10	3,5 W/m²	6,85 W/m²	5,7 W/m²	
		20	1,1 W/m²	2,2 W/m²	1,8 W/m²	
		30	0,53 W/m²	1,1 W/m²	0,85 W/m²	
		40	0,33 W/m²	0,74 W/m²	0,59 W/m²	
		60	0,22 W/m²	0,5 W/m²	0,38 W/m²	
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)*	5	283 W/m²	466 W/m²	379 W/m²	
		7,5	139 W/m²	250 W/m²	204 W/m²	
		10	88 W/m²	164 W/m²	136 W/m²	
		20	26 W/m²	53,6 W/m²	43,2 W/m²	
		30	13 W/m²	27,4 W/m²	19,9 W/m²	
		40	7,9 W/m²	17,5 W/m²	13,6 W/m²	
	Total Lux per distance (CIE1931 2°) (1 LED Engine)*	5	17klx	29,7 klx	24,1 klx	
		7,5	8klx	15,3 klx	12,5 klx	
		10	5klx	10 klx	8,27 klx	
		20	1,5klx	3,25 klx	2,64 klx	
		30	0,8klx	1,66 klx	1,23 klx	
		40	0,5klx	1,1 klx	0,85 klx	
	Total PPFD (400nm - 700nm) (1 LED Engine)*	5	1462 µmol/m²	2525 µmol/m²	2059 µmol/m²	
		7,5	713 µmol/m²	1284 µmol/m²	1045 µmol/m²	
10		458 µmol/m²	849 µmol/m²	700 µmol/m²		
20		137 µmol/m²	276 µmol/m²	224 µmol/m²		
30		69 µmol/m²	142 µmol/m²	105 µmol/m²		
40		43 µmol/m²	92 µmol/m²	72,9 µmol/m²		
60	28 µmol/m²	62 µmol/m²	47,5 µmol/m²			
Output Reduction Approx.	50% - 60%	0% - 5%	20% - 25%			
Polariser	90°	N.A.	N.A.			
Viewing Angle (θ)	120 ±5°					
<i>*To reach much higher performances, use MaNima Pollux Industry</i>						

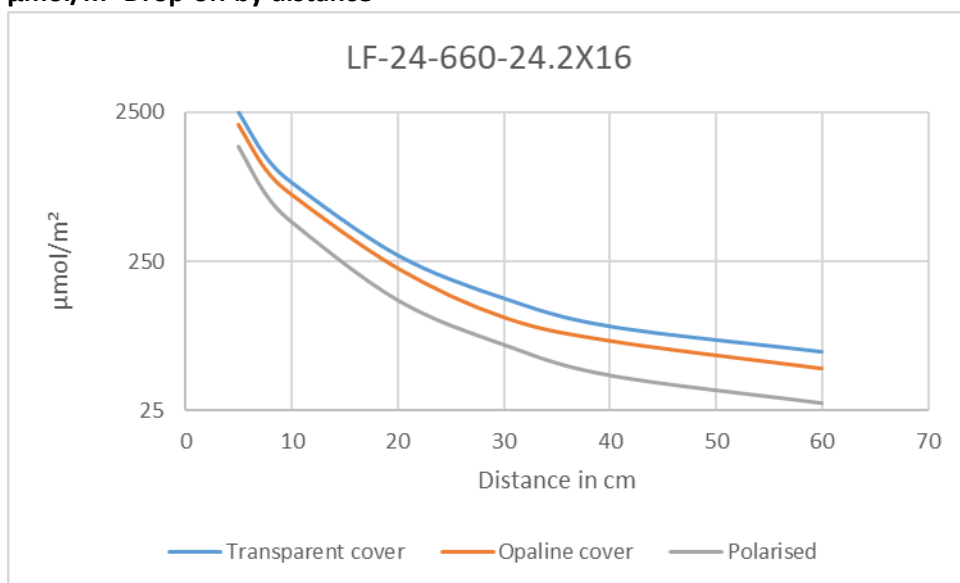
Additional Benefits of LuxaLight Industrial LED Fixture	
Benefits of LED Fixture	Multiple wavelengths in one housing
	No optics required due to high output
	Applicable in Humid environments (PU Version)
	Custom cable output and/or connector
	Wide range of mounting options
	In-house expertise to personally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

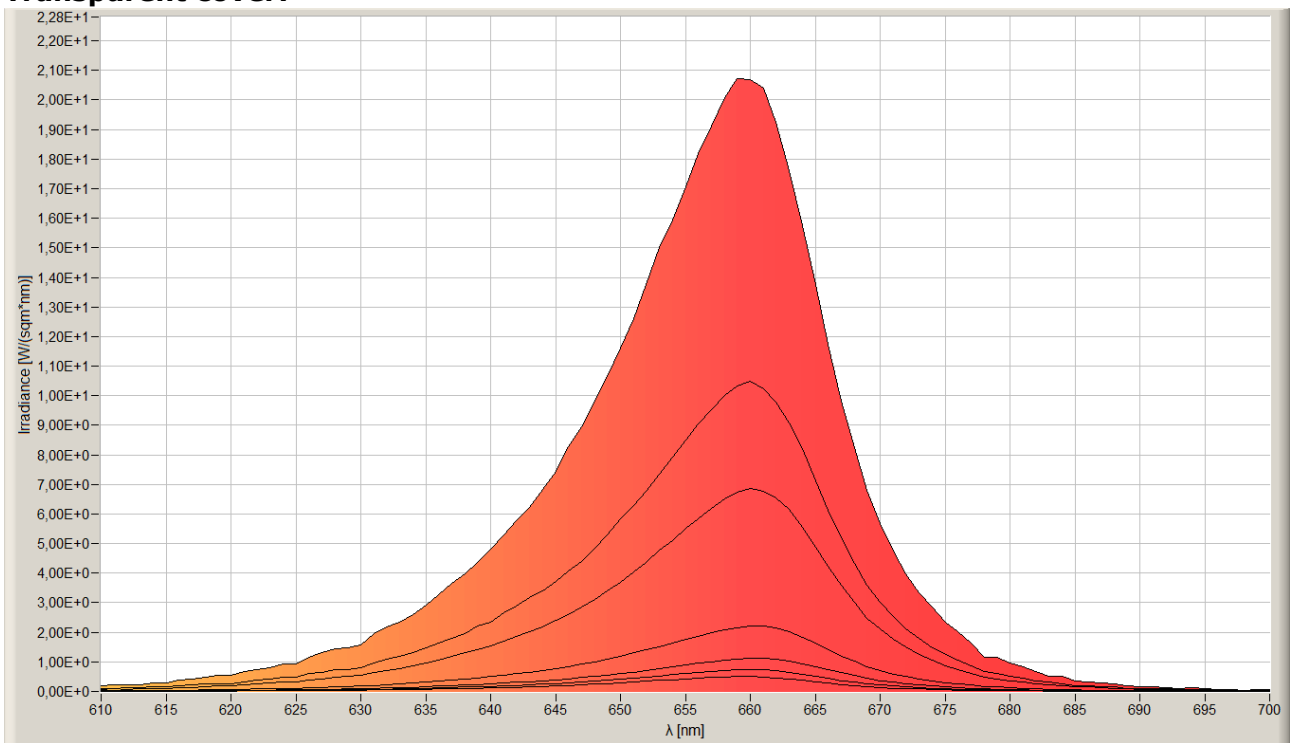
### Radiance Drop-off by distance



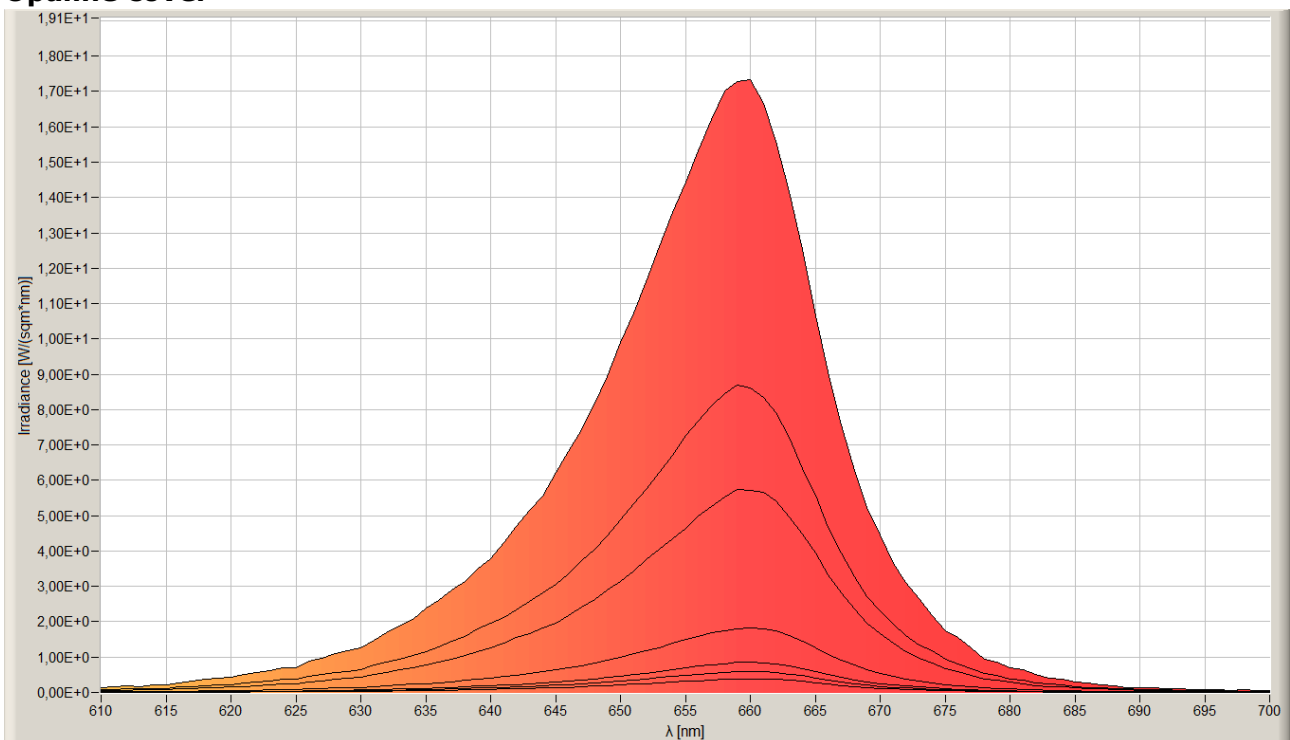
### µmol/m² Drop-off by distance



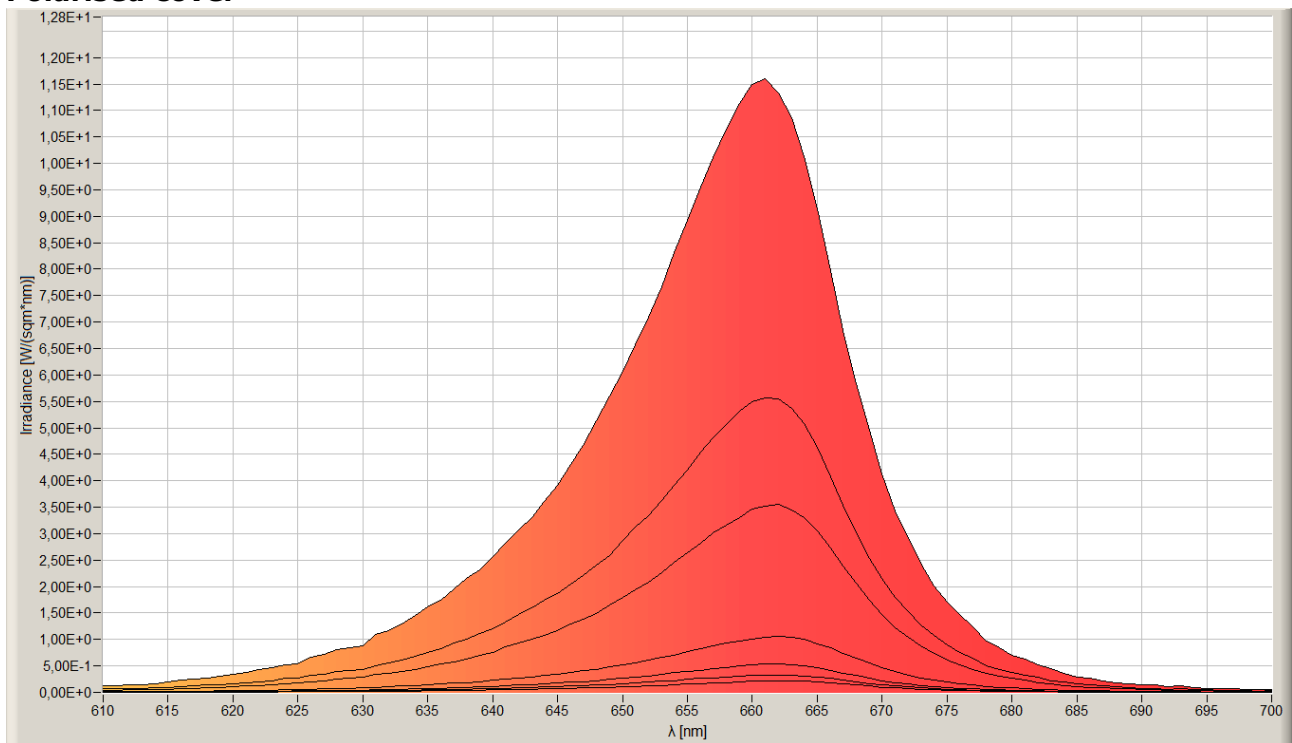
## Transparent cover:



## Opaline cover



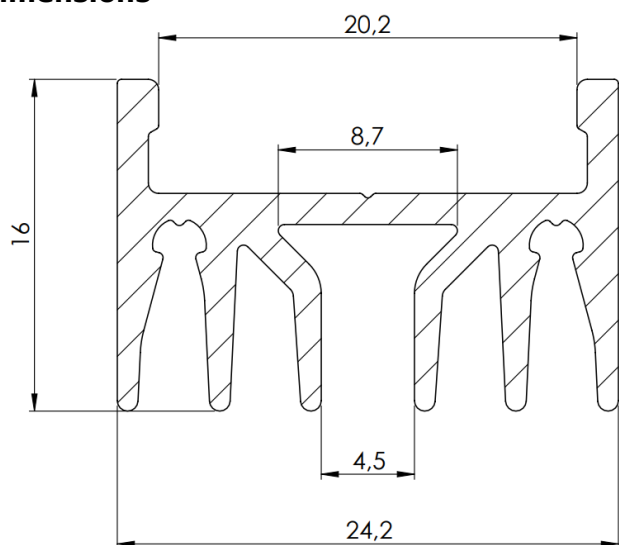
## Polarised cover



## Configuration table:

Modules	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Fixture Length (cm)	22	42	62	82	102	122	144	164	184	204	224	244	264	284
Power Entries	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Power Consumption (Watt)	30	60	90	120	150	180	210	240	270	300	330	360	390	420
Polyurethane Moulding	Output 20% - 25% Reduced - IP68													
Transparent cover	Output 0% - 5% Reduced - IP64													
Opaline cover	Output 20% - 25% Reduced - IP64													
Polarized transparent cover	Output 50% - 60% Reduced - IP64													

## Dimensions

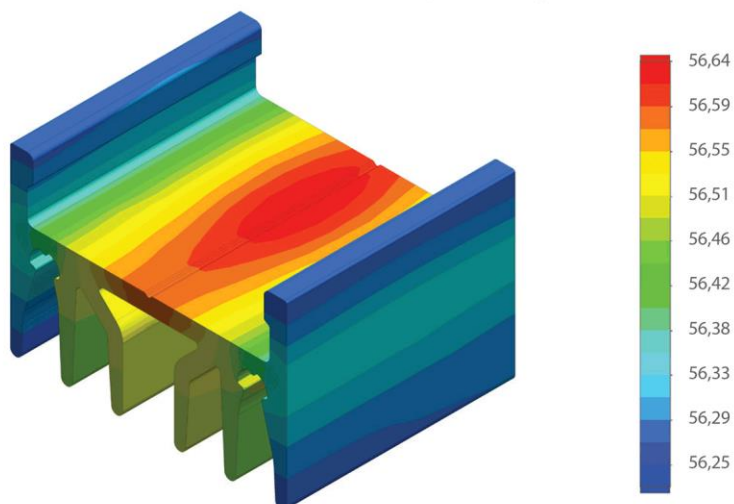


## Temperature distribution

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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