

Datasheet

LED engine specification

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

Description:
**LuxaLight Industrial LED Fixture IP68 Transparent RGBW 24.2x16mm
(24 Volt, 5050, IP64)**



Date:
24-10-2023

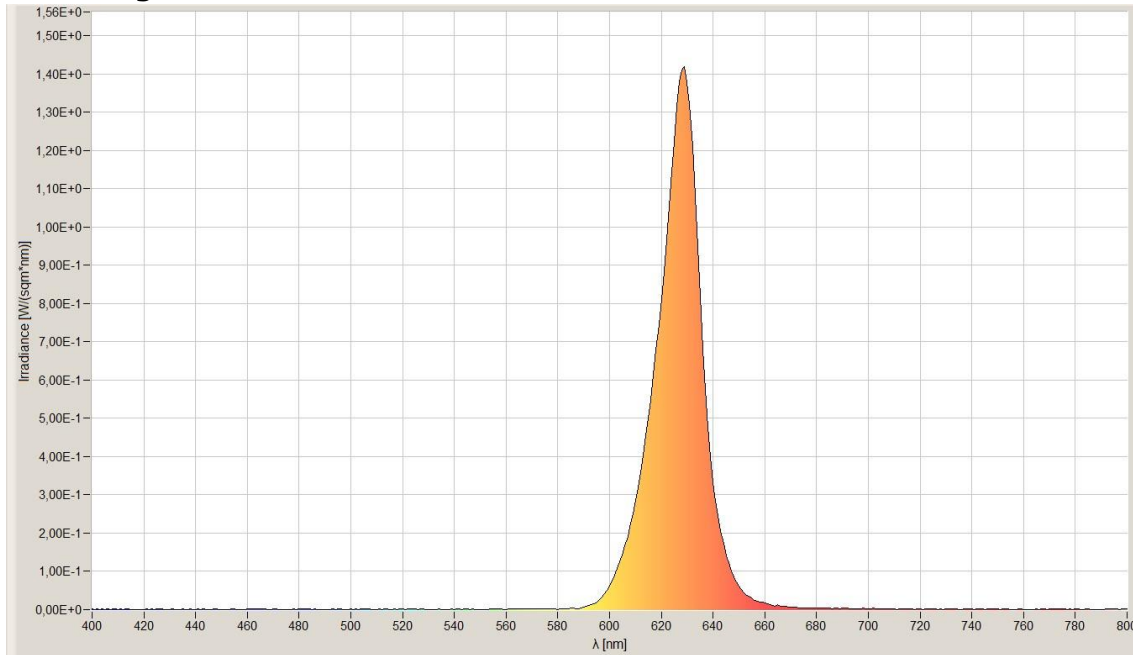
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Technical Specifications							
LF-24-RGBW-24.2x16-(...)		Polyurethane Moulding PU					
General	LED Type	5050 SMD					
	LED Quantity	36 LEDs / Engine					
	Dimensions	Variable (see table) * 24,2mm * 16mm (B x L x H)					
	Weight	Variable, depending on moulding and length					
	Mounting	Surface mounted					
Environment	Working Temperature	-5°C ~ +60°C					
	Storing Temperature	-5°C ~ +60°C					
	IP Grade	IP68					
	Mechanical Protection	PU Shore 85					
	Moulding Resin	Robnor 420VLS					
	Housing material	Anodized aluminium					
Electronic	Working Voltage	DC24V					
	Working Current	0,4 A / Engine					
	Working Wattage	9,6 W / Engine					
	LED Engine type	LuxaLight LED Engine RGBW Bescherm (24 Volt, 36 LEDs, 5050, IP64) LuxaLight					
	Driving Method	Constant Voltage					
	Cable type	PUR Cable 5x 0.34mm² Black LuxaLight					
	NTC Resistance	5KOhm					
	NTC Beta	3950					
Lighting		Blue	Green	Red	Warm White	Total	
	Engine Wavelength (nm) / Colour temp (k)	460nm	515nm	625nm	2650K	-	
	Peak Measured Wavelength (5cm)	462nm	516nm	629nm	2823K	-	
	Peak Measured Radiance per distance (cm) (1 LED Engine)*	5	1,9 W/m²	0,93 W/m²	1,4 W/m²	-	-
		7,5	0,9 W/m²	0,44 W/m²	0,69 W/m²	-	-
		10	0,57 W/m²	0,29 W/m²	0,46 W/m²	-	-
		20	0,17 W/m²	0,09 W/m²	0,14 W/m²	-	-
		30	0,08 W/m²	0,04 W/m²	0,07 W/m²	-	-
		40	0,05 W/m²	0,03 W/m²	0,04 W/m²	-	-
		60	0,04 W/m²	0,02 W/m²	0,03 W/m²	-	-
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)*	5	52,08 W/m²	33,54 W/m²	31,38 W/m²	61,69 W/m²	174,5 W/m²
		7,5	24,6 W/m²	15,7 W/m²	14,94 W/m²	29,39 W/m²	83,06 W/m²
		10	15,31 W/m²	9,95 W/m²	9,68 W/m²	19 W/m²	53,6 W/m²
		20	4,62 W/m²	3,02 W/m²	2,8 W/m²	5,83 W/m²	16,2 W/m²
		30	2,29 W/m²	1,49 W/m²	1,41 W/m²	2,93 W/m²	8,12 W/m²
		40	1,46 W/m²	0,95 W/m²	0,88 W/m²	1,81 W/m²	5,1 W/m²
	Total Lux per distance (CIE1931 2°) (1 LED Engine)*	5	3,4 klx	14,7 klx	6,4 klx	19,9 klx	43,8 klx
		7,5	1,6 klx	7 klx	3,1 klx	9,5 klx	21 klx
		10	1,1 klx	4,5 klx	2,1 klx	6,2 klx	14,6 klx
		20	319 lx	1355 lx	605 lx	1,9 klx	4,1 klx
		30	158 lx	670 lx	304 lx	944 lx	2,1 klx
		40	100 lx	425 lx	189 lx	585 lx	1,3 klx
	Total PPFD µmol/m² (400nm - 700nm) (1 LED Engine)*	5	197 µmol/m²	142 µmol/m²	155 µmol/m²	289 µmol/m²	774 µmol/m²
7,5		93,6 µmol/m²	67,5 µmol/m²	74,7 µmol/m²	138 µmol/m²	369,6 µmol/m²	
10		59 µmol/m²	43,2 µmol/m²	49,3 µmol/m²	89,3 µmol/m²	239 µmol/m²	
20		18 µmol/m²	13,1 µmol/m²	14,6 µmol/m²	27,3 µmol/m²	72,5 µmol/m²	
30		8,9 µmol/m²	6,5 µmol/m²	7,3 µmol/m²	13,7 µmol/m²	36,4 µmol/m²	
40		5,6 µmol/m²	4,1 µmol/m²	4,5 µmol/m²	8,5 µmol/m²	22,8 µmol/m²	
60	4,1 µmol/m²	2,9 µmol/m²	3 µmol/m²	5,8 µmol/m²	15,7 µmol/m²		
Output Reduction Approx.	0% - 5%						
Viewing Angle (θ)	120 ±5°						
<i>*To reach much higher performances, use MaNima Pollux Industry</i>							

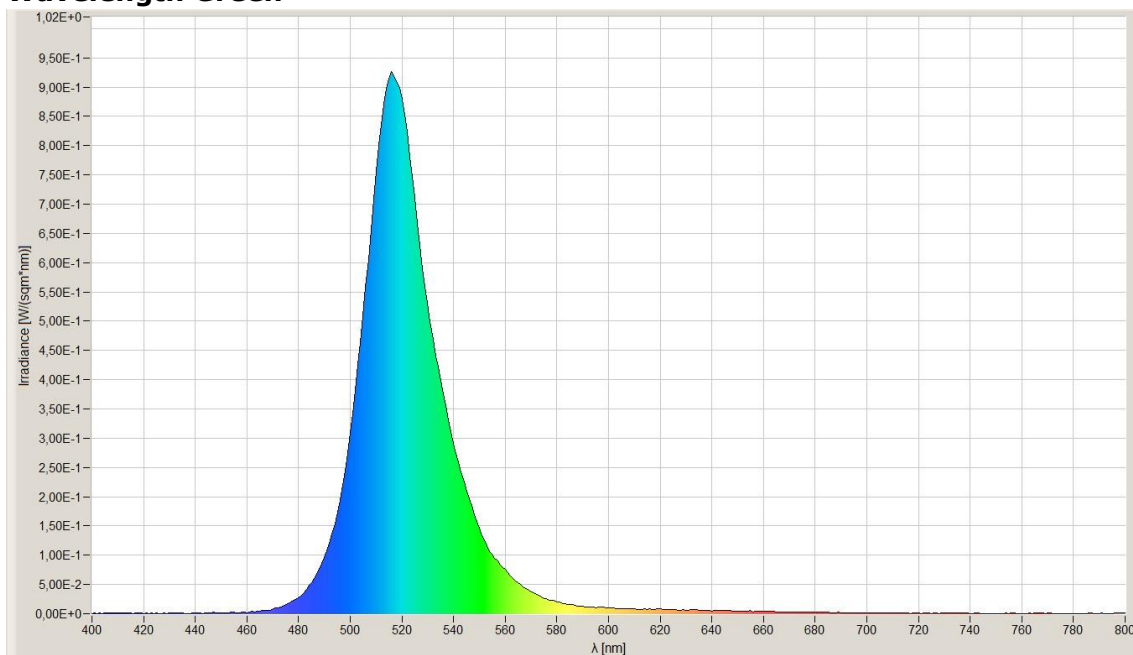
Additional Benefits of LuxaLight Industrial LED Fixture	
Benefits of LED Fixture	Multiple wavelengths in one housing
	No optics required due to high output
	Applicable in Humid environments (PU Version)
	Custom cable output and/or connector
	Wide range of mounting options
	In-house expertise to personally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

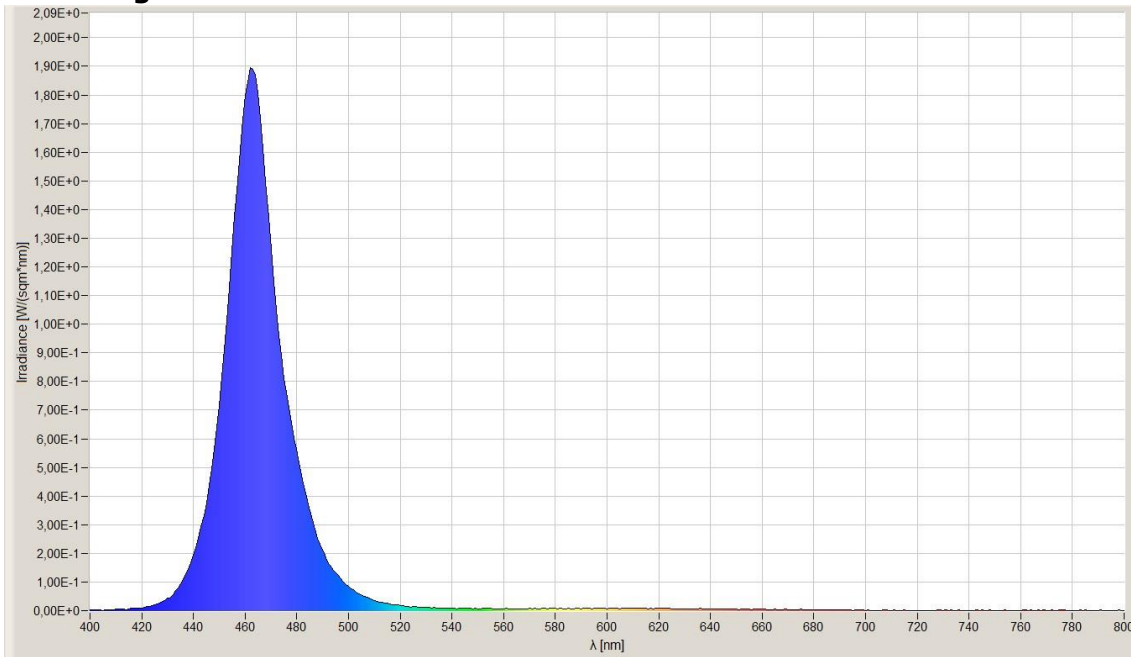
Wavelength Red



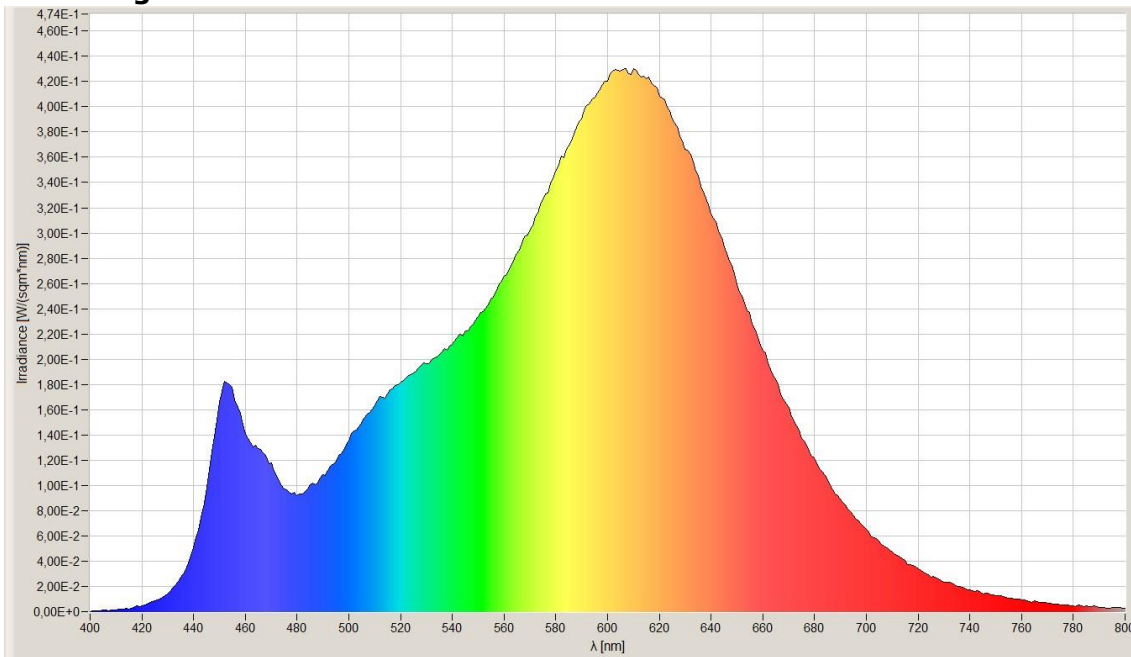
Wavelength Green



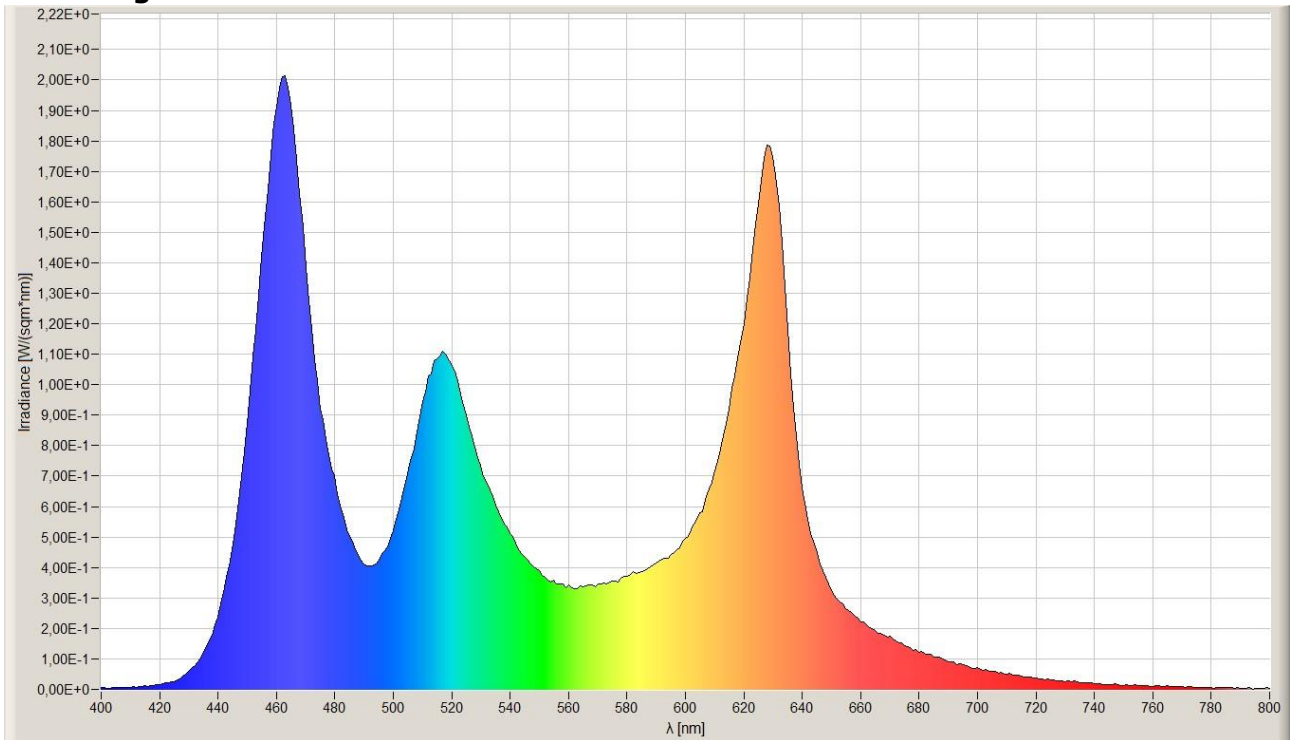
Wavelength Blue



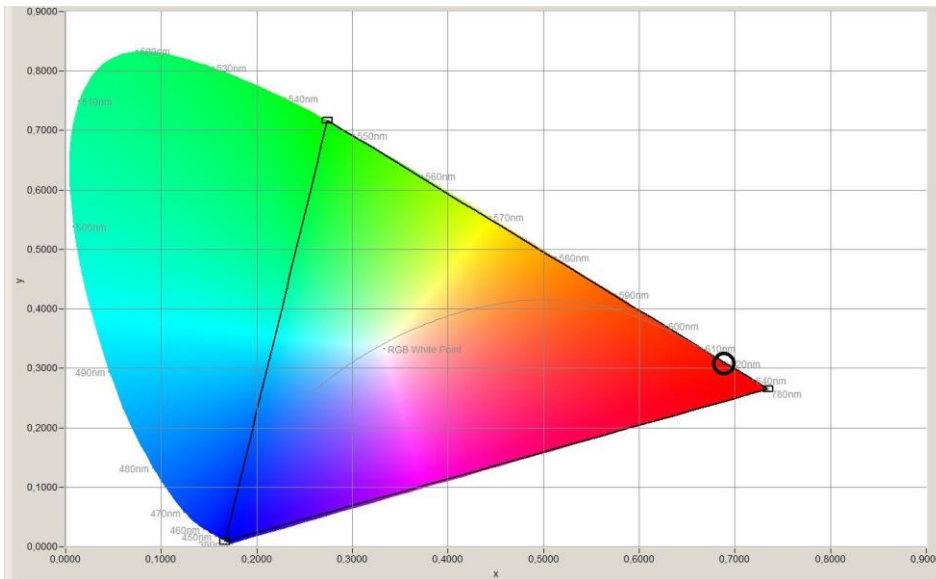
Wavelength Warm White



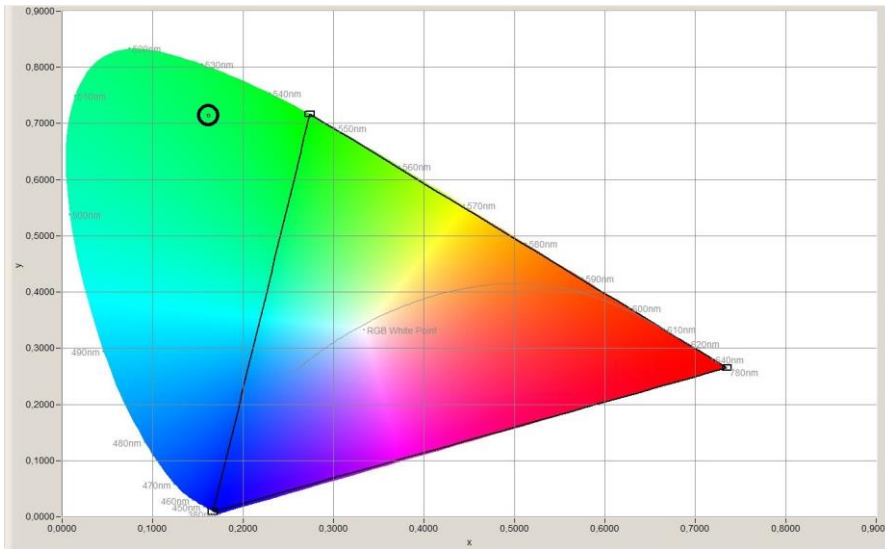
Wavelength Total



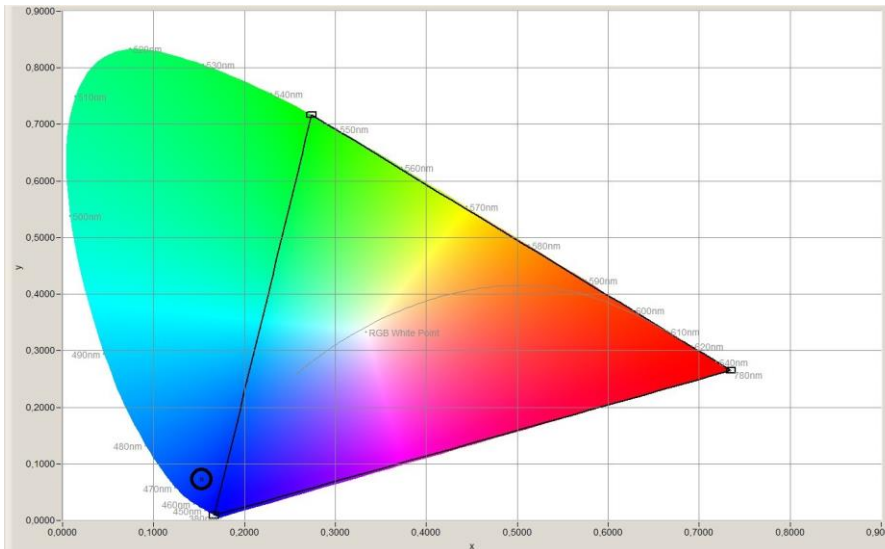
CIE Red



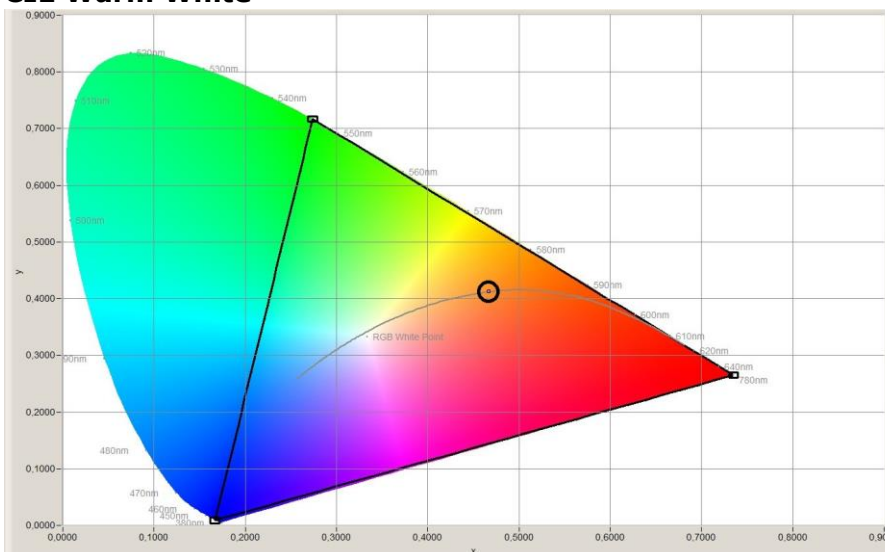
CIE Green



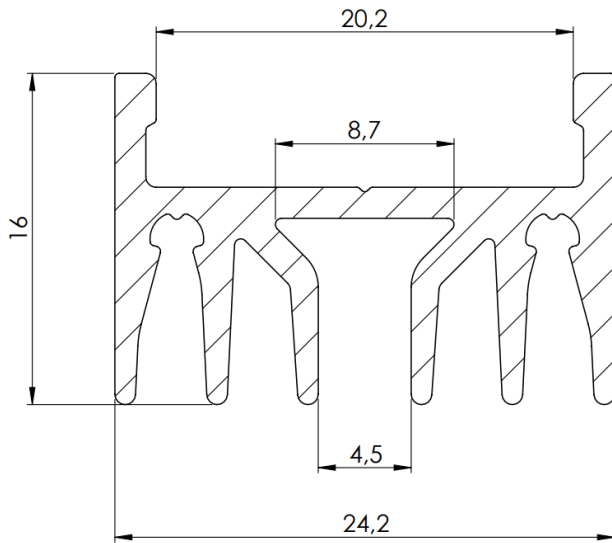
CIE Blue



CIE Warm White



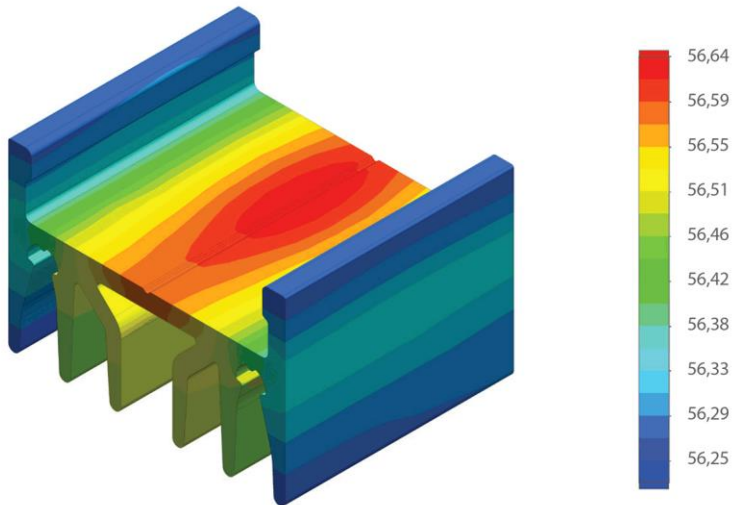
Dimensions:



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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