

## Datasheet

LED engine specification

Product type:  
**LE-24-640-108X2835PLX**

Description:  
**LuxaLight LED Engine 24V 640nm 2835 (24 Volt, 108 LEDs, 2835, IP64)**

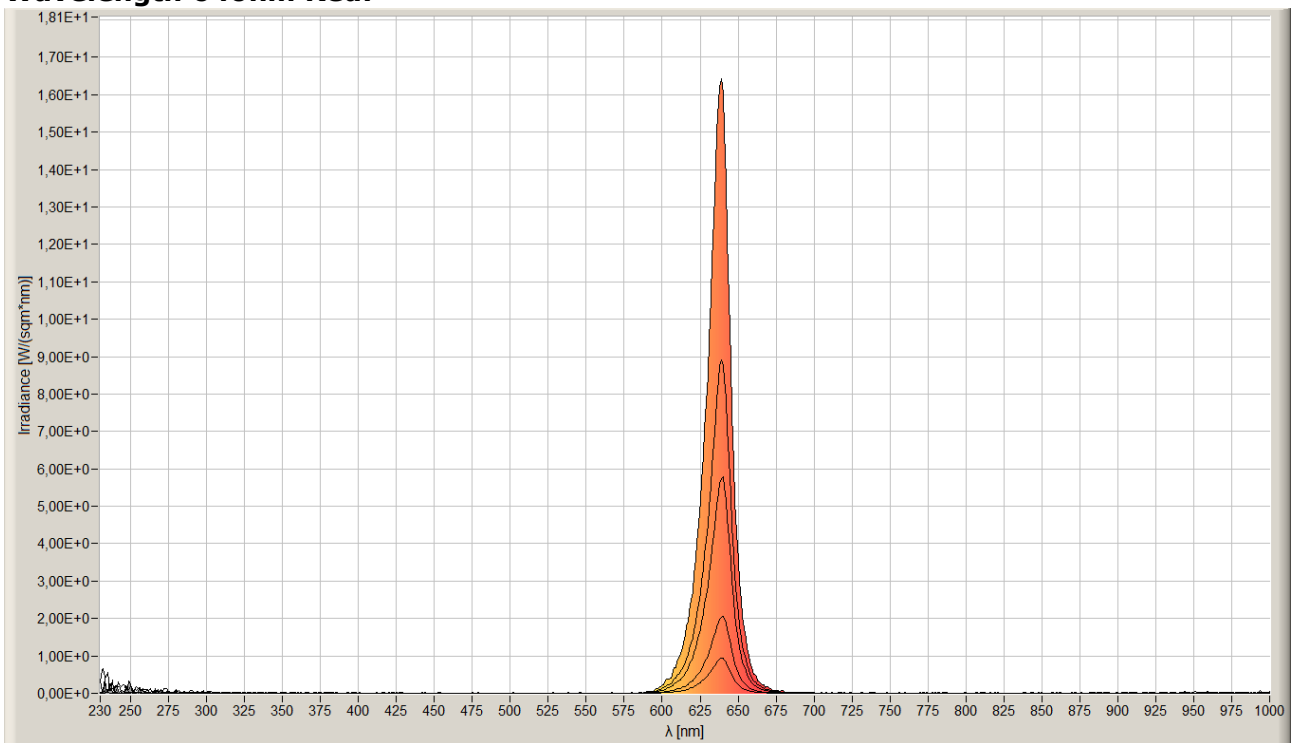


Date:  
18-12-2023

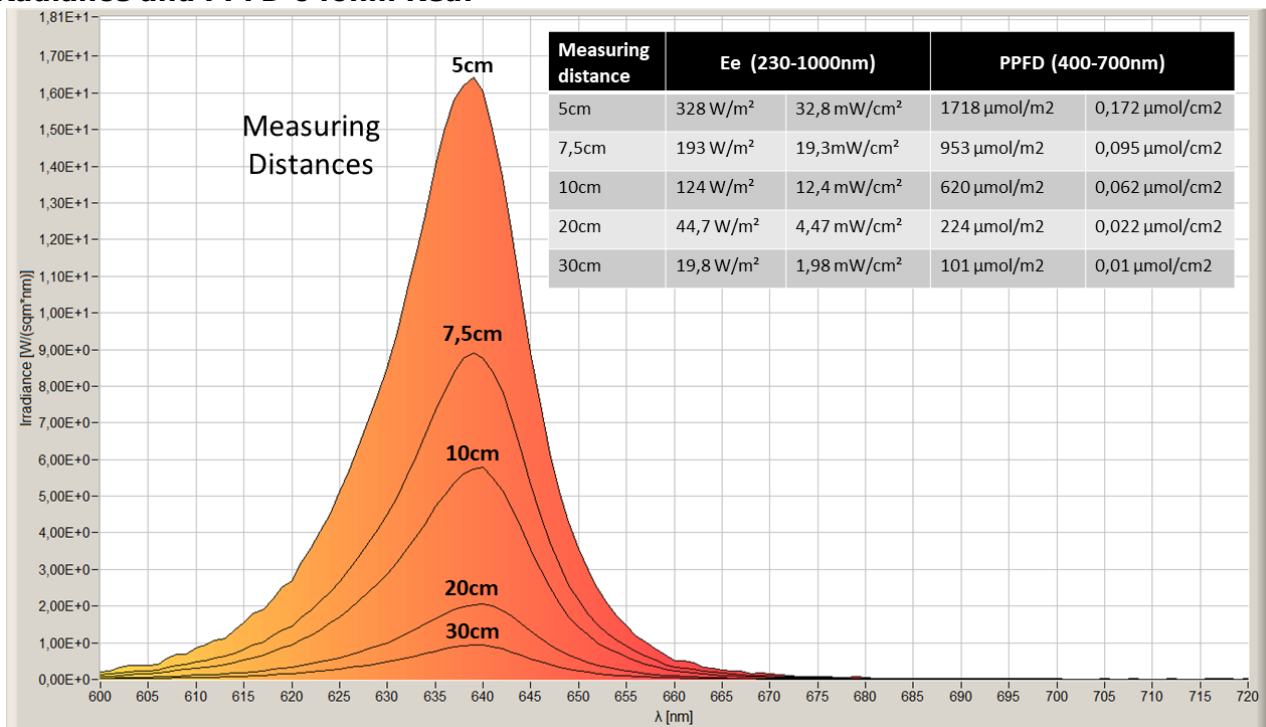
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Technical Specificaties					
LE-24-640-108X2835PLX					
General	LED Type	2835 SMD			
	LED Quantity	108 LEDs / Engine			
	Dimensions	200 * 20 * 2 ( L x B x H )			
	Weight	22g / Engine			
	Mounting	3M tape VHB4905			
Environment	Working Temperature	-20°C ~ +70°C			
	Storing Temperature	-20°C ~ +70°C			
	IP Grade	IP64			
	Mechanical Protection	Silicone Nano Coating			
Electronic	Working Voltage	DC24V			
	Working Current	1,25 A / Engine			
	Working Wattage	30 W / Engine			
	Driving Method	Constant Voltage			
	NTC Resistance	5Kohm			
	NTC Beta	3950			
Lighting	Engine Wavelength (nm)	640nm Red			
	Voltage at measurement	24V	29V	34V	
	Current at measurement	1,25 A	1,9 A	2,65 A	
	Wattage at measurement	30 W	55,1 W	90,1 W	
	Peak Measured Wavelength (5cm)	640nm			
	Peak Measured Radiance per distance (cm)	5	16,7 W/m <sup>2</sup>	21,6 W/m <sup>2</sup>	26,5 W/m <sup>2</sup>
		7,5	9,6 W/m <sup>2</sup>	12,4 W/m <sup>2</sup>	15,2 W/m <sup>2</sup>
		10	6,2 W/m <sup>2</sup>	8 W/m <sup>2</sup>	9,8 W/m <sup>2</sup>
		20	2,1 W/m <sup>2</sup>	2,7 W/m <sup>2</sup>	3,3 W/m <sup>2</sup>
		30	1,1 W/m <sup>2</sup>	1,4 W/m <sup>2</sup>	1,7 W/m <sup>2</sup>
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	5	328 W/m <sup>2</sup>	447 W/m <sup>2</sup>	552 W/m <sup>2</sup>
		7,5	193 W/m <sup>2</sup>	263 W/m <sup>2</sup>	325 W/m <sup>2</sup>
		10	124 W/m <sup>2</sup>	169 W/m <sup>2</sup>	209 W/m <sup>2</sup>
		20	44,7 W/m <sup>2</sup>	60,6 W/m <sup>2</sup>	75 W/m <sup>2</sup>
		30	19,8 W/m <sup>2</sup>	26,9 W/m <sup>2</sup>	33,3 W/m <sup>2</sup>
	Total PPFD μmol/m <sup>2</sup> (PAR 400-700nm) (1 LED Engine)	5	1718 μmol/m <sup>2</sup>	2338 μmol/m <sup>2</sup>	2906 μmol/m <sup>2</sup>
		7,5	953 μmol/m <sup>2</sup>	1297 μmol/m <sup>2</sup>	1612 μmol/m <sup>2</sup>
		10	620 μmol/m <sup>2</sup>	844 μmol/m <sup>2</sup>	1049 μmol/m <sup>2</sup>
		20	224 μmol/m <sup>2</sup>	305 μmol/m <sup>2</sup>	379 μmol/m <sup>2</sup>
		30	101 μmol/m <sup>2</sup>	138 μmol/m <sup>2</sup>	171 μmol/m <sup>2</sup>
	Illuminance (Lux) at (1 LED Engine)	5	48,4 klx	66 klx	77,9 klx
		7,5	26,6 klx	36 klx	42,5 klx
		10	17,2 klx	23,3 klx	27,5 klx
20		6,2 klx	8,4 klx	9,9 klx	
30		2,8 klx	3,8 klx	4,5 klx	
Viewing Angle (θ)	120 ±5°				
Keep the LED Engine within operating temperatures, for more information about heat management, read the 'LuxaLight modular LED Fixtures infosheet'					

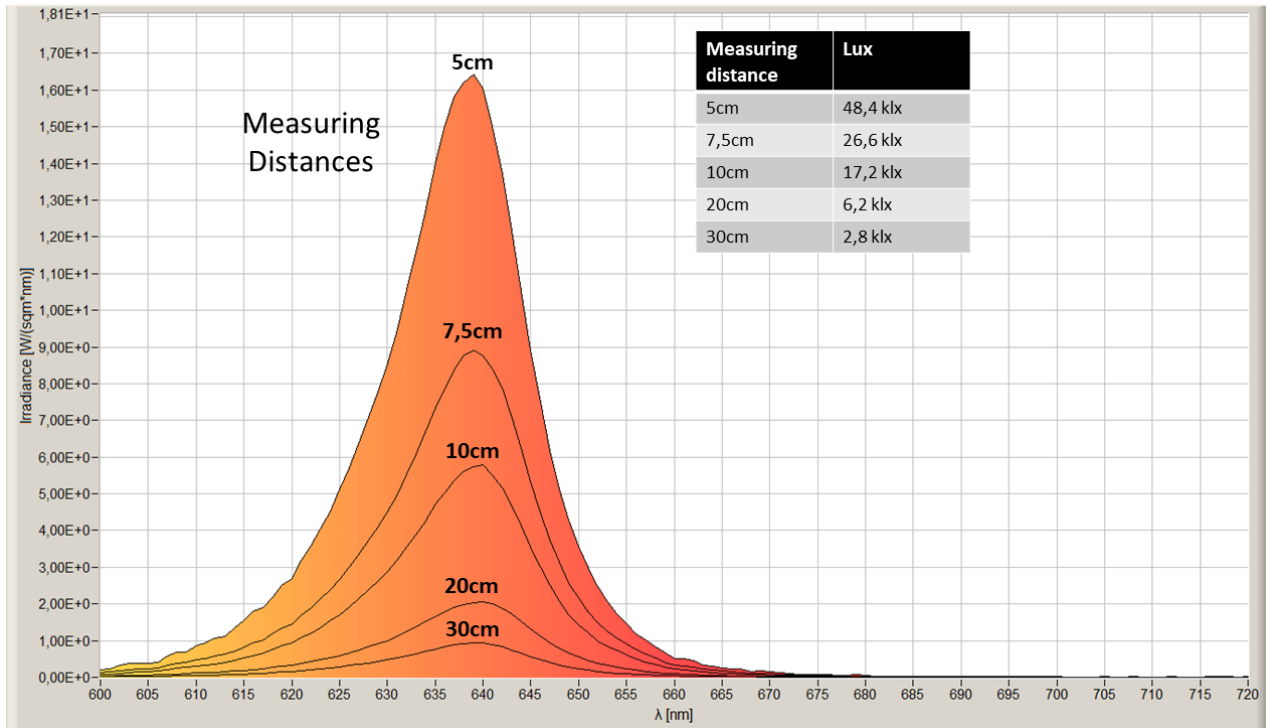
## Wavelength 640nm Red:



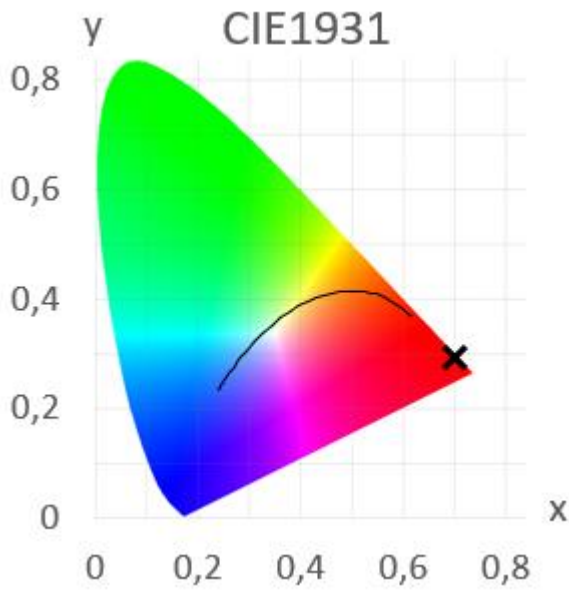
## Radiance and PPFD 640nm Red:



## Lux at 640nm Red:



## CIE1931 640nm Red:



**The Materials of PCB:**

2mm Thick Aluminium.

**Solderings:**

Solder Alloy: 99.3 Sn, 0.7 Cu,

Melting Temperature: 227°C

No SVHC (Jan 2021)

**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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