

Datasheet

LED Science Panel specification

LED Science Panel type:
LP-24-SP-2835PLX

Description:
LuxaLight Aluminium LED Science Panel White, Green, Blue, Far Red, Deep Red, UV-A 365nm Protected (24 Volt, 2835, IP64)

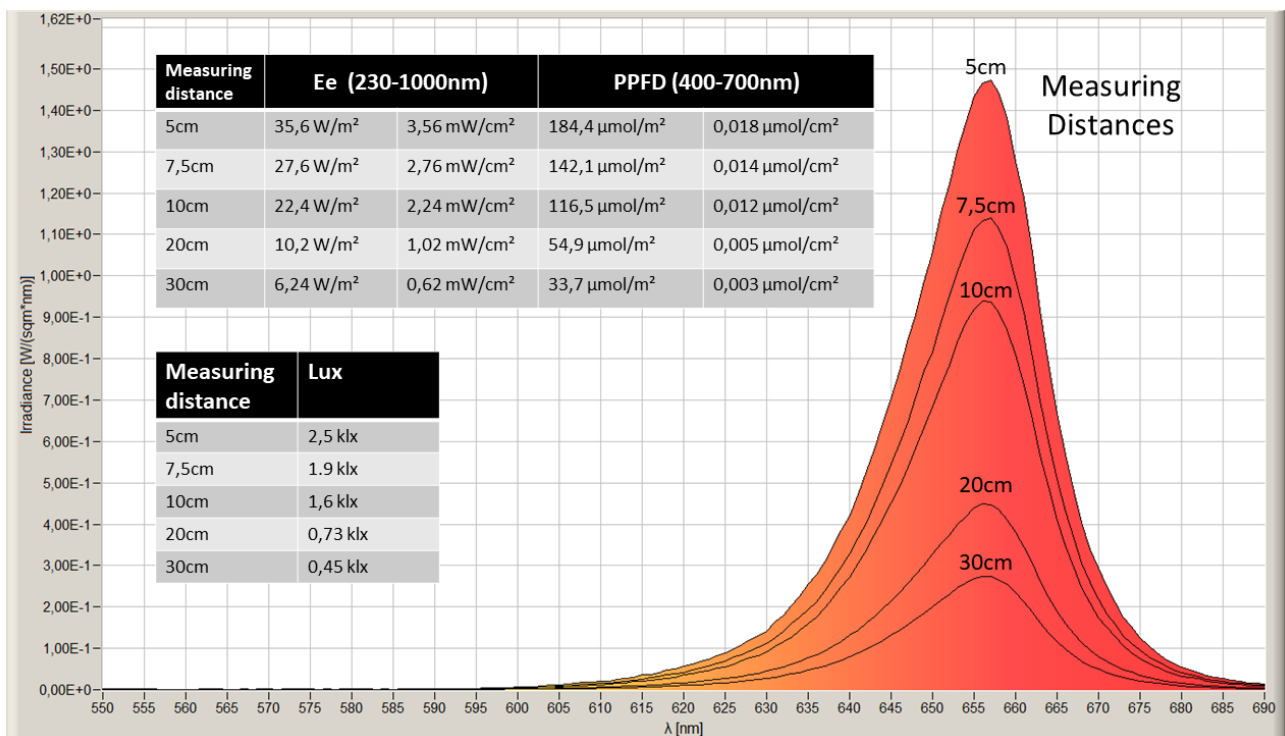
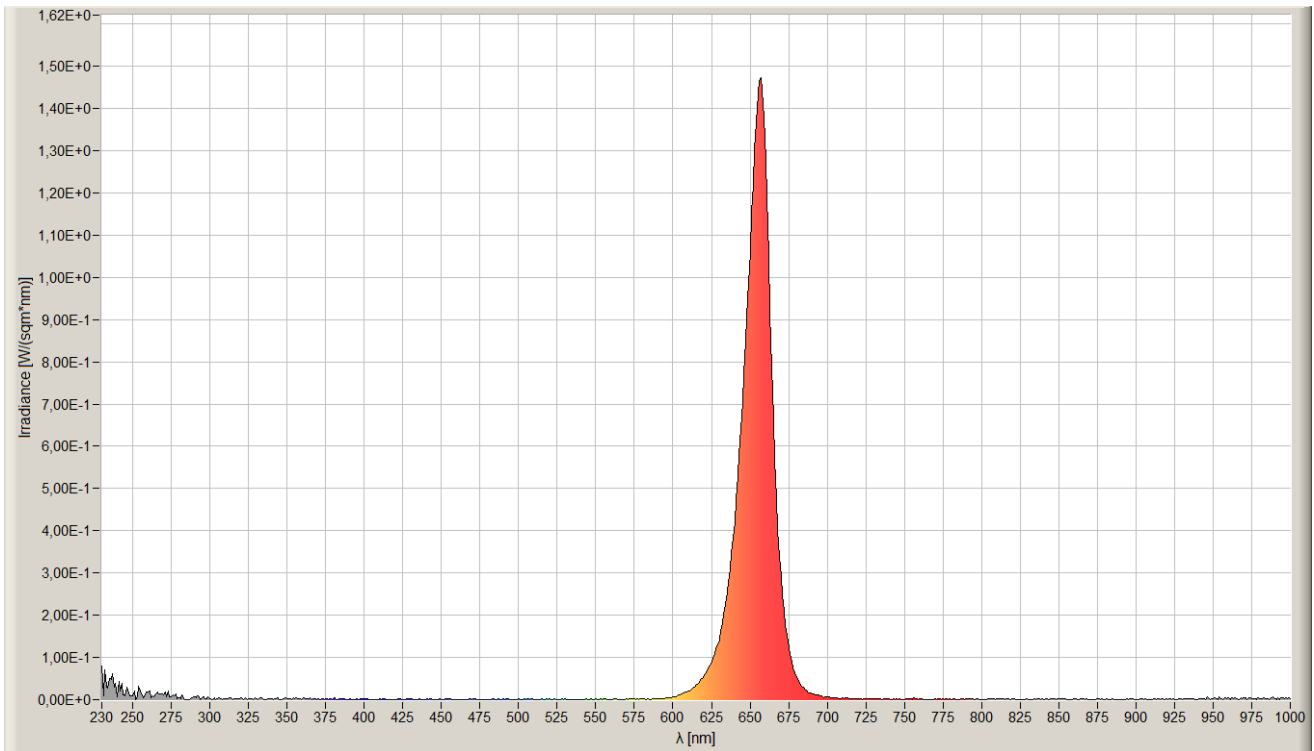


Date:
30-05-2023

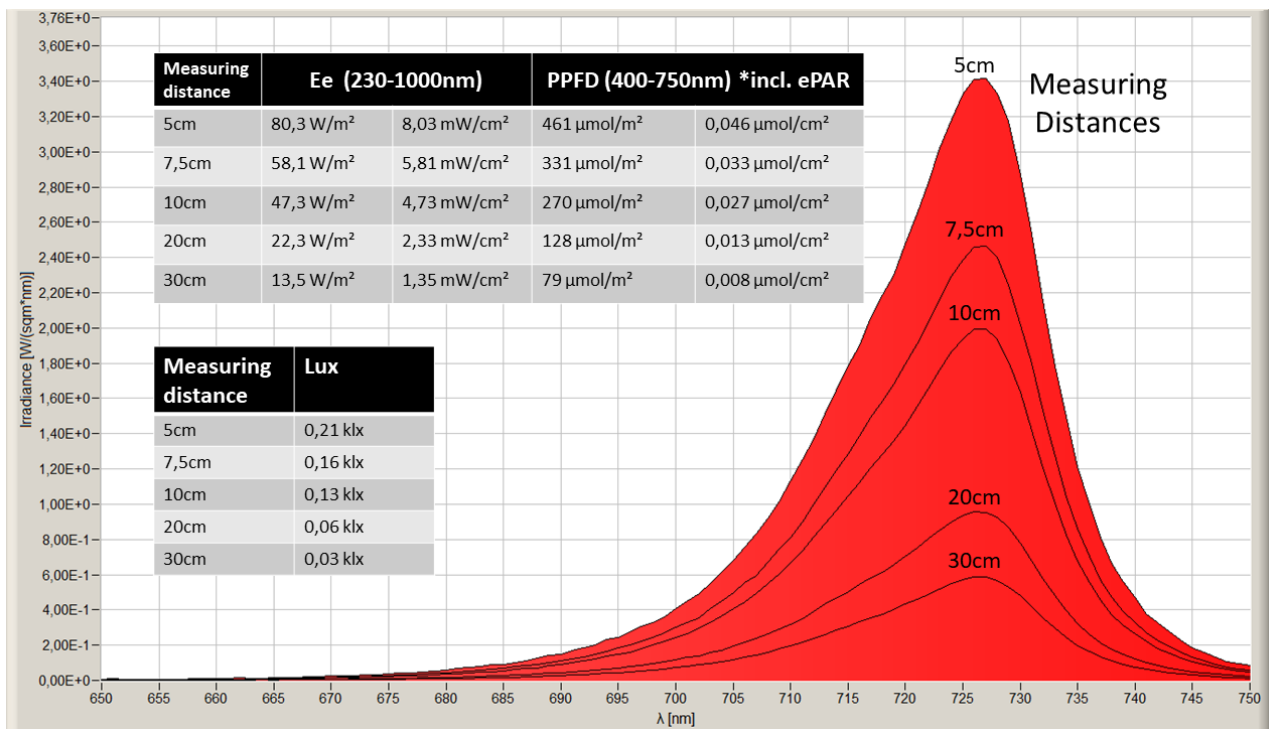
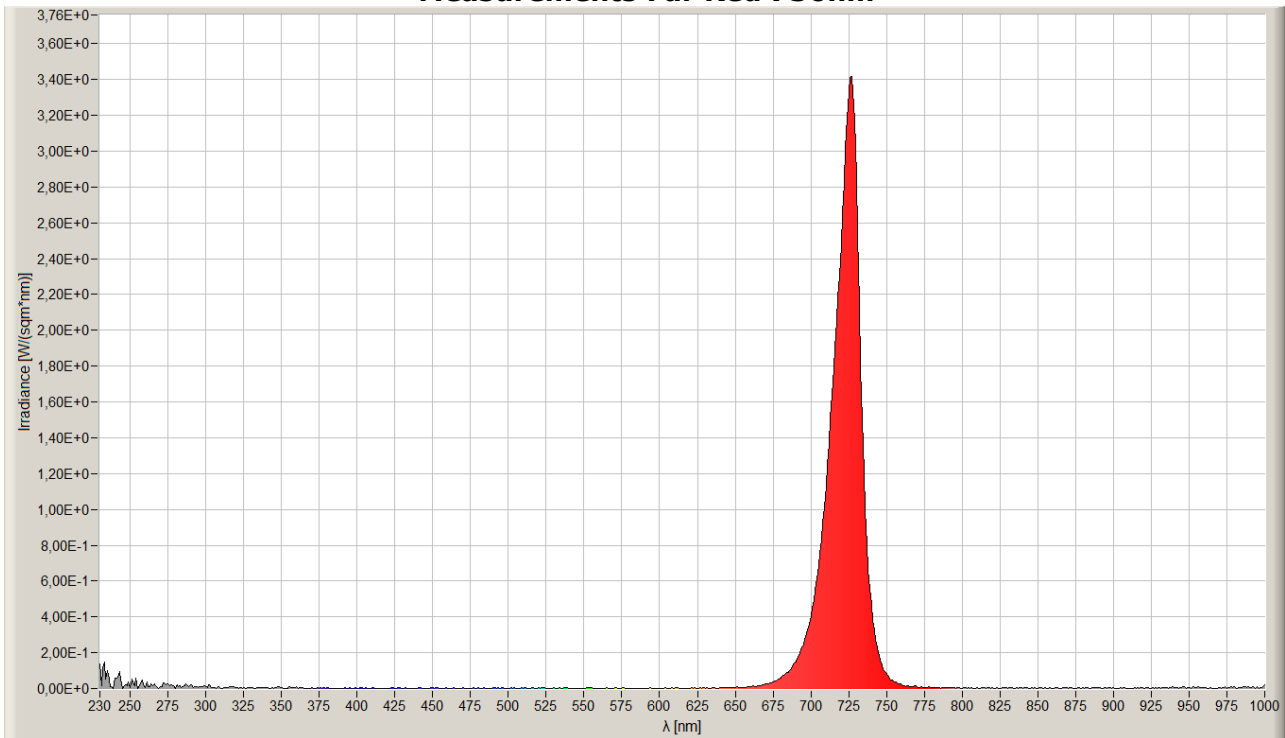
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Technical Specifications								
LB-24-SP-2835PLX								
Mechanical	LED Type	2835 SMD						
	LED Quantity	630 LEDs						
	Dimensions	330 x 330 x 8 (L x B X H)						
	Weight	1135g / per piece						
	Mounting	4 x Ø6mm hole for mounting						
	Protection grade	IP64 Nano silicone coating						
	LB Value	L80B50						
	PCB Material	Copper						
Electronic	Working Voltage	DC24V						
	Working Current Total	3,95A						
	Working Wattage	94,8 Watt / Piece						
	Driving Method	Constant Voltage						
	Colour channels	Far Red 730nm	Deep Red 650nm	Green 515nm	Blue 450nm	UV-A 365nm	White 4200k	
	Current / piece	0,5A	0,5A	0,5A	0,6A	0,85A	1A	
	Wattage / piece	12W	12W	12W	14,4W	20,4W	24W	
	Environment	Working Temperature	-20°C ~ +70°C					
Storing Temperature		-20°C ~ +70°C						
Lifespan		70.000 Hours						
Warranty		5 Years						
Lighting		CRI	≥ 90 Ra					
	BIN	3 SDCM						
	Viewing Angle	120 ±5°						
	Colour channels	Far Red 730nm	Deep Red 660nm	Green 515nm	Blue 450nm	UV-A 365nm	White 4200k	
	Irradiance at	5	80,3 W/m ²	35,6 W/m ²	29,3 W/m ²	90,6 W/m ²	34,6 W/m ²	103 W/m ²
		7,5	58,1 W/m ²	27,6 W/m ²	22,2 W/m ²	76,5 W/m ²	30,8 W/m ²	90 W/m ²
		10	47,3 W/m ²	22,4 W/m ²	18,4 W/m ²	65,8 W/m ²	27,2 W/m ²	79,3 W/m ²
		20	22,3 W/m ²	10 W/m ²	9,2 W/m ²	36,4 W/m ²	15,6 W/m ²	45,2 W/m ²
		30	13,5 W/m ²	6,2 W/m ²	5,8 W/m ²	22,8 W/m ²	9,6 W/m ²	29,5 W/m ²
	Peak Irradiance	5	3,4 W/m ²	1,5 W/m ²	0,89 W/m ²	4 W/m ²	2,5 W/m ²	N.A.
		7,5	2,5 W/m ²	1,1 W/m ²	0,67 W/m ²	3,3 W/m ²	2,24 W/m ²	N.A.
		10	2 W/m ²	0,9 W/m ²	0,56 W/m ²	2,9 W/m ²	1,99 W/m ²	N.A.
		20	1 W/m ²	0,4 W/m ²	0,29 W/m ²	1,6 W/m ²	1,15 W/m ²	N.A.
		30	0,6 W/m ²	0,3 W/m ²	0,18 W/m ²	1 W/m ²	0,7 W/m ²	N.A.
	PPFD at (Far red includes ePAR)	5	461 µmol/m ²	184 µmol/m ²	125 µmol/m ²	332 µmol/m ²	N.A.	464 µmol/m ²
		7,5	331 µmol/m ²	142 µmol/m ²	95 µmol/m ²	274 µmol/m ²	N.A.	408 µmol/m ²
		10	270 µmol/m ²	117 µmol/m ²	79 µmol/m ²	238 µmol/m ²	N.A.	359 µmol/m ²
20		128 µmol/m ²	55 µmol/m ²	40 µmol/m ²	131 µmol/m ²	N.A.	205 µmol/m ²	
30		79 µmol/m ²	34 µmol/m ²	25 µmol/m ²	83 µmol/m ²	N.A.	133 µmol/m ²	
Illuminance (Lux) at	5	0,2 klx	2,5 klx	12,5 klx	3 klx	0,2 klx	33,2 klx	
	7,5	0,16 klx	1,9 klx	9,5 klx	2,5 klx	0,17 klx	29,1 klx	
	10	0,13 klx	1,6 klx	7,9 klx	2,2 klx	0,15 klx	25,6 klx	
	20	0,06 klx	0,7 klx	4 klx	1,2 klx	0,08 klx	14,6 klx	
	30	0,03 klx	0,5 klx	2,5 klx	0,7 klx	0,06 klx	9,5 klx	
Connections and wiring	Cable Type	7 x 0,75mm ² HQ5RR-F						
	Length of cable	1000mm						
	Wire colour	Wire specifications						
	Red	24V+						
	Brown	Far Red 730nm						
	Black	Deep Red 660nm						
	Green	Green 515nm						
	Blue	Blue 450nm						
	Yellow	UV-A 365nm						
	White	White 4000k						

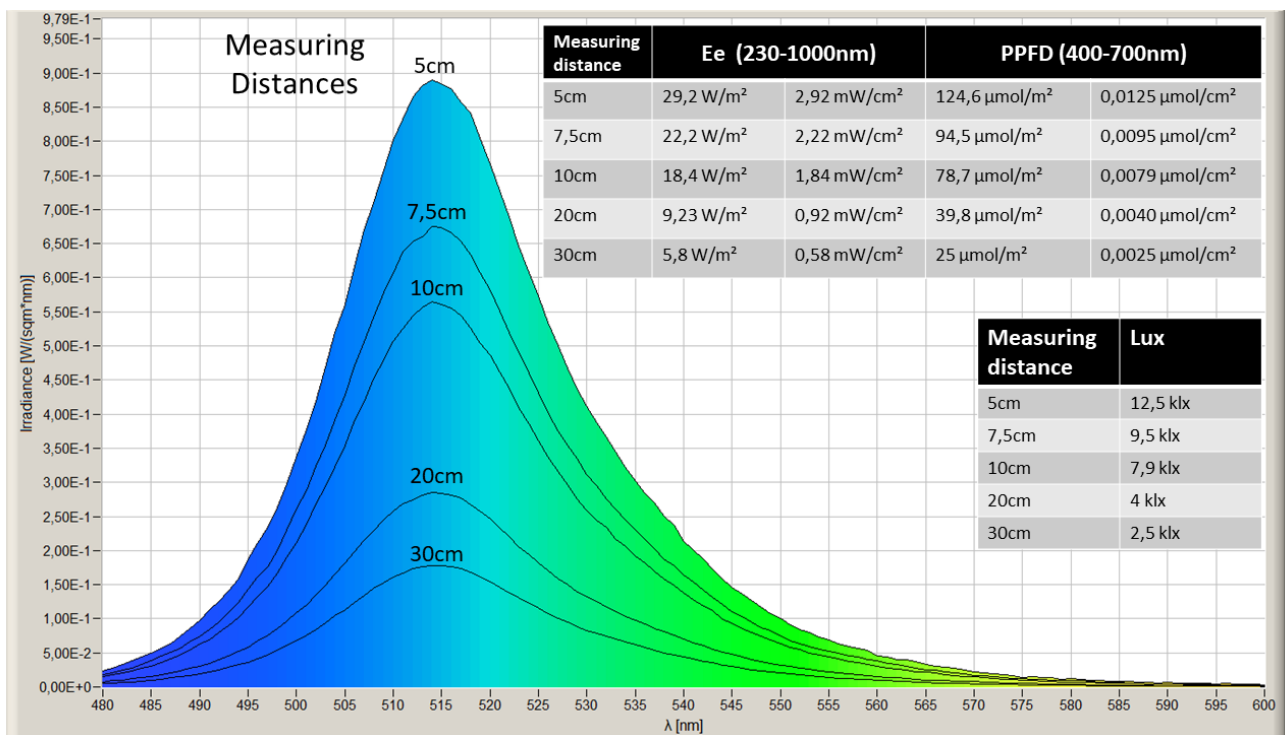
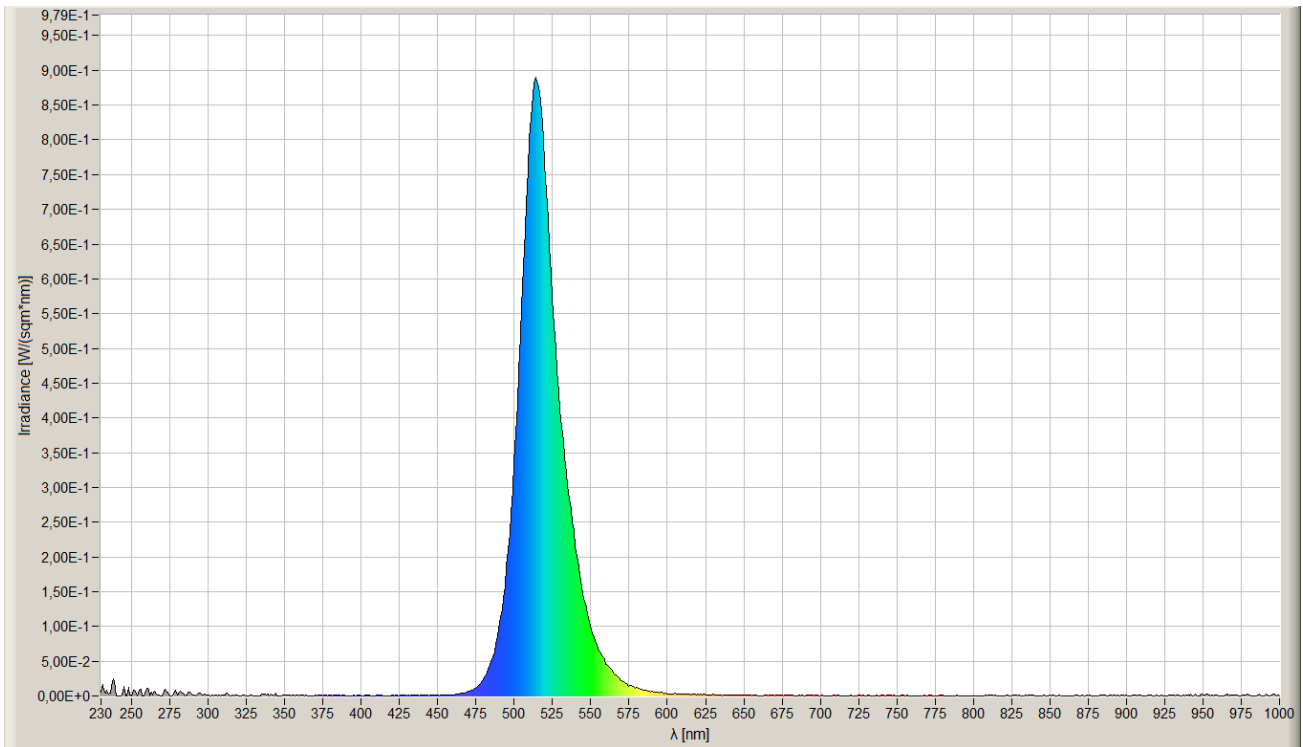
Measurements Deep Red 660nm



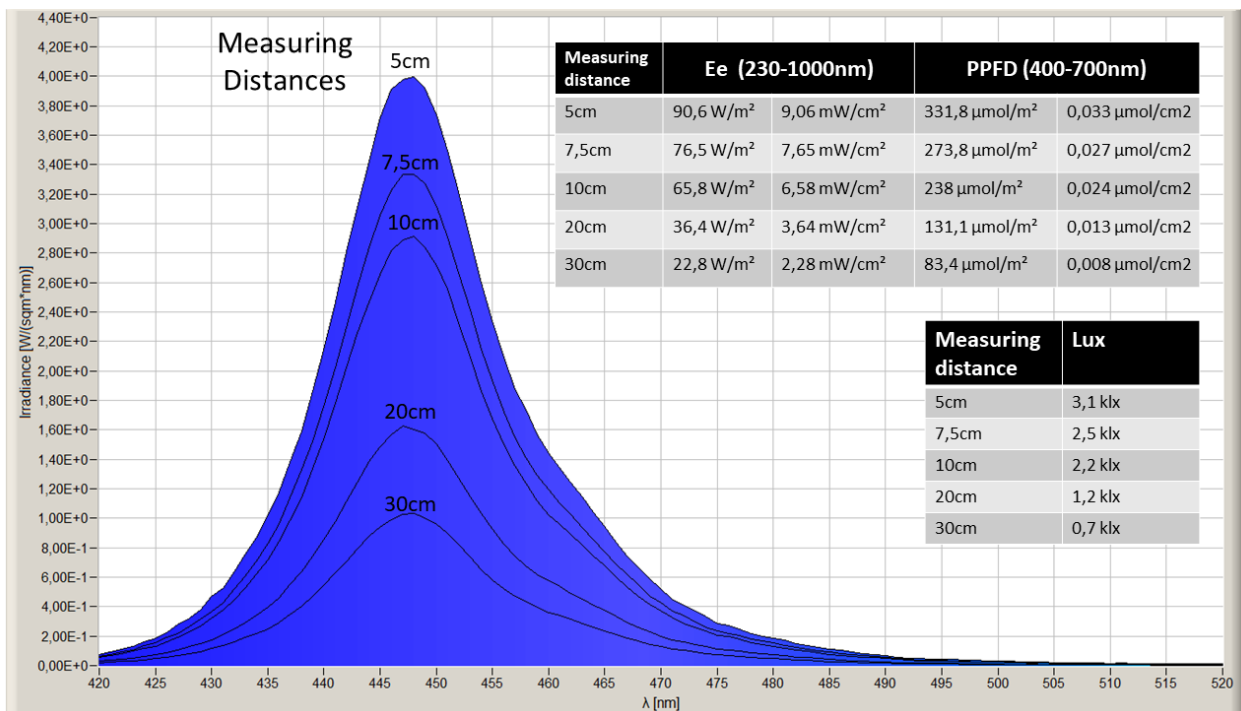
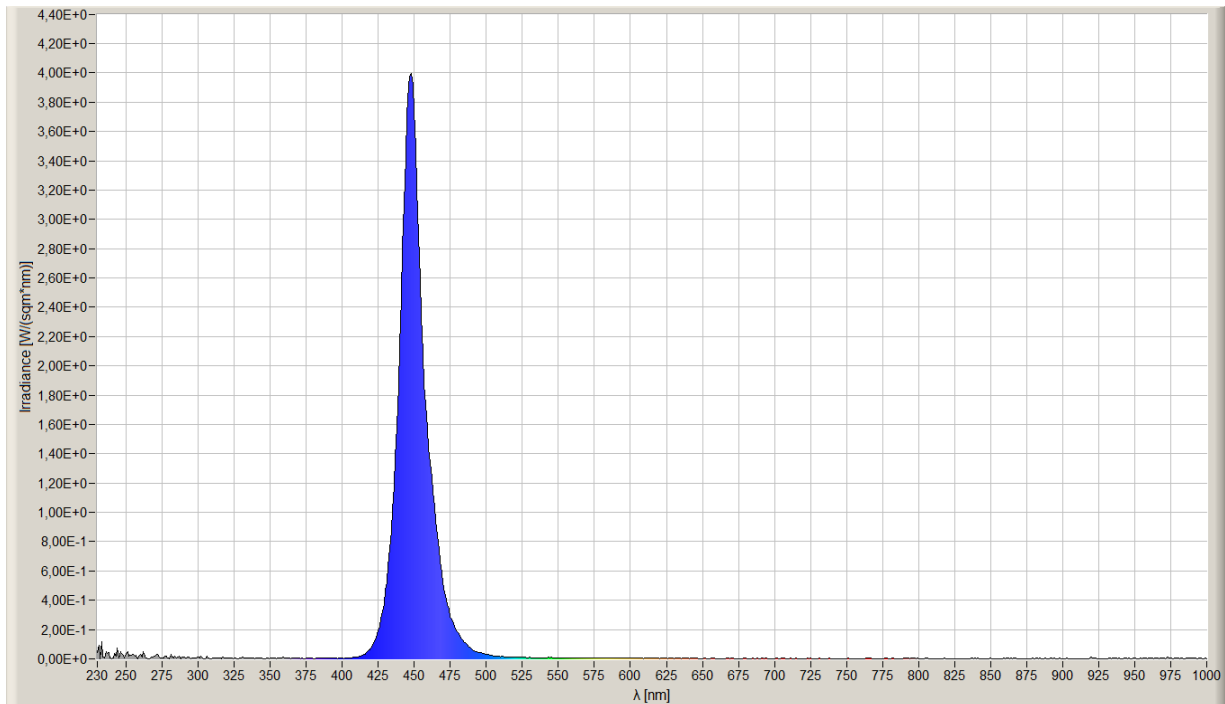
Measurements Far Red 730nm



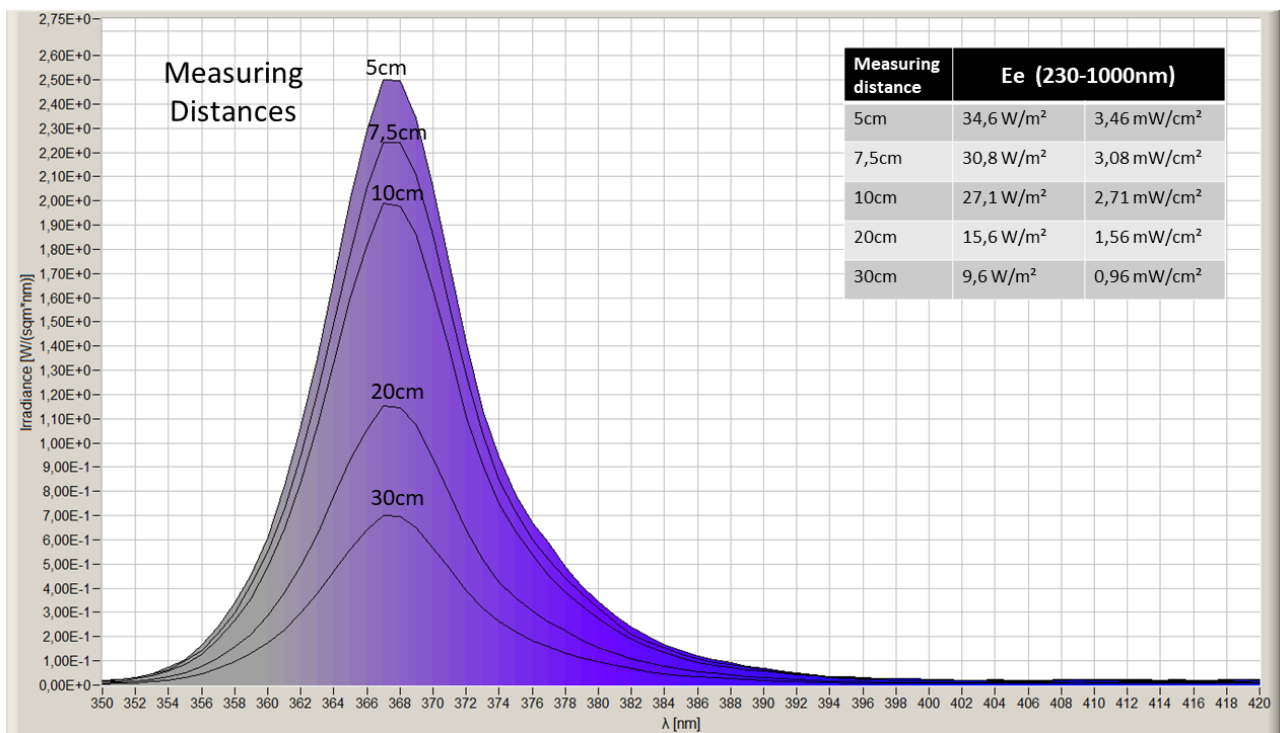
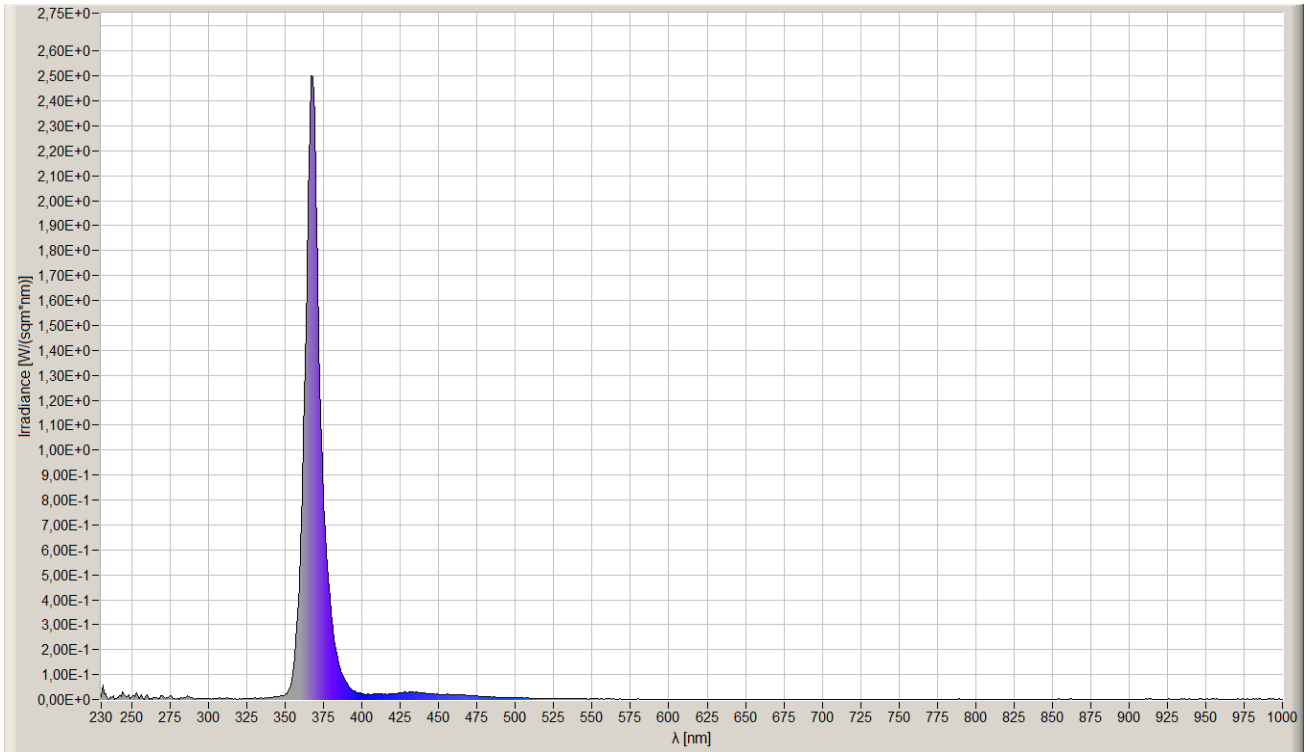
Green 515nm



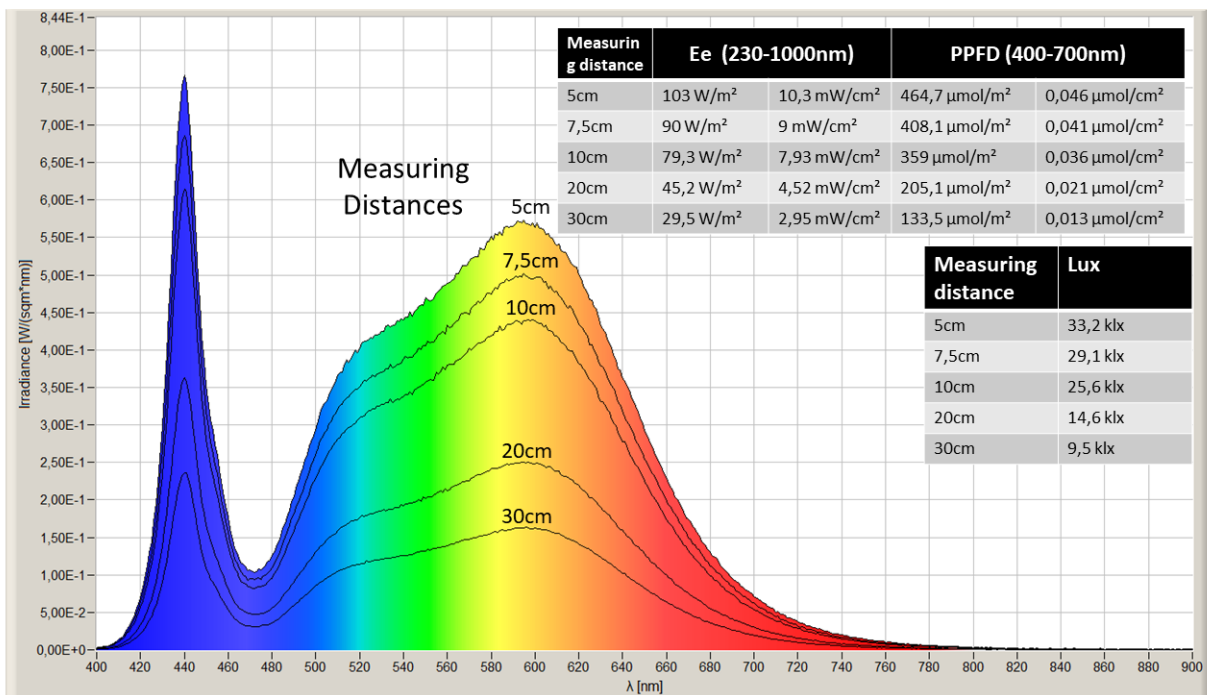
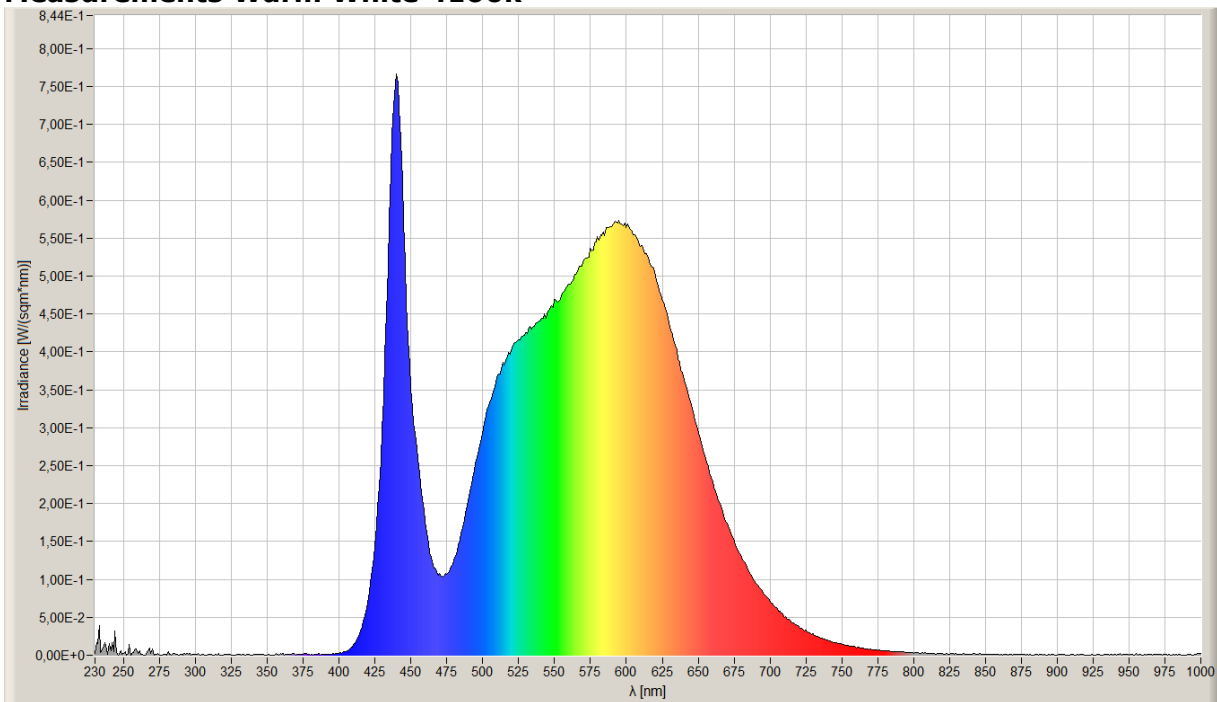
Measurements Blue 450nm



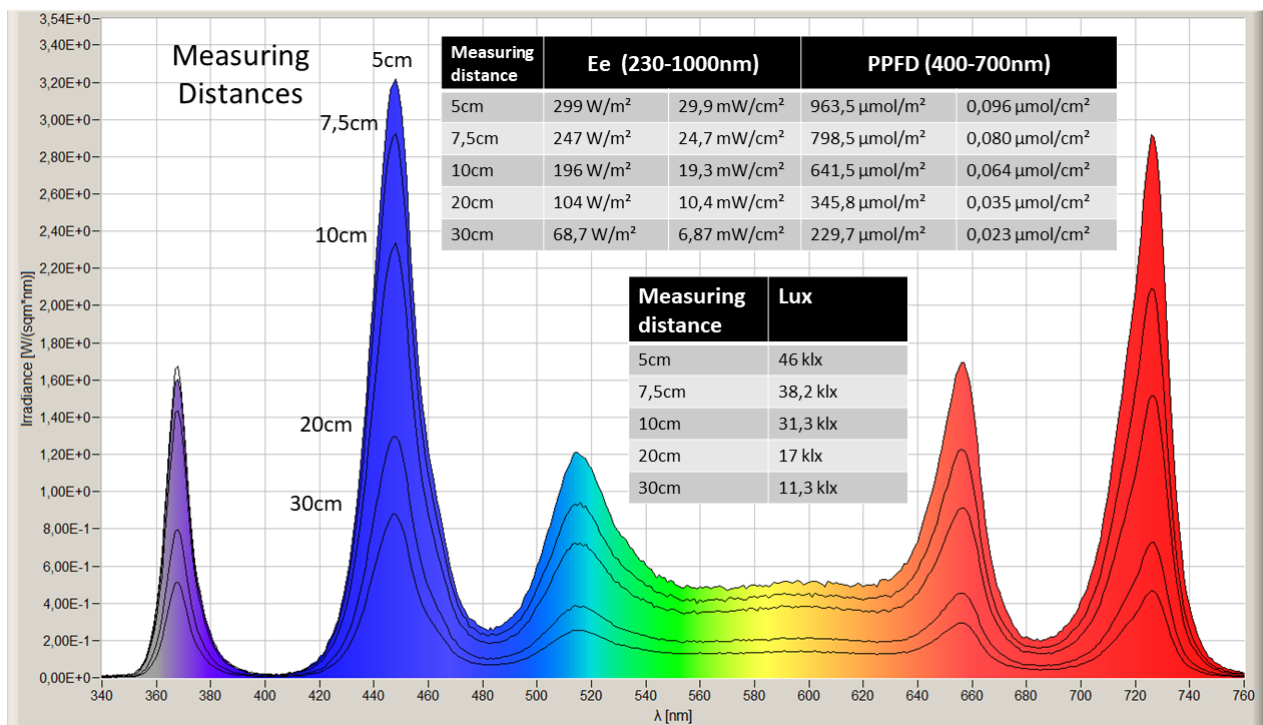
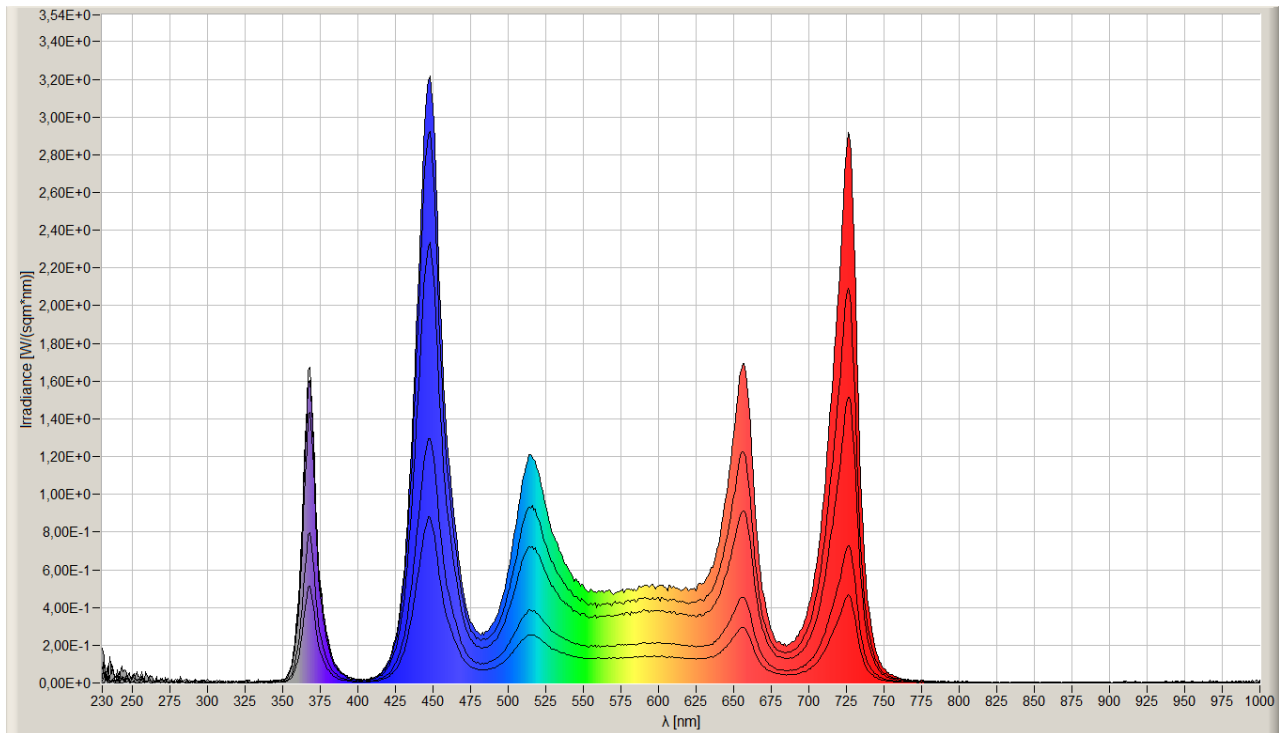
Measurements UV 365nm



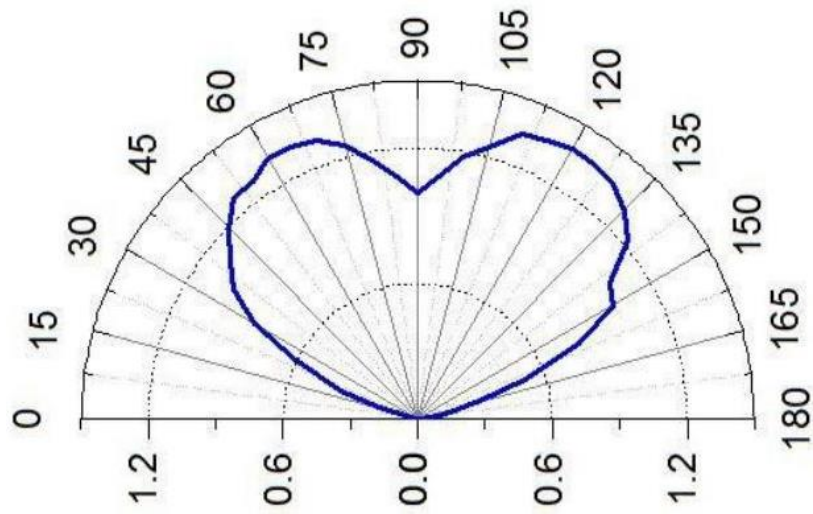
Measurements Warm White 4100k



Measurements of all Wavelengths combined



Lighting Angle:



The Materials of PCB:

5mm 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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