

Datasheet

LED engine specification

Product type:
BL-5700-140-200X100

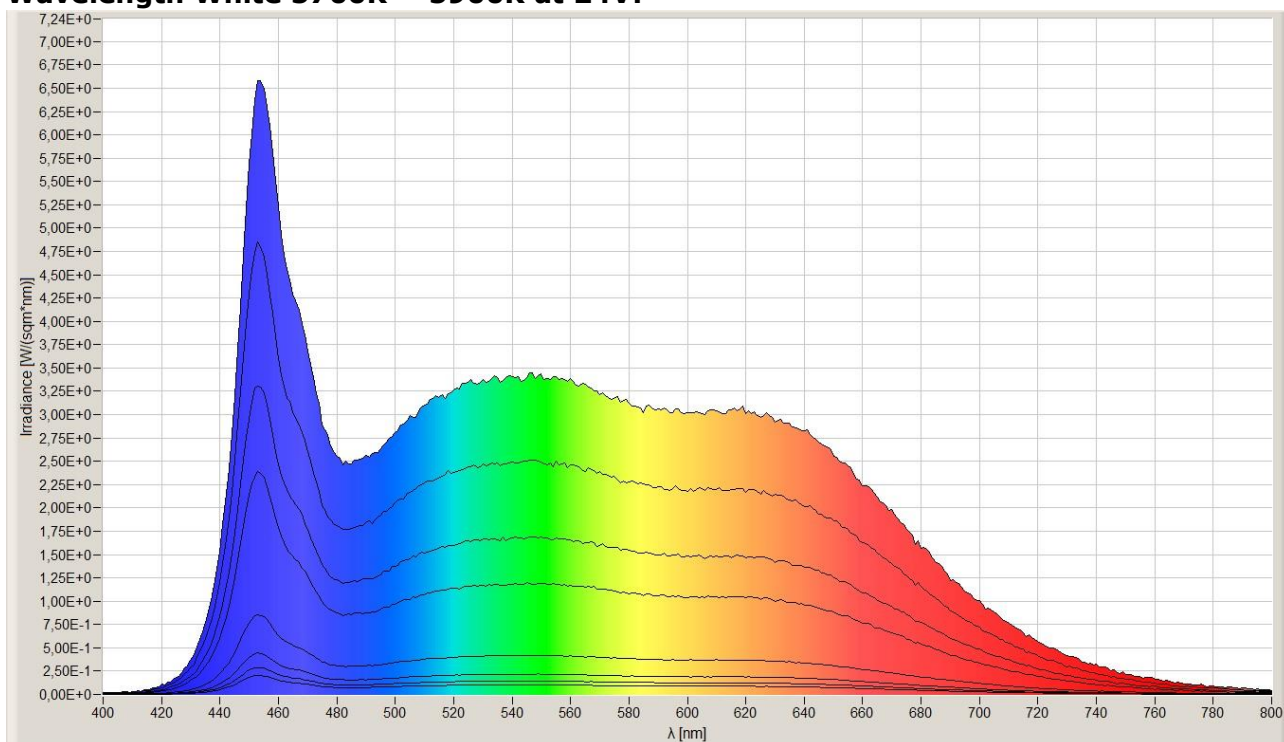
Description:
LuxaLight LED Back Light 5700K Protected (24 Volt, 140 LEDs, 2835, IP64)



Date:
15-01-2023

Technical Specifications						
BL-5700-140-200X100						
General	LED Type	2835 SMD				
	LED Quantity	140 LEDs / Engine				
	Dimensions	200 * 100 * 2 (L x B x H)				
	Weight	92g / 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 Colour temperature (k)	5700K ~ 5900K White				
	CRI	≥ 95 Ra				
	BIN	3 SDCM				
	Voltage at measurement	24V	29V	34V		
	Current at measurement	1,25 A	2,4 A	3A		
	Wattage at measurement	30 W	70 W	102 W		
	Peak Measured Colour temp. (10cm)	5778k				
	Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine)	2,5	831 W/m ²	1426 W/m ²	1670 W/m ²	
		5	603 W/m ²	1035 W/m ²	1212 W/m ²	
		7,5	408 W/m ²	700 W/m ²	820 W/m ²	
		10	289 W/m ²	496 W/m ²	581 W/m ²	
		20	102 W/m ²	175 W/m ²	205 W/m ²	
		30	52,3 W/m ²	90 W/m ²	105 W/m ²	
		40	34,3 W/m ²	59 W/m ²	69 W/m ²	
		60	24,4 W/m ²	42 W/m ²	49 W/m ²	
	Total PPFd μmol/m ² (PAR 400-700nm) (1 LED Engine)	2,5	3645 μmol/m ²	6588 μmol/m ²	7721 μmol/m ²	
		5	2647 μmol/m ²	4784 μmol/m ²	5607 μmol/m ²	
		7,5	1789 μmol/m ²	3233 μmol/m ²	3789 μmol/m ²	
		10	1267 μmol/m ²	2290 μmol/m ²	2684 μmol/m ²	
		20	447 μmol/m ²	808 μmol/m ²	947 μmol/m ²	
		30	230 μmol/m ²	416 μmol/m ²	488 μmol/m ²	
		60	107 μmol/m ²	193 μmol/m ²	226 μmol/m ²	
	Illuminance (Lux) at (1 LED Engine)	2,5	232 klx	406 klx	481 klx	
		5	169 klx	296 klx	351 klx	
		7,5	114 klx	200 klx	237 klx	
		10	80 klx	140 klx	166 klx	
		20	28 klx	49 klx	58 klx	
30		14,6 klx	26 klx	30,8 klx		
40		9,6 klx	17,1 klx	20,3 klx		
60		6,9 klx	12,3 klx	14,6 klx		
μmol/m ² PPFd at 24V (1 LED Engine)	Wavelength Range					
		301 - 400nm	401 - 500nm	501 - 600nm	601 - 700nm	701 - 800nm
	2,5	3,8 μmol/m ²	904 μmol/m ²	1483 μmol/m ²	1258 μmol/m ²	194 μmol/m ²
	5	3,2 μmol/m ²	656 μmol/m ²	1083 μmol/m ²	908 μmol/m ²	140 μmol/m ²
	7,5	1,8 μmol/m ²	448 μmol/m ²	731 μmol/m ²	611 μmol/m ²	94 μmol/m ²
	10	1,4 μmol/m ²	321 μmol/m ²	516 μmol/m ²	430 μmol/m ²	66 μmol/m ²
	20	0,4 μmol/m ²	114 μmol/m ²	181 μmol/m ²	151 μmol/m ²	23 μmol/m ²
	30	0,1 μmol/m ²	59 μmol/m ²	94 μmol/m ²	77 μmol/m ²	12 μmol/m ²
	40	0,09 μmol/m ²	39 μmol/m ²	62 μmol/m ²	51 μmol/m ²	7,8 μmol/m ²
	60	0,06 μmol/m ²	27,4 μmol/m ²	44,2 μmol/m ²	35,8 μmol/m ²	5,4 μmol/m ²
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 White 5700K ~ 5900K at 24V:



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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