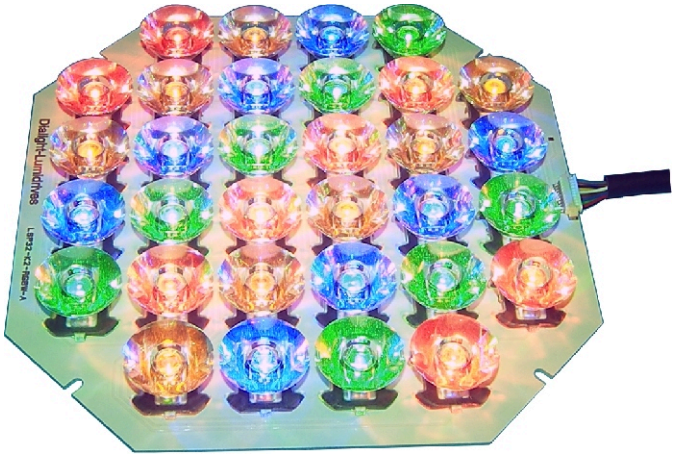
LumiSpot-K2

K2 LED Light Engine

Solid-State RGB and single-colour LED light engines, based on the latest high-power K2 LED technology mounted on high-specification aluminium-backed PCBs. Designed for use with low-voltage, constant-current power supplies.



LumiSpot 32-K2

LumiSpot 12-K2

Features / Benefits

- **Long Life** - LumiSpot K2 light engines offer up to 50,000 hrs. virtually maintenance-free, energy efficient operation.
- **UV / IR Safe** - LumiSpot K2 light engines emit no UV or IR radiation, so is suitable to illuminate light-sensitive materials or products.
- **Thermal Management** Optimised thermal management is provided with on-board thermistor which will interface with the thermal protection circuit on the Colourdriver.
- **Visual Effect** - LumiSpot K2 light engines provide high colour saturation and brilliance and enable the creation of any colour in the spectrum.
- **Onboard Optics** LumiSpot K2 light engines come fitted with OPT-K2 optics specifically designed for K2 LEDs.
- **Simple** - LumiSpot K2 light engines supplied with 3 metre cable with 10-way connector at the PCB end and tinned wire ends at the other, which interfaces directly with Colourdriver.

Environmental

Maximum Recommended PCB Temp +80°C
(For lumen maintenance and lifetime characteristics, see Luxeon K2 Datasheet-DS51 - www.lumileds.com)

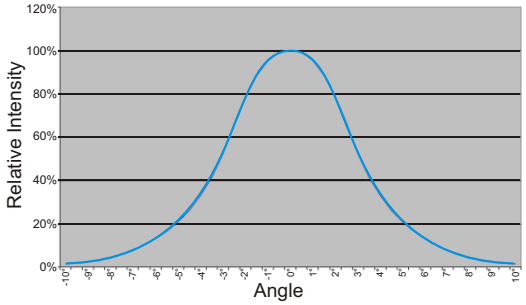
Applications

- **Architectural Lighting.**
- **Spotlights.**
- **Floodlights.**
- **Accent Lighting.**
- **Colour Washing**
- **Night Clubs, Restaurants and Bars**

Optical

LED Colour	Wavelength/ CCT		Luminous Flux or Radiometric Power (lm or mW)					
			LumiSpot 12			LumiSpot 32		
	Min.	Max.	350mA	700mA	1000mA	350mA	700mA	1000mA
Red	620nm	645nm	108 lm	180 lm	-------	288 lm	480 lm	--------
Green	520nm	550nm	108 lm	180 lm	240 lm	288 lm	480 lm	640 lm
Blue	440nm	460nm	528mW	882 mW	1140 mW	1408mW	2352 mW	3040 mW
White	4500°K	10000°K	108 lm	180 lm	240 lm	288 lm	480 lm	640 lm
Amber	584nm	597nm	108 lm	180 lm	-------	288 lm	480 lm	--------

Light Distribution Curve for K2 Optic



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Electrical

LED Colour		Maximum Power		Max. Current (mA)
		LumiSpot 12	LumiSpot 32	
	Red	7.56W	36W	700mA
	Green	11.16W	29.76W	1000mA
	Blue	11.16W	29.76W	1000mA
	White	11.16W	29.76W	1000mA
	Amber	7.56W	36W	700mA

Mechanical Specification

LumiSpot K2	12	32
Length (mm)	127	180
Width (mm)	100	180
Height (mm)	15.5	15.5
Weight (Kg)	0.11	0.29
PCB Finish	Aluminium Substrate / White Finish	
Fixing Method	4 x M3 Screws or suitable thermal adhesive.	
N.B	Secondary heatsinking required.	

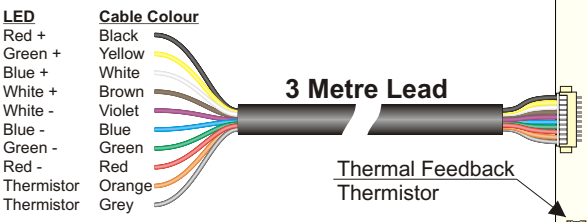
Lenses

Lenses used on LumiSpot-K2 are:

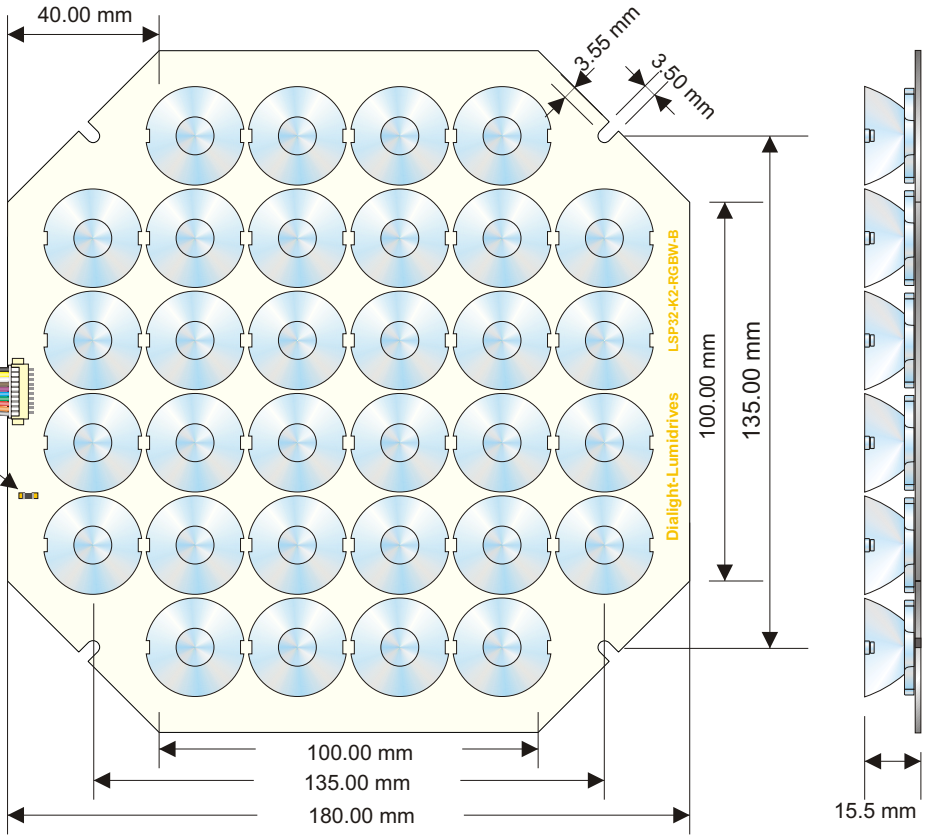
OPK2-1-003	Spot Base Lens	± 3°

Clip-On Sub-Lenses available are:

OPAA-1-DFL	Spot Diffuser Sub-Lens	± 6°
OPAA-1-WSL	Wide Sub Lens	± 12°
OPAA-1-OSL	Oval Sub Lens	± 4°x27°

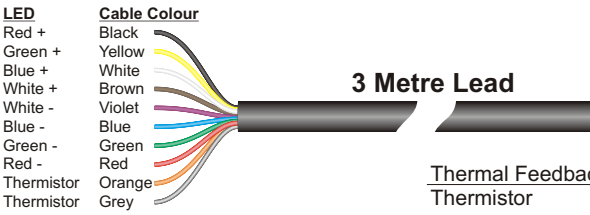


LumiSpot 32 - Connection Detail

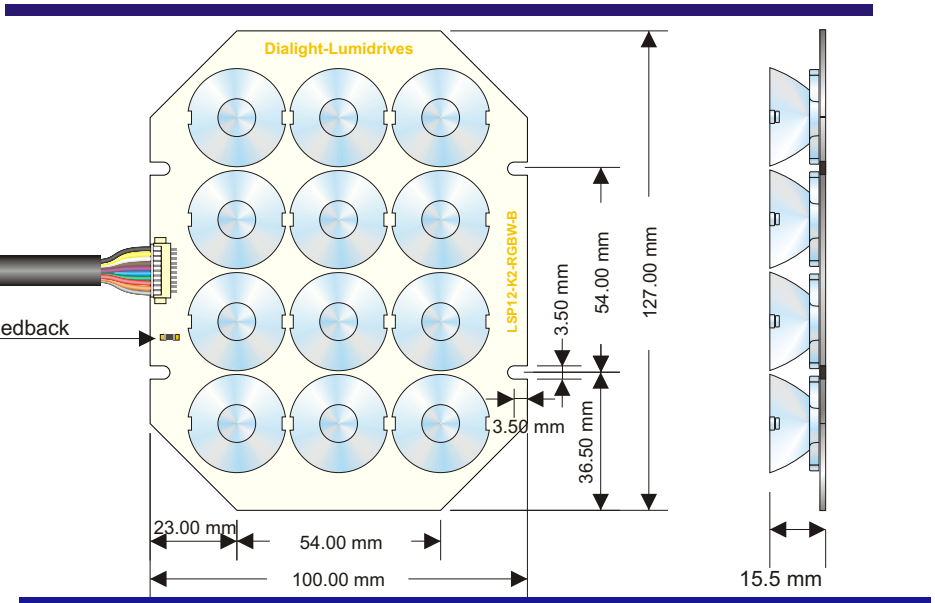


Application Notes

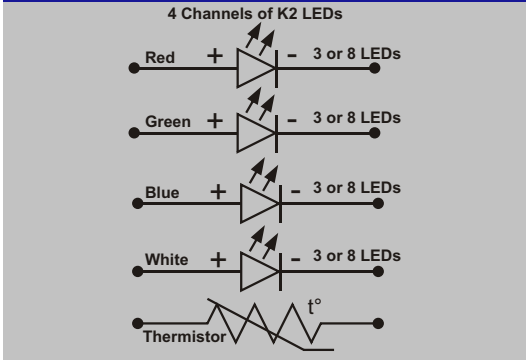
1. When used with the Dialight-Lumidrives Colourdriver XP, over-temperature operation is prevented with the on-board thermistor feedback to the driver.
2. OEMs who wish to use their own driver solution should consult the datasheet for the Luxeon K2 emitters together with the thermal design guide.
3. The LumiSpot-K2 Light Engines will require secondary heatsinking.
4. The red channel should not be driven at more than 700mA.



LumiSpot 12 - Connection Detail



Circuit Configuration



Product Identification

LSPXX - K2 - XXXX

No. of LEDs	K2 LEDs	LED Colours
12 or 32		RGBW RGBA 4xWW

Output of high-power LEDs is constantly improving, so the type of LED in this product may change to reflect the best performance offered in the LED market.