Datasheet

Linear Matrix Brilliance In Light

Linear Matrix CCTW LED Backlit Linkable Module Model No. - LM-SL600CCTW & LM-DL270CCTW

LED Backlit Linkable Module Lights with Circadian Rhythm Colour Temperature

Linear Matrix linkable modules are a highly efficient backlighting solution for display, architectural and custom backlighting purposes, used for indoor and outdoor applications. All products are based on the same energy efficient LEDs and uniform layout, which allows for a perfectly even illumination of any surface.

The CCTW Backlit Linkable Modules use a Correlated Colour Temperature and Circadian Rhythm tunable white-light LED, meaning it can produce and mimic any colour temperature within the 2700k-6500k spectrum, e.g. A backlit wall feature can mimic the Sun's colour temperature as it rises and sets. The module uses single LED chips that contain one tunable Warm White diode (2700 K), and one tunable Pure White diode (6500K) each. The results show that this LED Chip can produce a luminous efficiency of 16 lm/W (both channels on) at CCTW of 2700 K to 6500K.



Pure White Diode On



Warm White Diode On



LM-SL600CCTW & LM-DL270CCTW

Adjustable White of 2700K Warm White to 6500K Pure White

Model	LM-SL600CCTW	LM-DL270CCTW
Size	SL - 600 x 580 x 2.5mm SL - 23.6 x 22.8 x 0.19inches	DL - 270 x 24 x 2.5mm DL - 10.6 x 0.94 x 0.19inches
LED quantity	480 per module	18 per module
Material Offset	60mm Recommended (Subject to material testing)	
Lumen output (typ)	3600 Lumen	
Wattage (max)	53watts with Both Colours ON 27watts Pure White ON 26watts Warm White ON	1.1watt with Both Colours ON 0.6watt Pure White ON 0.5watt Warm White ON
Colour Rendering	Adjustable from 2700K Warm White to 6500K Pure White	
Dimming	PWM (Pulse Width Modulation) or Voltage Power Control	
Warranty	5 Years (Return to base)	
Lifespan	+100,000 Hrs	
Certification	UL8750 CSA C22.2 No. 250.13	



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SL LED Backlit Module

The SL LED Module is the main unit used for populating an area, as this module can only be cut horizontally. When laying down the modules, these units are used to fill in most of the population area. These Modules can be cut down to size and curved to some extent for ultimate customization and versatility. Single layer (SL) modules can be cut horizontally in ribs of 51mm. For larger surfaces, multiple modules can be joined such that one external driver can power multiple modules at once.

Mounting Materials:

- 4mm Fire Rated Aluminium Ridgid Board
- 6mm Rigid PVC Panels

Power Information

Power Requirements - **24v DC Regulated** Power Consumption per Module:

- SL Modules 53 Watts each 600mm x 580mm Module
- DL Modules 0.6 Watts each 90mm x 24mm Module

DL LED Backlit Module

The DL LED Module is what we refer to as the Gap Filler unit when populating an area. This unit comes in a rib format but can be cut Vertically to a 90mm piece (sections of 3 LEDs). Each section is its own circuit and will operate individually or in multiple sections. This versatility allows these Modules to backlight almost any size required in conjunction with the SL Module. The DL Module has the same specifications as the SL Module but simply is used to fill in any gaps of light in the populated area.



Material Offset:

The suggested distance (d) between the transparent material and the Linear Matrix LED Modules is 60mm.

Please Note: Depending on the transparent material being used, the distance (d) to the LED Modules may vary, + or - . We suggest that the user runs a test with samples of the material to find the most effective distance.

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