COLOR ENGINE CIRCULAR
LED LIGHT ENGINES

FEATURES / BENEFITS

- ▲ Extremely long life of 50,000 hours at 55ºC PCB temperature
- ▲ Durable F-Form optics holder allow for easy changing of 4 lens options (5, 15, 25 degree and 5X20 degree oval)*
- ▲ Red, Blue and Green LEDs allow for infinite number of color combinations and dynamic color changing (appropriate colordriver controller required)
- ▲ Aluminum based PCB for easier heat dissipation and more efficient operation
- ▲ Available Color Kinetics pass through license, consult factory for details

OPERATING CONDITIONS

- ▲ Recommended PCB temp=55ºC (131ºF)
  Maximum PCB temp = 105ºC (221ºF)
- ▲ LED Life @ 55ºC PCB temp = 50,000 hours
- ▲ For maximum performance, all “Circular Color Engine” LED Light Engines should be screwed or affixed using thermal adhesive to an appropriate heat sink
- ▲ Thermal conductivity = 1.3W/m-k
- ▲ Breakdown voltage = 2kV

APPLICATIONS

- ▲ Color washing
- ▲ Decorative effects
- ▲ Entertainment lighting
- ▲ Retail
- ▲ Landscape
- ▲ Night clubs, restaurants, bars
- ▲ Any application requiring color changing, efficiency, and long life in a circular pattern.

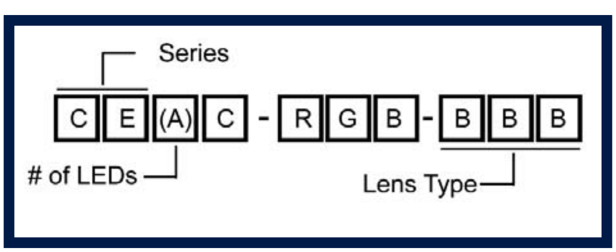
MECHANICAL DIMENSIONS

Height (all models including lens) = 15.5mm (0.61”)
Color engine3C, Diameter = 48mm (1.89”)
Color engine6C, Diameter = 69mm (2.72”)
Color engine12C, Diameter = 90mm (3.54”)
Color engine18C, Diameter = 110mm (4.33”)
Color engine36C, Diameter = 155mm (6.10”)

MATERIALS/FINISH

- ▲ LUXEON® I LEDs
- ▲ 1.6mm Aluminum clad PCB substrate
- ▲ Recommended accessories include Color driver 36 power supply, CDL-M3E Molex cable and other cabling accessories

PART NUMBERS



# of LEDs (A)
3 = Color engine3C (1 each of red, blue and green LEDs)
6 = Color engine6C
12 = Color engine12C
18 = Color engine18C
36 = Color engine36C

LENS Type (BBB)*
005 = 5 Degree
015 = 15 Degree
025 = 25 Degree
520 = 5 X 20 Degree
XXX = no lens**

* Half Divergence Angle
** Lens to be purchased & installed separately

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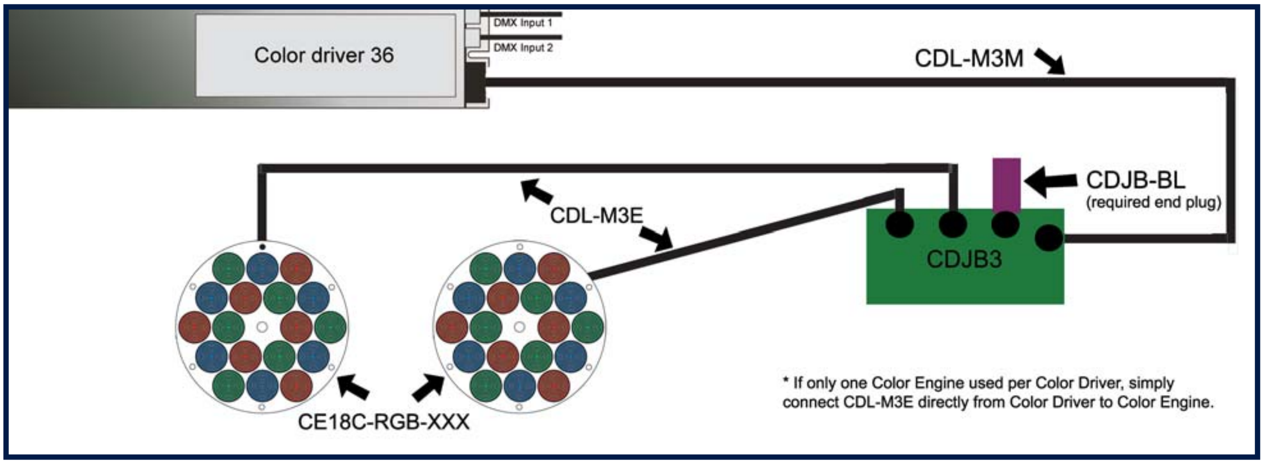
WIRING INFORMATION



CDL-M3E is equipped with 8 individual colored wires. Each wire to be soldered onto indicated solder pad on color engine. For CE3C-RGB, cut off brown and purple leads.

TYPICAL LED PHOTOMETRIC DATA

LED	Color	Forward Voltage (Typ)	Max.Current (mA)	Max. Power (Watts)	Dom Wavelength / CCT			Min Luminous Flux (lm) / Radiometric Power (mW)	Typ Luminous Flux (lm) / Radiometric Power (mW)
					Min	Typ	Max		
	Red	2.95	350	1.03	620.5 nm	627 nm	645 nm	30.6 lm	44 lm
	Green	3.42	350	1.20	520 nm	530 nm	550 nm	30.6 lm	53 lm
	Royal Blue	3.42	350	1.20	440 nm	455 nm	460 nm	145 mW	220 mW

Results are LED manufacturer's test data @ 25ºC JTC'. Light output at 55ºC PCB temperature will be approximately 15-20% lower. Elevated temperatures will result in further degradation of light output. For maximum performance use appropriate heat sinking.

Maximum current input 350mA
Maximum power consumption
1.2W per LED for Blue / Green,
1.0W per LED for Red.
Recommended min gauge wire,
AWG24

Dialight reserves the right to make changes at any time in order to supply the best product possible.

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