



SPECIFICATION

P/N: LC-MD1123-03

Preliminary

光圓科技股份有限公司

LED CIRCLE Technology Corporation

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Examples: Diameter =38mm (Standard product)



Description

The **LC-MD1123-03** is a modular LEDs Array of 1W/3W/5W (Luxeon) high power LEDs. This product line provides simple and compact solution for traditional lighting in different size fitted into existing fixture. With special aluminium/copper base PCB structure, the LEDs have stable light output and lifetime while the heat is efficiently managed. *Other size, other LED, other colour pattern, and other array layout are available on request.*

Also, please pick up the LED CCD Driver from our Alva product series if you need the LED driver for this module, or pick up the LED talent module from our LCT product series if you need the integrated module that includes LED module and LED CCD Driver.

Features

- The heat is efficiently managed at preferable working temperature.
- Small/Compact size.
- Easy for being retrofitted into existing traditional lighting fixture

Benefits

- Have flexible configurations including Warm white, White, Red, Green, Blue, Amber and RGBW mixed and other customized configuration.
- Light weight
- Enhance the value of your products
- Provides flexibility to designers
- It is a hazard free product
- It can be integrated into existing lighting system
- Facilitates new fixture design
- Facilitates low profile fixture design
- Optimisation of the usage of the system power.

Typical Applications

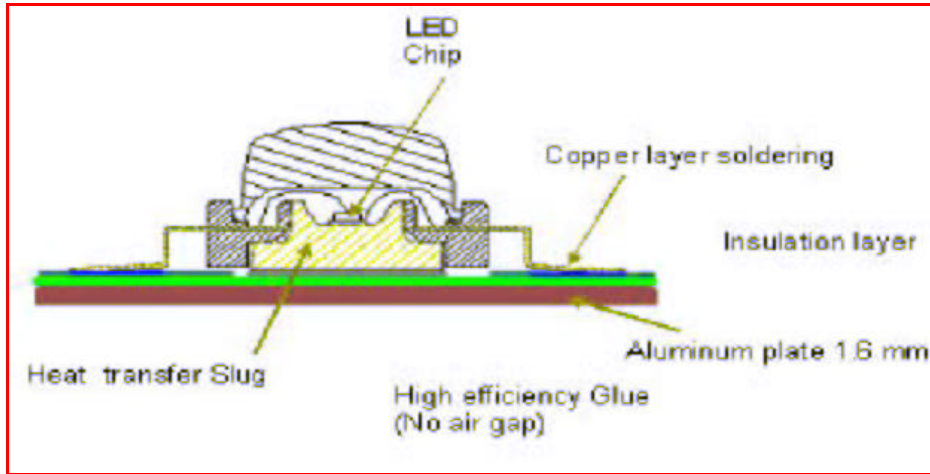
- Architectural lighting
- Garden lighting
- In-ground lights.
- Floodlight.
- Reading lamps
- Cove lighting
- Cornice lighting
- Landscape lighting
- Under-Water lighting
- Vending machine lighting
- Wall sconces
- Under-cabinet lighting
- Projectors
- Decorative lights
- Pool/fountain lights

Note:

1. This MCPCB product required additional heat sink.
2. System to keep working temp at preferable temperature 55



Construction of MCPCB / LED:



PS: Unique construction of Metal Core Print CircuitBoard (MCPCB) with slug through contact to Aluminium substrate transferring heat from LED chip straight away and quickly to outside environments.

Selection Guide	
Part Number	Description
LC-MD1123-03-1WW-B	1W Warm White/3 LEDs array/Batwing
LC-MD1123-03-1W-B	1W White/3 LEDs array/Batwing
LC-MD1123-03-1W-L	1W White/3 LEDs array/Lambertian
LC-MD1123-03-1W-S	1W White/3 LEDs array/Side emitting
LC-MD1123-03-1R-B	1W Red/3 LEDs array/Batwing
LC-MD1123-03-1R-L	1W Red/3 LEDs array/Lambertian
LC-MD1123-03-1R-S	1W Red/3 LEDs array/Side emitting
LC-MD1123-03-1G-B	1W Green/3 LEDs array/Batwing
LC-MD1123-03-1G-L	1W Green/3 LEDs array/Lambertian
LC-MD1123-03-1G-S	1W Green/3 LEDs array/Side emitting
LC-MD1123-03-1B-B	1W Blue/3 LEDs array/Batwing
LC-MD1123-03-1B-L	1W Blue/3 LEDs array/Lambertian
LC-MD1123-03-1B-S	1W Blue/3 LEDs array/Side emitting
LC-MD1123-03-1A-B	1W Amber/3 LEDs array/Batwing
LC-MD1123-03-1A-L	1W Amber/3 LEDs array/Lambertian
LC-MD1123-03-1A-S	1W Amber/3 LEDs array/Side emitting
LC-MD1123-03-1M-B	1W RGBW/3 LEDs array/Batwing

LC-MD1123-03-1M-L	1W RGBW/3 LEDs array/Lambertian
LC-MD1123-03-1M-S	1W RGBW/3 LEDs array/Side emitting
LC-MD1123-03-1XXX-X	1W Customized/3 LEDs array

Note: The **XXX-X** is the project code of the customized products.

Electrical characteristics		
Input		
Parameter	Min	Max
Input Voltage Range	5.4Vdc	15Vdc
Input Frequency	-	-
Input Current	315mA	385mA
Efficiency	-	-

Note: The **Input Voltage range** is depended on the LEDs that you have selected. (Contact our engineer for the detail)

Environmental Ratings		
Parameter	Min	Max
Operating Ambient Temperature	-10	60
Storage Ambient Temperature	-20	80



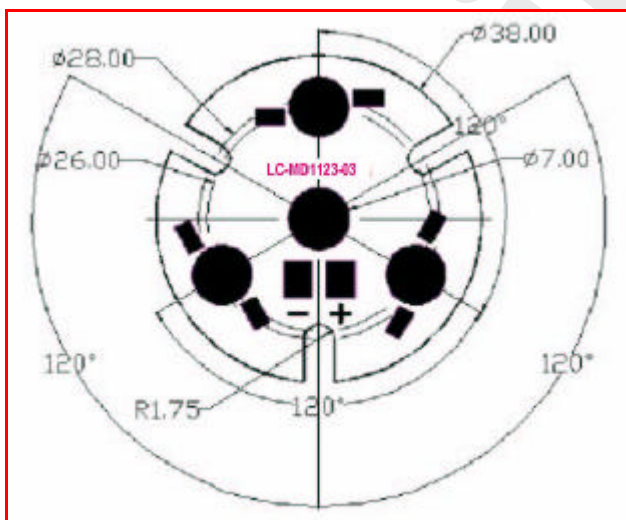
LED Selection (per Luxeon from LUMILEDS)

Color	Radiation pattern	Dominant wavelength nm	LED Watts	Lumens / emitter
Red	Batwing/ Lambertian / Side emitting	630	1	B:27 / L:42 / S:40
Amber		594	1	B:25 / L:42 / S:38
Green		525	1	48
Blue		470	1	16
White		5500 K	1	40
Warm White	Batwing	3000 – 3500 K	1	20

Drawing and Diagram

Plate Diameter F =38mm;

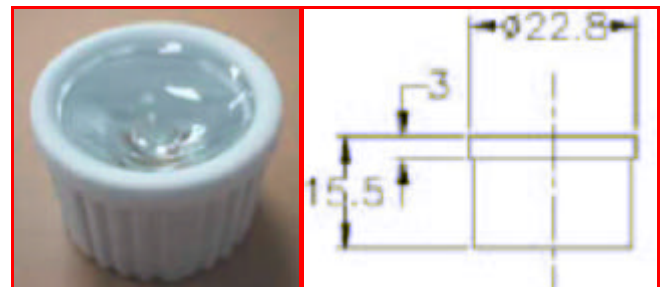
Plate thickness : 1.6mm.



Note:

1. Surface finish : Black / White Solder resist paint
2. LED on PCB Circuit : 3LEDs in series (other circuit layouts available on request)
3. Connection : 2 open soldering terminals.
4. Option : 10° / 15° / 20° / 25° / 45° Acrylic lens (click-in per each LED), Other lens subject to optional.

10° / 15° / 20° / 25° / 45° Lens holder dimension



5. Recommended max. PCB temperature :+ 55



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Important: Please contact our engineer to ensure installation and maintenance being properly executed to obtain maximum performance, efficiency and durability from the LED lighting product.

Disclaimer: While every care has been taken with the details on this specification sheet, we accept no responsibility for any inaccuracies and reserve the right to change these specifications without notice to always ensure that you are receiving a superior product.

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