



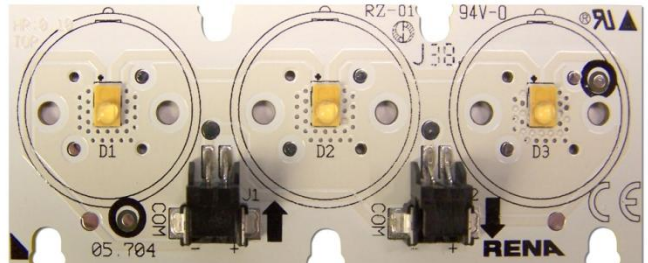
## Led2fix Light Sources

### 05704 series

The 05704 Led2fix series consists of 3 high powered LUXEON Rebel LEDs. It is engineered to provide customers with the flexibility to select the optimal light source for the applications. Customers can modify the Led2fix light source by selecting the LUXEON Rebel LED, optic and connector to best suit their needs.

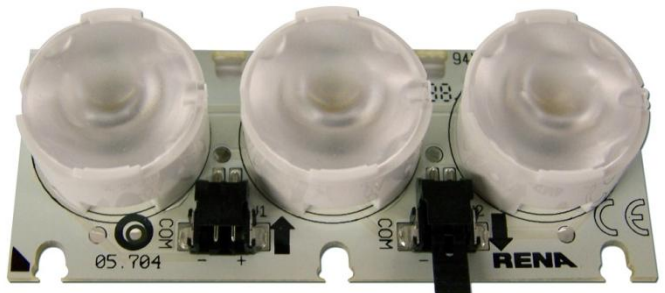
### FEATURES & BENEFITS

- 3 Year Warranty
- High-Reliability LED Sources
- Rugged Construction
- Wide Operational Temperature Range
- Multiple Configurable Options
- Flexible Optic Options
- Wide Range Drive Current
- Multiple White CCT's Available
- Very Short Lead Time
- CE Certified



### TYPICAL APPLICATIONS

- Under Cabinet Lighting
- Cove Lighting
- Accent Lighting
- Display Case Lighting
- Display Lighting
- Street & Area Lighting



## MECHANICAL CHARACTERISTICS

PARAMETER	CONDITIONS
PCB	FR-4
Finish	White
Size	30X75mm
Source Type	LUXEON Rebel
Connector	Tyco CT (2-292173-2)
Thermal Resistance (p-n junction to bottom of PCB)	Rth= 21 K/W

## ELECTRICAL CHARACTERISTICS

PARAMETER	MIN	NOM	MAX
Forward Voltage (V) @350mA & Tj=25 C	7.6	9	12
Power Consumption @350mA (W)	2.7	3.2	4.2

## ENVIRONMENTAL CHARACTERISTICS

PARAMETER	MIN	MAX
Storage Temperature ( C)	-40	+70
PCB temperature ( C)	-20	+80

# THERMAL STATEMENT & ASSEMBLY INSTRUCTIONS

The Led2fix light sources must be operated under proper environmental conditions and the operating ambient air temperature must not exceed a certain maximum which cause the LEDs to exceed the maximum junction temperature as stated in the Lumileds datasheet. The led2fix light source must always be operated in conjunction with a proper heat sink in relation to the supplied power to the LEDs. The objective is to maintain the junction temperature below the maximum rating in Lumileds datasheet while also not exceeding the maximum PCB temperature.

The Led2fix light source must be connected to a flat heat sink by mounting with M3 screws the light source to the heat sink. All screw holes must be used to attach the light source to the heat sink in order to provide proper heat transfer to the heat sink. Also between the heat sink and light source a thermal conductive interface is required. This thermal conductive interface could be a thermal conductive paste such as AmasanT12 from Armack Lotttechnik or a thermal interface material such as T-PCM 585 from Laird.

The light source must not be bent to avoid damaging of the LED and/or dislodge of the optics.

## THERMAL MANAGEMENT

The graphs below show the required thermal resistance of the heat sink based on the maximum desired ambient temperature, the driver current and the maximum allowed PCB temperature. The maximum allowed  $T_j$  is a function of the target lifetime of the product and the LED current, which is located in the Lumileds reliability datasheet RD07.

For example, if the max ambient temperature is  $45^\circ\text{C}$  and the drive current is  $700\text{ mA}$ , the heat sink should have an  $R_{th}$  of  $4.3\text{ K/W}$  or lower to meet the max PCB temperature requirement. This is shown in figure 1. With the known  $R_{th}$  of the heat sink the delta T from junction to ambient can be determined in figure 2. A  $R_{th}$  of  $4.3\text{ K/W}$  has a delta T of  $63^\circ\text{C}$ , which means that the LED has a  $T_j$  of  $108^\circ\text{C}$ .

With the same graphs the max operating temperature and the junction temperature can also be determined when the thermal resistance of a chosen heat sink is known.

Note 1; a max BIN voltage ( $350\text{ mA @ }25^\circ\text{C}$ ) of  $3.3\text{ V}$  is assumed.

Note 2; the graphs show that not all combinations of  $T_j$  and max ambient are possible.

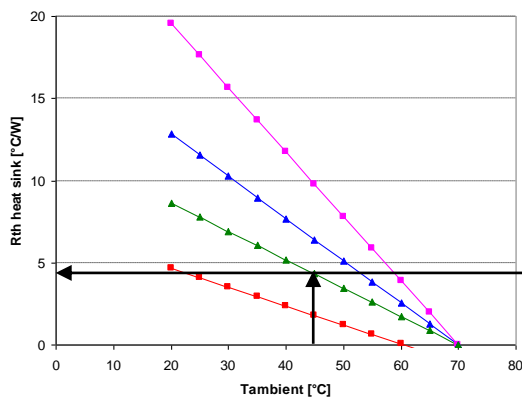


Figure 1

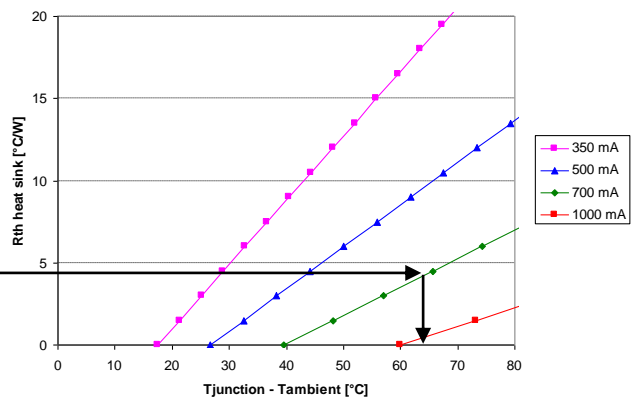
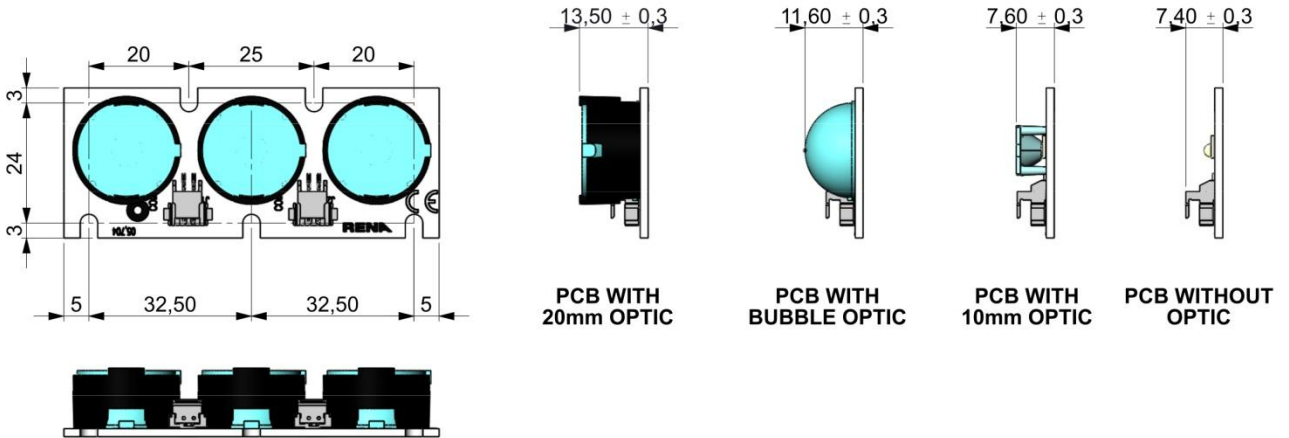


Figure 2

# MECHANICAL DRAWINGS

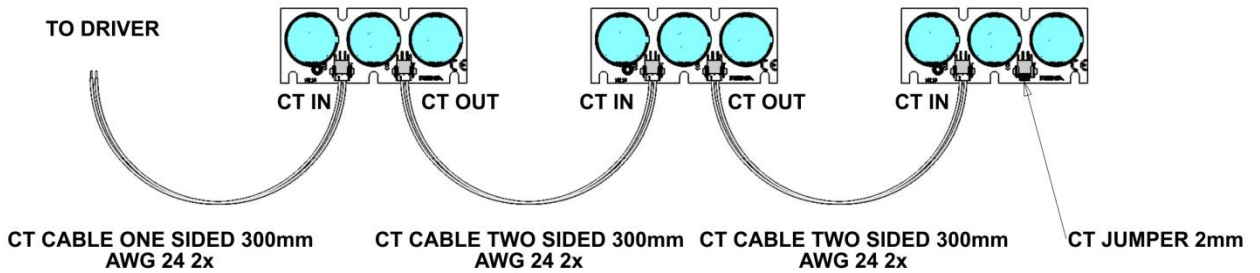
2D drawings with dimensions in mm



# INTERCONNECTIVITY OPTIONS

Board-to-board wiring options and drawings

Boards connected in series:

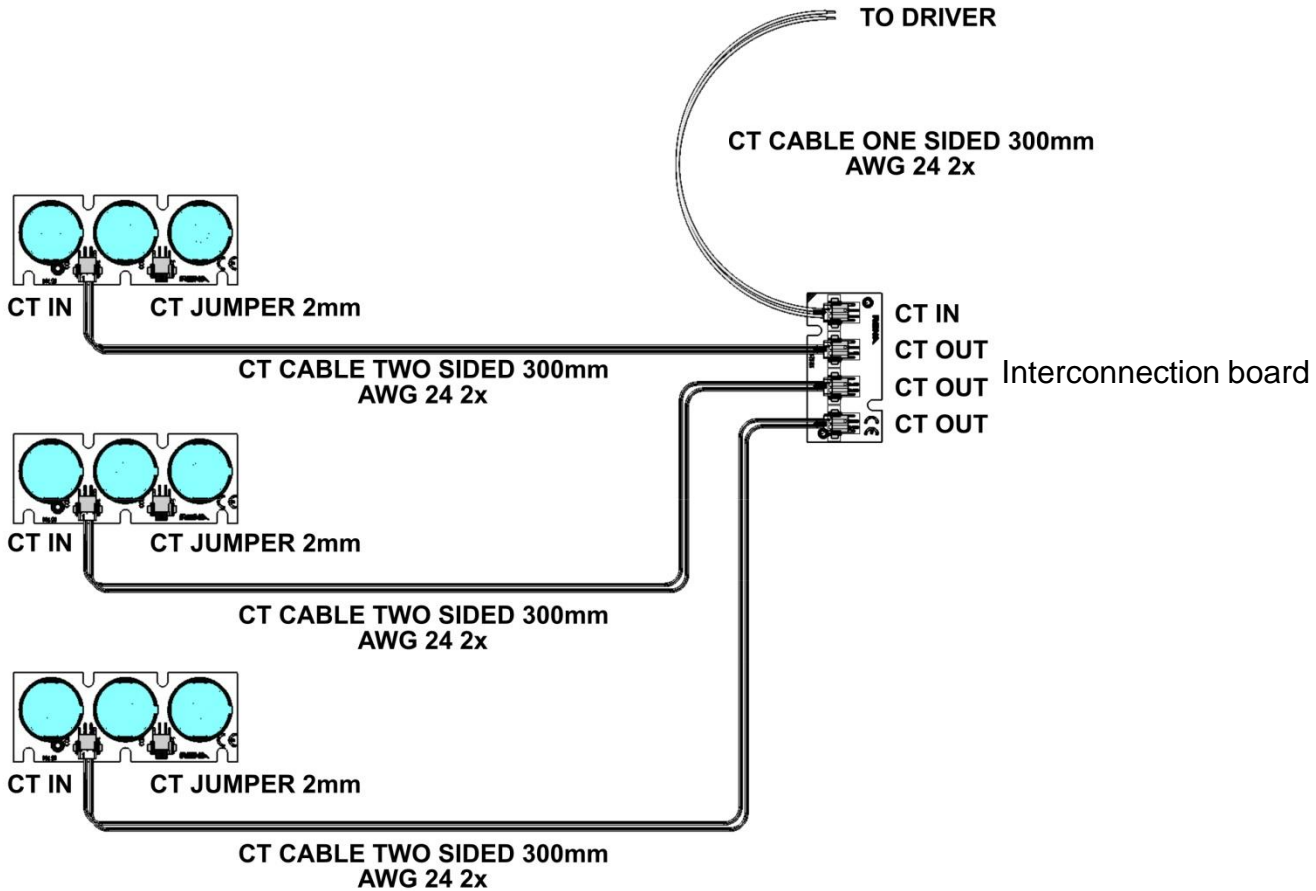


# INTERCONNECTIVITY OPTIONS

Board-to-board wiring options and drawings

Boards connected in parallel:

Note: Parallel wiring should only be done when single bin Vf is used for all LEDs



# PART NUMBERING & ORDERING INFORMATION

## Product Series (05704)

Linear board with 3 LEDs in series and 25 mm spacing

## LED Type

R = LUXEON Rebel

## Color Temp (AAAA)

7777 = Neutral White

8888 = Warm White

9999 = Cool White

## Minimum CRI\* (BB)

XX = No CRI

55 = Min 55

60 = Min 60

65 = Min 65

70 = Min 70

75 = Min 75

80 = Min 80

85 = Min 85

90 = Min 90

## Minimum Flux\* (Im)

(CCC)

065 = Min 65

066 = Min 66

067 = Min 67

075 = Min 75

080 = Min 80

100 = Min 100

## Connector (D)

C = Connector

N = No Connector

Part number:

# 05704RAAAABBCCCEFG

## Supplier Optics (E)

X = No Optics

A = Carclo 10mm

B = Carclo 20mm

D = Carclo bubble

## Optic Holder (F) (carclo 20mm)

X = No Holder

A = Carclo Single Black Holder 10235

B = Carclo Single White Holder 10236

C = Carclo Single Clear Holder 10237

## Collimator (G)

X = No Lens

**10 and 20 mm optics:**

C = Narrow Beam

D = Narrow Beam Frosted

E = Medium Beam

F = Medium Beam Frosted

G = Wide Beam

H = Wide Beam Frosted

K = Elliptical Beam

L = Elliptical Beam 90

**Bubble optics:**

R = Ultra Wide 120°

S = Ultra Wide 130°

\* According to Lumileds datasheet

Special configurations on request  
Contact your local sales representative



# ORDERING INFORMATION

[www.led2fix.com](http://www.led2fix.com)

Note: All specifications are subject to change without notice

