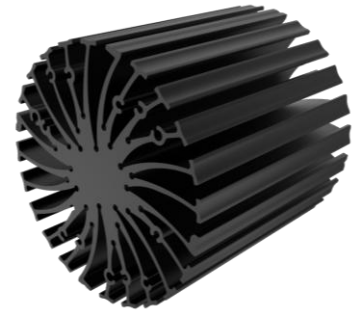


**EtraLED**

**EtraLED-CRE-8580 CREE Modular Passive Star Heat Sink  $\phi$ 85mm**

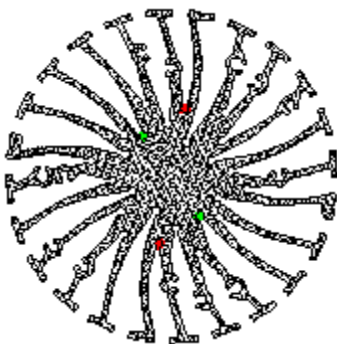
**Features VS Benefits**

- \* The EtraLED-CRE-8580 Cree Modular Passive Star LED Heat Sinks are specifically designed for luminaires using the Cree LED engines.
- \* Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
- \* For spotlight and downlight designs from 2000 to 5,100 lumen.
- \* Thermal resistance range  $R_{th}$  1.47°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Cree® XLamp® COB series.
- \* Diameter 85mm - standard height 80mm, Other heights on request.
- \* Forged from highly conductive aluminum.



**Zhaga LED engine and radiator assembly is a unified future international standardization**

- \* Below you find an overview of Cree COB's and LED modules which standard fit on the srar LED heat sinks.
- \* In this way mechanical after work and related costs can be avoided, and lighting designers can standardize their designs on a limited number of srar LED heat sinks.



**Cree LED Modules directly Mounting Options**

**Cree® XLamp® COB Series:**

- Xlamp CXA 13xx;
- Xlamp CXB 13xx;

With the Zhaga Book 11 holders for the green indicator marks.  
 IDEAL Holder:50-2100CR;  
 BJB Holder:47.319.6020.50;  
 Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:  
 Olivia series: FN14637-S; FN14828-M;  
 Ronda series: FN15xxx-xx;

**Cree® XLamp® COB Series:**

- Xlamp CXA 18xx;
- Xlamp CXB 18xx;

With the Zhaga Book 3 holders for the green indicator marks.  
 IDEAL Holder:50-2101CR;  
 BJB Holder:47.319.2131.50;  
 Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:  
 Olivia series: FN14637-S; FN14828-M;  
 Ronda series: FN15xxx-xx;

**Cree® XLamp® COB Series:**

- Xlamp CXA 15xx;
- Xlamp CXB 15xx;

With the Zhaga Book 11 holders for the red indicator marks.  
 IDEAL Holder:50-2001CR;  
 BJB Holder:47.319.6104.50;  
 AAG.STUCCHI holder:8400-G2;  
 Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:  
 Ronda series: FN15xxx-xx;

**EtraLED**

**EtraLED-CRE-8580 CREE Modular Passive Star Heat Sink  $\Phi$ 85mm**

**Mounting Options and Drawings & Dimensions**

Example: EtraLED-CRE-8580-B-1,2

Example: EtraLED-CRE-85 **1** - **2** - **3**

**1** Height (mm)

**2** Anodising Color

B-Black

C-Clear

Z-Custom

**3** Mounting Options - see graphics for details Combinations available

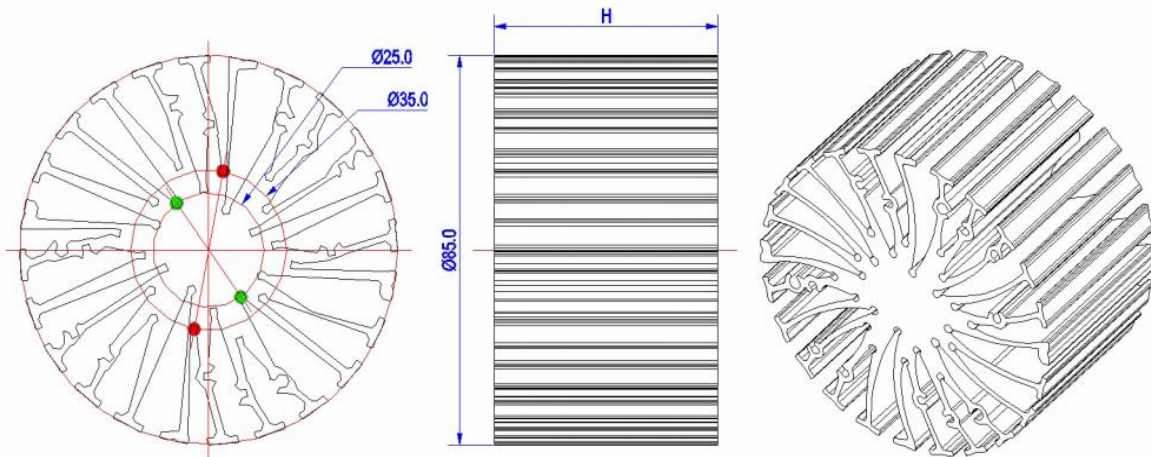
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means option 1 and 2 combined

**Notes:**

- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MingfaTech.
- MingfaTech reserves the right to change products or specifications without prior notice.

| MOUNTING OPTION | Module type                        | Holder NO.                   | LEDiL products           |              | THREAD | THREAD DEPTH                      | THREAD HOLE DISTANCE               |
|-----------------|------------------------------------|------------------------------|--------------------------|--------------|--------|-----------------------------------|------------------------------------|
|                 |                                    |                              | Olivia series            | Ronda series |        |                                   |                                    |
| 1               | Xlamp CXA 13xx;<br>Xlamp CXB 13xx; | BJB Holder<br>47.319.6104.50 | FN14637-S;               | FN15xxx-xx;  | M3     | 6.5mm                             | 25.0mm/ 2-@180°<br>(Zhaga Book 11) |
|                 |                                    | IDEAL Holder<br>50-2001CR    |                          |              |        |                                   |                                    |
|                 | Xlamp CXA 15xx;<br>Xlamp CXB 15xx; | BJB Holder<br>47.319.6104.50 | /                        |              |        |                                   |                                    |
|                 |                                    | AAG.STUCCHI<br>8400-G2       |                          |              |        |                                   |                                    |
| 2               | Xlamp CXA 18xx;<br>Xlamp CXB 18xx; | BJB Holder<br>47.319.2131.50 | FN14637-S;<br>FN14828-M; | M3           | 6.5mm  | 35.0mm/ 2-@180°<br>(Zhaga Book 3) |                                    |
|                 |                                    | IDEAL Holder<br>50-2101CR    |                          |              |        |                                   |                                    |



**EtraLED**

**EtraLED-CRE-8580 CREE Modular Passive Star Heat Sink Φ85mm**

**The product data table**

|  |   |                  |
|--|---|------------------|
|  | <b>Model No.</b>                                  | EtraLED-CRE-8580 |
|  | <b>Heatsink Size</b>                              | Φ85xH80mm        |
|  | <b>Heatsink Material</b>                          | AL6063-T5        |
|  | <b>Finish</b>                                     | Black Anodized   |
|  | <b>Weight (g)</b>                                 | 458.0            |
|  | <b>Dissipated power (T<sub>hs-amb</sub>,50°C)</b> | 34.0 (W)         |
|  | <b>Cooling surface area (mm<sup>2</sup>)</b>      | 148458           |
|  | <b>Thermal Resistance (R<sub>hs-amb</sub>)</b>    | 1.47 (°C/W)      |

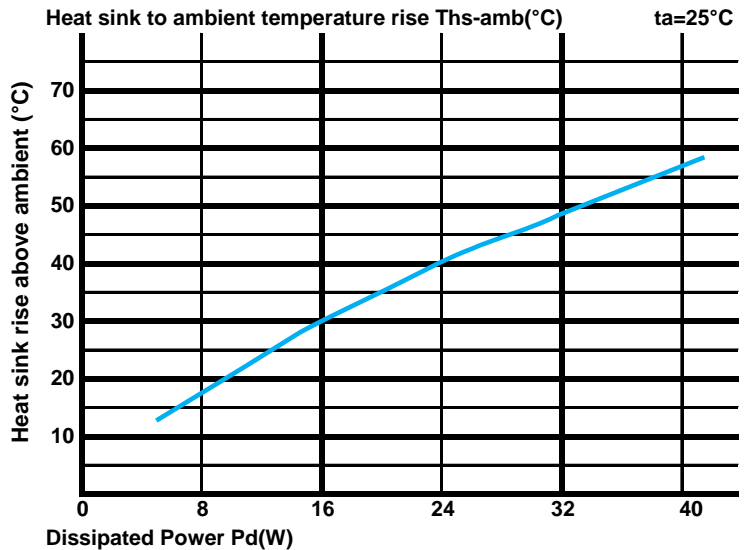
**The thermal data table**

\* Please be aware the dissipated power Pd is not the same as the electrical power Pe of a LED module.

\*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

Pd - Dissipated power ; Pe - Electrical power ; ηL = Light efficiency of the LED module;

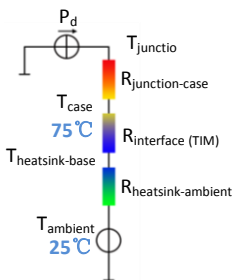
| Dissipated Power Pd(W) | Pd = Pe x (1-ηL) | Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W) | Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C) |
|------------------------|------------------|--|--|
|                        |                  | EtraLED-CRE-8580   |  |
| 8.0                    |                  | 2.25   | 18.0   |
| 16.0                   |                  | 1.88   | 30.0   |
| 24.0                   |                  | 1.67   | 40.0   |
| 32.0                   |                  | 1.50   | 48.0   |
| 40.0                   |                  | 1.40   | 56.0   |



\*The aluminum substrate side of the package outer shell is thermally connected to the heat sink via TIM (Thermal interface material).

MingFa recommends the use of a high thermal conductive interface between the LED module and the LED cooler.

Either thermal grease, A thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended.



\*Thermal resistance is a heat property and a measurement of a temperature difference by which an object or material resists a heat flow.

Geometric shapes are different, the thermal resistance is different. Formula:  $\theta = (T_{hs} - T_a) / P_d$

$\theta$  - Thermal Resistance [°C/W]; T<sub>hs</sub> - Heatsink temperature ; T<sub>a</sub> - Ambient temperature ;

\*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package outer shell is R<sub>junction-case</sub>, the thermal resistance of the TIM outside the package is R<sub>interface (TIM)</sub> [°C/W], the thermal resistance with the heat sink is R<sub>heatsink-ambient</sub> [°C/W], and the ambient temperature is T<sub>ambient</sub> [°C].

\*Thermal resistances outside the package R<sub>interface (TIM)</sub> and R<sub>heatsink-ambient</sub> can be integrated into the thermal resistance R<sub>case-ambient</sub> at this point. Thus, the following formula is also used:

$$T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot P_d + T_{ambient}$$