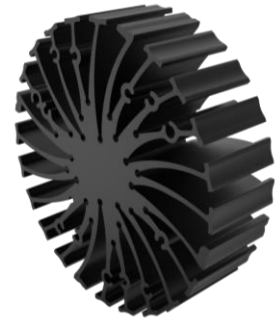


EtraLED

EtraLED-CRE-8520 CREE Modular Passive Star Heat Sink ϕ 85mm

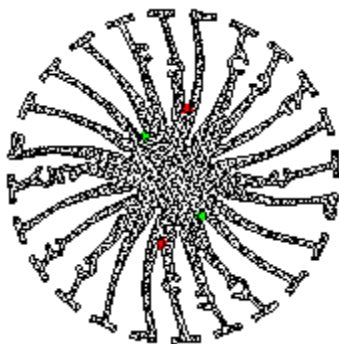
Features VS Benefits

- * The EtraLED-CRE-8520 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 1200 to 3,100 lumen.
- * Thermal resistance range R_{th} 2.38°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Cree® XLamp® COB series.
- * Diameter 85mm - standard height 20mm, 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-8520 CREE Modular Passive Star Heat Sink Φ 85mm

Mounting Options and Drawings & Dimensions

Example: EtraLED-CRE-8520-B-1,2

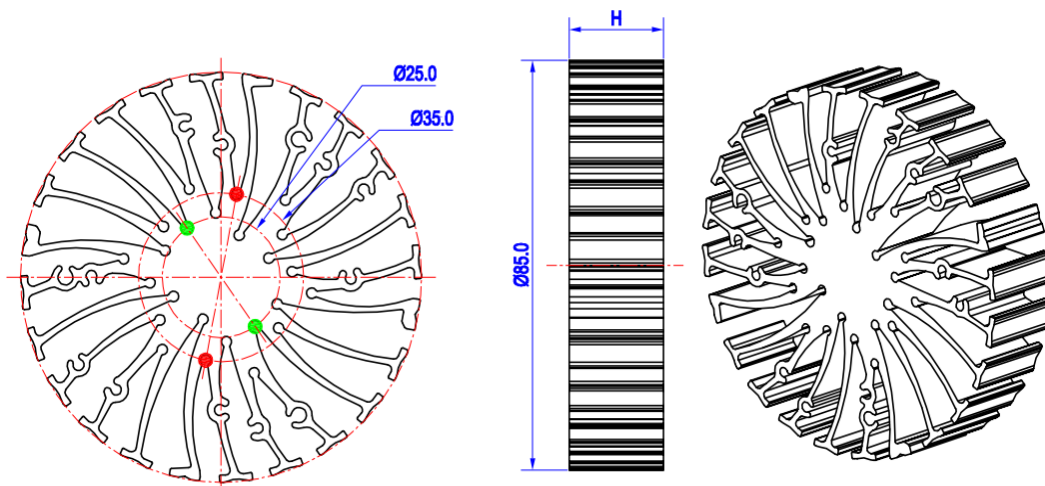
Example: EtraLED-CRE-85 **1** - **2** - **3**

- 1** Height (mm)
- 2** Anodising Color
 - B-Black
 - C-Clear
 - Z-Custom
- 3** Mounting Options - see graphics for details Combinations available
 - Ex.order code - 12
 - 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; Xlamp CXB 13xx;	BJB Holder 47.319.6104.50	FN14637-S;		M3	6.5mm	25.0mm/ 2-@180° (Zhaga Book 11)
		IDEAL Holder 50-2001CR					
	Xlamp CXA 15xx; Xlamp CXB 15xx;	BJB Holder 47.319.6104.50	/				
		AAG.STUCCHI 8400-G2					
2	Xlamp CXA 18xx; Xlamp CXB 18xx;	BJB Holder 47.319.2131.50	FN14637-S; FN14828-M;		M3	6.5mm	35.0mm/ 2-@180° (Zhaga Book 3)
		IDEAL Holder 50-2101CR					



EtraLED

EtraLED-CRE-8520 CREE Modular Passive Star Heat Sink $\Phi 85\text{mm}$

The product data table

	Model No.	EtraLED-CRE-8520
	Heatsink Size	$\Phi 85 \times H20\text{mm}$
	Heatsink Material	AL6063-T5
	Finish	Black Anodized
	Weight (g)	115.0
	Dissipated power (T_{hs-amb}, 50°C)	21.0 (W)
	Cooling surface area (mm²)	40076
	Thermal Resistance (R_{hs-amb})	2.38 (°C/W)

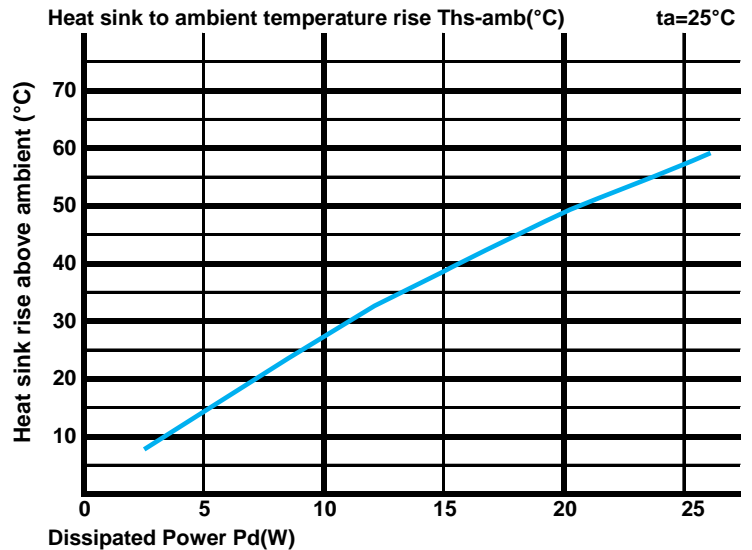
The thermal data table

* 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: $P_d = P_e \times (1 - \eta_L)$.

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

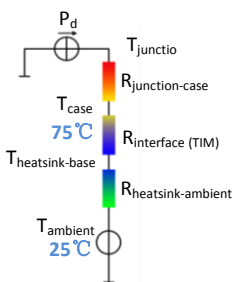
Dissipated Power Pd(W)	Pd = Pe x (1- η_L)	Heat sink to ambient thermal resistance R _{hs-amb} (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		EtraLED-CRE-8520	
5.0		2.80	14.0
10.0		2.70	27.0
15.0		2.53	38.0
20.0		2.40	48.0
25.0		2.28	57.0



*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: $\theta = (T_{hs} - T_a) / P_d$

θ - Thermal Resistance [°C/W]; T_{hs} - Heatsink temperature ; T_a - 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 $R_{\text{junction-case}}$, the thermal resistance of the TIM outside the package is $R_{\text{interface (TIM)}}$ [°C/W], the thermal resistance with the heat sink is $R_{\text{heatsink-ambient}}$ [°C/W], and the ambient temperature is T_{ambient} [°C].

*Thermal resistances outside the package $R_{\text{interface (TIM)}}$ and $R_{\text{heatsink-ambient}}$ can be integrated into the thermal resistance $R_{\text{case-ambient}}$ at this point. Thus, the following formula is also used:

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