

## GooLED

### GooLED-CRE-4850 Pin Fin Heat Sink $\Phi$ 48mm for Cree

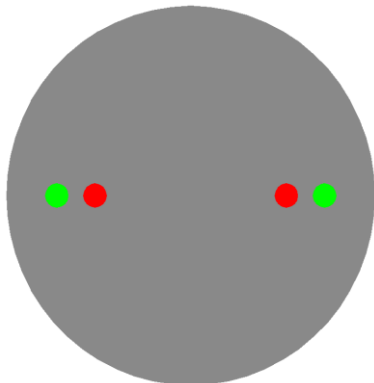
#### Features VS Benefits

- \* The GooLED-CRE-4850 Cree Pin Fin 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 500 to 1,600 lumen.
- \* Thermal resistance range Rth 5.0°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Cree® XLamp® COB series.
- \* Diameter 48mm - standard height 50mm, 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 Pin Fin 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 LED Pin Fin LED Heat Sink.



#### 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;

Mounting Options and Drawings & Dimensions

Example:GooLED-CRE-4850-B-1,2

Example:GooLED-CRE-48 **1** - **2** - **3**

**1** Height (mm)

**2** Anodising Color

B-Black

C-Clear

Z-Custom

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

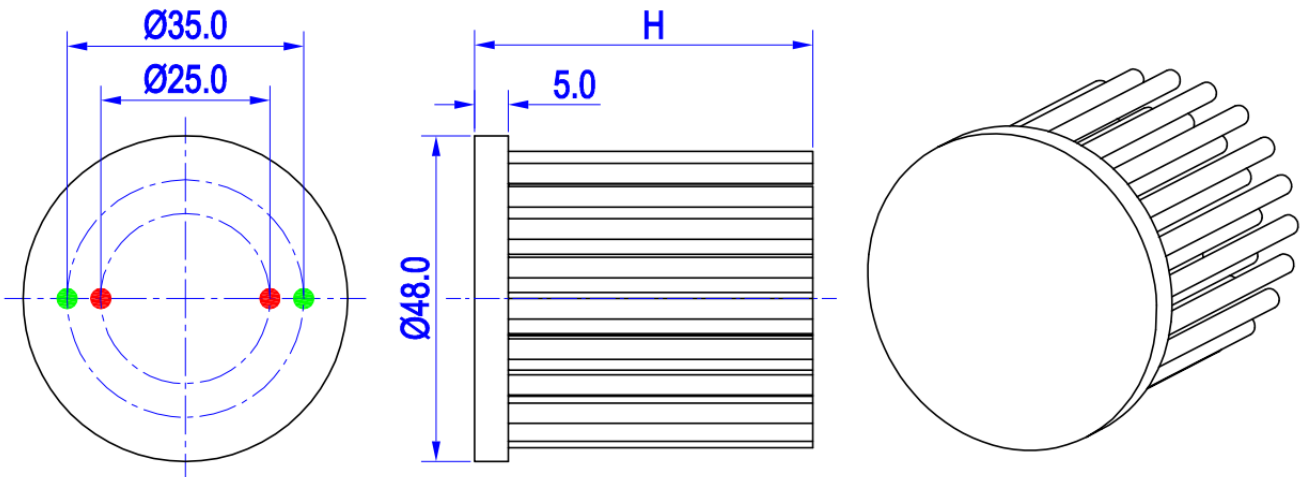
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means option 1 and 2 combined

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; Xlamp CXB 13xx;	BJB Holder 47.319.6104.50	FN14637-S;	FN15xxx-xx;	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					



## GooLED

### GooLED-CRE-4850 Pin Fin Heat Sink $\Phi 48\text{mm}$ for Cree

#### The product data table

	Model No.	GooLED-CRE-4850
	Heatsink Size	$\Phi 48 \times H50\text{mm}$
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	64.0
	Dissipated power (T <sub>hs-amb</sub> ,50°C)	10.0 (W)
	Cooling surface area (mm <sup>2</sup> )	24285
	Thermal Resistance (R <sub>hs-amb</sub> )	5.0 (°C/W)

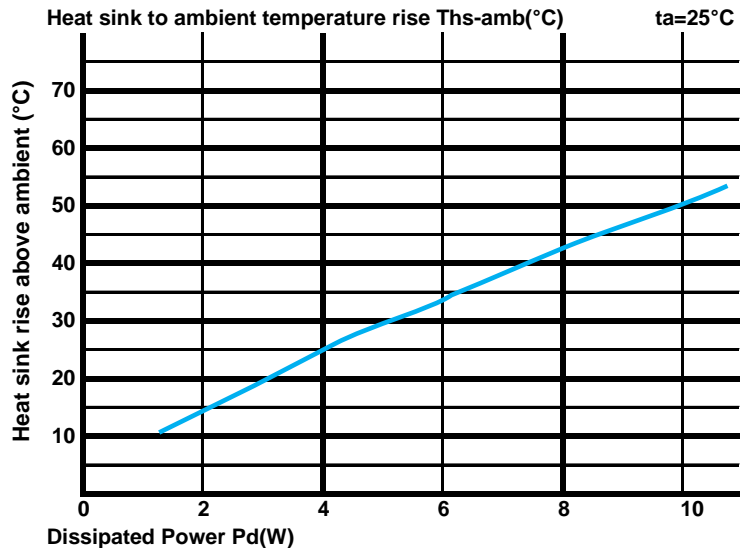
#### The thermal data table

\* 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 ;  $\eta_L$  = Light efficiency of the LED module;

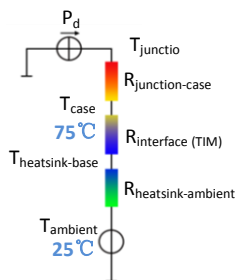
Dissipated Power Pd(W)	Pd = Pe x (1- $\eta_L$ )	Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W)	Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C)
		GooLED-CRE-4850	
2.0		7.00	14.0
4.0		6.25	25.0
6.0		5.67	34.0
8.0		5.38	43.0
10.0		5.00	50.0



\*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 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

\*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package 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:

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