



*GooLED*

## GooLED-LUM-4830 Pin Fin Heat Sink $\Phi$ 48mm for LumiLEDs

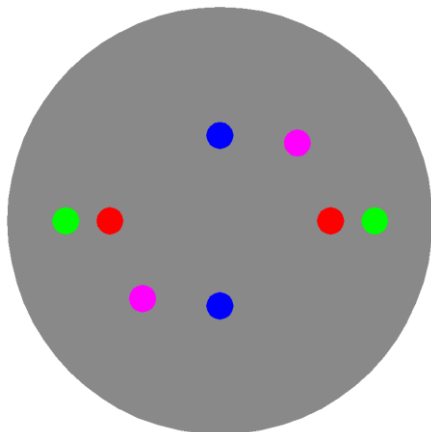
### Features VS Benefits

- \* The GooLED-LUM-4830 LumiLEDs Pin Fin LED Heat Sinks are specifically designed for luminaires using the LumiLEDs 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 400 to 1,300 lumen.
- \* Thermal resistance range  $R_{th}$  6.25°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of LumiLEDs COB series.
- \* Diameter 48mm - standard height 30mm, 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 LumiLEDs 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.



### LumiLEDs LED Modules directly Mounting Options

#### LumiLEDs COB series.

- LUXEON CoB 1202s: L2C5-xxxx1202E0600;
- LUXEON CoB 1202HD: L2C5-xxxx1202EH600;

With the Zhaga Book 11 holders for the red indicator marks.  
TE Connectivity Holder: 2213118-2;  
BJB Holder: 47.319.6180.50;  
Without the holders for the blue indicator marks.  
Direct mounting with machine screws M3x6.5mm.

#### LumiLEDs COB series.

- LUXEON CoB 1202: L2C5-xxxx1202E0900;
- LUXEON CoB 1203: L2C5-xxxx1203E0900;

With the Zhaga Book 3 holders for the green indicator marks.  
TE Connectivity Holder: 2213382-1;  
Without the holders for the pink indicator marks.  
Direct mounting with machine screws M3x6.5mm.

#### LuXEon CX Plus CoB series.

- LUXEON CoB M02: L2C4-xxxx-M02E0900;
- LUXEON CoB M03: L2C4-xxxx-M03E0900;

With the Zhaga Book 11 holders for the red indicator marks.  
BJB Holder: 47.319.6104.50;  
Direct mounting with machine screws M3x6.5mm.

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

#### Mounting Options and Drawings & Dimensions

Example:GooLED-LUM-4830-B-1,2

Example:GooLED-LUM-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

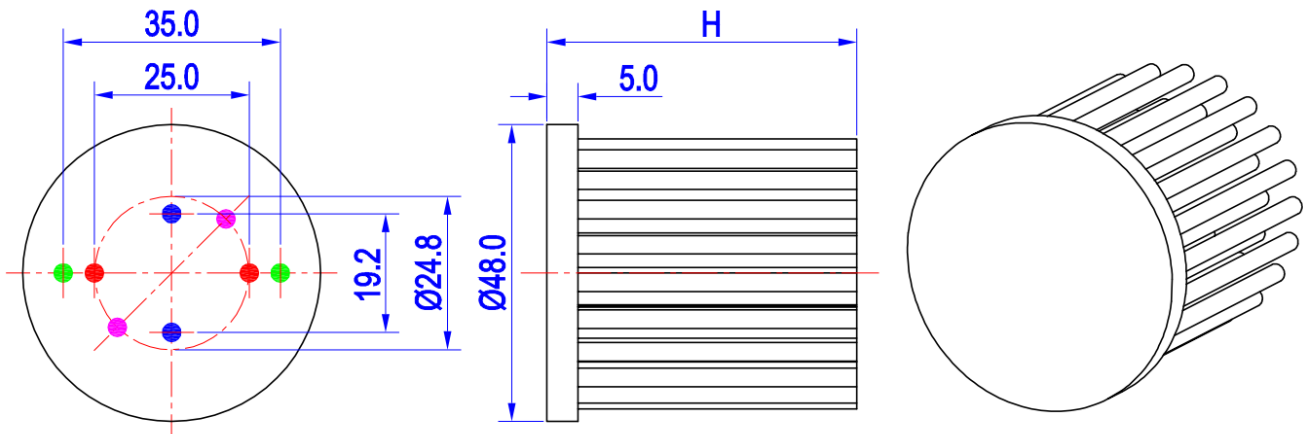
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means option 1 and 2 combined

#### 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
			Ronda series	Olivia series			
1	LUXEON 1202s; LUXEON 1202HD;	/	FN15xxx-xx;	/	M3	6.5mm	19.2mm/ 2-@180°
2	LUXEON CoB M02; LUXEON CoB M03;	BJB Holder 47.319.6104.50			M3	6.5mm	25.0mm/ 2-@180°
	LUXEON 1202s; LUXEON 1202HD;	BJB Holder 47.319.6180.50 TE Holder 2213118-2					
3	LUXEON 1202; LUXEON 1203;	/			M3	6.5mm	24.8mm/ 2-@180°
4		TE Holder 2213382-1	M3	6.5mm	35.0mm/ 2-@180° (Zhaga Book 3)		



## GooLED

### GooLED-LUM-4830 Pin Fin Heat Sink $\Phi 48\text{mm}$ for LumiLEDs

#### The product data table

	<b>Model No.</b>	GooLED-LUM-4830
	<b>Heatsink Size</b>	$\Phi 48 \times H 30\text{mm}$
	<b>Heatsink Material</b>	AL1070
	<b>Finish</b>	Black Anodized
	<b>Weight (g)</b>	46.0
	<b>Dissipated power (T<sub>hs-amb</sub>, 50°C)</b>	8.0 (W)
	<b>Cooling surface area (mm<sup>2</sup>)</b>	15420
	<b>Thermal Resistance (R<sub>hs-amb</sub>)</b>	6.25 (°C/W)

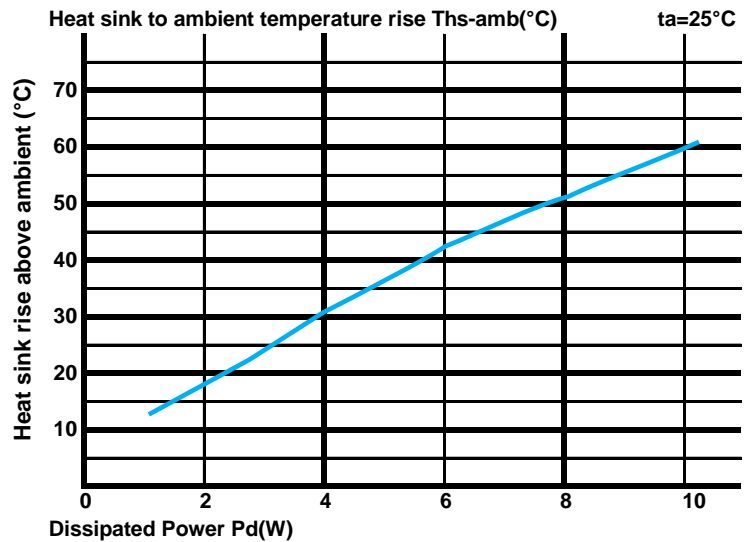
#### The thermal data table

\* 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-LUM-4830	
2.0		9.00	18.0
4.0		7.50	30.0
6.0		7.00	42.0
8.0		6.25	50.0
10.0		5.90	59.0



\*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:

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