



LED

GooLED

GooLED-LUM-5830 Pin Fin Heat Sink Φ 58mm for LumiLEDs

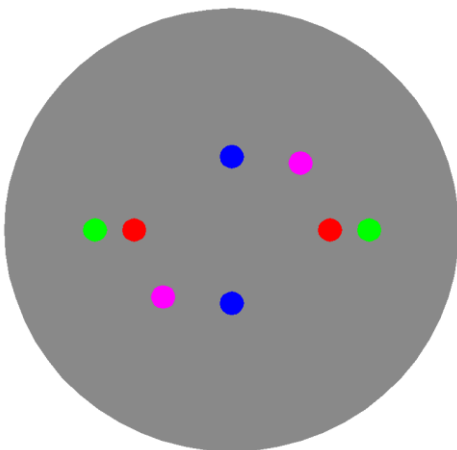
Features VS Benefits

- * The GooLED-LUM-5830 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 500 to 1,600 lumen.
- * Thermal resistance range Rth 5.0°C/W.
- * Modular design with mounting holes foreseen for direct mounting of LumiLEDs COB series.
- * Diameter 58mm - 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;

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Mounting Options and Drawings & Dimensions

Example:GooLED-LUM-5830-B-1,2

Example:GooLED-LUM-58 **1** - **2** - **3**

1 Height (mm)

2 Anodising Color

B-Black

C-Clear

Z-Custom

3 Mounting Options - see graphics for details Combinations available

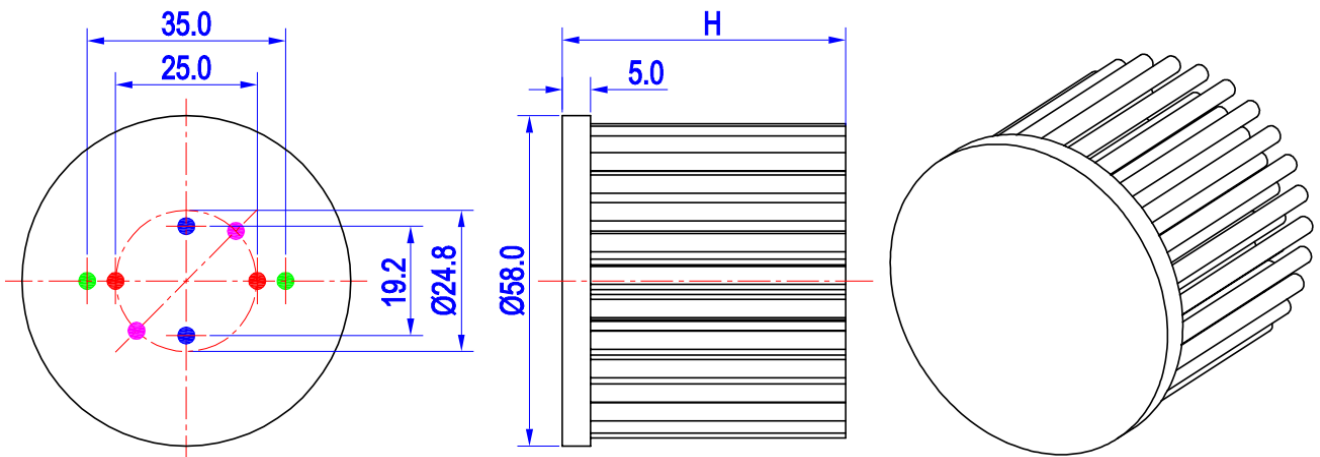
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means option 1 and 2 combined

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)		



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The product data table

	Model No.	GooLED-LUM-5830
	Heatsink Size	$\Phi 58 \times H 30\text{mm}$
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	79.0
	Dissipated power ($T_{hs-amb, 50^\circ\text{C}}$)	10.0 (W)
	Cooling surface area (mm^2)	27134
	Thermal Resistance (R_{hs-amb})	5.0 ($^\circ\text{C/W}$)

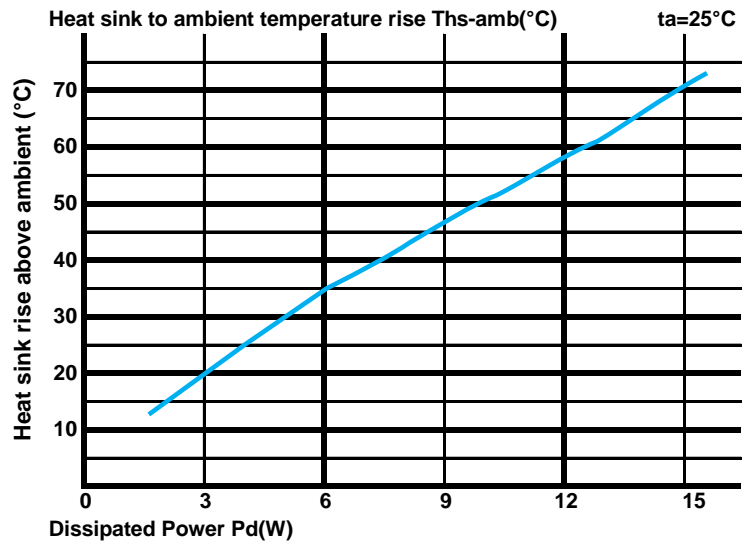
The thermal data table

* Please be aware the dissipated power P_d is not the same as the electrical power P_e of a LED module.

* To calculate the dissipated power please use the following formula: $P_d = P_e \times (1 - \eta_L)$.

P_d - Dissipated power ; P_e - Electrical power ; η_L = Light efficiency of the LED module;

Dissipated Power P_d (W)	$P_d = P_e \times (1 - \eta_L)$	Heat sink to ambient thermal resistance R_{hs-amb} ($^\circ\text{C/W}$)	Heat sink to ambient temperature rise T_{hs-amb} ($^\circ\text{C}$)
		GooLED-LUM-5830	
3.0		6.67	20.0
6.0		5.83	35.0
9.0		5.11	46.0
12.0		4.75	57.0
15.0		4.67	70.0



*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 [$^\circ\text{C/W}$]; 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 $R_{junction-case}$, the thermal resistance of the TIM outside the package is $R_{interface (TIM)}$ [$^\circ\text{C/W}$], the thermal resistance with the heat sink is $R_{heatsink-ambient}$ [$^\circ\text{C/W}$], and the ambient temperature is $T_{ambient}$ [$^\circ\text{C}$].

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

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