



for

LED



GooLED

### GooLED-LUME-11080 Pin Fin Heat Sink $\Phi$ 110mm for Lumens

#### Features VS Benefits

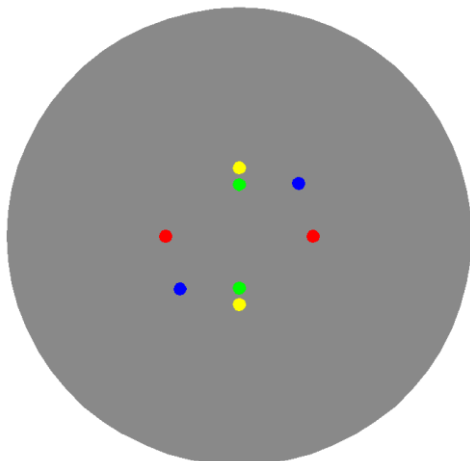
- \* The GooLED-LUME-11080 Lumens Pin Fin LED Heat Sinks are specifically designed for luminaires using the Lumens LED engines.
- \* Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
- \* For spotlight and downlight designs from 2,500 to 7,000 lumen.
- \* Thermal resistance range  $R_{th}$  1.14°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Lumens Ergon COB series, and AC-ALL series LED engines.
- \* Diameter 110.0mm - standard height 80.0mm 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 Lumens 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.

# LUMENS



#### Lumens LED Modules directly Mounting Options

##### Lumens Ergon COB\_HO, COB\_HO+, COB\_HE Series :

ERC1812xxxxHO;                      ERC1812xxxxHE;  
 ERC1820xxxxHO;                      ERC1820xxxxHE;

With the Zhaga Book 3 holders for the red indicator marks.  
 (Ideal Holder:50-2101CR);    (BJB holder:47.319.2131.50);  
 Without the holders for the green indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

##### Lumens Ergon COB\_HO, COB\_HO+, COB\_HE Series :

ERC2520xxxxHO;                      ERC2530xxxxHE;  
 ERC2530xxxxHO;                      ERC2540xxxxHE;  
 ERC2540xxxxHO;                      ERC2530xxxxHO+  
 ERC2520xxxxHO+

With the Zhaga Book 3 holders for the red indicator marks.  
 (Ideal Holder:50-2102CR);    (BJB Holder:47.319.2141.50);  
 Without the holders for the yellow indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

##### Lumens Ergon COB\_HO, COB\_HO+, COB\_HE Series :

ERC3050xxxxHO;                      ERC3050xxxxHE;  
 ERC3070xxxxHO;                      ERC3070xxxxHE;

With the Zhaga Book 3 holders for the green indicator marks.  
 (Ideal Holder:50-2234C);    (BJB holder:47.319.2151.50);  
 Without the holders for the blue indicator marks.  
 Direct mounting with machine screws M3x6.5mm.

##### Lumens AC-ALL Series :

EDC/57C/20W/xxx/120V/B;                      EDC/57C/20W/xxx/230V/A;  
 EDC/57C/30W/xxx/120V/B;                      EDC/57C/30W/xxx/230V/A;  
 EDC/57C/40W/xxx/120V/B;                      EDC/57C/40W/xxx/230V/A;

With the Zhaga Book 3 holders for the red indicator marks.  
 Direct mounting with machine screws M3x6.5mm.  
 Please refer to the [www.lumensleds.com](http://www.lumensleds.com) data provided on the manual.



Mounting Options and Drawings & Dimensions

Example:GooLED-LUME-11080-B-1,2

Example:GooLED-LUME-110 **1** - **2** - **3**

**1** Height (mm)

**2** Anodising Color

B-Black

C-Clear

Z-Custom

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

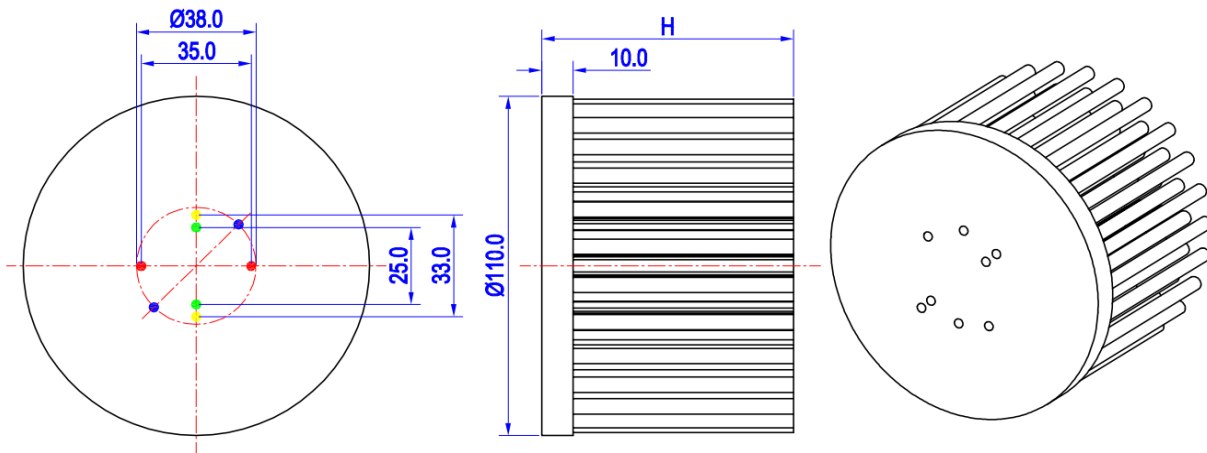
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means option 1 and 2 combined

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.	THREAD	THREAD DEPTH	THREAD HOLE DISTANCE
1	Ergon COB (17.85x17.85)	/	M3	6.5mm	25.0mm/ 2-@180°
2	Ergon COB (23.85x23.85)	/	M3	6.5mm	33.0mm/ 2-@180°
3	AC-ALL Series	Lumens	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
	Ergon COB (17.85x17.85)	BJB Holder 47.319.2131.50			
		Ideal Holder 50-2101CR			
	Ergon COB (23.85x23.85)	BJB Holder 47.319.2141.50			
		Ideal Holder 50-2102CR			
	Ergon COB (27.35x27.35)	BJB Holder 47.319.2151.50			
Ideal Holder 50-2234CR					
4		/	M3	6.5mm	38.0mm/ 2-@180°



## GooLED

### GooLED-LUME-11080 Pin Fin Heat Sink $\Phi$ 110mm for Lumens

#### The product data table

	Model No.	GooLED-LUME-11080
	Heatsink Size	$\Phi$ 110xH80mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	617.0
	Dissipated power (T <sub>hs-amb</sub> ,50°C)	44.0 (W)
	Cooling surface area (mm <sup>2</sup> )	129119
	Thermal Resistance (R <sub>hs-amb</sub> )	1.14 (°C/W)

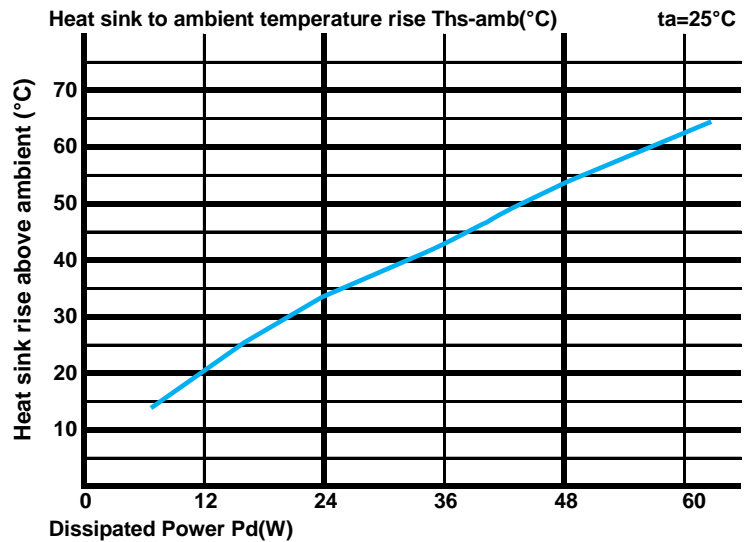
#### The thermal data table

\* 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;

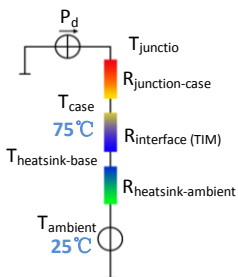
Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance R <sub>hs-amb</sub> (°C/W)	Heat sink to ambient temperature rise T <sub>hs-amb</sub> (°C)
		GooLED-LUME-11080	
12.0		1.67	20.0
24.0		1.38	33.0
36.0		1.17	42.0
48.0		1.10	53.0
60.0		1.03	62.0



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

$\theta$  - 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:

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