



for

LED



GooLED

### GooLED-BRI-11080 Pin Fin LED Heat Sink $\Phi$ 110mm for Bridgelux

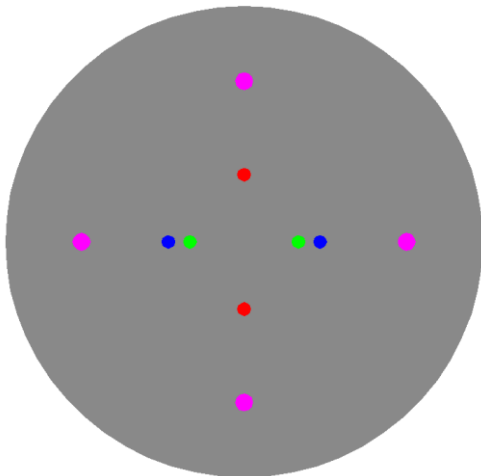
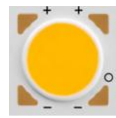
#### Features VS Benefits

- \* The GooLED-BRI-11080 Bridgelux Pin Fin LED Heat Sinks are specifically designed for luminaires using the Bridgelux 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 Bridgelux V Series™, Vero® SE Series, Vero® Series and H Series™ LED engines.
- \* Diameter 110mm - standard height 80mm 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 Bridgelux 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.



#### Bridgelux LED Modules directly Mounting Options

##### Bridgelux V15, V18, V22 LED Array Series:

- BXRE-20xxxxxx-x-xx; BXRE-40xxxxxx-x-xx;
- BXRE-27xxxxxx-x-xx; BXRE-50xxxxxx-x-xx;
- BXRE-30xxxxxx-x-xx; BXRE-57xxxxxx-x-xx;
- BXRE-35xxxxxx-x-xx; BXRE-65xxxxxx-x-xx;

With the Zhaga Book 3 Holders:

BJB holder: 47.319.2224.50; 47.319.2030.50;

Direct mounting with machine screws M3x6.5mm, Blue indicator marks.

With the LEDiL products:

Stella Series: FN13xxx-xx; FN14xxx-xx; FN15xxx-xx;

Stella Series mounting hole for the pink indicator marks

Olivia series: FN14637-S;

##### Bridgelux Vero® Series Vero 13, Vero 18 LED Array and Vero® SE Series Vero 13 SE, Vero 18 SE LED Array

- BXRC-27xxxx-x-xx; BXRC-50xxxxxx-x-xx;
- BXRC-30xxxx-x-xx; BXRC-57xxxxxx-x-xx;
- BXRC-35xxxx-x-xx; BXRC-65xxxxxx-x-xx;
- BXRC-40xxxx-x-xx;

With the Bridgelux Holder:

Direct mounting with machine screws M3x6.5mm, Red indicator marks.

With the LEDiL products:

Stella Series: FN13xxx-xx; FN14xxx-xx; FN15xxx-xx;

Stella Series mounting hole for the pink indicator marks

Olivia series: FN14637-S; FN14828-M;

Ronda series: FN15xxx-xx;

##### Bridgelux® H Series™ H9, H12 LED Array:

- BXRH-27xxxx-x-xx; BXRH-35xxxxxx-x-xx;
- BXRH-30xxxx-x-xx; BXRH-40xxxxxx-x-xx;

With the Zhaga Book 3 and Book 11 Holders:

BJB holder: 47.319.6104.50; 47.319.2134.50;

Direct mounting with machine screws M3x6.5mm,

H Series™ H9 for the Green indicator marks, H Series™ H12 for the Blue indicator marks.

With the LEDiL products:

Ronda series: FN15xxx-xx;





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**GooLED-BRI-11080 Pin Fin LED Heat Sink  $\Phi$ 110mm for Bridgelux**

**Mounting Options and Drawings & Dimensions**

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

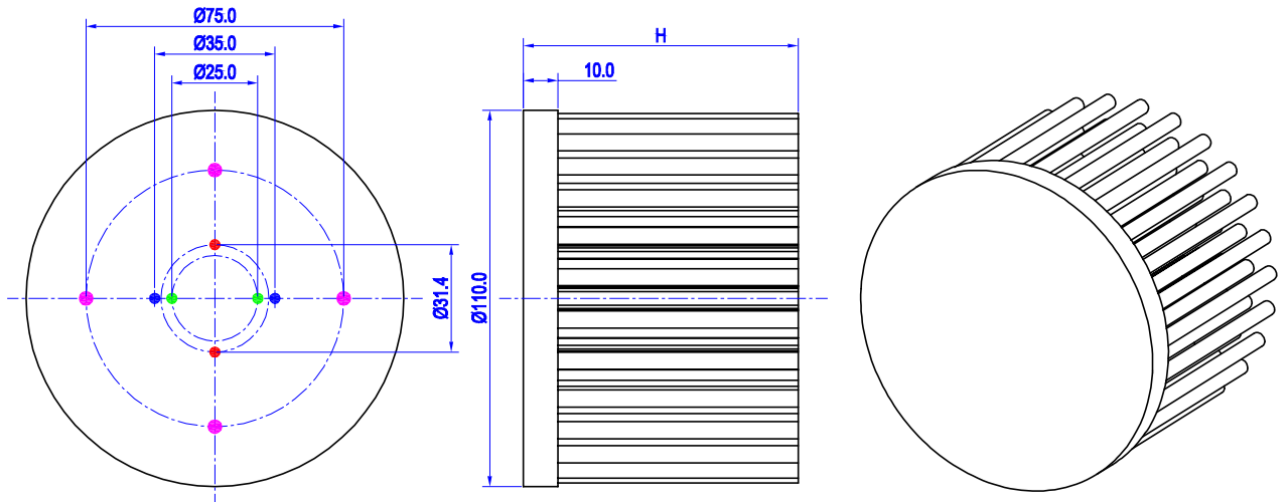
Example:GooLED-BRI-110 **1** - **2** - **3**

- 1** Height (mm)
- 2** Anodising Color  
B-Black  
C-Clear  
Z-Custom
- 3** Mounting Options - see graphics for details Combinations available  
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
			Stella Series	Olivia series	Ronda series			
1	H9	BJB Holder 47.319.6104.50	/	/	FN15xxx-xx;	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
2	Vero 13, 18 Vero SE 13, 18	Bridgelux	FN13xxx-xx; FN14xxx-xx; FN15xxx-xx;	FN14637-S; FN14828-M;	FN15xxx-xx;	M3	6.5mm	31.4mm/ 2-@180°
3	V15, V18	BJB Holder 47.319.2224.50		FN14637-S	/	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
	V22	BJB Holder 47.319.2030.50		/	/			
	H12	BJB Holder 47.319.2134.50		/	/			
4	LEDiL Lens	/	Stella Series	/	/	M4	8.5mm	75.0mm/ 4-@90°



**GooLED**

**GooLED-BRI-11080 Pin Fin LED Heat Sink Φ110mm for Bridgelux**

**The product data table**

	<b>Model No.</b>	GooLED-BRI-11080
	<b>Heatsink Size</b>	Φ110xH80mm
	<b>Heatsink Material</b>	AL1070
	<b>Finish</b>	Black Anodized
	<b>Weight (g)</b>	617.0
	<b>Dissipated power (Ths-amb,50°C)</b>	44.0 (W)
	<b>Cooling surface area (mm²)</b>	129119
	<b>Thermal Resistance (Rhs-amb)</b>	1.14 (°C/W)

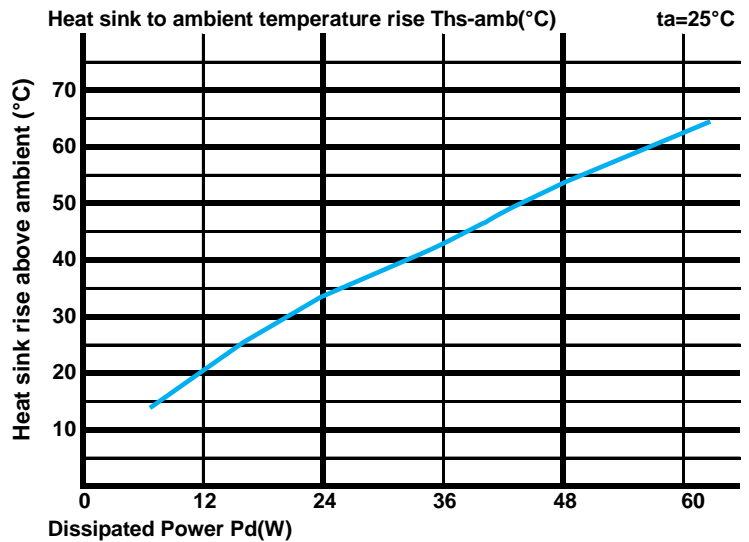
**The thermal data table**

\* 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;

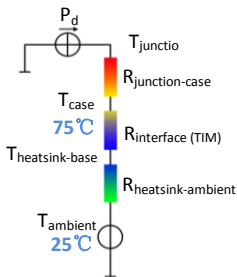
Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		GooLED-BRI-11080	
12.0		1.67	20.0
24.0		1.38	33.0
36.0		1.17	42.0
48.0		1.10	53.0
60.0		1.03	62.0



\*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:  $\theta = (Ths - Ta) / Pd$

$\theta$  - Thermal Resistance [°C/W] ; Ths - Heatsink temperature ; Ta - 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:

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