



# LED

*GooLED*

## GooLED-BRI-4868 Pin Fin LED Heat Sink $\Phi$ 48mm for Bridgelux

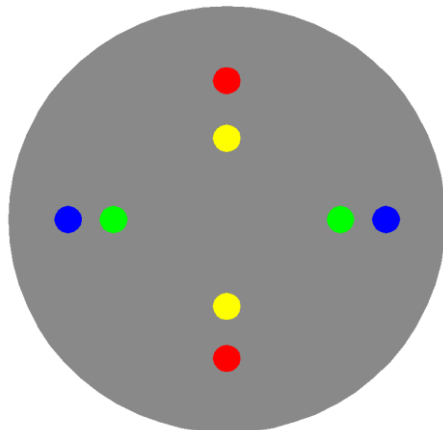
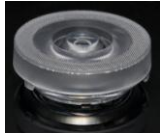
### Features VS Benefits

- \* The GooLED-BRI-4868 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 600 to 1,800 lumen.
- \* Thermal resistance range  $R_{th}$  4.35°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of Bridgelux V Series™, Vero® SE Series, Vero® Series, H Series™ and Vesta™ Series LED engines.
- \* Diameter 48mm - standard height 68mm 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 V8,V10,V13 LED Array Series:

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

V13 LED Array Serie with the BJB holder: 47.319.2025.50, Blue indicator marks.  
 V10 LED Array Serie with the BJB holder: 47.319.6060.50, Green indicator marks.  
 V8 LED Array Serie with the Bridgelux holder, yellow indicator marks.

Direct mounting with machine screws M3x6.5mm.

With the LEDiL products:

Olivia series: FN14637-S;  
 Ronda series: FN15xxx-xx;

#### Bridgelux Vero® Series Vero 10, Vero 13 LED Array and Vero® SE Series Vero 10 SE, Vero 13 SE LED Array

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

With the Bridgelux Holder:

Direct mounting with machine screws M3x6.5mm.

Vero 10 for the yellow indicator mark, Vero 13 for the red & blue indicator mark.

With the LEDiL products:

Olivia series: FN14637-S; FN14828-M;  
 Ronda series: FN15xxx-xx;

#### Bridgelux® H Series™ H6, H9 LED Array:

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

With the Zhaga Book 11 Holders:

BJB holder: 47.319.6120.50; 47.319.6104.50;

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

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

#### Bridgelux® Vesta™ Series Dim-To-Warm 9mm Array

BXRV-DR-1830H-1000-x-13;

With the Zhaga Book 11 Holders:

BJB holder: 47.319.6180.50;

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

Tel:+86-769-39023131

Fax:+86-(020)28819702 ext:22122

Email: sales@mingfatech.com

Http://www.heatsinkled.com

Http://www.mingfatech.com



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## Mounting Options and Drawings & Dimensions

Example: GooLED-BRI-4868-B-1,2

Example: GooLED-BRI-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

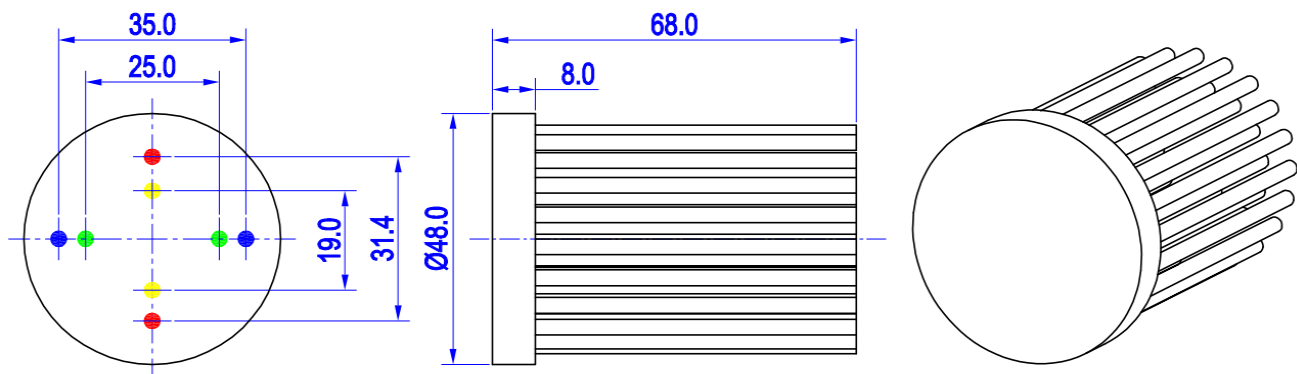
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means option 1 and 2 combined

### 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	Vero 10	Bridgelux	/	/	M3	6.5mm	19.0mm/ 2-@180°
	Vero SE 10		/	/			
	V8		/	/			
2	V10	BJB Holder 47.319.6060.50	/	FN15xxx-xx;	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
	Vesta™ Series 9mm	BJB Holder 47.319.6180.50	/	/			
	H6	BJB Holder 47.319.6120.50	/	/			
	H9	BJB Holder 47.319.6104.50	/	FN15xxx-xx;			
3	Vero 13	Bridgelux	FN14637-S;	FN15xxx-xx;	M3	6.5mm	31.4mm/ 2-@180°
4	Vero SE 13		FN14828-M;	FN15xxx-xx;	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
	V13	BJB Holder 47.319.2025.50		FN15xxx-xx;	M3	6.5mm	



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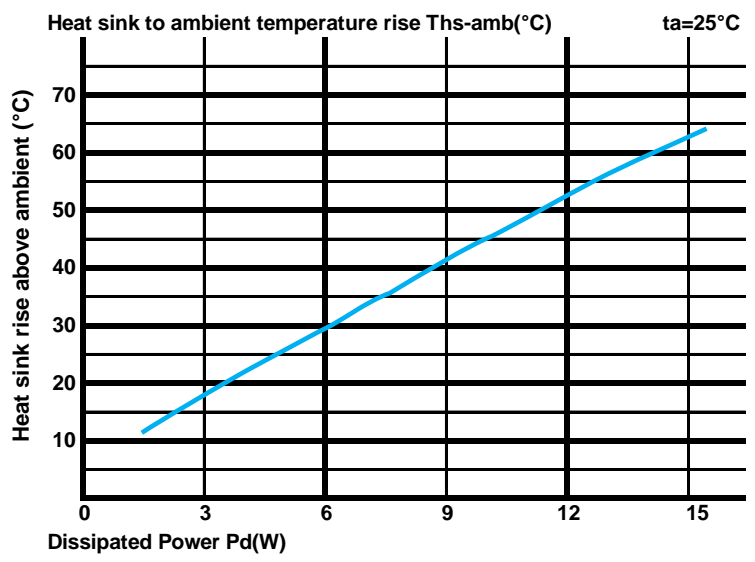
**The product data table**

	<b>Model No.</b>	GooLED-BRI-4868
	<b>Heatsink Size</b>	$\Phi$ 48xH68mm
	<b>Heatsink Material</b>	AL1070
	<b>Finish</b>	Black Anodized
	<b>Weight (g)</b>	93.0
	<b>Dissipated power (Ths-amb,50°C)</b>	11.5 (W)
	<b>Cooling surface area (mm<sup>2</sup>)</b>	31383
	<b>Thermal Resistance (Rhs-amb)</b>	4.35 (°C/W)

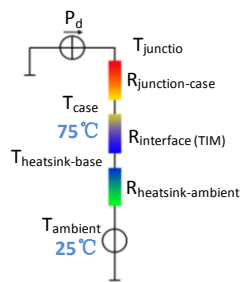
**The thermal data table**

\* 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 Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		GooLED-BRI-4868	
3.0		6.00	18.0
6.0		4.83	29.0
9.0		4.56	41.0
12.0		4.33	52.0
15.0		4.13	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  $R_{junction-case}$ , the thermal resistance of the TIM outside the package is  $R_{interface (TIM)}$  [°C/W], the thermal resistance with the heat sink is  $R_{heatsink-ambient}$  [°C/W], and the ambient temperature is  $T_{ambient}$  [°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:  
 $T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot Pd + T_{ambient}$