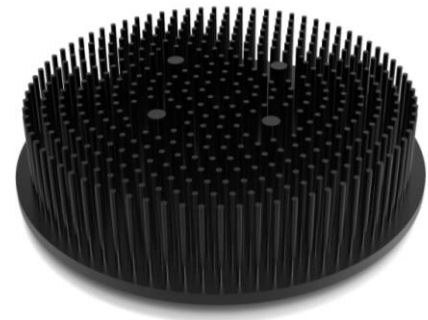


GooLED GooLED-19037 Passive Pin Fin Heatsink Φ 190mm

Features VS Benefits

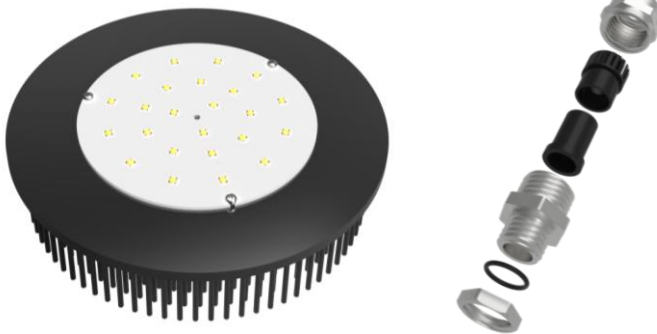
- * Mechanical compatibility with direct mounting of the SMD products to the LED cooler and thermal performance matching the lumen packages.
- * For flood light, street light and high bay designs from 3,600 to 9,000 lumen.
- * Thermal resistance range R_{th} 0.83°C/W.
- * Product size: Diameter 190mm - Standard height 37mm , Other widths on request.
- * Forged from highly conductive aluminium for optimal thermal performance (AL1070), aluminium 1070 thermal conductivity is 2.0 times higher than ADC12.
- * 2 standard colors - clear anodised - black anodised
- * Waterproof level designs from IP65 to IP67.
- * With the SMD products (3030 , 2835 , 5050.....): Bridgelux , Cree , Edison , Citizen , LG Innotek Lumileds , Luminus, Lumens , Nichia , Osram , Prolight Opto , Seoul , Samsung , Sharp.



The LED engine and radiator assembly directly Mounting Options

- * Below you find an overview of SMD products which standard fit on the GooLED series coolers.
- * 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 coolers.

Waterproof connectors



Not only consider waterproofness of the lens, but also on outside connecting line. Mingfa Tech can provide compatible waterproof connector with GooLED heat sink.

Features :

The claws and seals excellent design, can hold cable firmly and have a wider cable range. Resistant to salt water, weak acid, alcohol, oil, grease and common solvency.

1. Working temperature: Min -40°C to Max 120°C.
2. Body material: Brass nickel plated.
3. Cable range Dia: 3-6mm.
4. Protection degree: IP68

Mingfa tech product number:

1. 21000001-04 (M8)
2. 21000002-04 (M10)

Order Information

- Example: GooLED-19037-B
 Example: GooLED-19037 - **1**
- 1** Anodising Color
- B-Black
 - C-Clear
 - Z-Custom

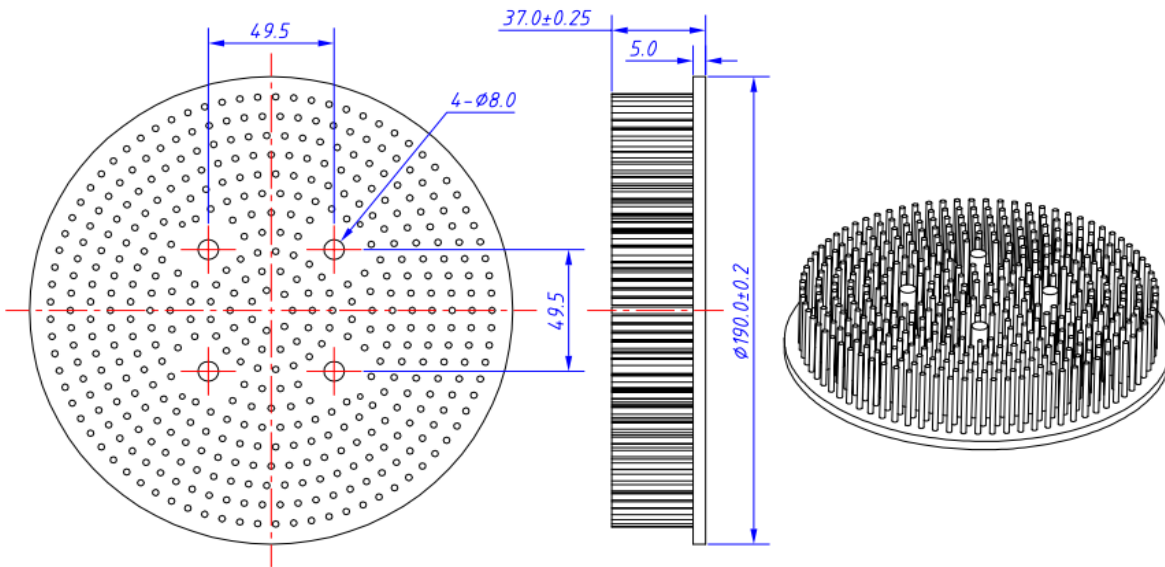
- Notes:
- Mentioned models are an extraction of full product range.
 - For specific mechanical adaptations please contact MingfaTech.
 - MingfaTech reserves the right to change products or specifications



GooLED

GooLED-19037 Passive Pin Fin Heatsink Φ 190mm

Drawings & Dimensions



Product deta table

	<p><i>GooLED</i></p>
Model No.	GooLED-19037
Heatsink Size	Φ 190xH37mm
Heatsink Material	AL1070
Finish	Black Anodized
Weight (g)	600.0
Dissipated power (T _{hs} -amb,50°C)	60.0 W
Cooling surface area (mm ²)	175973
Thermal Resistance (R _{hs} -amb)	0.83°C/W

GooLED

GooLED-19037 Passive Pin Fin Heatsink $\Phi 190\text{mm}$

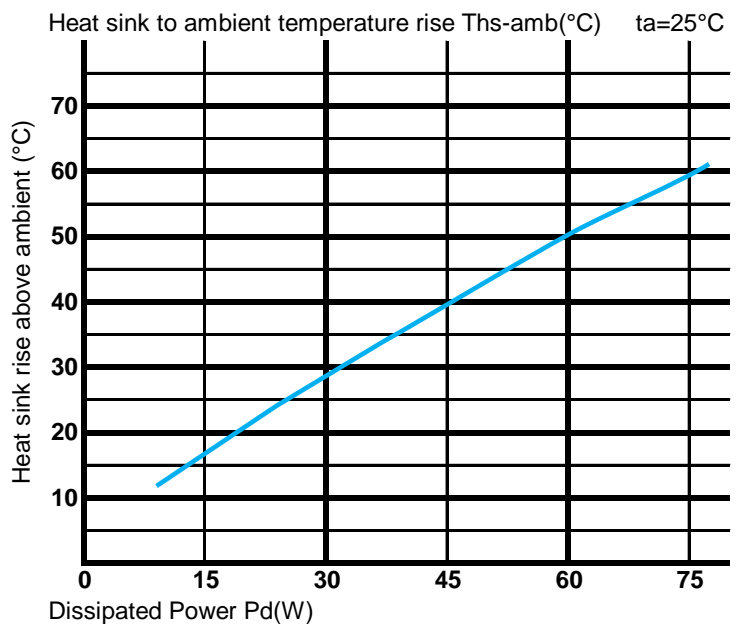
The thermal data table

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

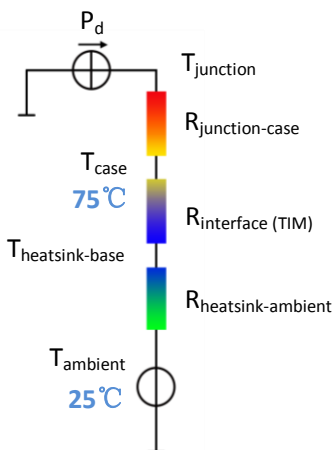
*To calculate the dissipated power please use the following formula: $P_d = P_e \times (1 - \eta_L)$.

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} ($^{\circ}\text{C}/\text{W}$)	Heat sink to ambient temperature rise T_{hs-amb} ($^{\circ}\text{C}$)
		GooLED-19037	
15.0		1.07	16.0
30.0		0.93	28.0
45.0		0.87	39.0
60.0		0.83	50.0
75.0		0.79	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: $\theta = (T_{hs} - T_a) / P_d$
 θ - Thermal Resistance [$^{\circ}\text{C}/\text{W}$]; 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 $R_{\text{junction-case}}$, the thermal resistance of the TIM outside the package is $R_{\text{interface (TIM)}}$ [$^{\circ}\text{C}/\text{W}$], the thermal resistance with the heat sink is $R_{\text{heatsink-ambient}}$ [$^{\circ}\text{C}/\text{W}$], and the ambient temperature is T_{ambient} [$^{\circ}\text{C}$].

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

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