



BuLED

BuLED-30E LED light accessory to replace MR16 fittings

Features VS Benefits

- * BuLED-30E LED light accessory includes one LED cooler and one LED housing to be assembled with LED modules to replace MR16.
- * Mechanical compatibility with direct mounting of the LED modules to the LED cooler and thermal performance matching the lumen packages.
- * For spotlight and downlight designs form 400 to 1200 lumen.
- * Thermal resistance range Rth 6.8°C/W.
- * Heatsink Diameter 48mm - Standard height 30mm , Other heights on request.
- * Housing Diameter 50mm - Standard height 50mm , Other heights on request.
- * Extruded from highly conductive aluminum.

Zhaga Book 3 Spot Light Modules Edison , Osram , Xicato , Bridgelux , Citizen , Cree , Lumileds , Seoul , LG Innotek , Prolight Opto , Vossloh-Schwabe , Samsung , Sharp , Philips , Nichia;



- | | |
|---|---|
| 1) Xicato: XSM, XIM,XTM; (XSA-390) series; | 9) Edison: EdiLex II series; |
| 2) Bridgelux: ESS, ESR, Vero 10, Vero 13 series; | 10) Vossloh-Schwabe: LUGA series; |
| 3) Citizen: CLL022, CLU024, CLL026, CLU028 series; | 11) Prolight Opto: PABS, PABA, PACB, PANA series; |
| 4) Cree: XLamp CXA13xx, CXA15xx; | 12) Luminus: Cxx-6 and Cxx-9 series; |
| 5) Lumileds: Luxeon COB's 1203, 1204,Luxeon K series; | 13) Samung: LC013 COB LED series; |
| 6) Osram: Soleriq S13 series; | 14) Sharp: Mini Zenigata LED series; |
| 7) Seoul: Semiconductor ZC6, ZC12 series; | 15) Nichia: NTCWS024B, NTCWL036B, NJCWS024Z series; |
| 8) LG Innotek: LEMWM18 10W, 13W series; | |



Order Information

Example:BuLED-30E-B

Example:BuLED-30E - **E**

- E** 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 without prior

Product deta table

	Model No.	BuLED-30E
	Heatsink Size	Φ48xH30mm
	Housing Size	Φ50xH50mm
	Material (Heatsink + Housing)	AL6063-T5
	Finish	Black Anodized
	Weight (g)	106.0
	Dissipated power (Ths-amb,60°C)	8.8 (w)
	Cooling surface area (mm ²)	38320
	Thermal Resistance (Rhs-amb)	6.8 (°C/W)



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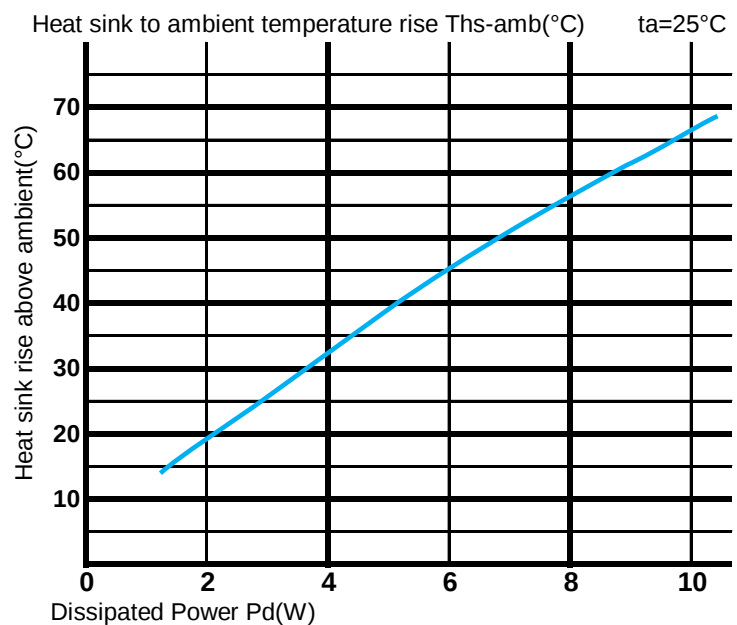
The thermal data table

* 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;

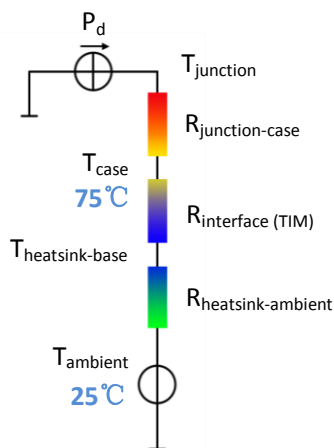
$P_d = P_e \times (1 - \eta_L)$		Heat sink to ambient thermal resistance R_{hs-amb} ($^{\circ}\text{C/W}$)	Heat sink to ambient temperature rise ΔT_{hs-amb} ($^{\circ}\text{C}$)
		BuLED-30E	
Dissipated Power P_d (W)	2.0	9.5	19.0
	4.0	8.0	32.0
	6.0	7.5	45.0
	8.0	7.0	56.0
	10.0	6.6	66.0



*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:

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