

Mastering LED Cooling

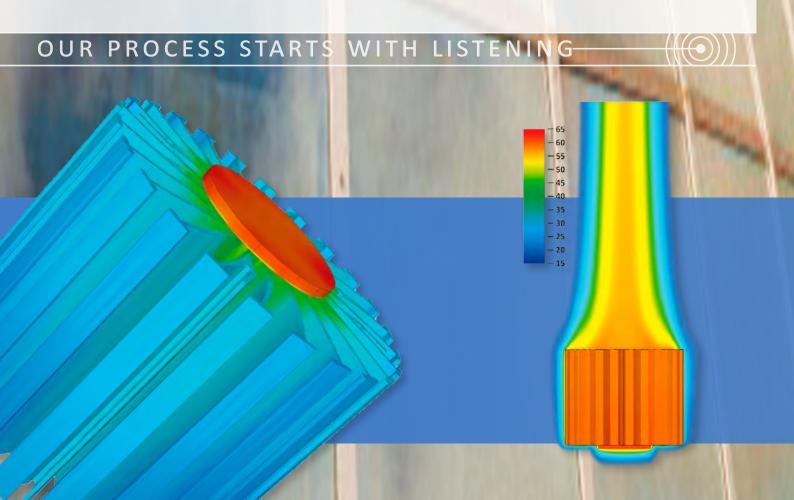
With the evolution of LED lighting over the last years, the demand for professional thermal solutions has grown exponentially. And now that we no longer remain in the realm of low power LED's, thermal management becomes a critical factor within LED fixtures. To that end, MechaTronix has developed several series of pin-fin and star heat sinks, manufactured through die casting, forging or extrusion. This has resulted in a comprehensive range of more than 400 off-the-shelf available LED coolers, for passive or active heat dissipation.

After initial reservations concerning active LED coolers, specialists have found that there really is no better option, when closing in on the 8000 lumen mark. Admittedly, the fan's lifespan becomes somewhat of a focal point in the application of an active LED cooler, but given that the lifespan of the LED engine itself dramatically decreases at high temperatures, the lifespan of the fan looks rather favourable all of a sudden.

MechaTronix' ground breaking ModuLED coolers and its actively cooled sibling IceLED have garnered a lot of attention and positive reviews in the LED market. ModuLED and IceLED are just precursors of a complete range of dedicated and highly effective LED coolers for professional deployment in spotlights, downlights, high bays and a further score of architectural and utility LED applications.

Both ModuLED and IceLED, as well as their upcoming descendants are Zhaga-ready and have a matrix of mounting holes that allows for very easy attachment of a great number of various Osram LED modules. Simply apply a thermal interface of your choice, put the LED engine in place and fasten with self-tapping screws and you are good to go! No drilling, customisation or special mounting brackets are needed.

Thanks to an extremely thorough thermal verification of all heat sink lines, MechaTronix provides total thermal disclosure for each model, coupled with all Osram PrevaLED LED COB's and engines. All thermal data is available in the product specifications, that come with every MechaTronix heat sink. In this way, engineers save time and effort during the design stage of their LED fixture and will significantly shorten their time to market.



OSRAM LED COOLING

For PrevaLED LED modules

Core AC G2 800 / 2000

Core G7 L10 1100 / 2000 / 3000, L15 2000 / 3000 / 5000, Food & Fashion 2000 / 3000 / 5000 Cube G3 1100 / 2000 / 3000 / 5000, AC G3 & AC DALI 1100 / 2000 / 3000

UPF4768-ZHP Osram LED Pin Fin cooler Ø47mm - h68mm - Rth 3.9°C/W Cooling performance 1,300 - 2,500 lm Direct | Zhaga | Osram Prevaled Led COB Core AC 800/2000 Core G7 L10 H1 1000/2000 Core G7 L15 H1 2000/3000 Core G7 Food/Fashion 2000











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CoolStar® White 4740

Osram Designer LED Star cooler ø47mm - h40mm - Rth 5°C/W Cooling performance 1,000 - 2,000 lm



Direct mount	Zhaga holder	Osram PrevaLED LED COB
V		Core AC G2 800
✓		Core G7 L10 H1 1000
✓		Core G7 L15 H1 2000
✓		Core G7 Food/Fashion 2000

CoolStar® White 6730

Osram Designer LED Star cooler Ø67mm - h30mm - Rth 3.13°C/W Cooling performance 1,600 - 3,100 lm



Direct mount	Zhaga holder	Osram PrevaLED LED COB
✓ ✓ ✓		Core AC G2 2000 Core G7 L15 H1 2000/3000 Core G7 Food/Fashion 2000

CoolStar® White 8630

Osram Designer LED Star cooler ø86mm - h30mm - Rth 2.08°C/W Cooling performance 2,300 - 4,600 lm



rect ount	Zhaga holder	Osram PrevaLED LED COB
✓		Core AC G2 2000
✓		Core G7 L15 H1 3000/5000
✓		Core G7 Food/Fashion 2000/3000

CoolStar® White 4760

Osram Designer LED Star cooler Ø47mm - h60mm - Rth 4.17°C/W Cooling performance 1,200 - 2,400 lm



rect ount	Zhaga holder	Osram PrevaLED LED COB
< < <		Core AC G2 800 Core G7 L10 H1 1000/2000 Core G7 L15 H1 2000
✓		Core G7 Food/Fashion 2000

CoolStar® White 6760



Osram Designer LED Star cooler Ø67mm - h60mm - Rth 2.27°C/W Cooling performance 2,100 - 4,200 lm

▼ Core AC G2 2000	Direct	Zhaga holder	Osram PrevaLED LED COB
Core G7 L15 H1 3000/5000 Core G7 Food/Fashion 2000/3000	▼		Core G7 L15 H1 3000/5000

CoolStar® White 8660



Osram Designer LED Star cooler Ø86mm - h60mm - Rth 1.56°C/W Cooling performance 3,100 - 6,100 lm

Direct mount	Zhaga holder	Osram PrevaLED LED COB
✓		Core G7 L15 H1 3000/5000 Core G7 Food/Fashion 2000/3000/5000



OSRAM LED COOLING

For PrevaLED LED modules

Core AC G2 800 / 2000

Core G7 L10 1100 / 2000 / 3000, L15 2000 / 3000 / 5000, Food & Fashion 2000 / 3000 / 5000 Cube G3 1100 / 2000 / 3000 / 5000, AC G3 & AC DALI 1100 / 2000 / 3000

ModuLED Pico 4750

Osram Modular LED Star cooler ø47mm - h50mm - Rth 5.3°C/W Cooling performance 900 - 1.800 lm

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Direct mount	Zhaga holder	Osram PrevaLED LED COB
V V V		Core AC G2 800 Core G7 L10 H1 1000/2000 Core G7 L15 H1 2000 Core G7 Food/Fashion 2000
_		Core d/ Food/Fashion 2000

ModuLED Pico 4780

Osram Modular LED Star cooler ø47mm - h80mm - Rth 4.2°C/W Cooling performance 1,200 - 2,300 lm

Direct mount	Zhaga holder	Osram PrevaLED LED COB
▽		Core AC G2 800 Core G7 L10 H1 1000/2000
✓		Core G7 L15 H1 2000
✓		Core G7 Food/Fashion 2000

ModuLED Nano 7050

Osram Modular LED Star cooler ø70mm - h50mm - Rth 2.2°C/W Cooling performance 2 200 - 4 300 lm

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Direct mount	Zhaga holder	Osram PrevaLED LED COB
V		Core AC G2 2000 Core G7 L10 H1 2000 Core G7 L15 H1 3000/5000 Core G7 Food/Fashion 2000/3000
✓		Core G7 Food/Fasilion 2000/3000

ModuLED Nano 7080

Osram Modular LED Star cooler ø70mm - h80mm - Rth 1.8°C/W Cooling performance 2,700 - 5,300 lm

	Direct mount	Zhaga holder	Osram PrevaLED LED COB
-	✓		Core G7 L15 H1 3000/5000 Core G7 Food/Fashion 2000/3000
	mount	Zhaga holder	Core G7 L15 H1 3000/5000

ModuLED Micro 8650

Osram Modular LED Star cooler ø86mm - h50mm - Rth 1.5°C/W Cooling performance 3,200 - 6,400 lm

Direct mount	Zhaga holder	Osram PrevaLED LED COB
✓		Core G7 L15 H1 3000/5000 Core G7 Food/Fashion 2000/3000/5000

ModuLED Micro 8680

Osram Modular LED Star cooler ø86mm - h80mm - Rth 1.2°C/W Cooling performance 4,000 - 8,000 lm

Direct mount	Zhaga holder	Osram PrevaLED LED COB
✓		Core G7 L15 H1 5000 Core G7 Food/Fashion 3000/5000

ModuLED Xtra 9950

Osram Modular LED Star cooler ø99mm - h50mm - Rth 1.34°C/W





ModuLED Xtra 9980

Osram Modular LED Star cooler ø99mm - h80mm - Rth 1.02°C/W Cooling performance 4,700 - 9,400 lm



Direct mount	Zhaga holder	Osram PrevaLED LED COB
✓		Core G7 Food/Fashion 5000

