

Mastering LED Cooling

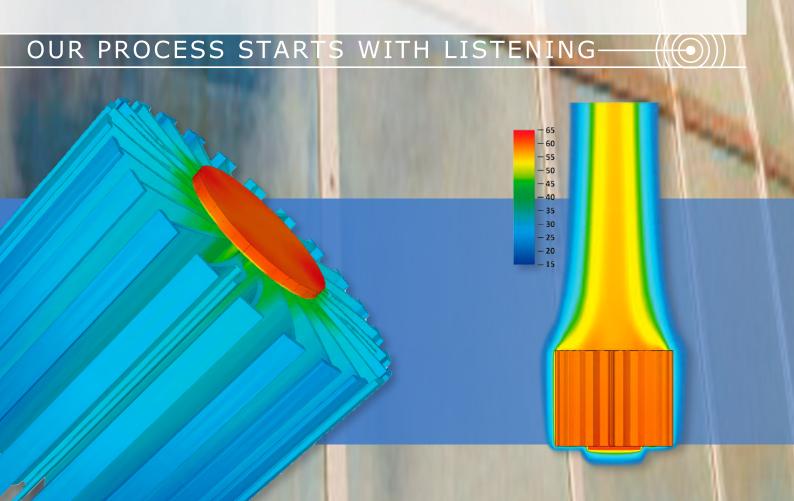
With the evolution of LED lighting over the last years, the demand for professional thermal solutions has grown exponentially. And now that we no longer remain in the realm of low power LED's, thermal management becomes a critical factor within LED fixtures. To that end, MechaTronix has developed several 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 Opto Semiconductors 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 Opto Semiconductors SOLERIQ® 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 OPTO SEMICONDUCTORS LED COOLING

SOLERIQ® S13, S19, OSLON® **DURIS® P10, S8 COB LED modules**

LPF4768-ZHP



Osram Opto Semiconductors LED Pin Fin cooler

ø47mm - h68mm - Rth 3.9°C/W Cooling performance 1,300 - 2,500 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
	V	\$13

✓	S13
✓	S19

LPF6050-ZHC



Osram Opto Semiconductors LED Pin Fin cooler ø60mm - h50mm - Rth 4.0°C/W

Cooling performance 1,200 - 2,300 im			
Direct mount	Zhaga holder	Osram Soleriq LED COB	
V	✓	S13	
	_	313	

LPF6768-ZHP



Osram Opto Semiconductors LED Pin Fin cooler

ø67mm - h68mm - Rth 2.1°C/W Cooling performance 2,300 - 4,600 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
	✓	S13
	✓	S19

LPF8050-ZHC



Osram Opto Semiconductors LED Pin Fin cooler

ø80mm - h50mm - Rth 2.34°C/W Cooling performance 2,000 - 4,000 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
	✓	S19

LPF8668-ZHC



Osram Opto Semiconductors LED Pin

ø86mm - h68mm - Rth 1.46°C/W Cooling performance 3,300 - 6,500 lm

mount	holder	Osram Soleriq LED COB
	✓	S19

LPF11180-ZHE



Osram Opto Semiconductors LED Pin

ø111mm - h80mm - Rth 1.07°C/W Cooling performance 4,800 - 9,600 lm

mount	holder	Osram Soleriq LED COB
	✓	S19

CoolStar® White 4760



Osram Opto Semiconductors Designer **LED Star cooler** ø47mm - h60mm - Rth 4.17°C/W Cooling performance 1,200 - 2,400 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB

	Osram Soleriq LED COB		
V	S13		

CoolStar® White 6730



Osram Opto Semiconductors Designer LED Star cooler ø67mm - h30mm - Rth 3.13°C/W Cooling performance 1,600 - 3,100 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
✓	▽	S13 S19



CoolStar® White 6760

Osram Opto Semiconductors Designer LED Star cooler

ø67mm - h60mm - Rth 2.27°C/W Cooling performance 2,100 - 4,200 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
 ✓	✓	\$13 \$19



CoolStar® White 8630

Osram Opto Semiconductors Designer LED Star cooler

ø86mm - h30mm - Rth 2.08°C/W Cooling performance 2,300 - 4,600 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
V	✓	S13 S19



CoolStar® White 8660

Osram Opto Semiconductors Designer LED Star cooler ø86mm - h60mm - Rth 1 56°C/W

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Cooling	performar	nce 3,100	- 6,100 lr
Direct 7hags		Salasta LEI	- COD

nount	holder	Osram Soleriq LED COE
	V	S13
✓	✓	S19



ModuLED Pico 4750

Osram Opto Semiconductors Modular LED Star cooler

ø47mm - h50mm - Rth 5.3°C/W Cooling performance 900 - 1,800 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
✓	✓	S13 S19
	✓	S19



ModuLED Pico 4780

Osram Opto Semiconductors Modular LED Star cooler

ø47mm - h80mm - Rth 4.2°C/W Cooling performance 1,200 - 2,300 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
✓	✓	\$13 \$19



ModuLED Nano 7050

Osram Opto Semiconductors Modular **LED Star cooler**

ø70mm - h50mm - Rth 2.2°C/W Cooling performance 2,200 - 4,300 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
✓	✓	S13
	✓	S19
	✓	519



ModuLED Nano 7080

Osram Opto Semiconductors Modular LED Star cooler ø70mm - h80mm - Rth 1.8°C/W

001	ing periormance 2,700 - 3,300 im	
rect ount	Zhaga holder	Osram Soleriq LED COB
✓	✓	\$13 \$19
		rect Zhaga ount holder



ModuLED Micro 8630

Osram Opto Semiconductors Modular LED Star cooler ø86mm - h30mm - Rth 1.8°C/W

Cooling performance 2,700 - 5,300 lm

Direc mour	t Zhaga ht holder	Osram Soleriq LED COB
✓	✓	S13 S19
	V	S19

ModuLED Micro 8650

Osram Opto Semiconductors Modular LED Star cooler

ø86mm - h50mm - Rth 1.5°C/W Cooling performance 3,200 - 6,400 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
✓	▽	S13 S19
	✓	S19

ModuLED Micro 8680

Osram Opto Semiconductors Modular **LED Star cooler**

ø86mm - h80mm - Rth 1.2°C/W Cooling performance 4,000 - 8,000 lm

Zhaga holder	Osram Soleriq LED COB
✓	S13
✓	S19
	Zhaga holder

ModuLED Xtra 9950

Osram Opto Semiconductors Modular LED Star cooler

ø99mm - h50mm - Rth 1.34°C/W Cooling performance 3,600 - 7,200 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
V	V	\$13 \$19

ModuLED Xtra 9980

Osram Opto Semiconductors Modular LED Star cooler

ø99mm - h80mm - Rth 1.02°C/W Cooling performance 4,700 - 9,400 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
✓	✓	S13
	✓	S19

ModuLED Mega 13420

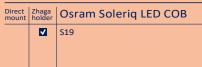
Osram Opto Semiconductors Modular LED Star cooler ø134mm - h20mm - Rth 1.32°C/W

Cooling performance 3,700 - 7,300 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
	✓	S19

ModuLED Mega 13450-HBG

Osram Opto Semiconductors High Bay LED cooler with direct mounting holes for Mean Well HBG series driver ø134mm - h50mm - Rth 0.88°C/W Cooling performance 5,500 - 11,000 lm





ModuLED Mega 134100-HBG

Osram Opto Semiconductors High Bay LED cooler with direct mounting holes for Mean Well HBG series driver ø134mm - h100mm - Rth 0.67°C/W Cooling performance 7,200 - 14,300 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
	✓	S19



ModuLED Giga 15220

Osram Opto Semiconductors Modular LED Star cooler ø152mm - h20mm - Rth 1.13°C/W Cooling performance 4,300 - 8,500 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
	✓	S19





ModuLED Giga 15250

Soleriq LED COB

Osram Opto Semiconductors Modular LED Star cooler

ø152mm - h50mm - Rth 0.7°C/W Cooling performance 6,800 - 13,500 lm

S19



ModuLED Giga 152100-HBG

Osram Opto Semiconductors High Bay LED cooler with direct mounting holes for Mean Well HBG series driver ø152mm - h100mm - Rth 0.52°C/W Cooling performance 9,000 - 18,000 lm

Direct mount	Zhaga holder	Osram Soleriq LED COB
	✓	S19



CoolBlock® SQ-01 2x2MX

Square Pin Fin LED Cooler for the Cezos k143 / k157 2x2MX LED module which consist of 4 Osram Duris P10 LEDs.
Accommodating Ledil Strada 2x2MX lenses for IP67 waterproof with just a few screws

W96mm - L96mm - H61.5mm Thermal resistance Rth 1.45°C/W Cooling performance 3,300 - 6,500 lm Black electro-coating



CoolBlock® LX-01 2x6

Advanced high power rectangle Pin Fin LED Cooler for the Cezos k174 / k186 2x6 LED module which consist of 12 Osram Oslon CSSRM2.PM / Duris S8 GWP9LM31 LEDs. Accommodating Ledil Strada & HB 2x6 lenses for IP67 waterproof with just a few screws

W80mm - L192mm - H45mm Thermal resistance Rth 1.09°C/W Cooling performance 4,400 - 8,700 lm Black electro-coating



CoolBlock® HC-01 3x11

Advanced high power rectangle Pin Fin LED Cooler for the Cezos GrowEmity 3x11 OSR-RFBW-01 which consist of 33 Osram OSLON® SSL LEDs. Accommodating Ledil Florence-3R-IP 3x11 lenses for IP67 waterproof with just a few screws

W98mm - L340mm - H61.5mm Thermal resistance Rth 0.47°C/W Cooling performance 10,000 - 20,000 lm Black electro-coating



IceLED Xtra 550

Osram Opto Semiconductors Modular Active LED cooler Ø99mm - h55mm - Rth 0.46°C/W Cooling performance 10,500 - 21,000 lm

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Direct mount	Zhaga holder	Osram Soleriq LED COB
	✓	\$19

