

# MechaTronix in LED

## XSA-301 Xicato Modular Passive Star LED Cooler ø86mm



### Features & Benefits

- The XSA-301 Xicato modular passive LED cooler is specifically designed for luminaires using Xicato LED modules. Mechanical compatibility with direct mounting of the LED modules to the LED cooler and thermal performance matching the lumen packages.
- For spot and downlight designs from 1,500 to 4,500 lumen
- Thermal resistance Rth 1.5°C/W
- Xicato thermal class H
- Modular design with mounting holes foreseen for direct mounting of Xicato XIM, XTM , XSM LED modules.
- Diameter 86mm - Standard height 50mm  
Other heights on request
- Extruded from highly conductive aluminum



### Order Information

 Zhaga

**XICATO**

Example : XSA-301-B

XSA-301- 1

1 Anodising Color

B - Black  
C - Clear

The XSA-301 Xicato star LED cooler is designed in this way that you can mount various LED modules on the same LED cooler

Simple mounting with pre-tapped screw holes

Recommended screw force 6lb/in

Screws are available from MechaTronix

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### Product Details

<b>Model n°</b>	XSA-301
Dimension (mm) <sup>*1</sup>	ø86 x h50
Volume (mm <sup>3</sup> )	105077
Cooling Surface (mm <sup>2</sup> )	95520
Weight (gr)	284
Thermal Resistance (°C/W) <sup>*2</sup>	1.5
Power Pd (W) <sup>*3</sup>	33
Heat Sink Material	AL6063-T5

<sup>\*1</sup> 3D files are available in ParaSolid, STP and IGS on request

<sup>\*2</sup> The thermal resistance Rth is determined with a calibrated heat source of 30mm x 30mm central placed on the heat sink, Tamb 40° and an open environment. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C  
The thermal resistance of a LED cooler is not a fix value and will vary with the applied dissipated power Pd

<sup>\*3</sup> Dissipated power Pd. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C  
The maximal dissipated power needs to be verified in function of required case temperature Tc or junction temperature Tj and related to the estimated ambient temperature where the light fixture will be placed  
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:  $Pd = Pe \times (1-\eta_L)$

Pd - Dissipated power

Pe - Electrical power

$\eta_L$  = Light efficiency of the LED module

### Notes:

- MechaTronix reserves the right to change products or specifications without prior notice.
- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MechaTronix.

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### Mounting Options

The XSA-301 Xicato modular passive LED cooler is standard foreseen from a variety of mounting holes which allow direct mounting of all Xicato Spot and down light LED modules and secondary optics on the LED heat sink.

In this way mechanical afterwork and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED coolers.

Below you find an overview of Xicato LED modules which standard fit on the XSA-301 Xicato LED cooler.

MechaTronix performs thermal validation tests on each of the LED modules mounted on the LED cooler and publishes this data in the LED brand thermal validation reports.

For a full overview of available LED coolers for Xicato LEDs, please refer to the Xicato LED cooler overview on [www.led-heatsink.com/Download.php](http://www.led-heatsink.com/Download.php) or scan the QR code here.



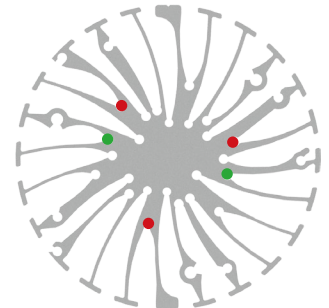
### Xicato LED Modules

## XICATO

Xicato is changing the way the world looks at light – and enabling everyone to experience it. Xicato believes that with better light, shoppers will buy more, diners will order more and guests will be happier and feel more comfortable. In turn, for owners, operators and managers of environments, better lighting will contribute to high sales, margins and brand perception.

### Mounting indicator marks overview

MechaTronix 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 pads or phase change thermal pads can be pre-applied from MechaTronix.



### Xicato XIM LED modules

#### Model names

- XIM-19-8027-xx
- XIM-19-8030-xx
- XIM-19-8035-xx
- XIM-19-8040-xx
- XIM-19-V830-xx

#### Mounting

- Direct mounting with 3 screws M3 x 20mm
- Red indicator marks



### Xicato XTM LED modules

#### Model names

- XTM-19-8027-xx
- XTM-19-8030-xx
- XTM-19-8035-xx
- XTM-19-8040-xx
- XTM-19-V830-xx

#### Mounting

- Direct mounting with 3 screws M3 x 10mm
- Red indicator marks
- Direct mounting by Zhaga mounting holes with 2 self tapping screws M3 x 10mm
- Green indicator marks



### Xicato XSM LED modules

#### Model names

- XSM-8027-xxx
- XSM-8030-xxx
- XSM-8040-xxx
- XSM-9527-xxx
- XSM-9530-xxx
- XSM-9540-xxx
- XSM-V830-xxx

#### Mounting

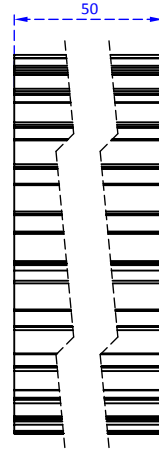
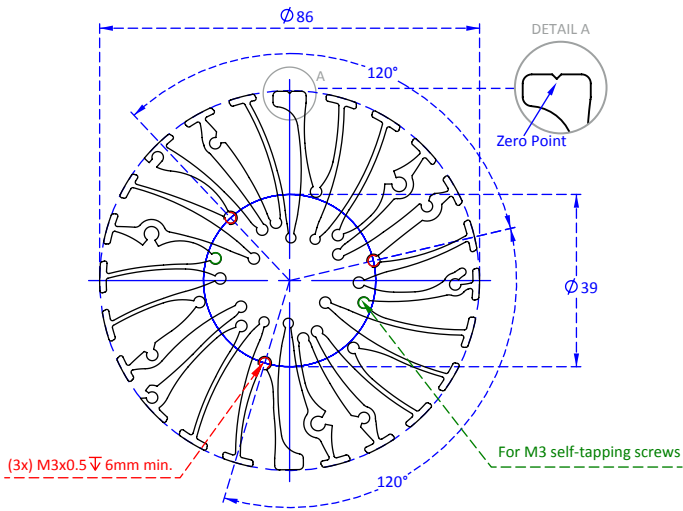
- Direct mounting with 3 screws M3 x 12mm
- Red indicator marks

# MechaTronix in LED

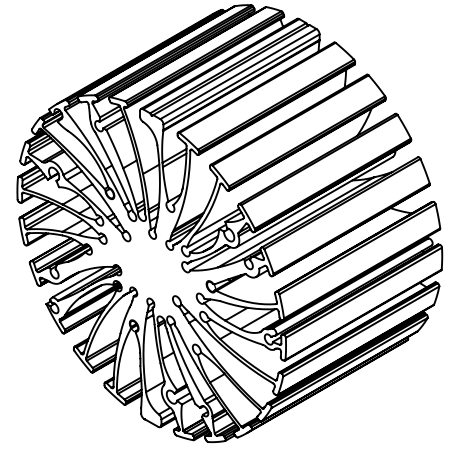
## XSA-301 Xicato Modular Passive Star LED Cooler ø86mm



### Drawings & Dimensions



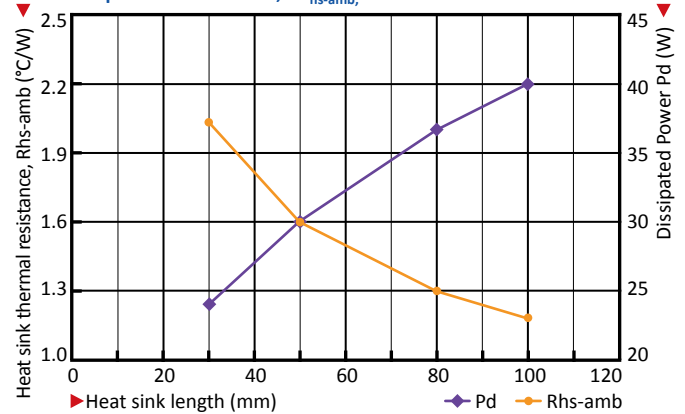
Example: XSA-301



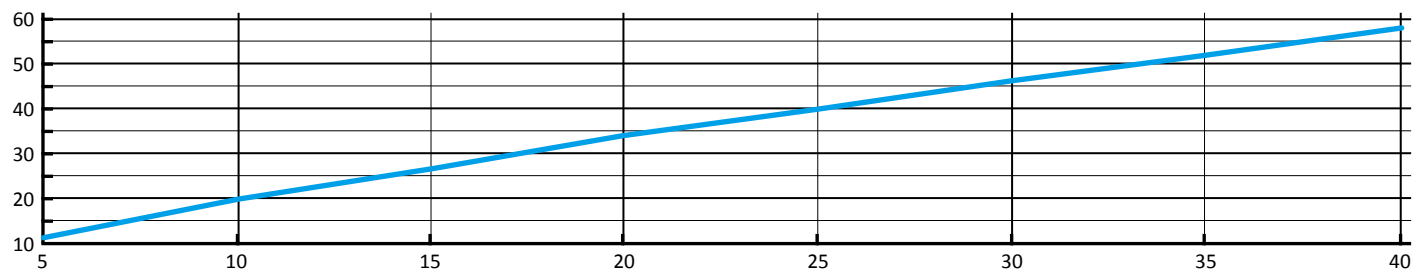
### Thermal Data

$P_d = P_e \times (1-\eta_L)$	Heat sink to ambient thermal resistance $R_{hs-amb}$ (°C/W)	Heat sink to ambient temperature rise $T_{hs-amb}$ (°C)
	XSA-301	XSA-301
5	2.4	12
10	2.0	20
15	1.8	27
20	1.7	34
25	1.6	40
30	1.53	46
35	1.48	52
40	1.45	58
45	-	-

XSA-300 / 301 / 302 performance data at a heat sink to ambient temperature difference,  $\Delta T_{hs-amb}$ , of 50 °C



Heat sink to ambient temperature rise  $T_{hs-amb}$  (°C)



Dissipated Power Pd (W)