

# MechaTronix in LED

– PRODUCT BRIEF –

## CoolBay® Tera Advanced High Bay LED Cooler $\varnothing$ 192mm



### Features & Benefits

- Advanced High Bay and industrial LED cooler with pure passive cooling up to 44,000 lumen
- CoolTube® copper powder sintered heat pipe - extreme conduction capacity for high power LED COBs
- Cooling performance 22,000 - 44,000 lumen
- Thermal resistance Rth 0.22°C/W
- Modular design with mounting holes foreseen for direct connection of various brands high power COB LEDs, Mean Well HBG-240 LED driver or external driver box, various optic lenses and reflectors
- Diameter 192mm - Height 250mm

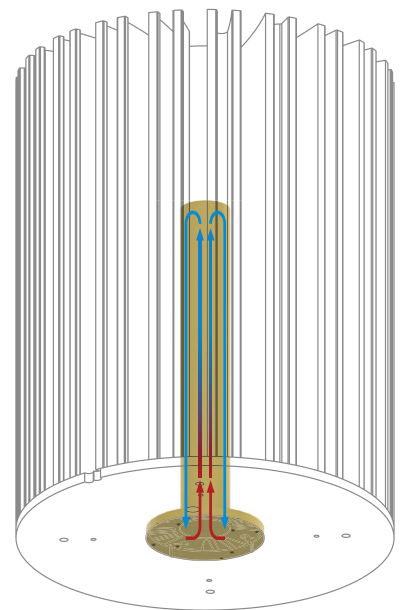


### The CoolTube® Principle

The CoolTube® is a patented quadruple closed-loop heat pipe, with an enormous conduction capacity.

In this way the heat from a small LED engine or COB area will be transported away to the rest of the cooler in an absolute minimum of time.

A second advantage of the CoolTube® closed-loop heat pipe, is the possible use under as well vertical as horizontal positioning.



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### Product Details

Model n°	CoolBay® Tera-A	CoolBay® Tera-B
Dimension (mm) <sup>*1</sup>	ø192 x h250	ø192 x h250
Weight (gr)	4585	4585
Thermal Resistance (°C/W) <sup>*2</sup>	0.22	0.22
Power Pd (W) <sup>*3</sup>	228	228
Heat Sink body	AL6063-T5	AL6063-T5
Heat sink core	CoolTube® quadruple heat pipe structure	
Surface finishing <sup>*4</sup>	Nano coating black	

<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

<sup>\*4</sup> By use of this black Nano coating finish, the radiation of the CoolBay® Tera improves with 15% compared with standard anodizing – Overall cooling performance raises around 7%

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.