

# SynJet® Spotlight Cooler 21W

SynJet cooling technology provides the most reliable thermal management solution available. This LED cooler has been developed by Nuventix, for cooling tracklight, spotlight, and recessed downlight modules.

- Only 75mm diameter for small designs
- Cools up to 21 W
- 100K Hours Lifetime
- Energy Efficient

## Specifications<sup>1</sup>

### Thermal & Acoustic

SynJet Setting <sup>2</sup>	$\Theta_{s-a}$ <sup>3</sup>	TDP <sup>4</sup> (W)	SPL (dBA) <sup>5</sup>
High Performance	1.41	21	32
Standard Performance	1.75	17	22
Silent Performance	2.33	13	18



### Electrical

SynJet Setting <sup>2</sup>	Voltage (VDC) +/- 5%	Current (mA) <sup>6</sup>			Pavg (W)	Voltage (VDC) +/- 5%	Current (mA) <sup>6</sup>			Pavg (W)
		Imin	Iavg	Ipeak			Imin	Iavg	Ipeak	
High Performance	5	10	360	720	1.8	12	10	167	334	2.0
Standard Performance			300	600	1.5			142	284	1.7
Silent Performance			200	400	1.0			100	200	1.2

All Settings	Min	Max	Units	Conditions
Operating Temperature	-40	60	°C	Air temperature surrounding cooler
Storage Temperature	-40	85	°C	Air temperature surrounding cooler
Storage Altitude		15K	m	Above sea level
Operating Relative Humidity	5	95	%	Non-condensing
Weight		300	g	SynJet only
Reliability		100K	hrs	L10 @ 60°C
Regulatory Compliance				CE, UL, FCC Part 15 Class B, RoHS

<sup>1</sup> All values are typical at 25°C unless otherwise stated.

<sup>2</sup> The Level Select model should be used for discrete performance settings. Follow the instructions in the Product Design Guide for adjusting settings.

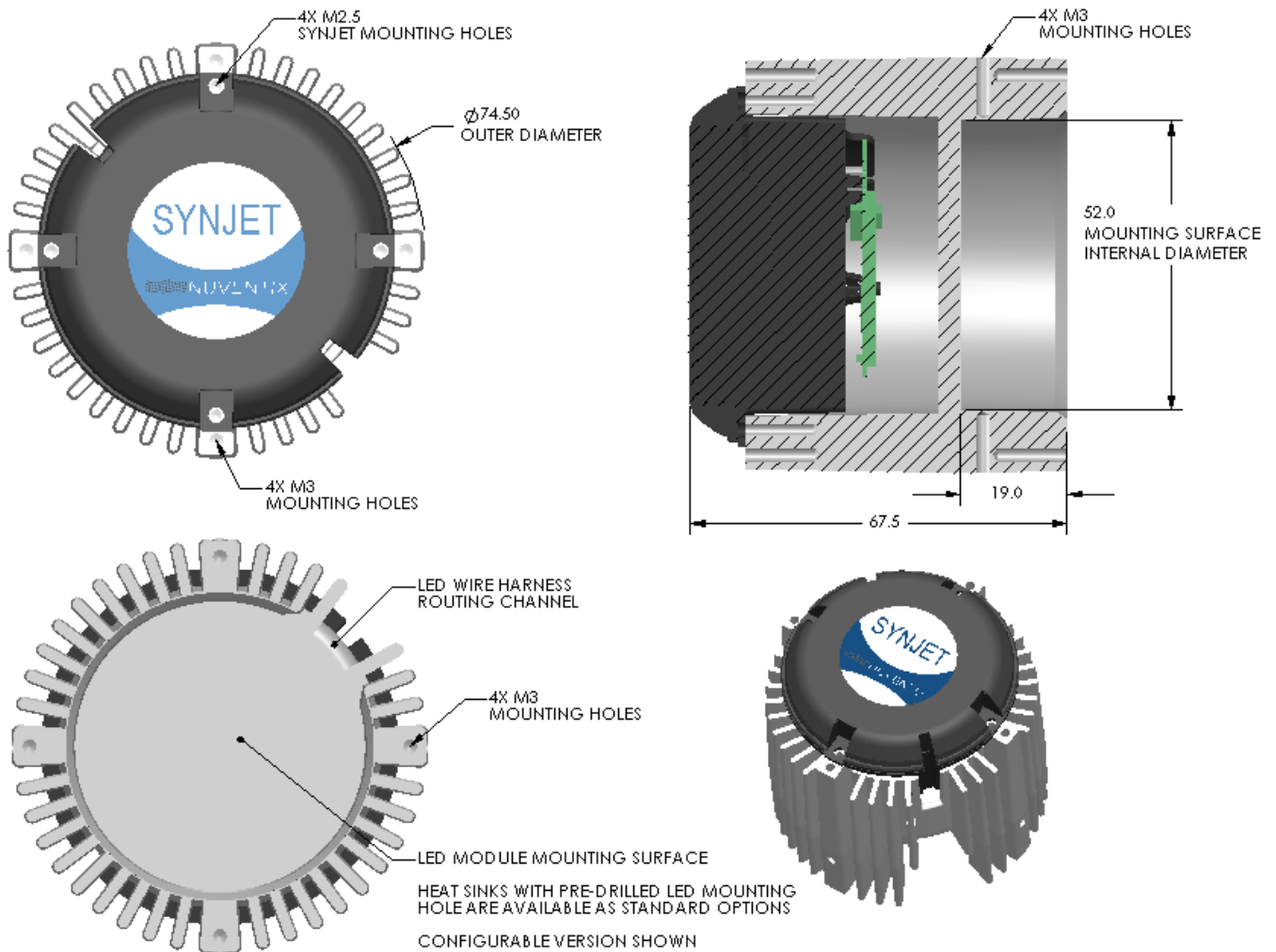
<sup>3</sup> Thermal resistance values are given as reference only and are measured in free air without airflow obstructions. Thermal resistance is measured from the bottom middle of the heat sink to ambient air measured at the inlet to the SynJet, with a heat source at least 19cm<sup>2</sup> using reference heat sink. Actual thermal performance may vary by application and final product design should be tested to assure proper thermal performance.

<sup>4</sup> Thermal Design Power is based on a 30°C temperature rise of heat sink mounting surface above ambient temperature around cooler.

<sup>5</sup> Sound Pressure Level is measured at 1 meter distance per ISO 7779.

<sup>6</sup> The SynJet has a time varying current. The current waveform is sinusoidal and the average current (Iavg) is used to calculate the average power consumption (Pavg) at nominal input voltage (VDC). See the Electrical section in the Product Design Guide for a detailed explanation.

## Mechanical drawing



All dimensions in mm.

## Part Numbers

SynJet® Spotlight Cooler 21W	Document revision: 0.9
SSSLs-CM005-006	SynJet SLC Cooler, Level Select, 5V, 600mm wires
SSSLs-CM012-013	SynJet SLC Cooler, Level Select, 12V, 600mm wires
HSSLs-CALCL-004	Heatsink, 21 W, LEDON Fulmen
HSSLs-CALCL-005	Heatsink, 21 W, Philips SLM
HSSLs-CALCL-006	Heatsink, 21 W, Configurable
HSSLs-CALCL-007	Heatsink, 21 W, Xicato XSM
HSSLs-CALCL-009	Heatsink, 21 W, Osram Prevaled
HSSLs-CALCL-010	Heatsink, 21 W, BridgeLux ES
HSSLs-CALCL-011	Heatsink, 21 W, LEDEngin LZ-040

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