

Report of Test

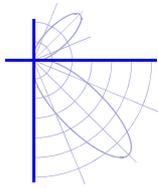
LL24071

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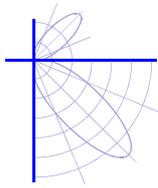
Test Report Number LL24071

Client	Empyrean Lighting
Contact	Brock Shakespeare
Address	Level 2, 11/9 Capital Place. Birtinya. QLD 4551.
Devices Tested	10 x LED Streetlights. Identified by LightLab as Sample A to J (also identified with test number). Empyrean Lighting – Andromeda-C-PoleMS-30-LK30B The samples comprise a plastic and cast aluminium body with black finish, array of 11 LEDs, each with a complex domed lens and one Empyrean Lighting AndromedaA-30W-800mA driver.
Nature of Tests	To determine the total bulk power usage (known as Unmetered Market Load) of 10 supplied LED streetlights with driver combination while operating under standard laboratory conditions with the supply set to 250 V 50 Hz. Performance data in accordance with IESNA LM-79-08.
Sample Selection	This laboratory has not exercised control over the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent to which the test samples are representative of production units.
Procedure	The samples were tested in free air with luminous opening horizontal and face down in a draft free room. The supply voltage and frequency to the control gear was set according to the values in Table 1 and the sample was operated for a minimum of 2 hours till photometric and electrical stability prior to recording measurements. The relevant measurements are recorded in Table 1.

All measurements were performed in a controlled environment of 25 ± 1 ° Celsius.

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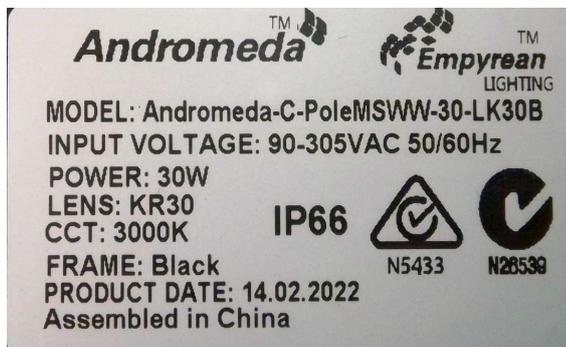
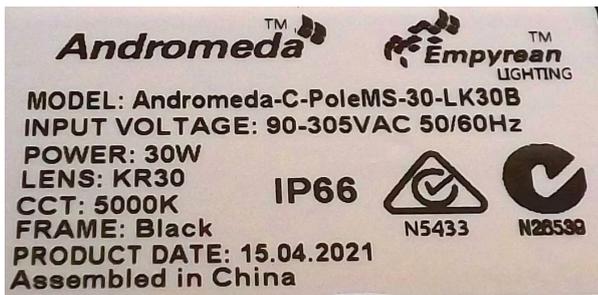




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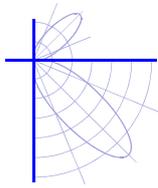
Photographs

(Sample 'F' shown)



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Test Results

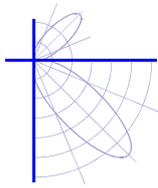
Sample ID	Supply voltage (Vac)	Supply frequency (Hz)	Supply current (A)	Supply Power (W)	Power Factor	Voltage THD (%)
LL24071A	250	50	0.125	30.4	0.97	0.06
LL24071B	250	50	0.125	30.4	0.98	0.06
LL24071C	250	50	0.125	30.4	0.98	0.05
LL24071D	250	50	0.124	30.2	0.97	0.06
LL24071E	250	50	0.123	30.0	0.98	0.05
LL24071F	250	50	0.123	30.1	0.97	0.05
LL24071G	250	50	0.123	30.0	0.98	0.07
LL24071H	250	50	0.124	30.3	0.97	0.06
LL24071I	250	50	0.123	30.0	0.97	0.05
LL24071J	250	50	0.123	29.8	0.97	0.05

Table 1 – Measurements

Equipment Used	Asset#	Calibration Due Date
Electrical		
Keysight AC6804A AC Source	B0553	n/a
YEW WT210	B0138	03/02/2023
Environmental		
YEW 7563 Thermometer	B0260	18/10/2022
Photometry (stability only)		
Keithley 6485 Picoammeter	B0425	13/01/2025
LMT V Lambda Cell	B0250	13/01/2025

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Uncertainties

When calculated at the 95% confidence interval with coverage factor $k = 2$, the estimated uncertainties are:

Temperature	$\pm 1^\circ \text{C}$
Electrical Power (ac)	$\pm 0.4\%$
Electrical Voltage (ac)	$\pm 0.3\%$
Electrical Current (ac)	$\pm 0.3\%$
Frequency (Hz) *	$\pm 0.1\%$
Power Factor	± 0.01

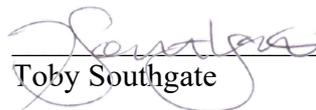
* NATA accreditation does not cover the performance of this service.

Laboratory

Measurements were performed at the LightLab International Brisbane Laboratory.

Date of Test	22-Apr-2022 to 27-Apr-2022
Date of Report	29-Apr-2022

Authorised Signatory


Toby Southgate

B3067 - ESC Report , Version 1.3, 11th Apr 2022

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