



# Light Emission Distribution Laboratory

Division of Photometry & Electrical Testing Pty. Ltd ABN 11 166 255 134  
Unit 4, 140 George St. Hornsby NSW 2077 Australia  
Ph: +61 2 9476 3097 E: sales@ledlab.com.au



Accredited for compliance with ISO/IEC 17025 – For Testing. Accreditation No. 19541

## Test Report: 180814BLCP

**Note: This test report supersedes TR 180814ALCP and contains editorial changes**

### Testing of Site/Area Light Power for AEMO's NEM Load Table and other tests on optical systems

for The Archetype® Model No. SARE35/60L4K

*Type of product:* LED Site/Area Luminaire

*Prepared for:* International Lighting, Unit 20, 43-45 College St, Gladesville NSW 2111 Australia

*Model number:* SARE35/60L4K

*Description:* The Archetype®. Features die cast aluminium alloy body with integral cooling ribs, tempered sealing glass, die cast aluminium alloy lens frame with replaceable Pico Emitters, 4000K LED chips powered from an Osram Optotronic LED driver (model number OT100W/UNV/800C/2DIMLT2/P6).

### Test objective and Method

Determination of the luminaire supply operating parameters Voltage, Current, Power and Power Factor when tested at nominal test voltages of 250V. By the method of LEDLab Electrical Parameter Determination and AEMO Unmetered\_Load\_Guideline\_v1\_0.

### Test configuration

The ten luminaires were operated at 25°C ambient temperature in their normal operational orientation at 250VAC, 50Hz, until the monitored luminaire stabilised as defined in IES LM79. Twenty readings were taken ten seconds apart and the average found. The average value is multiplied by the Calibration Correction given in the latest NATA endorsed calibration report then has Voltmeter losses subtracted based on Watt-meter input impedance and test voltage. The other nine luminaires having operated for the same or more time are switched one by one to Watt-meter for their twenty readings.

**Client:** International Lighting, Unit 20, 43-45 College St, Gladesville NSW 2111 Australia contact Massis Kerkyasharian

### Conclusion

**The Average Load (W) is 65.67W at 0.97 Power Factor.**

Tested by: David Orwin

On 07/08/2018

Authorised Signatory

Date: 14/08/2018

Re-issued: 29/04/2019

Alain Yetendje

The data specified in this report relates to the sample measured under standard conditions specified in the Test Specification, and may not necessarily relate to other similar luminaires or other operating conditions. The tests and measurements covered by this document are traceable to Australian national standards of measurement. This report shall only be reproduced in full unless approved in writing by Light Emission Distribution Laboratory (LEDLab).

## Results

Time till stabilisation: 2h

### Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.395	0.270	65.605	0.971
Min	249.850	0.269	65.564	0.971
Max	251.060	0.270	65.645	0.971
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.36	0.2695	65.54	0.971
Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.372	0.269	65.432	0.970
Min	250.060	0.269	65.366	0.970
Max	250.830	0.270	65.491	0.970
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.34	0.2691	65.36	0.970
Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.373	0.269	65.558	0.972
Min	249.210	0.269	65.516	0.971
Max	251.310	0.271	65.591	0.972
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.34	0.2692	65.49	0.972

The tests and measurements covered by this document are traceable to Australian national standards of measurement.

This report only applies to the items tested and shall only be reproduced in full unless approved in writing by Light Emission Distribution Laboratory (LEDLab).

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.236	0.269	65.345	0.971
Min	249.900	0.269	65.289	0.971
Max	250.540	0.269	65.411	0.971
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.20	0.2686	65.28	0.971
Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.305	0.273	66.301	0.970
Min	249.690	0.272	66.235	0.970
Max	250.950	0.274	66.350	0.971
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.27	0.2727	66.23	0.970
Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.098	0.269	65.305	0.971
Min	249.160	0.267	65.250	0.971
Max	251.680	0.270	65.387	0.972
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.07	0.2685	65.24	0.971

LEDLab Test Report: 180814BLCP

Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.346	0.269	65.466	0.972
Min	249.960	0.268	65.410	0.972
Max	250.760	0.269	65.508	0.972
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.31	0.2688	65.40	0.972
Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.290	0.273	66.431	0.971
Min	249.950	0.273	66.377	0.971
Max	250.470	0.274	66.504	0.971
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.26	0.2731	66.36	0.971
Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.219	0.271	65.911	0.972
Min	249.160	0.271	65.844	0.971
Max	250.490	0.272	65.966	0.972
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.19	0.2708	65.84	0.972
Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.345	0.272	66.076	0.972
Min	249.940	0.271	66.028	0.972
Max	250.770	0.272	66.120	0.972
Calibration correction (see Newton 4 <sup>th</sup> calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.31	0.2713	66.01	0.972

The tests and measurements covered by this document are traceable to Australian national standards of measurement.

This report only applies to the items tested and shall only be reproduced in full unless approved in writing by Light Emission Distribution Laboratory (LEDLab).

## Electrical operating parameters of The Archetype®

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.395	0.270	65.536	0.971
Sample 2	250.341	0.269	65.363	0.970
Sample 3	250.342	0.269	65.489	0.972
Sample 4	250.205	0.269	65.276	0.971
Sample 5	250.273	0.273	66.232	0.970
Sample 6	250.067	0.269	65.237	0.971
Sample 7	250.314	0.269	65.397	0.972
Sample 8	250.259	0.273	66.362	0.971
Sample 9	250.187	0.271	65.842	0.972
Sample 10	250.314	0.271	66.007	0.972
<b>Average</b>	<b>250.27</b>	<b>0.27</b>	<b>65.67</b>	<b>0.97</b>

Illustration 1: Electrical operating parameters of The Archetype®

## Uncertainties

At a Confidence Level of 95% with a Coverage Factor of 2

**Supply Voltage:** ± 0.07%

**Supply Current:** ± 0.14%

**Supply Power:** ± 0.19%

**Power Factor:** ± 0.005

**Ambient Temperature:** ± 1°C

## Test Equipment Used

*Power meter:* Newton 4<sup>th</sup> Power Analyser KinetiQ Model PPA2520 SN 133-00467

*Power meter integration time (s):* 5

*Calibration Report:* Ausgrid NC17.36115

*Luminaire thermometer:* AMA S No. 1086110-0.1deg

## General Photographs



Illustration 2: Luminaire label



Illustration 3: LED driver



Illustration 4: Luminaire



Illustration 5: Setup

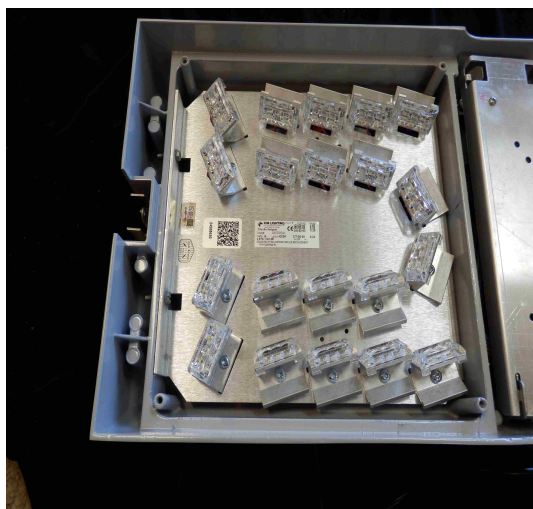


Illustration 6: Optical opening