



## Test Report: 231102LCP

### Testing of Road Light Power for AEMO's NEM Load Table for Unmetered Loads on Road lighting luminaires

#### For Parkville MK2 4K 58W

*Type of product:* LED Streetlight

*Model Number:* S3S4ZxxxxxL58

*Prepared for:* Sylvania Schreder

*Description:* 58W Decorative LED Streetlight. Features die-cast aluminium housing, polycarbonate diffuser and lenses, an LED module made of Samsung LH-351C LED chips with 5401 optics powered from an Inventronics LED driver model number EUD-150S350DVA set at .98A.

### Test objective

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\_v2\_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 Wattmeter for their twenty readings.

### Client

Sylvania Schreder Contact Swati Dhembre, Bldg 4A, Parklands Estate, 21-23 South Street, Rydalmere, NSW 2116

### Conclusions

**The Average Load (W) is 58.77W at 0.912 Power Factor.**

Tested by: David Orwin

On: 07/11/2023

Authorised Signatory

Date: 07/11/2023

Alain Yetendje



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### Results

Time till stabilisation: 2h

### Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor	
Average	250.295	0.260	59.504	0.913	
Min	250.140	0.260	59.499	0.913	
Max	250.420	0.261	59.512	0.913	
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value	250.32	0.2604	59.49	0.913	

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor	
Average	250.283	0.255	58.545	0.918	
Min	250.140	0.255	58.540	0.917	
Max	250.500	0.255	58.552	0.918	
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value	250.31	0.2549	58.53	0.918	

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor	
Average	250.159	0.257	58.804	0.913	
Min	249.920	0.257	58.801	0.913	
Max	250.390	0.258	58.808	0.914	
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value	250.18	0.2573	58.79	0.913	



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Sample 4		Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average		250.632	0.258	58.884	0.912
Min		250.140	0.257	58.878	0.912
Max		250.900	0.258	58.888	0.912
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value		250.65	0.2576	58.87	0.912

Sample 5		Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average		250.213	0.258	58.407	0.906
Min		249.930	0.258	58.404	0.906
Max		250.440	0.258	58.411	0.906
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value		250.24	0.2577	58.39	0.906

Sample 6		Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average		250.312	0.258	58.699	0.909
Min		250.210	0.258	58.693	0.909
Max		250.410	0.258	58.701	0.910
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value		250.33	0.2578	58.68	0.909



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Sample 7		Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average		250.370	0.258	58.876	0.912
Min		250.160	0.258	58.868	0.912
Max		250.770	0.258	58.883	0.912
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value		250.39	0.2578	58.86	0.912

Sample 8		Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average		250.106	0.258	58.517	0.906
Min		250.030	0.258	58.512	0.906
Max		250.180	0.258	58.522	0.906
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value		250.13	0.2581	58.50	0.906

Sample 9		Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average		250.187	0.258	59.056	0.916
Min		249.930	0.257	59.048	0.915
Max		250.460	0.258	59.065	0.916
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value		250.21	0.2577	59.04	0.916



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Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor	
Average	250.069	0.256	58.571	0.914	
Min	249.960	0.256	58.567	0.914	
Max	250.250	0.256	58.579	0.914	
Calibration correction (see Newton 4th calibration report 2020002794)		1.00009	0.99982	0.99974	1.0000
Instrument impedance correction (N4)			0.00024	0.0576	
Final value		250.09	0.2563	58.56	0.914

Table 1. Electrical operating parameters of Parkville MK2 4K 58W

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.30	0.260	59.49	0.913
Sample 2	250.29	0.255	58.53	0.918
Sample 3	250.16	0.257	58.79	0.913
Sample 4	250.63	0.258	58.87	0.912
Sample 5	250.22	0.258	58.39	0.906
Sample 6	250.31	0.258	58.68	0.909
Sample 7	250.37	0.258	58.86	0.912
Sample 8	250.11	0.258	58.50	0.906
Sample 9	250.19	0.258	59.04	0.916
Sample 10	250.07	0.256	58.56	0.914
<b>Average</b>	<b>250.27</b>	<b>0.258</b>	<b>58.77</b>	<b>0.912</b>

## Uncertainties

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

*Supply Voltage:*  $\pm 0.07\%$

*Supply Current:*  $\pm 0.14\%$

*Supply Power:*  $\pm 0.19\%$

*Power Factor:*  $\pm 0.005$

*Ambient Temperature:*  $\pm 1^\circ\text{C}$

## Test Equipment Used

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

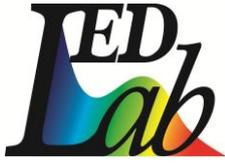
*Power meter integration time (s):* 5

*Calibration Report:* PlusEs report no. 2023003140

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

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

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



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### General Photographs



Photo 1. Luminaire.



Photo 2. Optical gear.



Photo 3. LED driver.



Photo 4. LED module label.



Photo 5. Setup.