



Light Emission Distribution Laboratory

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Accreditation No. 19541

Test Report: 190605LCP

Testing of Road Light Power for AEMO's NEM Load Table and other tests on optical systems

for Sylvania Modular Bourke Hill 34W

Project number: PTR 6268B

Type of product: LED Streetlight

Prepared for: GLG, 96-112 Gow St, Padstow NSW 2211 Australia

Model number: NA99Z01L34

Description: 34W 4000K Bourke Hill LED Roadway Luminaire with Aeroscreen visor. Features die-cast aluminium body with spun aluminium canopy, 1x Samsung LED module (model number SL-I7T1F33LBWW) driven from a Philips Xitanium LED driver (model number 929000736203) set at 700mA.

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: GLG, 96-112 Gow St, Padstow NSW 2211 Australia contact Swati Dhembre

Conclusion

The Average Load (W) is 32.69W at .94 Power Factor.

Tested by: David Orwin On 19/06/2019 Authorised Signatory

Date: 20/06/2019

Alain Yetendje

Results

Time till stabilisation: 2h

Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.431	0.141	33.336	0.944
Min	250.410	0.141	33.329	0.944
Max	250.450	0.141	33.339	0.944
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1408	33.27	0.944
Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.430	0.138	32.647	0.941
Min	250.410	0.138	32.643	0.941
Max	250.450	0.138	32.652	0.942
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1381	32.58	0.941
Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.429	0.138	32.594	0.940
Min	250.410	0.138	32.589	0.940
Max	250.450	0.138	32.599	0.940
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1381	32.53	0.940

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.430	0.139	32.744	0.942
Min	250.410	0.139	32.738	0.942
Max	250.450	0.139	32.748	0.942
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1385	32.68	0.942
Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.432	0.139	32.705	0.942
Min	250.420	0.138	32.700	0.942
Max	250.450	0.139	32.708	0.942
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1383	32.64	0.942
Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.432	0.138	32.628	0.943
Min	250.420	0.138	32.625	0.942
Max	250.450	0.138	32.633	0.943
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1379	32.56	0.943

LEDLab Test Report: 190605LCP

	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 7				
Average	250.433	0.139	32.742	0.942
Min	250.410	0.139	32.733	0.942
Max	250.450	0.139	32.747	0.943
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1384	32.68	0.942
	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 8				
Average	250.433	0.138	32.627	0.941
Min	250.420	0.138	32.623	0.941
Max	250.450	0.138	32.631	0.941
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1381	32.56	0.941
	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 9				
Average	250.433	0.139	32.710	0.942
Min	250.420	0.139	32.706	0.942
Max	250.450	0.139	32.715	0.942
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1383	32.65	0.942
	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 10				
Average	250.428	0.139	32.775	0.942
Min	250.420	0.139	32.771	0.942
Max	250.450	0.139	32.778	0.942
Calibration correction (see Newton 4 th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.40	0.1385	32.71	0.942

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 Sylvania Modular Bourke Hill 34W

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.431	0.141	33.273	0.944
Sample 2	250.398	0.138	32.584	0.941
Sample 3	250.398	0.138	32.531	0.940
Sample 4	250.399	0.138	32.681	0.942
Sample 5	250.401	0.138	32.641	0.942
Sample 6	250.401	0.138	32.565	0.943
Sample 7	250.402	0.138	32.678	0.942
Sample 8	250.402	0.138	32.564	0.941
Sample 9	250.402	0.138	32.647	0.942
Sample 10	250.397	0.139	32.711	0.942
Average	250.40	0.14	32.69	0.94

Illustration 1: Electrical operating parameters of Sylvania Modular Bourke Hill 34W

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:** ± 0.005 **Ambient Temperature:** $\pm 1^{\circ}\text{C}$

Test Equipment Used

Power meter: Newton 4th 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



Illustration 2: Luminaire

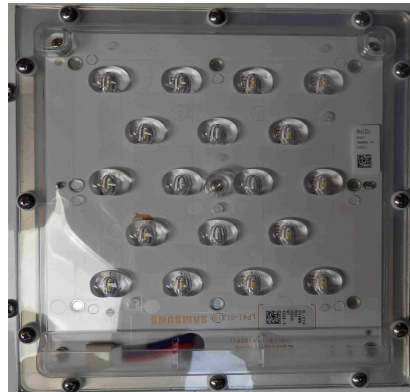


Illustration 3: Samsung LED module



Illustration 5: Luminaire Setup (mounted on a pole with spigot)



Illustration 4: LED driver



Illustration 7: Luminaire label



Illustration 6: LED module label