



Light Emission Distribution Laboratory

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Accreditation No. 19541

Test Report: 190608LCP

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

for Sylvania Modular Bourke Hill 17W

Project number: PTR 6268

Type of product: LED Streetlight

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

Model number: NA99Z01L17

Description: 17W 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 Samsung LED driver (model number PSDV180101U) set at 350mA.

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 16.61W at .97 Power Factor.

Tested by: David Orwin On 20/06/2019 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	250.273	0.070	17.076	0.975
Min	250.250	0.070	17.070	0.975
Max	250.290	0.070	17.081	0.975
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	250.24	0.0697	17.02	0.975
Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.274	0.068	16.626	0.973
Min	250.260	0.068	16.620	0.972
Max	250.290	0.068	16.630	0.973
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	250.24	0.0680	16.57	0.973
Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.274	0.068	16.509	0.973
Min	250.250	0.068	16.504	0.973
Max	250.290	0.068	16.513	0.973
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	250.24	0.0675	16.45	0.973

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.276	0.068	16.613	0.972
Min	250.260	0.068	16.609	0.972
Max	250.290	0.068	16.617	0.972
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	250.24	0.0680	16.55	0.972
Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.279	0.070	16.981	0.974
Min	250.260	0.070	16.977	0.974
Max	250.290	0.070	16.985	0.974
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	250.25	0.0694	16.92	0.974
Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.276	0.067	16.380	0.973
Min	250.260	0.067	16.376	0.973
Max	250.290	0.067	16.385	0.973
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	250.24	0.0670	16.32	0.973

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	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 7				
Average	250.273	0.068	16.608	0.972
Min	250.260	0.068	16.603	0.972
Max	250.290	0.068	16.612	0.972
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	250.24	0.0680	16.55	0.972
Sample 8				
Average	250.276	0.067	16.375	0.972
Min	250.260	0.067	16.369	0.972
Max	250.290	0.067	16.381	0.972
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	250.24	0.0670	16.31	0.972
Sample 9				
Average	250.272	0.069	16.822	0.975
Min	250.260	0.069	16.819	0.974
Max	250.290	0.069	16.825	0.975
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	250.24	0.0687	16.76	0.975
Sample 10				
Average	250.275	0.069	16.723	0.973
Min	250.260	0.068	16.609	0.972
Max	250.290	0.069	16.825	0.975
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	250.24	0.0684	16.66	0.973

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 17W

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.273	0.070	17.015	0.975
Sample 2	250.242	0.068	16.566	0.973
Sample 3	250.243	0.068	16.448	0.973
Sample 4	250.245	0.068	16.552	0.972
Sample 5	250.247	0.069	16.920	0.974
Sample 6	250.244	0.067	16.319	0.973
Sample 7	250.242	0.068	16.547	0.972
Sample 8	250.244	0.067	16.315	0.972
Sample 9	250.241	0.069	16.761	0.975
Sample 10	250.244	0.068	16.663	0.973
Average	250.25	0.07	16.61	0.97

Illustration 1: Electrical operating parameters of Sylvania Modular Bourke Hill 17W

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

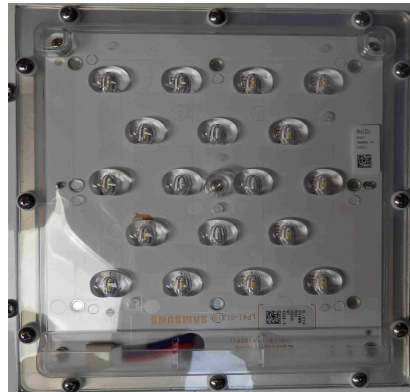


Illustration 3: Samsung LED module



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



Illustration 4: LED driver



Illustration 6: LED module label

SYLVANIA
MODULAR-BTCA LED SERIES
NB99Z01L17
17W 4K PESN7 CO #0001
240V 50Hz 0.07A PF >0.9
Optical: IP54 Gear: IP24 IK06
Ta: 40°C I-Table: 170939APH
M/O: 17-Jun-19
Assembled in Australia

Illustration 7: Luminaire label