



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: 190607LCP

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

for Sylvania Modular Parkville 100W

Project number: PTR 6267A

Type of product: LED Streetlight

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

Model number: NX99Z01L100

Description: 100W 4000K heritage style LED Roadway Luminaire. Features die-cast aluminium body with spun aluminium canopy, 2x Samsung LED module (model number SL-I7T5F83MBWW) driven from an Inventronics LED driver (model number EUD-096S105DVA) set at 840mA.

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 96.99W at .97 Power Factor.

Tested by: David Orwin On 17/06/2019 Authorised Signatory

Date: 18/06/2019

Alain Yetendje

Results

Time till stabilisation: 3h

Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.210	0.404	98.650	0.976
Min	250.190	0.404	98.646	0.976
Max	250.220	0.404	98.653	0.976
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	250.18	0.4038	98.58	0.976
Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.275	0.402	98.056	0.974
Min	250.260	0.402	98.050	0.974
Max	250.300	0.402	98.061	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	250.24	0.4020	97.98	0.974
Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.276	0.397	96.661	0.973
Min	250.260	0.397	96.658	0.973
Max	250.300	0.397	96.664	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	0.3965	96.59	0.973

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.282	0.397	96.599	0.972
Min	250.270	0.397	96.594	0.972
Max	250.300	0.397	96.603	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	250.25	0.3969	96.52	0.972
Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.284	0.399	97.117	0.973
Min	250.270	0.399	97.111	0.973
Max	250.300	0.399	97.121	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	250.25	0.3985	97.04	0.973
Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.283	0.402	97.978	0.974
Min	250.260	0.402	97.972	0.974
Max	250.300	0.402	97.983	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	0.4016	97.90	0.974

LEDLab Test Report: 190607LCP

	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 7				
Average	250.283	0.396	96.672	0.974
Min	250.270	0.396	96.663	0.974
Max	250.300	0.397	96.682	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	0.3962	96.60	0.974
	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 8				
Average	250.267	0.395	95.929	0.972
Min	250.250	0.394	95.925	0.972
Max	250.290	0.395	95.933	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	0.3942	95.85	0.972
	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 9				
Average	250.276	0.396	96.231	0.970
Min	250.260	0.396	96.227	0.970
Max	250.300	0.396	96.237	0.970
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	0.3960	96.16	0.970
	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 10				
Average	250.278	0.398	96.760	0.972
Min	250.260	0.398	96.756	0.972
Max	250.300	0.398	96.765	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	250.25	0.3973	96.69	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 Sylvania Modular Parkville 100W

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.210	0.404	98.576	0.976
Sample 2	250.243	0.402	97.981	0.974
Sample 3	250.244	0.397	96.587	0.973
Sample 4	250.250	0.397	96.525	0.972
Sample 5	250.253	0.398	97.043	0.973
Sample 6	250.252	0.402	97.903	0.974
Sample 7	250.252	0.396	96.598	0.974
Sample 8	250.235	0.394	95.855	0.972
Sample 9	250.244	0.396	96.157	0.970
Sample 10	250.247	0.397	96.685	0.972
Average	250.24	0.40	96.99	0.97

Illustration 1: Electrical operating parameters of Sylvania Modular Parkville 100W

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 modules



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



Illustration 4: LED driver

SYLVANIA
MODULAR-PTFX LED
NX99Z01L100
100W 4K PESN7
240V 50Hz 0.42A PF >0.9
Optical: IP65 Gear: IP44 IK05
Ta: 40°C I-Table: 170605PH
M/O: 17-Jun-19
Assembled in Australia



Illustration 7: Luminaire label



Illustration 6: LED
module label