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

NATA ACCREDITED FOR TECHNICAL COMPETENCE
Accredited for compliance with ISO/IEC 17025 – For Testing. Accreditation No. 19541

Test Report: 171018LCP

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

for Roadflair Streetlight 260W Model No. BRP394 LED312/NW 260W

Type of product: LED Streetlight

Prepared for: Philips Lighting Australia

Model number: BRP394 LED312/NW 260W

Description: 260W LED StreetLight. Features IP66 cast aluminium housing, 6xLED modules made of 285 LEDs powered from 2x Philips Xitanium driver Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt model number 9290 009 622.

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:

Philips Lighting Australia contact Jacek Lipiec, 65 Epping Road, North Ryde, NSW, 2113

Tested by: David Orwin On 19/10/2017 Authorised Signatory Date: 01/11/2017

Alain Yetendje

Conclusions

Test results are given in following Tables.

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).

The Average Load (W) is 258.86W at 0.98 Power Factor.

Results

Time till stabilisation: 4h

Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.066	1.060	259.387	0.979
Min	248.890	1.053	259.300	0.979
Max	251.580	1.064	259.440	0.979
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.02	1.0591	259.31	0.979

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.040	1.058	259.136	0.979
Min	249.490	1.056	259.080	0.979
Max	250.670	1.061	259.180	0.979
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	249.99	1.0579	259.06	0.979

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.065	1.056	258.696	0.979
Min	249.200	1.051	258.640	0.979
Max	251.480	1.060	258.760	0.980
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.01	1.0560	258.62	0.979

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.374	1.063	260.544	0.979
Min	249.580	1.061	260.510	0.979
Max	250.990	1.066	260.600	0.979
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.32	1.0625	260.46	0.979

Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.350	1.056	258.900	0.979
Min	248.800	1.053	258.840	0.979
Max	250.980	1.063	259.000	0.980
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.30	1.0557	258.82	0.979

Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.733	1.058	259.709	0.979
Min	249.930	1.053	259.630	0.978
Max	252.100	1.062	259.760	0.979
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.68	1.0580	259.63	0.979

Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.036	1.058	259.107	0.979
Min	247.240	1.056	259.070	0.979
Max	250.730	1.070	259.210	0.980
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	249.99	1.0581	259.03	0.979

Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.869	1.056	258.283	0.979
Min	248.880	1.053	258.230	0.979
Max	250.630	1.060	258.310	0.979
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	249.82	1.0558	258.20	0.979

Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.947	1.047	257.223	0.979
Min	250.310	1.046	257.190	0.979
Max	251.300	1.050	257.280	0.979
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.90	1.0469	257.14	0.979

Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.345	1.055	258.455	0.979
Min	248.680	1.051	258.360	0.979
Max	251.340	1.061	258.500	0.979
Calibration correction (see Newton 4th calibration report 221983)	0.9998	0.9998	0.9999	1.0001
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.30	1.0543	258.38	0.979

Electrical operating parameters of Roadflair Streetlight 260W

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.066	1.059	259.308	0.979
Sample 2	249.990	1.058	259.057	0.979
Sample 3	250.015	1.056	258.617	0.979
Sample 4	250.324	1.063	260.464	0.979
Sample 5	250.300	1.056	258.821	0.979
Sample 6	250.682	1.058	259.630	0.979
Sample 7	249.986	1.058	259.027	0.979
Sample 8	249.819	1.056	258.204	0.979
Sample 9	250.897	1.047	257.144	0.979
Sample 10	250.295	1.054	258.376	0.979
Average	**250.24**	**1.06**	**258.86**	**0.98**

Illustration 1: Electrical operating parameters of Roadflair Streetlight 260W

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 4th Power Analyser KinetiQ Model PPA2520 SN 133-00467
Power meter integration time (s): 5
Calibration Report: Ausgrid 221983
Luminaire thermometer: AMA S No. 1086110-0.1deg

General Photographs

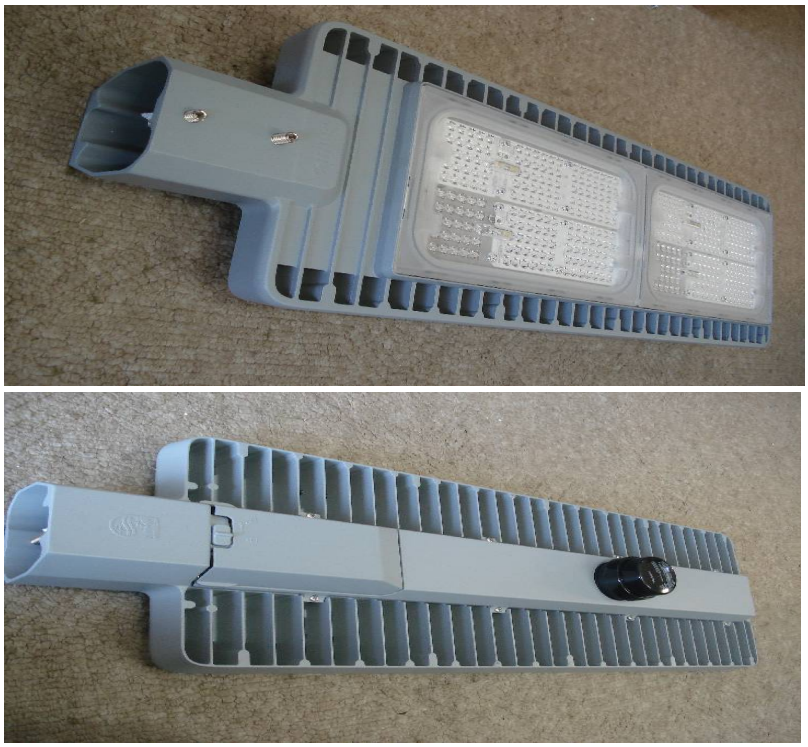

Illustration 2: Luminaire

Illustration 4: Luminaire label

Illustration 3: Surge protector

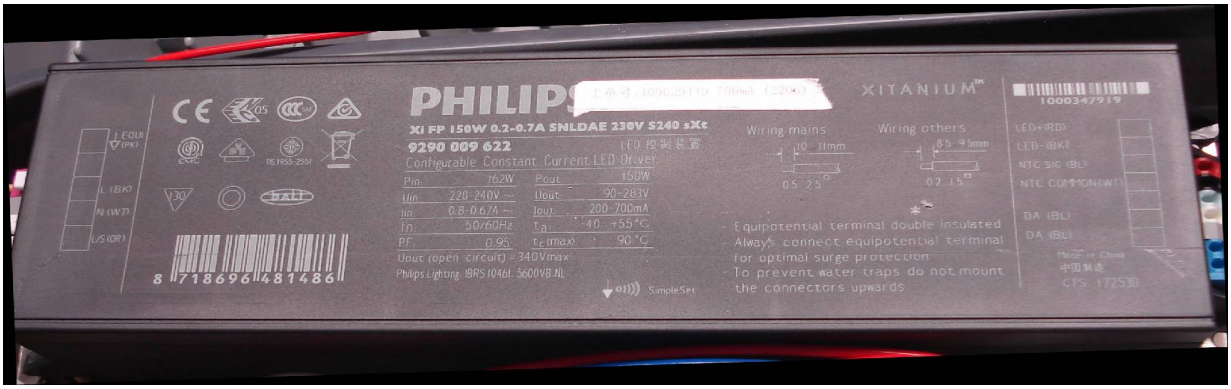

Illustration 5: LED driver (2x off)

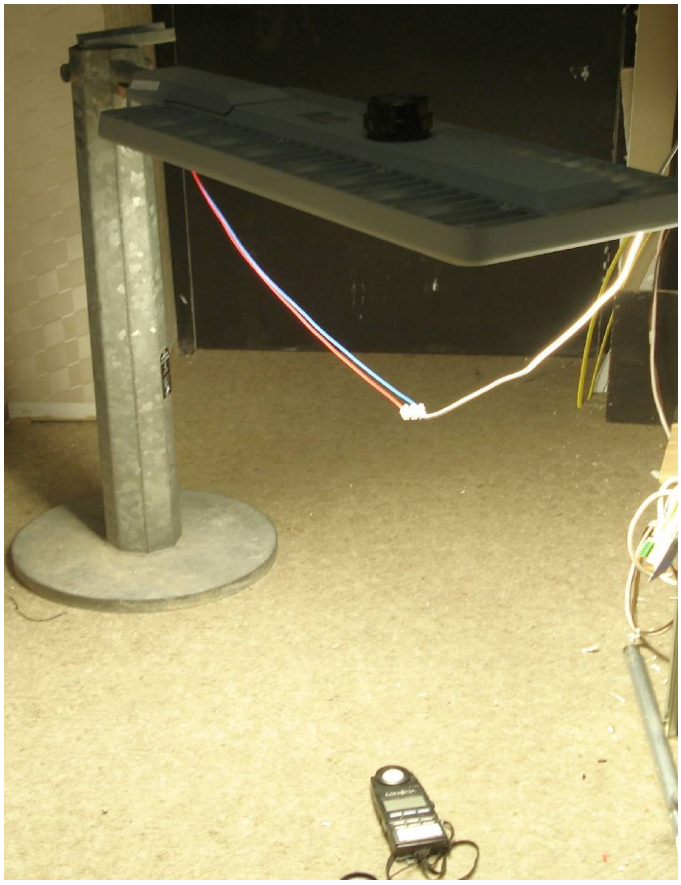

Illustration 6: Setup