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: 180709LCP

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

for Tango floodlight 70W Model No. BVP38x 70W

Type of product: LED Floodlight

Prepared for: Signify

Model number: BVP38x 70W

Description: 70W LED FloodLight. Features IP66 cast aluminium housing, 1xLED module made of 75x LEDs powered from 1x Philips Xitanium driver Xi 100W 0.7A 230V Y model number 9290 014 010.

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:

Signify contact Jacek Lipiec, 65 Epping Road, North Ryde, NSW, 2113

Tested by: David Orwin On 12/07/2018 Authorised Signatory Date: 12/07/2018

Alain Yetendje

Conclusions

Test results are given in following Tables.
The Average Load (W) is 71.33W at 0.97 Power Factor.

Results

Time till stabilisation: 2h

Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.063	0.299	72.635	0.973
Min	249.410	0.298	72.613	0.972
Max	250.480	0.299	72.656	0.973
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.03	0.2984	72.56	0.973

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.448	0.293	71.493	0.973
Min	249.360	0.293	71.478	0.973
Max	250.930	0.294	71.507	0.974
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.42	0.2930	71.42	0.973

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.579	0.290	70.782	0.973
Min	249.790	0.290	70.771	0.973
Max	251.370	0.291	70.792	0.973
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.55	0.2901	70.71	0.973

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.423	0.304	74.132	0.974
Min	249.230	0.303	74.121	0.973
Max	251.150	0.305	74.153	0.974
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.39	0.3038	74.06	0.974

Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.508	0.290	70.541	0.972
Min	249.790	0.289	70.531	0.972
Max	250.990	0.290	70.549	0.973
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.48	0.2893	70.47	0.972

Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.305	0.291	70.795	0.973
Min	249.870	0.290	70.785	0.973
Max	250.740	0.291	70.803	0.973
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.27	0.2905	70.72	0.973

Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.296	0.290	70.572	0.973
Min	249.570	0.289	70.546	0.973
Max	250.730	0.290	70.588	0.974
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.26	0.2894	70.50	0.973

Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.243	0.293	71.292	0.973
Min	249.900	0.293	71.282	0.972
Max	250.550	0.293	71.304	0.973
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.21	0.2927	71.22	0.973

Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.346	0.291	70.948	0.974
Min	250.020	0.291	70.936	0.974
Max	250.710	0.291	70.958	0.974
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.32	0.2908	70.88	0.974

Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.051	0.291	70.853	0.974
Min	249.610	0.291	70.839	0.974
Max	250.420	0.291	70.860	0.974
Calibration correction (see Newton 4th calibration report NC17.36115)	0.9999	0.9999	0.9998	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	250.02	0.2908	70.78	0.974

Electrical operating parameters of Tango Floodlight 70W

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.063	0.298	72.565	0.973
Sample 2	250.416	0.293	71.423	0.973
Sample 3	250.548	0.290	70.712	0.973
Sample 4	250.392	0.304	74.062	0.974
Sample 5	250.476	0.289	70.471	0.972
Sample 6	250.273	0.290	70.725	0.973
Sample 7	250.264	0.289	70.502	0.973
Sample 8	250.212	0.293	71.222	0.973
Sample 9	250.315	0.291	70.878	0.974
Sample 10	250.020	0.291	70.783	0.974
Average	**250.30**	**0.29**	**71.33**	**0.97**

Illustration 1: Electrical operating parameters of Tango Floodlight 70W

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: NC17.36115
Luminaire thermometer: AMA S No. 1086110-0.1deg

General Photographs

Illustration 2: Luminaire

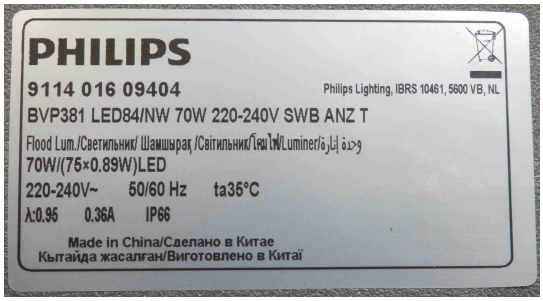

Illustration 4: Luminaire label

Illustration 3: Surge protector

Illustration 6: LED driver (1x off)

Illustration 5: Setup