Light Emission Distribution Laboratory
Division of Photometry & Electrical Testing Pty. Ltd ABN 11 166 255 134
All tests conducted at Unit 4, 140 George St, Hornsby NSW 2077 Australia
Ph: +61 2 9476 3097 E: info@ledlab.com.au

Test Report: 211106LCP

Testing of Tango G3 Power for AEMO's NEM Load Table for Philips BVP383 LED130/NW 100W

Type of product: LED Floodlight
Brand Philips
Model Number: BVP383 LED130/NW 100W
Prepared for: Signify
Description: 100W LED Floodlight. IP66, IK08, Ta 35°C, Class I luminaire provided with cord. Features die cast aluminium housing and polycarbonate optical cover and lens. LED modules driven from 2x Philips LED driver (model no. XiFP 150W 0.2-0.7A SNLDAE 230V S240 sXt set at 280mA).

Test objective

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 Wattmeter for their twenty readings.

Client

Contact Jacek Lipiec, Signify, 65 Epping Rd, North Ryde, NSW 2113.

Conclusions

The Average Load (W) is 106.66W at 0.962 Power Factor.

Tested by: Adrian Gagla 03/11/2021

Authorised Signatory Alain Yetendje Date: 04/11/2021

Results

Time till stabilisation: 4h

Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.053	0.444	106.938	0.962
Min	249.830	0.444	106.920	0.962
Max	250.250	0.445	106.960	0.963
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.12**	**0.444**	**106.95**	**0.962**

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.002	0.443	106.588	0.963
Min	249.770	0.443	106.570	0.962
Max	250.270	0.443	106.610	0.963
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.06**	**0.443**	**106.60**	**0.963**

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.019	0.445	107.029	0.962
Min	249.730	0.445	107.010	0.961
Max	250.580	0.446	107.080	0.962
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.08**	**0.445**	**107.04**	**0.962**

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.962	0.444	106.795	0.963
Min	249.490	0.443	106.780	0.962
Max	250.410	0.445	106.820	0.963
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.02**	**0.444**	**106.81**	**0.963**

Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.001	0.442	106.302	0.962
Min	249.700	0.441	106.280	0.962
Max	250.400	0.442	106.360	0.962
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.06**	**0.442**	**106.31**	**0.962**

Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.951	0.444	106.721	0.962
Min	249.780	0.443	106.710	0.961
Max	250.150	0.444	106.770	0.963
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.01**	**0.443**	**106.73**	**0.962**

Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.004	0.443	106.398	0.962
Min	249.770	0.442	106.360	0.960
Max	250.310	0.443	106.420	0.962
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.07**	**0.442**	**106.41**	**0.962**

Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.960	0.445	107.049	0.962
Min	249.650	0.445	107.020	0.962
Max	250.260	0.446	107.100	0.963
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.02**	**0.445**	**107.06**	**0.962**

Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.987	0.442	106.302	0.962
Min	249.600	0.442	106.290	0.962
Max	250.280	0.443	106.320	0.962
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.05**	**0.442**	**106.31**	**0.962**

Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.934	0.442	106.361	0.963
Min	249.200	0.442	106.350	0.962
Max	250.220	0.443	106.370	0.963
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99962	1.00010	1.0000
Instrument impedance correction (N4)		0.00024	0.0576	
Final value	**250.00**	**0.442**	**106.37**	**0.963**

Table 1. Electrical operating parameters of BVP383 LED130/NW 100W.

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.12	0.444	106.95	0.962
Sample 2	250.06	0.443	106.60	0.963
Sample 3	250.08	0.445	107.04	0.962
Sample 4	250.02	0.444	106.81	0.963
Sample 5	250.06	0.442	106.31	0.962
Sample 6	250.01	0.443	106.73	0.962
Sample 7	250.07	0.442	106.41	0.962
Sample 8	250.02	0.445	107.06	0.962
Sample 9	250.05	0.442	106.31	0.962
Sample 10	250.00	0.442	106.37	0.963
Average	**250.05**	**0.443**	**106.66**	**0.962**

Test Equipment Used

Power meter: Newton 4th Power Analyser KinetiQ Model PPA2520 SN 133-00467
Power meter integration time (s): 5
Calibration Report: PlusEs report no. 2020002794
Luminaire thermometer: AMA S No. 1086110-0.1deg

General Photographs

Photo 1. Luminaire.

Photo 2. Luminaire during test.

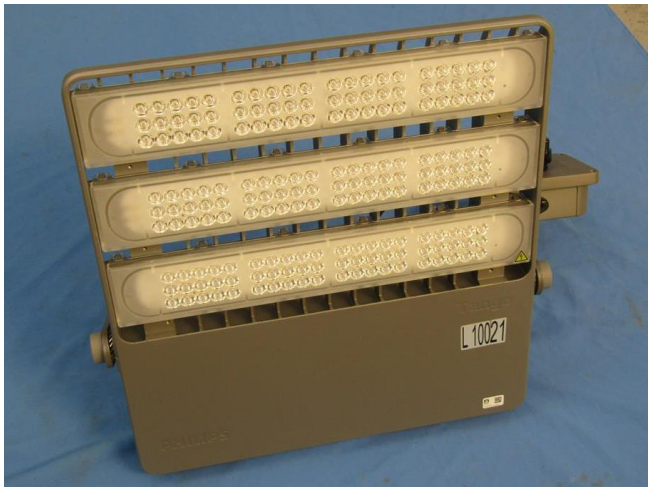

Photo 3. Luminaire.

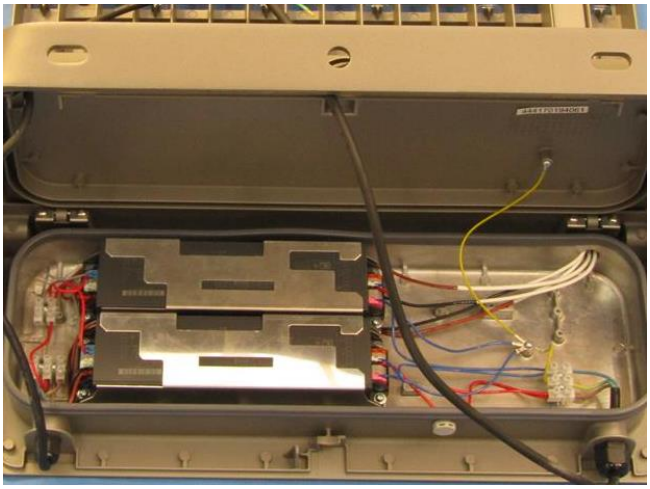

Photo 4. Gear tray.

Photo 5. LED drivers.

Photo 6. Luminaire label.