



Test Report: 230140LCP

Testing of Road Light Power for AEMO's NEM Load Table for Unmetered Loads on Road lighting luminaires

for StreetLED3 LED 11W 4K SPD FTB D

Type of product: LED Streetlight

Model Number: JLC99Z06L11

Prepared for: Sylvania Schröder

Description: 11W LED Streetlight. Class II luminaire rated as 11W, 0.049A, 240V, 50Hz, 0.9PF. Optical: IP66, Gear: IP24, Ta:40C. IK:06. Features die-cast aluminium housing and polycarbonate optical cover and lens. Schröder LED board (model no. ESC73001546V10R15) driven from Osram LED driver (model no. Icutronic IT DALI 20/220-240/350 P5).

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_v2_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 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 Swati Dhembre, Sylvania Schröder, Bldg 4A, Parklands Estate, 21-23 South Street, Rydalmere, NSW 2116

Conclusions

The Average Load (W) is 11.46W at 0.938 Power Factor.

Tested by:
Adrian Gagla

24/01/2023

Authorised Signatory

David Ford

Date: 25/01/2023



Results

Time till stabilisation: 2h

Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.282	0.049	11.355	0.935
Min	250.109	0.049	11.352	0.935
Max	250.440	0.049	11.357	0.935
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.34	0.049	11.36	0.935

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.290	0.049	11.534	0.941
Min	250.039	0.049	11.530	0.940
Max	250.480	0.049	11.537	0.941
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.35	0.049	11.53	0.941

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.285	0.049	11.468	0.936
Min	250.109	0.049	11.464	0.935
Max	250.430	0.049	11.470	0.936
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.35	0.049	11.47	0.936



Test Report: 230140LCP

Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.273	0.049	11.473	0.939
Min	250.059	0.049	11.470	0.938
Max	250.480	0.049	11.476	0.939
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.33	0.049	11.47	0.939

Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.268	0.049	11.509	0.936
Min	250.149	0.049	11.504	0.935
Max	250.460	0.049	11.511	0.936
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.33	0.049	11.51	0.936

Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.264	0.049	11.444	0.939
Min	250.099	0.049	11.441	0.938
Max	250.710	0.049	11.451	0.939
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.33	0.049	11.45	0.939

Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.277	0.050	11.632	0.939
Min	250.079	0.049	11.628	0.939
Max	250.470	0.050	11.635	0.940
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.34	0.049	11.63	0.939



Test Report: 230140LCP

Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.238	0.049	11.432	0.937
Min	250.109	0.049	11.429	0.936
Max	250.330	0.049	11.435	0.937
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.30	0.049	11.43	0.937

Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.205	0.048	11.329	0.936
Min	249.939	0.048	11.326	0.936
Max	250.340	0.048	11.334	0.936
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.27	0.048	11.33	0.936

Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.143	0.049	11.455	0.939
Min	249.899	0.049	11.450	0.939
Max	250.350	0.049	11.460	0.939
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	0.99958	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
Final value	250.20	0.049	11.46	0.939



Table 1. Electrical operating parameters of StreetLED3 LED 11W 4K SPD FTB D

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.34	0.049	11.36	0.935
Sample 2	250.35	0.049	11.53	0.941
Sample 3	250.35	0.049	11.47	0.936
Sample 4	250.33	0.049	11.47	0.939
Sample 5	250.33	0.049	11.51	0.936
Sample 6	250.33	0.049	11.45	0.939
Sample 7	250.34	0.049	11.63	0.939
Sample 8	250.30	0.049	11.43	0.937
Sample 9	250.27	0.048	11.33	0.936
Sample 10	250.20	0.049	11.46	0.939
Average	250.31	0.049	11.46	0.938

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: PlusEs report no. 2020002794

Luminaire thermometer: AMA S No. 1086110-0.1deg

General Photographs

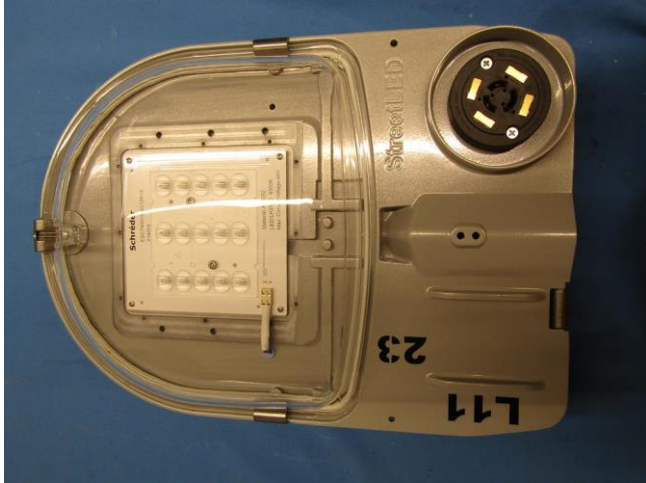


Photo 1. Luminaire.



Photo 2. Luminaire.



Photo 3. LED board.

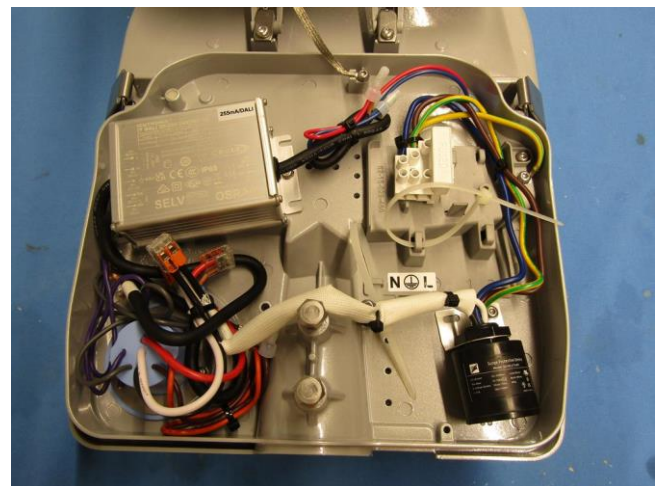


Photo 4. Gear tray.



Photo 5. LED driver.

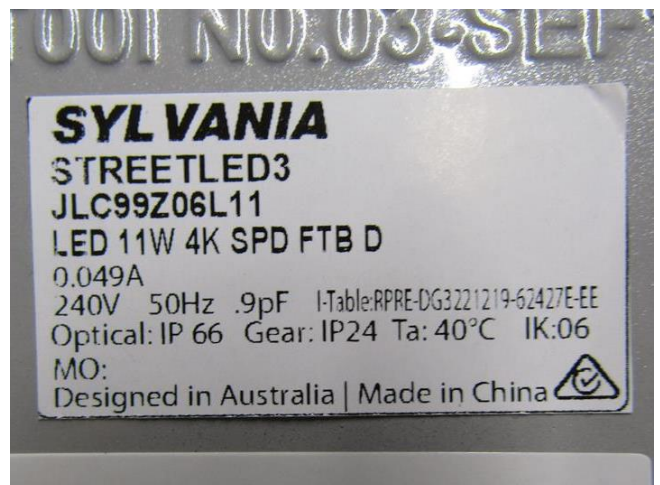


Photo 6. Luminaire label.



Photo 7. Luminaire during the test.



Photo 8. Marking.