



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



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– For Testing.
Accreditation No. 19541

Test Report: 200414LCP

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

for: Sylvania StreetLED MKIII 14W

Project number: 524500

Type of product: LED Streetlight

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

Model number: JLC99A05L14

Description: Sylvania StreetLED3 LED Streetlight. Features die-cast aluminium body with powder coated finish, polycarbonate diffuser, 1x LED module, made of 14x Samsung 351B-Q LED chips, driven from 1x Samsung LED driver (model number SL-LU70140D1WW) set at 295mA.

Test objective and Method

Determination of the luminaire supply operating parameters Voltage, Current, Power and Power Factor when tested at nominal test voltage 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 one minute 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: Sylvania Schreder, 96-112 Gow St, Padstow NSW 2211 Australia contact Swati Dhembre

Conclusion

The Average Load (W) is 13.67W at 0.9 Power Factor.

Tested by: David Orwin On 09/04/2020 Authorised Signatory

Date: 20/04/2020

Alain Yetendje

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).



Results

Time till stabilisation: 3h

Electrical Measurements

Average	250.421	0.062	13.920	0.9
Min	249.810	0.062	13.917	0.9
Max	250.930	0.062	13.922	0.9
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	250.39	0.0620	13.86	0.9

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.315	0.061	13.597	0.9
Min	249.690	0.061	13.595	0.9
Max	250.880	0.061	13.600	0.9
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	250.28	0.0607	13.54	0.9

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.275	0.062	13.872	0.9
Min	249.990	0.062	13.871	0.9
Max	250.570	0.062	13.875	0.9
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	0.0615	13.81	0.9

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Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.114	0.061	13.634	0.9
Min	249.790	0.061	13.633	0.9
Max	250.360	0.061	13.638	0.9
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	250.08	0.0607	13.57	0.9

Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.291	0.062	13.911	0.9
Min	249.800	0.062	13.909	0.9
Max	250.600	0.062	13.913	0.9
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	250.26	0.0618	13.85	0.9

Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.407	0.062	13.820	0.9
Min	250.270	0.062	13.776	0.9
Max	250.660	0.062	13.872	0.9
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	250.38	0.0615	13.76	0.9

Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.195	0.061	13.574	0.9
Min	249.930	0.061	13.571	0.9
Max	250.410	0.061	13.576	0.9
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	250.16	0.0604	13.51	0.9

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Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.453	0.062	13.777	0.9
Min	250.270	0.062	13.773	0.9
Max	250.660	0.062	13.780	0.9
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	250.42	0.0614	13.72	0.9

Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.340	0.061	13.638	0.9
Min	250.100	0.061	13.635	0.9
Max	250.770	0.061	13.640	0.9
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	250.31	0.0609	13.58	0.9

Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.303	0.061	13.575	0.9
Min	249.610	0.061	13.571	0.9
Max	250.800	0.061	13.579	0.9
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	250.27	0.0603	13.52	0.9

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Electrical operating parameters of Sylvania StreetLED3 JLC99A05L14

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.421	0.062	13.860	0.9
Sample 2	250.284	0.061	13.537	0.9
Sample 3	250.243	0.062	13.812	0.9
Sample 4	250.083	0.061	13.574	0.9
Sample 5	250.259	0.062	13.851	0.9
Sample 6	250.376	0.061	13.760	0.9
Sample 7	250.164	0.060	13.514	0.9
Sample 8	250.421	0.061	13.717	0.9
Sample 9	250.309	0.061	13.578	0.9
Sample 10	250.272	0.060	13.515	0.9
Average	250.28	0.06	13.67	0.9

Illustration 1: Electrical operating parameters of Sylvania StreetLED3 14W.

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: TRCalibration NC17.36115

Luminaire thermometer: AMA S No. 1086110-0.1deg



Illustration 2: Luminaire front



Illustration 3 LED driver

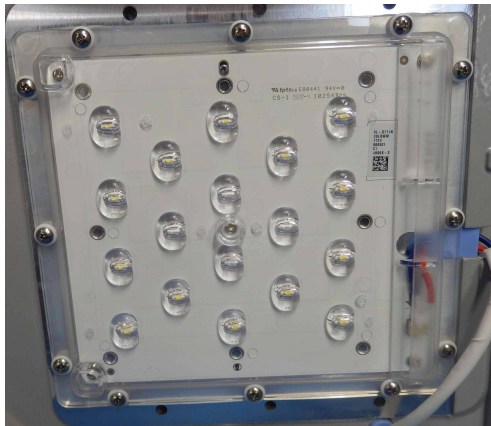


Illustration 5: LED module

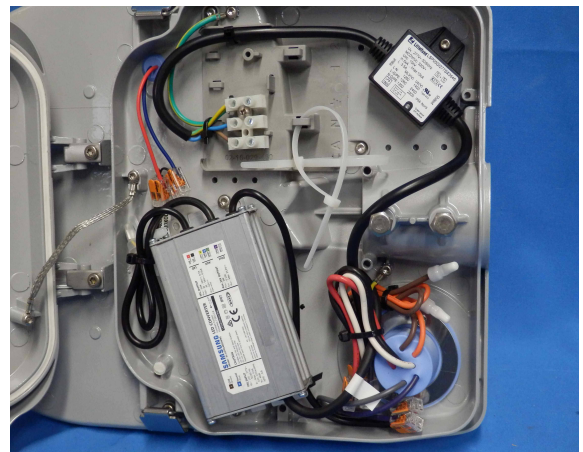


Illustration 4: Luminaire geartray



Illustration 6: Surge protector