



Light Emission Distribution Laboratory

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Accreditation No. 19541

Test Report: 191157LCP

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

for: Sylvania StreetLED JLC22K01L25

Project number: PTR 6564

Type of product: LED Streetlight

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

Model number: JLC22K01L25

Description: Sylvania StreetLED model JLC22K01L25 Features die-cast aluminium body with powder coated finish, plastic diffuser, 1x Samsung LED modules LP41-01450A, driven from 1x Samsung LED driver (model number SL-LU70140D1WW at 505mA).

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: GLG, 96-112 Gow St, Padstow NSW 2211 Australia contact Swati Dhembre

Conclusion

The Average Load (W) is 23.09W at 0.95 Power Factor.

Tested by: Adrian Gagla On 02/12/2019 Authorised Signatory

Date: 17/12/2019

Alain Yetendje

Time till stabilisation: 3h

Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.170	0.099	23.424	0.943
Min	250.160	0.099	23.419	0.943
Max	250.190	0.099	23.431	0.943
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	250.14	0.0991	23.36	0.943

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.118	0.099	23.295	0.944
Min	250.110	0.099	23.290	0.944
Max	250.130	0.099	23.299	0.944
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	250.09	0.0984	23.23	0.944

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.153	0.096	22.616	0.944
Min	250.140	0.096	22.610	0.944
Max	250.170	0.096	22.622	0.944
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	250.12	0.0955	22.55	0.944



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Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.138	0.098	23.102	0.946
Min	250.120	0.098	23.096	0.946
Max	250.150	0.098	23.107	0.946
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	250.11	0.0974	23.04	0.946
Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.135	0.097	22.902	0.948
Min	250.120	0.097	22.898	0.948
Max	250.150	0.097	22.905	0.948
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	250.10	0.0963	22.84	0.948
Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.145	0.097	23.005	0.944
Min	250.130	0.097	23.002	0.944
Max	250.160	0.097	23.011	0.944
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	250.11	0.0972	22.94	0.944
Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.139	0.099	23.496	0.948
Min	250.120	0.099	23.489	0.948
Max	250.160	0.099	23.500	0.948
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	250.11	0.0988	23.43	0.948

The tests and measurements covered by this document are traceable to Australian national standards of measurement.

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Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.146	0.100	23.712	0.948
Min	250.130	0.100	23.709	0.948
Max	250.160	0.100	23.715	0.948
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	250.11	0.0998	23.65	0.948

Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.147	0.097	22.861	0.942
Min	250.130	0.097	22.857	0.942
Max	250.160	0.097	22.864	0.942
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	250.12	0.0968	22.80	0.942

Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.159	0.098	23.121	0.947
Min	250.150	0.098	23.112	0.947
Max	250.180	0.098	23.124	0.947
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	250.13	0.0974	23.06	0.947

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Electrical operating parameters of RoadLED Midi 50W

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.170	0.099	23.363	0.943
Sample 2	250.086	0.098	23.233	0.944
Sample 3	250.121	0.095	22.554	0.944
Sample 4	250.107	0.097	23.040	0.946
Sample 5	250.103	0.096	22.840	0.948
Sample 6	250.113	0.097	22.944	0.944
Sample 7	250.107	0.099	23.434	0.948
Sample 8	250.115	0.100	23.650	0.948
Sample 9	250.116	0.097	22.799	0.942
Sample 10	250.128	0.097	23.059	0.947
Average	250.12	0.10	23.09	0.95

Table 1: Electrical operating parameters of Sylvania StreetLED model JLC22K01L25

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

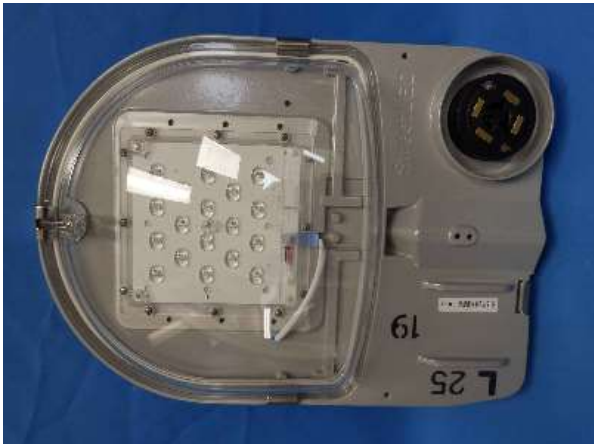


Photo 1: Luminaire front



Photo 2: LED module close-up



Photo 3: Samsung LED module



Photo 4: LED driver



Photo 5: Luminaire label



Photo 6: Surge protector



Photo 7: Luminaire insides



*Photo 8: Luminaire Setup
(mounted on a pole with spigot)*