LUX-TSI Ltd., Pencoed Technology Park,
Pencoed, Bridgend, CF35 5HZ, UK
Website: www.lux-tsi.com
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Test Report Number: TRN-13453
Test Item: TI-3079

Report Number	TRN-13453
Customer	LED Roadway Lighting
Contact	Huw Convery
Product Type	Street Light
Test Purpose	UMS Energy Performance Test
Sales Order Ref	Q-LUX2014-1849
Works Order Number	WO-3607
Test Item Reference	TI-3079
LAB Test Method Reference	TES-2012
Test Standards	LM-79-08 and UMS charge code process v4.0
Lab Location Reference	LUX-EPC
Tested by	Steve Hunt
Date of Test	04/04/2014
Analysed by	Steve Hunt
Number of products tested	5

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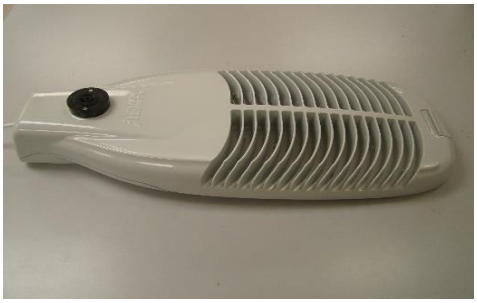
NXT - 60 - 65W

Date: 04/04/2014

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Nomenclature

Lamp Orientation described below relates to the position in which a lamp is designed to operate for maximum performance and safety, these include:
BD - Base Down (bulb is vertically positioned with the metal base at the bottom, glass up)
BU - Base Up (bulb is vertically positioned with the metal base at the top, glass hanging down)
HBD - Horizontal +15º to Base Down
H45 - Horizontal to -45º only
VBU - Vertical Base Up ±15º
VBD - Vertical Base Down ±15º
HBU - Base Up +/- 90º (bulb can be operated in a base up or horizontal position)
HOR - Horizontal Burn (bulb is positioned with the metal base parallel to the ground)
H75 - Horizontal +/- 75º (bulb should not be operated within 15º of vertical)
U - Universal Burn (burn can be operated in any position)

Test Conditions

Measurements were made with an ambient temperature of 25°C +/- 1°C. Measurements were taken only after sufficient time for thermal stabilisation has been allowed.

Test Equipment

Yokogawa WT3000 Precision Power Analyzer. Kikusui PCR2000M Stable AC Power Supply

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Product Name	NXT - 60 - 65W
Part/Serial Number	N72M2R3HB700GY1GCEXXHPRH3
Type of Product	Street Light
Base Type	N/A
Driver Type	Mains
Driver Model	LRL-66014-SUB-NXTS-350-LF
Operating Orientation	Base Up
Test Orientation	Base Up
Ambient Temperature	25.0°C
Manufacturer	LED Roadway Lighting
Date of Manufacturer	2014
Thermal Management	Passive
Dimmable	Yes
Humidity	<65% RH

Dimension	Sample	Luminous Opening
Diameter/Width	300 mm	198 mm
Length	750 mm	372 mm
Height/Depth	135 mm	0 mm

Test Item	Identifier
TI-3079A	A141001038
TI-3079B	A141001037
TI-3079C	A141001036
TI-3079D	A141001040
TI-3079E	A141001039

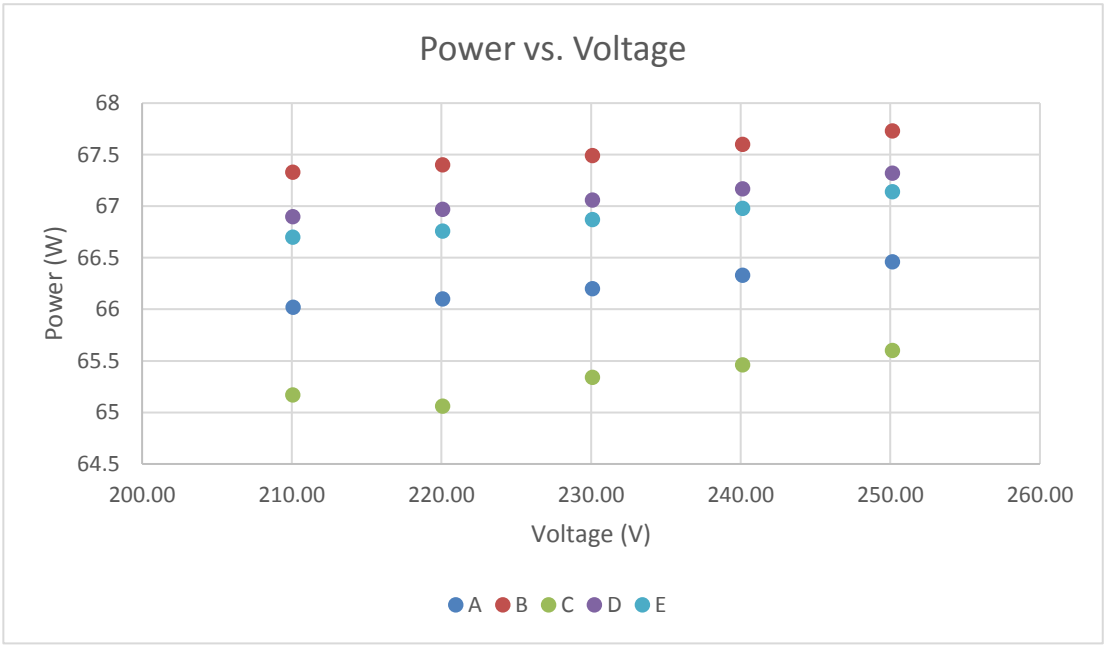
Test Conditions

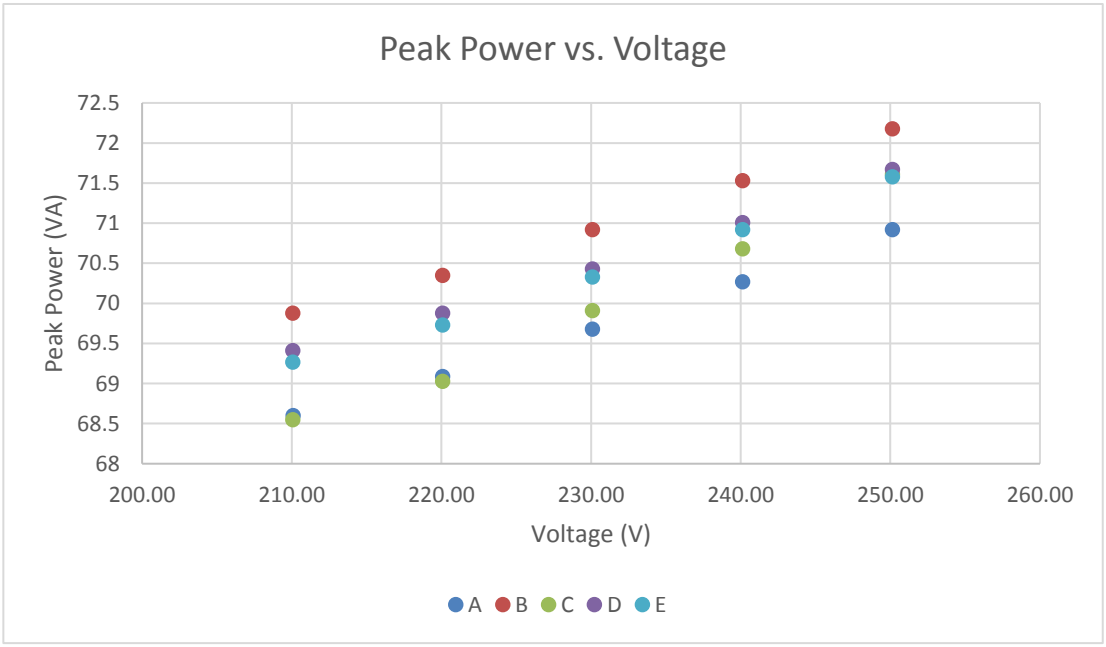
	Before Test	After Test
AC Supply Voltage (V)	250.04V	250.04V
AC Supply Frequency (Hz)	50Hz	50Hz
Voltage RMS Summation of the Harmonic Components (THD)	0.06%	0.06%

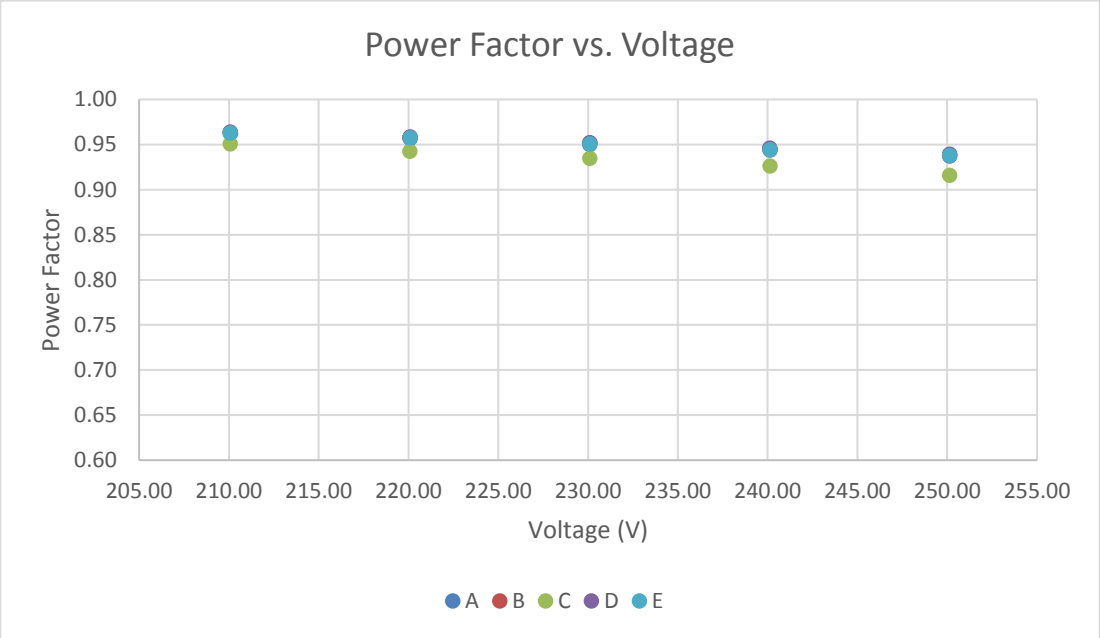
The test items were stabilised according to the electrical power stability of LM79-08. Stabilization is achieved when the difference in electrical power measurement is less than 0.5%. Each test item was stabilised at 250V.

Test Results Summary

There are the summary graphs of the test resutls for all products tested. The raw results are on page 6 of this test report.







All power factors measured have a Leading phase angle and therefore the driver has capacitive properties.

Measurement Uncertainty

Parameter	Uncertainty
Voltage (300 V, 50/60 Hz)	± 0.061 V_{rms}
Current (200 mA, 50/60Hz)	± 0.07 mA_{rms}
Current (0.5 A, 50/60Hz)	± 0.16 mA_{rms}
Current (5 A, 50/60Hz)	± 0.0016 A_{rms}
Power (300 V, 200 mA, 50/60 Hz)	± 0.032 W_{rms}
Power (300 V, 0.5 A, 50/60 Hz)	± 0.09 W_{rms}
Power (300 V, 5 A, 50/60 Hz)	± 0.0009 kW_{rms}
Frequency (50/60 Hz)	± 0.001 Hz
Power Factor	± 0.0006 PF

Measurements of power of 0.50W or greater are made with an uncertainty of less than or equal to 2% at the 95% confidence level. Measurements of power less than 0.50W are made with an uncertainty of less than or equal to 0.01W at the 95% confidence level.

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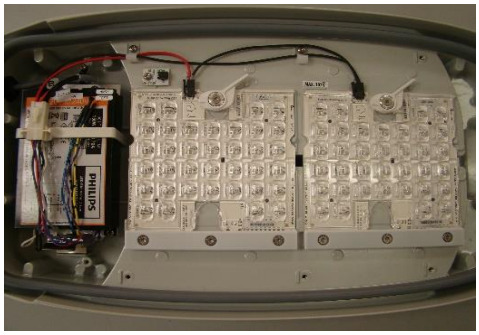
Full Test Results

Test Item	Voltage (V)	Current (mA)	Electrical Power (W)	Ambient Temp (°C)	Peak Power (VA)	Power Factor	Leading / Lagging
A	250.14	283.00	66.46	25	70.92	0.937	Leading
B	250.14	288.00	67.73	25	72.18	0.938	Leading
C	250.14	286.00	65.60	25	71.61	0.916	Leading
D	250.14	286.00	67.32	25	71.67	0.939	Leading
E	250.14	286.00	67.14	25	71.58	0.938	Leading
A	240.13	292.00	66.33	25	70.27	0.944	Leading
B	240.13	297.00	67.60	25	71.53	0.945	Leading
C	240.13	294.00	65.46	25	70.68	0.926	Leading
D	240.12	295.00	67.17	25	71.01	0.946	Leading
E	240.13	295.00	66.98	25	70.92	0.944	Leading
A	230.10	302.00	66.20	25.1	69.68	0.950	Leading
B	230.10	308.00	67.49	25.1	70.92	0.952	Leading
C	230.10	303.00	65.34	25.1	69.91	0.935	Leading
D	230.10	306.00	67.06	25	70.43	0.952	Leading
E	230.10	305.00	66.87	25	70.33	0.951	Leading
A	220.09	313.00	66.10	25.1	69.09	0.957	Leading
B	220.08	319.00	67.40	25	70.35	0.958	Leading
C	220.08	313.00	65.06	25	69.03	0.942	Leading
D	220.09	317.00	66.97	25	69.88	0.958	Leading
E	220.09	316.00	66.76	25	69.73	0.957	Leading
A	210.09	326.00	66.02	25.1	68.60	0.962	Leading
B	210.08	332.00	67.33	25	69.88	0.964	Leading
C	210.08	326.00	65.17	25	68.55	0.951	Leading
D	210.08	330.00	66.90	25	69.41	0.964	Leading
E	210.08	329.00	66.70	25	69.27	0.963	Leading

Test Item Photographs

Product Details



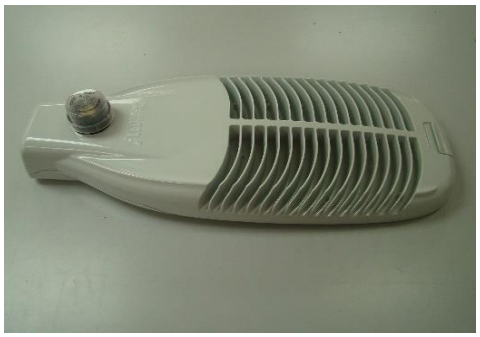
(Driver and LED Module)

(Label fixture)

TI-3079A

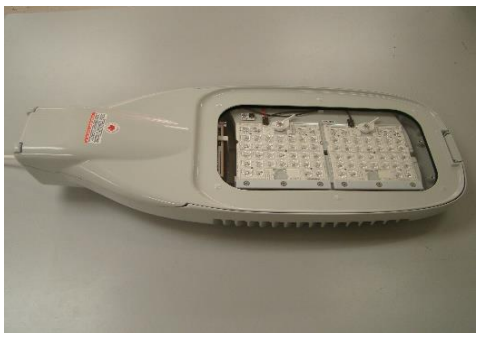
TI-3079B

TI-3079C

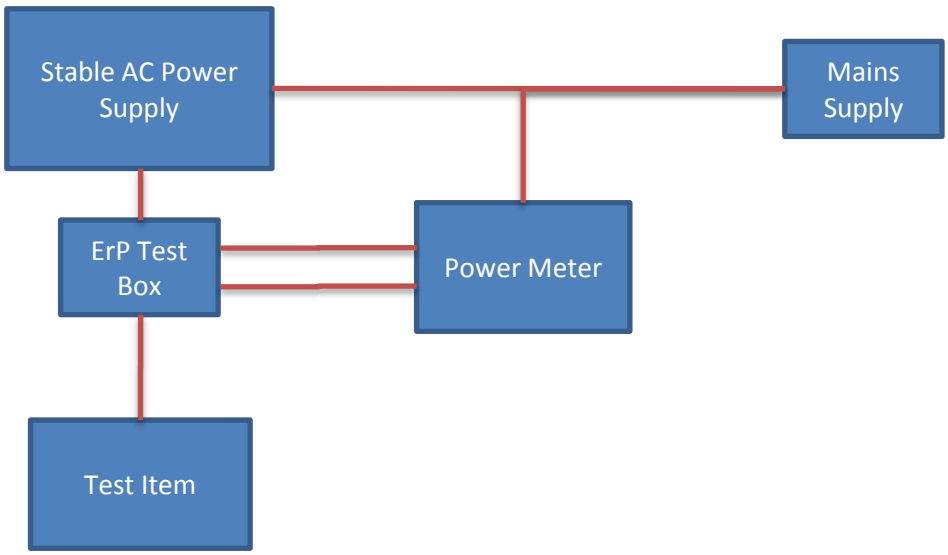


TI-3079D

TI-3079E



Appendix 1: Test item set-up



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