

Report Number	SAF-19771A
Customer	SolarAdTek
Contact	John Bouchier
Product Type	LITE
Test Purpose	UMS Energy Performance Test
Sales Order Ref	Q-LUX16-21799
Works Order Number	WO-10418
Test Item Reference	TI-11721
LAB Test Method Reference	TES1012
Test Standards (if applicable)	LM-79-08 and Elexon UMS Charge Code process V4.0
Lab Location Reference	Safety
Tested by	Steve Hunt
Date of Test	14/08/2017
Reviewed by	Menno Schakel
Number of products tested	5

Address: LUX-TSI Ltd.,
Pencoe Technology Park,
Pencoe, Bridgend,
CF35 5AQ, UK
Telephone: +44 (0) 1656 864618
Authorised by: Gareth Jones
Email: gjones@lux-tsi.com
Signed:



Date: 14 August 2017



LED12-5K-0.7A-zz-x2

Disclaimers

This report is for the exclusive use of LUX-TSI's Customer and is provided pursuant to the agreement between LUX-TSI and its Customer. LUX-TSI's responsibility and reliability are limited to the Terms and Conditions of the agreement. LUX-TSI assumes no liability to any other party, other than the Customer in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Customer is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the LUX-TSI name or one of its marks for the sale or advertisement of the tested material, product or service must be approved in writing by LUX-TSI.

The observations and test results in this report are relevant only to the sample tested. Opinions expressed and data supplied in this report, are given in good faith, and are based on the information provided by the Customer. This report does not remove the requirement for the Customer to obtain further independent advice and in particular to instruct a notified or competent body or person to carry out further evaluation work and/or testing. Accordingly, no warranty is given, nor is any term or condition to be implied, that the product, which is the subject of this report, complies with the requirements of any EU directives.

Product Information		
Product	LITE	
Product Name / Model	LED12-5K-0.7A-zz-x2	
Part/Serial Number	See (Identifier) below	
Product Brand	Solar AdTek	
Manufacturer	Solar AdTek	
Category	LITE	
Rated Input Voltage	100 - 240V	
Rated output:	100V dc	
Protection Class	I	
Driver Make/Model	MeanWell	HLG-60H-C700A
Light Engine Make/Model	SolarAdtek	SAT-6LED-A
Dimmable / Level Tested	Yes	100%
Product Description		
The Linear Gear tray is made from a metal extrusion, of which on the inner fits the LED modules and there is an external driver for the electrical connections for termination.		

Test Conditions		
Ambient Temperature	23	(°C)
Humidity	39	(%)
	Before Test	After Test
Voltage	249.79V	249.84V
Frequency	50Hz	50Hz
Total Harmonic Distortion	0.07%	0.08%
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.		
Measurements were made with an ambient temperature of 23°C +/- 2°C. Measurements were taken only after sufficient time for thermal stabilisation has been allowed.		

Product Specifications / TI Ref Numbers		
Dimension	Sample	Luminous opening
Diameter / Width	35 mm	20 mm
Length	1740 mm	1705 mm
Height / Depth	20 mm	10 mm
Product Test Number	Identifier	Serial Number (if applicable)
Test Item #1	11721A	N/A
Test Item #2	11721B	N/A
Test Item #3	11721C	N/A
Test Item #4	11721D	N/A
Test Item #5	11721E	N/A

Test Equipment and Description

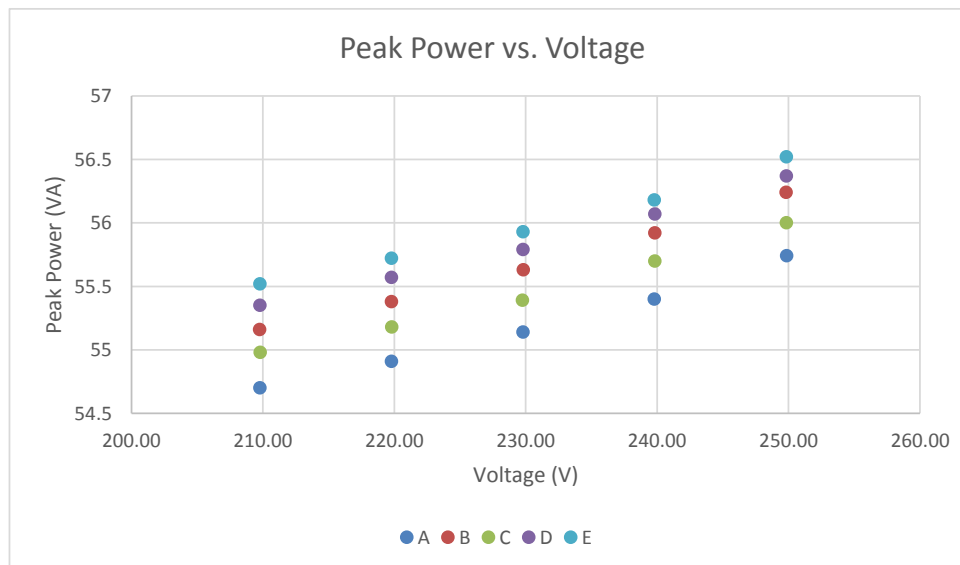
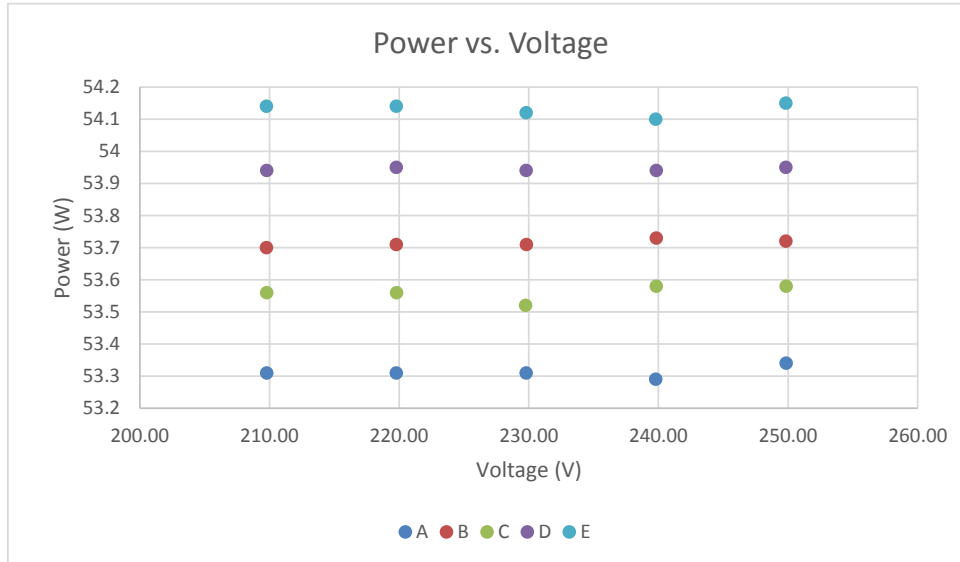
Yokogawa WT210 Power Analyser, Kikusui PCR2000M Stable AC Power Supply with PC control and data recording

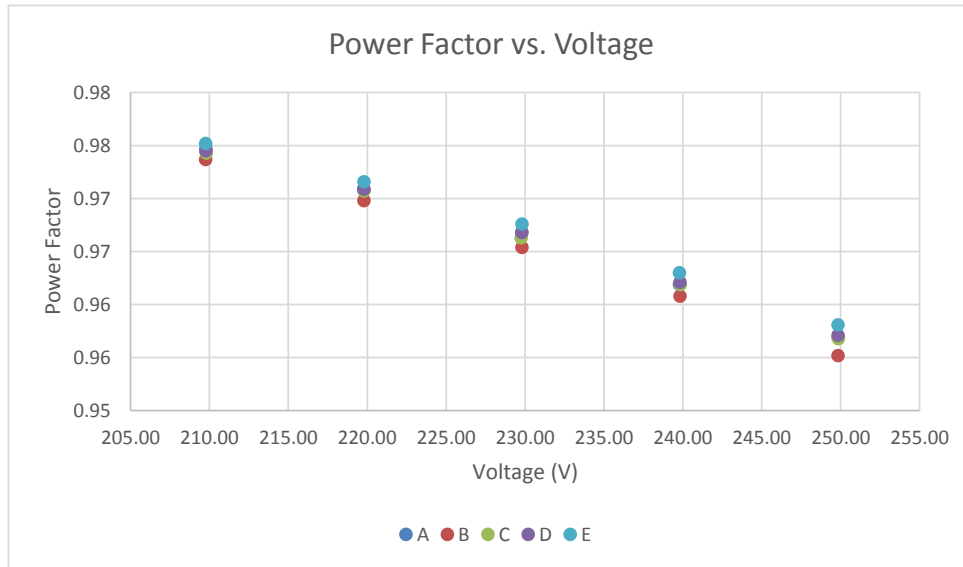


The products under test are connected to the UMS Test system which has full data control and recording using Labview software. This allows full integration of the test equipment used - Kikusui AC Stable Power Supply, Yokogawa Power Analyser, Pico Temperature Logger and a LUX-TSI distribution control panel

Test Results Summary

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





Power factors measured have a Lagging phase angle and therefore the driver has inductive properties.

Measurement Uncertainty

Parameter	Uncertainty
Voltage (300 V, 50/60 Hz)	$\pm 0.061 \text{ V}_{\text{rms}}$
Current (200 mA, 50/60Hz)	$\pm 0.07 \text{ mA}_{\text{rms}}$
Current (0.5 A, 50/60Hz)	$\pm 0.16 \text{ mA}_{\text{rms}}$
Current (5 A, 50/60Hz)	$\pm 0.0016 \text{ A}_{\text{rms}}$
Power (300 V, 200 mA, 50/60 Hz)	$\pm 0.032 \text{ W}_{\text{rms}}$
Power (300 V, 0.5 A, 50/60 Hz)	$\pm 0.09 \text{ W}_{\text{rms}}$
Power (300 V, 5 A, 50/60 Hz)	$\pm 0.0009 \text{ kW}_{\text{rms}}$
Frequency (50/60 Hz)	$\pm 0.001 \text{ Hz}$
Power Factor	$\pm 0.0006 \text{ PF}$

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.

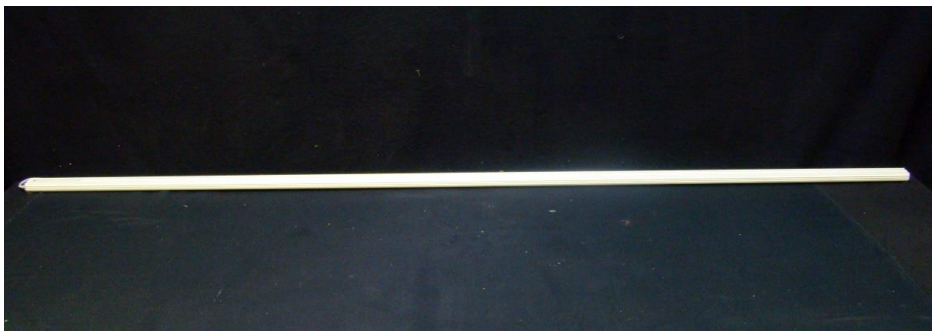
Full Test Results

Test Item	Voltage (V)	Current (mA)	Electrical Power (W)	Ambient Temp (°C)	Peak Power (VA)	Power Factor	Leading / Lagging
A	249.86	223.08	53.34	23.72	55.74	0.957	Lagging
B	249.83	225.12	53.72	23.84	56.24	0.955	Leading
C	249.85	224.12	53.58	23.75	56.00	0.957	Leading
D	249.84	225.62	53.95	23.70	56.37	0.957	Leading
E	249.84	226.21	54.15	23.65	56.52	0.958	Leading
A	239.79	231.05	53.29	23.84	55.40	0.962	Lagging
B	239.83	233.18	53.73	23.58	55.92	0.961	Leading
C	239.84	232.25	53.58	23.99	55.70	0.962	Leading
D	239.83	233.78	53.94	23.74	56.07	0.962	Leading
E	239.79	234.28	54.10	23.69	56.18	0.963	Leading
A	229.80	239.95	53.31	24.03	55.14	0.967	Lagging
B	229.81	242.08	53.71	23.83	55.63	0.965	Leading
C	229.75	241.08	53.52	23.84	55.39	0.966	Leading
D	229.79	242.80	53.94	23.74	55.79	0.967	Leading
E	229.80	243.39	54.12	23.73	55.93	0.968	Leading
A	219.78	249.82	53.31	23.63	54.91	0.971	Lagging
B	219.79	251.97	53.71	23.86	55.38	0.970	Leading
C	219.80	251.05	53.56	23.69	55.18	0.971	Leading
D	219.79	252.82	53.95	23.72	55.57	0.971	Leading
E	219.79	253.53	54.14	23.78	55.72	0.972	Leading
A	209.78	260.73	53.31	23.88	54.70	0.975	Lagging
B	209.76	262.95	53.70	23.97	55.16	0.974	Leading
C	209.79	262.06	53.56	23.92	54.98	0.974	Leading
D	209.78	263.87	53.94	23.89	55.35	0.975	Leading
E	209.77	264.67	54.14	23.55	55.52	0.975	Leading

Test Item Photographs

TI-11721

Images of Product(s) under test includes (where possible) labelling, Driver and Light engine details



Led Module fitment



Driver and terminal fitment

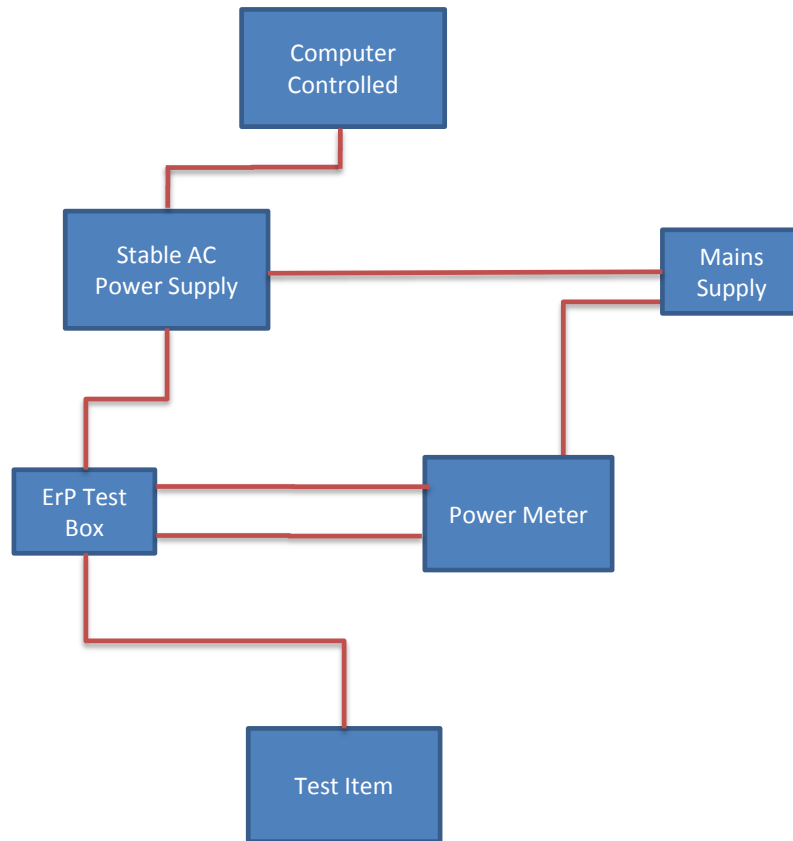


Driver



LED Module(s)

Appendix 1: Test item set-up



----- END OF REPORT -----