LUX-TSI Ltd., Pencoed Technology Park,
Pencoed, Bridgend, CF35 5AQ, UK
Website: www.lux-tsi.com
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Test Report Number: SAF-21924
Test Item: TI-15562

Report Number	SAF-21924
Customer	Neology UK Limited
Contact	Tom Cummins
Product Type	ANPR Camera
Test Purpose	UMS Energy Performance Test
Sales Order Ref	Q-LUX16-22778
Works Order Number	WO-12571
Test Item Reference	TI-15562
LAB Test Method Reference	TES-201012
Test Standards (if applicable)	LM-79-08 and Elexon UMS Charge Code process V4.0
Lab Location Reference	Please note that 5 samples of each test item are required to carry out testing.
Tested by	Mike Sewell
Date of Test	25/09/2018
Reviewed by	Gareth Jones
Number of products tested	2

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Authorised by: Gareth Jones
Email: gjones@lux-tsi.com
Signed:

PIPS P500 Range ANPR Camera

Date: 25 September 2018

Disclaimers

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.

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Product Information		
Product	ANPR Camera	
Product Name / Model	PIPS P500 Range ANPR Camera	
Part/Serial Number	See (Identifier) below	
Product Brand	Neology UK Limited	
Manufacturer	Neology UK Limited	
Category	LITE	
Rated Input Voltage	100-240V	
Rated output:	N/A	
Protection Class	I	
Driver Make/Model	MeanWell	CLG-100-48
Light Engine Make/Model	N/A	N/A
Dimmable	No	

Product Description

The products are ANPR Cameras housed within a plastic outer casing and designed to be mounted on a pole. The driver is separate and connected using a 12 pin connector.

Test Conditions		
Ambient Temperature	25	(°C)
Humidity	35.9	(%)

	Before Test	***After Test***
Voltage	250.12V	250.13V
Frequency	50Hz	50Hz
Total Harmonic Distortion	0.09%	0.09%

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	270 mm	260 mm
Length	355 mm	0 mm
Height / Depth	170 mm	160 mm
Product Test Number	***Identifier***	***Serial Number (if applicable)***
Test Item #1	15562A	N/A
Test Item #2	15562B	N/A
Test Item #3		
Test Item #4		
Test Item #5		

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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

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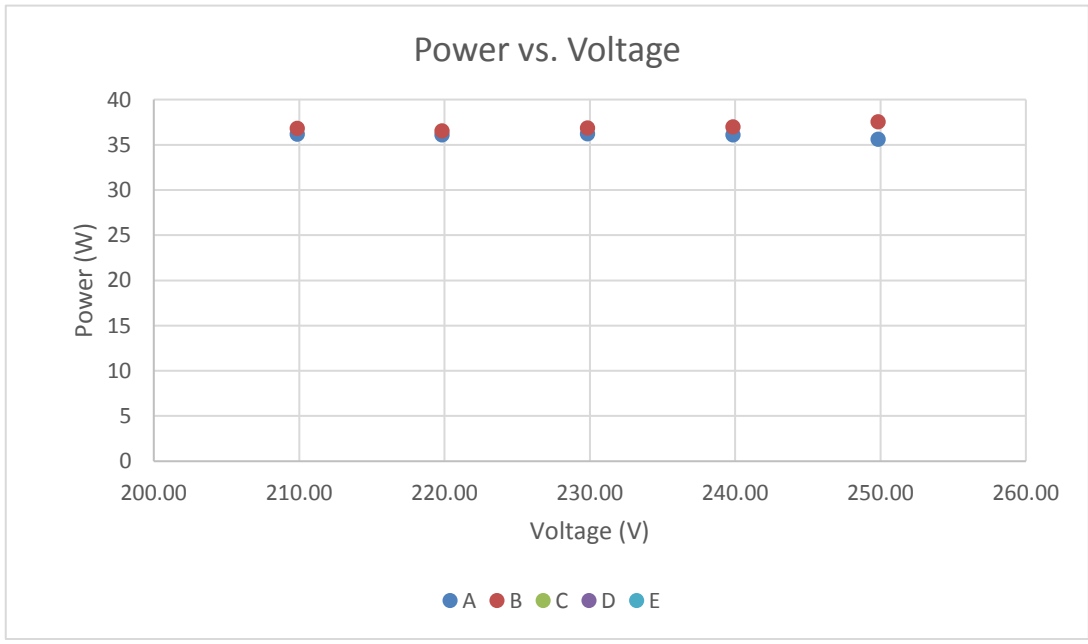
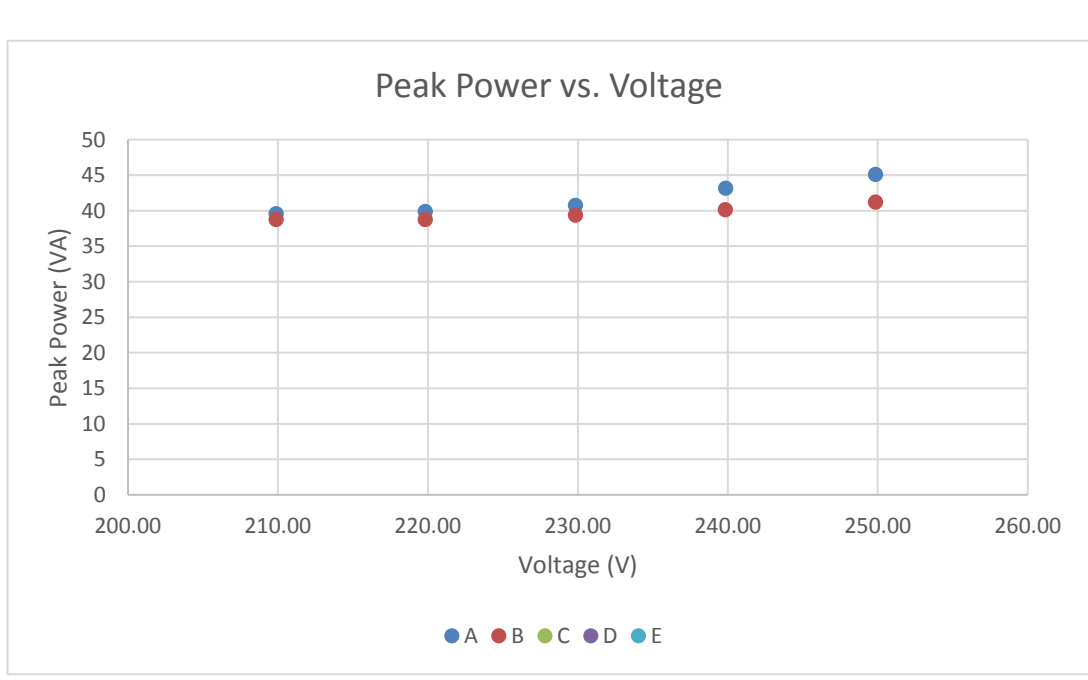
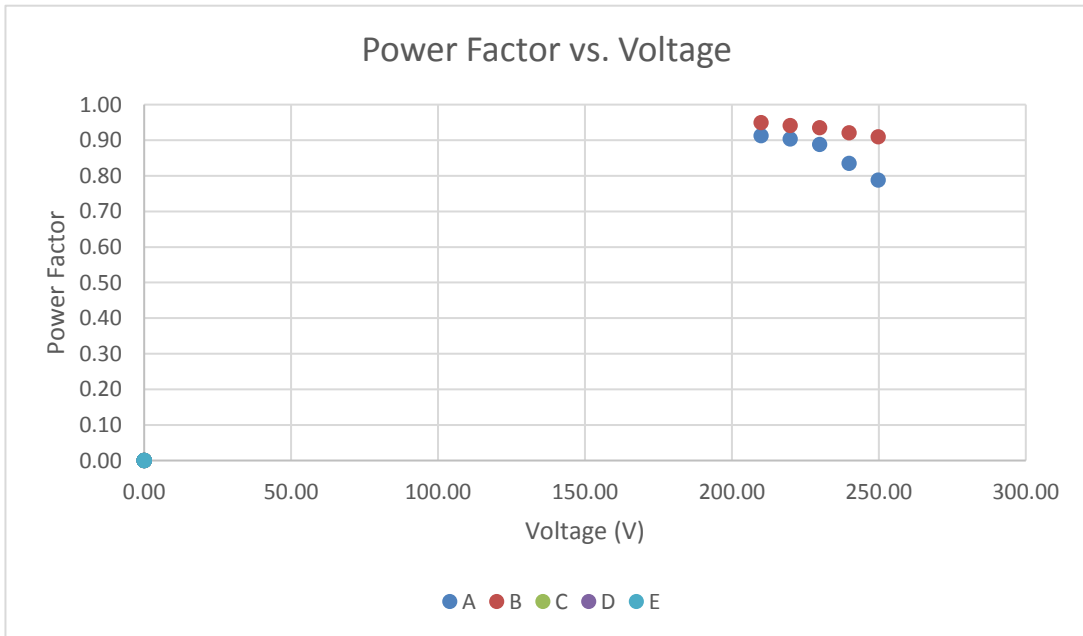
Test Results Summary

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 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	249.84	180.70	35.58	27.03	45.15	0.788	Leading
B	249.84	165.04	37.51	27.00	41.23	0.910	Leading
C	0.00	0.00	0.00	0.00	0.00	0.000	0
D	0.00	0.00	0.00	0.00	0.00	0.000	0
E	0.00	0.00	0.00	0.00	0.00	0.000	0
A	239.86	180.11	36.08	26.93	43.20	0.835	Leading
B	239.84	167.38	36.97	26.90	40.14	0.921	Leading
C	0.00	0.00	0.00	0.00	0.00	0.000	0
D	0.00	0.00	0.00	0.00	0.00	0.000	0
E	0.00	0.00	0.00	0.00	0.00	0.000	0
A	229.84	177.42	36.21	27.20	40.78	0.888	Leading
B	229.85	171.37	36.84	26.97	39.39	0.935	Leading
C	0.00	0.00	0.00	0.00	0.00	0.000	0
D	0.00	0.00	0.00	0.00	0.00	0.000	0
E	0.00	0.00	0.00	0.00	0.00	0.000	0
A	219.82	181.52	36.08	27.19	39.90	0.904	Leading
B	219.82	176.46	36.52	27.18	38.79	0.941	Leading
C	0.00	0.00	0.00	0.00	0.00	0.000	0
D	0.00	0.00	0.00	0.00	0.00	0.000	0
E	0.00	0.00	0.00	0.00	0.00	0.000	0
A	209.88	188.63	36.16	27.08	39.59	0.913	Leading
B	209.88	184.67	36.82	27.20	38.76	0.950	Leading
C	0.00	0.00	0.00	0.00	0.00	0.000	0
D	0.00	0.00	0.00	0.00	0.00	0.000	0
E	0.00	0.00	0.00	0.00	0.00	0.000	0

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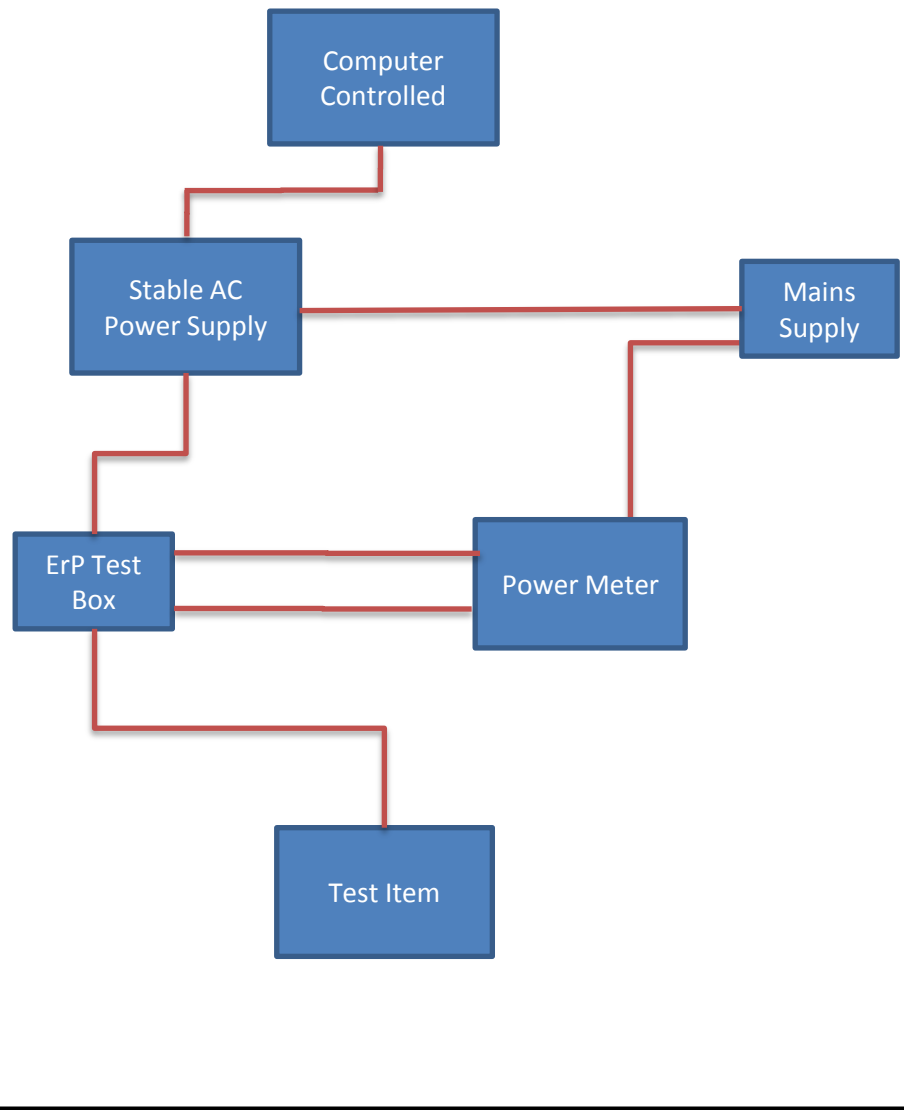
Test Item Photographs

TI-15562

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

Appendix 1: Test item set-up



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