



T e s t R e p o r t

Report No : L14759
Client: : D W Windsor Ltd
Pindar Road
Hoddesdon
Herts, EN11 0DX
Description : Street Lights – 1 LED module with 15 LEDs
Manufacturer : Not Disclosed
Type/Model : LED Engine 1LX2-113-15
Test Specification : Measurement of power consumption in accordance with the
“Unmetered Supplies Operational Information” document –
Version 13.0 (7/11/13)
Date Tested : 12/12/14 and 16/12/14
Conclusion : Refer to body of Report
Date of Issue : 19/12/14
Date of Expiry : 18/12/19

Checked by: J.ADAMS
Position: Laboratory Supervisor

Approved by: T.MALIK
Position: Quality Accreditation &
Certification Officer



INTRODUCTION

The products identified in tables 1 where tested at the premises of D W Windsor Ltd for measurement of power consumption in accordance with the "Unmetered Supplies Operational Information" document – Version 13.0 (7/11/13).

PRODUCT DETAILS

Table 1. Test Sample Details

Product Name/Description	DW Windsor LED Engine LX2
Model No.	LED Engine 1LX2-113-15
Number of Samples	Five
Nominal Dimensions	Length - 0.706m, Width - 0.343m, Height - 0.167m
Product Supply Requirement	240V AC
Lamp Type and Power	LED / Various
Sampling Method: Test samples selected by client, no sampling method specified by client.	

RESULTS

Table 2. Wattage and VA results for DW Windsor LED Engine LX2 at 800mA drive current

Operating Mode	Drive Current 800mA, initial life data for 100% light output				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	42.31	42.03	42.77	42.96	42.23
220	42.40	42.10	42.84	43.01	42.26
230	42.44	42.17	42.88	43.04	42.30
240	42.43	42.18	42.94	43.14	42.32
250	42.48	42.23	42.96	43.11	42.36
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	43.40	43.22	43.92	44.00	43.43
220	43.70	43.61	44.09	44.50	43.74
230	44.26	43.97	44.46	44.87	44.03
240	44.54	44.21	45.07	45.21	44.62
250	45.09	44.70	45.48	45.81	45.08

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Table 3. Wattage and VA results for DW Windsor LED Engine LX2 at 1000mA drive current

Operating Mode	Drive Current 1000mA, end of life data for 100% light output				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	53.00	52.64	53.70	53.82	52.84
220	53.06	52.71	53.72	53.88	52.88
230	53.10	52.76	53.73	53.87	52.89
240	52.95	52.63	53.75	53.89	52.90
250	53.15	52.84	53.75	53.92	52.91
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	53.70	53.44	54.48	54.64	53.62
220	54.13	53.70	54.65	55.02	53.91
230	54.30	54.11	55.06	55.35	54.20
240	54.53	54.30	55.41	55.62	54.61
250	55.12	54.85	55.56	55.83	54.97

Table 4. Wattage and VA results for DW Windsor LED Engine LX2 at 560mA drive current

Operating Mode	Drive Current 560mA, initial life data for 75% light output				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	29.98	29.78	30.37	30.39	29.98
220	30.05	29.86	30.42	30.47	30.04
230	30.13	29.91	30.46	30.51	30.10
240	30.13	29.92	30.43	30.55	30.07
250	30.27	30.05	30.58	30.65	30.22
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	31.79	31.51	31.97	32.08	31.75
220	32.12	31.96	32.50	32.59	32.14
230	32.64	32.50	32.94	33.13	32.73
240	33.09	33.07	33.27	33.58	33.05
250	33.69	33.52	34.19	34.30	33.97

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Table 5. Wattage and VA results for DW Windsor LED Engine LX2 at 700mA drive current

Operating Mode	Drive Current 700mA, end of life data for 75% light output				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	37.19	36.86	37.54	37.68	37.06
220	37.22	36.94	37.62	37.69	37.11
230	37.29	36.96	37.63	37.74	37.05
240	37.35	37.02	37.66	37.80	37.20
250	37.38	37.07	37.73	37.82	37.29
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	38.45	38.33	38.75	39.12	38.53
220	38.88	38.63	39.29	39.40	38.76
230	39.37	38.89	39.51	38.83	39.36
240	39.79	39.42	40.12	40.40	39.77
250	40.23	40.03	40.96	40.65	40.19

Table 6. Wattage and VA results for DW Windsor LED Engine LX2 at 450mA drive current

Operating Mode	Drive Current 450mA, end of life data for 50% light output				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	24.68	24.47	24.95	24.91	24.64
220	24.75	24.55	25.02	25.00	24.72
230	24.84	24.65	25.11	25.07	24.80
240	24.91	24.71	25.17	25.14	24.91
250	24.97	24.80	25.23	25.22	24.95
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	26.92	26.71	27.06	27.08	26.87
220	27.30	27.09	27.66	27.50	27.49
230	27.81	27.63	28.33	28.08	28.06
240	28.59	28.29	28.79	28.79	28.76
250	29.28	29.01	29.52	29.45	29.51

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Table 7. Wattage and VA results for DW Windsor LED Engine LX2 at 360mA drive current

Operating Mode	Drive Current 360mA, initial life data for 50% light output				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	20.32	20.13	20.51	20.54	20.30
220	20.38	20.22	20.61	20.63	20.39
230	20.48	20.33	20.67	20.70	20.50
240	20.57	20.41	20.76	20.80	20.59
250	20.64	20.51	20.84	20.88	20.69
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	22.93	22.63	22.95	23.07	22.90
220	23.54	23.29	23.58	23.77	23.56
230	24.19	23.95	24.11	24.35	24.17
240	24.74	24.70	24.93	24.95	25.01
250	25.48	25.26	25.48	25.77	25.77

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DEVIATION(S) FROM TEST STANDARD

No reported deviations from test standard.

MEASUREMENT UNCERTAINTY

The following expanded uncertainties apply to the measurements shown in the results;

Measurement of Uncertainty for power range 5 to 50w

Watts: $\pm 0.25\%$, VA: $\pm 0.39\%$

Measurement of Uncertainty for power range 50 to 100w

Watts: $\pm 0.25\%$ VA: $\pm 0.38\%$

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

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ILLUSTRATION



Figure 1. *Image of tested samples*

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