

T e s t R e p o r t

Report No : L16398

Client: : Venture Lighting Europe Limited
Unit 11, Willow Farm Business Park
Castle Donnington
DE74 2US

Description : IP68 LED Module (x2) and LED Driver

Manufacturer : Not Disclosed

Type/Model : CMP047 (module), DRV104 (driver)

Test Specification : Measurement of power consumption in accordance with the
'Unmetered Supplies Operational Information Document' –
Version 16.0 (16/11/2016)

Date Testing Started : 10/04/2017

Conclusion : Refer to body of report

Date of Issue : 10/04/2017

Date of Expiry : 09/04/2022

Tested by: A. BROTHWOOD
Position: Laboratory Engineer



Approved: T. MALIK
Position: Operations Manager



INTRODUCTION

Venture Lighting Europe Limited has supplied the product identified in table 1 for measurement of power consumption in accordance with the 'Unmetered Supplies Operational Information Document' – Version 16.0 (16/11/2016).

PRODUCT DETAILS

Table 1. Test Sample Details

Product Description	IP68 LED Module (x2) and LED Driver
Model No.	CMP047 (module), DRV104 (driver)
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	280mm x 140mm x 50mm
Product Supply Requirement	100-277V AC 50/60Hz
Lamp Type and Power	LED, Variable power
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

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RESULTS

Table 2. Wattage and VA results for module CMP047 with driver DRV104

Operating Mode	Driver output 1050mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	119.90	120.47	120.47	120.24	121.52
220	119.43	119.95	119.94	119.76	121.02
230	119.09	119.61	119.59	119.42	120.67
240	118.84	119.37	119.34	119.12	120.37
250	118.65	119.16	119.13	118.93	120.18
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	121.34	121.83	121.81	121.61	122.83
220	121.15	121.61	121.59	121.42	122.62
230	121.15	121.61	121.58	121.43	122.60
240	121.30	121.75	121.71	121.51	122.67
250	121.55	121.99	121.96	121.77	122.91
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.99	0.99	0.99	0.99	0.99
220	0.99	0.99	0.99	0.99	0.99
230	0.98	0.98	0.98	0.98	0.98
240	0.98	0.98	0.98	0.98	0.98
250	0.98	0.98	0.98	0.98	0.98
Ambient Temperature During Test (°C)			23.6		
PF Leading/Lagging			Leading		

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Table 3. Wattage and VA results for module CMP047 with driver DRV104

Operating Mode	Driver output 900mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	100.80	100.89	101.30	100.95	102.24
220	100.64	100.71	101.10	100.77	102.06
230	100.46	100.54	100.91	100.58	101.87
240	100.31	100.37	100.75	100.40	101.67
250	100.21	100.26	100.66	100.29	101.58
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	102.46	102.50	102.88	102.56	103.78
220	102.63	102.64	103.02	102.71	103.91
230	102.82	102.84	103.21	102.89	104.09
240	103.10	103.10	103.47	103.13	104.31
250	103.48	103.53	103.86	103.50	104.68
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.98	0.98	0.98	0.98	0.99
220	0.98	0.98	0.98	0.98	0.98
230	0.98	0.98	0.98	0.98	0.98
240	0.97	0.97	0.97	0.97	0.97
250	0.97	0.97	0.97	0.97	0.97
Ambient Temperature During Test (°C)			23.6		
PF Leading/Lagging			Leading		

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Table 4. Wattage and VA results for module CMP047 with driver DRV104

Operating Mode	Driver output 700mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	77.00	76.54	77.52	76.88	78.26
220	76.75	76.27	77.26	76.62	78.00
230	76.67	76.20	77.17	75.85	73.46
240	76.64	76.17	77.09	76.42	77.79
250	76.62	76.13	77.07	76.42	77.79
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	79.03	78.53	79.49	78.86	80.16
220	79.18	78.66	79.63	78.99	80.28
230	79.71	80.68	79.99	78.70	78.07
240	82.61	83.50	81.52	81.43	82.75
250	85.33	85.83	84.45	84.39	85.63
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.97	0.97	0.98	0.97	0.98
220	0.97	0.97	0.97	0.97	0.97
230	0.96	0.94	0.96	0.96	0.94
240	0.93	0.91	0.95	0.94	0.94
250	0.90	0.89	0.91	0.91	0.91
Ambient Temperature During Test (°C)			23.6		
PF Leading/Lagging			Leading		

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Table 5. Wattage and VA results for module CMP047 with driver DRV104

Operating Mode	Driver output 450mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	48.10	47.04	48.71	47.83	49.10
220	48.16	47.10	48.79	47.90	49.18
230	48.20	47.13	48.83	47.94	49.22
240	48.22	47.15	48.85	47.93	49.21
250	48.27	47.20	48.88	47.98	49.27
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	54.10	53.12	54.11	53.58	54.74
220	55.01	53.99	55.57	54.94	56.00
230	56.02	54.85	56.39	55.91	56.96
240	57.36	56.13	57.54	57.09	58.26
250	58.42	57.32	58.84	58.32	59.38
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.89	0.89	0.90	0.89	0.90
220	0.88	0.87	0.88	0.87	0.88
230	0.86	0.86	0.87	0.86	0.86
240	0.84	0.84	0.85	0.84	0.84
250	0.83	0.82	0.83	0.82	0.83
Ambient Temperature During Test (°C)			23.6		
PF Leading/Lagging			Leading		

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Table 6. Wattage and VA results for module CMP047 with driver DRV104

Operating Mode	Driver output 110mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	14.96	12.76	15.45	14.38	15.82
220	14.85	12.58	15.37	14.20	15.75
230	14.68	12.56	15.06	14.15	15.64
240	14.70	12.63	15.00	14.14	15.63
250	14.67	12.48	14.93	13.20	13.74
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	20.67	19.44	20.64	19.94	20.81
220	22.59	21.59	22.15	22.04	22.56
230	24.57	23.54	23.48	23.83	24.59
240	26.70	24.48	25.24	25.78	26.85
250	28.43	25.86	26.80	24.78	25.55
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.72	0.66	0.75	0.72	0.76
220	0.66	0.58	0.69	0.64	0.70
230	0.60	0.53	0.64	0.59	0.64
240	0.55	0.52	0.59	0.55	0.58
250	0.52	0.48	0.56	0.53	0.54
Ambient Temperature During Test (°C)			23.6		
PF Leading/Lagging			Leading		

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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;

True Power (W): $\pm 0.69\%$, Apparent Power (VA): $\pm 0.61\%$

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. *Product image*

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