

## T e s t R e p o r t

**Report No** : Cer1579-070617

**Client:** : TRT Lighting Ltd  
Unit 1, Target Park  
Shawbank Road  
Redditch  
B98 8YN

**Description** : LED module and driver

**Manufacturer** : Not Disclosed

**Type/Model** : LM-73-73-1-4LED

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

**Date Testing Started** : 24/07/2017

**Conclusion** : Refer to body of report

**Date of Issue** : 04/08/2017

**Date of Expiry** : 03/08/2022

**Reviewed by:** J.ADAMS  
**Position:** Accreditation and  
Certification Officer



**Approved:** T.MALIK  
**Position:** Operations Manager



## **INTRODUCTION**

The products identified in table 1 were tested at the premises of TRT Lighting Ltd 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	LED module and driver
Model No.	LM-73-73-1-4LED
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	73mm x 73mm x 5mm
Product Supply Requirement	240Vac 50Hz
Lamp Type and Power	LED, Variable power
Sampling Method: Test samples selected 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 LM-73-73-1-4LED at 1000mA drive current**

Operating Mode	1000mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	52.12	51.95	51.28	52.15	52.10
220	52.01	51.52	51.20	52.05	51.97
230	51.97	51.45	51.14	52.00	51.95
240	51.95	51.42	51.12	51.98	51.93
250	51.94	51.41	51.10	51.98	51.90
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	54.30	53.85	53.52	52.79	54.30
220	54.48	53.99	53.66	54.55	54.46
230	54.65	54.22	53.83	54.77	54.70
240	54.88	54.45	54.11	54.97	54.90
250	55.34	54.86	54.50	55.42	55.30
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.96	0.96	0.96	0.99	0.96
220	0.95	0.95	0.95	0.95	0.95
230	0.95	0.95	0.95	0.95	0.95
240	0.95	0.94	0.94	0.95	0.95
250	0.94	0.94	0.94	0.94	0.94
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

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**Table 3. Wattage and VA results for LM-73-73-1-4LED at 775mA drive current**

Operating Mode	775mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	40.40	40.07	39.84	40.38	40.31
220	40.42	40.05	40.09	40.39	40.31
230	40.53	40.09	40.12	40.37	40.33
240	40.53	40.11	40.17	40.34	40.36
250	40.55	40.18	40.20	40.45	40.40
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	42.79	42.47	42.19	42.77	42.77
220	43.10	42.73	42.25	43.12	43.01
230	43.48	43.10	42.58	43.41	43.37
240	43.81	43.39	43.40	43.72	43.71
250	44.20	43.88	43.89	44.20	44.18
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.94	0.94	0.94	0.94	0.94
220	0.94	0.94	0.95	0.94	0.94
230	0.93	0.93	0.94	0.93	0.93
240	0.93	0.92	0.93	0.92	0.92
250	0.92	0.92	0.92	0.92	0.91
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

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**Table 4. Wattage and VA results for LM-73-73-1-4LED at 550mA drive current**

Operating Mode	550mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	29.20	28.97	29.08	29.12	29.05
220	29.24	29.03	29.11	29.20	29.13
230	29.28	29.07	29.17	29.27	29.18
240	29.32	29.12	29.23	29.31	29.21
250	29.40	29.23	29.29	29.38	29.32
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	31.85	31.73	31.75	31.90	31.80
220	32.30	32.05	32.11	32.32	32.22
230	32.70	32.46	32.50	32.79	32.66
240	33.08	32.88	32.91	33.03	33.07
250	33.65	33.44	33.55	33.71	33.61
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.92	0.91	0.92	0.91	0.91
220	0.91	0.91	0.91	0.90	0.90
230	0.90	0.90	0.90	0.89	0.89
240	0.89	0.89	0.89	0.89	0.88
250	0.87	0.87	0.87	0.87	0.87
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

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**Table 5. Wattage and VA results for LM-73-73-1-4LED at 325mA drive current**

Operating Mode	325mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	18.16	18.08	18.16	18.13	18.16
220	18.19	18.14	18.23	18.19	18.30
230	18.20	18.19	18.23	18.20	18.26
240	18.44	18.29	18.38	18.35	18.43
250	18.42	18.38	18.46	18.44	18.51
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	21.37	21.33	21.33	21.40	21.41
220	21.89	21.63	21.88	21.90	22.38
230	22.39	22.38	22.45	22.53	22.50
240	23.09	23.01	23.10	23.10	22.89
250	23.70	23.67	23.72	23.70	23.75
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.85	0.85	0.85	0.85	0.85
220	0.83	0.84	0.83	0.83	0.82
230	0.81	0.81	0.81	0.81	0.81
240	0.80	0.79	0.80	0.79	0.81
250	0.78	0.78	0.78	0.78	0.78
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

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**Table 6. Wattage and VA results for LM-73-73-1-4LED at 100mA drive current**

Operating Mode	100mA				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	7.59	7.63	7.69	7.60	7.61
220	7.61	7.60	7.71	7.60	7.62
230	7.59	7.63	7.73	7.63	7.62
240	7.59	7.65	7.74	7.64	7.64
250	7.60	7.64	7.75	7.63	7.63
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	12.16	12.25	12.01	11.98	11.93
220	12.57	12.41	12.54	12.54	12.45
230	13.75	13.01	13.01	13.43	13.35
240	14.44	14.25	14.22	14.29	14.33
250	15.42	15.30	15.33	15.39	15.39
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.62	0.62	0.64	0.63	0.64
220	0.61	0.61	0.61	0.61	0.61
230	0.55	0.59	0.59	0.57	0.57
240	0.53	0.54	0.54	0.53	0.53
250	0.49	0.50	0.51	0.50	0.50
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Leading		

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**Table 7. Wattage and VA results for LM-73-73-1-4LED at standby mode**

Operating Mode	Standby				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	0.38	0.38	0.38	0.37	0.38
220	0.40	0.40	0.40	0.40	0.40
230	0.41	0.40	0.40	0.40	0.41
240	0.43	0.43	0.43	0.43	0.43
250	0.44	0.44	0.44	0.44	0.44
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	7.55	7.46	7.47	7.51	7.49
220	8.45	8.27	8.24	8.38	8.28
230	9.05	8.98	8.81	8.95	9.03
240	9.88	9.75	9.81	9.90	9.80
250	10.81	10.53	10.68	10.72	10.59
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.05	0.05	0.05	0.05	0.05
220	0.05	0.05	0.05	0.05	0.05
230	0.05	0.04	0.05	0.04	0.05
240	0.04	0.04	0.04	0.04	0.04
250	0.04	0.04	0.04	0.04	0.04
Ambient Temperature During Test (°C)			25.0		
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;

For power range 5W to 50W

True Power (W):  $\pm 0.25\%$ , Apparent Power (VA):  $\pm 0.39\%$

For power range 50W to 100W

True Power (W):  $\pm 0.25\%$ , Apparent Power (VA):  $\pm 0.39\%$

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

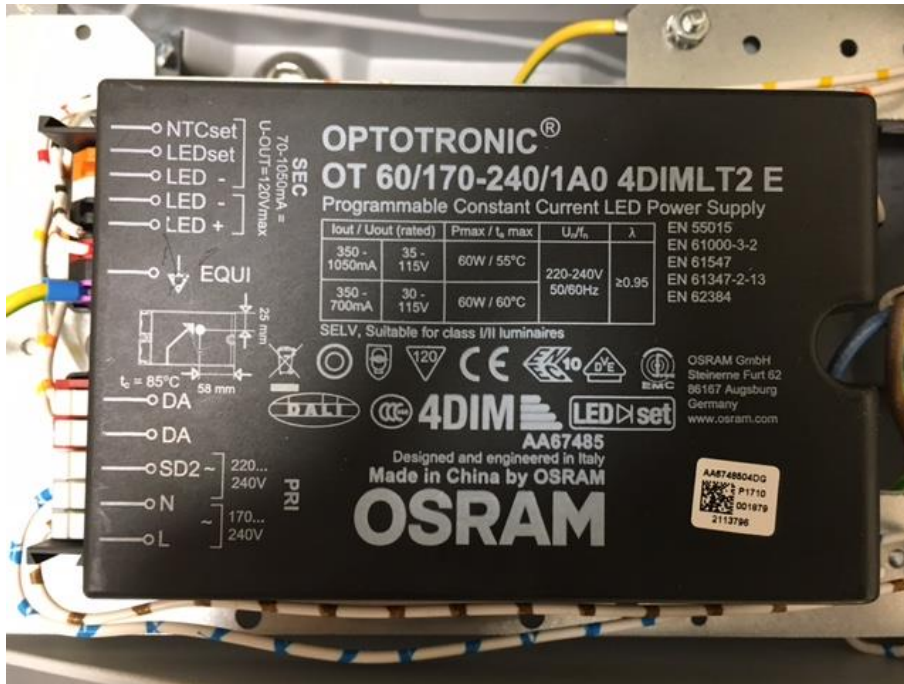


Figure 1. Image of product driver



Figure 2. Image of product LED module

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