

T e s t R e p o r t

Report No : L16591E Amd 1

Client: : Ark Lighting Ltd
McGann House
Chesham Rd
Barnsley
South Yorkshire
S70 2NT

Description : Tekk Street Luminaire 48 LED

Manufacturer : Not Disclosed

Type/Model : LE48R

Test Specification : Measurement of power consumption in accordance with the
'Unmetered Supplies Operational Information Document' –
Version 17.0 (15/03/2017)

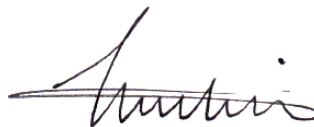
Date Testing Started : 12/07/2017

Conclusion : Refer to body of report

Date of Issue : 10/11/2017

Date of Expiry : 24/08/2022

Tested by: T.MALIK
Position: Operations Manager



Approved: J.ADAMS
Position: Accreditation &
Certification Officer



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Note: This Amendment 1 includes the addition of Tables 5, 6, 10 and 11.

INTRODUCTION

Ark Lighting Ltd has supplied the product identified in table 1 for measurement of power consumption in accordance with the 'Unmetered Supplies Operational Information Document' – Version 17.0 (15/03/2017).

PRODUCT DETAILS

Table 1. Test Sample Details

Product Description	Tekk Street Luminaire 48 LED
Model No.	LE48R
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L645mm x W330mm x L122mm
Product Supply Requirement	220-240V, 50/60Hz
Lamp Type and Power	LED, various
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 LE48R programmed at 500mA drive current

Operating Mode	100%, (Dali Code: 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	75.35	76.48	76.39	76.41	76.24
220	75.56	76.72	76.63	76.64	76.49
230	75.82	77.01	76.92	76.93	76.81
240	76.13	77.35	77.26	77.26	77.18
250	76.46	77.72	77.65	77.62	77.63
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	85.52	86.47	86.31	86.23	86.18
220	87.31	88.24	88.08	87.98	87.98
230	89.31	90.22	90.07	89.94	90.01
240	91.56	92.45	92.30	92.13	92.27
250	94.11	94.99	94.84	94.64	94.85
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.88	0.88	0.89	0.89	0.88
220	0.87	0.87	0.87	0.87	0.87
230	0.85	0.85	0.85	0.86	0.85
240	0.83	0.84	0.84	0.84	0.84
250	0.81	0.82	0.82	0.82	0.82
Ambient Temperature During Test (°C)			26.3		
PF Leading/Lagging			Leading		

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Table 3. Wattage and VA results for LE48R programmed at 500mA drive current

Operating Mode	75%, (Dali Code: 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	54.89	56.51	56.47	56.47	56.38
220	55.17	56.79	56.75	56.76	56.66
230	55.27	57.03	57.05	57.07	56.72
240	55.21	56.84	56.81	56.92	56.67
250	55.17	56.81	56.76	56.87	56.63
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	66.91	68.18	68.09	67.97	68.05
220	69.09	70.30	70.22	70.08	70.19
230	71.84	72.70	72.52	72.42	73.52
240	79.54	80.48	80.02	78.99	80.97
250	86.57	87.60	87.23	86.38	87.97
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.82	0.83	0.83	0.83	0.83
220	0.80	0.81	0.81	0.81	0.81
230	0.77	0.78	0.79	0.79	0.77
240	0.69	0.71	0.71	0.72	0.70
250	0.64	0.65	0.65	0.66	0.64
Ambient Temperature During Test (°C)			26.4		
PF Leading/Lagging			Leading		

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Table 4. Wattage and VA results for LE48R programmed at 500mA drive current

Operating Mode	50%, (Dali Code: 229)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	37.79	38.34	38.35	38.43	38.92
220	37.77	38.32	38.33	38.41	38.91
230	37.75	38.30	38.30	38.38	38.90
240	37.72	38.29	38.28	38.35	38.87
250	37.51	38.04	38.16	38.32	38.79
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	58.53	59.21	58.92	58.06	59.89
220	63.91	64.56	64.28	63.60	65.22
230	69.27	69.91	69.63	69.00	70.57
240	74.57	75.06	74.90	74.39	75.88
250	78.02	78.16	78.32	78.77	79.34
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.65	0.65	0.65	0.66	0.65
220	0.59	0.59	0.60	0.60	0.60
230	0.54	0.55	0.55	0.56	0.55
240	0.51	0.51	0.51	0.52	0.51
250	0.48	0.49	0.49	0.49	0.49
Ambient Temperature During Test (°C)			26.4		
PF Leading/Lagging			Leading		

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Table 5. Wattage and VA results for LE48R programmed at 500mA drive current

Operating Mode	25%, (ALO: 22%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	20.67	20.57	20.34	20.71	20.59
220	20.23	20.12	20.15	20.26	20.13
230	20.02	19.93	19.90	20.06	19.94
240	19.92	19.83	19.79	19.97	19.83
250	19.83	19.75	19.71	19.85	19.77
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	51.74	52.03	50.58	51.61	52.05
220	52.43	52.28	52.57	52.04	51.62
230	54.32	54.65	54.47	54.03	54.38
240	57.46	57.67	57.28	57.16	57.16
250	59.90	60.55	60.11	59.64	60.42
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.40	0.40	0.40	0.40	0.40
220	0.39	0.38	0.38	0.39	0.39
230	0.37	0.36	0.37	0.37	0.37
240	0.35	0.34	0.35	0.35	0.35
250	0.33	0.33	0.33	0.33	0.33
Ambient Temperature During Test (°C)			24		
PF Leading/Lagging			Leading		

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Table 6. Wattage and VA results for LE48R programmed at 500mA drive current

Operating Mode	Minimum, (ALO 10%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	19.08	18.98	18.67	19.14	19.00
220	18.58	18.48	18.49	18.63	18.51
230	18.37	18.28	18.31	18.43	18.32
240	18.31	18.21	18.23	18.37	18.22
250	18.24	18.13	18.15	18.27	18.14
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	50.43	50.80	47.79	50.29	50.49
220	49.82	50.04	50.00	49.77	49.95
230	52.18	52.63	52.34	51.91	52.43
240	55.18	55.86	55.23	55.41	55.63
250	58.21	58.45	58.10	57.84	58.80
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.38	0.37	0.39	0.38	0.38
220	0.37	0.37	0.37	0.37	0.37
230	0.35	0.35	0.35	0.36	0.35
240	0.33	0.33	0.33	0.33	0.33
250	0.31	0.31	0.31	0.32	0.31
Ambient Temperature During Test (°C)			24		
PF Leading/Lagging			Leading		

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Table 7. Wattage and VA results for LE48R programmed at 700mA drive current

Operating Mode	100%, (Dali Code: 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	105.58	105.90	105.68	105.80	105.80
220	105.52	105.91	105.68	105.79	105.72
230	105.60	106.04	105.79	105.90	105.79
240	105.72	106.21	105.95	106.07	105.91
250	105.85	106.39	106.12	106.23	106.02
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	114.01	114.28	113.96	114.00	114.08
220	115.35	115.65	115.33	115.34	115.38
230	116.96	117.28	116.94	116.93	116.97
240	118.75	119.07	118.73	118.70	118.72
250	120.68	121.02	120.67	120.63	120.60
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.93	0.93	0.93	0.93	0.93
220	0.91	0.92	0.92	0.92	0.92
230	0.90	0.90	0.90	0.91	0.90
240	0.89	0.89	0.89	0.89	0.89
250	0.88	0.88	0.88	0.88	0.88
Ambient Temperature During Test (°C)			26.2		
PF Leading/Lagging			Leading		

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Table 8. Wattage and VA results for LE48R programmed at 700mA drive current

Operating Mode	75%, (Dali Code: 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	75.95	76.90	76.77	76.81	76.59
220	76.16	77.09	76.96	77.00	76.81
230	76.41	77.33	77.18	77.24	77.06
240	76.68	77.59	77.43	77.49	77.35
250	76.97	77.87	77.70	77.76	77.65
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	86.08	86.86	86.66	86.60	86.52
220	87.86	88.59	88.39	88.31	88.28
230	89.83	90.52	90.32	90.22	90.24
240	92.06	92.66	92.47	92.34	92.42
250	94.57	95.13	94.91	94.77	94.92
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.88	0.89	0.89	0.89	0.89
220	0.87	0.87	0.87	0.87	0.87
230	0.85	0.85	0.85	0.86	0.85
240	0.83	0.84	0.84	0.84	0.84
250	0.81	0.82	0.82	0.82	0.82
Ambient Temperature During Test (°C)			26.5		
PF Leading/Lagging			Leading		

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Table 9. Wattage and VA results for LE48R programmed at 700mA drive current

Operating Mode	50%, (Dali Code: 229)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	53.01	54.92	54.89	54.95	54.17
220	53.29	55.21	55.17	55.22	54.46
230	53.22	55.20	55.18	55.47	54.35
240	53.20	55.19	55.14	55.28	54.34
250	53.19	55.17	55.10	55.25	54.31
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	65.26	66.77	66.68	66.59	66.09
220	67.49	68.94	68.85	68.74	68.29
230	72.18	72.95	72.38	71.22	73.66
240	79.32	80.29	79.83	78.90	80.66
250	86.07	87.22	86.80	86.01	87.37
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.81	0.82	0.82	0.83	0.82
220	0.79	0.80	0.80	0.80	0.80
230	0.74	0.76	0.76	0.78	0.74
240	0.67	0.69	0.69	0.70	0.67
250	0.62	0.63	0.63	0.64	0.62
Ambient Temperature During Test (°C)			26.5		
PF Leading/Lagging			Leading		

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Table 10. Wattage and VA results for LE48R programmed at 700mA drive current

Operating Mode	25%, (ALO: 21%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	26.11	25.97	25.81	26.13	26.00
220	26.10	25.97	25.50	26.12	25.99
230	25.72	25.57	25.38	25.74	25.57
240	25.71	25.57	25.38	25.74	25.59
250	25.34	25.19	24.97	25.38	25.24
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	54.68	55.28	54.72	54.54	53.24
220	59.23	59.08	57.51	58.98	59.02
230	61.31	61.02	60.88	60.72	60.41
240	65.05	65.17	65.07	64.84	64.80
250	68.39	68.55	67.79	67.31	67.51
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.48	0.47	0.47	0.48	0.49
220	0.44	0.44	0.44	0.44	0.44
230	0.42	0.42	0.42	0.42	0.42
240	0.40	0.39	0.39	0.40	0.39
250	0.37	0.37	0.37	0.38	0.37
Ambient Temperature During Test (°C)			24		
PF Leading/Lagging			Leading		

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Table 11. Wattage and VA results for LE48R programmed at 700mA drive current

Operating Mode	Minimum, (ALO: 10%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	19.11	19.00	18.84	19.09	18.93
220	18.61	18.49	18.63	18.58	18.45
230	18.40	18.31	18.45	18.40	18.31
240	18.34	18.24	18.35	18.34	18.22
250	18.24	18.14	18.26	18.25	18.12
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	50.44	50.86	47.54	50.23	50.15
220	49.87	50.14	50.30	49.72	49.96
230	52.09	52.64	52.73	51.90	52.40
240	55.37	55.93	55.43	55.70	55.73
250	58.23	58.38	58.39	57.99	58.92
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.38	0.37	0.40	0.38	0.38
220	0.37	0.37	0.37	0.37	0.37
230	0.35	0.35	0.35	0.35	0.35
240	0.33	0.33	0.33	0.33	0.33
250	0.31	0.31	0.31	0.31	0.31
Ambient Temperature During Test (°C)			23.9		
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*

End