

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

**Report No** : L16591C Amd 1

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

**Description** : Tekk Street Luminaire 32 LED

**Manufacturer** : Not disclosed

**Type/Model** : LE32R

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



Note: This Amendment 1 includes the addition of Tables 5, 6, 8, 11 and 12.

## **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 32 LED
Model No.	LE32R
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L645mm x W330mm x H122mm
Product Supply Requirement	220-240V AC, 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 LE32R programmed at 500mA drive current**

Operating Mode	100%, (Dali Code: 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	53.34	53.62	53.53	53.73	53.41
220	53.58	53.84	53.75	53.95	53.66
230	53.49	53.69	53.61	53.90	53.45
240	53.44	53.65	53.56	53.84	53.42
250	53.39	53.61	53.51	53.78	53.38
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	65.53	65.62	65.48	65.52	65.42
220	67.72	67.77	67.64	67.65	67.61
230	72.22	73.07	72.65	71.46	73.69
240	79.47	80.10	79.72	78.78	80.52
250	86.27	86.79	86.44	85.79	87.10
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.81	0.82	0.82	0.82	0.82
220	0.79	0.79	0.79	0.80	0.79
230	0.74	0.73	0.74	0.75	0.73
240	0.67	0.67	0.67	0.68	0.66
250	0.62	0.62	0.62	0.63	0.61
Ambient Temperature During Test (°C)			26.8		
PF Leading/Lagging			Leading		

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**Table 3. Wattage and VA results for LE32R programmed at 500mA drive current**

Operating Mode	75%, (Dali Code: 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	39.08	39.41	39.40	39.56	39.26
220	39.06	39.40	39.37	39.53	39.25
230	39.04	39.39	39.36	39.52	39.24
240	39.02	39.37	39.33	39.50	39.22
250	38.99	39.34	39.32	39.47	39.21
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	58.76	59.41	59.10	58.22	59.95
220	64.31	64.88	64.59	63.85	65.29
230	69.79	70.31	70.40	69.41	70.66
240	75.22	75.71	75.44	74.93	76.02
250	79.80	79.52	79.90	79.84	80.21
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.67	0.66	0.67	0.68	0.65
220	0.61	0.61	0.61	0.62	0.60
230	0.56	0.56	0.56	0.57	0.56
240	0.52	0.52	0.52	0.53	0.52
250	0.49	0.49	0.49	0.49	0.49
Ambient Temperature During Test (°C)			26.6		
PF Leading/Lagging			Leading		

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**Table 4. Wattage and VA results for LE32R programmed at 500mA drive current**

Operating Mode	50%, (Dali Code: 228)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	27.56	26.82	26.82	26.90	27.78
220	27.56	26.82	26.83	26.90	27.79
230	27.27	26.46	26.48	26.63	27.48
240	27.19	26.45	26.43	26.52	27.42
250	27.09	26.27	26.27	26.43	27.44
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	55.39	55.29	55.11	54.56	56.19
220	59.97	59.69	59.53	59.03	60.71
230	62.03	60.84	60.95	61.10	62.27
240	65.02	64.36	64.00	63.85	65.50
250	68.73	67.83	67.45	67.50	69.58
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.50	0.49	0.49	0.49	0.49
220	0.46	0.45	0.45	0.46	0.46
230	0.44	0.43	0.43	0.44	0.44
240	0.42	0.41	0.41	0.42	0.42
250	0.39	0.39	0.39	0.39	0.39
Ambient Temperature During Test (°C)			26.4		
PF Leading/Lagging			Leading		

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**Table 5. Wattage and VA results for LE32R programmed at 500mA drive current**

Operating Mode	25%, (Dali Code: 197)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	13.77	13.67	13.73	13.67	13.56
220	13.62	13.53	13.60	13.53	13.44
230	13.54	13.44	13.50	13.43	13.38
240	13.49	13.40	13.46	13.40	13.34
250	13.45	13.35	13.41	13.35	13.33
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	13.77	13.67	13.73	13.67	13.56
220	13.62	13.53	13.60	13.53	13.44
230	13.54	13.44	13.50	13.43	13.38
240	13.49	13.40	13.46	13.40	13.34
250	13.45	13.35	13.41	13.35	13.33
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.33	0.33	0.33	0.33	0.33
220	0.31	0.31	0.31	0.31	0.31
230	0.30	0.29	0.29	0.30	0.29
240	0.28	0.28	0.28	0.28	0.29
250	0.27	0.28	0.27	0.27	0.28
Ambient Temperature During Test (°C)			23.6		
PF Leading/Lagging			Leading		

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**Table 6. Wattage and VA results for LE32R programmed at 500mA drive current**

Operating Mode	Minimum, (ALO: 10%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	13.10	13.01	13.07	13.06	12.98
220	12.97	12.91	12.95	12.91	12.84
230	12.90	12.82	12.89	12.85	12.76
240	12.86	12.79	12.81	12.79	12.77
250	12.81	12.83	12.77	12.77	12.80
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	40.64	40.91	40.92	40.50	41.03
220	42.63	42.71	42.97	42.36	42.33
230	44.75	44.03	45.09	44.31	42.76
240	49.63	43.80	47.12	46.33	43.89
250	46.62	49.42	47.00	46.22	52.78
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.32	0.32	0.32	0.32	0.32
220	0.30	0.30	0.30	0.30	0.30
230	0.29	0.29	0.29	0.29	0.30
240	0.26	0.29	0.27	0.28	0.29
250	0.27	0.26	0.27	0.28	0.24
Ambient Temperature During Test (°C)			23.7		
PF Leading/Lagging			Leading		

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**Table 7. Wattage and VA results for LE32R programmed at 700mA drive current**

Operating Mode	100%, (Dali Code: 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	73.38	73.43	73.26	73.63	73.13
220	73.65	73.70	73.50	73.90	73.39
230	73.97	74.02	73.81	74.22	73.70
240	74.36	74.38	74.15	74.60	74.07
250	74.86	74.79	74.54	75.03	74.47
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	83.66	83.64	83.39	83.64	83.30
220	85.52	85.47	85.21	85.45	85.14
230	87.59	87.51	87.25	87.47	87.19
240	89.96	89.86	89.59	89.79	89.55
250	92.61	92.42	92.13	92.36	92.11
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.88	0.88	0.88	0.88	0.88
220	0.86	0.86	0.86	0.86	0.86
230	0.84	0.85	0.85	0.85	0.85
240	0.83	0.83	0.83	0.83	0.83
250	0.81	0.81	0.81	0.81	0.81
Ambient Temperature During Test (°C)			26.3		
PF Leading/Lagging			Leading		

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**Table 8. Wattage and VA results for LE32R programmed at 700mA drive current**

Operating Mode	75%, (ALO: 73%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	55.66	55.43	55.07	55.75	55.40
220	55.89	55.64	55.29	55.89	55.59
230	56.13	55.52	55.34	56.14	55.51
240	55.86	55.45	55.20	55.86	55.45
250	55.77	55.36	55.11	55.79	55.38
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	67.10	67.08	66.84	67.22	67.10
220	69.17	69.19	68.97	69.22	69.18
230	71.52	73.54	71.67	71.58	73.56
240	79.27	80.82	79.52	79.13	80.71
250	86.43	87.65	86.68	86.58	87.69
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.83	0.83	0.82	0.83	0.83
220	0.81	0.80	0.80	0.81	0.80
230	0.78	0.75	0.77	0.78	0.75
240	0.70	0.69	0.69	0.71	0.69
250	0.65	0.63	0.64	0.64	0.63
Ambient Temperature During Test (°C)			23.4		
PF Leading/Lagging			Leading		

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**Table 9. Wattage and VA results for LE32R programmed at 700mA drive current**

Operating Mode	70%, (Dali Code: 240)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	51.17	51.36	51.27	51.48	51.19
220	51.46	51.59	51.56	51.76	51.21
230	51.25	51.38	51.31	51.59	51.17
240	51.24	51.37	51.29	51.57	51.17
250	51.21	51.35	51.26	51.54	51.14
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	63.63	63.67	63.54	63.58	63.51
220	65.87	65.88	65.72	65.78	66.73
230	72.25	73.04	72.67	71.64	73.55
240	79.09	79.69	79.35	78.53	80.06
250	85.62	86.13	85.80	85.19	86.42
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.80	0.81	0.81	0.81	0.81
220	0.78	0.78	0.78	0.79	0.77
230	0.71	0.70	0.71	0.72	0.70
240	0.65	0.64	0.65	0.66	0.64
250	0.60	0.60	0.60	0.61	0.59
Ambient Temperature During Test (°C)			26.5		
PF Leading/Lagging			Leading		

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**Table 10. Wattage and VA results for LE32R programmed at 700mA drive current**

Operating Mode	50%, (Dali Code: 227)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	36.54	36.32	36.32	36.47	36.81
220	36.52	36.31	36.30	36.45	36.80
230	36.51	36.30	36.27	36.43	36.78
240	36.50	36.29	36.26	36.41	36.77
250	36.22	35.97	35.95	36.18	36.48
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	58.36	58.76	58.52	57.75	59.41
220	63.63	63.94	63.70	63.08	64.56
230	68.87	69.12	68.87	68.29	69.75
240	74.04	73.83	73.84	73.49	74.75
250	77.04	76.44	76.42	76.42	77.25
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.63	0.62	0.62	0.63	0.62
220	0.57	0.57	0.57	0.58	0.57
230	0.53	0.53	0.53	0.53	0.53
240	0.49	0.49	0.49	0.50	0.49
250	0.47	0.47	0.47	0.47	0.47
Ambient Temperature During Test (°C)			26.6		
PF Leading/Lagging			Leading		

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**Table 11. Wattage and VA results for LE32R programmed at 700mA drive current**

Operating Mode	25%, (ALO: 21%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	18.49	18.31	18.50	18.55	18.01
220	17.92	17.75	17.73	18.01	17.85
230	17.81	17.69	17.62	17.85	17.72
240	17.76	17.57	17.58	17.81	17.63
250	17.66	17.54	17.48	17.69	17.55
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	50.12	50.21	48.45	49.44	46.69
220	48.79	49.05	48.68	48.82	49.06
230	51.49	52.29	51.49	51.33	52.05
240	53.10	55.15	55.13	55.21	55.05
250	58.38	57.97	57.78	57.75	57.54
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.37	0.36	0.38	0.38	0.39
220	0.37	0.36	0.36	0.37	0.36
230	0.35	0.34	0.34	0.35	0.34
240	0.33	0.32	0.32	0.32	0.32
250	0.30	0.30	0.30	0.31	0.31
Ambient Temperature During Test (°C)			23.2		
PF Leading/Lagging			Leading		

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**Table 12. Wattage and VA results for LE32R programmed at 700mA drive current**

Operating Mode	Minimum, (ALO: 10%)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	13.07	12.98	13.01	13.11	13.00
220	12.95	12.86	12.91	12.96	12.91
230	12.87	12.75	12.82	12.90	12.79
240	12.80	12.77	12.78	12.83	12.78
250	12.79	12.80	12.73	12.79	12.81
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	40.74	41.20	40.86	40.59	40.79
220	42.51	42.45	42.80	42.46	42.65
230	44.50	43.20	44.89	44.51	43.66
240	46.24	43.86	46.94	46.46	43.81
250	46.26	53.24	46.19	46.42	52.17
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.32	0.32	0.32	0.32	0.32
220	0.30	0.30	0.30	0.31	0.30
230	0.29	0.30	0.29	0.29	0.29
240	0.28	0.29	0.27	0.28	0.29
250	0.28	0.24	0.28	0.28	0.25
Ambient Temperature During Test (°C)			21.7		
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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