Delta Electronics, Inc.
252 Shangying Road, Guishan Industrial Zone,
Taoyuan County 33341, Taiwan, R.O.C.
TEL : +886-3-359-1968

TEST REPORT

SAMPLE INFORMATION:

1. **Sample Description:** LED Street Light
2. **Trade Mark:**
3. **Models:** ARIALED S30
4. **Serial/Batch No. of Sample:** ---
5. **Manufacturer Date:** ----
6. **Manufacturer:** OrangeTek Limited
7. **Manufacturer Address:** Coach House, Blakenhall Park, Bar Lane, Barton under Needwood, Burton upon Trent DE138AJ
8. **Sample Quantity:** 5 units ARIALED S30

CLIENT INFORMATION

1. **Applicant:** OrangeTek Limited
2. **Applicant Address:** Coach House Blakenhall Park, Bar Lane, Barton under Needwood, Burton upon Trent DE13 8AJ
3. **Applicant Post Code:** ---
4. **Applicant Telephone:** ---+44 (0)128 371 6690

TEST INFORMATION:

1. **Applicant No:**
2. **Sampling Method:** Delivered by Applicant
3. **Date of Receipt:** 2015-03-24
4. **Issued Date:** 2015-03-25
5. **Test Item:** Input characteristic
6. **Ref. Documents for the Test:** Specified by client.

CONCLUSION:

REMARKS:

1. The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.
2. Characterization & Condition of Sample: Normal.
3. Ambient Condition During Testing: 25 ± 2 C, 50-60% RH.

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Sample 1 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	69.48	0.3411	0.969
220	50	69.40	0.3273	0.964
230	50	69.40	0.3147	0.958
240	50	69.41	0.3037	0.952
250	50	69.41	0.2935	0.945

Sample 2 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	69.52	0.3413	0.969
220	50	69.44	0.3275	0.964
230	50	69.44	0.3149	0.958
240	50	69.45	0.3039	0.952
250	50	69.45	0.2937	0.945

Sample 3 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	69.44	0.3409	0.969
220	50	69.36	0.3271	0.964
230	50	69.36	0.3145	0.958
240	50	69.37	0.3035	0.952
250	50	69.37	0.2933	0.945

Sample 4 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	69.56	0.3415	0.969
220	50	69.48	0.3277	0.964
230	50	69.48	0.3151	0.958
240	50	69.49	0.3041	0.952
250	50	69.49	0.2939	0.945

Sample 5 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	69.40	0.3407	0.969
220	50	69.32	0.3269	0.964
230	50	69.32	0.3143	0.958
240	50	69.33	0.3033	0.952
250	50	69.33	0.2931	0.945

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Watts 100% light output

Voltage\Sample	1	2	3	4	5
210	69.48	69.52	69.44	69.56	69.40
220	69.40	69.44	69.36	69.48	69.32
230	69.40	69.44	69.36	69.48	69.32
240	69.41	69.45	69.37	69.49	69.33
250	69.41	69.45	69.37	69.49	69.33

VA 100% light output

Voltage\Sample	1	2	3	4	5
210	71.631	71.674	71.588	71.717	71.545
220	72.006	72.049	71.963	72.092	71.920
230	72.381	72.424	72.338	72.468	72.294
240	72.888	72.932	72.844	72.975	72.801
250	73.375	73.419	73.331	73.463	73.287

Notes:

1. Test be conducted after operating for 12 hours to reach their steady load state.
2. The measurement uncertainties are for a confidence probability of not less than 98%.
3. The measurement uncertainties of the below value (k=2), Urel(v)=0.1% , Urel(w)=0.1% , Urel(i)=0.2% , Urel(f)=0.05% , Urel(PF)=0.5

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Sample 1 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	48.28	0.2416	0.951
220	50	48.31	0.2327	0.943
230	50	48.42	0.2250	0.935
240	50	48.49	0.2181	0.926
250	50	48.56	0.2119	0.916

Sample 2 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	48.31	0.2417	0.951
220	50	48.34	0.2328	0.943
230	50	48.45	0.2251	0.935
240	50	48.52	0.2182	0.926
250	50	48.59	0.2120	0.916

Sample 3 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	48.25	0.2415	0.951
220	50	48.28	0.2326	0.943
230	50	48.39	0.2249	0.935
240	50	48.46	0.2180	0.926
250	50	48.53	0.2118	0.916

Sample 4 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	48.34	0.2419	0.951
220	50	48.37	0.2330	0.943
230	50	48.48	0.2253	0.935
240	50	48.55	0.2184	0.926
250	50	48.62	0.2122	0.916

Sample 5 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	48.22	0.2413	0.951
220	50	48.25	0.2324	0.943
230	50	48.36	0.2247	0.935
240	50	48.43	0.2178	0.926
250	50	48.50	0.2116	0.916

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Watts 70% light output

Voltage\Sample	1	2	3	4	5
210	48.28	48.31	48.25	48.34	48.22
220	48.31	48.34	48.28	48.37	48.25
230	48.42	48.45	48.39	48.48	48.36
240	48.49	48.52	48.46	48.55	48.43
250	48.56	48.59	48.53	48.62	48.50

VA 70% light output

Voltage\Sample	1	2	3	4	5
210	50.736	50.766	50.706	50.797	50.675
220	51.194	51.225	51.163	51.255	51.133
230	51.750	51.781	51.719	51.812	51.688
240	52.344	52.375	52.313	52.407	52.281
250	52.975	53.007	52.943	53.039	52.911

Notes:

4. Test be conducted after operating for 12 hours to reach their steady load state.
5. The measurement uncertainties are for a confidence probability of not less than 98%.
6. The measurement uncertainties of the below value (k=2), Urel(v)=0.1% , Urel(w)=0.1% , Urel(i)=0.2% , Urel(f)=0.05% , Urel(PF)=0.5

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Sample 1 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	33.99	0.1745	0.927
220	50	34.03	0.1689	0.915
230	50	34.16	0.1644	0.902
240	50	34.22	0.1603	0.889
250	50	34.25	0.1564	0.875

Sample 2 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	34.01	0.1746	0.927
220	50	34.05	0.1690	0.915
230	50	34.18	0.1645	0.902
240	50	34.24	0.1604	0.889
250	50	34.27	0.1565	0.875

Sample 3 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	33.97	0.1744	0.927
220	50	34.01	0.1688	0.915
230	50	34.14	0.1643	0.902
240	50	34.20	0.1602	0.889
250	50	34.23	0.1563	0.875

Sample 4 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	34.03	0.1747	0.927
220	50	34.07	0.1691	0.915
230	50	34.20	0.1646	0.902
240	50	34.26	0.1605	0.889
250	50	34.29	0.1566	0.875

Sample 5 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	33.95	0.1743	0.927
220	50	33.99	0.1687	0.915
230	50	34.12	0.1642	0.902
240	50	34.18	0.1601	0.889
250	50	34.21	0.1562	0.875

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Watts 50% light output

Voltage\Sample	1	2	3	4	5
210	33.99	34.01	33.97	34.03	33.95
220	34.03	34.05	34.01	34.07	33.99
230	34.16	34.18	34.14	34.20	34.12
240	34.22	34.24	34.20	34.26	34.18
250	34.25	34.27	34.23	34.29	34.21

VA 50% light output

Voltage\Sample	1	2	3	4	5
210	36.645	36.667	36.623	36.689	36.601
220	37.158	37.180	37.136	37.203	37.113
230	37.812	37.835	37.789	37.857	37.767
240	38.472	38.495	38.449	38.518	38.426
250	39.100	39.123	39.077	39.147	39.053

Notes:

7. Test be conducted after operating for 12 hours to reach their steady load state.
8. The measurement uncertainties are for a confidence probability of not less than 98%.
9. The measurement uncertainties of the below value (k=2), Urel(v)=0.1% , Urel(w)=0.1% , Urel(i)=0.2% , Urel(f)=0.05% , Urel(PF)=0.5

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Photograph of Sample

Photo 1View of EUT

Photo 2 View of EUT