Delta Electronics, Inc.
3 Tungyuan Road, Chungli Industrial Zone,
Taoyuan County 32063, Taiwan, R.O.C.
TEL : +886-3-452-6107

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:** 2015-04-23
4. **Issued Date:** 2015-04-27
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	66.50	0.3258	0.970
220	50	66.50	0.3125	0.965
230	50	66.60	0.3006	0.961
240	50	66.60	0.2899	0.955
250	50	66.70	0.2805	0.948

Sample 2 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	66.54	0.3260	0.970
220	50	66.54	0.3127	0.965
230	50	66.64	0.3008	0.961
240	50	66.64	0.2901	0.955
250	50	66.74	0.2807	0.948

Sample 3 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	66.46	0.3256	0.970
220	50	66.46	0.3123	0.965
230	50	66.56	0.3004	0.961
240	50	66.56	0.2897	0.955
250	50	66.66	0.2803	0.948

Sample 4 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	66.58	0.3262	0.970
220	50	66.58	0.3129	0.965
230	50	66.68	0.3010	0.961
240	50	66.68	0.2902	0.955
250	50	66.78	0.2808	0.948

Sample 5 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	66.42	0.3254	0.970
220	50	66.42	0.3121	0.965
230	50	66.52	0.3002	0.961
240	50	66.52	0.2896	0.955
250	50	66.62	0.2802	0.948

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Watts 100% light output

Voltage\Sample	1	2	3	4	5
210	66.50	66.54	66.46	66.58	66.42
220	66.50	66.54	66.46	66.58	66.42
230	66.60	66.64	66.56	66.68	66.52
240	66.60	66.64	66.56	66.68	66.52
250	66.70	66.74	66.66	66.78	66.62

VA 100% light output

Voltage\Sample	1	2	3	4	5
210	68.418	68.459	68.377	68.500	68.336
220	68.750	68.791	68.709	68.833	68.668
230	69.138	69.179	69.097	69.221	69.055
240	69.576	69.618	69.534	69.659	69.493
250	70.125	70.167	70.083	70.209	70.041

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	45.90	0.2296	0.950
220	50	46.00	0.2214	0.942
230	50	46.10	0.2141	0.933
240	50	46.20	0.2078	0.923
250	50	46.30	0.2022	0.913

Sample 2 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	45.93	0.2297	0.950
220	50	46.03	0.2215	0.942
230	50	46.13	0.2142	0.933
240	50	46.23	0.2079	0.923
250	50	46.33	0.2023	0.913

Sample 3 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	45.87	0.2295	0.950
220	50	45.97	0.2213	0.942
230	50	46.07	0.2140	0.933
240	50	46.17	0.2077	0.923
250	50	46.27	0.2021	0.913

Sample 4 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	45.96	0.2299	0.950
220	50	46.06	0.2217	0.942
230	50	46.16	0.2144	0.933
240	50	46.26	0.2080	0.923
250	50	46.36	0.2024	0.913

Sample 5 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	45.84	0.2293	0.950
220	50	45.94	0.2211	0.942
230	50	46.04	0.2138	0.933
240	50	46.14	0.2076	0.923
250	50	46.24	0.2020	0.913

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Watts 70% light output

Voltage\Sample	1	2	3	4	5
210	45.90	45.93	45.87	45.96	45.84
220	46.00	46.03	45.97	46.06	45.94
230	46.10	46.13	46.07	46.16	46.04
240	46.20	46.23	46.17	46.26	46.14
250	46.30	46.33	46.27	46.36	46.24

VA 70% light output

Voltage\Sample	1	2	3	4	5
210	48.216	48.245	48.187	48.274	48.158
220	48.708	48.737	48.679	48.766	48.650
230	49.243	49.273	49.213	49.302	49.184
240	49.872	49.902	49.842	49.932	49.812
250	50.550	50.580	50.520	50.611	50.489

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	33.16	0.1712	0.919
220	50	33.29	0.1664	0.907
230	50	33.44	0.1623	0.893
240	50	33.59	0.1588	0.878
250	50	33.77	0.1559	0.863

Sample 2 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	33.18	0.1713	0.919
220	50	33.31	0.1665	0.907
230	50	33.46	0.1624	0.893
240	50	33.61	0.1589	0.878
250	50	33.79	0.1560	0.863

Sample 3 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	33.14	0.1711	0.919
220	50	33.27	0.1663	0.907
230	50	33.42	0.1622	0.893
240	50	33.57	0.1587	0.878
250	50	33.75	0.1558	0.863

Sample 4 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	33.20	0.1714	0.919
220	50	33.33	0.1666	0.907
230	50	33.48	0.1625	0.893
240	50	33.63	0.1590	0.878
250	50	33.81	0.1561	0.863

Sample 5 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	33.12	0.1710	0.919
220	50	33.25	0.1662	0.907
230	50	33.40	0.1621	0.893
240	50	33.55	0.1586	0.878
250	50	33.73	0.1557	0.863

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Watts 50% light output

Voltage\Sample	1	2	3	4	5
210	33.16	33.18	33.14	33.20	33.12
220	33.29	33.31	33.27	33.33	33.25
230	33.44	33.46	33.42	33.48	33.40
240	33.59	33.61	33.57	33.63	33.55
250	33.77	33.79	33.75	33.81	33.73

VA 50% light output

Voltage\Sample	1	2	3	4	5
210	35.952	35.974	35.930	35.995	35.909
220	36.608	36.630	36.586	36.652	36.564
230	37.329	37.351	37.307	37.374	37.284
240	38.112	38.135	38.089	38.158	38.066
250	38.975	38.998	38.952	39.022	38.928

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