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 S40
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 S40

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	87.90	0.4276	0.977
220	50	87.90	0.4096	0.973
230	50	87.80	0.3929	0.969
240	50	87.80	0.3782	0.964
250	50	87.80	0.3652	0.959

Sample 2 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	87.95	0.4279	0.977
220	50	87.95	0.4098	0.973
230	50	87.85	0.3931	0.969
240	50	87.85	0.3784	0.964
250	50	87.85	0.3654	0.959

Sample 3 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	87.85	0.4273	0.977
220	50	87.85	0.4094	0.973
230	50	87.75	0.3927	0.969
240	50	87.75	0.3780	0.964
250	50	87.75	0.3650	0.959

Sample 4 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	88.01	0.4281	0.977
220	50	88.01	0.4101	0.973
230	50	87.91	0.3934	0.969
240	50	87.91	0.3787	0.964
250	50	87.91	0.3656	0.959

Sample 5 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	87.79	0.4271	0.977
220	50	87.79	0.4091	0.973
230	50	87.69	0.3924	0.969
240	50	87.69	0.3777	0.964
250	50	87.69	0.3648	0.959

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Watts 100% light output

Voltage\Sample	1	2	3	4	5
210	87.90	87.95	87.85	88.01	87.79
220	87.90	87.95	87.85	88.01	87.79
230	87.80	87.85	87.75	87.91	87.69
240	87.80	87.85	87.75	87.91	87.69
250	87.80	87.85	87.75	87.91	87.69

VA 100% light output

Voltage\Sample	1	2	3	4	5
210	89.796	89.850	89.742	89.904	89.688
220	90.112	90.166	90.058	90.220	90.004
230	90.367	90.421	90.313	90.475	90.259
240	90.768	90.822	90.714	90.877	90.659
250	91.300	91.355	91.245	91.410	91.190

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	61.10	0.3024	0.960
220	50	61.10	0.2903	0.954
230	50	61.10	0.2797	0.947
240	50	61.10	0.2702	0.939
250	50	61.10	0.2619	0.930

Sample 2 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	61.14	0.3026	0.960
220	50	61.14	0.2905	0.954
230	50	61.14	0.2799	0.947
240	50	61.14	0.2704	0.939
250	50	61.14	0.2621	0.930

Sample 3 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	61.06	0.3022	0.960
220	50	61.06	0.2901	0.954
230	50	61.06	0.2795	0.947
240	50	61.06	0.2700	0.939
250	50	61.06	0.2617	0.930

Sample 4 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	61.17	0.3028	0.960
220	50	61.17	0.2906	0.954
230	50	61.17	0.2800	0.947
240	50	61.17	0.2705	0.939
250	50	61.17	0.2622	0.930

Sample 5 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	61.03	0.3020	0.960
220	50	61.03	0.2900	0.954
230	50	61.03	0.2794	0.947
240	50	61.03	0.2699	0.939
250	50	61.03	0.2616	0.930

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Watts 70% light output

Voltage\Sample	1	2	3	4	5
210	61.10	61.14	61.06	61.17	61.03
220	61.10	61.14	61.06	61.17	61.03
230	61.10	61.14	61.06	61.17	61.03
240	61.10	61.14	61.06	61.17	61.03
250	61.10	61.14	61.06	61.17	61.03

VA 70% light output

Voltage\Sample	1	2	3	4	5
210	63.504	63.542	63.466	63.580	63.428
220	63.866	63.904	63.828	63.943	63.789
230	64.331	64.370	64.292	64.408	64.254
240	64.848	64.887	64.809	64.926	64.770
250	65.475	65.514	65.436	65.554	65.396

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	43.90	0.2232	0.935
220	50	44.00	0.2155	0.925
230	50	44.00	0.2089	0.914
240	50	44.10	0.2033	0.902
250	50	44.20	0.1985	0.889

Sample 2 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	43.93	0.2233	0.935
220	50	44.03	0.2156	0.925
230	50	44.03	0.2090	0.914
240	50	44.13	0.2034	0.902
250	50	44.23	0.1986	0.889

Sample 3 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	43.87	0.2231	0.935
220	50	43.97	0.2154	0.925
230	50	43.97	0.2088	0.914
240	50	44.07	0.2032	0.902
250	50	44.17	0.1984	0.889

Sample 4 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	43.95	0.2235	0.935
220	50	44.05	0.2158	0.925
230	50	44.05	0.2092	0.914
240	50	44.15	0.2035	0.902
250	50	44.25	0.1987	0.889

Sample 5 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	43.85	0.2229	0.935
220	50	43.95	0.2152	0.925
230	50	43.95	0.2086	0.914
240	50	44.05	0.2031	0.902
250	50	44.15	0.1983	0.889

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Watts 50% light output

Voltage\Sample	1	2	3	4	5
210	43.90	43.93	43.87	43.95	43.85
220	44.00	44.03	43.97	44.05	43.95
230	44.00	44.03	43.97	44.05	43.95
240	44.10	44.13	44.07	44.15	44.05
250	44.20	44.23	44.17	44.25	44.15

VA 50% light output

Voltage\Sample	1	2	3	4	5
210	46.872	46.900	46.844	46.928	46.816
220	47.410	47.438	47.382	47.467	47.353
230	48.047	48.076	48.018	48.105	47.989
240	48.792	48.821	48.763	48.851	48.733
250	49.625	49.655	49.595	49.685	49.565

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