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 S10
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 S10

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:** 2016-01-19
4. **Issued Date:** 2016-01-19
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	23.88	0.1141	0.989
220	50	23.86	0.1089	0.987
230	50	23.84	0.1046	0.985
240	50	23.82	0.1002	0.983
250	50	23.81	0.0964	0.980

Sample 2 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.89	0.1142	0.989
220	50	23.87	0.1090	0.987
230	50	23.85	0.1047	0.985
240	50	23.83	0.1003	0.983
250	50	23.82	0.0965	0.980

Sample 3 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.87	0.1140	0.989
220	50	23.85	0.1088	0.987
230	50	23.83	0.1045	0.985
240	50	23.81	0.1001	0.983
250	50	23.80	0.0963	0.980

Sample 4 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.91	0.1142	0.989
220	50	23.89	0.1090	0.987
230	50	23.87	0.1047	0.985
240	50	23.85	0.1003	0.983
250	50	23.84	0.0965	0.980

Sample 5 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.85	0.1140	0.989
220	50	23.83	0.1088	0.987
230	50	23.81	0.1045	0.985
240	50	23.79	0.1001	0.983
250	50	23.78	0.0963	0.980

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Watts 100% light output

Voltage\Sample	1	2	3	4	5
210	23.88	23.89	23.87	23.91	23.85
220	23.86	23.87	23.85	23.89	23.83
230	23.84	23.85	23.83	23.87	23.81
240	23.82	23.83	23.81	23.85	23.79
250	23.81	23.82	23.80	23.84	23.78

VA 100% light output

Voltage\Sample	1	2	3	4	5
210	23.961	23.975	23.947	23.990	23.932
220	23.958	23.972	23.944	23.987	23.929
230	24.058	24.072	24.044	24.087	24.029
240	24.048	24.062	24.034	24.077	24.019
250	24.100	24.114	24.086	24.129	24.071

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	17.06	0.0825	0.982
220	50	17.05	0.0780	0.977
230	50	17.05	0.0758	0.972
240	50	17.02	0.0727	0.968
250	50	17.02	0.0703	0.963

Sample 2 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	17.07	0.0825	0.982
220	50	17.06	0.0780	0.977
230	50	17.06	0.0758	0.972
240	50	17.03	0.0727	0.968
250	50	17.03	0.0703	0.963

Sample 3 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	17.05	0.0825	0.982
220	50	17.04	0.0780	0.977
230	50	17.04	0.0758	0.972
240	50	17.01	0.0727	0.968
250	50	17.01	0.0703	0.963

Sample 4 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	17.08	0.0826	0.982
220	50	17.07	0.0781	0.977
230	50	17.07	0.0759	0.972
240	50	17.04	0.0728	0.968
250	50	17.04	0.0704	0.963

Sample 5 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	17.04	0.0824	0.982
220	50	17.03	0.0779	0.977
230	50	17.03	0.0757	0.972
240	50	17.00	0.0726	0.968
250	50	17.00	0.0702	0.963

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Watts 70% light output

Voltage\Sample	1	2	3	4	5
210	17.06	17.07	17.05	17.08	17.04
220	17.05	17.06	17.04	17.07	17.03
230	17.05	17.06	17.04	17.07	17.03
240	17.02	17.03	17.01	17.04	17.00
250	17.02	17.03	17.01	17.04	17.00

VA 70% light output

Voltage\Sample	1	2	3	4	5
210	17.325	17.335	17.315	17.346	17.304
220	17.160	17.170	17.150	17.181	17.139
230	17.434	17.444	17.424	17.455	17.413
240	17.448	17.458	17.438	17.469	17.427
250	17.575	17.586	17.564	17.596	17.554

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	12.55	0.0617	0.968
220	50	12.56	0.0593	0.962
230	50	12.56	0.0568	0.957
240	50	12.57	0.0548	0.948
250	50	12.58	0.0532	0.943

Sample 2 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	12.56	0.0617	0.968
220	50	12.57	0.0593	0.962
230	50	12.57	0.0568	0.957
240	50	12.58	0.0548	0.948
250	50	12.59	0.0532	0.943

Sample 3 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	12.54	0.0617	0.968
220	50	12.55	0.0593	0.962
230	50	12.55	0.0568	0.957
240	50	12.56	0.0548	0.948
250	50	12.57	0.0532	0.943

Sample 4 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	12.57	0.0618	0.968
220	50	12.58	0.0594	0.962
230	50	12.58	0.0569	0.957
240	50	12.59	0.0549	0.948
250	50	12.60	0.0533	0.943

Sample 5 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	12.53	0.0616	0.968
220	50	12.54	0.0592	0.962
230	50	12.54	0.0567	0.957
240	50	12.55	0.0547	0.948
250	50	12.56	0.0531	0.943

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Watts 50% light output

Voltage\Sample	1	2	3	4	5
210	12.55	12.56	12.54	12.57	12.53
220	12.56	12.57	12.55	12.58	12.54
230	12.56	12.57	12.55	12.58	12.54
240	12.57	12.58	12.56	12.59	12.55
250	12.58	12.59	12.57	12.60	12.56

VA 50% light output

Voltage\Sample	1	2	3	4	5
210	12.957	12.965	12.949	12.973	12.941
220	13.046	13.054	13.038	13.062	13.030
230	13.064	13.072	13.056	13.080	13.048
240	13.152	13.160	13.144	13.168	13.136
250	13.300	13.308	13.292	13.316	13.284

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