

# TEST REPORT

## SAMPLE INFORMATION:

1. **Sample Description:** LED Street Light
2. **Trade Mark:**
3. **Models:** ARIALED S50
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 S50



## 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:** 2015-03-26
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.

Sample 1 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	113.60	0.5538	0.978
220	50	113.28	0.5281	0.974
230	50	113.66	0.5088	0.971
240	50	113.18	0.4877	0.966
250	50	113.61	0.4723	0.962

Sample 2 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	113.67	0.5541	0.978
220	50	113.35	0.5284	0.974
230	50	113.73	0.5091	0.971
240	50	113.25	0.4880	0.966
250	50	113.68	0.4726	0.962

Sample 3 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	113.53	0.5535	0.978
220	50	113.21	0.5278	0.974
230	50	113.59	0.5085	0.971
240	50	113.11	0.4874	0.966
250	50	113.54	0.4720	0.962

Sample 4 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	113.74	0.5545	0.978
220	50	113.42	0.5287	0.974
230	50	113.80	0.5094	0.971
240	50	113.32	0.4883	0.966
250	50	113.75	0.4729	0.962

Sample 5 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	113.46	0.5531	0.978
220	50	113.14	0.5275	0.974
230	50	113.52	0.5082	0.971
240	50	113.04	0.4871	0.966
250	50	113.47	0.4717	0.962

**Watts**      100% light output

Voltage\Sample	1	2	3	4	5
210	113.60	113.67	113.53	113.74	113.46
220	113.28	113.35	113.21	113.42	113.14
230	113.66	113.73	113.59	113.80	113.52
240	113.18	113.25	113.11	113.32	113.04
250	113.61	113.68	113.54	113.75	113.47

**VA**      100% light output

Voltage\Sample	1	2	3	4	5
210	116.298	116.368	116.228	116.438	116.158
220	116.182	116.252	116.112	116.321	116.043
230	117.024	117.094	116.954	117.164	116.884
240	117.048	117.118	116.978	117.188	116.908
250	118.075	118.146	118.004	118.217	117.933

**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

Sample 1 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	79.10	0.3911	0.964
220	50	79.60	0.3773	0.959
230	50	79.10	0.3613	0.953
240	50	80.30	0.3510	0.948
250	50	79.90	0.3396	0.941

Sample 2 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	79.15	0.3913	0.964
220	50	79.65	0.3775	0.959
230	50	79.15	0.3615	0.953
240	50	80.35	0.3512	0.948
250	50	79.95	0.3398	0.941

Sample 3 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	79.05	0.3909	0.964
220	50	79.55	0.3771	0.959
230	50	79.05	0.3611	0.953
240	50	80.25	0.3508	0.948
250	50	79.85	0.3394	0.941

Sample 4 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	79.19	0.3916	0.964
220	50	79.70	0.3778	0.959
230	50	79.19	0.3617	0.953
240	50	80.40	0.3514	0.948
250	50	80.00	0.3400	0.941

Sample 5 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	79.01	0.3906	0.964
220	50	79.50	0.3768	0.959
230	50	79.01	0.3609	0.953
240	50	80.20	0.3506	0.948
250	50	79.80	0.3392	0.941

**Watts**      70% light output

Voltage\Sample	1	2	3	4	5
210	79.10	79.15	79.05	79.19	79.01
220	79.60	79.65	79.55	79.70	79.50
230	79.10	79.15	79.05	79.19	79.01
240	80.30	80.35	80.25	80.40	80.20
250	79.90	79.95	79.85	80.00	79.80

**VA**      70% light output

Voltage\Sample	1	2	3	4	5
210	82.131	82.180	82.082	82.230	82.032
220	83.006	83.056	82.956	83.106	82.906
230	83.099	83.149	83.049	83.199	82.999
240	84.240	84.291	84.189	84.341	84.139
250	84.900	84.951	84.849	85.002	84.798

**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

Sample 1 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	56.09	0.2834	0.942
220	50	56.28	0.2734	0.935
230	50	57.14	0.2676	0.928
240	50	57.27	0.2593	0.920
250	50	57.49	0.2521	0.911

Sample 2 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	56.12	0.2836	0.942
220	50	56.31	0.2736	0.935
230	50	57.17	0.2678	0.928
240	50	57.30	0.2595	0.920
250	50	57.52	0.2523	0.911

Sample 3 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	56.06	0.2832	0.942
220	50	56.25	0.2732	0.935
230	50	57.11	0.2674	0.928
240	50	57.24	0.2591	0.920
250	50	57.46	0.2519	0.911

Sample 4 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	56.16	0.2837	0.942
220	50	56.35	0.2737	0.935
230	50	57.21	0.2679	0.928
240	50	57.34	0.2596	0.920
250	50	57.56	0.2524	0.911

Sample 5 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	56.02	0.2831	0.942
220	50	56.21	0.2731	0.935
230	50	57.07	0.2673	0.928
240	50	57.20	0.2590	0.920
250	50	57.42	0.2518	0.911

**Watts**      50% light output

Voltage\Sample	1	2	3	4	5
210	56.09	56.12	56.06	56.16	56.02
220	56.28	56.31	56.25	56.35	56.21
230	57.14	57.17	57.11	57.21	57.07
240	57.27	57.30	57.24	57.34	57.20
250	57.49	57.52	57.46	57.56	57.42

**VA**      50% light output

Voltage\Sample	1	2	3	4	5
210	59.514	59.550	59.478	59.585	59.443
220	60.148	60.184	60.112	60.220	60.076
230	61.548	61.585	61.511	61.622	61.474
240	62.232	62.269	62.195	62.307	62.157
250	63.025	63.063	62.987	63.101	62.949

**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

## Photograph of Sample

Photo 1 View of EUT



Photo 2 View of EUT

