

# TEST REPORT

## SAMPLE INFORMATION:

1. **Sample Description:** LED Street Light
2. **Trade Mark:**
3. **Models:** ARIAMED 20
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 ARIAMED 20



## 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:** 2014-07-17
4. **Issued Date:** 2014-07-24
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	23.58	0.1160	0.965
220	50	23.59	0.1114	0.959
230	50	23.60	0.1074	0.952
240	50	23.63	0.1038	0.945
250	50	23.65	0.1006	0.938

Sample 2 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.46	0.1154	0.965
220	50	23.48	0.1109	0.959
230	50	23.49	0.1068	0.953
240	50	23.51	0.1032	0.946
250	50	23.55	0.1001	0.938

Sample 3 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.36	0.1148	0.965
220	50	23.35	0.1102	0.959
230	50	23.37	0.1062	0.953
240	50	23.40	0.1027	0.946
250	50	23.42	0.0995	0.939

Sample 4 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.59	0.1166	0.965
220	50	23.60	0.1120	0.959
230	50	23.59	0.1070	0.953
240	50	23.64	0.1044	0.945
250	50	23.65	0.1011	0.939

Sample 5 100% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	23.58	0.1159	0.964
220	50	23.60	0.1108	0.958
230	50	23.61	0.1067	0.951
240	50	23.64	0.1031	0.945
250	50	23.66	0.1003	0.937

Watts 100% light output

Voltage \ Sample	1	2	3	4	5
210	23.58	23.46	23.36	23.59	23.58
220	23.59	23.48	23.35	23.60	23.60
230	23.60	23.49	23.37	23.59	23.61
240	23.63	23.51	23.40	23.64	23.64
250	23.65	23.55	23.42	23.65	23.66

VA 100% light output

Voltage \ Sample	1	2	3	4	5
210	24.356	24.226	24.112	24.486	24.339
220	24.512	24.400	24.248	24.640	24.376
230	24.704	24.573	24.435	24.610	24.541
240	24.910	24.778	24.648	25.056	24.744
250	25.143	25.023	24.878	25.275	25.075

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	17.13	0.0862	0.944
220	50	17.15	0.0831	0.934
230	50	17.18	0.0806	0.924
240	50	17.22	0.0783	0.913
250	50	17.28	0.0764	0.902

Sample 2 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	16.99	0.0855	0.944
220	50	17.04	0.0826	0.935
230	50	17.08	0.0800	0.925
240	50	17.12	0.0777	0.914
250	50	17.18	0.0758	0.903

Sample 3 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	17.25	0.0865	0.946
220	50	17.27	0.0836	0.936
230	50	17.35	0.0811	0.927
240	50	17.33	0.0786	0.916
250	50	17.37	0.0765	0.905

Sample 4 70% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	17.15	0.0859	0.943
220	50	17.17	0.0838	0.934
230	50	17.19	0.0812	0.925
240	50	17.23	0.0789	0.913
250	50	17.31	0.0770	0.902

**Sample 5      70% light output**

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	17.11	0.0855	0.944
220	50	17.13	0.0823	0.934
230	50	17.15	0.0798	0.923
240	50	17.19	0.0775	0.914
250	50	17.25	0.0756	0.901

**Watts      70% light output**

Voltage \ Sample	1	2	3	4	5
210	17.13	16.99	17.25	17.15	17.11
220	17.15	17.04	17.27	17.17	17.13
230	17.18	17.08	17.35	17.19	17.15
240	17.22	17.12	17.33	17.23	17.19
250	17.28	17.18	17.37	17.31	17.25

**VA      70% light output**

Voltage \ Sample	1	2	3	4	5
210	18.092	17.949	18.173	18.039	17.955
220	18.289	18.161	18.383	18.436	18.106
230	18.536	18.393	18.642	18.676	18.354
240	18.792	18.658	18.854	18.936	18.600
250	19.098	18.955	19.120	19.250	18.900

**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	11.76	0.0618	0.903
220	50	11.83	0.0602	0.889
230	50	11.88	0.0589	0.874
240	50	11.95	0.0578	0.858
250	50	12.08	0.0571	0.842

Sample 2 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	11.68	0.0613	0.904
220	50	11.74	0.0598	0.889
230	50	11.78	0.0582	0.876
240	50	11.85	0.0572	0.859
250	50	11.93	0.0564	0.843

Sample 3 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	11.87	0.0622	0.906
220	50	11.91	0.0605	0.891
230	50	11.97	0.0592	0.876
240	50	12.03	0.0580	0.861
250	50	12.07	0.0570	0.843

Sample 4 50% light output

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	11.77	0.0622	0.904
220	50	11.84	0.0606	0.890
230	50	11.89	0.0594	0.873
240	50	11.95	0.0583	0.858
250	50	12.08	0.0556	0.843

**Sample 5      50% light output**

Input voltage(V)	Frequency(Hz)	Input power(W)	Input current(A)	Power factor
210	50	11.75	0.0614	0.905
220	50	11.82	0.0598	0.891
230	50	11.86	0.0586	0.873
240	50	11.93	0.0576	0.858
250	50	12.06	0.0566	0.843

**Watts      50% light output**

Voltage \ Sample	1	2	3	4	5
210	11.76	11.68	11.87	11.77	11.75
220	11.83	11.74	11.91	11.84	11.82
230	11.88	11.78	11.97	11.89	11.86
240	11.95	11.85	12.03	11.95	11.93
250	12.08	11.93	12.07	12.08	12.06

**VA      50% light output**

Voltage \ Sample	1	2	3	4	5
210	12.974	12.877	13.060	13.062	12.894
220	13.253	13.147	13.319	13.332	13.156
230	13.547	13.395	13.607	13.662	13.478
240	13.874	13.735	13.915	13.992	13.824
250	14.280	14.095	14.260	13.900	14.150

**Notes:**

- Test be conducted after operating for 12 hours to reach their steady load state.
- The measurement uncertainties are for a confidence probability of not less than 98%.
- 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

