

TEST REPORT

SAMPLE INFORMATION:

1. **Sample Description:** LED Street Light
2. **Trade Mark:**
3. **Models:** ARIALD 150
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 ARIALD 150



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:** 2014-06-9
4. **Issued Date:** 2014-06-12
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 | 149.37 | 0.7205 | 0.985 |
| 220 | 50 | 149.33 | 0.6891 | 0.983 |
| 230 | 50 | 149.29 | 0.6609 | 0.980 |
| 240 | 50 | 149.31 | 0.6350 | 0.977 |
| 250 | 50 | 149.34 | 0.6117 | 0.974 |

Sample 2 100% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 149.33 | 0.7203 | 0.985 |
| 220 | 50 | 149.29 | 0.6889 | 0.983 |
| 230 | 50 | 149.25 | 0.6607 | 0.980 |
| 240 | 50 | 149.27 | 0.6348 | 0.977 |
| 250 | 50 | 149.30 | 0.6115 | 0.974 |

Sample 3 100% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 149.35 | 0.7204 | 0.985 |
| 220 | 50 | 149.31 | 0.6890 | 0.983 |
| 230 | 50 | 149.27 | 0.6608 | 0.980 |
| 240 | 50 | 149.29 | 0.6349 | 0.977 |
| 250 | 50 | 149.32 | 0.6116 | 0.974 |

Sample 4 100% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 149.39 | 0.7206 | 0.985 |
| 220 | 50 | 149.35 | 0.6892 | 0.983 |
| 230 | 50 | 149.31 | 0.6610 | 0.980 |
| 240 | 50 | 149.33 | 0.6351 | 0.977 |
| 250 | 50 | 149.36 | 0.6118 | 0.974 |

Sample 5 100% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 149.41 | 0.7207 | 0.985 |
| 220 | 50 | 149.37 | 0.6893 | 0.983 |
| 230 | 50 | 149.33 | 0.6611 | 0.980 |
| 240 | 50 | 149.35 | 0.6352 | 0.977 |
| 250 | 50 | 149.38 | 0.6119 | 0.974 |

Watts 100% light output

| Voltage \ Sample | 1 | 2 | 3 | 4 | 5 |
|------------------|--------|--------|--------|--------|--------|
| 210 | 149.37 | 149.33 | 149.35 | 149.39 | 149.41 |
| 220 | 149.33 | 149.29 | 149.31 | 149.35 | 149.37 |
| 230 | 149.29 | 149.25 | 149.27 | 149.31 | 149.33 |
| 240 | 149.31 | 149.27 | 149.29 | 149.33 | 149.35 |
| 250 | 149.34 | 149.30 | 149.32 | 149.36 | 149.38 |

VA 100% light output

| Voltage \ Sample | 1 | 2 | 3 | 4 | 5 |
|------------------|---------|---------|---------|---------|---------|
| 210 | 151.305 | 151.263 | 151.284 | 151.326 | 151.347 |
| 220 | 151.602 | 151.558 | 151.580 | 151.624 | 151.646 |
| 230 | 152.007 | 151.961 | 151.984 | 152.030 | 152.053 |
| 240 | 152.400 | 152.352 | 152.376 | 152.424 | 152.448 |
| 250 | 152.925 | 152.875 | 152.900 | 152.950 | 152.975 |

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 | 102.21 | 0.4981 | 0.975 |
| 220 | 50 | 102.23 | 0.4775 | 0.971 |
| 230 | 50 | 102.29 | 0.4588 | 0.967 |
| 240 | 50 | 102.37 | 0.4420 | 0.962 |
| 250 | 50 | 102.47 | 0.4269 | 0.958 |

Sample 2 70% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 102.17 | 0.4979 | 0.975 |
| 220 | 50 | 102.19 | 0.4773 | 0.971 |
| 230 | 50 | 102.25 | 0.4586 | 0.967 |
| 240 | 50 | 102.33 | 0.4418 | 0.962 |
| 250 | 50 | 102.43 | 0.4267 | 0.958 |

Sample 3 70% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 102.19 | 0.4980 | 0.975 |
| 220 | 50 | 102.21 | 0.4774 | 0.971 |
| 230 | 50 | 102.27 | 0.4587 | 0.967 |
| 240 | 50 | 102.35 | 0.4419 | 0.962 |
| 250 | 50 | 102.45 | 0.4268 | 0.958 |

Sample 4 70% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 102.23 | 0.4982 | 0.975 |
| 220 | 50 | 102.25 | 0.4776 | 0.971 |
| 230 | 50 | 102.31 | 0.4589 | 0.967 |
| 240 | 50 | 102.39 | 0.4421 | 0.962 |
| 250 | 50 | 102.49 | 0.4270 | 0.958 |

Sample 5 70% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 102.25 | 0.4983 | 0.975 |
| 220 | 50 | 102.27 | 0.4777 | 0.971 |
| 230 | 50 | 102.33 | 0.4590 | 0.967 |
| 240 | 50 | 102.41 | 0.4422 | 0.962 |
| 250 | 50 | 102.51 | 0.4271 | 0.958 |

Watts 70% light output

| Voltage \ Sample | 1 | 2 | 3 | 4 | 5 |
|------------------|--------|--------|--------|--------|--------|
| 210 | 102.21 | 102.17 | 102.19 | 102.23 | 102.25 |
| 220 | 102.23 | 102.19 | 102.21 | 102.25 | 102.27 |
| 230 | 102.29 | 102.25 | 102.27 | 102.31 | 102.33 |
| 240 | 102.37 | 102.33 | 102.35 | 102.39 | 102.41 |
| 250 | 102.47 | 102.43 | 102.45 | 102.49 | 102.51 |

VA 70% light output

| Voltage \ Sample | 1 | 2 | 3 | 4 | 5 |
|------------------|---------|---------|---------|---------|---------|
| 210 | 104.601 | 104.559 | 104.580 | 104.622 | 104.643 |
| 220 | 105.050 | 105.006 | 105.028 | 105.072 | 105.094 |
| 230 | 105.524 | 105.478 | 105.501 | 105.547 | 105.570 |
| 240 | 106.080 | 106.032 | 106.056 | 106.104 | 106.128 |
| 250 | 106.725 | 106.675 | 106.700 | 106.750 | 106.775 |

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 | 75.19 | 0.3716 | 0.962 |
| 220 | 50 | 75.31 | 0.3571 | 0.956 |
| 230 | 50 | 75.45 | 0.3443 | 0.950 |
| 240 | 50 | 75.61 | 0.3326 | 0.944 |
| 250 | 50 | 75.81 | 0.3222 | 0.938 |

Sample 2 50% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 75.15 | 0.3714 | 0.962 |
| 220 | 50 | 75.27 | 0.3569 | 0.956 |
| 230 | 50 | 75.41 | 0.3441 | 0.950 |
| 240 | 50 | 75.57 | 0.3324 | 0.944 |
| 250 | 50 | 75.77 | 0.3220 | 0.938 |

Sample 3 50% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 75.17 | 0.3715 | 0.962 |
| 220 | 50 | 75.29 | 0.3570 | 0.956 |
| 230 | 50 | 75.43 | 0.3442 | 0.950 |
| 240 | 50 | 75.59 | 0.3325 | 0.944 |
| 250 | 50 | 75.79 | 0.3221 | 0.938 |

Sample 4 50% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 75.21 | 0.3717 | 0.962 |
| 220 | 50 | 75.33 | 0.3572 | 0.956 |
| 230 | 50 | 75.47 | 0.3444 | 0.950 |
| 240 | 50 | 75.63 | 0.3327 | 0.944 |
| 250 | 50 | 75.83 | 0.3223 | 0.938 |

Sample 5 50% light output

| Input voltage(V) | Frequency(Hz) | Input power(W) | Input current(A) | Power factor |
|------------------|---------------|----------------|------------------|--------------|
| 210 | 50 | 75.23 | 0.3718 | 0.962 |
| 220 | 50 | 75.35 | 0.3573 | 0.956 |
| 230 | 50 | 75.49 | 0.3445 | 0.950 |
| 240 | 50 | 75.65 | 0.3328 | 0.944 |
| 250 | 50 | 75.85 | 0.3224 | 0.938 |

Watts 50% light output

| Voltage \ Sample | 1 | 2 | 3 | 4 | 5 |
|------------------|-------|-------|-------|-------|-------|
| 210 | 75.19 | 75.15 | 75.17 | 75.21 | 75.23 |
| 220 | 75.31 | 75.27 | 75.29 | 75.33 | 75.35 |
| 230 | 75.45 | 75.41 | 75.43 | 75.47 | 75.49 |
| 240 | 75.61 | 75.57 | 75.59 | 75.63 | 75.65 |
| 250 | 75.81 | 75.77 | 75.79 | 75.83 | 75.85 |

VA 50% light output

| Voltage \ Sample | 1 | 2 | 3 | 4 | 5 |
|------------------|--------|--------|--------|--------|--------|
| 210 | 78.036 | 77.994 | 78.015 | 78.057 | 78.078 |
| 220 | 78.562 | 78.518 | 78.540 | 78.584 | 78.606 |
| 230 | 79.189 | 79.143 | 79.166 | 79.212 | 79.235 |
| 240 | 79.824 | 79.776 | 79.800 | 79.848 | 79.872 |
| 250 | 80.550 | 80.500 | 80.525 | 80.575 | 80.600 |

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

