

Photometric Test Report

Relevant Standards

- IES LM-79-2008
- ANSI C82.77:2014

Prepared For

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LOC-T88FT-38W40KPAF B

Integrating Sphere Test

| | | | |
|---------------------|--------------------------|---------------------------|----|
| Model No. | LOC-T88FT-38W40KPAF B | Sample ID. | A1 |
| Operate time (Min.) | 90 | Stabilization time (Min.) | 45 |

Test Method

The samples were tested according to the IES LM-79-2008.

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.

The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.

The sample was measured using 4π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Test Conditions

| Model No. | Temperature ($^{\circ}\text{C}$) | Voltage (Vac) | Frequency (Hz) | Current (A) | Power (W) | Power Factor |
|---------------------------|------------------------------------|---------------|----------------|-------------|-----------|--------------|
| LOC-T88FT-38W40K PAF B | 25.1 | 119.97 | 60 | 0.327 | 38.3 | 0.977 |

Test Result

| Model No. | CCT (K) | CRI (Ra) | Light Output (lm) | Efficacy (lm/W) | Duv |
|---------------------------|---------|----------|-------------------|-----------------|---------|
| LOC-T88FT-38W40K PAF B | 4033 | 81 | 4874 | 127.26 | 2.2E-03 |

Goniophotometer Test

| | | | |
|---------------------|--|---------------------------|----|
| Model No. | LOC-T88FT-38W40KPAF B LOC-T88FT-38W50KPAF B | | |
| Operate time (Min.) | 90 | Stabilization time (Min.) | 45 |

Test Method

The samples were tested according to the IES LM-79-2008.

Photometric parameters were measured using a type C goniophotometer and software.

The ambient temperature shall be maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample.

The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.

The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 0.5° vertical intervals and 10° horizontal intervals.

Test Conditions

Two tubes were placed in a reference housing during testing

| Temperature ($^{\circ}\text{C}$) | Voltage (Vac) | Frequency (Hz) | Power (W) | Orientation |
|------------------------------------|---------------|----------------|-----------|-------------|
| 24.9 | 119.99 | 60 | 78.4 | horizontal |

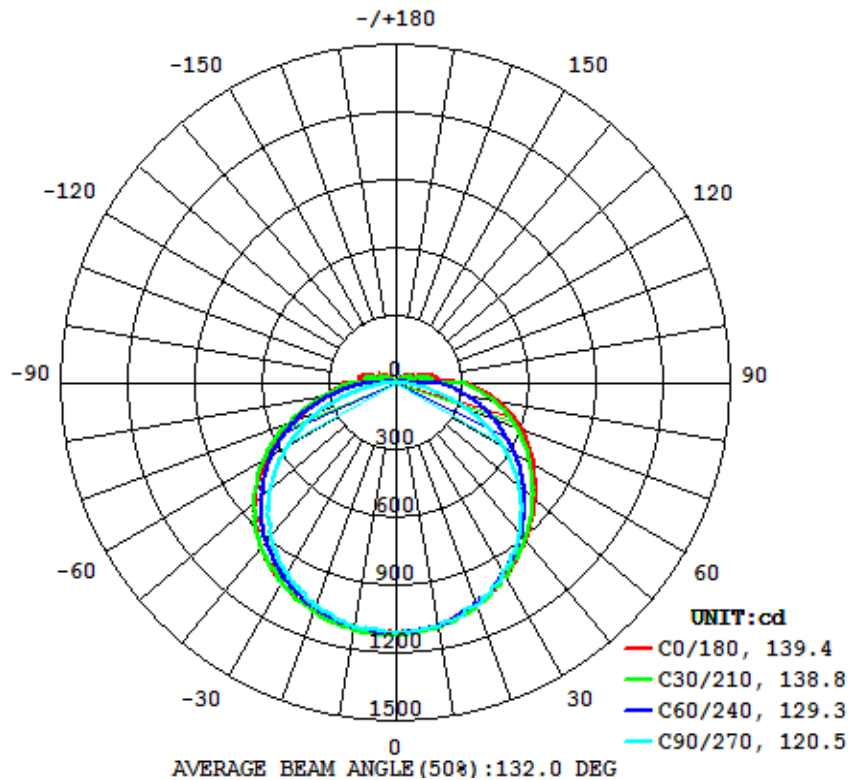
Test Result

| Flux(lm) | Zonal Lumen Requirement(0° - 60°) | SC (0° - 180°) | SC (90° - 270°) | Luminous Efficacy (lm/W) |
|----------|---|------------------------------------|-------------------------------------|--------------------------|
| 8381 | 73.60% | 1.34 | 1.30 | 106.9 |

LUMINAIRE PHOTOMETRIC TEST REPORT

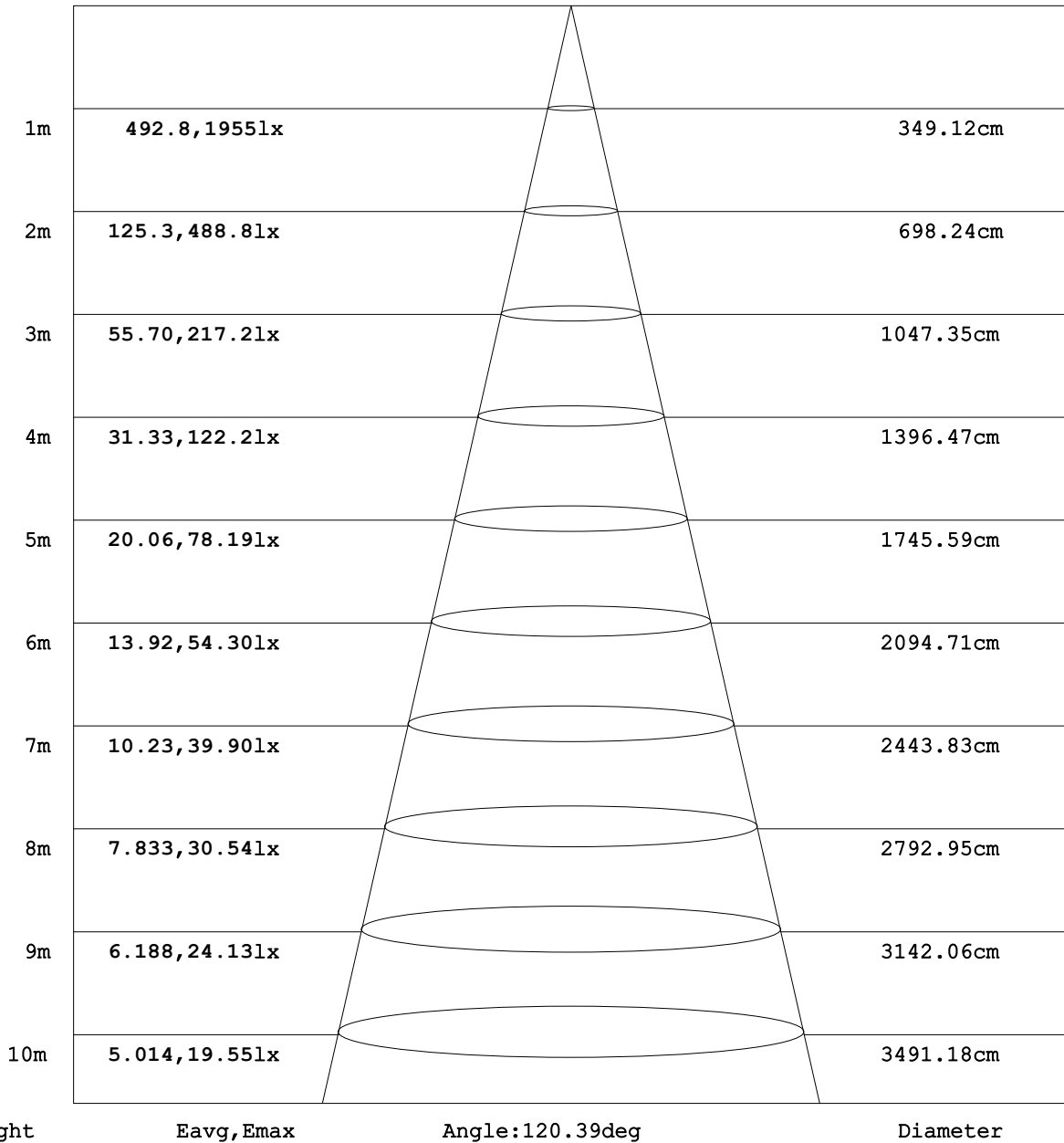
| DATA OF LAMP | | PHOTOMETRIC DATA | | | |
|------------------|---------|-----------------------|--------|--------------------|-----------|
| MODEL | | I _{max} (cd) | 2198.8 | S/MH(C0/180) | 1.37 |
| NOMINAL POWER(W) | | LOR(%) | 100.0 | S/MH(C90/270) | 1.31 |
| RATED VOLTAGE(V) | | TOTAL FLUX(lm) | 8372.4 | η UP, DN(C0-180) | 3.1, 46.6 |
| NOMINAL FLUX(lm) | 8372.49 | CIE CLASS | DIRECT | η UP, DN(C180-360) | 3.1, 47.1 |
| LAMPS INSIDE | 1 | η up(%) | 6.3 | CIBSE SHR NOM | 1.50 |
| TEST VOLTAGE(V) | | η down(%) | 93.7 | CIBSE SHR MAX | 1.55 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AAI Figure

Flux out: 4919 lm



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

UGR(Unified Glare Rating) Table

| NAME: 5 | | TYPE: | | | | | WEIGHT: | | | | | |
|-----------------|-----|------------------|------|------|------|------|------------------|------|------|------|------|------|
| SPEC.: | | DIM.: 0 | | | | | SERIAL No.: | | | | | |
| MFR.: | | SUR.:0 | | | | | Shielding Angle: | | | | | |
| ceiling/cavity | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | |
| walls | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | |
| working plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | | |
| x = 2H y = 2H | | 14.1 | 15.7 | 14.6 | 16.1 | 16.6 | 13.0 | 14.6 | 13.5 | 15.1 | 15.5 | |
| | 3H | 16.9 | 18.4 | 17.4 | 18.9 | 19.4 | 14.9 | 16.4 | 15.4 | 16.9 | 17.4 | |
| | 4H | 18.3 | 19.7 | 18.8 | 20.2 | 20.7 | 15.7 | 17.1 | 16.2 | 17.5 | 18.0 | |
| | 6H | 19.8 | 21.1 | 20.3 | 21.6 | 22.1 | 16.2 | 17.5 | 16.7 | 18.0 | 18.5 | |
| | 8H | 20.6 | 21.8 | 21.1 | 22.3 | 22.9 | 16.3 | 17.6 | 16.8 | 18.1 | 18.6 | |
| | 12H | 21.4 | 22.6 | 21.9 | 23.1 | 23.7 | 16.4 | 17.6 | 16.9 | 18.1 | 18.7 | |
| | 4H | 2H | 14.9 | 16.3 | 15.3 | 16.7 | 17.2 | 14.0 | 15.4 | 14.5 | 15.8 | 16.4 |
| | | 3H | 18.0 | 19.2 | 18.5 | 19.7 | 20.2 | 16.2 | 17.4 | 16.7 | 17.9 | 18.5 |
| | | 4H | 19.6 | 20.7 | 20.1 | 21.2 | 21.8 | 17.2 | 18.3 | 17.7 | 18.8 | 19.4 |
| | | 6H | 21.2 | 22.2 | 21.8 | 22.8 | 23.3 | 17.9 | 18.8 | 18.4 | 19.4 | 20.0 |
| | | 8H | 22.1 | 23.0 | 22.7 | 23.6 | 24.2 | 18.1 | 19.0 | 18.6 | 19.6 | 20.2 |
| | | 12H | 23.1 | 23.9 | 23.6 | 24.5 | 25.1 | 18.2 | 19.1 | 18.8 | 19.7 | 20.3 |
| | 8H | 4H | 20.1 | 21.0 | 20.6 | 21.5 | 22.1 | 17.9 | 18.9 | 18.5 | 19.4 | 20.0 |
| | | 6H | 22.0 | 22.8 | 22.6 | 23.4 | 24.0 | 18.9 | 19.7 | 19.5 | 20.3 | 20.9 |
| | | 8H | 23.1 | 23.8 | 23.7 | 24.4 | 25.0 | 19.4 | 20.1 | 19.9 | 20.7 | 21.3 |
| | | 12H | 24.3 | 24.9 | 24.9 | 25.5 | 26.2 | 19.7 | 20.3 | 20.3 | 20.9 | 21.6 |
| | 12H | 4H | 20.1 | 21.0 | 20.7 | 21.5 | 22.1 | 18.1 | 19.0 | 18.7 | 19.6 | 20.2 |
| | | 6H | 22.2 | 22.9 | 22.8 | 23.4 | 24.1 | 19.3 | 20.0 | 19.9 | 20.6 | 21.2 |
| | | 8H | 23.3 | 24.0 | 23.9 | 24.6 | 25.2 | 19.9 | 20.5 | 20.5 | 21.1 | 21.8 |