



FOR THE SCOPE OF
ACCREDITATION UNDER NVLAP LAB
CODE 100402-0.

REPORT

3933 US ROUTE 11, CORTLAND, NEW YORK 13045

Project No. G102182053

Original Issue Date: July 21, 2015

Revision Date: July 22, 2015

REPORT NO. 102182053CRT-003

TEST OF ONE RECESSED DOWNLIGHTS

MODEL NO. A4VECLED1-1330K- WE

LED MODEL NO. XICATO XTM

DRIVER MODEL NO. HARVARD CL7005-UNI-C

RENDERED TO:

LEXINGTON LIGHTING GROUP, LLC DBA VANTAGE LIGHTING
645 MYLES STANDISH BLVD
TAUNTON, MA 02780

REVISION NOTE: Revised to correct client address.

TESTS: Electrical and Photometric tests as required to the IESNA test standard.

STATEMENT OF LIMITATION: This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

AUTHORIZATION The testing performed was authorized by signed quote number .

STANDARDS USED:

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

DESCRIPTION OF SAMPLE: The client submitted one prototype sample of model number A4VECLED1-1330K- WE. The sample was received by Intertek on June 24, 2015 in undamaged condition and one sample was tested as received. The sample designation was CRT1506241050-001-003.

DATE OF TESTS: July 21, 2015

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SUMMARY:

| |
|----------------------------------|
| MODEL NO. A4VECLED1-1330K- WE |
| DESCRIPTION: RECESSED DOWNLIGHTS |

| Criteria | Results |
|-----------------------|---------|
| Light Output (Lumens) | 1067 |
| Total Power (W) | 13.59 |
| Lumen Efficacy (Lm/W) | 78.5 |
| Power Factor () | 0.990 |

EQUIPMENT LIST

| Equipment Used | Model No. | Control No. | Last Cal. | Cal. Due |
|---|------------|-------------|------------|------------|
| LSI High Speed Mirror Goniometer | 6440 | --- | 7/10/2015 | 8/10/2015 |
| Elgar AC Power Supply | CW1251 | --- | VBU | VBU |
| Sorenson DC Power Supply | XG 150-10 | --- | VBU | VBU |
| Yokogawa Power Analyzer | WT210 | E464 | 4/20/2015 | 4/20/2016 |
| ExTech Hygro Thermometer | 445703 | T1357 | 12/10/2014 | 12/10/2015 |
| Fisher Scientific Stopwatch | 14-649-9 | N1405 | 8/25/2014 | 8/25/2015 |
| M-D Building Products Digital Level | Smart Tool | L112 | 3/25/2015 | 3/25/2016 |
| √IST Luminous Intensity Standard Source | NBS10322 | N1427 | 12/12/2014 | 12/12/2015 |
| √IST Luminous Intensity Standard Source | NBS10215 | N1432 | 12/12/2014 | 12/12/2015 |
| √IST Luminous Intensity Standard Source | H754 | N1433 | 12/12/2014 | 12/12/2015 |
| NIST Luminous Flux Standard Source | NBS10428 | N1424 | 12/17/2014 | 12/17/2015 |

TEST METHODS:

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

Photometric and Electrical measurements – Distribution Method

A LSI Type C High Speed Model 6440 Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for the SSL sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The SSL sample was operated on the client provided driver at rated input volts in its designated orientation. The SSL sample was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

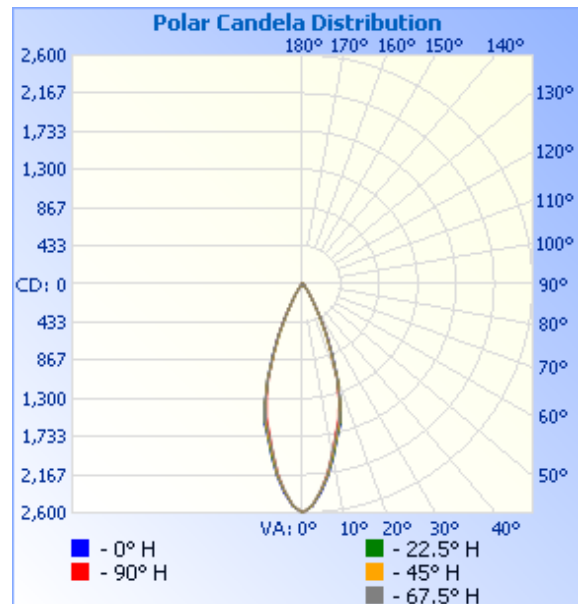
RESULTS:

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

| Intertek Control No. | Base Orientation | Input Voltage (VAC) | Input Current (mA) | Input Power (W) | Input Power Factor () | Light Output (Lumens) | Lumen Efficacy (lm/W) |
|-----------------------|------------------|---------------------|--------------------|-----------------|------------------------|-----------------------|-----------------------|
| CRT1506241050-001-003 | Base Up | 120.1 | 114.3 | 13.59 | 0.990 | 1067.0 | 78.53 |

Intensity (Candlepower) Summary at 25°C - Candelas

| Angle | 0 | 22.5 | 45 | 67.5 | 90 |
|-------|------|------|------|------|------|
| 0 | 2597 | 2597 | 2597 | 2597 | 2597 |
| 5 | 2379 | 2365 | 2359 | 2350 | 2361 |
| 10 | 1994 | 1987 | 1964 | 1940 | 1949 |
| 15 | 1650 | 1635 | 1617 | 1599 | 1577 |
| 20 | 1162 | 1152 | 1155 | 1132 | 1132 |
| 25 | 648 | 624 | 615 | 635 | 647 |
| 30 | 281 | 272 | 269 | 274 | 275 |
| 35 | 130 | 126 | 125 | 128 | 127 |
| 40 | 63 | 61 | 61 | 63 | 63 |
| 45 | 32 | 31 | 31 | 32 | 34 |
| 50 | 19 | 18 | 18 | 19 | 20 |
| 55 | 11 | 11 | 10 | 11 | 12 |
| 60 | 7 | 6 | 7 | 7 | 8 |
| 65 | 4 | 4 | 3 | 4 | 4 |
| 70 | 1 | 1 | 1 | 2 | 2 |
| 75 | 0 | 0 | 0 | 0 | 0 |
| 80 | 0 | 0 | 0 | 0 | 0 |
| 85 | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 |

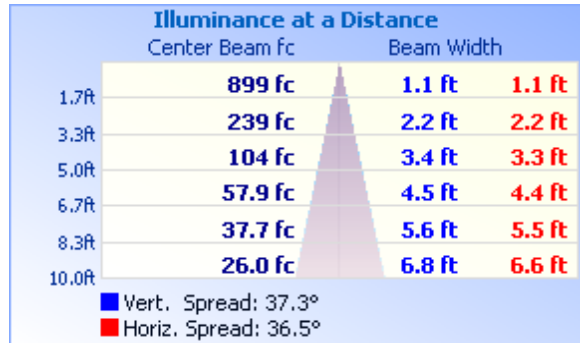


RESULTS:

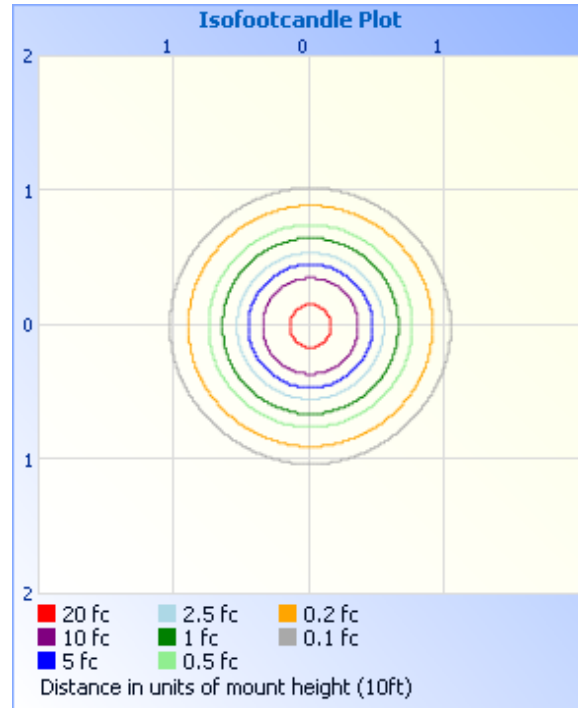
Illumination Plots

Mounting Height: 10

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

| Zone | Lumens | % Luminaire |
|--------|--------|-------------|
| 0-30 | 940.0 | 88.1 |
| 0-40 | 1026.2 | 96.1 |
| 0-60 | 1063.2 | 99.6 |
| 60-90 | 4.2 | 0.4 |
| 0-90 | 1067.4 | 100.0 |
| 90-180 | 0.0 | 0.0 |
| 0-180 | 1067.4 | 100.0 |

Zonal Lumens and Percentages at 25°C

| Zone | Lumens | % Luminaire |
|-------|--------|-------------|
| 0-10 | 212.4 | 19.9 |
| 10-20 | 437.2 | 41.0 |
| 20-30 | 290.5 | 27.2 |
| 30-40 | 86.1 | 8.1 |
| 40-50 | 26.7 | 2.5 |
| 50-60 | 10.3 | 1.0 |
| 60-70 | 3.8 | 0.4 |
| 70-80 | 0.4 | 0.0 |
| 80-90 | 0.0 | 0.0 |

PRODUCT PICTURE:



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



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Report Reviewed By:



Jeffrey Davis
Engineering Supervisor
Lighting Division

Attachments: IES File - CRT1506241050-001-003