



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

## REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Project No. G101603639

Date: April 14, 2014

REPORT NO. 101603639CRT-003

TEST OF ONE PORTABLE ELECTRIC LUMINAIRE WITH A SINGLE 8" VERY NARROW SPOT LENS

FIXTURE MODEL NO. SS-SPP-100 3K WHITE-18-0110

LED MODEL NO. Philips Lumileds LX18-P130-3

RENDERED TO

ALTMAN STAGE LIGHTING INC  
57 ALEXANDER STREET  
YONKERS, NY, 10701

TEST: 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 500508985.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

IESNA LM-79: 2008 Approved Method for Electrical and Photometric Measurements of Solid-State Lighting Products

ANSI ANSLG C38.377: 2012 Specifications of the Chromaticity of Solid State Lighting Products

DESCRIPTION OF SAMPLE: The client submitted one production sample of model number SS-SPP-100 3K WHITE-18-0110. The sample was received by Intertek on February 13, and April 9, 2014, in undamaged condition, and one sample was tested as received. The sample designation was CRT1402131143-001.

DATES OF TESTS: April 11, 2014.

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SUMMARY

|              |  |
|--------------|--|
| Model No.:   | SS-SPP-100 3K WHITE-18-0110  |
| Description: | Portable Electric Luminaire With A Single 8" Very Narrow Spot Lens |

| Criteria           | Result      |
|--------------------|-------------|
| Total Lumen Output | 5078 Lumens |
| Total Power        | 93.10 W     |
| Luminaire Efficacy | 54.54       |
| Power Factor       | 0.588       |

EQUIPMENT LIST

| Equipment Used                   | Model Number | Control Number | Last Calibration Date | Calibration Due Date |
|----------------------------------|--------------|----------------|-----------------------|----------------------|
| LSI High Speed Mirror Goniometer | 6440         | ---            | 03/25/14              | 04/25/14             |
| Elgar Power Supply               | CW1251       | ---            | VBU                   | VBU                  |
| Yokogawa Power Analyzer          | WT210        | E464           | 04/17/13              | 04/17/14             |
| ExTech Hygro Thermometer         | 445703       | T1357          | 11/25/13              | 11/25/14             |
| Fisher Scientific                | 14-649-9     | N1405          | 08/13/13              | 08/13/14             |
| M-D Building Products            | Smart Tool   | L112           | 03/15/14              | 03/15/15             |

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 each sample.

Ambient temperature was measured equal to the height of the sample mounted on the Goniometer equipment. Each sample was operated at input rated voltage in its designated orientation. Each sample was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Xitron or Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.



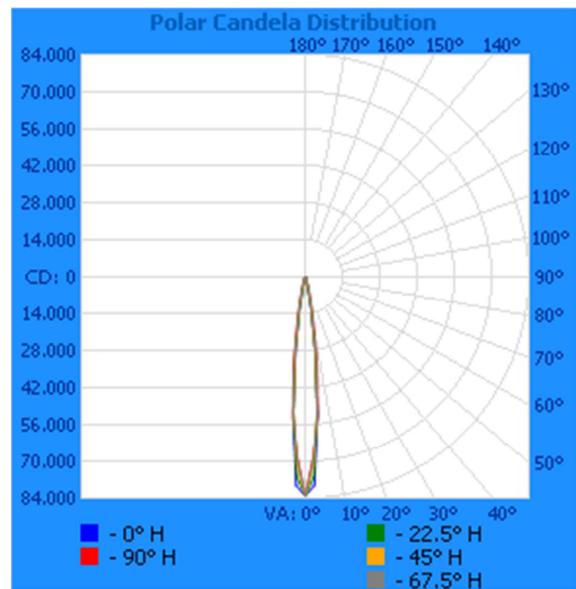
**RESULTS OF TESTS**

Photometric and Electrical Measurements – Distribution Method

| Intertek Sample No. | Base Orientation | Input Voltage (Vac) | Input Current (mA) | Input Power (Watts) | Input Power Factor | Absolute Luminous Flux (Lumens) | Lumen Efficacy (Lumens Per Watt) |
|---------------------|------------------|---------------------|--------------------|---------------------|--------------------|---------------------------------|----------------------------------|
| CRT1402131143-001   | UP               | 120.1               | 1320               | 93.10               | 0.588              | 5078                            | 54.54                            |

Intensity (Candlepower) Summary at 25°C - Candelas

| Angle | 0     | 22.5  | 45    | 67.5  | 90    |
|-------|-------|-------|-------|-------|-------|
| 0     | 83177 | 83177 | 83177 | 83177 | 83177 |
| 5     | 51918 | 51404 | 50682 | 51830 | 53493 |
| 10    | 12155 | 12426 | 12991 | 15184 | 17474 |
| 15    | 1708  | 1919  | 2809  | 4841  | 5588  |
| 20    | 452   | 485   | 721   | 1689  | 1625  |
| 25    | 261   | 266   | 292   | 469   | 409   |
| 30    | 172   | 172   | 173   | 194   | 194   |
| 35    | 111   | 118   | 116   | 123   | 123   |
| 40    | 76    | 80    | 81    | 85    | 84    |
| 45    | 54    | 56    | 61    | 62    | 61    |
| 50    | 39    | 38    | 42    | 50    | 50    |
| 55    | 26    | 22    | 28    | 32    | 30    |
| 60    | 7     | 6     | 10    | 12    | 12    |
| 65    | 0     | 0     | 0     | 1     | 0     |
| 70    | 0     | 0     | 0     | 0     | 0     |
| 75    | 0     | 0     | 0     | 0     | 0     |
| 80    | 0     | 0     | 0     | 0     | 0     |
| 85    | 0     | 0     | 0     | 0     | 0     |
| 90    | 0     | 0     | 0     | 0     | 0     |

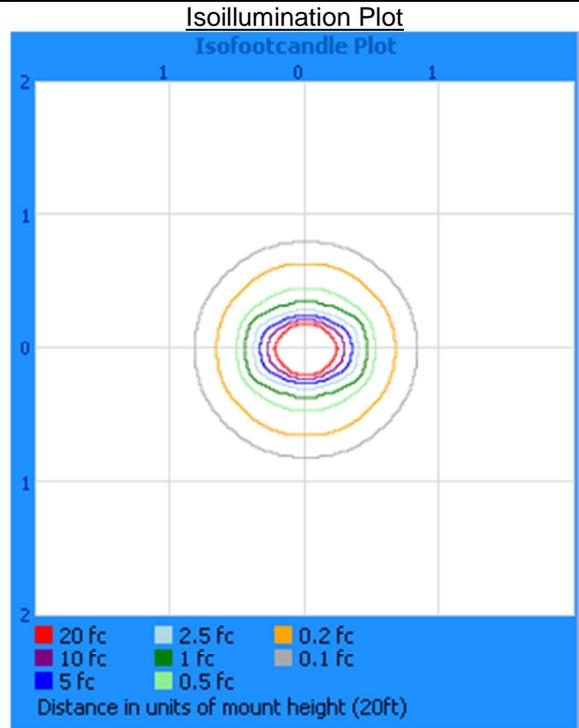
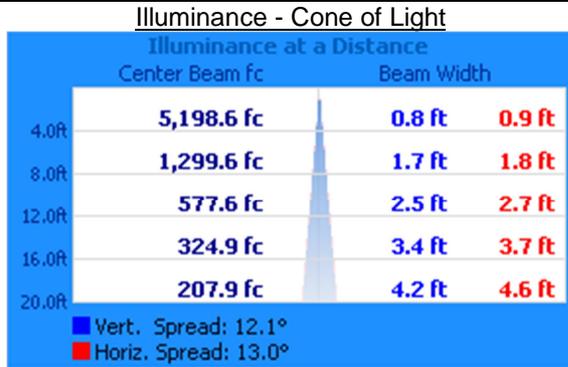




RESULTS OF TESTS (cont'd)

Illumination Plots

Mounting Height: 20 ft.



Zonal Lumen Summary and Percentages at 25°C

| Zone   | Lumens | % Luminaire |
|--------|--------|-------------|
| 0-30   | 4930   | 97.1        |
| 0-40   | 5006   | 98.6        |
| 0-60   | 5076   | 100.0       |
| 60-90  | 1.9    | 0.0         |
| 0-90   | 5078   | 100.0       |
| 90-180 | 0.0    | 0.0         |
| 0-180  | 5078   | 100.0       |

Zonal Lumens and Percentages at 25°C

| Zone  | Lumens | % Luminaire |
|-------|--------|-------------|
| 0-10  | 3586   | 70.6        |
| 10-20 | 1157   | 22.8        |
| 20-30 | 186.8  | 3.7         |
| 30-40 | 76.3   | 1.5         |
| 40-50 | 46.3   | 0.9         |
| 50-60 | 23.8   | 0.5         |
| 60-70 | 1.9    | 0.0         |
| 70-80 | 0.0    | 0.0         |
| 80-90 | 0.0    | 0.0         |



Picture (not to scale)



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:

Report Reviewed By:

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Attachment: None