

# SCOUT LIGHTING

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

SS-S-FM-M-30-M-EF-1-N-N-12

### PROJECT NUMBER

G105054548

### REPORT NUMBER

105054548CRT-001

### ISSUE DATE

5/19/2022

### REVISED DATE

None

### TEST DATES

5/11/2022

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**REPORT NUMBER**

105054548CRT-001

**MODEL NUMBER(s)**

SS-S-FM-M-30-M-EF-1-N-N-12

**REPORT RENDERED TO:**

SCOUT LIGHTING  
221 WEST 21ST, UNIT 1B  
NEW YORK, NY 10011  
USA

**STATEMENT OF LIMITATION**

NVLAP Lab Code 100402-0. 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 Qu-01263221-1.

**TEST STANDARDS**

ANSI/IES LM-79-19: Optical and Electrical Measurements of Solid State Lighting Products

IES LM-79-08: Electrical and Photometric Measurements of Solid State Lighting

In Charge of Testing:



Gerald Gray  
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Lighting Division

Reviewer:



Melanie Brittain  
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# SAMPLE INFORMATION

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## ITEMS RECEIVED

| Item No. | Control No.         | Model No.                  | Description                              | Type       | Received  |
|----------|---------------------|----------------------------|--|------------|-----------|
| 1        | CRT2204251036-001-7 | SS-S-FM-M-30-M-EF-1-N-N-12 | Scout Surface - 1" aperture - Milky Lens | Production | 4/25/2022 |

## TESTED SAMPLE CONFIGURATIONS

| Config No. | Tested Model No.           | Item Nos. Utilized |
|------------|----------------------------|--------------------|
| 1          | SS-S-FM-M-30-M-EF-1-N-N-12 | 1                  |

## SAMPLE PHOTOS - TESTED CONFIGURATIONS



**SUMMARY**

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**PRODUCT INFORMATION AND SUMMARY OF DATA**

|                      |  |
|----------------------|--|
| Product Model No.:   | SS-S-FM-M-30-M-EF-1-N-N-12               |
| Product Description: | Scout Surface - 1" aperture - Milky Lens |
| LED Model No.:       | CREE 2835 18V                            |
| Driver Model No.:    | Advance XI013C036V054DNM1                |
| Light Source:        | LED                                      |

| Criteria                           | Results |
|------------------------------------|---------|
| Light Output (lumens)              | 273.6   |
| Input Power (W) @ 120 (Vac)        | 6.58    |
| Lumen Efficacy (lm/W)              | 41.6    |
| Input Power Factor ( ) @ 120 (Vac) | 0.973   |

**TEST METHODS**

**SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS**

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

**TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING**

A Type C Mirror Goniophotometer system was used to measure the luminous intensity (candela) at each angle of distribution for the EUT. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position near the EUT at equal height and stabilization procedures to LM-79 were followed.

**TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING**

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| Test Configuration | Tested Model No.           | Pass/Fail/NA |
|--------------------|----------------------------|--------------|
| 1                  | SS-S-FM-M-30-M-EF-1-N-N-12 | NA           |

**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)**

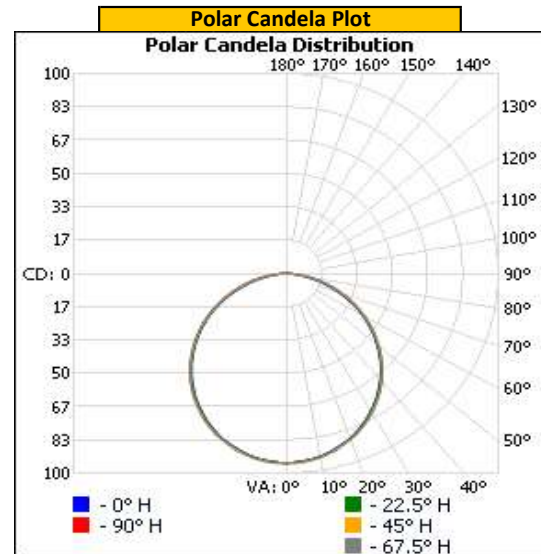
| Base Orientation | Input Voltage (Vac) | Input Current (mA) | Input Power (W) | Input Power Factor ( ) |
|------------------|---------------------|--------------------|-----------------|------------------------|
| Up               | 120.04              | 56.4               | 6.58            | 0.973                  |

| Light Output (lm) | Lumen Efficacy (lm/W) |
|-------------------|-----------------------|
| 273.6             | 41.6                  |

**INTENSITY SUMMARY - CANDELA**

| Angle | 0  | 22.5 | 45 | 67.5 | 90 |
|-------|----|------|----|------|----|
| 0     | 95 | 95   | 95 | 95   | 95 |
| 5     | 94 | 94   | 95 | 95   | 94 |
| 10    | 93 | 93   | 94 | 94   | 93 |
| 15    | 90 | 91   | 91 | 92   | 91 |
| 20    | 88 | 88   | 88 | 89   | 88 |
| 25    | 84 | 84   | 85 | 85   | 85 |
| 30    | 80 | 80   | 81 | 81   | 80 |
| 35    | 75 | 75   | 76 | 76   | 76 |
| 40    | 69 | 69   | 70 | 70   | 70 |
| 45    | 63 | 63   | 64 | 64   | 64 |
| 50    | 56 | 56   | 57 | 57   | 57 |
| 55    | 49 | 49   | 50 | 50   | 50 |
| 60    | 41 | 42   | 42 | 43   | 43 |
| 65    | 33 | 34   | 34 | 35   | 35 |
| 70    | 25 | 26   | 27 | 27   | 27 |
| 75    | 17 | 18   | 19 | 20   | 20 |
| 80    | 9  | 10   | 12 | 12   | 12 |
| 85    | 2  | 4    | 5  | 6    | 6  |
| 90    | 0  | 0    | 1  | 1    | 1  |
| 95    | 0  | 0    | 0  | 0    | 0  |
| 100   | 0  | 0    | 0  | 0    | 0  |
| 105   | 0  | 0    | 0  | 0    | 0  |
| 110   | 0  | 0    | 0  | 0    | 0  |
| 115   | 0  | 0    | 0  | 0    | 0  |
| 120   | 0  | 0    | 0  | 0    | 0  |
| 125   | 0  | 0    | 0  | 0    | 0  |
| 130   | 0  | 0    | 0  | 0    | 0  |
| 135   | 0  | 0    | 0  | 0    | 0  |
| 140   | 0  | 0    | 0  | 0    | 0  |
| 145   | 0  | 0    | 0  | 0    | 0  |
| 150   | 0  | 0    | 0  | 0    | 0  |
| 155   | 0  | 0    | 0  | 0    | 0  |
| 160   | 0  | 0    | 0  | 0    | 0  |
| 165   | 0  | 0    | 0  | 0    | 0  |
| 170   | 0  | 0    | 0  | 0    | 0  |
| 175   | 0  | 0    | 0  | 0    | 0  |
| 180   | 0  | 0    | 0  | 0    | 0  |

Entire luminous intensity matrix found in .IES file



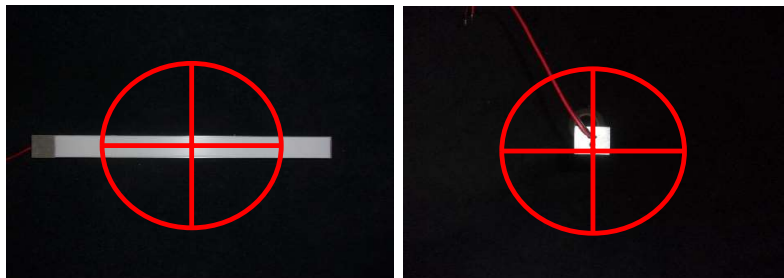
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**ORIENTATION AND ALIGNMENT OF EUT**

| Luminous Opening |            |             |
|------------------|------------|-------------|
| Length (ft)      | Width (ft) | Height (ft) |
| 1.00             | 0.08       | 0.00        |
| 0°-180° H        | 90°-270° H | 0°-180° V   |

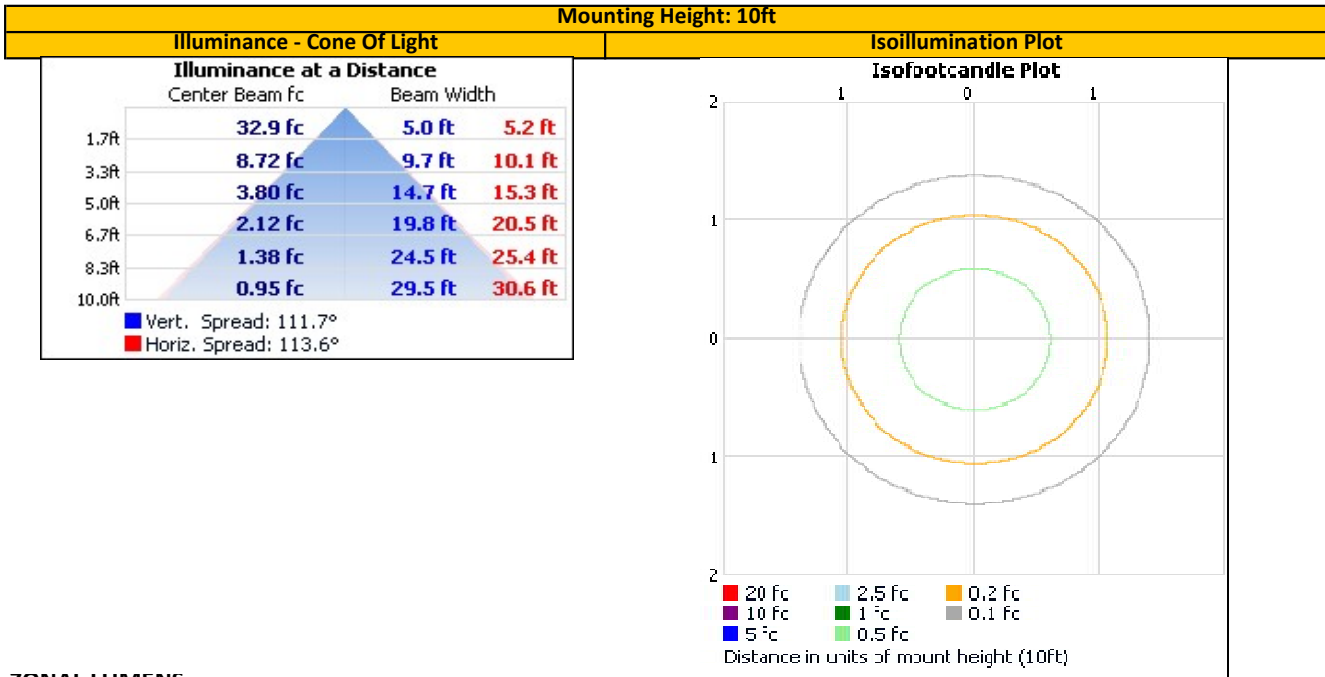
| Test Distance (ft) |
|--------------------|
| 29.6               |

**PHOTOMETRIC CENTER OF EUT**



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## ILLUMINANCE SUMMARY



## ZONAL LUMENS

| Zonal Lumen Summary |        |           |       |        |       |         |        |       |
|---------------------|--------|-----------|-------|--------|-------|---------|--------|-------|
|                     |        |           |       |        |       |         |        |       |
| Zone                | Lumens | Luminaire | Zone  | Lumens | Total | Zone    | Lumens | Total |
| 0-30                | 73.7   | 26.9%     | 0-10  | 9.0    | 3.3%  | 90-100  | 0.3    | 0.1%  |
| 0-40                | 120.8  | 44.2%     | 10-20 | 25.7   | 9.4%  | 100-110 | 0.0    | 0.0%  |
| 0-60                | 214.1  | 78.3%     | 20-30 | 39.0   | 14.3% | 110-120 | 0.0    | 0.0%  |
| 60-90               | 59.2   | 21.6%     | 30-40 | 47.1   | 17.2% | 120-130 | 0.0    | 0.0%  |
| 70-100              | 25.5   | 9.3%      | 40-50 | 49.0   | 17.9% | 130-140 | 0.0    | 0.0%  |
| 90-120              | 0.3    | 0.1%      | 50-60 | 44.3   | 16.2% | 140-150 | 0.0    | 0.0%  |
| 0-90                | 273.3  | 99.9%     | 60-70 | 33.9   | 12.4% | 150-160 | 0.0    | 0.0%  |
| 90-180              | 0.3    | 0.1%      | 70-80 | 19.7   | 7.2%  | 160-170 | 0.0    | 0.0%  |
| 0-180               | 273.6  | 100.0%    | 80-90 | 5.5    | 2.0%  | 170-180 | 0.0    | 0.0%  |

**EQUIPMENT LIST**

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| # | Equipment                             | Model No   | Control No. | Last Cal  | Cal Due   |
|---|---------------------------------------|------------|-------------|-----------|-----------|
| 1 | LSI High Speed Mirror Goniophotometer | 6440       | ---         | 4/4/2022  | 7/4/2022  |
| 2 | Elgar AC Power Supply                 | CW1251     | ---         | VBV       | VBV       |
| 3 | Yokogawa Power Analyzer               | WT1600     | 307-E537    | 3/10/2022 | 3/10/2023 |
| 4 | Traceable Hygrothermometer            | 4800       | L204        | 2/21/2022 | 2/21/2023 |
| 5 | Sorenson DC Power Supply              | XG 150-10  | ---         | VBV       | VBV       |
| 6 | Omega Thermometer                     | DPi8-C24   | M263        | 3/1/2022  | 3/1/2023  |
| 7 | Bosch Distance Laser                  | Pro GLM 20 | L210        | 3/21/2022 | 3/15/2023 |
| 8 | M-D Building Products Digital Level   | Smart Tool | L112        | 5/26/2021 | 5/26/2022 |
| 9 | Tape Measure                          | Crescent   | ---         | 9/21/2021 | 9/21/2024 |

**REVISION HISTORY**

| #   | Revision Date | Updated By | Reviewed By | Description of Change |
|-----|---------------|------------|-------------|-----------------------|
| --- | None          | ---        | ---         | ---                   |
| --- | ---           | ---        | ---         | ---                   |
| --- | ---           | ---        | ---         | ---                   |