

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P438870

Luminaire Tested: **IST-SA1F-735-U-SLL**

Issue Date: 12/10/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P438870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/10/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: IST-SA1F-735-U-SLL  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE  
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

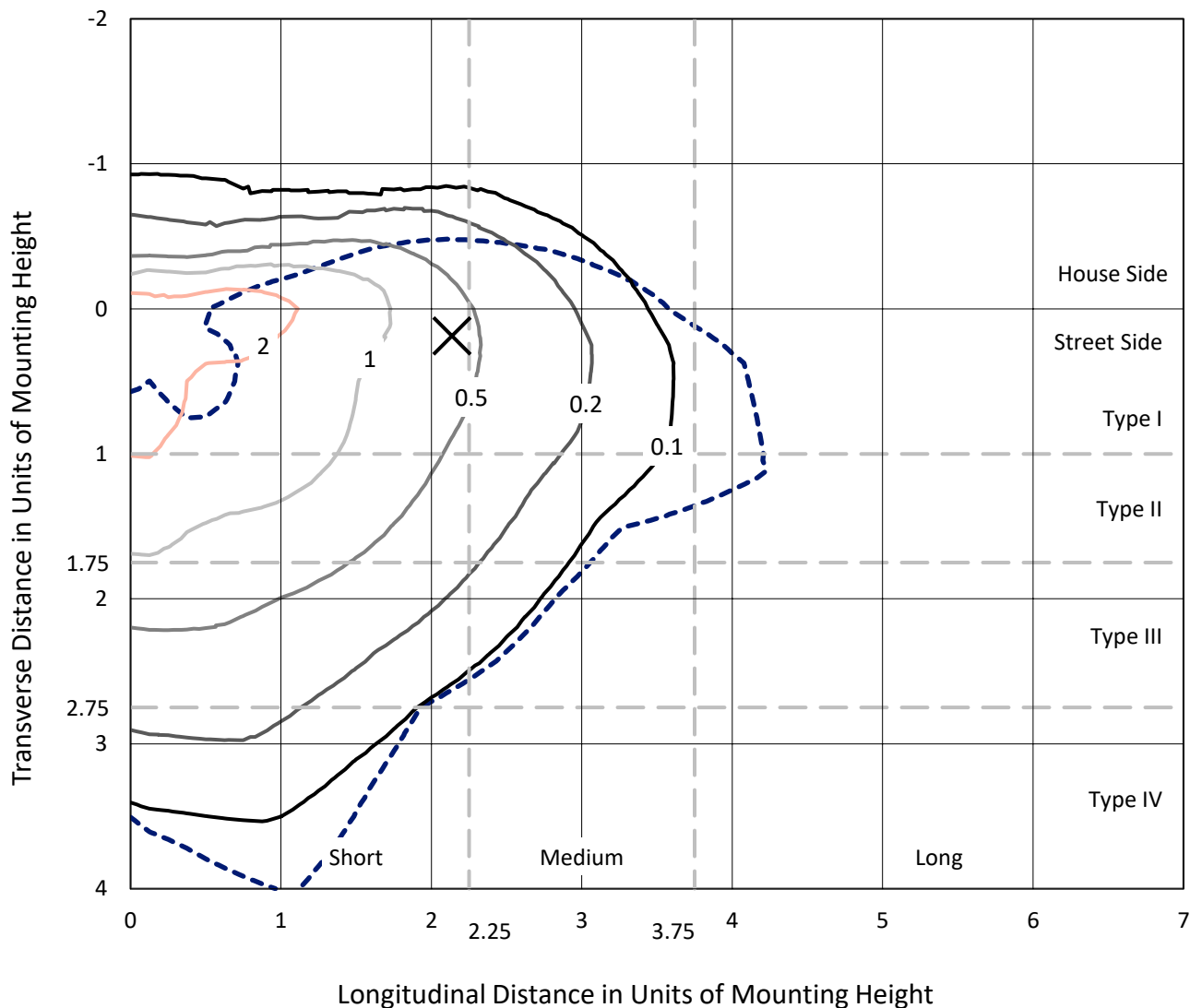
Lumens per Lamp: N/A  
Luminaire Lumens: 6528 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

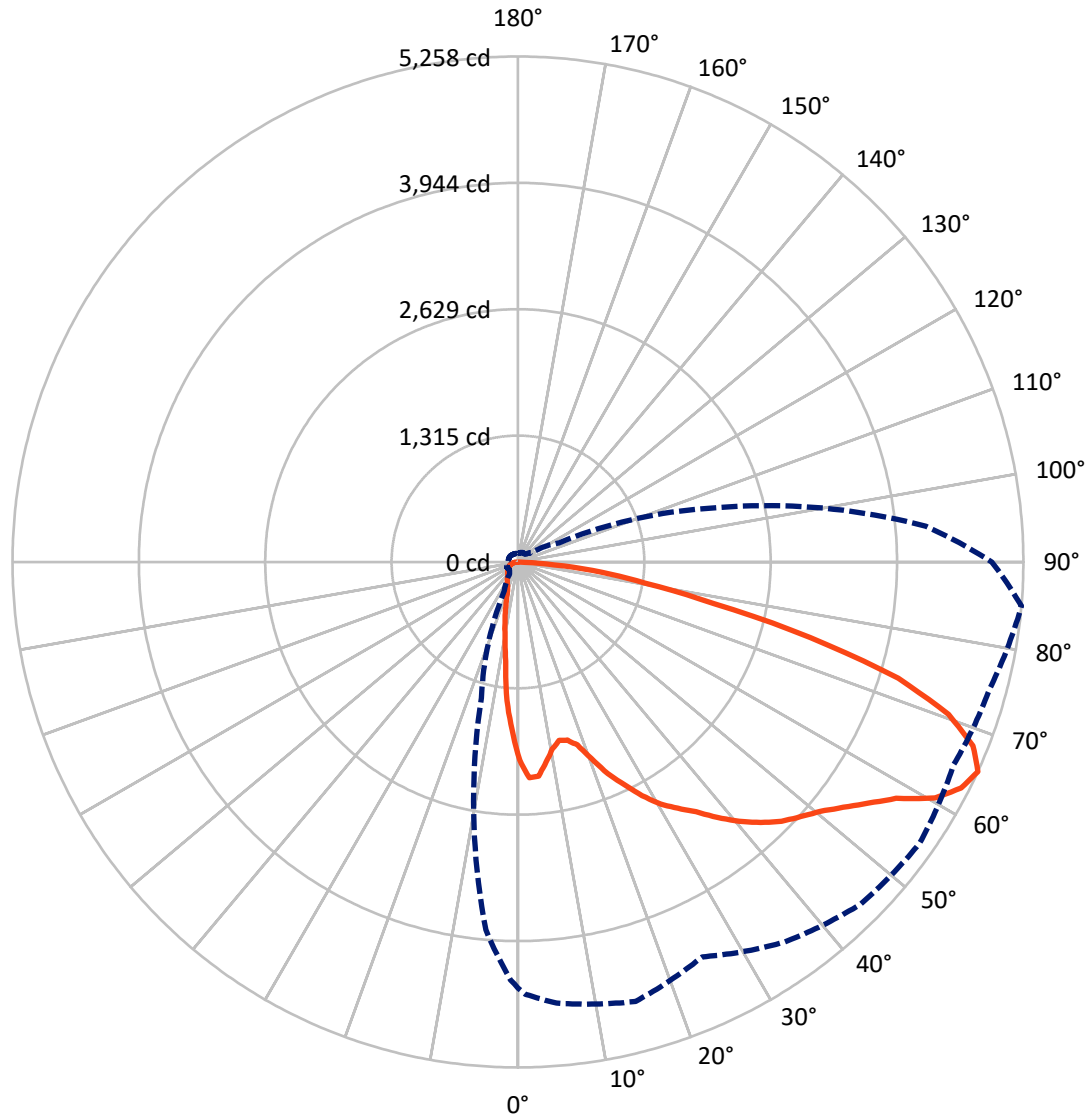
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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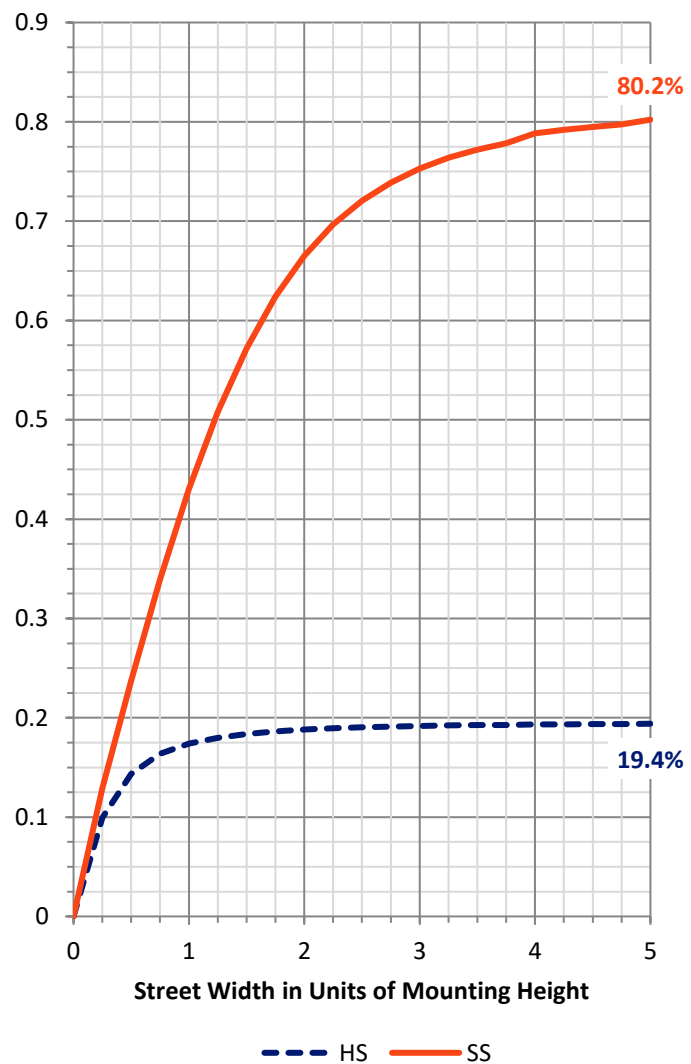
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1277.6   | 0.0    | 1277.6 |
|                    | % Fixture | 19.6     | 0.0    | 19.6   |
| <b>Street Side</b> | Lumens    | 5250.4   | 0.0    | 5250.4 |
|                    | % Fixture | 80.4     | 0.0    | 80.4   |
| <b>Total</b>       | Lumens    | 6528.0   | 0.0    | 6528.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 157.1  | 2.4       |
| 10°-20°   | 326.6  | 5.0       |
| 20°-30°   | 469.5  | 7.2       |
| 30°-40°   | 674.1  | 10.3      |
| 40°-50°   | 954.3  | 14.6      |
| 50°-60°   | 1326.9 | 20.3      |
| 60°-70°   | 1580.0 | 24.2      |
| 70°-80°   | 913.3  | 14.0      |
| 80°-90°   | 126.3  | 1.9       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-90°    | 6528.0 | 100.0     |
| 0°-180°   | 6528.0 | 100.0     |

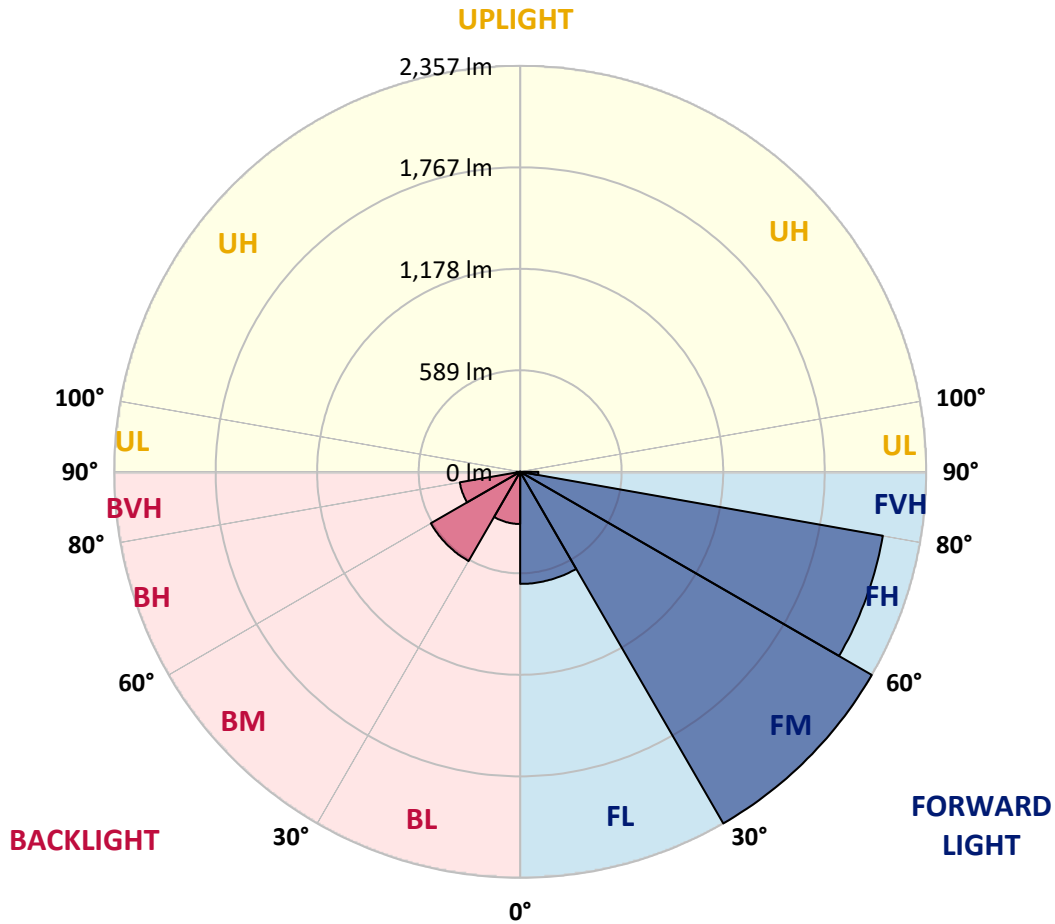


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 650.5  | 10.0      |                         |      |         |
| FM (30°-60°)   | 2356.7 | 36.1      |                         |      |         |
| FH (60°-80°)   | 2137.6 | 32.7      |                         |      | G2/5000 |
| FVH (80°-90°)  | 105.6  | 1.6       |                         |      | G2/225  |
| BL (0°-30°)    | 302.6  | 4.6       | B1/500                  |      |         |
| BM (30°-60°)   | 598.6  | 9.2       | B1/1000                 |      |         |
| BH (60°-80°)   | 355.7  | 5.4       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 20.6   | 0.3       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 1°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 |
| 2.5°  | 2161.0 | 2169.0 | 2187.6 | 2251.7 | 2291.7 | 2323.7 | 2363.7 | 2323.7 | 2313.0 | 2259.7 | 2249.0 |
| 5°    | 2083.6 | 2102.3 | 2155.6 | 2275.7 | 2374.4 | 2478.4 | 2531.8 | 2486.4 | 2425.1 | 2331.7 | 2238.3 |
| 7.5°  | 1931.5 | 1955.5 | 2024.9 | 2211.7 | 2398.4 | 2539.8 | 2609.2 | 2561.1 | 2435.8 | 2270.4 | 2102.3 |
| 10°   | 1776.8 | 1814.1 | 1896.9 | 2131.6 | 2329.0 | 2486.4 | 2593.2 | 2542.5 | 2390.4 | 2174.3 | 1974.2 |
| 12.5° | 1683.4 | 1710.1 | 1803.5 | 2048.9 | 2257.0 | 2414.4 | 2494.5 | 2465.1 | 2323.7 | 2118.3 | 1904.9 |
| 15°   | 1662.1 | 1688.8 | 1782.1 | 2019.6 | 2203.7 | 2321.0 | 2339.7 | 2347.7 | 2294.4 | 2137.0 | 1923.5 |
| 17.5° | 1720.8 | 1742.1 | 1870.2 | 2067.6 | 2142.3 | 2166.3 | 2195.7 | 2230.3 | 2257.0 | 2174.3 | 2000.9 |
| 20°   | 1862.2 | 1904.9 | 2016.9 | 2166.3 | 2126.3 | 2070.3 | 2086.3 | 2129.0 | 2230.3 | 2283.7 | 2179.6 |
| 22.5° | 2051.6 | 2099.6 | 2241.0 | 2302.4 | 2137.0 | 2016.9 | 2003.6 | 2040.9 | 2227.7 | 2403.7 | 2393.1 |
| 25°   | 2262.3 | 2329.0 | 2481.1 | 2483.8 | 2182.3 | 1979.6 | 1952.9 | 1987.6 | 2222.3 | 2510.5 | 2563.8 |
| 27.5° | 2481.1 | 2542.5 | 2707.9 | 2625.2 | 2270.4 | 1982.2 | 1950.2 | 1984.9 | 2235.7 | 2625.2 | 2753.2 |
| 30°   | 2643.9 | 2723.9 | 2868.0 | 2758.6 | 2326.4 | 2016.9 | 1968.9 | 2014.2 | 2265.0 | 2683.9 | 2921.3 |
| 32.5° | 2809.3 | 2859.9 | 3012.0 | 2835.9 | 2387.7 | 2070.3 | 2008.9 | 2078.3 | 2339.7 | 2739.9 | 3054.7 |
| 35°   | 2956.0 | 3022.7 | 3177.4 | 2881.3 | 2478.4 | 2161.0 | 2080.9 | 2171.6 | 2446.4 | 2819.9 | 3190.8 |
| 37.5° | 3142.7 | 3206.8 | 3348.2 | 2945.3 | 2553.1 | 2275.7 | 2209.0 | 2326.4 | 2577.2 | 2892.0 | 3372.2 |
| 40°   | 3308.2 | 3409.5 | 3516.2 | 3025.4 | 2638.5 | 2443.8 | 2401.1 | 2561.1 | 2753.2 | 2990.7 | 3548.3 |
| 42.5° | 3470.9 | 3556.3 | 3673.6 | 3116.1 | 2747.9 | 2649.2 | 2667.9 | 2835.9 | 2966.7 | 3140.1 | 3705.7 |
| 45°   | 3588.3 | 3687.0 | 3791.0 | 3188.1 | 2889.3 | 2870.6 | 2996.0 | 3137.4 | 3185.4 | 3297.5 | 3847.1 |
| 47.5° | 3703.0 | 3780.4 | 3873.7 | 3260.1 | 3060.0 | 3118.7 | 3337.5 | 3446.9 | 3398.9 | 3438.9 | 3959.1 |
| 50°   | 3855.1 | 3937.8 | 3964.4 | 3374.8 | 3276.1 | 3433.5 | 3671.0 | 3743.0 | 3604.3 | 3550.9 | 4076.5 |
| 52.5° | 4073.8 | 4113.8 | 4100.5 | 3510.9 | 3481.6 | 3761.7 | 3956.4 | 4065.8 | 3817.7 | 3657.6 | 4239.2 |
| 55°   | 4367.3 | 4436.7 | 4351.3 | 3732.3 | 3692.3 | 4076.5 | 4303.3 | 4356.6 | 4055.2 | 3791.0 | 4426.0 |
| 57.5° | 4647.4 | 4708.8 | 4682.1 | 4001.8 | 3967.1 | 4348.6 | 4567.4 | 4618.1 | 4287.3 | 4039.1 | 4639.4 |
| 60°   | 4751.5 | 4770.1 | 4866.2 | 4287.3 | 4241.9 | 4580.7 | 4828.8 | 4836.8 | 4564.7 | 4337.9 | 4986.2 |
| 62.5° | 4639.4 | 4714.1 | 4807.5 | 4554.0 | 4407.3 | 4780.8 | 5002.2 | 5052.9 | 4828.8 | 4700.8 | 5175.7 |
| 65°   | 4431.3 | 4498.0 | 4607.4 | 4732.8 | 4532.7 | 4828.8 | 5036.9 | 5101.0 | 4999.6 | 5082.3 | 5258.4 |
| 67.5° | 4191.2 | 4273.9 | 4348.6 | 4762.1 | 4516.7 | 4554.0 | 4727.5 | 4767.5 | 4908.9 | 5250.4 | 5106.3 |
| 70°   | 3881.7 | 3975.1 | 4039.1 | 4647.4 | 4135.2 | 3764.4 | 3887.1 | 3996.5 | 4212.6 | 4951.6 | 4751.5 |
| 72.5° | 3214.8 | 3364.2 | 3524.2 | 4127.2 | 3345.5 | 2924.0 | 3020.0 | 3092.1 | 3246.8 | 4228.6 | 4137.9 |
| 75°   | 2262.3 | 2371.7 | 2569.2 | 3324.2 | 2569.2 | 2070.3 | 2219.7 | 2219.7 | 2414.4 | 3473.6 | 3142.7 |
| 77.5° | 1352.6 | 1355.3 | 1547.4 | 2187.6 | 1563.4 | 1395.3 | 1480.7 | 1520.7 | 1579.4 | 2459.8 | 2086.3 |
| 80°   | 765.7  | 776.3  | 840.4  | 1414.0 | 925.7  | 952.4  | 1053.8 | 1160.5 | 1072.5 | 1526.0 | 1341.9 |
| 82.5° | 357.5  | 314.8  | 333.5  | 667.0  | 525.6  | 621.6  | 637.6  | 685.6  | 691.0  | 976.4  | 880.4  |
| 85°   | 29.3   | 24.0   | 32.0   | 120.1  | 93.4   | 85.4   | 61.4   | 117.4  | 184.1  | 426.9  | 378.8  |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 |
| 2.5°  | 2214.3 | 2187.6 | 2129.0 | 2083.6 | 2040.9 | 1960.9 | 1928.9 | 1883.5 | 1859.5 | 1816.8 | 1827.5 |
| 5°    | 2169.0 | 2107.6 | 1974.2 | 1883.5 | 1766.1 | 1670.1 | 1611.4 | 1558.0 | 1536.7 | 1491.3 | 1475.3 |
| 7.5°  | 2003.6 | 1950.2 | 1782.1 | 1632.7 | 1488.7 | 1373.9 | 1264.6 | 1184.5 | 1147.2 | 1107.2 | 1104.5 |
| 10°   | 1862.2 | 1774.1 | 1582.0 | 1406.0 | 1240.6 | 1133.8 | 1053.8 | 987.1  | 928.4  | 877.7  | 848.4  |
| 12.5° | 1782.1 | 1672.8 | 1459.3 | 1245.9 | 1131.2 | 1056.5 | 968.4  | 885.7  | 819.0  | 760.3  | 725.7  |
| 15°   | 1782.1 | 1654.1 | 1400.6 | 1192.5 | 1077.8 | 965.8  | 864.4  | 779.0  | 691.0  | 621.6  | 600.3  |
| 17.5° | 1864.8 | 1707.4 | 1414.0 | 1157.9 | 995.1  | 869.7  | 741.7  | 629.6  | 544.2  | 482.9  | 461.5  |
| 20°   | 2027.6 | 1838.2 | 1446.0 | 1117.8 | 915.1  | 741.7  | 586.9  | 466.9  | 389.5  | 360.2  | 354.8  |
| 22.5° | 2217.0 | 1995.6 | 1494.0 | 1080.5 | 832.4  | 605.6  | 440.2  | 354.8  | 320.1  | 309.5  | 309.5  |
| 25°   | 2425.1 | 2171.6 | 1555.4 | 1040.5 | 747.0  | 480.2  | 336.2  | 296.1  | 282.8  | 277.5  | 277.5  |
| 27.5° | 2619.8 | 2363.7 | 1664.7 | 1024.5 | 667.0  | 389.5  | 293.5  | 264.1  | 256.1  | 250.8  | 253.4  |
| 30°   | 2809.3 | 2534.5 | 1776.8 | 992.4  | 578.9  | 338.8  | 264.1  | 242.8  | 232.1  | 229.4  | 232.1  |
| 32.5° | 2972.0 | 2681.2 | 1854.2 | 944.4  | 517.6  | 304.1  | 245.4  | 224.1  | 213.4  | 210.8  | 213.4  |
| 35°   | 3158.8 | 2825.3 | 1931.5 | 909.7  | 485.6  | 282.8  | 232.1  | 210.8  | 200.1  | 194.8  | 194.8  |
| 37.5° | 3377.5 | 2998.7 | 1990.2 | 859.1  | 464.2  | 261.5  | 221.4  | 200.1  | 186.8  | 181.4  | 181.4  |
| 40°   | 3671.0 | 3209.4 | 2038.2 | 819.0  | 440.2  | 250.8  | 208.1  | 189.4  | 176.1  | 170.7  | 168.1  |
| 42.5° | 3873.7 | 3393.5 | 2078.3 | 792.4  | 416.2  | 245.4  | 200.1  | 184.1  | 168.1  | 160.1  | 157.4  |
| 45°   | 4012.5 | 3556.3 | 2104.9 | 779.0  | 394.8  | 232.1  | 194.8  | 178.7  | 160.1  | 149.4  | 149.4  |
| 47.5° | 4145.9 | 3689.7 | 2107.6 | 760.3  | 378.8  | 216.1  | 202.8  | 170.7  | 152.1  | 141.4  | 141.4  |
| 50°   | 4295.3 | 3857.7 | 2158.3 | 741.7  | 360.2  | 197.4  | 200.1  | 168.1  | 146.7  | 136.1  | 133.4  |
| 52.5° | 4444.7 | 4087.2 | 2257.0 | 715.0  | 333.5  | 181.4  | 189.4  | 170.7  | 141.4  | 130.7  | 128.1  |
| 55°   | 4711.4 | 4372.6 | 2379.7 | 675.0  | 298.8  | 165.4  | 176.1  | 168.1  | 133.4  | 122.7  | 120.1  |
| 57.5° | 4884.9 | 4639.4 | 2475.8 | 632.3  | 248.1  | 154.7  | 154.7  | 162.7  | 125.4  | 114.7  | 112.1  |
| 60°   | 4983.6 | 4690.1 | 2494.5 | 581.6  | 202.8  | 138.7  | 133.4  | 165.4  | 117.4  | 104.0  | 104.0  |
| 62.5° | 4980.9 | 4516.7 | 2401.1 | 533.6  | 176.1  | 128.1  | 120.1  | 144.1  | 109.4  | 98.7   | 96.0   |
| 65°   | 4930.2 | 4260.6 | 2190.3 | 472.2  | 165.4  | 117.4  | 106.7  | 109.4  | 101.4  | 90.7   | 88.0   |
| 67.5° | 4711.4 | 3817.7 | 1854.2 | 410.9  | 160.1  | 106.7  | 98.7   | 93.4   | 88.0   | 80.0   | 77.4   |
| 70°   | 4180.5 | 3318.8 | 1446.0 | 381.5  | 157.4  | 93.4   | 85.4   | 80.0   | 74.7   | 69.4   | 69.4   |
| 72.5° | 3398.9 | 2587.8 | 1104.5 | 365.5  | 160.1  | 85.4   | 72.0   | 69.4   | 64.0   | 61.4   | 58.7   |
| 75°   | 2353.1 | 1912.9 | 800.4  | 322.8  | 154.7  | 72.0   | 61.4   | 56.0   | 53.4   | 48.0   | 48.0   |
| 77.5° | 1512.7 | 1251.2 | 530.9  | 258.8  | 125.4  | 58.7   | 45.4   | 42.7   | 40.0   | 37.4   | 37.4   |
| 80°   | 995.1  | 851.0  | 309.5  | 184.1  | 77.4   | 40.0   | 32.0   | 32.0   | 29.3   | 24.0   | 24.0   |
| 82.5° | 632.3  | 643.0  | 160.1  | 85.4   | 45.4   | 24.0   | 18.7   | 16.0   | 16.0   | 10.7   | 10.7   |
| 85°   | 138.7  | 242.8  | 72.0   | 34.7   | 16.0   | 2.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |





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**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 |
| 2.5°  | 1790.1 | 1768.8 | 1760.8 | 1760.8 | 1726.1 | 1728.8 | 1728.8 | 1750.1 | 1747.5 | 1766.1 | 1758.1 |
| 5°    | 1456.7 | 1435.3 | 1435.3 | 1440.6 | 1446.0 | 1422.0 | 1430.0 | 1408.6 | 1448.6 | 1419.3 | 1398.0 |
| 7.5°  | 1075.1 | 1072.5 | 1091.2 | 1133.8 | 1125.8 | 1117.8 | 1101.8 | 1061.8 | 1040.5 | 1061.8 | 1051.1 |
| 10°   | 824.4  | 832.4  | 827.0  | 845.7  | 848.4  | 845.7  | 819.0  | 811.0  | 800.4  | 811.0  | 824.4  |
| 12.5° | 691.0  | 659.0  | 624.3  | 621.6  | 643.0  | 643.0  | 640.3  | 643.0  | 651.0  | 651.0  | 661.6  |
| 15°   | 576.3  | 554.9  | 509.6  | 488.2  | 504.2  | 493.6  | 496.2  | 506.9  | 514.9  | 525.6  | 520.2  |
| 17.5° | 458.9  | 440.2  | 418.9  | 405.5  | 413.5  | 405.5  | 402.8  | 400.2  | 400.2  | 397.5  | 408.2  |
| 20°   | 349.5  | 346.8  | 354.8  | 349.5  | 352.2  | 346.8  | 338.8  | 328.1  | 320.1  | 325.5  | 330.8  |
| 22.5° | 304.1  | 306.8  | 312.1  | 317.5  | 317.5  | 312.1  | 298.8  | 288.1  | 285.5  | 285.5  | 288.1  |
| 25°   | 280.1  | 280.1  | 288.1  | 290.8  | 293.5  | 285.5  | 269.5  | 261.5  | 261.5  | 261.5  | 261.5  |
| 27.5° | 253.4  | 258.8  | 264.1  | 269.5  | 272.1  | 264.1  | 250.8  | 242.8  | 242.8  | 240.1  | 237.4  |
| 30°   | 234.8  | 237.4  | 242.8  | 245.4  | 248.1  | 240.1  | 232.1  | 224.1  | 224.1  | 224.1  | 221.4  |
| 32.5° | 213.4  | 221.4  | 224.1  | 226.8  | 229.4  | 224.1  | 216.1  | 210.8  | 208.1  | 205.4  | 200.1  |
| 35°   | 197.4  | 200.1  | 208.1  | 208.1  | 210.8  | 208.1  | 202.8  | 197.4  | 189.4  | 186.8  | 186.8  |
| 37.5° | 181.4  | 181.4  | 186.8  | 192.1  | 197.4  | 194.8  | 186.8  | 178.7  | 176.1  | 176.1  | 176.1  |
| 40°   | 170.7  | 168.1  | 170.7  | 178.7  | 184.1  | 184.1  | 173.4  | 168.1  | 168.1  | 165.4  | 165.4  |
| 42.5° | 157.4  | 157.4  | 157.4  | 165.4  | 176.1  | 170.7  | 160.1  | 160.1  | 160.1  | 157.4  | 157.4  |
| 45°   | 149.4  | 146.7  | 149.4  | 149.4  | 162.7  | 154.7  | 152.1  | 149.4  | 152.1  | 149.4  | 152.1  |
| 47.5° | 138.7  | 138.7  | 138.7  | 141.4  | 149.4  | 144.1  | 141.4  | 141.4  | 144.1  | 144.1  | 144.1  |
| 50°   | 130.7  | 130.7  | 130.7  | 133.4  | 136.1  | 136.1  | 136.1  | 136.1  | 136.1  | 138.7  | 138.7  |
| 52.5° | 125.4  | 122.7  | 125.4  | 125.4  | 128.1  | 130.7  | 128.1  | 130.7  | 130.7  | 130.7  | 133.4  |
| 55°   | 120.1  | 117.4  | 120.1  | 120.1  | 125.4  | 122.7  | 122.7  | 125.4  | 125.4  | 128.1  | 130.7  |
| 57.5° | 112.1  | 109.4  | 114.7  | 114.7  | 120.1  | 120.1  | 117.4  | 120.1  | 120.1  | 122.7  | 122.7  |
| 60°   | 104.0  | 104.0  | 106.7  | 106.7  | 112.1  | 114.7  | 114.7  | 114.7  | 114.7  | 114.7  | 114.7  |
| 62.5° | 96.0   | 96.0   | 98.7   | 101.4  | 106.7  | 106.7  | 109.4  | 109.4  | 109.4  | 109.4  | 106.7  |
| 65°   | 88.0   | 90.7   | 93.4   | 93.4   | 98.7   | 101.4  | 101.4  | 101.4  | 101.4  | 101.4  | 101.4  |
| 67.5° | 77.4   | 82.7   | 85.4   | 88.0   | 93.4   | 93.4   | 96.0   | 96.0   | 93.4   | 93.4   | 93.4   |
| 70°   | 69.4   | 72.0   | 74.7   | 77.4   | 85.4   | 85.4   | 88.0   | 88.0   | 85.4   | 85.4   | 88.0   |
| 72.5° | 58.7   | 61.4   | 64.0   | 69.4   | 77.4   | 77.4   | 80.0   | 80.0   | 77.4   | 77.4   | 77.4   |
| 75°   | 50.7   | 50.7   | 53.4   | 58.7   | 69.4   | 69.4   | 69.4   | 72.0   | 69.4   | 69.4   | 66.7   |
| 77.5° | 37.4   | 40.0   | 42.7   | 50.7   | 58.7   | 61.4   | 61.4   | 61.4   | 58.7   | 58.7   | 56.0   |
| 80°   | 24.0   | 26.7   | 32.0   | 37.4   | 45.4   | 48.0   | 50.7   | 50.7   | 48.0   | 48.0   | 45.4   |
| 82.5° | 10.7   | 16.0   | 18.7   | 24.0   | 29.3   | 37.4   | 37.4   | 40.0   | 37.4   | 34.7   | 34.7   |
| 85°   | 0.0    | 0.0    | 2.7    | 8.0    | 13.3   | 21.3   | 24.0   | 26.7   | 24.0   | 21.3   | 21.3   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 5.3    | 5.3    | 5.3    | 2.7    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P438870  
 CATALOG NUMBER: IST-SA1F-735-U-SLL

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 359°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 | 2062.3 |
| 2.5°  | 1787.5 | 1816.8 | 1862.2 | 1888.8 | 1950.2 | 2006.2 | 2064.9 | 2142.3 | 2158.3 | 2161.0 |
| 5°    | 1419.3 | 1454.0 | 1539.4 | 1574.0 | 1686.1 | 1776.8 | 1910.2 | 2040.9 | 2075.6 | 2083.6 |
| 7.5°  | 1083.2 | 1109.8 | 1203.2 | 1269.9 | 1392.6 | 1520.7 | 1691.4 | 1846.2 | 1923.5 | 1931.5 |
| 10°   | 845.7  | 917.7  | 989.8  | 1088.5 | 1195.2 | 1320.6 | 1499.3 | 1696.8 | 1782.1 | 1776.8 |
| 12.5° | 712.3  | 787.0  | 875.1  | 973.8  | 1083.2 | 1195.2 | 1357.9 | 1576.7 | 1662.1 | 1683.4 |
| 15°   | 570.9  | 661.6  | 757.7  | 859.1  | 987.1  | 1096.5 | 1285.9 | 1528.7 | 1632.7 | 1662.1 |
| 17.5° | 442.9  | 514.9  | 608.3  | 739.0  | 864.4  | 1019.1 | 1259.2 | 1574.0 | 1691.4 | 1720.8 |
| 20°   | 349.5  | 402.8  | 469.5  | 594.9  | 755.0  | 947.1  | 1245.9 | 1659.4 | 1819.5 | 1862.2 |
| 22.5° | 298.8  | 320.1  | 368.2  | 477.5  | 645.6  | 869.7  | 1237.9 | 1779.5 | 1979.6 | 2051.6 |
| 25°   | 266.8  | 280.1  | 306.8  | 376.2  | 536.2  | 803.0  | 1251.2 | 1928.9 | 2203.7 | 2262.3 |
| 27.5° | 242.8  | 253.4  | 266.8  | 317.5  | 464.2  | 744.3  | 1275.2 | 2096.9 | 2395.7 | 2481.1 |
| 30°   | 221.4  | 229.4  | 248.1  | 282.8  | 405.5  | 685.6  | 1283.2 | 2262.3 | 2566.5 | 2643.9 |
| 32.5° | 205.4  | 216.1  | 232.1  | 261.5  | 370.8  | 645.6  | 1261.9 | 2387.7 | 2723.9 | 2809.3 |
| 35°   | 189.4  | 202.8  | 218.8  | 242.8  | 341.5  | 610.9  | 1213.9 | 2491.8 | 2873.3 | 2956.0 |
| 37.5° | 181.4  | 189.4  | 205.4  | 224.1  | 320.1  | 576.3  | 1171.2 | 2595.8 | 3028.0 | 3142.7 |
| 40°   | 170.7  | 178.7  | 194.8  | 210.8  | 293.5  | 538.9  | 1141.8 | 2729.2 | 3204.1 | 3308.2 |
| 42.5° | 162.7  | 173.4  | 186.8  | 205.4  | 272.1  | 498.9  | 1112.5 | 2835.9 | 3361.5 | 3470.9 |
| 45°   | 157.4  | 168.1  | 181.4  | 205.4  | 253.4  | 466.9  | 1080.5 | 2929.3 | 3481.6 | 3588.3 |
| 47.5° | 149.4  | 162.7  | 181.4  | 197.4  | 245.4  | 445.5  | 1080.5 | 3041.4 | 3590.9 | 3703.0 |
| 50°   | 146.7  | 160.1  | 189.4  | 192.1  | 240.1  | 437.5  | 1125.8 | 3169.4 | 3748.3 | 3855.1 |
| 52.5° | 144.1  | 157.4  | 189.4  | 181.4  | 234.8  | 442.9  | 1195.2 | 3401.5 | 3951.1 | 4073.8 |
| 55°   | 136.1  | 154.7  | 181.4  | 168.1  | 221.4  | 448.2  | 1272.6 | 3705.7 | 4252.6 | 4367.3 |
| 57.5° | 130.7  | 152.1  | 170.7  | 154.7  | 202.8  | 440.2  | 1376.6 | 3977.8 | 4567.4 | 4647.4 |
| 60°   | 122.7  | 149.4  | 149.4  | 144.1  | 181.4  | 416.2  | 1494.0 | 4151.2 | 4687.4 | 4751.5 |
| 62.5° | 117.4  | 146.7  | 133.4  | 133.4  | 165.4  | 378.8  | 1534.0 | 4108.5 | 4570.0 | 4639.4 |
| 65°   | 109.4  | 128.1  | 120.1  | 122.7  | 152.1  | 336.2  | 1464.7 | 3841.7 | 4348.6 | 4431.3 |
| 67.5° | 101.4  | 109.4  | 106.7  | 112.1  | 146.7  | 293.5  | 1277.9 | 3524.2 | 4063.2 | 4191.2 |
| 70°   | 90.7   | 96.0   | 96.0   | 101.4  | 138.7  | 264.1  | 1067.1 | 3116.1 | 3692.3 | 3881.7 |
| 72.5° | 82.7   | 85.4   | 85.4   | 93.4   | 130.7  | 248.1  | 843.0  | 2643.9 | 3097.4 | 3214.8 |
| 75°   | 69.4   | 74.7   | 74.7   | 80.0   | 117.4  | 210.8  | 576.3  | 1936.9 | 2166.3 | 2262.3 |
| 77.5° | 61.4   | 61.4   | 64.0   | 66.7   | 93.4   | 141.4  | 338.8  | 1192.5 | 1301.9 | 1352.6 |
| 80°   | 48.0   | 50.7   | 48.0   | 48.0   | 58.7   | 93.4   | 184.1  | 699.0  | 792.4  | 765.7  |
| 82.5° | 34.7   | 34.7   | 29.3   | 29.3   | 34.7   | 50.7   | 80.0   | 362.8  | 370.8  | 357.5  |
| 85°   | 18.7   | 13.3   | 10.7   | 10.7   | 10.7   | 10.7   | 10.7   | 77.4   | 37.4   | 29.3   |
| 87.5° | 0.0    | 0.0    | 0.0    | 2.7    | 2.7    | 2.7    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

LM-79-08: Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

All Brands

Data applicable to all product families using SA light engines

Report Number: SP1-2101-121-7

Luminaire Tested: IFLD-S-SA2A-735-U-T2

Test Date: 03/04/2021

**Test Information**

Test Method: LM-79-08  
 Report Number: SP1-2101-121-7  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry: 4π  
 Issue Date: 03/04/2021  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: **IFLD-S-SA2A-735-U-T2**  
 Description: STREETWORKS INF FLOOD

PROGRAMMED @ 615mA.

**Spectral Parameters**

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 3388   | CRI (Ra): | 73.1 | R9:  | -34.6 |
| CIE u':                   | 0.2371 | R1:       | 68.9 | R10: | 57.8  |
| CIE v':                   | 0.5177 | R2:       | 81.1 | R11: | 68.6  |
| Duv:                      | 0.0032 | R3:       | 93.1 | R12: | 53.9  |
| CIE x:                    | 0.4153 | R4:       | 71.6 | R13: | 70.9  |
| CIE y:                    | 0.4030 | R5:       | 69.4 | R14: | 96.2  |
| CIE z:                    | 0.1817 | R6:       | 75.0 |      |       |
| Peak Wavelength (nm):     | 590    | R7:       | 79.5 |      |       |
| Dominant Wavelength (nm): | 580    | R8:       | 46.4 |      |       |
| Purity:                   | 45.7   |           |      |      |       |
| Rf:                       | 76.9   |           |      |      |       |
| Rg:                       | 94.4   |           |      |      |       |



**Test Conditions**

Stabilization Time: 81M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.0/30%  
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2101-121-7

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 1/31/2021        | 7/31/2021            |
| Power Meter                    | IN0071                | 12/1/2020        | 12/1/2021            |
| AC Power Source                | IN0063                | 12/1/2020        | 12/1/2021            |
| DC Power Source                | IN0208                | 12/1/2020        | 12/1/2021            |
| Sphere Thermometer             | IN0085                | 12/1/2020        | 12/1/2021            |
| Room Thermometer               | IN0046                | 12/1/2020        | 12/1/2021            |

REPORT NUMBER: SP1-2101-121-7

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2101-121-7

**Photopic Flux vs. Wavelength**



#####

| λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) | λ (nm) | Power (µW/nm) | Lumens (Φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360    | 2672          | 0.0           | 490    | 34553         | 4.9           | 620    | 136720        | 35.6          | 750    | 5870          | 0.0           | 880    | 4216          | 0.0           |
| 365    | 2252          | 0.0           | 495    | 44336         | 8.0           | 625    | 126308        | 27.9          | 755    | 5421          | 0.0           | 885    | 4132          | 0.0           |
| 370    | 2217          | 0.0           | 500    | 54643         | 12.1          | 630    | 114625        | 20.7          | 760    | 5097          | 0.0           | 890    | 3992          | 0.0           |
| 375    | 2697          | 0.0           | 505    | 64676         | 18.1          | 635    | 103216        | 15.5          | 765    | 4626          | 0.0           | 895    | 3214          | 0.0           |
| 380    | 3039          | 0.0           | 510    | 73825         | 25.4          | 640    | 92605         | 11.1          | 770    | 3782          | 0.0           | 900    | 2580          | 0.0           |
| 385    | 2655          | 0.0           | 515    | 81872         | 33.9          | 645    | 83234         | 8.0           | 775    | 3506          | 0.0           | 905    | 1776          | 0.0           |
| 390    | 2357          | 0.0           | 520    | 88574         | 43.0          | 650    | 73263         | 5.4           | 780    | 3507          | 0.0           | 910    | 3995          | 0.0           |
| 395    | 2186          | 0.0           | 525    | 93289         | 50.1          | 655    | 64627         | 3.7           | 785    | 3267          | 0.0           | 915    | 4288          | 0.0           |
| 400    | 2015          | 0.0           | 530    | 98393         | 57.9          | 660    | 56614         | 2.4           | 790    | 2849          | 0.0           | 920    | 2446          | 0.0           |
| 405    | 2234          | 0.0           | 535    | 103269        | 64.0          | 665    | 49537         | 1.6           | 795    | 3037          | 0.0           | 925    | 3009          | 0.0           |
| 410    | 3412          | 0.0           | 540    | 107316        | 69.9          | 670    | 42866         | 0.9           | 800    | 2716          | 0.0           | 930    | 3026          | 0.0           |
| 415    | 6135          | 0.0           | 545    | 113101        | 75.3          | 675    | 36708         | 0.6           | 805    | 2648          | 0.0           | 935    | 4734          | 0.0           |
| 420    | 12146         | 0.0           | 550    | 120690        | 82.0          | 680    | 31814         | 0.4           | 810    | 3187          | 0.0           | 940    | 3719          | 0.0           |
| 425    | 23983         | 0.1           | 555    | 128583        | 87.8          | 685    | 27485         | 0.2           | 815    | 2931          | 0.0           | 945    | 1480          | 0.0           |
| 430    | 42142         | 0.3           | 560    | 137796        | 93.6          | 690    | 23698         | 0.1           | 820    | 2717          | 0.0           | 950    | 3450          | 0.0           |
| 435    | 68228         | 0.8           | 565    | 146577        | 97.5          | 695    | 20309         | 0.1           | 825    | 2236          | 0.0           | 955    | 5051          | 0.0           |
| 440    | 99323         | 1.6           | 570    | 154581        | 100.5         | 700    | 17890         | 0.1           | 830    | 2628          | 0.0           | 960    | 3176          | 0.0           |
| 445    | 115584        | 2.4           | 575    | 162633        | 101.2         | 705    | 15500         | 0.0           | 835    | 3140          | 0.0           | 965    | 5178          | 0.0           |
| 450    | 94997         | 2.5           | 580    | 168101        | 99.9          | 710    | 13699         | 0.0           | 840    | 3675          | 0.0           | 970    | 6385          | 0.0           |
| 455    | 61433         | 2.1           | 585    | 173145        | 96.2          | 715    | 12398         | 0.0           | 845    | 3283          | 0.0           | 975    | 3810          | 0.0           |
| 460    | 43373         | 1.8           | 590    | 174675        | 90.3          | 720    | 11147         | 0.0           | 850    | 3055          | 0.0           | 980    | 4322          | 0.0           |
| 465    | 32472         | 1.7           | 595    | 173724        | 82.3          | 725    | 9761          | 0.0           | 855    | 2932          | 0.0           | 985    | 4200          | 0.0           |
| 470    | 24257         | 1.5           | 600    | 171241        | 73.8          | 730    | 8651          | 0.0           | 860    | 3382          | 0.0           | 990    | 4661          | 0.0           |
| 475    | 21690         | 1.7           | 605    | 165134        | 64.0          | 735    | 7730          | 0.0           | 865    | 2605          | 0.0           | 995    | 6746          | 0.0           |
| 480    | 23173         | 2.2           | 610    | 156652        | 53.8          | 740    | 6847          | 0.0           | 870    | 3325          | 0.0           | 1000   | 4150          | 0.0           |
| 485    | 27564         | 3.3           | 615    | 147879        | 44.6          | 745    | 6124          | 0.0           | 875    | 3325          | 0.0           |        |               |               |

REPORT NUMBER: SP1-2101-121-7

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: 12126**

**S/P: 1.36**

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360    | 2672          | 0.0           | 490    | 34553         | 53.2          | 620    | 136720        | 1.7           | 750    | 5870          | 0.0           | 880    | 4216          | 0.0           |
| 365    | 2252          | 0.0           | 495    | 44336         | 71.7          | 625    | 126308        | 1.1           | 755    | 5421          | 0.0           | 885    | 4132          | 0.0           |
| 370    | 2217          | 0.0           | 500    | 54643         | 91.4          | 630    | 114625        | 0.6           | 760    | 5097          | 0.0           | 890    | 3992          | 0.0           |
| 375    | 2697          | 0.0           | 505    | 64676         | 110.0         | 635    | 103216        | 0.4           | 765    | 4626          | 0.0           | 895    | 3214          | 0.0           |
| 380    | 3039          | 0.0           | 510    | 73825         | 125.1         | 640    | 92605         | 0.2           | 770    | 3782          | 0.0           | 900    | 2580          | 0.0           |
| 385    | 2655          | 0.0           | 515    | 81872         | 135.7         | 645    | 83234         | 0.1           | 775    | 3506          | 0.0           | 905    | 1776          | 0.0           |
| 390    | 2357          | 0.0           | 520    | 88574         | 140.8         | 650    | 73263         | 0.1           | 780    | 3507          | 0.0           | 910    | 3995          | 0.0           |
| 395    | 2186          | 0.0           | 525    | 93289         | 139.6         | 655    | 64627         | 0.1           | 785    | 3267          | 0.0           | 915    | 4288          | 0.0           |
| 400    | 2015          | 0.0           | 530    | 98393         | 135.7         | 660    | 56614         | 0.0           | 790    | 2849          | 0.0           | 920    | 2446          | 0.0           |
| 405    | 2234          | 0.1           | 535    | 103269        | 128.7         | 665    | 49537         | 0.0           | 795    | 3037          | 0.0           | 925    | 3009          | 0.0           |
| 410    | 3412          | 0.2           | 540    | 107316        | 118.6         | 670    | 42866         | 0.0           | 800    | 2716          | 0.0           | 930    | 3026          | 0.0           |
| 415    | 6135          | 0.6           | 545    | 113101        | 108.4         | 675    | 36708         | 0.0           | 805    | 2648          | 0.0           | 935    | 4734          | 0.0           |
| 420    | 12146         | 2.0           | 550    | 120690        | 98.7          | 680    | 31814         | 0.0           | 810    | 3187          | 0.0           | 940    | 3719          | 0.0           |
| 425    | 23983         | 5.9           | 555    | 128583        | 87.9          | 685    | 27485         | 0.0           | 815    | 2931          | 0.0           | 945    | 1480          | 0.0           |
| 430    | 42142         | 14.3          | 560    | 137796        | 77.0          | 690    | 23698         | 0.0           | 820    | 2717          | 0.0           | 950    | 3450          | 0.0           |
| 435    | 68228         | 30.5          | 565    | 146577        | 65.8          | 695    | 20309         | 0.0           | 825    | 2236          | 0.0           | 955    | 5051          | 0.0           |
| 440    | 99323         | 55.5          | 570    | 154581        | 54.6          | 700    | 17890         | 0.0           | 830    | 2628          | 0.0           | 960    | 3176          | 0.0           |
| 445    | 115584        | 77.4          | 575    | 162633        | 44.3          | 705    | 15500         | 0.0           | 835    | 3140          | 0.0           | 965    | 5178          | 0.0           |
| 450    | 94997         | 73.6          | 580    | 168101        | 34.6          | 710    | 13699         | 0.0           | 840    | 3675          | 0.0           | 970    | 6385          | 0.0           |
| 455    | 61433         | 53.7          | 585    | 173145        | 26.5          | 715    | 12398         | 0.0           | 845    | 3283          | 0.0           | 975    | 3810          | 0.0           |
| 460    | 43373         | 41.9          | 590    | 174675        | 19.5          | 720    | 11147         | 0.0           | 850    | 3055          | 0.0           | 980    | 4322          | 0.0           |
| 465    | 32472         | 34.3          | 595    | 173724        | 13.9          | 725    | 9761          | 0.0           | 855    | 2932          | 0.0           | 985    | 4200          | 0.0           |
| 470    | 24257         | 27.9          | 600    | 171241        | 9.7           | 730    | 8651          | 0.0           | 860    | 3382          | 0.0           | 990    | 4661          | 0.0           |
| 475    | 21690         | 27.1          | 605    | 165134        | 6.5           | 735    | 7730          | 0.0           | 865    | 2605          | 0.0           | 995    | 6746          | 0.0           |
| 480    | 23173         | 31.3          | 610    | 156652        | 4.2           | 740    | 6847          | 0.0           | 870    | 3325          | 0.0           | 1000   | 4150          | 0.0           |
| 485    | 27564         | 40.0          | 615    | 147879        | 2.7           | 745    | 6124          | 0.0           | 875    | 3325          | 0.0           |        |               |               |



REPORT NUMBER: SP1-2101-121-7

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: 4490.7 M/P: 0.5**

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360    | 2672          | 0.0           | 490    | 34553         | 28.8          | 620    | 136720        | 0.1           | 750    | 5870          | 0.0           | 880    | 4216          | 0.0           |
| 365    | 2252          | 0.0           | 495    | 44336         | 36.6          | 625    | 126308        | 0.1           | 755    | 5421          | 0.0           | 885    | 4132          | 0.0           |
| 370    | 2217          | 0.0           | 500    | 54643         | 43.9          | 630    | 114625        | 0.0           | 760    | 5097          | 0.0           | 890    | 3992          | 0.0           |
| 375    | 2697          | 0.0           | 505    | 64676         | 49.6          | 635    | 103216        | 0.0           | 765    | 4626          | 0.0           | 895    | 3214          | 0.0           |
| 380    | 3039          | 0.0           | 510    | 73825         | 53.0          | 640    | 92605         | 0.0           | 770    | 3782          | 0.0           | 900    | 2580          | 0.0           |
| 385    | 2655          | 0.0           | 515    | 81872         | 53.5          | 645    | 83234         | 0.0           | 775    | 3506          | 0.0           | 905    | 1776          | 0.0           |
| 390    | 2357          | 0.0           | 520    | 88574         | 51.6          | 650    | 73263         | 0.0           | 780    | 3507          | 0.0           | 910    | 3995          | 0.0           |
| 395    | 2186          | 0.0           | 525    | 93289         | 47.3          | 655    | 64627         | 0.0           | 785    | 3267          | 0.0           | 915    | 4288          | 0.0           |
| 400    | 2015          | 0.0           | 530    | 98393         | 42.5          | 660    | 56614         | 0.0           | 790    | 2849          | 0.0           | 920    | 2446          | 0.0           |
| 405    | 2234          | 0.0           | 535    | 103269        | 37.2          | 665    | 49537         | 0.0           | 795    | 3037          | 0.0           | 925    | 3009          | 0.0           |
| 410    | 3412          | 0.1           | 540    | 107316        | 31.4          | 670    | 42866         | 0.0           | 800    | 2716          | 0.0           | 930    | 3026          | 0.0           |
| 415    | 6135          | 0.4           | 545    | 113101        | 26.3          | 675    | 36708         | 0.0           | 805    | 2648          | 0.0           | 935    | 4734          | 0.0           |
| 420    | 12146         | 1.4           | 550    | 120690        | 21.7          | 680    | 31814         | 0.0           | 810    | 3187          | 0.0           | 940    | 3719          | 0.0           |
| 425    | 23983         | 3.7           | 555    | 128583        | 17.3          | 685    | 27485         | 0.0           | 815    | 2931          | 0.0           | 945    | 1480          | 0.0           |
| 430    | 42142         | 8.9           | 560    | 137796        | 13.6          | 690    | 23698         | 0.0           | 820    | 2717          | 0.0           | 950    | 3450          | 0.0           |
| 435    | 68228         | 18.2          | 565    | 146577        | 10.3          | 695    | 20309         | 0.0           | 825    | 2236          | 0.0           | 955    | 5051          | 0.0           |
| 440    | 99323         | 33.2          | 570    | 154581        | 7.6           | 700    | 17890         | 0.0           | 830    | 2628          | 0.0           | 960    | 3176          | 0.0           |
| 445    | 115584        | 45.6          | 575    | 162633        | 5.4           | 705    | 15500         | 0.0           | 835    | 3140          | 0.0           | 965    | 5178          | 0.0           |
| 450    | 94997         | 43.8          | 580    | 168101        | 3.8           | 710    | 13699         | 0.0           | 840    | 3675          | 0.0           | 970    | 6385          | 0.0           |
| 455    | 61433         | 32.2          | 585    | 173145        | 2.6           | 715    | 12398         | 0.0           | 845    | 3283          | 0.0           | 975    | 3810          | 0.0           |
| 460    | 43373         | 25.6          | 590    | 174675        | 1.7           | 720    | 11147         | 0.0           | 850    | 3055          | 0.0           | 980    | 4322          | 0.0           |
| 465    | 32472         | 21.2          | 595    | 173724        | 1.1           | 725    | 9761          | 0.0           | 855    | 2932          | 0.0           | 985    | 4200          | 0.0           |
| 470    | 24257         | 17.4          | 600    | 171241        | 0.7           | 730    | 8651          | 0.0           | 860    | 3382          | 0.0           | 990    | 4661          | 0.0           |
| 475    | 21690         | 16.6          | 605    | 165134        | 0.5           | 735    | 7730          | 0.0           | 865    | 2605          | 0.0           | 995    | 6746          | 0.0           |
| 480    | 23173         | 18.6          | 610    | 156652        | 0.3           | 740    | 6847          | 0.0           | 870    | 3325          | 0.0           | 1000   | 4150          | 0.0           |
| 485    | 27564         | 22.7          | 615    | 147879        | 0.2           | 745    | 6124          | 0.0           | 875    | 3325          | 0.0           |        |               |               |

**Summary**

$R_f = 76.9$   
 $R_g = 94.4$   
 $CIE R_a = 73.1$   
 $R_g = -34.6$



**Color Vector Graphics**



**Individual Sample Fidelity Index ( $R_{f,i}$ )**

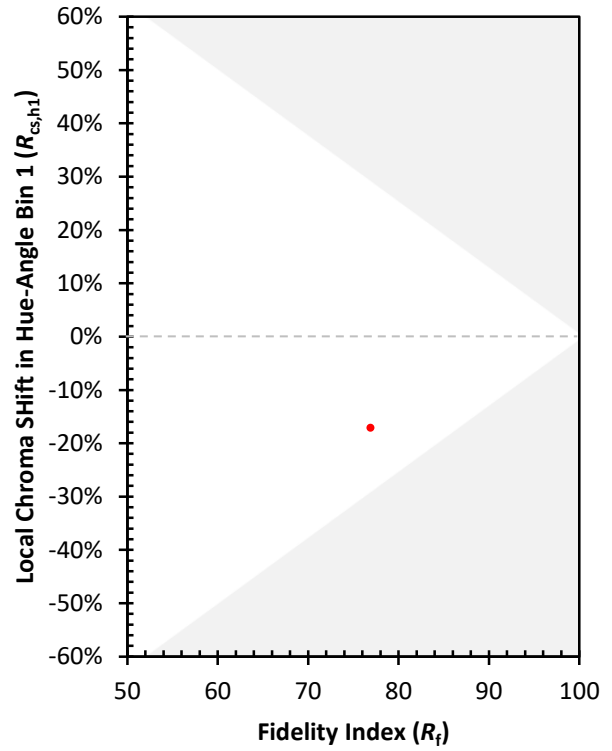
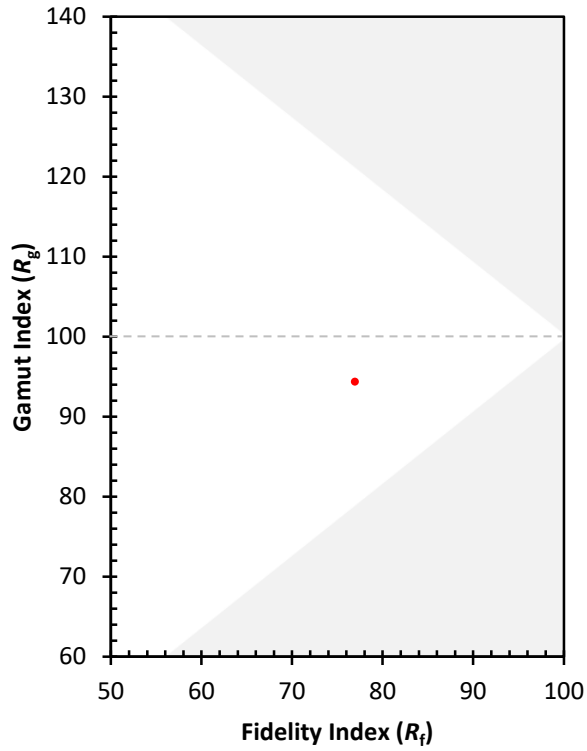
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 68 | CES51 = 90 | CES76 = 63 |
| CES02 = 62 | CES27 = 88 | CES52 = 89 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 80 | CES78 = 65 |
| CES04 = 70 | CES29 = 67 | CES54 = 84 | CES79 = 87 |
| CES05 = 48 | CES30 = 74 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 71 | CES56 = 75 | CES81 = 75 |
| CES07 = 40 | CES32 = 67 | CES57 = 74 | CES82 = 94 |
| CES08 = 39 | CES33 = 74 | CES58 = 76 | CES83 = 91 |
| CES09 = 29 | CES34 = 78 | CES59 = 87 | CES84 = 89 |
| CES10 = 75 | CES35 = 89 | CES60 = 93 | CES85 = 80 |
| CES11 = 58 | CES36 = 98 | CES61 = 86 | CES86 = 66 |
| CES12 = 64 | CES37 = 86 | CES62 = 89 | CES87 = 79 |
| CES13 = 43 | CES38 = 82 | CES63 = 77 | CES88 = 79 |
| CES14 = 74 | CES39 = 95 | CES64 = 74 | CES89 = 70 |
| CES15 = 71 | CES40 = 91 | CES65 = 68 | CES90 = 77 |
| CES16 = 47 | CES41 = 89 | CES66 = 71 | CES91 = 88 |
| CES17 = 50 | CES42 = 88 | CES67 = 69 | CES92 = 60 |
| CES18 = 56 | CES43 = 82 | CES68 = 74 | CES93 = 77 |
| CES19 = 72 | CES44 = 99 | CES69 = 82 | CES94 = 52 |
| CES20 = 65 | CES45 = 87 | CES70 = 67 | CES95 = 69 |
| CES21 = 86 | CES46 = 82 | CES71 = 66 | CES96 = 78 |
| CES22 = 79 | CES47 = 82 | CES72 = 88 | CES97 = 85 |
| CES23 = 92 | CES48 = 72 | CES73 = 59 | CES98 = 76 |
| CES24 = 91 | CES49 = 82 | CES74 = 97 | CES99 = 63 |
| CES25 = 72 | CES50 = 88 | CES75 = 66 |            |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)