

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: P438396

Luminaire Tested: **IST-SA1C-750-U-SLR-HSS**

Issue Date: 12/10/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P438396  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/10/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: IST-SA1C-750-U-SLR-HSS  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE  
(1) 70 CRI, 5000K, 615mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

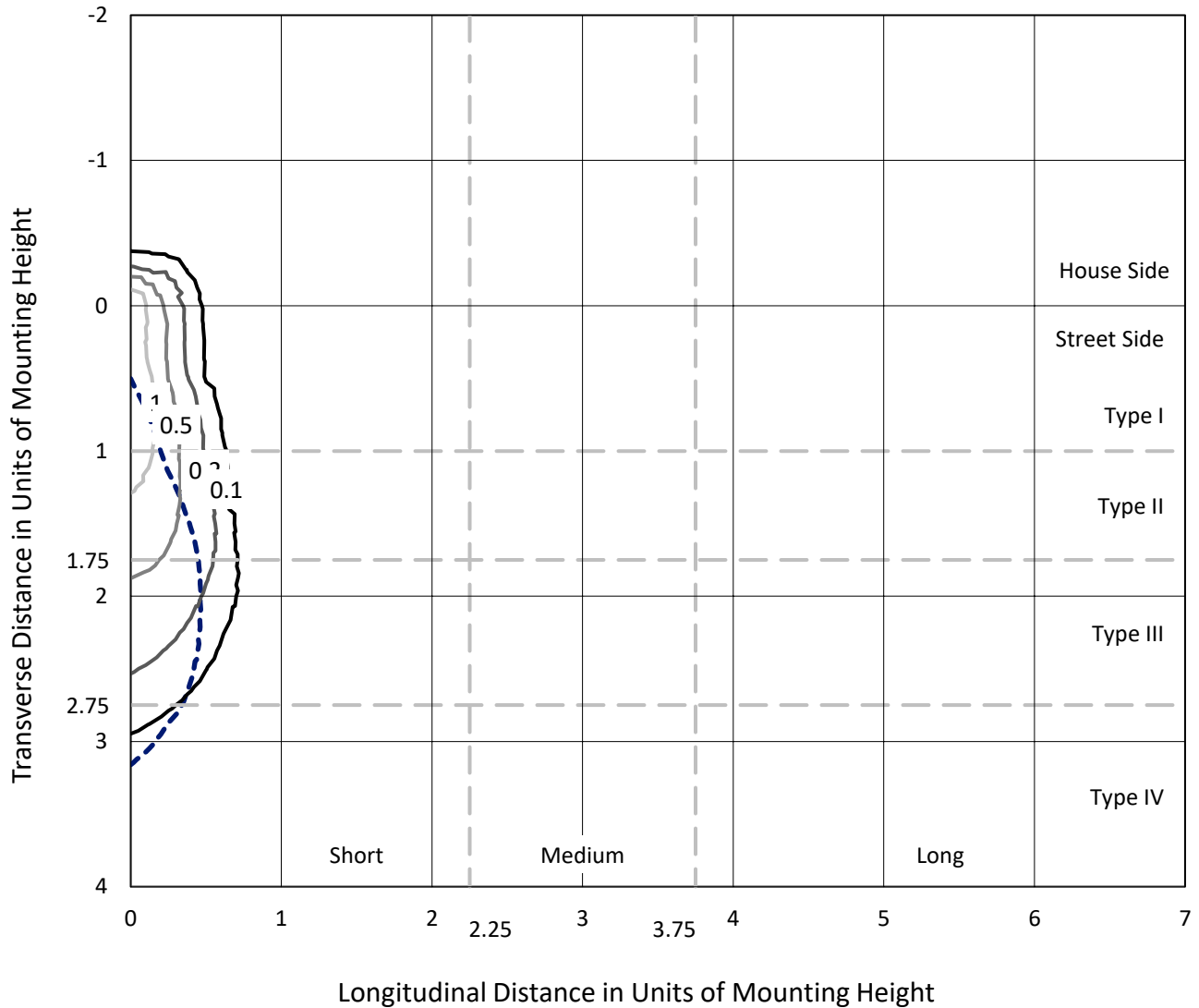
Lumens per Lamp: N/A  
Luminaire Lumens: 3412 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 34.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



REPORT NUMBER: P438396  
 CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

### Iso-Footcandle Lines of Horizontal Illumination

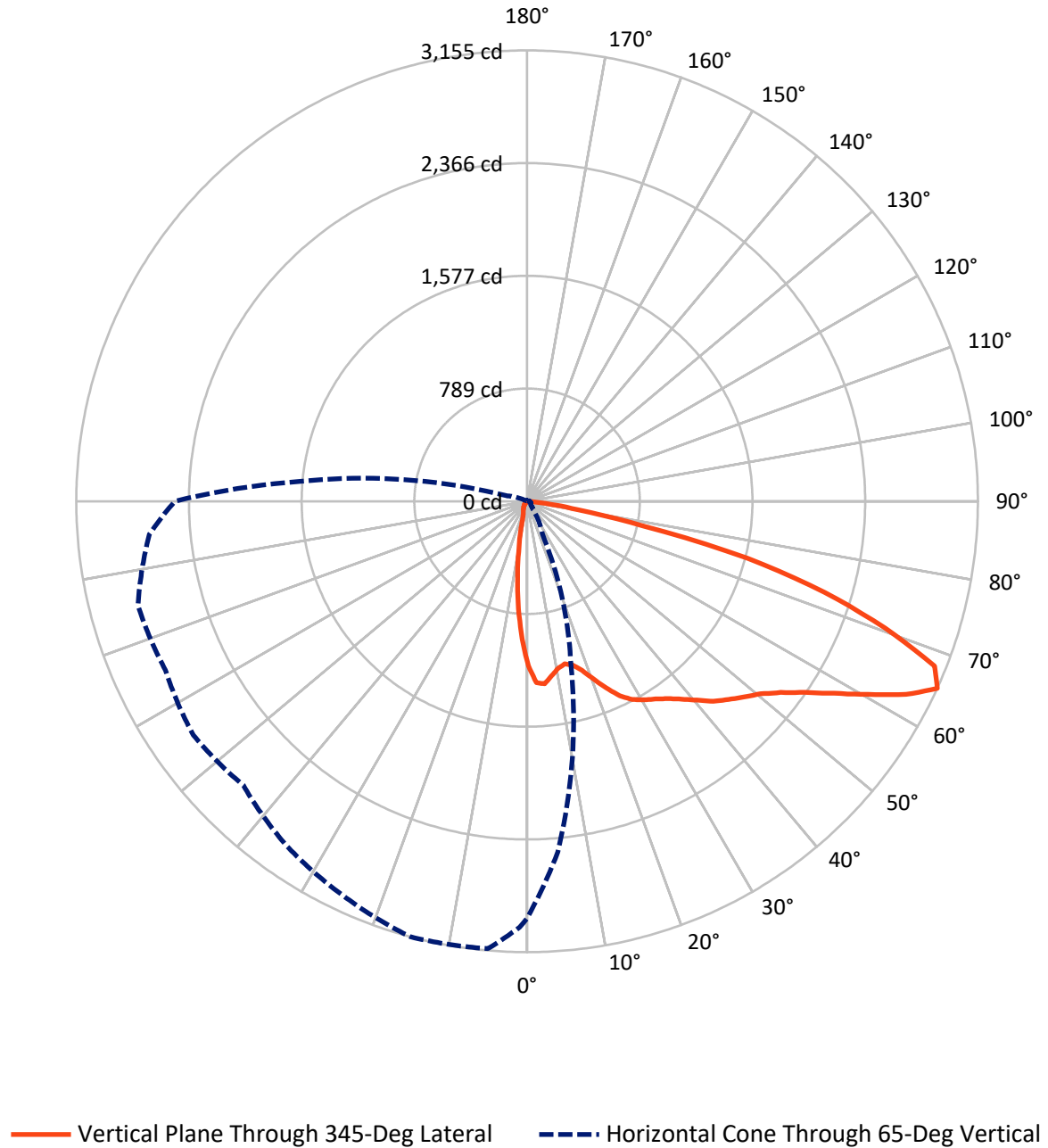
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type IV - Short - N/A

REPORT NUMBER: P438396  
CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

### Luminous Intensity Polar Plot



REPORT NUMBER: P438396

CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

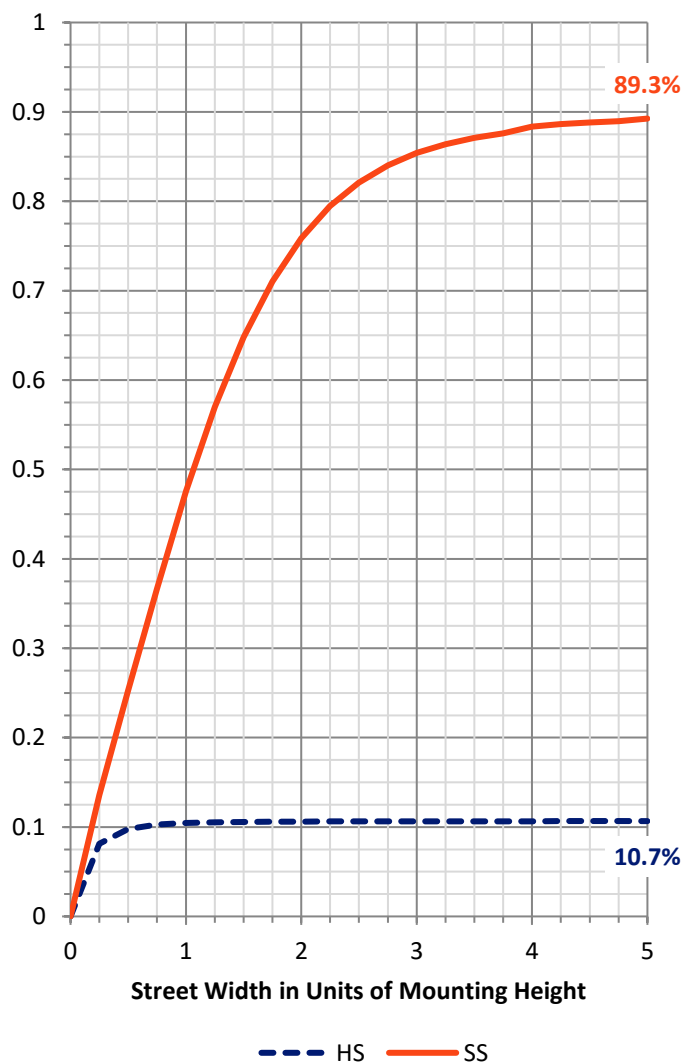
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 367.8    | 0.0    | 367.8  |
|                    | % Fixture | 10.8     | 0.0    | 10.8   |
| <b>Street Side</b> | Lumens    | 3044.2   | 0.0    | 3044.2 |
|                    | % Fixture | 89.2     | 0.0    | 89.2   |
| <b>Total</b>       | Lumens    | 3412.0   | 0.0    | 3412.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 85.5   | 2.5       |
| 10°-20°   | 166.4  | 4.9       |
| 20°-30°   | 242.6  | 7.1       |
| 30°-40°   | 360.6  | 10.6      |
| 40°-50°   | 528.7  | 15.5      |
| 50°-60°   | 760.8  | 22.3      |
| 60°-70°   | 853.5  | 25.0      |
| 70°-80°   | 374.5  | 11.0      |
| 80°-90°   | 39.4   | 1.2       |
| 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°    | 3412.0 | 100.0     |
| 0°-180°   | 3412.0 | 100.0     |

**Coefficient of Utilization**

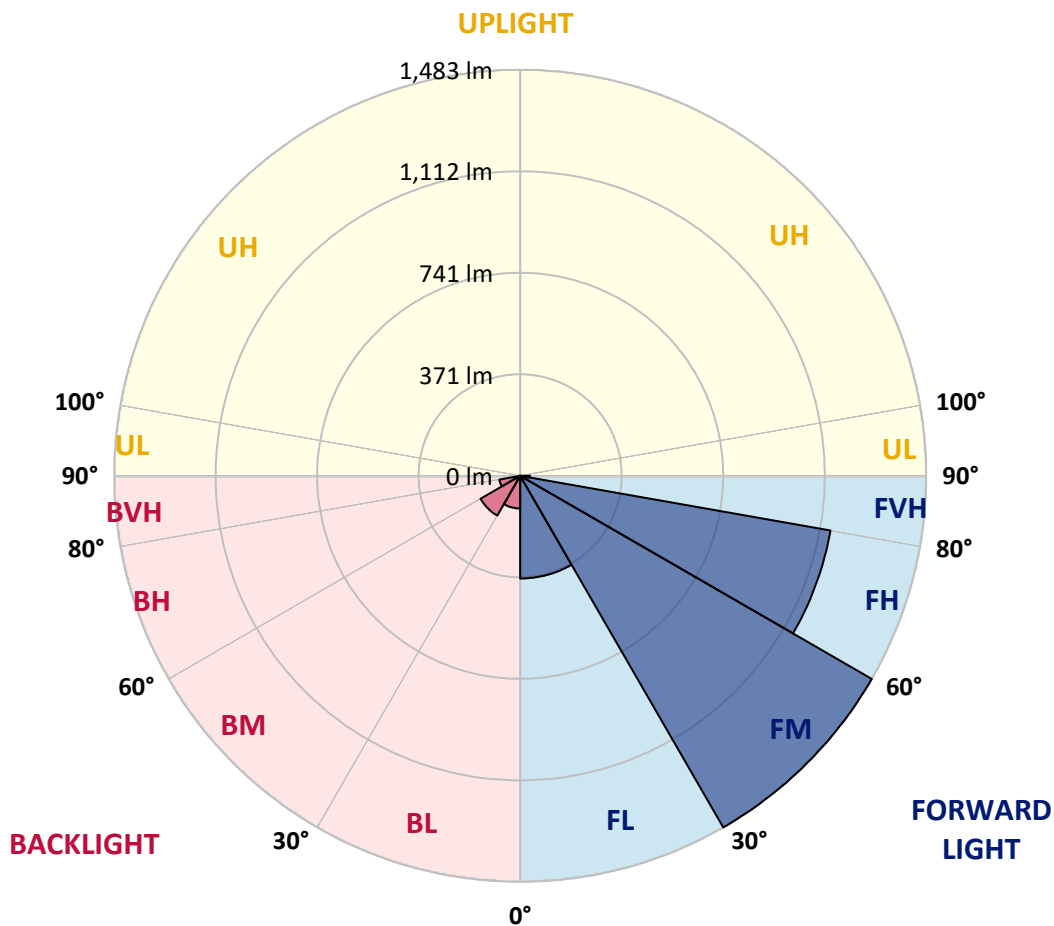


REPORT NUMBER: P438396  
 CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 375.2  | 11.0      |                         |      |         |
| FM (30°-60°)   | 1482.8 | 43.5      |                         |      |         |
| FH (60°-80°)   | 1150.7 | 33.7      |                         |      | G1/1800 |
| FVH (80°-90°)  | 35.6   | 1.0       |                         |      | G1/100  |
| BL (0°-30°)    | 119.3  | 3.5       | B1/500                  |      |         |
| BM (30°-60°)   | 167.4  | 4.9       | B0/220                  |      |         |
| BH (60°-80°)   | 77.3   | 2.3       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 3.8    | 0.1       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**  
 Type IV Short





REPORT NUMBER: P438396

CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 1°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 |
| 2.5°  | 1218.6 | 1218.6 | 1200.6 | 1158.0 | 1118.7 | 1071.2 | 1045.0 | 1020.4 | 994.2  | 976.2  | 948.4  |
| 5°    | 1161.3 | 1149.8 | 1123.6 | 1045.0 | 961.5  | 905.8  | 863.2  | 787.8  | 751.8  | 725.6  | 714.1  |
| 7.5°  | 1066.3 | 1059.7 | 1017.1 | 925.4  | 825.5  | 735.4  | 678.1  | 615.9  | 566.7  | 547.1  | 512.7  |
| 10°   | 1000.8 | 994.2  | 940.2  | 815.7  | 699.4  | 633.9  | 588.0  | 543.8  | 496.3  | 448.8  | 412.8  |
| 12.5° | 968.0  | 954.9  | 902.5  | 761.6  | 661.7  | 597.8  | 545.4  | 491.4  | 432.4  | 380.0  | 337.4  |
| 15°   | 976.2  | 954.9  | 895.9  | 751.8  | 633.9  | 555.3  | 488.1  | 409.5  | 350.5  | 288.3  | 249.0  |
| 17.5° | 1033.5 | 1010.6 | 938.5  | 760.0  | 597.8  | 497.9  | 409.5  | 321.0  | 242.4  | 185.1  | 165.4  |
| 20°   | 1140.0 | 1115.4 | 1017.1 | 778.0  | 574.9  | 440.6  | 316.1  | 221.1  | 160.5  | 134.3  | 122.8  |
| 22.5° | 1275.9 | 1243.2 | 1126.9 | 807.5  | 548.7  | 383.3  | 239.1  | 157.2  | 122.8  | 106.5  | 98.3   |
| 25°   | 1418.4 | 1385.7 | 1256.3 | 851.7  | 532.3  | 334.1  | 185.1  | 122.8  | 99.9   | 90.1   | 85.2   |
| 27.5° | 1547.8 | 1506.9 | 1372.6 | 917.2  | 512.7  | 289.9  | 154.0  | 106.5  | 90.1   | 78.6   | 75.3   |
| 30°   | 1665.8 | 1618.3 | 1488.9 | 972.9  | 484.8  | 250.6  | 132.7  | 98.3   | 83.5   | 73.7   | 68.8   |
| 32.5° | 1765.7 | 1728.0 | 1583.9 | 1012.2 | 461.9  | 229.3  | 117.9  | 86.8   | 72.1   | 63.9   | 60.6   |
| 35°   | 1885.2 | 1849.2 | 1675.6 | 1045.0 | 447.2  | 219.5  | 108.1  | 81.9   | 67.2   | 59.0   | 52.4   |
| 37.5° | 2047.4 | 1995.0 | 1777.1 | 1074.5 | 430.8  | 211.3  | 99.9   | 77.0   | 63.9   | 54.1   | 49.1   |
| 40°   | 2193.2 | 2135.8 | 1895.1 | 1095.8 | 422.6  | 204.7  | 98.3   | 73.7   | 60.6   | 50.8   | 45.9   |
| 42.5° | 2322.6 | 2270.2 | 1990.1 | 1104.0 | 416.0  | 193.3  | 96.6   | 72.1   | 60.6   | 49.1   | 42.6   |
| 45°   | 2404.5 | 2357.0 | 2103.1 | 1125.3 | 416.0  | 185.1  | 90.1   | 72.1   | 59.0   | 47.5   | 40.9   |
| 47.5° | 2479.8 | 2434.0 | 2201.4 | 1148.2 | 409.5  | 178.5  | 81.9   | 78.6   | 59.0   | 45.9   | 37.7   |
| 50°   | 2589.6 | 2553.5 | 2325.8 | 1217.0 | 398.0  | 168.7  | 73.7   | 77.0   | 60.6   | 44.2   | 37.7   |
| 52.5° | 2728.8 | 2712.4 | 2509.3 | 1310.3 | 381.6  | 150.7  | 65.5   | 72.1   | 60.6   | 42.6   | 36.0   |
| 55°   | 2882.7 | 2876.2 | 2700.9 | 1395.5 | 362.0  | 129.4  | 60.6   | 65.5   | 59.0   | 39.3   | 32.8   |
| 57.5° | 2976.1 | 2976.1 | 2825.4 | 1443.0 | 345.6  | 103.2  | 54.1   | 54.1   | 57.3   | 36.0   | 29.5   |
| 60°   | 3010.5 | 2974.5 | 2810.7 | 1438.1 | 317.8  | 85.2   | 49.1   | 44.2   | 60.6   | 31.1   | 26.2   |
| 62.5° | 3007.2 | 2928.6 | 2673.1 | 1359.5 | 280.1  | 78.6   | 42.6   | 37.7   | 44.2   | 27.8   | 22.9   |
| 65°   | 2918.8 | 2823.8 | 2463.4 | 1184.2 | 252.2  | 78.6   | 36.0   | 31.1   | 29.5   | 24.6   | 18.0   |
| 67.5° | 2674.7 | 2617.4 | 2157.1 | 1004.0 | 232.6  | 78.6   | 31.1   | 26.2   | 22.9   | 19.7   | 16.4   |
| 70°   | 2271.8 | 2196.5 | 1737.8 | 774.7  | 217.8  | 78.6   | 26.2   | 22.9   | 21.3   | 16.4   | 13.1   |
| 72.5° | 1480.7 | 1438.1 | 1063.0 | 532.3  | 178.5  | 77.0   | 22.9   | 21.3   | 19.7   | 14.7   | 11.5   |
| 75°   | 805.9  | 745.3  | 584.7  | 190.0  | 127.8  | 55.7   | 19.7   | 18.0   | 14.7   | 13.1   | 9.8    |
| 77.5° | 348.9  | 335.8  | 298.1  | 50.8   | 37.7   | 16.4   | 11.5   | 11.5   | 9.8    | 9.8    | 6.6    |
| 80°   | 45.9   | 34.4   | 39.3   | 14.7   | 13.1   | 8.2    | 6.6    | 4.9    | 4.9    | 4.9    | 3.3    |
| 82.5° | 1.6    | 1.6    | 0.0    | 1.6    | 4.9    | 3.3    | 0.0    | 0.0    | 1.6    | 1.6    | 1.6    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 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    |



REPORT NUMBER: P438396  
 CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 |
| 2.5°  | 961.5  | 941.8  | 927.1  | 927.1  | 946.7  | 935.3  | 948.4  | 940.2  | 963.1  | 974.6  | 971.3  |
| 5°    | 689.6  | 697.8  | 689.6  | 702.7  | 724.0  | 735.4  | 742.0  | 758.4  | 756.7  | 763.3  | 774.7  |
| 7.5°  | 499.6  | 499.6  | 502.8  | 499.6  | 519.2  | 540.5  | 552.0  | 547.1  | 543.8  | 537.2  | 548.7  |
| 10°   | 401.3  | 383.3  | 362.0  | 362.0  | 365.3  | 376.7  | 378.4  | 370.2  | 358.7  | 337.4  | 344.0  |
| 12.5° | 314.5  | 301.4  | 288.3  | 260.4  | 258.8  | 252.2  | 250.6  | 227.7  | 209.7  | 203.1  | 203.1  |
| 15°   | 230.9  | 222.8  | 208.0  | 194.9  | 181.8  | 175.3  | 163.8  | 135.9  | 117.9  | 116.3  | 117.9  |
| 17.5° | 154.0  | 149.1  | 144.1  | 144.1  | 139.2  | 127.8  | 116.3  | 98.3   | 90.1   | 86.8   | 88.4   |
| 20°   | 114.7  | 113.0  | 108.1  | 109.7  | 109.7  | 99.9   | 88.4   | 80.3   | 77.0   | 77.0   | 78.6   |
| 22.5° | 95.0   | 93.4   | 88.4   | 88.4   | 88.4   | 83.5   | 75.3   | 70.4   | 68.8   | 68.8   | 68.8   |
| 25°   | 81.9   | 80.3   | 77.0   | 75.3   | 75.3   | 72.1   | 65.5   | 62.2   | 60.6   | 60.6   | 60.6   |
| 27.5° | 73.7   | 72.1   | 68.8   | 65.5   | 65.5   | 62.2   | 59.0   | 54.1   | 54.1   | 54.1   | 54.1   |
| 30°   | 65.5   | 63.9   | 62.2   | 59.0   | 57.3   | 54.1   | 50.8   | 49.1   | 47.5   | 47.5   | 47.5   |
| 32.5° | 59.0   | 57.3   | 55.7   | 54.1   | 50.8   | 47.5   | 44.2   | 42.6   | 40.9   | 40.9   | 40.9   |
| 35°   | 50.8   | 47.5   | 45.9   | 47.5   | 45.9   | 40.9   | 39.3   | 36.0   | 34.4   | 34.4   | 34.4   |
| 37.5° | 45.9   | 42.6   | 39.3   | 37.7   | 37.7   | 37.7   | 34.4   | 31.1   | 29.5   | 27.8   | 29.5   |
| 40°   | 42.6   | 39.3   | 36.0   | 32.8   | 31.1   | 32.8   | 29.5   | 26.2   | 24.6   | 22.9   | 24.6   |
| 42.5° | 39.3   | 36.0   | 31.1   | 27.8   | 24.6   | 27.8   | 24.6   | 21.3   | 19.7   | 18.0   | 19.7   |
| 45°   | 37.7   | 34.4   | 29.5   | 24.6   | 21.3   | 21.3   | 21.3   | 18.0   | 14.7   | 14.7   | 14.7   |
| 47.5° | 36.0   | 32.8   | 26.2   | 21.3   | 18.0   | 16.4   | 16.4   | 13.1   | 11.5   | 9.8    | 9.8    |
| 50°   | 34.4   | 31.1   | 24.6   | 18.0   | 14.7   | 13.1   | 13.1   | 9.8    | 8.2    | 8.2    | 8.2    |
| 52.5° | 32.8   | 29.5   | 22.9   | 16.4   | 13.1   | 9.8    | 8.2    | 6.6    | 6.6    | 4.9    | 4.9    |
| 55°   | 29.5   | 26.2   | 19.7   | 14.7   | 11.5   | 8.2    | 6.6    | 4.9    | 4.9    | 3.3    | 4.9    |
| 57.5° | 27.8   | 24.6   | 18.0   | 13.1   | 9.8    | 6.6    | 4.9    | 3.3    | 3.3    | 3.3    | 3.3    |
| 60°   | 24.6   | 21.3   | 14.7   | 9.8    | 6.6    | 4.9    | 3.3    | 3.3    | 3.3    | 1.6    | 1.6    |
| 62.5° | 19.7   | 18.0   | 13.1   | 8.2    | 4.9    | 3.3    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    |
| 65°   | 18.0   | 16.4   | 11.5   | 6.6    | 3.3    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    |
| 67.5° | 14.7   | 13.1   | 8.2    | 4.9    | 1.6    | 1.6    | 0.0    | 1.6    | 1.6    | 0.0    | 0.0    |
| 70°   | 11.5   | 11.5   | 6.6    | 3.3    | 1.6    | 0.0    | 0.0    | 1.6    | 1.6    | 0.0    | 0.0    |
| 72.5° | 9.8    | 9.8    | 6.6    | 1.6    | 0.0    | 0.0    | 0.0    | 1.6    | 1.6    | 1.6    | 0.0    |
| 75°   | 8.2    | 8.2    | 6.6    | 3.3    | 0.0    | 0.0    | 0.0    | 1.6    | 1.6    | 1.6    | 1.6    |
| 77.5° | 6.6    | 4.9    | 3.3    | 1.6    | 0.0    | 0.0    | 0.0    | 1.6    | 1.6    | 1.6    | 1.6    |
| 80°   | 3.3    | 3.3    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 1.6    | 1.6    | 1.6    | 1.6    |
| 82.5° | 1.6    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 1.6    | 3.3    | 3.3    | 1.6    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 1.6    | 3.3    | 3.3    | 3.3    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 1.6    | 3.3    | 3.3    | 3.3    | 3.3    |
| 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: P438396  
 CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 |
| 2.5°  | 979.5  | 1005.7 | 1035.2 | 1053.2 | 1092.5 | 1126.9 | 1167.8 | 1203.9 | 1246.5 | 1269.4 | 1277.6 |
| 5°    | 786.2  | 800.9  | 838.6  | 887.8  | 932.0  | 994.2  | 1066.3 | 1146.5 | 1233.4 | 1274.3 | 1303.8 |
| 7.5°  | 542.2  | 555.3  | 609.3  | 655.2  | 728.9  | 809.1  | 907.4  | 1017.1 | 1130.2 | 1187.5 | 1239.9 |
| 10°   | 353.8  | 371.8  | 417.7  | 481.5  | 574.9  | 673.2  | 773.1  | 887.8  | 1018.8 | 1085.9 | 1156.4 |
| 12.5° | 204.7  | 226.0  | 281.7  | 365.3  | 457.0  | 561.8  | 665.0  | 791.1  | 936.9  | 1010.6 | 1082.7 |
| 15°   | 117.9  | 126.1  | 158.9  | 232.6  | 335.8  | 463.5  | 584.7  | 720.7  | 891.0  | 972.9  | 1058.1 |
| 17.5° | 88.4   | 93.4   | 103.2  | 134.3  | 214.6  | 355.4  | 525.8  | 699.4  | 895.9  | 1005.7 | 1081.0 |
| 20°   | 78.6   | 81.9   | 86.8   | 98.3   | 135.9  | 252.2  | 453.7  | 684.7  | 943.4  | 1084.3 | 1176.0 |
| 22.5° | 70.4   | 73.7   | 78.6   | 86.8   | 103.2  | 170.3  | 378.4  | 683.0  | 1022.1 | 1200.6 | 1303.8 |
| 25°   | 62.2   | 65.5   | 70.4   | 78.6   | 91.7   | 122.8  | 293.2  | 678.1  | 1120.3 | 1328.4 | 1457.7 |
| 27.5° | 54.1   | 57.3   | 62.2   | 70.4   | 81.9   | 101.6  | 222.8  | 663.4  | 1238.3 | 1465.9 | 1603.5 |
| 30°   | 47.5   | 50.8   | 55.7   | 62.2   | 73.7   | 88.4   | 170.3  | 638.8  | 1339.8 | 1588.8 | 1701.8 |
| 32.5° | 40.9   | 44.2   | 49.1   | 55.7   | 65.5   | 77.0   | 137.6  | 586.4  | 1418.4 | 1685.4 | 1782.1 |
| 35°   | 34.4   | 37.7   | 42.6   | 49.1   | 57.3   | 65.5   | 113.0  | 501.2  | 1498.7 | 1785.3 | 1878.7 |
| 37.5° | 29.5   | 32.8   | 36.0   | 42.6   | 50.8   | 59.0   | 93.4   | 447.2  | 1557.7 | 1909.8 | 2001.5 |
| 40°   | 24.6   | 27.8   | 32.8   | 37.7   | 44.2   | 55.7   | 75.3   | 375.1  | 1616.6 | 2029.4 | 2114.6 |
| 42.5° | 19.7   | 22.9   | 27.8   | 34.4   | 40.9   | 49.1   | 60.6   | 309.6  | 1675.6 | 2137.5 | 2217.7 |
| 45°   | 14.7   | 18.0   | 22.9   | 31.1   | 40.9   | 42.6   | 49.1   | 263.7  | 1690.3 | 2239.0 | 2307.8 |
| 47.5° | 11.5   | 13.1   | 18.0   | 26.2   | 39.3   | 37.7   | 40.9   | 229.3  | 1718.2 | 2319.3 | 2396.3 |
| 50°   | 8.2    | 9.8    | 14.7   | 24.6   | 34.4   | 31.1   | 36.0   | 216.2  | 1757.5 | 2381.5 | 2422.5 |
| 52.5° | 6.6    | 8.2    | 11.5   | 21.3   | 27.8   | 27.8   | 32.8   | 229.3  | 1808.3 | 2455.2 | 2489.6 |
| 55°   | 4.9    | 6.6    | 9.8    | 14.7   | 21.3   | 24.6   | 31.1   | 247.3  | 1906.5 | 2584.6 | 2578.1 |
| 57.5° | 3.3    | 4.9    | 8.2    | 11.5   | 16.4   | 21.3   | 29.5   | 275.2  | 2006.5 | 2730.4 | 2737.0 |
| 60°   | 3.3    | 4.9    | 6.6    | 9.8    | 14.7   | 18.0   | 26.2   | 278.4  | 1990.1 | 2751.7 | 2848.3 |
| 62.5° | 1.6    | 3.3    | 6.6    | 8.2    | 11.5   | 14.7   | 22.9   | 234.2  | 1832.8 | 2648.5 | 2789.4 |
| 65°   | 1.6    | 3.3    | 4.9    | 8.2    | 9.8    | 13.1   | 18.0   | 149.1  | 1595.3 | 2465.1 | 2651.8 |
| 67.5° | 1.6    | 3.3    | 4.9    | 6.6    | 8.2    | 11.5   | 14.7   | 77.0   | 1352.9 | 2275.1 | 2455.2 |
| 70°   | 1.6    | 3.3    | 4.9    | 6.6    | 8.2    | 9.8    | 13.1   | 37.7   | 1025.3 | 1918.0 | 2150.6 |
| 72.5° | 1.6    | 3.3    | 4.9    | 6.6    | 6.6    | 8.2    | 11.5   | 26.2   | 658.4  | 1441.4 | 1665.8 |
| 75°   | 1.6    | 3.3    | 3.3    | 4.9    | 6.6    | 8.2    | 9.8    | 18.0   | 425.9  | 969.6  | 1262.8 |
| 77.5° | 1.6    | 3.3    | 3.3    | 4.9    | 6.6    | 8.2    | 11.5   | 16.4   | 311.2  | 665.0  | 873.0  |
| 80°   | 1.6    | 3.3    | 3.3    | 4.9    | 6.6    | 6.6    | 8.2    | 11.5   | 167.1  | 440.6  | 555.3  |
| 82.5° | 3.3    | 3.3    | 4.9    | 4.9    | 4.9    | 6.6    | 8.2    | 8.2    | 86.8   | 281.7  | 375.1  |
| 85°   | 3.3    | 3.3    | 4.9    | 4.9    | 6.6    | 6.6    | 6.6    | 8.2    | 37.7   | 117.9  | 186.7  |
| 87.5° | 3.3    | 4.9    | 4.9    | 4.9    | 6.6    | 6.6    | 6.6    | 6.6    | 4.9    | 6.6    | 6.6    |
| 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: P438396

CATALOG NUMBER: IST-SA1C-750-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 359°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 | 1151.5 |
| 2.5°  | 1302.1 | 1323.4 | 1333.3 | 1325.1 | 1318.5 | 1298.9 | 1271.0 | 1243.2 | 1220.3 | 1218.6 |
| 5°    | 1370.9 | 1416.8 | 1452.8 | 1434.8 | 1410.2 | 1352.9 | 1282.5 | 1203.9 | 1174.4 | 1161.3 |
| 7.5°  | 1356.2 | 1456.1 | 1516.7 | 1500.3 | 1451.2 | 1343.1 | 1233.4 | 1130.2 | 1082.7 | 1066.3 |
| 10°   | 1289.0 | 1423.4 | 1503.6 | 1498.7 | 1452.8 | 1325.1 | 1189.1 | 1064.6 | 1013.9 | 1000.8 |
| 12.5° | 1226.8 | 1359.5 | 1436.5 | 1439.7 | 1423.4 | 1305.4 | 1167.8 | 1035.2 | 974.6  | 968.0  |
| 15°   | 1194.0 | 1307.1 | 1352.9 | 1362.8 | 1369.3 | 1303.8 | 1187.5 | 1054.8 | 990.9  | 976.2  |
| 17.5° | 1200.6 | 1254.6 | 1266.1 | 1257.9 | 1302.1 | 1305.4 | 1243.2 | 1123.6 | 1051.5 | 1033.5 |
| 20°   | 1239.9 | 1220.3 | 1182.6 | 1190.8 | 1239.9 | 1312.0 | 1326.7 | 1244.8 | 1162.9 | 1140.0 |
| 22.5° | 1315.3 | 1218.6 | 1143.3 | 1136.7 | 1200.6 | 1323.4 | 1416.8 | 1374.2 | 1289.0 | 1275.9 |
| 25°   | 1426.6 | 1243.2 | 1126.9 | 1113.8 | 1169.5 | 1334.9 | 1508.5 | 1510.2 | 1443.0 | 1418.4 |
| 27.5° | 1534.7 | 1282.5 | 1125.3 | 1112.1 | 1169.5 | 1349.6 | 1570.8 | 1644.5 | 1574.0 | 1547.8 |
| 30°   | 1597.0 | 1328.4 | 1151.5 | 1126.9 | 1190.8 | 1362.8 | 1611.7 | 1750.9 | 1688.7 | 1665.8 |
| 32.5° | 1654.3 | 1377.5 | 1179.3 | 1149.8 | 1231.7 | 1398.8 | 1649.4 | 1847.6 | 1793.5 | 1765.7 |
| 35°   | 1701.8 | 1434.8 | 1231.7 | 1185.9 | 1292.3 | 1451.2 | 1695.2 | 1954.0 | 1919.6 | 1885.2 |
| 37.5° | 1747.7 | 1492.1 | 1305.4 | 1279.2 | 1393.9 | 1526.5 | 1755.9 | 2065.4 | 2081.8 | 2047.4 |
| 40°   | 1813.2 | 1557.7 | 1431.5 | 1410.2 | 1542.9 | 1641.2 | 1829.6 | 2176.8 | 2230.8 | 2193.2 |
| 42.5° | 1875.4 | 1641.2 | 1559.3 | 1579.0 | 1723.1 | 1773.9 | 1913.1 | 2278.3 | 2339.0 | 2322.6 |
| 45°   | 1932.7 | 1744.4 | 1744.4 | 1791.9 | 1918.0 | 1919.6 | 1977.0 | 2348.8 | 2412.7 | 2404.5 |
| 47.5° | 2008.1 | 1872.1 | 1936.0 | 2067.1 | 2134.2 | 2045.8 | 2045.8 | 2415.9 | 2502.7 | 2479.8 |
| 50°   | 2081.8 | 2042.5 | 2189.9 | 2309.5 | 2368.4 | 2198.1 | 2116.2 | 2506.0 | 2609.2 | 2589.6 |
| 52.5° | 2162.1 | 2207.9 | 2427.4 | 2545.3 | 2579.7 | 2371.7 | 2222.7 | 2596.1 | 2728.8 | 2728.8 |
| 55°   | 2291.5 | 2348.8 | 2678.0 | 2776.3 | 2825.4 | 2515.8 | 2358.6 | 2723.9 | 2874.6 | 2882.7 |
| 57.5° | 2424.1 | 2484.7 | 2818.9 | 2943.3 | 3007.2 | 2728.8 | 2533.9 | 2894.2 | 2977.7 | 2976.1 |
| 60°   | 2563.3 | 2627.2 | 2928.6 | 3051.4 | 3144.8 | 2946.6 | 2741.9 | 3049.8 | 3026.9 | 3010.5 |
| 62.5° | 2735.3 | 2735.3 | 2969.6 | 3026.9 | 3139.9 | 3084.2 | 2976.1 | 3138.3 | 3044.9 | 3007.2 |
| 65°   | 2818.9 | 2792.7 | 2851.6 | 2809.0 | 2938.4 | 3044.9 | 3154.6 | 3141.5 | 2981.0 | 2918.8 |
| 67.5° | 2774.6 | 2615.8 | 2514.2 | 2450.3 | 2478.2 | 2661.6 | 3076.0 | 2985.9 | 2722.2 | 2674.7 |
| 70°   | 2471.6 | 2091.6 | 1996.6 | 1895.1 | 1841.0 | 2031.0 | 2658.3 | 2637.1 | 2316.0 | 2271.8 |
| 72.5° | 2014.6 | 1510.2 | 1280.9 | 1384.0 | 1331.6 | 1546.2 | 2178.4 | 1860.7 | 1520.0 | 1480.7 |
| 75°   | 1672.3 | 1123.6 | 835.3  | 837.0  | 845.2  | 1015.5 | 1592.1 | 1105.6 | 835.3  | 805.9  |
| 77.5° | 1210.4 | 791.1  | 674.8  | 604.4  | 610.9  | 648.6  | 828.8  | 471.7  | 384.9  | 348.9  |
| 80°   | 738.7  | 489.7  | 545.4  | 484.8  | 468.4  | 360.3  | 357.1  | 68.8   | 45.9   | 45.9   |
| 82.5° | 402.9  | 311.2  | 289.9  | 104.8  | 162.2  | 196.6  | 162.2  | 3.3    | 1.6    | 1.6    |
| 85°   | 204.7  | 124.5  | 59.0   | 18.0   | 21.3   | 18.0   | 3.3    | 0.0    | 0.0    | 0.0    |
| 87.5° | 6.6    | 4.9    | 4.9    | 3.3    | 3.3    | 1.6    | 1.6    | 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-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-4-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-750-U-5WQ

Data in this report applies to families of products SA1C-760-U-5WQ .

---

**Test Information**

Test Method: LM-79-2008  
 Report Number: SP1-1908-441-4-R4  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 10/28/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: McGRAW-EDISON  
 Catalog Number: **SA1C-750-U-5WQ**  
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

\*\*\*THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.\*\*\*TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

**Spectral Parameters**

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 4884   | CRI (Ra): | 73.5 | R9:  | -28.4 |
| CIE u':                   | 0.2101 | R1:       | 70.5 | R10: | 48.6  |
| CIE v':                   | 0.4904 | R2:       | 77.7 | R11: | 73.2  |
| Duv:                      | 0.0037 | R3:       | 84.6 | R12: | 50.7  |
| CIE x:                    | 0.3493 | R4:       | 74.7 | R13: | 71.2  |
| CIE y:                    | 0.3624 | R5:       | 71.9 | R14: | 91.4  |
| CIE z:                    | 0.2884 | R6:       | 70.7 |      |       |
| Peak Wavelength (nm):     | 444    | R7:       | 81.2 |      |       |
| Dominant Wavelength (nm): | 571    | R8:       | 56.9 |      |       |
| Purity:                   | 13.7   |           |      |      |       |
| Rf:                       | 74.9   |           |      |      |       |
| Rg:                       | 96.3   |           |      |      |       |



**Test Conditions**

Stabilization Time: 240M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.0./44%  
 Sphere Temperature (°C): 25.7

REPORT NUMBER: SP1-1908-441-4-R4

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 6/28/2019        | 12/28/2019           |
| Power Meter                    | IN0071                | 12/5/2018        | 12/5/2019            |
| AC Power Source                | IN0063                | 12/5/2018        | 12/5/2019            |
| DC Power Source                | IN0208                | 12/5/2018        | 12/5/2019            |
| Sphere Thermometer             | IN0085                | 12/5/2018        | 12/5/2019            |
| Room Thermometer               | IN0046                | 12/5/2018        | 12/5/2019            |

REPORT NUMBER: SP1-1908-441-4-R4

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-1908-441-4-R4

**Photopic Flux vs. Wavelength**



#####

| $\lambda$<br>(nm) | Power<br>( $\mu$ W/nm) | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>( $\mu$ W/nm) | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>( $\mu$ W/nm) | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>( $\mu$ W/nm) | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>( $\mu$ W/nm) | Lumens<br>( $\phi$ /nm) |
|-------------------|------------------------|-------------------------|-------------------|------------------------|-------------------------|-------------------|------------------------|-------------------------|-------------------|------------------------|-------------------------|-------------------|------------------------|-------------------------|
| 360               | 2945                   | NR                      | 490               | 37941                  | NR                      | 620               | 88803                  | NR                      | 750               | 3908                   | NR                      | 880               | 2997                   | NR                      |
| 365               | 2596                   | NR                      | 495               | 48525                  | NR                      | 625               | 80578                  | NR                      | 755               | 3988                   | NR                      | 885               | 2927                   | NR                      |
| 370               | 2732                   | NR                      | 500               | 60609                  | NR                      | 630               | 73127                  | NR                      | 760               | 3335                   | NR                      | 890               | 2649                   | NR                      |
| 375               | 2894                   | NR                      | 505               | 72036                  | NR                      | 635               | 66244                  | NR                      | 765               | 3438                   | NR                      | 895               | 2828                   | NR                      |
| 380               | 2822                   | NR                      | 510               | 82168                  | NR                      | 640               | 59440                  | NR                      | 770               | 3427                   | NR                      | 900               | 1407                   | NR                      |
| 385               | 2394                   | NR                      | 515               | 90898                  | NR                      | 645               | 52864                  | NR                      | 775               | 2759                   | NR                      | 905               | 2224                   | NR                      |
| 390               | 2370                   | NR                      | 520               | 97142                  | NR                      | 650               | 47085                  | NR                      | 780               | 2340                   | NR                      | 910               | 2905                   | NR                      |
| 395               | 2267                   | NR                      | 525               | 103255                 | NR                      | 655               | 41789                  | NR                      | 785               | 2412                   | NR                      | 915               | 3350                   | NR                      |
| 400               | 2262                   | NR                      | 530               | 106697                 | NR                      | 660               | 37064                  | NR                      | 790               | 1999                   | NR                      | 920               | 3114                   | NR                      |
| 405               | 3000                   | NR                      | 535               | 110081                 | NR                      | 665               | 32299                  | NR                      | 795               | 2054                   | NR                      | 925               | 2834                   | NR                      |
| 410               | 5324                   | NR                      | 540               | 112494                 | NR                      | 670               | 28142                  | NR                      | 800               | 2331                   | NR                      | 930               | 2271                   | NR                      |
| 415               | 10725                  | NR                      | 545               | 115513                 | NR                      | 675               | 24505                  | NR                      | 805               | 2648                   | NR                      | 935               | 2228                   | NR                      |
| 420               | 22128                  | NR                      | 550               | 117203                 | NR                      | 680               | 21162                  | NR                      | 810               | 2485                   | NR                      | 940               | 2833                   | NR                      |
| 425               | 44095                  | NR                      | 555               | 119753                 | NR                      | 685               | 18400                  | NR                      | 815               | 2409                   | NR                      | 945               | 2941                   | NR                      |
| 430               | 77002                  | NR                      | 560               | 122602                 | NR                      | 690               | 16065                  | NR                      | 820               | 2221                   | NR                      | 950               | 2323                   | NR                      |
| 435               | 119881                 | NR                      | 565               | 124314                 | NR                      | 695               | 13860                  | NR                      | 825               | 1562                   | NR                      | 955               | 1667                   | NR                      |
| 440               | 164454                 | NR                      | 570               | 126775                 | NR                      | 700               | 12177                  | NR                      | 830               | 2249                   | NR                      | 960               | 749                    | NR                      |
| 445               | 179997                 | NR                      | 575               | 127511                 | NR                      | 705               | 10757                  | NR                      | 835               | 2573                   | NR                      | 965               | 2669                   | NR                      |
| 450               | 142822                 | NR                      | 580               | 127577                 | NR                      | 710               | 9601                   | NR                      | 840               | 2764                   | NR                      | 970               | 3968                   | NR                      |
| 455               | 90008                  | NR                      | 585               | 126153                 | NR                      | 715               | 8944                   | NR                      | 845               | 3109                   | NR                      | 975               | 3886                   | NR                      |
| 460               | 60557                  | NR                      | 590               | 123678                 | NR                      | 720               | 7947                   | NR                      | 850               | 2963                   | NR                      | 980               | 2788                   | NR                      |
| 465               | 43305                  | NR                      | 595               | 119774                 | NR                      | 725               | 7062                   | NR                      | 855               | 2336                   | NR                      | 985               | 3496                   | NR                      |
| 470               | 31089                  | NR                      | 600               | 115733                 | NR                      | 730               | 6004                   | NR                      | 860               | 2118                   | NR                      | 990               | 2913                   | NR                      |
| 475               | 26278                  | NR                      | 605               | 109231                 | NR                      | 735               | 5594                   | NR                      | 865               | 3144                   | NR                      | 995               | 4659                   | NR                      |
| 480               | 27060                  | NR                      | 610               | 102408                 | NR                      | 740               | 5165                   | NR                      | 870               | 3069                   | NR                      | 1000              | 1308                   | NR                      |
| 485               | 30698                  | NR                      | 615               | 96015                  | NR                      | 745               | 4687                   | NR                      | 875               | 3311                   | NR                      |                   |                        |                         |

REPORT NUMBER: SP1-1908-441-4-R4

Scotopic Flux vs. Wavelength



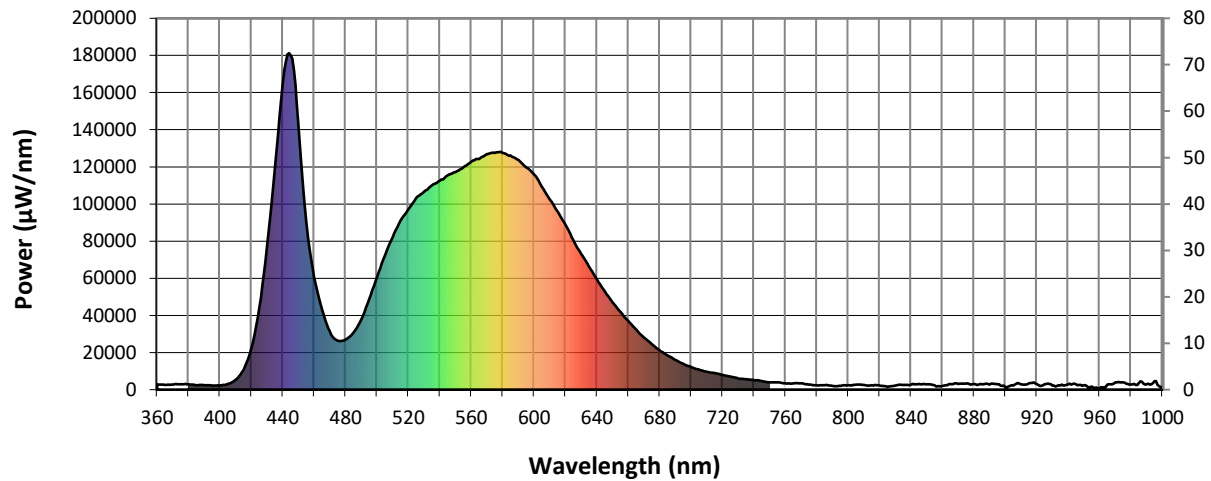
Scotopic Lumens: 13493.5 S/P: 1.77

| 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    | 2945          | NR            | 490    | 37941         | NR            | 620    | 88803         | NR            | 750    | 3908          | NR            | 880    | 2997          | NR            |
| 365    | 2596          | NR            | 495    | 48525         | NR            | 625    | 80578         | NR            | 755    | 3988          | NR            | 885    | 2927          | NR            |
| 370    | 2732          | NR            | 500    | 60609         | NR            | 630    | 73127         | NR            | 760    | 3335          | NR            | 890    | 2649          | NR            |
| 375    | 2894          | NR            | 505    | 72036         | NR            | 635    | 66244         | NR            | 765    | 3438          | NR            | 895    | 2828          | NR            |
| 380    | 2822          | NR            | 510    | 82168         | NR            | 640    | 59440         | NR            | 770    | 3427          | NR            | 900    | 1407          | NR            |
| 385    | 2394          | NR            | 515    | 90898         | NR            | 645    | 52864         | NR            | 775    | 2759          | NR            | 905    | 2224          | NR            |
| 390    | 2370          | NR            | 520    | 97142         | NR            | 650    | 47085         | NR            | 780    | 2340          | NR            | 910    | 2905          | NR            |
| 395    | 2267          | NR            | 525    | 103255        | NR            | 655    | 41789         | NR            | 785    | 2412          | NR            | 915    | 3350          | NR            |
| 400    | 2262          | NR            | 530    | 106697        | NR            | 660    | 37064         | NR            | 790    | 1999          | NR            | 920    | 3114          | NR            |
| 405    | 3000          | NR            | 535    | 110081        | NR            | 665    | 32299         | NR            | 795    | 2054          | NR            | 925    | 2834          | NR            |
| 410    | 5324          | NR            | 540    | 112494        | NR            | 670    | 28142         | NR            | 800    | 2331          | NR            | 930    | 2271          | NR            |
| 415    | 10725         | NR            | 545    | 115513        | NR            | 675    | 24505         | NR            | 805    | 2648          | NR            | 935    | 2228          | NR            |
| 420    | 22128         | NR            | 550    | 117203        | NR            | 680    | 21162         | NR            | 810    | 2485          | NR            | 940    | 2833          | NR            |
| 425    | 44095         | NR            | 555    | 119753        | NR            | 685    | 18400         | NR            | 815    | 2409          | NR            | 945    | 2941          | NR            |
| 430    | 77002         | NR            | 560    | 122602        | NR            | 690    | 16065         | NR            | 820    | 2221          | NR            | 950    | 2323          | NR            |
| 435    | 119881        | NR            | 565    | 124314        | NR            | 695    | 13860         | NR            | 825    | 1562          | NR            | 955    | 1667          | NR            |
| 440    | 164454        | NR            | 570    | 126775        | NR            | 700    | 12177         | NR            | 830    | 2249          | NR            | 960    | 749           | NR            |
| 445    | 179997        | NR            | 575    | 127511        | NR            | 705    | 10757         | NR            | 835    | 2573          | NR            | 965    | 2669          | NR            |
| 450    | 142822        | NR            | 580    | 127577        | NR            | 710    | 9601          | NR            | 840    | 2764          | NR            | 970    | 3968          | NR            |
| 455    | 90008         | NR            | 585    | 126153        | NR            | 715    | 8944          | NR            | 845    | 3109          | NR            | 975    | 3886          | NR            |
| 460    | 60557         | NR            | 590    | 123678        | NR            | 720    | 7947          | NR            | 850    | 2963          | NR            | 980    | 2788          | NR            |
| 465    | 43305         | NR            | 595    | 119774        | NR            | 725    | 7062          | NR            | 855    | 2336          | NR            | 985    | 3496          | NR            |
| 470    | 31089         | NR            | 600    | 115733        | NR            | 730    | 6004          | NR            | 860    | 2118          | NR            | 990    | 2913          | NR            |
| 475    | 26278         | NR            | 605    | 109231        | NR            | 735    | 5594          | NR            | 865    | 3144          | NR            | 995    | 4659          | NR            |
| 480    | 27060         | NR            | 610    | 102408        | NR            | 740    | 5165          | NR            | 870    | 3069          | NR            | 1000   | 1308          | NR            |
| 485    | 30698         | NR            | 615    | 96015         | NR            | 745    | 4687          | NR            | 875    | 3311          | NR            |        |               |               |



REPORT NUMBER: SP1-1908-441-4-R4

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: 5378.9 M/P: 0.71**

| 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    | 2945          | NR            | 490    | 37941         | NR            | 620    | 88803         | NR            | 750    | 3908          | NR            | 880    | 2997          | NR            |
| 365    | 2596          | NR            | 495    | 48525         | NR            | 625    | 80578         | NR            | 755    | 3988          | NR            | 885    | 2927          | NR            |
| 370    | 2732          | NR            | 500    | 60609         | NR            | 630    | 73127         | NR            | 760    | 3335          | NR            | 890    | 2649          | NR            |
| 375    | 2894          | NR            | 505    | 72036         | NR            | 635    | 66244         | NR            | 765    | 3438          | NR            | 895    | 2828          | NR            |
| 380    | 2822          | NR            | 510    | 82168         | NR            | 640    | 59440         | NR            | 770    | 3427          | NR            | 900    | 1407          | NR            |
| 385    | 2394          | NR            | 515    | 90898         | NR            | 645    | 52864         | NR            | 775    | 2759          | NR            | 905    | 2224          | NR            |
| 390    | 2370          | NR            | 520    | 97142         | NR            | 650    | 47085         | NR            | 780    | 2340          | NR            | 910    | 2905          | NR            |
| 395    | 2267          | NR            | 525    | 103255        | NR            | 655    | 41789         | NR            | 785    | 2412          | NR            | 915    | 3350          | NR            |
| 400    | 2262          | NR            | 530    | 106697        | NR            | 660    | 37064         | NR            | 790    | 1999          | NR            | 920    | 3114          | NR            |
| 405    | 3000          | NR            | 535    | 110081        | NR            | 665    | 32299         | NR            | 795    | 2054          | NR            | 925    | 2834          | NR            |
| 410    | 5324          | NR            | 540    | 112494        | NR            | 670    | 28142         | NR            | 800    | 2331          | NR            | 930    | 2271          | NR            |
| 415    | 10725         | NR            | 545    | 115513        | NR            | 675    | 24505         | NR            | 805    | 2648          | NR            | 935    | 2228          | NR            |
| 420    | 22128         | NR            | 550    | 117203        | NR            | 680    | 21162         | NR            | 810    | 2485          | NR            | 940    | 2833          | NR            |
| 425    | 44095         | NR            | 555    | 119753        | NR            | 685    | 18400         | NR            | 815    | 2409          | NR            | 945    | 2941          | NR            |
| 430    | 77002         | NR            | 560    | 122602        | NR            | 690    | 16065         | NR            | 820    | 2221          | NR            | 950    | 2323          | NR            |
| 435    | 119881        | NR            | 565    | 124314        | NR            | 695    | 13860         | NR            | 825    | 1562          | NR            | 955    | 1667          | NR            |
| 440    | 164454        | NR            | 570    | 126775        | NR            | 700    | 12177         | NR            | 830    | 2249          | NR            | 960    | 749           | NR            |
| 445    | 179997        | NR            | 575    | 127511        | NR            | 705    | 10757         | NR            | 835    | 2573          | NR            | 965    | 2669          | NR            |
| 450    | 142822        | NR            | 580    | 127577        | NR            | 710    | 9601          | NR            | 840    | 2764          | NR            | 970    | 3968          | NR            |
| 455    | 90008         | NR            | 585    | 126153        | NR            | 715    | 8944          | NR            | 845    | 3109          | NR            | 975    | 3886          | NR            |
| 460    | 60557         | NR            | 590    | 123678        | NR            | 720    | 7947          | NR            | 850    | 2963          | NR            | 980    | 2788          | NR            |
| 465    | 43305         | NR            | 595    | 119774        | NR            | 725    | 7062          | NR            | 855    | 2336          | NR            | 985    | 3496          | NR            |
| 470    | 31089         | NR            | 600    | 115733        | NR            | 730    | 6004          | NR            | 860    | 2118          | NR            | 990    | 2913          | NR            |
| 475    | 26278         | NR            | 605    | 109231        | NR            | 735    | 5594          | NR            | 865    | 3144          | NR            | 995    | 4659          | NR            |
| 480    | 27060         | NR            | 610    | 102408        | NR            | 740    | 5165          | NR            | 870    | 3069          | NR            | 1000   | 1308          | NR            |
| 485    | 30698         | NR            | 615    | 96015         | NR            | 745    | 4687          | NR            | 875    | 3311          | NR            |        |               |               |

REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

**Summary**

$R_f = 74.9$   
 $R_g = 96.3$   
 CIE  $R_a = 73.5$   
 $R_g = -28.4$



**Color Vector Graphics**

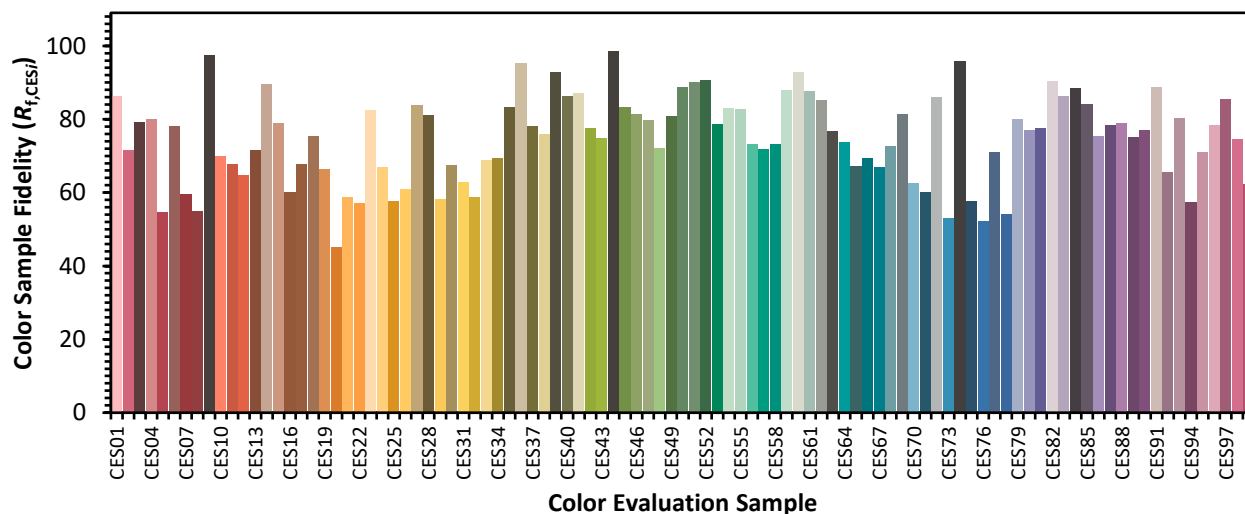


REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

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

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 61 | CES51 = 90 | CES76 = 52 |
| CES02 = 60 | CES27 = 84 | CES52 = 91 | CES77 = 71 |
| CES03 = 30 | CES28 = 81 | CES53 = 79 | CES78 = 54 |
| CES04 = 69 | CES29 = 58 | CES54 = 83 | CES79 = 80 |
| CES05 = 46 | CES30 = 67 | CES55 = 83 | CES80 = 77 |
| CES06 = 50 | CES31 = 63 | CES56 = 73 | CES81 = 77 |
| CES07 = 39 | CES32 = 59 | CES57 = 72 | CES82 = 90 |
| CES08 = 38 | CES33 = 69 | CES58 = 73 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 88 | CES84 = 88 |
| CES10 = 73 | CES35 = 83 | CES60 = 93 | CES85 = 84 |
| CES11 = 56 | CES36 = 95 | CES61 = 88 | CES86 = 75 |
| CES12 = 61 | CES37 = 78 | CES62 = 85 | CES87 = 78 |
| CES13 = 41 | CES38 = 76 | CES63 = 77 | CES88 = 79 |
| CES14 = 74 | CES39 = 93 | CES64 = 74 | CES89 = 75 |
| CES15 = 70 | CES40 = 86 | CES65 = 67 | CES90 = 77 |
| CES16 = 46 | CES41 = 87 | CES66 = 69 | CES91 = 89 |
| CES17 = 49 | CES42 = 78 | CES67 = 67 | CES92 = 66 |
| CES18 = 55 | CES43 = 75 | CES68 = 73 | CES93 = 80 |
| CES19 = 71 | CES44 = 99 | CES69 = 81 | CES94 = 57 |
| CES20 = 64 | CES45 = 83 | CES70 = 63 | CES95 = 71 |
| CES21 = 85 | CES46 = 81 | CES71 = 60 | CES96 = 78 |
| CES22 = 77 | CES47 = 80 | CES72 = 86 | CES97 = 85 |
| CES23 = 91 | CES48 = 72 | CES73 = 53 | CES98 = 75 |
| CES24 = 90 | CES49 = 81 | CES74 = 96 | CES99 = 62 |
| CES25 = 71 | CES50 = 89 | CES75 = 58 |            |



REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

Measure Comparisons



(END OF REPORT)