

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



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P639857

Luminaire Tested: GWS-SA5C-760-U-SLL-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P639857  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-37)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA5C-760-U-SLL-W  
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS  
Light Source: (80) 5700K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

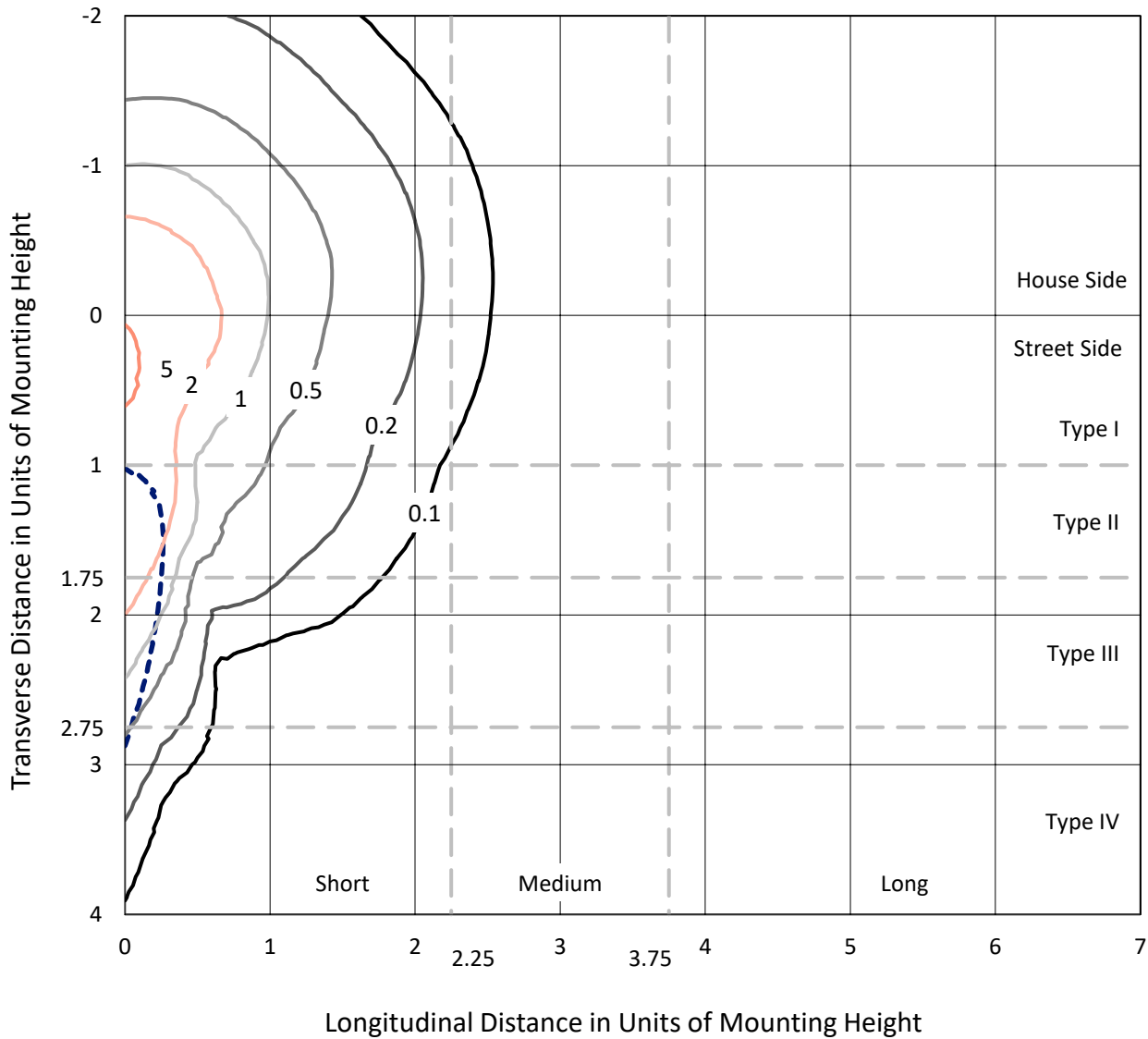
Lumens per Lamp: N/A  
Luminaire Lumens: 22516.5 lumens  
Efficiency: N/A  
Efficacy: 143.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 157.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P639857  
 CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

### Iso-Footcandle Lines of Horizontal Illumination

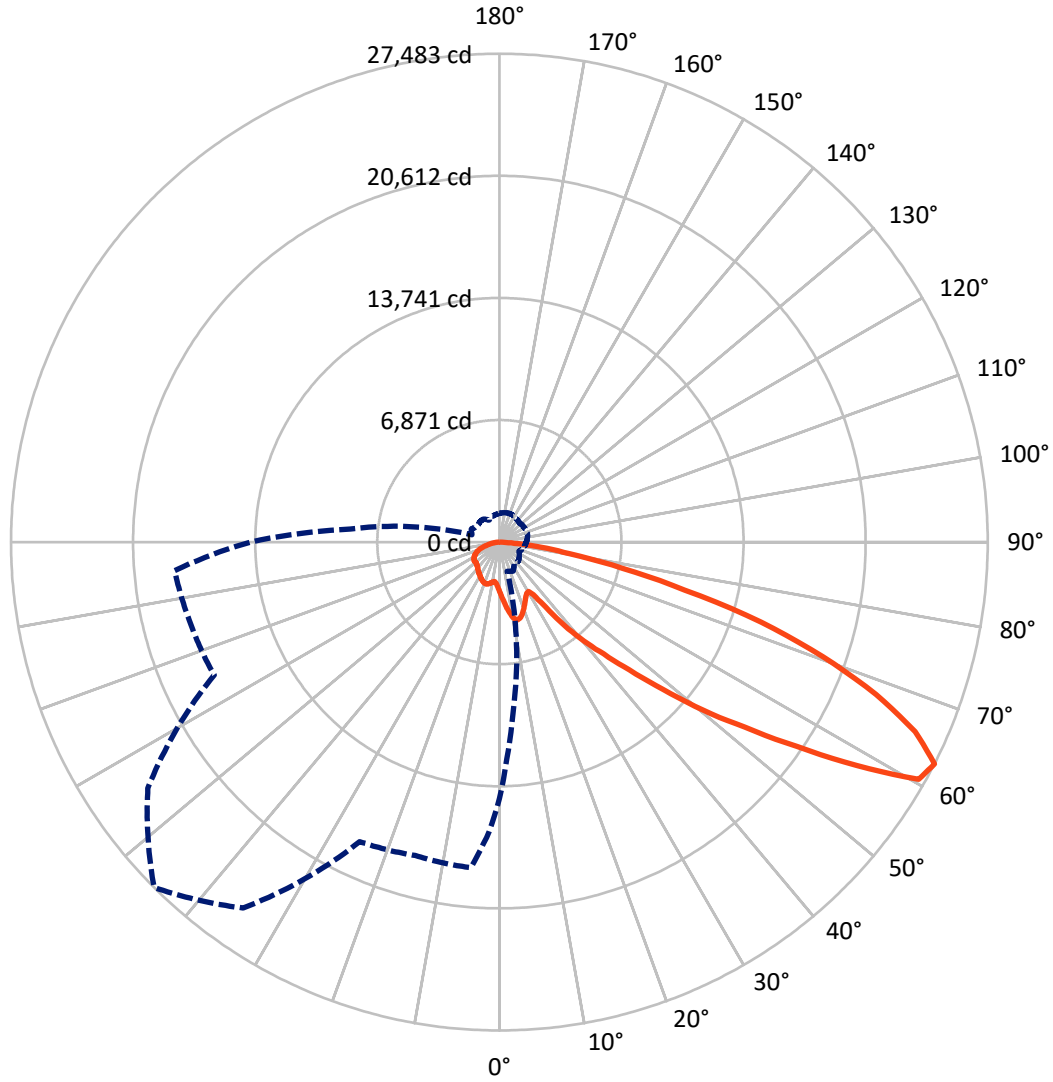
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type III - Short - N/A

REPORT NUMBER: P639857  
CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P639857

CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

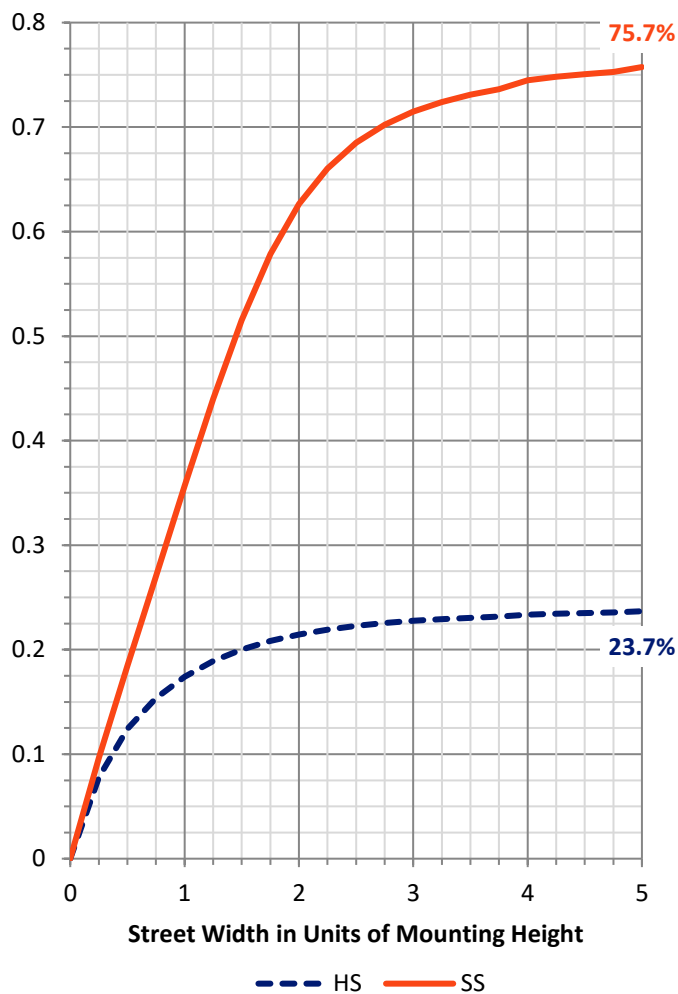
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5383.7   | 0.0    | 5383.7  |
|                    | % Fixture | 23.9     | 0.0    | 23.9    |
| <b>Street Side</b> | Lumens    | 17132.8  | 0.0    | 17132.8 |
|                    | % Fixture | 76.1     | 0.0    | 76.1    |
| <b>Total</b>       | Lumens    | 22516.5  | 0.0    | 22516.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 276.6   | 1.2       |
| 10°-20°   | 898.8   | 4.0       |
| 20°-30°   | 1415.0  | 6.3       |
| 30°-40°   | 1939.5  | 8.6       |
| 40°-50°   | 3026.2  | 13.4      |
| 50°-60°   | 5217.8  | 23.2      |
| 60°-70°   | 6046.7  | 26.9      |
| 70°-80°   | 3191.7  | 14.2      |
| 80°-90°   | 504.2   | 2.2       |
| 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°    | 22516.5 | 100.0     |
| 0°-180°   | 22516.5 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P639857

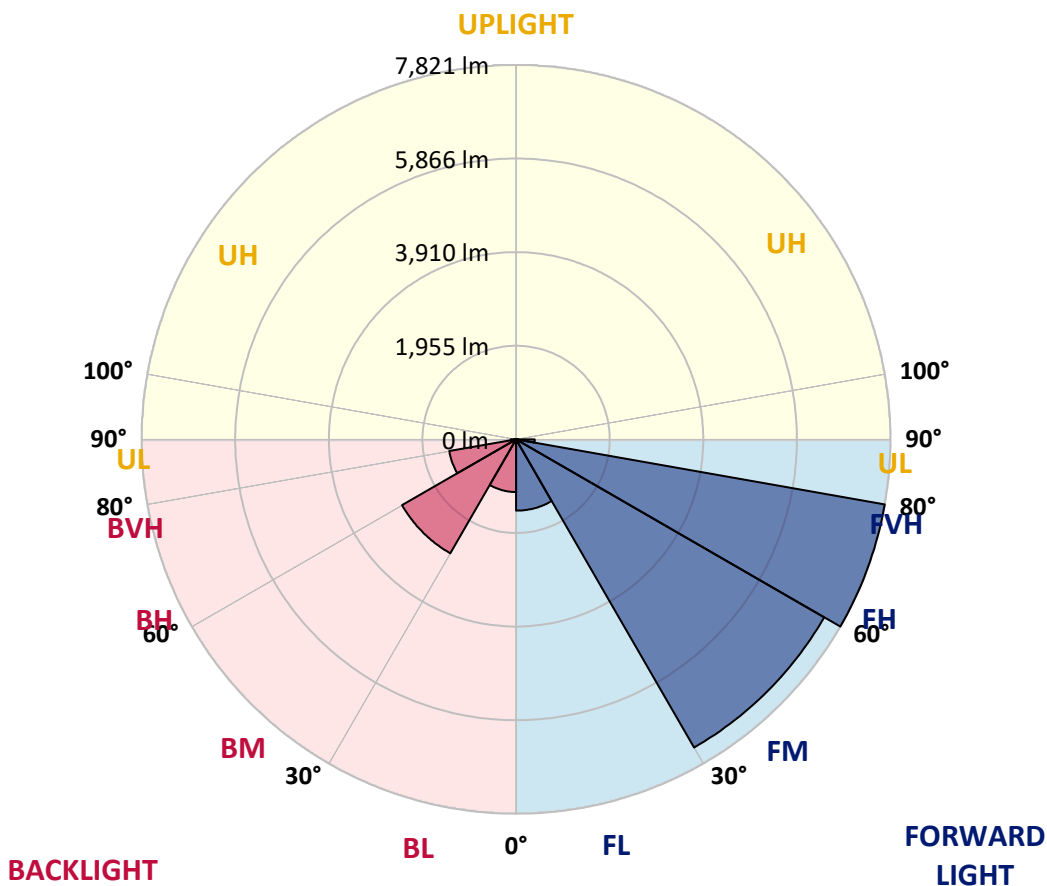
CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1489.2 | 6.6       |                         |      |          |
| FM (30°-60°)   | 7433.5 | 33.0      |                         |      |          |
| FH (60°-80°)   | 7820.9 | 34.7      |                         |      | G4/12000 |
| FVH (80°-90°)  | 389.2  | 1.7       |                         |      | G3/500   |
| BL (0°-30°)    | 1101.2 | 4.9       | B3/2500                 |      |          |
| BM (30°-60°)   | 2750.0 | 12.2      | B3/5000                 |      |          |
| BH (60°-80°)   | 1417.6 | 6.3       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 115.0  | 0.5       |                         |      | G2/225   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type III Short





REPORT NUMBER: P639857  
 CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 2°      | 5°      | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2807.3  | 2807.3  | 2807.3  | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 |
| 2.5°  | 3050.2  | 3038.1  | 3020.9  | 2962.3 | 2926.2 | 2884.8 | 2841.8 | 2791.8 | 2735.0 | 2695.4 | 2655.8 |
| 5°    | 3308.5  | 3289.6  | 3248.2  | 3108.7 | 3012.3 | 2907.2 | 2819.4 | 2719.5 | 2621.3 | 2554.2 | 2487.0 |
| 7.5°  | 3556.5  | 3532.4  | 3468.7  | 3255.1 | 3098.4 | 2946.8 | 2814.2 | 2669.6 | 2523.2 | 2423.3 | 2344.0 |
| 10°   | 3804.6  | 3754.6  | 3673.7  | 3394.6 | 3188.0 | 3012.3 | 2860.7 | 2683.3 | 2488.7 | 2352.7 | 2268.3 |
| 12.5° | 3994.0  | 3947.5  | 3859.7  | 3522.1 | 3277.5 | 3057.1 | 2886.6 | 2722.9 | 2557.6 | 2412.9 | 2326.8 |
| 15°   | 4171.4  | 4111.1  | 4011.2  | 3640.9 | 3351.6 | 3055.4 | 2834.9 | 2691.9 | 2667.8 | 2631.7 | 2519.7 |
| 17.5° | 4298.8  | 4243.7  | 4140.4  | 3737.4 | 3392.9 | 3002.0 | 2691.9 | 2607.6 | 2716.1 | 2826.3 | 2719.5 |
| 20°   | 4410.8  | 4347.1  | 4242.0  | 3804.6 | 3401.5 | 2883.1 | 2518.0 | 2519.7 | 2690.2 | 2841.8 | 2816.0 |
| 22.5° | 4505.5  | 4434.9  | 4341.9  | 3880.3 | 3398.1 | 2717.8 | 2366.4 | 2469.8 | 2640.3 | 2759.1 | 2762.6 |
| 25°   | 4622.6  | 4564.1  | 4486.6  | 3992.3 | 3398.1 | 2549.0 | 2256.2 | 2409.5 | 2555.9 | 2655.8 | 2652.3 |
| 27.5° | 4765.6  | 4726.0  | 4662.3  | 4162.8 | 3429.1 | 2407.8 | 2194.2 | 2332.0 | 2447.4 | 2533.5 | 2531.8 |
| 30°   | 4925.8  | 4889.6  | 4841.4  | 4343.6 | 3482.5 | 2302.7 | 2159.8 | 2235.5 | 2319.9 | 2388.8 | 2388.8 |
| 32.5° | 5089.4  | 5075.6  | 5023.9  | 4488.3 | 3441.1 | 2270.0 | 2130.5 | 2139.1 | 2183.9 | 2240.7 | 2235.5 |
| 35°   | 5316.7  | 5302.9  | 5237.5  | 4600.3 | 3262.0 | 2223.5 | 2084.0 | 2040.9 | 2046.1 | 2082.3 | 2094.3 |
| 37.5° | 5649.1  | 5628.5  | 5532.0  | 4731.1 | 2991.6 | 2106.4 | 2008.2 | 1937.6 | 1922.1 | 1937.6 | 1960.0 |
| 40°   | 6050.4  | 6019.4  | 5888.5  | 4908.5 | 2679.9 | 1947.9 | 1889.4 | 1830.8 | 1805.0 | 1810.1 | 1836.0 |
| 42.5° | 6553.3  | 6487.9  | 6300.2  | 5096.3 | 2371.6 | 1808.4 | 1756.7 | 1720.6 | 1691.3 | 1687.8 | 1737.8 |
| 45°   | 7369.7  | 7190.6  | 6892.6  | 5263.3 | 2111.5 | 1734.4 | 1637.9 | 1612.1 | 1588.0 | 1601.7 | 1660.3 |
| 47.5° | 8795.8  | 8465.1  | 7884.7  | 5406.3 | 1953.1 | 1736.1 | 1543.2 | 1515.6 | 1513.9 | 1541.5 | 1606.9 |
| 50°   | 10755.7 | 10278.7 | 9383.1  | 5502.7 | 1870.4 | 1756.7 | 1486.3 | 1441.6 | 1474.3 | 1501.8 | 1563.8 |
| 52.5° | 12633.0 | 11904.5 | 10838.4 | 5501.0 | 1834.2 | 1760.2 | 1501.8 | 1372.7 | 1474.3 | 1481.2 | 1539.7 |
| 55°   | 14236.5 | 12917.2 | 11231.1 | 4936.1 | 1782.6 | 1746.4 | 1562.1 | 1319.3 | 1455.3 | 1481.2 | 1527.7 |
| 57.5° | 15511.0 | 13561.4 | 11201.8 | 3987.1 | 1939.3 | 1670.6 | 1598.3 | 1307.2 | 1400.2 | 1484.6 | 1538.0 |
| 60°   | 15369.8 | 13266.8 | 10480.2 | 2447.4 | 1923.8 | 1536.3 | 1593.1 | 1329.6 | 1307.2 | 1438.1 | 1526.0 |
| 62.5° | 14431.1 | 12211.1 | 9238.4  | 1698.2 | 1806.7 | 1458.8 | 1508.7 | 1369.2 | 1221.1 | 1370.9 | 1467.4 |
| 65°   | 13117.0 | 10848.7 | 7698.7  | 1302.1 | 1496.7 | 1462.2 | 1365.8 | 1341.7 | 1145.3 | 1264.2 | 1367.5 |
| 67.5° | 11379.2 | 9159.2  | 6078.0  | 1031.7 | 1043.7 | 1265.9 | 1240.1 | 1191.8 | 1074.7 | 1169.4 | 1262.4 |
| 70°   | 8554.6  | 6684.2  | 4181.7  | 830.1  | 790.5  | 1057.5 | 1114.3 | 1071.3 | 1005.8 | 1033.4 | 1131.5 |
| 72.5° | 6028.0  | 4364.3  | 2290.7  | 657.9  | 609.7  | 812.9  | 967.9  | 961.0  | 888.7  | 909.4  | 1005.8 |
| 75°   | 4479.7  | 3088.1  | 1431.2  | 520.1  | 496.0  | 582.1  | 811.2  | 831.9  | 771.6  | 795.7  | 869.8  |
| 77.5° | 2981.3  | 1999.6  | 795.7   | 385.8  | 385.8  | 425.4  | 604.5  | 701.0  | 656.2  | 675.1  | 726.8  |
| 80°   | 1644.8  | 1017.9  | 397.9   | 253.2  | 260.1  | 292.8  | 440.9  | 504.6  | 506.4  | 552.9  | 566.6  |
| 82.5° | 520.1   | 323.8   | 177.4   | 148.1  | 139.5  | 167.1  | 284.2  | 361.7  | 337.6  | 430.6  | 396.1  |
| 85°   | 118.8   | 75.8    | 32.7    | 32.7   | 36.2   | 55.1   | 108.5  | 192.9  | 246.3  | 296.2  | 215.3  |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 1.7    | 75.8   | 111.9  | 99.9   |
| 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: P639857  
 CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 |
| 2.5°  | 2631.7 | 2597.2 | 2586.9 | 2557.6 | 2554.2 | 2526.6 | 2516.3 | 2516.3 | 2528.3 | 2528.3 | 2540.4 |
| 5°    | 2459.4 | 2416.4 | 2392.3 | 2357.8 | 2349.2 | 2328.5 | 2314.8 | 2316.5 | 2332.0 | 2342.3 | 2363.0 |
| 7.5°  | 2307.9 | 2278.6 | 2261.4 | 2245.9 | 2242.4 | 2239.0 | 2223.5 | 2221.8 | 2226.9 | 2242.4 | 2257.9 |
| 10°   | 2244.2 | 2223.5 | 2228.7 | 2240.7 | 2259.7 | 2270.0 | 2256.2 | 2249.3 | 2244.2 | 2254.5 | 2268.3 |
| 12.5° | 2306.2 | 2285.5 | 2295.8 | 2316.5 | 2342.3 | 2352.7 | 2347.5 | 2345.8 | 2350.9 | 2390.5 | 2419.8 |
| 15°   | 2442.2 | 2402.6 | 2388.8 | 2397.4 | 2418.1 | 2428.4 | 2423.3 | 2430.2 | 2462.9 | 2566.2 | 2640.3 |
| 17.5° | 2611.0 | 2514.6 | 2459.4 | 2443.9 | 2452.5 | 2461.2 | 2461.2 | 2478.4 | 2535.2 | 2686.8 | 2779.8 |
| 20°   | 2702.3 | 2576.6 | 2483.5 | 2445.7 | 2449.1 | 2457.7 | 2457.7 | 2481.8 | 2545.6 | 2707.4 | 2767.7 |
| 22.5° | 2678.2 | 2562.8 | 2449.1 | 2407.8 | 2409.5 | 2416.4 | 2416.4 | 2437.0 | 2493.9 | 2636.8 | 2664.4 |
| 25°   | 2583.4 | 2481.8 | 2369.9 | 2333.7 | 2337.2 | 2349.2 | 2345.8 | 2357.8 | 2400.9 | 2518.0 | 2533.5 |
| 27.5° | 2469.8 | 2380.2 | 2270.0 | 2242.4 | 2257.9 | 2282.0 | 2261.4 | 2263.1 | 2302.7 | 2400.9 | 2402.6 |
| 30°   | 2347.5 | 2273.4 | 2175.3 | 2154.6 | 2183.9 | 2195.9 | 2177.0 | 2177.0 | 2216.6 | 2283.8 | 2282.0 |
| 32.5° | 2214.9 | 2168.4 | 2097.8 | 2075.4 | 2108.1 | 2127.0 | 2102.9 | 2106.4 | 2137.4 | 2182.1 | 2164.9 |
| 35°   | 2090.9 | 2066.8 | 2034.0 | 2018.5 | 2039.2 | 2056.4 | 2040.9 | 2047.8 | 2077.1 | 2089.1 | 2065.0 |
| 37.5° | 1972.0 | 1968.6 | 1972.0 | 1972.0 | 1977.2 | 1982.4 | 1972.0 | 1989.3 | 2015.1 | 1999.6 | 1972.0 |
| 40°   | 1868.7 | 1882.5 | 1915.2 | 1906.6 | 1901.4 | 1906.6 | 1899.7 | 1929.0 | 1954.8 | 1927.2 | 1894.5 |
| 42.5° | 1782.6 | 1808.4 | 1858.4 | 1858.4 | 1848.0 | 1851.5 | 1848.0 | 1884.2 | 1903.1 | 1865.2 | 1829.1 |
| 45°   | 1708.5 | 1746.4 | 1810.1 | 1818.7 | 1801.5 | 1801.5 | 1808.4 | 1853.2 | 1860.1 | 1808.4 | 1770.5 |
| 47.5° | 1656.8 | 1703.4 | 1775.7 | 1791.2 | 1765.4 | 1763.6 | 1782.6 | 1830.8 | 1830.8 | 1770.5 | 1727.5 |
| 50°   | 1620.7 | 1672.3 | 1758.5 | 1779.1 | 1753.3 | 1746.4 | 1777.4 | 1823.9 | 1813.6 | 1741.2 | 1698.2 |
| 52.5° | 1596.6 | 1650.0 | 1756.7 | 1786.0 | 1768.8 | 1761.9 | 1792.9 | 1825.6 | 1799.8 | 1722.3 | 1677.5 |
| 55°   | 1581.1 | 1639.6 | 1761.9 | 1786.0 | 1767.1 | 1755.0 | 1786.0 | 1815.3 | 1801.5 | 1712.0 | 1668.9 |
| 57.5° | 1589.7 | 1648.2 | 1755.0 | 1767.1 | 1744.7 | 1724.0 | 1760.2 | 1801.5 | 1796.4 | 1715.4 | 1672.3 |
| 60°   | 1575.9 | 1629.3 | 1717.1 | 1720.6 | 1682.7 | 1650.0 | 1703.4 | 1765.4 | 1765.4 | 1703.4 | 1665.5 |
| 62.5° | 1512.2 | 1565.6 | 1643.1 | 1646.5 | 1603.5 | 1567.3 | 1629.3 | 1703.4 | 1701.6 | 1651.7 | 1612.1 |
| 65°   | 1407.1 | 1457.1 | 1544.9 | 1553.5 | 1510.5 | 1472.6 | 1536.3 | 1605.2 | 1610.3 | 1565.6 | 1531.1 |
| 67.5° | 1291.7 | 1336.5 | 1401.9 | 1436.4 | 1400.2 | 1360.6 | 1419.2 | 1484.6 | 1482.9 | 1429.5 | 1393.3 |
| 70°   | 1153.9 | 1195.3 | 1255.6 | 1284.8 | 1262.4 | 1224.6 | 1277.9 | 1312.4 | 1296.9 | 1271.1 | 1246.9 |
| 72.5° | 1017.9 | 1057.5 | 1114.3 | 1114.3 | 1090.2 | 1054.0 | 1069.5 | 1131.5 | 1150.5 | 1131.5 | 1116.0 |
| 75°   | 874.9  | 909.4  | 949.0  | 957.6  | 904.2  | 838.8  | 911.1  | 964.5  | 986.9  | 978.3  | 959.3  |
| 77.5° | 728.5  | 754.4  | 812.9  | 797.4  | 697.5  | 663.1  | 721.6  | 800.9  | 816.4  | 811.2  | 785.4  |
| 80°   | 561.5  | 577.0  | 639.0  | 608.0  | 530.5  | 508.1  | 533.9  | 595.9  | 599.4  | 582.1  | 549.4  |
| 82.5° | 377.2  | 397.9  | 439.2  | 378.9  | 377.2  | 356.5  | 335.8  | 342.7  | 373.7  | 370.3  | 347.9  |
| 85°   | 192.9  | 203.2  | 242.8  | 227.3  | 194.6  | 168.8  | 160.2  | 170.5  | 153.3  | 139.5  | 120.6  |
| 87.5° | 80.9   | 87.8   | 120.6  | 67.2   | 20.7   | 0.0    | 0.0    | 10.3   | 15.5   | 22.4   | 24.1   |
| 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: P639857  
 CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°    | 270°    | 275°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3 | 2807.3  | 2807.3  | 2807.3  |
| 2.5°  | 2567.9 | 2586.9 | 2633.4 | 2691.9 | 2748.8 | 2807.3 | 2871.1 | 2910.7 | 2958.9  | 3020.9  | 3022.6  |
| 5°    | 2388.8 | 2431.9 | 2499.1 | 2588.6 | 2681.6 | 2788.4 | 2912.4 | 3015.7 | 3139.7  | 3237.9  | 3277.5  |
| 7.5°  | 2278.6 | 2340.6 | 2425.0 | 2538.7 | 2660.9 | 2793.6 | 2955.5 | 3129.4 | 3332.6  | 3463.5  | 3541.0  |
| 10°   | 2288.9 | 2383.7 | 2468.0 | 2564.5 | 2674.7 | 2817.7 | 3026.1 | 3256.9 | 3506.6  | 3678.8  | 3775.3  |
| 12.5° | 2473.2 | 2573.1 | 2557.6 | 2552.4 | 2626.5 | 2800.5 | 3082.9 | 3386.0 | 3690.9  | 3863.1  | 3978.5  |
| 15°   | 2705.7 | 2743.6 | 2597.2 | 2487.0 | 2531.8 | 2738.4 | 3113.9 | 3501.4 | 3844.2  | 4054.3  | 4168.0  |
| 17.5° | 2824.6 | 2748.8 | 2571.4 | 2406.0 | 2394.0 | 2643.7 | 3129.4 | 3618.5 | 4016.4  | 4226.5  | 4347.1  |
| 20°   | 2769.5 | 2659.2 | 2509.4 | 2352.7 | 2266.5 | 2514.6 | 3120.8 | 3711.5 | 4173.1  | 4407.4  | 4505.5  |
| 22.5° | 2650.6 | 2554.2 | 2437.0 | 2287.2 | 2163.2 | 2373.3 | 3098.4 | 3804.6 | 4312.6  | 4548.6  | 4634.7  |
| 25°   | 2521.4 | 2449.1 | 2352.7 | 2221.8 | 2104.6 | 2249.3 | 3082.9 | 3928.6 | 4472.8  | 4698.4  | 4753.5  |
| 27.5° | 2392.3 | 2338.9 | 2259.7 | 2158.0 | 2090.9 | 2163.2 | 3088.1 | 4090.5 | 4679.5  | 4893.0  | 4870.7  |
| 30°   | 2264.8 | 2218.3 | 2163.2 | 2118.4 | 2089.1 | 2142.5 | 3074.3 | 4262.7 | 4906.8  | 5104.9  | 4972.3  |
| 32.5° | 2144.3 | 2101.2 | 2066.8 | 2073.6 | 2090.9 | 2151.1 | 3003.7 | 4419.4 | 5115.2  | 5284.0  | 5082.5  |
| 35°   | 2040.9 | 1996.1 | 1996.1 | 2020.3 | 2084.0 | 2121.9 | 2821.1 | 4541.7 | 5346.0  | 5514.8  | 5239.2  |
| 37.5° | 1944.5 | 1904.9 | 1930.7 | 1970.3 | 2030.6 | 2042.6 | 2586.9 | 4660.5 | 5681.9  | 5840.3  | 5482.1  |
| 40°   | 1860.1 | 1820.5 | 1867.0 | 1916.9 | 1947.9 | 1942.7 | 2349.2 | 4825.9 | 6078.0  | 6241.6  | 5804.1  |
| 42.5° | 1792.9 | 1756.7 | 1798.1 | 1861.8 | 1867.0 | 1872.1 | 2175.3 | 4984.3 | 6537.8  | 6746.2  | 6358.7  |
| 45°   | 1737.8 | 1712.0 | 1732.6 | 1796.4 | 1796.4 | 1875.6 | 2066.8 | 5116.9 | 7230.2  | 7598.8  | 7376.6  |
| 47.5° | 1694.7 | 1679.2 | 1689.6 | 1710.2 | 1744.7 | 1937.6 | 1997.9 | 5218.6 | 8490.9  | 9214.3  | 8990.4  |
| 50°   | 1670.6 | 1655.1 | 1668.9 | 1625.8 | 1729.2 | 1968.6 | 1975.5 | 5296.1 | 10152.9 | 11286.2 | 11008.9 |
| 52.5° | 1650.0 | 1644.8 | 1653.4 | 1553.5 | 1763.6 | 1947.9 | 1958.2 | 5192.7 | 11267.3 | 13325.4 | 13599.2 |
| 55°   | 1643.1 | 1646.5 | 1605.2 | 1500.1 | 1805.0 | 1879.0 | 1906.6 | 4453.9 | 11570.4 | 15083.9 | 16783.8 |
| 57.5° | 1646.5 | 1636.2 | 1531.1 | 1505.3 | 1806.7 | 1741.2 | 1980.6 | 3177.6 | 11129.5 | 15848.6 | 19899.4 |
| 60°   | 1634.5 | 1582.8 | 1441.6 | 1551.8 | 1727.5 | 1579.3 | 1927.2 | 2071.9 | 9966.9  | 15261.3 | 20080.2 |
| 62.5° | 1581.1 | 1505.3 | 1364.1 | 1577.6 | 1586.2 | 1482.9 | 1749.9 | 1596.6 | 8416.9  | 14004.0 | 18337.3 |
| 65°   | 1503.6 | 1401.9 | 1298.6 | 1524.2 | 1443.3 | 1438.1 | 1315.8 | 1279.7 | 6768.6  | 12507.3 | 16683.9 |
| 67.5° | 1376.1 | 1274.5 | 1250.4 | 1401.9 | 1298.6 | 1274.5 | 1057.5 | 1060.9 | 5401.1  | 10912.5 | 15021.9 |
| 70°   | 1231.4 | 1129.8 | 1148.8 | 1267.6 | 1155.7 | 1059.2 | 856.0  | 883.5  | 4097.3  | 9092.0  | 12781.2 |
| 72.5° | 1136.7 | 1000.7 | 1002.4 | 1116.0 | 1016.2 | 857.7  | 704.4  | 728.5  | 2600.7  | 6853.0  | 10161.5 |
| 75°   | 959.3  | 881.8  | 843.9  | 904.2  | 862.9  | 668.3  | 592.5  | 587.3  | 1541.5  | 4912.0  | 7609.1  |
| 77.5° | 800.9  | 740.6  | 721.6  | 745.8  | 644.1  | 494.3  | 477.1  | 468.5  | 873.2   | 3146.6  | 4986.0  |
| 80°   | 580.4  | 564.9  | 563.2  | 575.2  | 496.0  | 363.4  | 363.4  | 365.1  | 470.2   | 1708.5  | 2810.8  |
| 82.5° | 368.6  | 403.0  | 356.5  | 396.1  | 337.6  | 258.3  | 241.1  | 273.8  | 270.4   | 728.5   | 1184.9  |
| 85°   | 153.3  | 210.1  | 196.3  | 208.4  | 160.2  | 141.2  | 151.6  | 163.6  | 156.7   | 280.7   | 461.6   |
| 87.5° | 29.3   | 34.4   | 37.9   | 36.2   | 36.2   | 44.8   | 49.9   | 60.3   | 60.3    | 80.9    | 139.5   |
| 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: P639857  
 CATALOG NUMBER: GWS-SA5C-760-U-SLL-W

**CANDELA DISTRIBUTION (continued):**

|       | 285°    | 295°    | 305°    | 315°    | 325°    | 335°    | 345°    | 355°    | 358°    | 360°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2807.3  | 2807.3  | 2807.3  | 2807.3  | 2807.3  | 2807.3  | 2807.3  | 2807.3  | 2807.3  | 2807.3  |
| 2.5°  | 3088.1  | 3138.0  | 3127.7  | 3150.1  | 3120.8  | 3131.1  | 3072.6  | 3057.1  | 3046.7  | 3050.2  |
| 5°    | 3405.0  | 3506.6  | 3525.5  | 3563.4  | 3537.6  | 3537.6  | 3434.3  | 3356.8  | 3329.2  | 3308.5  |
| 7.5°  | 3727.0  | 3873.4  | 3969.9  | 3980.2  | 3966.4  | 3938.9  | 3789.0  | 3649.5  | 3599.6  | 3556.5  |
| 10°   | 4012.9  | 4188.6  | 4297.1  | 4348.8  | 4323.0  | 4279.9  | 4093.9  | 3902.7  | 3842.4  | 3804.6  |
| 12.5° | 4231.7  | 4386.7  | 4459.0  | 4493.5  | 4490.0  | 4474.5  | 4323.0  | 4116.3  | 4052.6  | 3994.0  |
| 15°   | 4372.9  | 4450.4  | 4422.9  | 4421.1  | 4445.2  | 4507.2  | 4460.7  | 4298.8  | 4224.8  | 4171.4  |
| 17.5° | 4464.2  | 4390.1  | 4267.8  | 4211.0  | 4262.7  | 4409.1  | 4515.9  | 4424.6  | 4357.4  | 4298.8  |
| 20°   | 4496.9  | 4233.4  | 4056.0  | 3950.9  | 4011.2  | 4223.1  | 4486.6  | 4515.9  | 4459.0  | 4410.8  |
| 22.5° | 4459.0  | 4042.2  | 3801.1  | 3677.1  | 3735.7  | 3988.8  | 4400.5  | 4589.9  | 4552.0  | 4505.5  |
| 25°   | 4366.0  | 3842.4  | 3553.1  | 3441.1  | 3504.9  | 3763.2  | 4247.2  | 4658.8  | 4660.5  | 4622.6  |
| 27.5° | 4250.6  | 3658.2  | 3379.1  | 3274.1  | 3336.1  | 3577.2  | 4097.3  | 4719.1  | 4779.4  | 4765.6  |
| 30°   | 4133.5  | 3547.9  | 3296.5  | 3222.4  | 3268.9  | 3482.5  | 3944.1  | 4781.1  | 4901.7  | 4925.8  |
| 32.5° | 4080.1  | 3601.3  | 3491.1  | 3523.8  | 3463.5  | 3537.6  | 3888.9  | 4868.9  | 5049.8  | 5089.4  |
| 35°   | 4150.7  | 4075.0  | 4354.0  | 4483.1  | 4269.6  | 3988.8  | 3959.6  | 5001.5  | 5258.2  | 5316.7  |
| 37.5° | 4493.5  | 5089.4  | 5506.2  | 5960.9  | 5590.6  | 4972.3  | 4309.2  | 5227.2  | 5556.1  | 5649.1  |
| 40°   | 5239.2  | 5974.6  | 6727.3  | 7314.6  | 6754.8  | 5923.0  | 4974.0  | 5563.0  | 5966.0  | 6050.4  |
| 42.5° | 5941.9  | 6804.8  | 7841.6  | 8601.1  | 7874.3  | 6699.7  | 5690.5  | 6127.9  | 6506.8  | 6553.3  |
| 45°   | 6630.8  | 7619.4  | 9190.2  | 10245.9 | 9259.1  | 7438.6  | 6422.4  | 7082.1  | 7368.0  | 7369.7  |
| 47.5° | 7438.6  | 8537.4  | 10881.5 | 12385.0 | 11096.7 | 8256.7  | 7109.6  | 8592.5  | 8990.4  | 8795.8  |
| 50°   | 8404.8  | 9450.2  | 12622.7 | 14873.7 | 13337.5 | 9262.5  | 7982.8  | 10433.7 | 10976.2 | 10755.7 |
| 52.5° | 9698.2  | 10456.1 | 14541.3 | 17300.5 | 15779.7 | 10407.8 | 9248.7  | 12865.5 | 13044.7 | 12633.0 |
| 55°   | 11518.7 | 11907.9 | 17004.2 | 20297.2 | 18506.1 | 11818.4 | 11100.2 | 15917.5 | 15416.3 | 14236.5 |
| 57.5° | 15664.3 | 14205.5 | 20166.4 | 23716.0 | 21590.7 | 14381.2 | 15157.9 | 19282.8 | 17500.2 | 15511.0 |
| 60°   | 19133.0 | 16995.6 | 23092.5 | 27108.9 | 24234.4 | 17205.7 | 18967.6 | 19868.4 | 17422.7 | 15369.8 |
| 62.5° | 17963.5 | 17706.9 | 24148.3 | 27482.7 | 25136.9 | 18595.6 | 18259.8 | 18392.4 | 16286.0 | 14431.1 |
| 65°   | 15760.7 | 16334.2 | 23206.2 | 25710.4 | 24136.2 | 17350.4 | 16516.8 | 17028.3 | 14985.7 | 13117.0 |
| 67.5° | 14460.4 | 14882.4 | 21530.4 | 22873.8 | 22317.5 | 16003.6 | 15161.4 | 14791.1 | 12967.2 | 11379.2 |
| 70°   | 13130.8 | 13480.4 | 19177.8 | 19313.8 | 19480.9 | 13764.6 | 12397.1 | 11294.8 | 9665.5  | 8554.6  |
| 72.5° | 11346.5 | 11365.4 | 16203.4 | 15414.5 | 15731.4 | 10771.2 | 9979.0  | 8444.4  | 7035.6  | 6028.0  |
| 75°   | 9519.1  | 8999.0  | 12825.9 | 10774.7 | 11410.2 | 8379.0  | 8286.0  | 6363.9  | 5306.4  | 4479.7  |
| 77.5° | 7257.8  | 6649.8  | 9369.3  | 7085.5  | 8013.8  | 5580.2  | 6229.5  | 4316.1  | 3733.9  | 2981.3  |
| 80°   | 4872.4  | 4493.5  | 5177.2  | 3999.2  | 5242.7  | 3845.9  | 4062.9  | 2445.7  | 2120.1  | 1644.8  |
| 82.5° | 2569.7  | 2194.2  | 3200.0  | 2371.6  | 3162.1  | 2113.3  | 1524.2  | 756.1   | 644.1   | 520.1   |
| 85°   | 995.5   | 1152.2  | 1569.0  | 843.9   | 1226.3  | 754.4   | 440.9   | 187.7   | 156.7   | 118.8   |
| 87.5° | 192.9   | 298.0   | 163.6   | 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     |

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



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

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-9-R4

Test Date: 10/23/2019

Luminaire Tested: SA1C-760-U-5WQ

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

**Test Information**

Test Method: LM-79-2008  
 Report Number: SP1-1908-441-9-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-760-U-5WQ**  
 Description: MCGRAW EDISON ROADWAY AND AREA LUMINAIRE

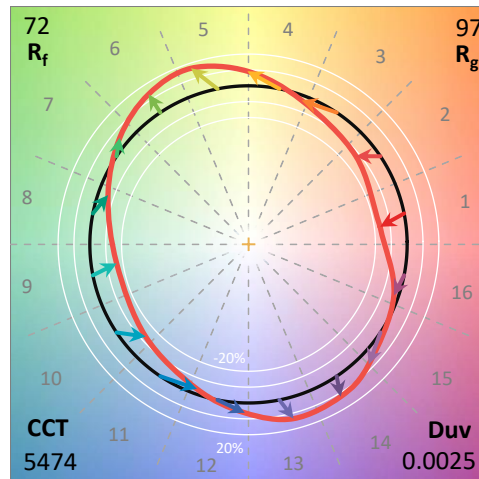
\*\*\*THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.\*\*\*TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

**Spectral Parameters**

CCT (K): 5474  
 CIE u': 0.2052  
 CIE v': 0.4804  
 Duv: 0.0025  
 CIE x: 0.3330  
 CIE y: 0.3466  
 CIE z: 0.3204  
 Peak Wavelength (nm): 442  
 Dominant Wavelength (nm): 554  
 Purity: 4.1

|           |      |      |       |
|-----------|------|------|-------|
| CRI (Ra): | 71.7 |      |       |
| R1:       | 70.6 | R9:  | -27.1 |
| R2:       | 74.6 | R10: | 40.8  |
| R3:       | 78.3 | R11: | 74.6  |
| R4:       | 73.8 | R12: | 50.4  |
| R5:       | 72.4 | R13: | 70.0  |
| R6:       | 67.5 | R14: | 87.8  |
| R7:       | 77.5 |      |       |
| R8:       | 58.9 |      |       |

Rf: 72.1  
 Rg: 97.2



**Test Conditions**  
 Stabilization Time: 240M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 24.6/31%  
 Sphere Temperature (°C): 25.9

REPORT NUMBER: SP1-1908-441-9-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: SP1-1908-441-9-R4

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 5700K 4-step quadrangle

REPORT NUMBER: SP1-1908-441-9-R4

**Photopic Flux vs. Wavelength**



#####

| $\lambda$<br>(nm) | Power<br>( $\mu\text{W}/\text{nm}$ ) | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>( $\mu\text{W}/\text{nm}$ ) | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>( $\mu\text{W}/\text{nm}$ ) | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>( $\mu\text{W}/\text{nm}$ ) | Lumens<br>( $\phi/\text{nm}$ ) | $\lambda$<br>(nm) | Power<br>( $\mu\text{W}/\text{nm}$ ) | Lumens<br>( $\phi/\text{nm}$ ) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360               | 3540                                 | NR                             | 490               | 33363                                | NR                             | 620               | 80193                                | NR                             | 750               | 4663                                 | NR                             | 880               | 4678                                 | NR                             |
| 365               | 2862                                 | NR                             | 495               | 44177                                | NR                             | 625               | 73091                                | NR                             | 755               | 4147                                 | NR                             | 885               | 4128                                 | NR                             |
| 370               | 2865                                 | NR                             | 500               | 57019                                | NR                             | 630               | 66269                                | NR                             | 760               | 4040                                 | NR                             | 890               | 4504                                 | NR                             |
| 375               | 3254                                 | NR                             | 505               | 70030                                | NR                             | 635               | 60012                                | NR                             | 765               | 3474                                 | NR                             | 895               | 4371                                 | NR                             |
| 380               | 3076                                 | NR                             | 510               | 81972                                | NR                             | 640               | 53914                                | NR                             | 770               | 3469                                 | NR                             | 900               | 4082                                 | NR                             |
| 385               | 2904                                 | NR                             | 515               | 92590                                | NR                             | 645               | 48385                                | NR                             | 775               | 3181                                 | NR                             | 905               | 2982                                 | NR                             |
| 390               | 2689                                 | NR                             | 520               | 100305                               | NR                             | 650               | 43219                                | NR                             | 780               | 2969                                 | NR                             | 910               | 4351                                 | NR                             |
| 395               | 2619                                 | NR                             | 525               | 107452                               | NR                             | 655               | 38562                                | NR                             | 785               | 3132                                 | NR                             | 915               | 3365                                 | NR                             |
| 400               | 2679                                 | NR                             | 530               | 111373                               | NR                             | 660               | 34110                                | NR                             | 790               | 2507                                 | NR                             | 920               | 3430                                 | NR                             |
| 405               | 3515                                 | NR                             | 535               | 114505                               | NR                             | 665               | 30085                                | NR                             | 795               | 2968                                 | NR                             | 925               | 4264                                 | NR                             |
| 410               | 6934                                 | NR                             | 540               | 116408                               | NR                             | 670               | 26205                                | NR                             | 800               | 2758                                 | NR                             | 930               | 4095                                 | NR                             |
| 415               | 14943                                | NR                             | 545               | 118700                               | NR                             | 675               | 22906                                | NR                             | 805               | 2872                                 | NR                             | 935               | 5048                                 | NR                             |
| 420               | 31939                                | NR                             | 550               | 119209                               | NR                             | 680               | 20058                                | NR                             | 810               | 3094                                 | NR                             | 940               | 4074                                 | NR                             |
| 425               | 64701                                | NR                             | 555               | 120742                               | NR                             | 685               | 17413                                | NR                             | 815               | 3222                                 | NR                             | 945               | 4949                                 | NR                             |
| 430               | 110939                               | NR                             | 560               | 121594                               | NR                             | 690               | 15447                                | NR                             | 820               | 3238                                 | NR                             | 950               | 4387                                 | NR                             |
| 435               | 164597                               | NR                             | 565               | 121913                               | NR                             | 695               | 13398                                | NR                             | 825               | 3524                                 | NR                             | 955               | 4978                                 | NR                             |
| 440               | 207696                               | NR                             | 570               | 122147                               | NR                             | 700               | 11777                                | NR                             | 830               | 2921                                 | NR                             | 960               | 4706                                 | NR                             |
| 445               | 201830                               | NR                             | 575               | 121605                               | NR                             | 705               | 10412                                | NR                             | 835               | 3595                                 | NR                             | 965               | 5083                                 | NR                             |
| 450               | 145410                               | NR                             | 580               | 120248                               | NR                             | 710               | 9544                                 | NR                             | 840               | 3016                                 | NR                             | 970               | 4522                                 | NR                             |
| 455               | 89594                                | NR                             | 585               | 117717                               | NR                             | 715               | 8940                                 | NR                             | 845               | 4032                                 | NR                             | 975               | 4740                                 | NR                             |
| 460               | 58321                                | NR                             | 590               | 114359                               | NR                             | 720               | 7897                                 | NR                             | 850               | 3579                                 | NR                             | 980               | 6122                                 | NR                             |
| 465               | 39318                                | NR                             | 595               | 109974                               | NR                             | 725               | 7045                                 | NR                             | 855               | 4571                                 | NR                             | 985               | 6450                                 | NR                             |
| 470               | 27693                                | NR                             | 600               | 105269                               | NR                             | 730               | 6483                                 | NR                             | 860               | 4485                                 | NR                             | 990               | 4875                                 | NR                             |
| 475               | 23081                                | NR                             | 605               | 99453                                | NR                             | 735               | 5838                                 | NR                             | 865               | 3978                                 | NR                             | 995               | 4764                                 | NR                             |
| 480               | 23002                                | NR                             | 610               | 92921                                | NR                             | 740               | 5261                                 | NR                             | 870               | 4298                                 | NR                             | 1000              | 3640                                 | NR                             |
| 485               | 26201                                | NR                             | 615               | 86989                                | NR                             | 745               | 4760                                 | NR                             | 875               | 4356                                 | NR                             |                   |                                      |                                |

REPORT NUMBER: SP1-1908-441-9-R4

Scotopic Flux vs. Wavelength



Scotopic Lumens: 13759.3 S/P: 1.85

| 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    | 3540          | NR            | 490    | 33363         | NR            | 620    | 80193         | NR            | 750    | 4663          | NR            | 880    | 4678          | NR            |
| 365    | 2862          | NR            | 495    | 44177         | NR            | 625    | 73091         | NR            | 755    | 4147          | NR            | 885    | 4128          | NR            |
| 370    | 2865          | NR            | 500    | 57019         | NR            | 630    | 66269         | NR            | 760    | 4040          | NR            | 890    | 4504          | NR            |
| 375    | 3254          | NR            | 505    | 70030         | NR            | 635    | 60012         | NR            | 765    | 3474          | NR            | 895    | 4371          | NR            |
| 380    | 3076          | NR            | 510    | 81972         | NR            | 640    | 53914         | NR            | 770    | 3469          | NR            | 900    | 4082          | NR            |
| 385    | 2904          | NR            | 515    | 92590         | NR            | 645    | 48385         | NR            | 775    | 3181          | NR            | 905    | 2982          | NR            |
| 390    | 2689          | NR            | 520    | 100305        | NR            | 650    | 43219         | NR            | 780    | 2969          | NR            | 910    | 4351          | NR            |
| 395    | 2619          | NR            | 525    | 107452        | NR            | 655    | 38562         | NR            | 785    | 3132          | NR            | 915    | 3365          | NR            |
| 400    | 2679          | NR            | 530    | 111373        | NR            | 660    | 34110         | NR            | 790    | 2507          | NR            | 920    | 3430          | NR            |
| 405    | 3515          | NR            | 535    | 114505        | NR            | 665    | 30085         | NR            | 795    | 2968          | NR            | 925    | 4264          | NR            |
| 410    | 6934          | NR            | 540    | 116408        | NR            | 670    | 26205         | NR            | 800    | 2758          | NR            | 930    | 4095          | NR            |
| 415    | 14943         | NR            | 545    | 118700        | NR            | 675    | 22906         | NR            | 805    | 2872          | NR            | 935    | 5048          | NR            |
| 420    | 31939         | NR            | 550    | 119209        | NR            | 680    | 20058         | NR            | 810    | 3094          | NR            | 940    | 4074          | NR            |
| 425    | 64701         | NR            | 555    | 120742        | NR            | 685    | 17413         | NR            | 815    | 3222          | NR            | 945    | 4949          | NR            |
| 430    | 110939        | NR            | 560    | 121594        | NR            | 690    | 15447         | NR            | 820    | 3238          | NR            | 950    | 4387          | NR            |
| 435    | 164597        | NR            | 565    | 121913        | NR            | 695    | 13398         | NR            | 825    | 3524          | NR            | 955    | 4978          | NR            |
| 440    | 207696        | NR            | 570    | 122147        | NR            | 700    | 11777         | NR            | 830    | 2921          | NR            | 960    | 4706          | NR            |
| 445    | 201830        | NR            | 575    | 121605        | NR            | 705    | 10412         | NR            | 835    | 3595          | NR            | 965    | 5083          | NR            |
| 450    | 145410        | NR            | 580    | 120248        | NR            | 710    | 9544          | NR            | 840    | 3016          | NR            | 970    | 4522          | NR            |
| 455    | 89594         | NR            | 585    | 117717        | NR            | 715    | 8940          | NR            | 845    | 4032          | NR            | 975    | 4740          | NR            |
| 460    | 58321         | NR            | 590    | 114359        | NR            | 720    | 7897          | NR            | 850    | 3579          | NR            | 980    | 6122          | NR            |
| 465    | 39318         | NR            | 595    | 109974        | NR            | 725    | 7045          | NR            | 855    | 4571          | NR            | 985    | 6450          | NR            |
| 470    | 27693         | NR            | 600    | 105269        | NR            | 730    | 6483          | NR            | 860    | 4485          | NR            | 990    | 4875          | NR            |
| 475    | 23081         | NR            | 605    | 99453         | NR            | 735    | 5838          | NR            | 865    | 3978          | NR            | 995    | 4764          | NR            |
| 480    | 23002         | NR            | 610    | 92921         | NR            | 740    | 5261          | NR            | 870    | 4298          | NR            | 1000   | 3640          | NR            |
| 485    | 26201         | NR            | 615    | 86989         | NR            | 745    | 4760          | NR            | 875    | 4356          | NR            |        |               |               |



REPORT NUMBER: SP1-1908-441-9-R4

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: 5527.6 M/P: 0.74**

| 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    | 3540          | NR            | 490    | 33363         | NR            | 620    | 80193         | NR            | 750    | 4663          | NR            | 880    | 4678          | NR            |
| 365    | 2862          | NR            | 495    | 44177         | NR            | 625    | 73091         | NR            | 755    | 4147          | NR            | 885    | 4128          | NR            |
| 370    | 2865          | NR            | 500    | 57019         | NR            | 630    | 66269         | NR            | 760    | 4040          | NR            | 890    | 4504          | NR            |
| 375    | 3254          | NR            | 505    | 70030         | NR            | 635    | 60012         | NR            | 765    | 3474          | NR            | 895    | 4371          | NR            |
| 380    | 3076          | NR            | 510    | 81972         | NR            | 640    | 53914         | NR            | 770    | 3469          | NR            | 900    | 4082          | NR            |
| 385    | 2904          | NR            | 515    | 92590         | NR            | 645    | 48385         | NR            | 775    | 3181          | NR            | 905    | 2982          | NR            |
| 390    | 2689          | NR            | 520    | 100305        | NR            | 650    | 43219         | NR            | 780    | 2969          | NR            | 910    | 4351          | NR            |
| 395    | 2619          | NR            | 525    | 107452        | NR            | 655    | 38562         | NR            | 785    | 3132          | NR            | 915    | 3365          | NR            |
| 400    | 2679          | NR            | 530    | 111373        | NR            | 660    | 34110         | NR            | 790    | 2507          | NR            | 920    | 3430          | NR            |
| 405    | 3515          | NR            | 535    | 114505        | NR            | 665    | 30085         | NR            | 795    | 2968          | NR            | 925    | 4264          | NR            |
| 410    | 6934          | NR            | 540    | 116408        | NR            | 670    | 26205         | NR            | 800    | 2758          | NR            | 930    | 4095          | NR            |
| 415    | 14943         | NR            | 545    | 118700        | NR            | 675    | 22906         | NR            | 805    | 2872          | NR            | 935    | 5048          | NR            |
| 420    | 31939         | NR            | 550    | 119209        | NR            | 680    | 20058         | NR            | 810    | 3094          | NR            | 940    | 4074          | NR            |
| 425    | 64701         | NR            | 555    | 120742        | NR            | 685    | 17413         | NR            | 815    | 3222          | NR            | 945    | 4949          | NR            |
| 430    | 110939        | NR            | 560    | 121594        | NR            | 690    | 15447         | NR            | 820    | 3238          | NR            | 950    | 4387          | NR            |
| 435    | 164597        | NR            | 565    | 121913        | NR            | 695    | 13398         | NR            | 825    | 3524          | NR            | 955    | 4978          | NR            |
| 440    | 207696        | NR            | 570    | 122147        | NR            | 700    | 11777         | NR            | 830    | 2921          | NR            | 960    | 4706          | NR            |
| 445    | 201830        | NR            | 575    | 121605        | NR            | 705    | 10412         | NR            | 835    | 3595          | NR            | 965    | 5083          | NR            |
| 450    | 145410        | NR            | 580    | 120248        | NR            | 710    | 9544          | NR            | 840    | 3016          | NR            | 970    | 4522          | NR            |
| 455    | 89594         | NR            | 585    | 117717        | NR            | 715    | 8940          | NR            | 845    | 4032          | NR            | 975    | 4740          | NR            |
| 460    | 58321         | NR            | 590    | 114359        | NR            | 720    | 7897          | NR            | 850    | 3579          | NR            | 980    | 6122          | NR            |
| 465    | 39318         | NR            | 595    | 109974        | NR            | 725    | 7045          | NR            | 855    | 4571          | NR            | 985    | 6450          | NR            |
| 470    | 27693         | NR            | 600    | 105269        | NR            | 730    | 6483          | NR            | 860    | 4485          | NR            | 990    | 4875          | NR            |
| 475    | 23081         | NR            | 605    | 99453         | NR            | 735    | 5838          | NR            | 865    | 3978          | NR            | 995    | 4764          | NR            |
| 480    | 23002         | NR            | 610    | 92921         | NR            | 740    | 5261          | NR            | 870    | 4298          | NR            | 1000   | 3640          | NR            |
| 485    | 26201         | NR            | 615    | 86989         | NR            | 745    | 4760          | NR            | 875    | 4356          | NR            |        |               |               |

REPORT NUMBER: SP1-1908-441-9-R4

TM-30-18

**Summary**

$R_f = 72.1$   
 $R_g = 97.2$   
 CIE  $R_a = 71.7$   
 $R_g = -27.1$



**Color Vector Graphics**



REPORT NUMBER: SP1-1908-441-9-R4

TM-30-18

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

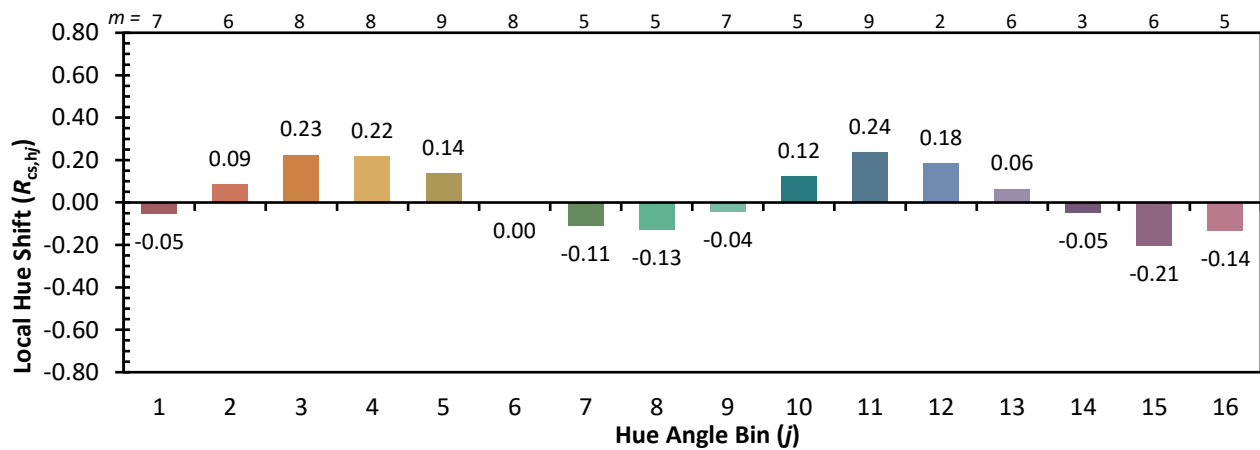
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 54 | CES51 = 88 | CES76 = 43 |
| CES02 = 59 | CES27 = 79 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 50 | CES54 = 81 | CES79 = 74 |
| CES05 = 46 | CES30 = 59 | CES55 = 80 | CES80 = 70 |
| CES06 = 50 | CES31 = 55 | CES56 = 70 | CES81 = 71 |
| CES07 = 38 | CES32 = 52 | CES57 = 68 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 82 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 84 |
| CES11 = 55 | CES36 = 90 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 72 | CES62 = 81 | CES87 = 75 |
| CES13 = 41 | CES38 = 68 | CES63 = 75 | CES88 = 77 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 84 | CES66 = 66 | CES91 = 92 |
| CES17 = 48 | CES42 = 70 | CES67 = 64 | CES92 = 70 |
| CES18 = 55 | CES43 = 69 | CES68 = 71 | CES93 = 83 |
| CES19 = 70 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 73 |
| CES21 = 85 | CES46 = 78 | CES71 = 55 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 68 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 78 | CES74 = 94 | CES99 = 62 |
| CES25 = 71 | CES50 = 87 | CES75 = 51 |            |



REPORT NUMBER: SP1-1908-441-9-R4

TM-30-18

Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-1908-441-9-R4

TM-30-18

Measure Comparisons



(END OF REPORT)