

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: P642934

Luminaire Tested: GWS-SA6D-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642934  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-38)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA6D-830-U-SLL-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

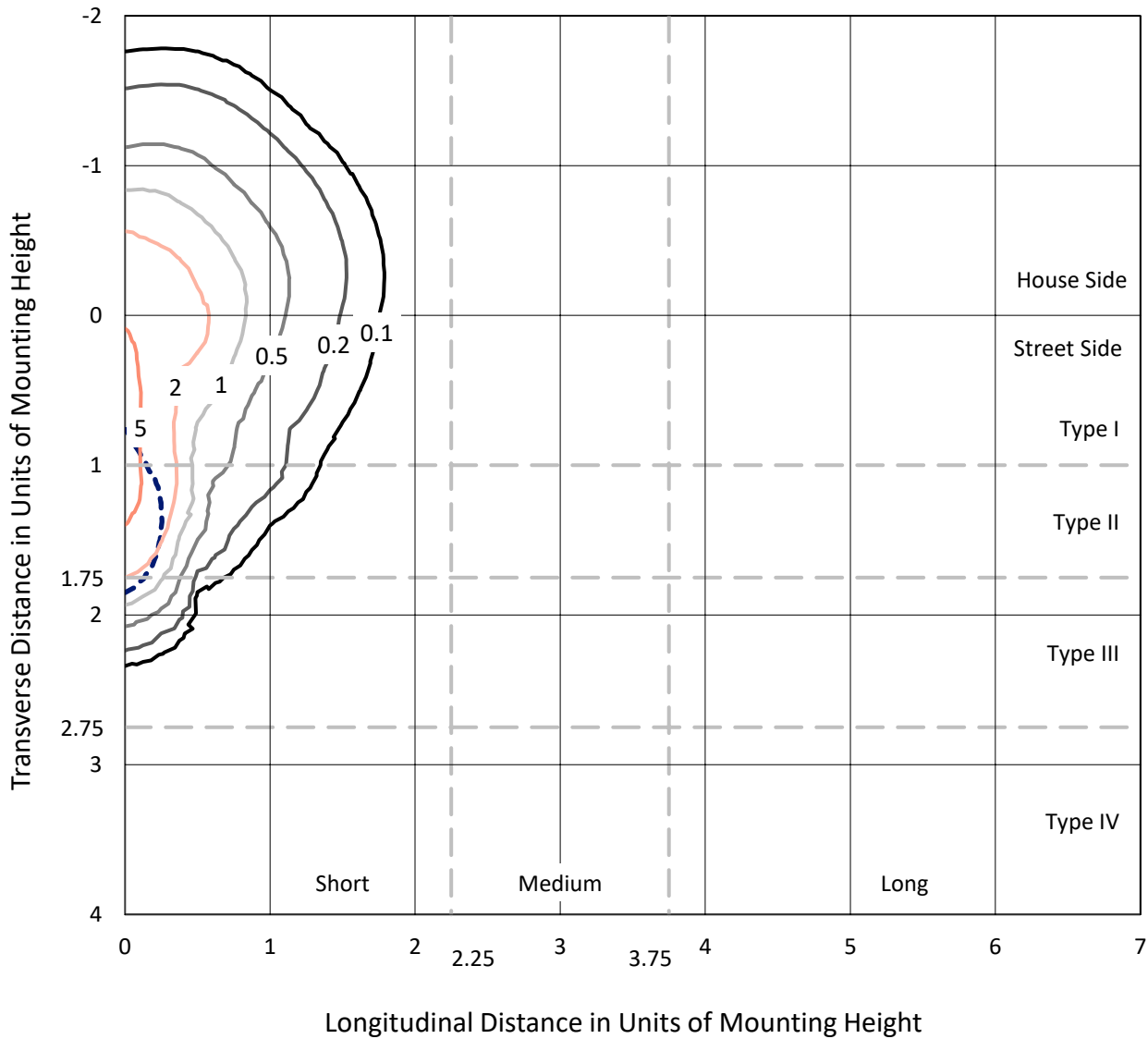
Lumens per Lamp: N/A  
Luminaire Lumens: 15258.8 lumens  
Efficiency: N/A  
Efficacy: 62.1 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 245.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P642934  
 CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

### Iso-Footcandle Lines of Horizontal Illumination

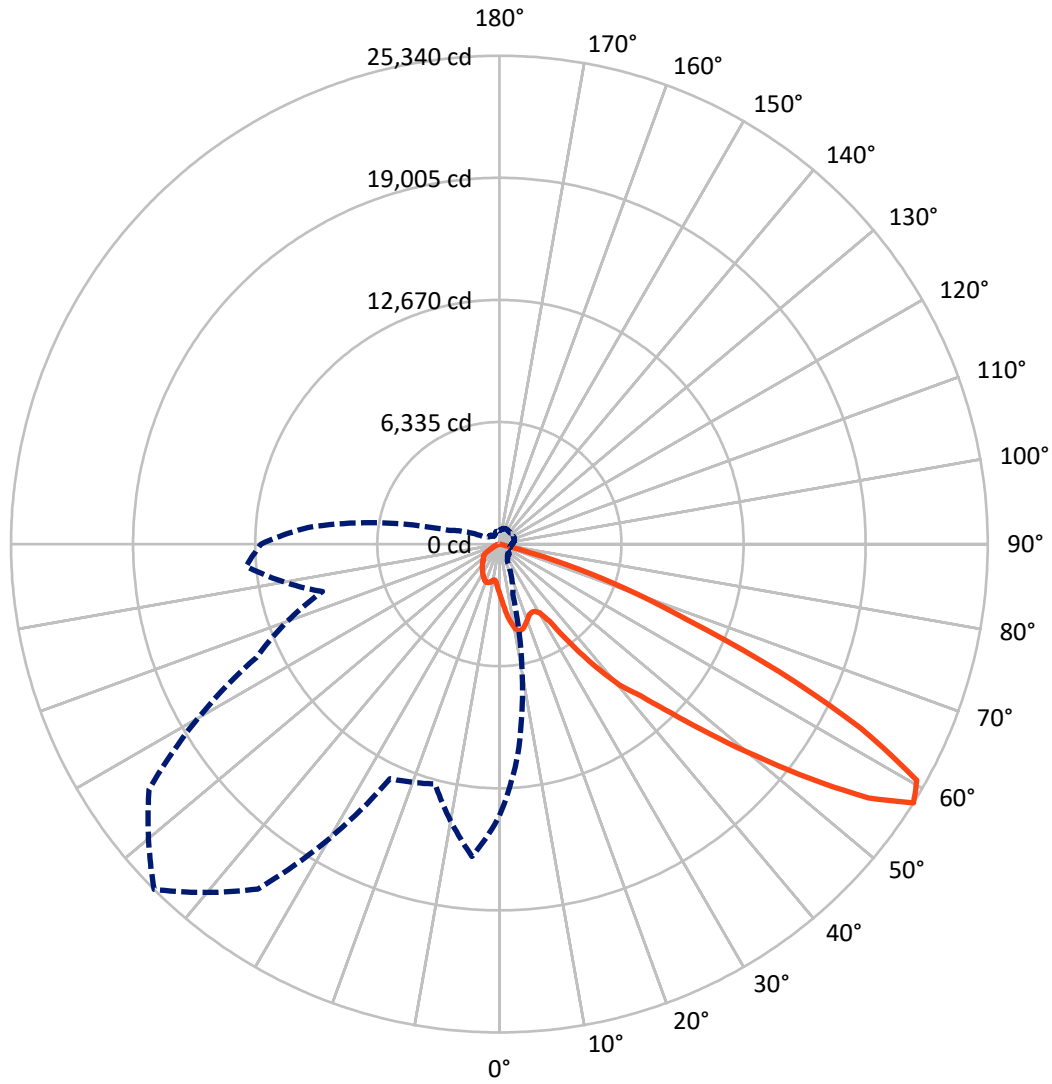
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc  
 Type III - Short - N/A

REPORT NUMBER: P642934  
CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P642934  
 CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3287.3   | 0.0    | 3287.3  |
|                    | % Fixture | 21.5     | 0.0    | 21.5    |
| <b>Street Side</b> | Lumens    | 11971.5  | 0.0    | 11971.5 |
|                    | % Fixture | 78.5     | 0.0    | 78.5    |
| <b>Total</b>       | Lumens    | 15258.8  | 0.0    | 15258.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 256.3   | 1.7       |
| 10°-20°   | 843.2   | 5.5       |
| 20°-30°   | 1368.4  | 9.0       |
| 30°-40°   | 2100.2  | 13.8      |
| 40°-50°   | 3354.2  | 22.0      |
| 50°-60°   | 4696.5  | 30.8      |
| 60°-70°   | 2408.0  | 15.8      |
| 70°-80°   | 231.8   | 1.5       |
| 80°-90°   | 0.0     | 0.0       |
| 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°    | 15258.8 | 100.0     |
| 0°-180°   | 15258.8 | 100.0     |

**Coefficient of Utilization**

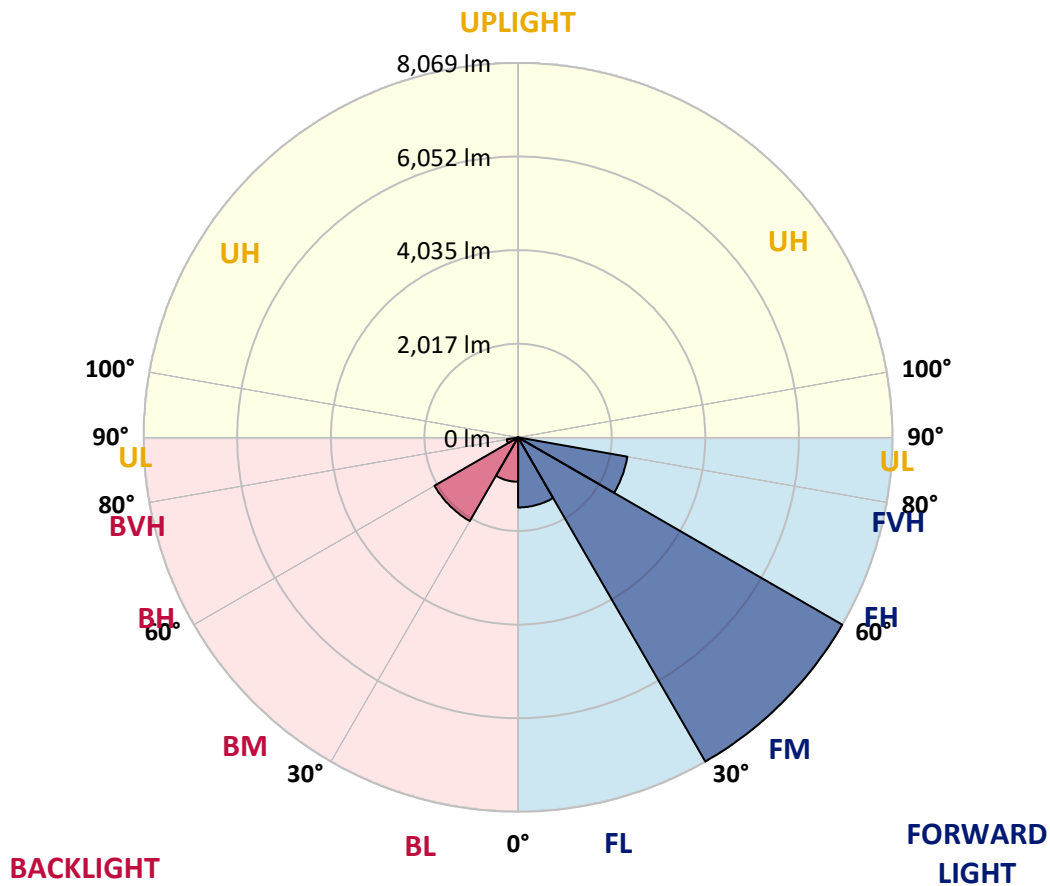


REPORT NUMBER: P642934  
 CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1510.7 | 9.9       |                         |      |         |
| FM (30°-60°)   | 8069.2 | 52.9      |                         |      |         |
| FH (60°-80°)   | 2391.6 | 15.7      |                         |      | G2/5000 |
| FVH (80°-90°)  | 0.0    | 0.0       |                         |      | G0/10   |
| BL (0°-30°)    | 957.2  | 6.3       | B2/1000                 |      |         |
| BM (30°-60°)   | 2081.8 | 13.6      | B2/2500                 |      |         |
| BH (60°-80°)   | 248.3  | 1.6       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 0.0    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**  
 Type III Short





REPORT NUMBER: P642934

CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 1°      | 5°      | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2592.7  | 2592.7  | 2592.7  | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 |
| 2.5°  | 2880.3  | 2874.2  | 2853.8  | 2784.4 | 2741.6 | 2674.3 | 2625.3 | 2562.1 | 2492.7 | 2449.9 | 2407.1 |
| 5°    | 3186.3  | 3170.0  | 3114.9  | 2955.8 | 2833.4 | 2700.8 | 2594.7 | 2478.5 | 2354.0 | 2272.4 | 2197.0 |
| 7.5°  | 3480.0  | 3455.6  | 3382.1  | 3112.9 | 2927.2 | 2737.5 | 2586.6 | 2417.3 | 2241.8 | 2119.4 | 2025.6 |
| 10°   | 3767.7  | 3712.6  | 3596.3  | 3265.9 | 3015.0 | 2786.5 | 2609.0 | 2415.2 | 2209.2 | 2054.2 | 1950.1 |
| 12.5° | 4004.3  | 3963.5  | 3804.4  | 3410.7 | 3088.4 | 2796.7 | 2578.4 | 2398.9 | 2260.2 | 2156.2 | 2060.3 |
| 15°   | 4208.3  | 4163.4  | 4012.5  | 3541.2 | 3151.6 | 2755.9 | 2449.9 | 2292.8 | 2315.3 | 2356.1 | 2274.5 |
| 17.5° | 4396.0  | 4349.0  | 4185.8  | 3649.4 | 3176.1 | 2655.9 | 2270.4 | 2194.9 | 2319.4 | 2472.3 | 2441.7 |
| 20°   | 4589.7  | 4536.7  | 4336.8  | 3737.1 | 3167.9 | 2498.9 | 2088.8 | 2111.3 | 2286.7 | 2462.1 | 2478.5 |
| 22.5° | 4816.2  | 4761.1  | 4528.5  | 3849.3 | 3161.8 | 2311.2 | 1931.8 | 2037.8 | 2225.5 | 2374.4 | 2403.0 |
| 25°   | 5116.0  | 5050.8  | 4795.8  | 4014.5 | 3178.1 | 2139.8 | 1819.6 | 1966.5 | 2121.5 | 2256.1 | 2272.4 |
| 27.5° | 5511.8  | 5428.1  | 5103.8  | 4218.5 | 3212.8 | 2005.2 | 1770.6 | 1868.5 | 1988.9 | 2109.2 | 2123.5 |
| 30°   | 6027.9  | 5921.8  | 5456.7  | 4396.0 | 3196.5 | 1911.4 | 1738.0 | 1770.6 | 1842.0 | 1939.9 | 1942.0 |
| 32.5° | 6631.7  | 6486.8  | 5852.4  | 4548.9 | 3055.8 | 1842.0 | 1693.1 | 1670.7 | 1687.0 | 1762.5 | 1776.7 |
| 35°   | 7341.6  | 7153.9  | 6289.0  | 4693.8 | 2798.7 | 1707.4 | 1611.5 | 1536.0 | 1529.9 | 1566.6 | 1601.3 |
| 37.5° | 8155.5  | 7931.1  | 6839.7  | 4879.4 | 2494.8 | 1566.6 | 1491.2 | 1415.7 | 1383.0 | 1401.4 | 1454.4 |
| 40°   | 8906.1  | 8657.3  | 7415.0  | 5103.8 | 2184.7 | 1440.2 | 1350.4 | 1272.9 | 1234.1 | 1240.3 | 1305.5 |
| 42.5° | 9787.4  | 9530.4  | 8118.7  | 5397.5 | 1927.7 | 1354.5 | 1203.5 | 1124.0 | 1073.0 | 1101.5 | 1177.0 |
| 45°   | 11125.5 | 10833.8 | 9144.8  | 5652.5 | 1723.7 | 1334.1 | 1075.0 | 962.8  | 938.3  | 987.3  | 1077.1 |
| 47.5° | 12953.3 | 12596.3 | 10554.4 | 5807.6 | 1550.3 | 1352.4 | 985.3  | 832.3  | 838.4  | 893.5  | 983.2  |
| 50°   | 14766.7 | 14381.2 | 12184.2 | 5603.6 | 1407.5 | 1315.7 | 940.4  | 730.3  | 769.0  | 818.0  | 899.6  |
| 52.5° | 16013.1 | 15511.3 | 12977.8 | 5014.0 | 1277.0 | 1177.0 | 936.3  | 634.4  | 707.8  | 724.2  | 793.5  |
| 55°   | 16062.1 | 15444.0 | 12571.8 | 3953.3 | 1099.5 | 993.4  | 893.5  | 554.8  | 640.5  | 646.6  | 705.8  |
| 57.5° | 14079.3 | 13520.4 | 10986.8 | 2715.1 | 977.1  | 728.2  | 711.9  | 485.5  | 526.3  | 577.3  | 614.0  |
| 60°   | 10711.4 | 10236.2 | 8216.7  | 1244.3 | 742.5  | 463.1  | 487.5  | 418.2  | 393.7  | 469.2  | 505.9  |
| 62.5° | 6560.3  | 6256.3  | 4928.4  | 550.8  | 473.3  | 246.8  | 295.8  | 332.5  | 295.8  | 324.3  | 354.9  |
| 65°   | 2604.9  | 2470.3  | 1870.6  | 234.6  | 193.8  | 124.4  | 134.6  | 193.8  | 208.1  | 228.5  | 257.0  |
| 67.5° | 452.9   | 428.4   | 314.1   | 104.0  | 79.6   | 75.5   | 65.3   | 89.8   | 126.5  | 140.8  | 163.2  |
| 70°   | 59.2    | 57.1    | 51.0    | 42.8   | 40.8   | 36.7   | 28.6   | 57.1   | 85.7   | 89.8   | 104.0  |
| 72.5° | 14.3    | 12.2    | 12.2    | 10.2   | 12.2   | 4.1    | 4.1    | 30.6   | 61.2   | 63.2   | 73.4   |
| 75°   | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 10.2   | 38.8   | 42.8   | 51.0   |
| 77.5° | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 2.0    |
| 80°   | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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: P642934

CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 |
| 2.5°  | 2372.4 | 2331.6 | 2317.3 | 2296.9 | 2270.4 | 2278.6 | 2241.8 | 2229.6 | 2248.0 | 2272.4 | 2266.3 |
| 5°    | 2156.2 | 2111.3 | 2080.7 | 2033.8 | 2025.6 | 2007.2 | 1995.0 | 1978.7 | 1999.1 | 2027.6 | 2033.8 |
| 7.5°  | 1984.8 | 1946.1 | 1915.5 | 1901.2 | 1891.0 | 1882.8 | 1858.3 | 1846.1 | 1846.1 | 1858.3 | 1868.5 |
| 10°   | 1911.4 | 1882.8 | 1876.7 | 1880.8 | 1897.1 | 1895.1 | 1872.6 | 1856.3 | 1835.9 | 1825.7 | 1837.9 |
| 12.5° | 2013.4 | 1966.5 | 1958.3 | 1960.3 | 1980.7 | 1978.7 | 1954.2 | 1933.8 | 1929.7 | 1933.8 | 1972.6 |
| 15°   | 2186.8 | 2115.4 | 2062.3 | 2052.1 | 2062.3 | 2058.2 | 2039.9 | 2027.6 | 2033.8 | 2092.9 | 2158.2 |
| 17.5° | 2341.8 | 2231.6 | 2135.8 | 2099.0 | 2097.0 | 2090.9 | 2072.5 | 2068.4 | 2099.0 | 2209.2 | 2305.1 |
| 20°   | 2386.7 | 2278.6 | 2141.9 | 2095.0 | 2084.8 | 2078.6 | 2058.2 | 2064.4 | 2103.1 | 2235.7 | 2317.3 |
| 22.5° | 2327.5 | 2223.5 | 2080.7 | 2033.8 | 2025.6 | 2023.6 | 2003.2 | 2011.3 | 2044.0 | 2160.2 | 2227.6 |
| 25°   | 2215.3 | 2127.6 | 1978.7 | 1937.9 | 1937.9 | 1933.8 | 1915.5 | 1919.5 | 1939.9 | 2041.9 | 2107.2 |
| 27.5° | 2078.6 | 1995.0 | 1870.6 | 1829.8 | 1835.9 | 1842.0 | 1819.6 | 1813.5 | 1829.8 | 1925.7 | 1964.4 |
| 30°   | 1921.6 | 1862.4 | 1764.5 | 1727.8 | 1725.7 | 1750.2 | 1719.6 | 1711.5 | 1733.9 | 1809.4 | 1817.5 |
| 32.5° | 1768.6 | 1740.0 | 1670.7 | 1642.1 | 1644.1 | 1648.2 | 1631.9 | 1631.9 | 1652.3 | 1693.1 | 1691.1 |
| 35°   | 1619.7 | 1601.3 | 1589.1 | 1568.7 | 1566.6 | 1558.5 | 1558.5 | 1562.6 | 1585.0 | 1599.3 | 1572.8 |
| 37.5° | 1476.9 | 1495.2 | 1509.5 | 1489.1 | 1472.8 | 1472.8 | 1472.8 | 1491.2 | 1511.6 | 1505.4 | 1460.6 |
| 40°   | 1350.4 | 1389.2 | 1434.0 | 1411.6 | 1372.8 | 1370.8 | 1379.0 | 1409.6 | 1440.2 | 1403.4 | 1362.6 |
| 42.5° | 1242.3 | 1291.2 | 1354.5 | 1342.2 | 1299.4 | 1293.3 | 1299.4 | 1338.2 | 1362.6 | 1315.7 | 1270.8 |
| 45°   | 1136.2 | 1197.4 | 1272.9 | 1272.9 | 1226.0 | 1219.9 | 1221.9 | 1272.9 | 1287.2 | 1232.1 | 1175.0 |
| 47.5° | 1046.5 | 1113.8 | 1193.3 | 1193.3 | 1154.6 | 1142.3 | 1152.5 | 1205.6 | 1215.8 | 1138.3 | 1085.2 |
| 50°   | 960.8  | 1034.2 | 1121.9 | 1115.8 | 1089.3 | 1079.1 | 1097.5 | 1154.6 | 1142.3 | 1056.7 | 1001.6 |
| 52.5° | 852.7  | 930.2  | 1050.5 | 1056.7 | 1042.4 | 1044.4 | 1066.9 | 1103.6 | 1068.9 | 964.9  | 917.9  |
| 55°   | 754.8  | 834.3  | 954.7  | 987.3  | 987.3  | 985.3  | 995.5  | 1024.0 | 995.5  | 871.0  | 813.9  |
| 57.5° | 648.7  | 716.0  | 816.0  | 824.1  | 830.2  | 807.8  | 822.1  | 860.8  | 846.6  | 740.5  | 707.8  |
| 60°   | 532.4  | 589.5  | 646.6  | 652.8  | 626.2  | 579.3  | 605.8  | 650.7  | 660.9  | 581.4  | 544.6  |
| 62.5° | 377.4  | 432.5  | 499.8  | 499.8  | 473.3  | 426.3  | 461.0  | 499.8  | 485.5  | 403.9  | 381.5  |
| 65°   | 281.5  | 332.5  | 383.5  | 405.9  | 383.5  | 350.9  | 377.4  | 405.9  | 383.5  | 316.2  | 283.5  |
| 67.5° | 181.5  | 216.2  | 246.8  | 265.2  | 269.3  | 265.2  | 277.4  | 269.3  | 242.7  | 197.9  | 179.5  |
| 70°   | 110.2  | 128.5  | 144.8  | 161.2  | 173.4  | 179.5  | 185.6  | 167.3  | 140.8  | 116.3  | 110.2  |
| 72.5° | 79.6   | 95.9   | 110.2  | 122.4  | 136.7  | 140.8  | 140.8  | 128.5  | 104.0  | 81.6   | 75.5   |
| 75°   | 55.1   | 69.4   | 81.6   | 89.8   | 102.0  | 106.1  | 106.1  | 95.9   | 77.5   | 59.2   | 53.0   |
| 77.5° | 2.0    | 14.3   | 14.3   | 12.2   | 16.3   | 20.4   | 20.4   | 24.5   | 22.4   | 16.3   | 14.3   |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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: P642934  
 CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°    | 270°    | 275°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7 | 2592.7  | 2592.7  | 2592.7  |
| 2.5°  | 2278.6 | 2352.0 | 2372.4 | 2447.9 | 2515.2 | 2582.5 | 2664.1 | 2713.0 | 2786.5  | 2837.5  | 2866.0  |
| 5°    | 2054.2 | 2115.4 | 2188.8 | 2301.0 | 2417.3 | 2545.8 | 2700.8 | 2835.4 | 3004.8  | 3129.2  | 3170.0  |
| 7.5°  | 1891.0 | 1970.5 | 2056.2 | 2197.0 | 2356.1 | 2527.4 | 2745.7 | 2966.0 | 3225.1  | 3394.4  | 3502.5  |
| 10°   | 1860.4 | 1942.0 | 2056.2 | 2194.9 | 2362.2 | 2558.0 | 2825.2 | 3110.8 | 3435.2  | 3641.2  | 3763.6  |
| 12.5° | 2007.2 | 2095.0 | 2143.9 | 2207.2 | 2333.6 | 2551.9 | 2894.6 | 3257.7 | 3639.2  | 3863.5  | 3994.1  |
| 15°   | 2223.5 | 2301.0 | 2221.4 | 2141.9 | 2223.5 | 2486.6 | 2933.4 | 3380.1 | 3818.7  | 4077.7  | 4212.4  |
| 17.5° | 2372.4 | 2378.5 | 2205.1 | 2035.8 | 2058.2 | 2368.3 | 2947.6 | 3502.5 | 4010.4  | 4281.7  | 4422.5  |
| 20°   | 2358.1 | 2309.2 | 2133.7 | 1946.1 | 1876.7 | 2215.3 | 2931.3 | 3610.6 | 4204.2  | 4487.8  | 4626.5  |
| 22.5° | 2248.0 | 2190.8 | 2041.9 | 1858.3 | 1723.7 | 2033.8 | 2902.8 | 3708.5 | 4381.7  | 4704.0  | 4834.5  |
| 25°   | 2115.4 | 2054.2 | 1931.8 | 1770.6 | 1625.8 | 1858.3 | 2880.3 | 3843.1 | 4606.1  | 4985.5  | 5087.5  |
| 27.5° | 1960.3 | 1907.3 | 1803.3 | 1687.0 | 1585.0 | 1725.7 | 2874.2 | 4020.6 | 4877.4  | 5328.2  | 5399.6  |
| 30°   | 1809.4 | 1760.4 | 1678.8 | 1611.5 | 1568.7 | 1648.2 | 2853.8 | 4210.3 | 5201.7  | 5721.9  | 5799.4  |
| 32.5° | 1664.5 | 1615.6 | 1564.6 | 1554.4 | 1556.4 | 1619.7 | 2784.4 | 4398.0 | 5587.3  | 6293.1  | 6350.2  |
| 35°   | 1540.1 | 1483.0 | 1462.6 | 1487.1 | 1532.0 | 1570.7 | 2588.6 | 4553.0 | 6001.3  | 6915.2  | 6962.1  |
| 37.5° | 1421.8 | 1364.7 | 1362.6 | 1421.8 | 1470.8 | 1495.2 | 2358.1 | 4706.0 | 6560.3  | 7547.6  | 7606.7  |
| 40°   | 1313.7 | 1256.6 | 1277.0 | 1348.4 | 1387.1 | 1399.4 | 2078.6 | 4938.6 | 7151.8  | 8214.6  | 8182.0  |
| 42.5° | 1221.9 | 1162.7 | 1175.0 | 1266.8 | 1301.4 | 1334.1 | 1821.6 | 5132.4 | 7721.0  | 8847.0  | 8836.8  |
| 45°   | 1132.1 | 1087.3 | 1079.1 | 1179.1 | 1209.7 | 1340.2 | 1633.9 | 5281.3 | 8453.3  | 9652.7  | 9669.1  |
| 47.5° | 1044.4 | 1009.7 | 1011.8 | 1054.6 | 1130.1 | 1370.8 | 1474.8 | 5379.2 | 9516.1  | 10929.7 | 10646.2 |
| 50°   | 964.9  | 938.3  | 960.8  | 911.8  | 1079.1 | 1332.0 | 1338.2 | 5358.8 | 10703.3 | 12153.6 | 11584.5 |
| 52.5° | 877.2  | 871.0  | 881.2  | 762.9  | 997.5  | 1175.0 | 1209.7 | 5087.5 | 11260.2 | 12990.0 | 12665.7 |
| 55°   | 787.4  | 785.4  | 703.8  | 609.9  | 834.3  | 938.3  | 1036.3 | 4245.0 | 11241.8 | 13434.7 | 13828.4 |
| 57.5° | 681.3  | 665.0  | 534.5  | 497.7  | 648.7  | 652.8  | 944.5  | 2780.4 | 9962.8  | 12369.9 | 13185.8 |
| 60°   | 516.1  | 503.9  | 391.7  | 403.9  | 452.9  | 418.2  | 752.7  | 1385.1 | 7445.6  | 9636.4  | 10556.4 |
| 62.5° | 357.0  | 340.7  | 291.7  | 312.1  | 291.7  | 238.7  | 461.0  | 685.4  | 4510.2  | 6085.0  | 6919.3  |
| 65°   | 261.1  | 242.7  | 199.9  | 171.4  | 136.7  | 136.7  | 175.4  | 263.1  | 1746.1  | 2586.6  | 3119.0  |
| 67.5° | 161.2  | 153.0  | 118.3  | 85.7   | 83.6   | 89.8   | 91.8   | 130.6  | 281.5   | 448.8   | 548.7   |
| 70°   | 104.0  | 95.9   | 79.6   | 55.1   | 51.0   | 53.0   | 55.1   | 61.2   | 71.4    | 77.5    | 93.8    |
| 72.5° | 71.4   | 67.3   | 57.1   | 30.6   | 24.5   | 26.5   | 28.6   | 28.6   | 34.7    | 32.6    | 38.8    |
| 75°   | 51.0   | 46.9   | 40.8   | 14.3   | 8.2    | 10.2   | 12.2   | 10.2   | 12.2    | 8.2     | 10.2    |
| 77.5° | 14.3   | 14.3   | 10.2   | 2.0    | 0.0    | 2.0    | 4.1    | 4.1    | 2.0     | 0.0     | 0.0     |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 2.0    | 2.0    | 0.0     | 0.0     | 0.0     |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     |
| 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: P642934

CATALOG NUMBER: GWS-SA6D-830-U-SLL-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

|       | 285°    | 295°    | 305°    | 315°    | 325°    | 335°    | 345°    | 355°    | 359°    | 360°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2592.7  | 2592.7  | 2592.7  | 2592.7  | 2592.7  | 2592.7  | 2592.7  | 2592.7  | 2592.7  | 2592.7  |
| 2.5°  | 2939.5  | 2986.4  | 3004.8  | 2978.2  | 3000.7  | 2964.0  | 2949.7  | 2894.6  | 2890.5  | 2880.3  |
| 5°    | 3335.2  | 3441.3  | 3504.5  | 3543.3  | 3498.4  | 3449.4  | 3376.0  | 3249.5  | 3210.8  | 3186.3  |
| 7.5°  | 3724.8  | 3890.1  | 3998.2  | 4049.2  | 4036.9  | 3937.0  | 3804.4  | 3592.2  | 3516.8  | 3480.0  |
| 10°   | 4063.5  | 4265.4  | 4396.0  | 4459.2  | 4432.7  | 4345.0  | 4155.2  | 3890.1  | 3790.1  | 3767.7  |
| 12.5° | 4300.1  | 4485.7  | 4575.5  | 4630.5  | 4632.6  | 4597.9  | 4418.4  | 4151.2  | 4032.9  | 4004.3  |
| 15°   | 4449.0  | 4528.5  | 4530.6  | 4563.2  | 4620.3  | 4697.9  | 4614.2  | 4377.6  | 4251.1  | 4208.3  |
| 17.5° | 4542.8  | 4455.1  | 4365.4  | 4373.5  | 4467.4  | 4673.4  | 4759.1  | 4577.5  | 4442.9  | 4396.0  |
| 20°   | 4610.1  | 4332.7  | 4165.4  | 4167.5  | 4263.4  | 4575.5  | 4859.0  | 4771.3  | 4632.6  | 4589.7  |
| 22.5° | 4653.0  | 4224.6  | 3985.9  | 3979.8  | 4081.8  | 4459.2  | 4950.8  | 5001.8  | 4865.1  | 4816.2  |
| 25°   | 4740.7  | 4173.6  | 3877.8  | 3912.5  | 4002.3  | 4422.5  | 5075.2  | 5307.8  | 5181.3  | 5116.0  |
| 27.5° | 4897.8  | 4224.6  | 3867.6  | 3947.2  | 4049.2  | 4530.6  | 5291.5  | 5715.8  | 5585.2  | 5511.8  |
| 30°   | 5169.1  | 4416.4  | 4024.7  | 4134.9  | 4257.2  | 4814.1  | 5654.6  | 6284.9  | 6097.2  | 6027.9  |
| 32.5° | 5605.6  | 4814.1  | 4510.2  | 4746.8  | 4865.1  | 5279.2  | 6199.2  | 6923.4  | 6770.4  | 6631.7  |
| 35°   | 6207.4  | 5721.9  | 5687.2  | 6238.0  | 6209.4  | 6160.5  | 6868.3  | 7706.7  | 7476.2  | 7341.6  |
| 37.5° | 7035.6  | 7182.4  | 7439.5  | 7986.2  | 7967.8  | 7594.5  | 7747.5  | 8447.2  | 8328.9  | 8155.5  |
| 40°   | 8069.8  | 8381.9  | 8818.4  | 9601.7  | 9357.0  | 8887.8  | 8826.6  | 9206.0  | 9110.1  | 8906.1  |
| 42.5° | 8679.7  | 9218.2  | 10050.5 | 10754.3 | 10558.5 | 9738.4  | 9669.1  | 10219.8 | 10009.7 | 9787.4  |
| 45°   | 8963.3  | 9899.6  | 11531.5 | 12484.1 | 11890.5 | 10303.5 | 10277.0 | 11541.7 | 11423.4 | 11125.5 |
| 47.5° | 9093.8  | 10587.0 | 13265.4 | 14707.6 | 13597.9 | 10799.2 | 10703.3 | 13459.2 | 13304.1 | 12953.3 |
| 50°   | 9238.6  | 11535.6 | 15354.2 | 17284.0 | 15660.2 | 11360.1 | 11429.5 | 15246.1 | 15180.8 | 14766.7 |
| 52.5° | 9556.9  | 12539.2 | 17926.5 | 20229.6 | 18161.1 | 12239.3 | 12675.9 | 16931.1 | 16490.4 | 16013.1 |
| 55°   | 10034.2 | 13632.6 | 20602.9 | 23238.4 | 20713.0 | 13420.4 | 14024.2 | 17826.6 | 16590.4 | 16062.1 |
| 57.5° | 9505.9  | 13905.9 | 22187.8 | 25339.5 | 21845.1 | 13424.5 | 12883.9 | 16274.2 | 14591.3 | 14079.3 |
| 60°   | 7543.5  | 12937.0 | 21577.9 | 24884.6 | 20880.3 | 11921.1 | 9864.9  | 12706.5 | 11054.1 | 10711.4 |
| 62.5° | 5099.7  | 10850.2 | 18995.4 | 21045.5 | 17871.4 | 9377.4  | 6411.4  | 8263.6  | 6843.8  | 6560.3  |
| 65°   | 2794.6  | 8094.3  | 15348.1 | 15921.3 | 13987.5 | 6550.1  | 3298.5  | 3586.1  | 2731.4  | 2604.9  |
| 67.5° | 771.1   | 5634.2  | 11292.8 | 10562.5 | 9813.9  | 4265.4  | 852.7   | 640.5   | 456.9   | 452.9   |
| 70°   | 193.8   | 3726.9  | 6766.3  | 6974.4  | 6017.7  | 2731.4  | 163.2   | 77.5    | 61.2    | 59.2    |
| 72.5° | 81.6    | 1603.4  | 3210.8  | 3690.2  | 3080.2  | 1264.7  | 59.2    | 22.4    | 18.4    | 14.3    |
| 75°   | 10.2    | 128.5   | 273.3   | 414.1   | 283.5   | 136.7   | 0.0     | 0.0     | 0.0     | 0.0     |
| 77.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 80°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 82.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 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     |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2408-195-9  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 08/07/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: MCGRAW EDISON  
 Catalog Number: **GALN-SB1A-830-U-5WQ**  
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

**Spectral Parameters**

CCT (K): 3050  
 CIE u': 0.2476  
 CIE v': 0.5251  
 Duv: 0.0034  
 CIE x: 0.4383  
 CIE y: 0.4131  
 CIE z: 0.1487  
 Peak Wavelength (nm): 603  
 Dominant Wavelength (nm): 581  
 Purity: 55.55201  
 Rf: 81.5  
 Rg: 99.2

|           |      |      |      |
|-----------|------|------|------|
| CRI (Ra): | 81.0 |      |      |
| R1:       | 79.6 | R9:  | 7.1  |
| R2:       | 85.6 | R10: | 67.0 |
| R3:       | 92.0 | R11: | 82.7 |
| R4:       | 82.6 | R12: | 63.2 |
| R5:       | 78.9 | R13: | 80.3 |
| R6:       | 81.7 | R14: | 95.0 |
| R7:       | 85.2 | R15: | 71.7 |
| R8:       | 62.0 |      |      |



**Test Conditions**

Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 6/18/2024        | 12/18/2024           |
| Power Meter                    | INXT2011004           | 2/8/2024         | 2/8/2025             |
| AC Power Source                | IN0063                | 10/24/2023       | 10/24/2024           |
| DC Power Source                | IN0208                | 10/24/2023       | 10/24/2024           |
| Sphere Thermometer             | IN0085                | 10/24/2023       | 10/24/2024           |
| Room Thermometer               | IN0046                | 10/24/2023       | 10/24/2024           |

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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



CCT = 3050K  
 CIE x = 0.4383  
 CIE y = 0.4131  
 Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

| $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) | $\lambda$<br>(nm) | Power<br>W <sup>^</sup> /nm | Lumens<br>( $\phi$ /nm) |
|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|
| 360               | 0                           | NR                      | 490               | 168                         | NR                      | 620               | 940                         | NR                      | 750               | 35                          | NR                      | 880               | 1                           | NR                      |
| 365               | 0                           | NR                      | 495               | 233                         | NR                      | 625               | 897                         | NR                      | 755               | 30                          | NR                      | 885               | 1                           | NR                      |
| 370               | 0                           | NR                      | 500               | 300                         | NR                      | 630               | 847                         | NR                      | 760               | 26                          | NR                      | 890               | 1                           | NR                      |
| 375               | 0                           | NR                      | 505               | 372                         | NR                      | 635               | 790                         | NR                      | 765               | 22                          | NR                      | 895               | 1                           | NR                      |
| 380               | 0                           | NR                      | 510               | 430                         | NR                      | 640               | 730                         | NR                      | 770               | 19                          | NR                      | 900               | 1                           | NR                      |
| 385               | 0                           | NR                      | 515               | 483                         | NR                      | 645               | 668                         | NR                      | 775               | 16                          | NR                      | 905               | 1                           | NR                      |
| 390               | 0                           | NR                      | 520               | 524                         | NR                      | 650               | 605                         | NR                      | 780               | 14                          | NR                      | 910               | 0                           | NR                      |
| 395               | 2                           | NR                      | 525               | 555                         | NR                      | 655               | 545                         | NR                      | 785               | 12                          | NR                      | 915               | 0                           | NR                      |
| 400               | 4                           | NR                      | 530               | 581                         | NR                      | 660               | 485                         | NR                      | 790               | 10                          | NR                      | 920               | 0                           | NR                      |
| 405               | 7                           | NR                      | 535               | 604                         | NR                      | 665               | 430                         | NR                      | 795               | 9                           | NR                      | 925               | 0                           | NR                      |
| 410               | 17                          | NR                      | 540               | 623                         | NR                      | 670               | 378                         | NR                      | 800               | 8                           | NR                      | 930               | 0                           | NR                      |
| 415               | 34                          | NR                      | 545               | 645                         | NR                      | 675               | 331                         | NR                      | 805               | 7                           | NR                      | 935               | 0                           | NR                      |
| 420               | 68                          | NR                      | 550               | 667                         | NR                      | 680               | 290                         | NR                      | 810               | 6                           | NR                      | 940               | 0                           | NR                      |
| 425               | 128                         | NR                      | 555               | 693                         | NR                      | 685               | 251                         | NR                      | 815               | 5                           | NR                      | 945               | 0                           | NR                      |
| 430               | 214                         | NR                      | 560               | 719                         | NR                      | 690               | 218                         | NR                      | 820               | 4                           | NR                      | 950               | 0                           | NR                      |
| 435               | 339                         | NR                      | 565               | 754                         | NR                      | 695               | 188                         | NR                      | 825               | 4                           | NR                      | 955               | 0                           | NR                      |
| 440               | 507                         | NR                      | 570               | 791                         | NR                      | 700               | 162                         | NR                      | 830               | 3                           | NR                      | 960               | 0                           | NR                      |
| 445               | 573                         | NR                      | 575               | 830                         | NR                      | 705               | 139                         | NR                      | 835               | 3                           | NR                      | 965               | 0                           | NR                      |
| 450               | 356                         | NR                      | 580               | 873                         | NR                      | 710               | 119                         | NR                      | 840               | 3                           | NR                      | 970               | 0                           | NR                      |
| 455               | 217                         | NR                      | 585               | 913                         | NR                      | 715               | 102                         | NR                      | 845               | 2                           | NR                      | 975               | 0                           | NR                      |
| 460               | 168                         | NR                      | 590               | 948                         | NR                      | 720               | 88                          | NR                      | 850               | 2                           | NR                      | 980               | 0                           | NR                      |
| 465               | 113                         | NR                      | 595               | 974                         | NR                      | 725               | 76                          | NR                      | 855               | 2                           | NR                      | 985               | 0                           | NR                      |
| 470               | 85                          | NR                      | 600               | 994                         | NR                      | 730               | 65                          | NR                      | 860               | 1                           | NR                      | 990               | 0                           | NR                      |
| 475               | 85                          | NR                      | 605               | 998                         | NR                      | 735               | 55                          | NR                      | 865               | 1                           | NR                      | 995               | 0                           | NR                      |
| 480               | 94                          | NR                      | 610               | 994                         | NR                      | 740               | 47                          | NR                      | 870               | 1                           | NR                      | 1000              | 0                           | NR                      |
| 485               | 120                         | NR                      | 615               | 973                         | NR                      | 745               | 41                          | NR                      | 875               | 1                           | NR                      |                   |                             |                         |

REPORT NUMBER: SP1-2408-195-9

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.27**

| $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) | $\lambda$ (nm) | Power W <sup>^</sup> /nm | Lumens ( $\phi$ /nm) |
|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|----------------|--------------------------|----------------------|
| 360            | 0                        | NR                   | 490            | 168                      | NR                   | 620            | 940                      | NR                   | 750            | 35                       | NR                   | 880            | 1                        | NR                   |
| 365            | 0                        | NR                   | 495            | 233                      | NR                   | 625            | 897                      | NR                   | 755            | 30                       | NR                   | 885            | 1                        | NR                   |
| 370            | 0                        | NR                   | 500            | 300                      | NR                   | 630            | 847                      | NR                   | 760            | 26                       | NR                   | 890            | 1                        | NR                   |
| 375            | 0                        | NR                   | 505            | 372                      | NR                   | 635            | 790                      | NR                   | 765            | 22                       | NR                   | 895            | 1                        | NR                   |
| 380            | 0                        | NR                   | 510            | 430                      | NR                   | 640            | 730                      | NR                   | 770            | 19                       | NR                   | 900            | 1                        | NR                   |
| 385            | 0                        | NR                   | 515            | 483                      | NR                   | 645            | 668                      | NR                   | 775            | 16                       | NR                   | 905            | 1                        | NR                   |
| 390            | 0                        | NR                   | 520            | 524                      | NR                   | 650            | 605                      | NR                   | 780            | 14                       | NR                   | 910            | 0                        | NR                   |
| 395            | 2                        | NR                   | 525            | 555                      | NR                   | 655            | 545                      | NR                   | 785            | 12                       | NR                   | 915            | 0                        | NR                   |
| 400            | 4                        | NR                   | 530            | 581                      | NR                   | 660            | 485                      | NR                   | 790            | 10                       | NR                   | 920            | 0                        | NR                   |
| 405            | 7                        | NR                   | 535            | 604                      | NR                   | 665            | 430                      | NR                   | 795            | 9                        | NR                   | 925            | 0                        | NR                   |
| 410            | 17                       | NR                   | 540            | 623                      | NR                   | 670            | 378                      | NR                   | 800            | 8                        | NR                   | 930            | 0                        | NR                   |
| 415            | 34                       | NR                   | 545            | 645                      | NR                   | 675            | 331                      | NR                   | 805            | 7                        | NR                   | 935            | 0                        | NR                   |
| 420            | 68                       | NR                   | 550            | 667                      | NR                   | 680            | 290                      | NR                   | 810            | 6                        | NR                   | 940            | 0                        | NR                   |
| 425            | 128                      | NR                   | 555            | 693                      | NR                   | 685            | 251                      | NR                   | 815            | 5                        | NR                   | 945            | 0                        | NR                   |
| 430            | 214                      | NR                   | 560            | 719                      | NR                   | 690            | 218                      | NR                   | 820            | 4                        | NR                   | 950            | 0                        | NR                   |
| 435            | 339                      | NR                   | 565            | 754                      | NR                   | 695            | 188                      | NR                   | 825            | 4                        | NR                   | 955            | 0                        | NR                   |
| 440            | 507                      | NR                   | 570            | 791                      | NR                   | 700            | 162                      | NR                   | 830            | 3                        | NR                   | 960            | 0                        | NR                   |
| 445            | 573                      | NR                   | 575            | 830                      | NR                   | 705            | 139                      | NR                   | 835            | 3                        | NR                   | 965            | 0                        | NR                   |
| 450            | 356                      | NR                   | 580            | 873                      | NR                   | 710            | 119                      | NR                   | 840            | 3                        | NR                   | 970            | 0                        | NR                   |
| 455            | 217                      | NR                   | 585            | 913                      | NR                   | 715            | 102                      | NR                   | 845            | 2                        | NR                   | 975            | 0                        | NR                   |
| 460            | 168                      | NR                   | 590            | 948                      | NR                   | 720            | 88                       | NR                   | 850            | 2                        | NR                   | 980            | 0                        | NR                   |
| 465            | 113                      | NR                   | 595            | 974                      | NR                   | 725            | 76                       | NR                   | 855            | 2                        | NR                   | 985            | 0                        | NR                   |
| 470            | 85                       | NR                   | 600            | 994                      | NR                   | 730            | 65                       | NR                   | 860            | 1                        | NR                   | 990            | 0                        | NR                   |
| 475            | 85                       | NR                   | 605            | 998                      | NR                   | 735            | 55                       | NR                   | 865            | 1                        | NR                   | 995            | 0                        | NR                   |
| 480            | 94                       | NR                   | 610            | 994                      | NR                   | 740            | 47                       | NR                   | 870            | 1                        | NR                   | 1000           | 0                        | NR                   |
| 485            | 120                      | NR                   | 615            | 973                      | NR                   | 745            | 41                       | NR                   | 875            | 1                        | NR                   |                |                          |                      |



REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

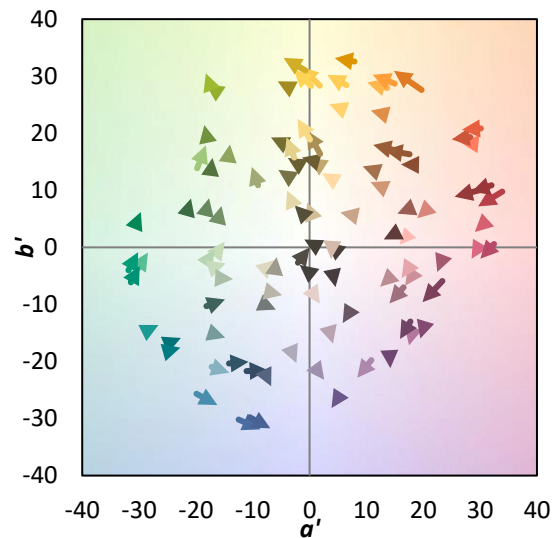
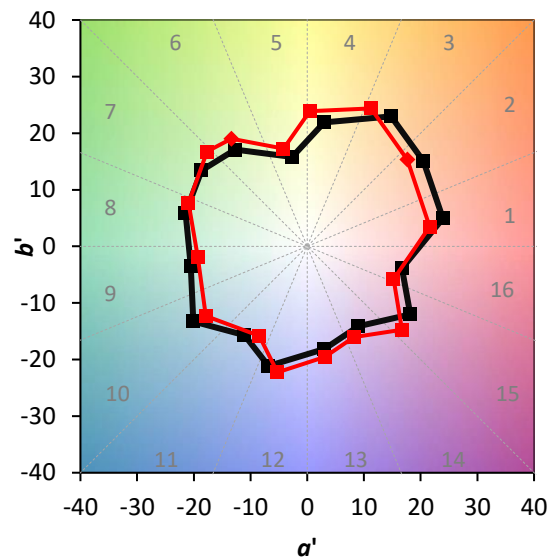
| λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) | λ (nm) | Power W <sup>^</sup> /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360    | 0                        | NR            | 490    | 168                      | NR            | 620    | 940                      | NR            | 750    | 35                       | NR            | 880    | 1                        | NR            |
| 365    | 0                        | NR            | 495    | 233                      | NR            | 625    | 897                      | NR            | 755    | 30                       | NR            | 885    | 1                        | NR            |
| 370    | 0                        | NR            | 500    | 300                      | NR            | 630    | 847                      | NR            | 760    | 26                       | NR            | 890    | 1                        | NR            |
| 375    | 0                        | NR            | 505    | 372                      | NR            | 635    | 790                      | NR            | 765    | 22                       | NR            | 895    | 1                        | NR            |
| 380    | 0                        | NR            | 510    | 430                      | NR            | 640    | 730                      | NR            | 770    | 19                       | NR            | 900    | 1                        | NR            |
| 385    | 0                        | NR            | 515    | 483                      | NR            | 645    | 668                      | NR            | 775    | 16                       | NR            | 905    | 1                        | NR            |
| 390    | 0                        | NR            | 520    | 524                      | NR            | 650    | 605                      | NR            | 780    | 14                       | NR            | 910    | 0                        | NR            |
| 395    | 2                        | NR            | 525    | 555                      | NR            | 655    | 545                      | NR            | 785    | 12                       | NR            | 915    | 0                        | NR            |
| 400    | 4                        | NR            | 530    | 581                      | NR            | 660    | 485                      | NR            | 790    | 10                       | NR            | 920    | 0                        | NR            |
| 405    | 7                        | NR            | 535    | 604                      | NR            | 665    | 430                      | NR            | 795    | 9                        | NR            | 925    | 0                        | NR            |
| 410    | 17                       | NR            | 540    | 623                      | NR            | 670    | 378                      | NR            | 800    | 8                        | NR            | 930    | 0                        | NR            |
| 415    | 34                       | NR            | 545    | 645                      | NR            | 675    | 331                      | NR            | 805    | 7                        | NR            | 935    | 0                        | NR            |
| 420    | 68                       | NR            | 550    | 667                      | NR            | 680    | 290                      | NR            | 810    | 6                        | NR            | 940    | 0                        | NR            |
| 425    | 128                      | NR            | 555    | 693                      | NR            | 685    | 251                      | NR            | 815    | 5                        | NR            | 945    | 0                        | NR            |
| 430    | 214                      | NR            | 560    | 719                      | NR            | 690    | 218                      | NR            | 820    | 4                        | NR            | 950    | 0                        | NR            |
| 435    | 339                      | NR            | 565    | 754                      | NR            | 695    | 188                      | NR            | 825    | 4                        | NR            | 955    | 0                        | NR            |
| 440    | 507                      | NR            | 570    | 791                      | NR            | 700    | 162                      | NR            | 830    | 3                        | NR            | 960    | 0                        | NR            |
| 445    | 573                      | NR            | 575    | 830                      | NR            | 705    | 139                      | NR            | 835    | 3                        | NR            | 965    | 0                        | NR            |
| 450    | 356                      | NR            | 580    | 873                      | NR            | 710    | 119                      | NR            | 840    | 3                        | NR            | 970    | 0                        | NR            |
| 455    | 217                      | NR            | 585    | 913                      | NR            | 715    | 102                      | NR            | 845    | 2                        | NR            | 975    | 0                        | NR            |
| 460    | 168                      | NR            | 590    | 948                      | NR            | 720    | 88                       | NR            | 850    | 2                        | NR            | 980    | 0                        | NR            |
| 465    | 113                      | NR            | 595    | 974                      | NR            | 725    | 76                       | NR            | 855    | 2                        | NR            | 985    | 0                        | NR            |
| 470    | 85                       | NR            | 600    | 994                      | NR            | 730    | 65                       | NR            | 860    | 1                        | NR            | 990    | 0                        | NR            |
| 475    | 85                       | NR            | 605    | 998                      | NR            | 735    | 55                       | NR            | 865    | 1                        | NR            | 995    | 0                        | NR            |
| 480    | 94                       | NR            | 610    | 994                      | NR            | 740    | 47                       | NR            | 870    | 1                        | NR            | 1000   | 0                        | NR            |
| 485    | 120                      | NR            | 615    | 973                      | NR            | 745    | 41                       | NR            | 875    | 1                        | NR            |        |                          |               |

**Summary**

$R_f = 81.5$   
 $R_g = 99.2$   
 $CIE R_a = 81.0$   
 $R_9 = 7.1$



**Color Vector Graphics**



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

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 74 | CES51 = 89 | CES76 = 70 |
| CES02 = 63 | CES27 = 88 | CES52 = 92 | CES77 = 86 |
| CES03 = 31 | CES28 = 89 | CES53 = 81 | CES78 = 72 |
| CES04 = 70 | CES29 = 67 | CES54 = 87 | CES79 = 90 |
| CES05 = 50 | CES30 = 68 | CES55 = 85 | CES80 = 88 |
| CES06 = 51 | CES31 = 71 | CES56 = 78 | CES81 = 78 |
| CES07 = 42 | CES32 = 70 | CES57 = 76 | CES82 = 95 |
| CES08 = 41 | CES33 = 71 | CES58 = 78 | CES83 = 90 |
| CES09 = 29 | CES34 = 82 | CES59 = 92 | CES84 = 94 |
| CES10 = 76 | CES35 = 90 | CES60 = 95 | CES85 = 86 |
| CES11 = 59 | CES36 = 93 | CES61 = 93 | CES86 = 72 |
| CES12 = 65 | CES37 = 87 | CES62 = 83 | CES87 = 85 |
| CES13 = 43 | CES38 = 75 | CES63 = 77 | CES88 = 83 |
| CES14 = 74 | CES39 = 94 | CES64 = 83 | CES89 = 75 |
| CES15 = 71 | CES40 = 89 | CES65 = 77 | CES90 = 81 |
| CES16 = 47 | CES41 = 85 | CES66 = 80 | CES91 = 96 |
| CES17 = 50 | CES42 = 86 | CES67 = 79 | CES92 = 73 |
| CES18 = 56 | CES43 = 81 | CES68 = 84 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 91 | CES94 = 64 |
| CES20 = 66 | CES45 = 87 | CES70 = 78 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 76 | CES96 = 84 |
| CES22 = 79 | CES47 = 77 | CES72 = 92 | CES97 = 87 |
| CES23 = 92 | CES48 = 71 | CES73 = 71 | CES98 = 81 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 74 |
| CES25 = 72 | CES50 = 89 | CES75 = 74 |            |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)