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

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Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P1202646

Luminaire Tested: GWC-SB2A-740-U-SL2-HSS

Issue Date: 10/30/2025

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1202646 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB2A-740-U-SL2-HSS |
| Description: | GALLEON WALL LUMINAIRE |
| | (2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 7690 lumens |
| Efficiency: | N/A |
| Efficacy: | 134.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 57.3 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.484 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.038 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

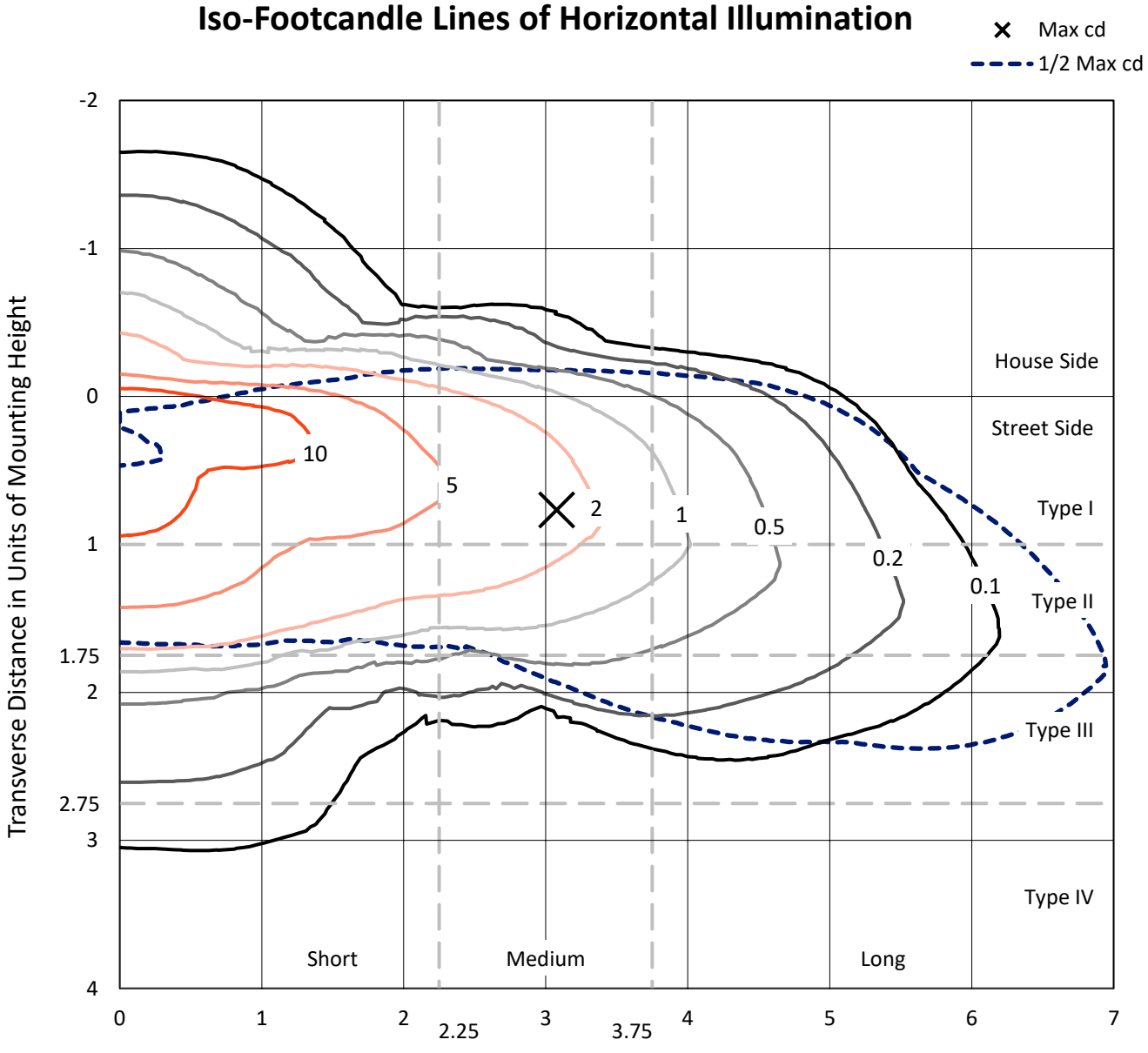


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REPORT NUMBER: P1202646
CATALOG NUMBER: GWC-SB2A-740-U-SL2-HSS

## Iso-Footcandle Lines of Horizontal Illumination



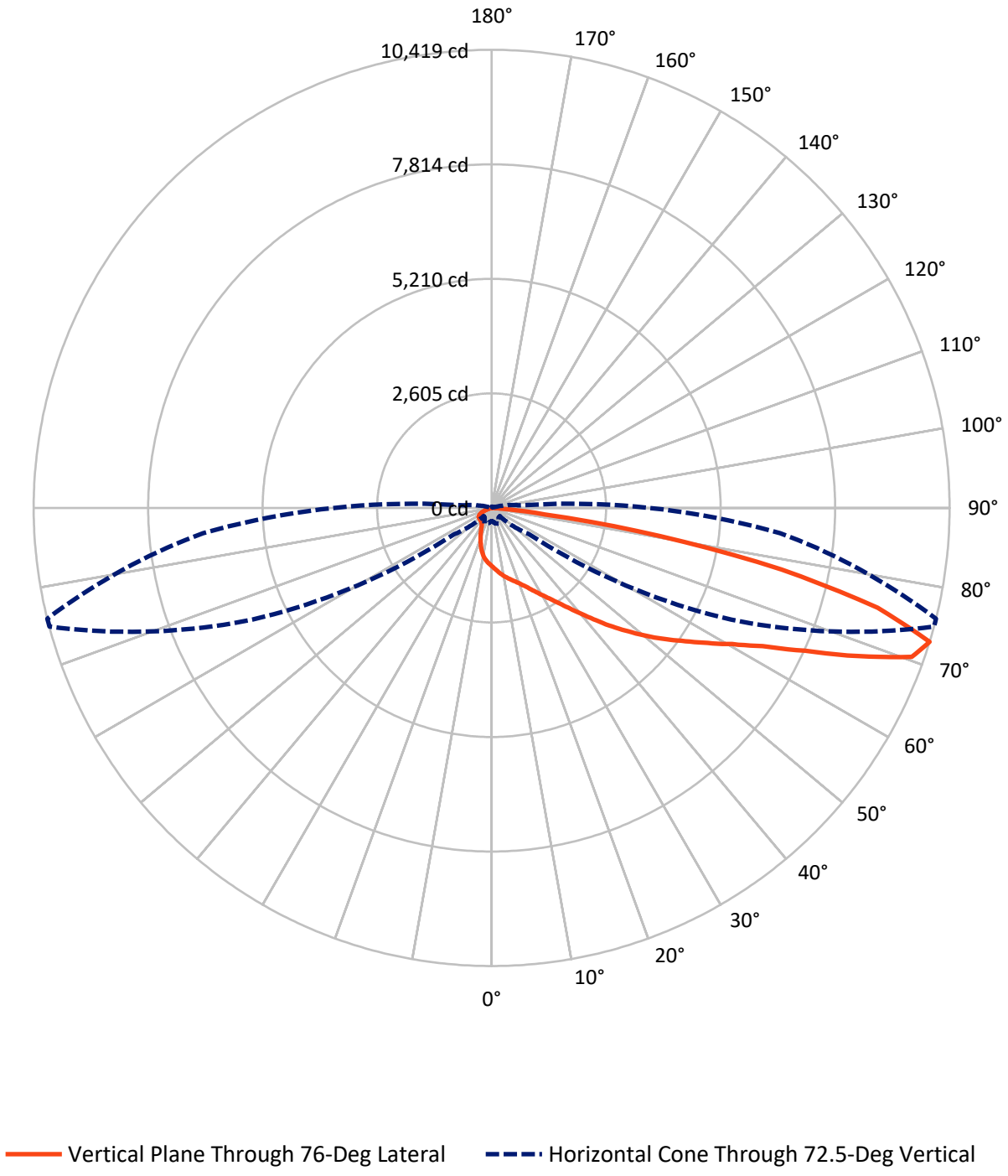

Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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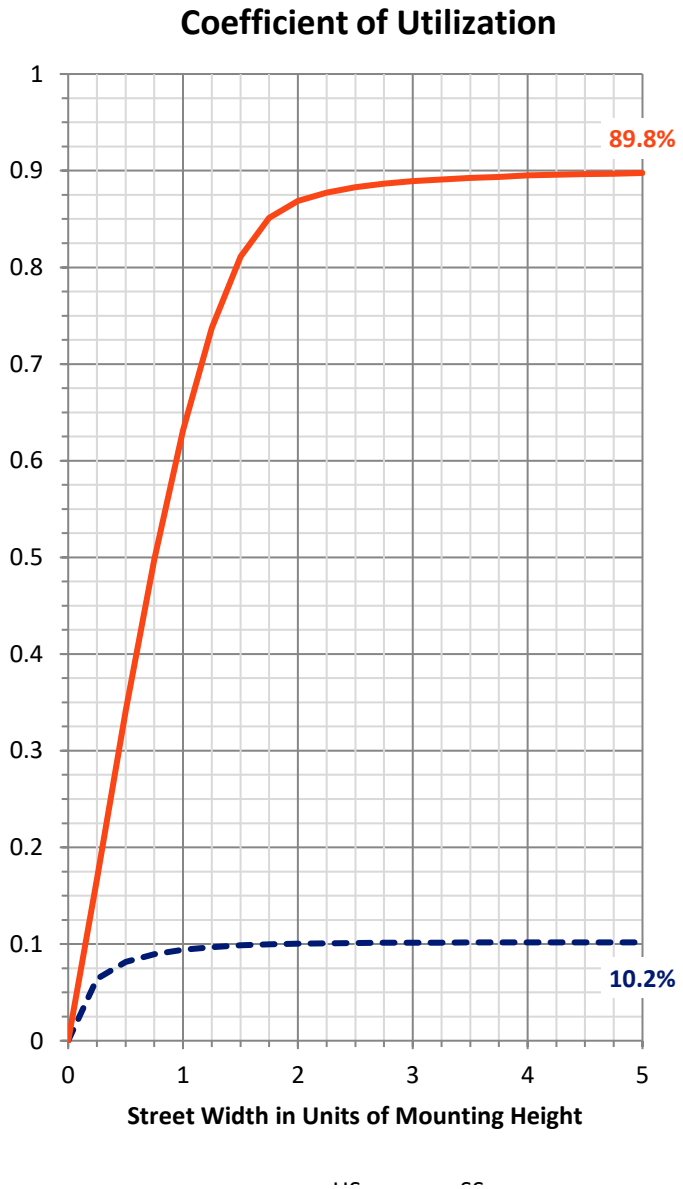
REPORT NUMBER: P1202646
CATALOG NUMBER: GWC-SB2A-740-U-SL2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 787.1 | 0.0 | 787.1 |
| | % Fixture | 10.2 | 0.0 | 10.2 |
| **Street Side** | Lumens | 6902.9 | 0.0 | 6902.9 |
| | % Fixture | 89.8 | 0.0 | 89.8 |
| **Total** | Lumens | 7690.0 | 0.0 | 7690.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 120.9 | 1.6 |
| 10°-20° | 324.1 | 4.2 |
| 20°-30° | 512.9 | 6.7 |
| 30°-40° | 793.6 | 10.3 |
| 40°-50° | 1205.3 | 15.7 |
| 50°-60° | 1661.6 | 21.6 |
| 60°-70° | 1755.4 | 22.8 |
| 70°-80° | 1204.2 | 15.7 |
| 80°-90° | 112.1 | 1.5 |
| 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° | 7690.0 | 100.0 |
| 0°-180° | 7690.0 | 100.0 |



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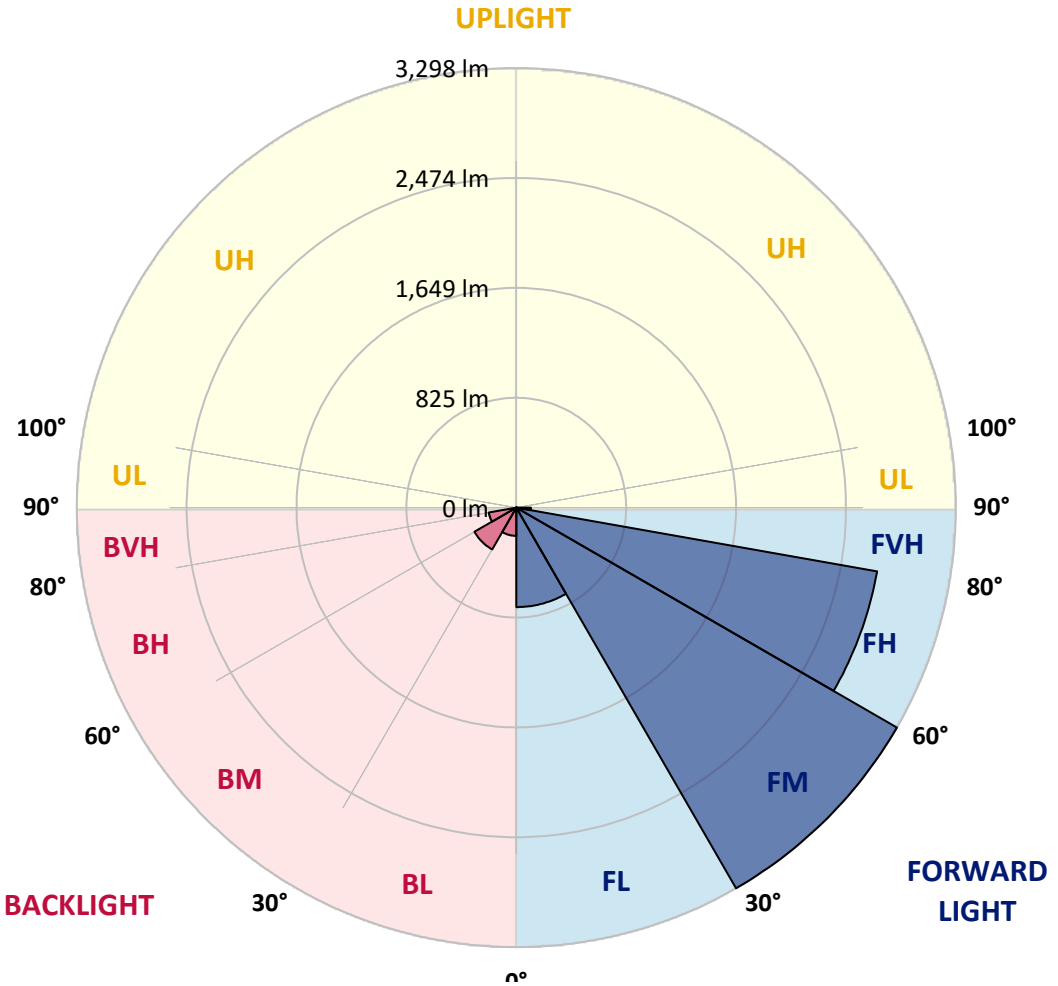
Scaled Data Report

REPORT NUMBER: P1202646
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## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 746.3 | 9.7 | | | |
| FM | (30°-60°) | 3298.1 | 42.9 | | | |
| FH | (60°-80°) | 2749.5 | 35.8 | | | G2/5000 |
| FVH | (80°-90°) | 109.1 | 1.4 | | | G2/225 |
| BL | (0°-30°) | 211.6 | 2.8 | B1/500 | | |
| BM | (30°-60°) | 362.4 | 4.7 | B1/1000 | | |
| BH | (60°-80°) | 210.1 | 2.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 3.0 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G2**
Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | *1328.9* | 1328.9 |
| 2.5° | 1544.9 | 1524.4 | 1528.4 | 1508.0 | 1498.5 | 1475.6 | 1451.6 | 1420.2 | 1385.3 | *1385.3* | 1351.3 |
| 5° | 1707.5 | 1694.5 | 1694.5 | 1670.6 | 1652.1 | 1616.2 | 1573.3 | 1518.0 | 1452.1 | *1445.6* | 1381.3 |
| 7.5° | 1807.3 | 1799.3 | 1804.3 | 1790.3 | 1775.4 | 1737.9 | 1687.1 | 1614.7 | 1521.4 | *1513.5* | 1416.7 |
| 10° | 1826.7 | 1826.2 | 1840.2 | 1844.2 | 1854.2 | 1835.2 | 1789.8 | 1706.5 | 1589.8 | *1578.3* | 1447.1 |
| 12.5° | 1751.4 | 1741.9 | 1776.4 | 1816.8 | 1873.6 | 1899.1 | 1875.6 | 1790.3 | 1652.1 | *1636.2* | 1475.6 |
| 15° | 1627.7 | 1629.7 | 1662.6 | 1725.0 | 1819.8 | 1910.5 | 1941.0 | 1872.1 | 1715.5 | *1696.5* | 1502.5 |
| 17.5° | 1556.9 | 1549.4 | 1577.8 | 1633.7 | 1738.4 | 1866.6 | 1971.4 | 1948.5 | 1782.8 | *1761.4* | 1529.9 |
| 20° | 1548.4 | 1547.9 | 1554.4 | 1579.8 | 1659.6 | 1803.8 | 1967.9 | 2022.8 | 1862.2 | *1837.2* | 1569.3 |
| 22.5° | 1607.2 | 1606.3 | 1600.8 | 1595.8 | 1617.7 | 1742.4 | 1952.9 | 2093.6 | 1956.9 | *1930.0* | 1625.2 |
| 25° | 1697.5 | 1696.0 | 1687.6 | 1657.1 | 1635.7 | 1709.5 | 1939.0 | 2159.5 | 2069.2 | *2039.2* | 1693.0 |
| 27.5° | 1807.8 | 1806.8 | 1791.3 | 1745.4 | 1690.1 | 1712.5 | 1932.0 | 2227.3 | 2198.9 | *2169.4* | 1771.4 |
| 30° | 1943.0 | 1941.0 | 1909.0 | 1844.2 | 1771.9 | 1759.9 | 1941.5 | 2303.6 | 2334.1 | *2311.6* | 1861.7 |
| 32.5° | 2112.6 | 2107.1 | 2065.2 | 1967.4 | 1866.1 | 1823.2 | 1959.4 | 2381.9 | 2494.2 | *2473.2* | 1982.4 |
| 35° | 2243.8 | 2235.3 | 2210.8 | 2124.5 | 1975.4 | 1901.1 | 2001.3 | 2474.7 | 2686.7 | *2668.3* | 2136.5 |
| 37.5° | 2356.5 | 2348.0 | 2328.1 | 2257.2 | 2132.0 | 2000.3 | 2068.7 | 2598.4 | 2914.2 | *2905.2* | 2324.6 |
| 40° | 2478.2 | 2464.2 | 2454.8 | 2378.9 | 2265.7 | 2143.5 | 2164.9 | 2743.1 | 3176.1 | *3177.1* | 2550.5 |
| 42.5° | 2572.0 | 2566.5 | 2567.5 | 2509.1 | 2394.9 | 2313.1 | 2292.6 | 2906.2 | 3489.9 | *3499.3* | 2822.4 |
| 45° | 2652.3 | 2647.8 | 2666.3 | 2625.4 | 2525.1 | 2424.3 | 2442.3 | 3090.8 | 3833.1 | *3852.5* | 3126.7 |
| 47.5° | 2714.2 | 2719.2 | 2745.6 | 2719.2 | 2660.3 | 2502.7 | 2575.0 | 3289.8 | 4193.7 | *4196.2* | 3441.0 |
| 50° | 2776.0 | 2778.0 | 2821.9 | 2808.9 | 2785.0 | 2601.9 | 2697.2 | 3512.3 | 4573.8 | *4578.3* | 3734.8 |
| 52.5° | 2795.5 | 2792.5 | 2862.3 | 2894.2 | 2895.2 | 2724.6 | 2855.3 | 3754.7 | 4946.5 | *4960.9* | 4037.1 |
| 55° | 2695.7 | 2704.2 | 2816.9 | 2946.6 | 2998.0 | 2894.2 | 3068.8 | 4061.5 | 5343.5 | *5349.5* | 4336.4 |
| 57.5° | 2207.8 | 2254.7 | 2504.2 | 2805.0 | 3064.3 | 3137.2 | 3375.6 | 4420.2 | 5802.0 | *5796.5* | 4639.7 |
| 60° | 1339.9 | 1395.7 | 1694.0 | 2352.5 | 2847.9 | 3381.1 | 3827.6 | 4975.9 | 6302.8 | *6287.3* | 4946.5 |
| 62.5° | 749.3 | 766.2 | 861.5 | 1408.2 | 2165.9 | 3226.0 | 4269.0 | 5689.7 | 6975.2 | *6922.8* | 5248.3 |
| 65° | 552.2 | 557.7 | 580.1 | 689.9 | 1064.5 | 2481.2 | 4172.3 | 6543.2 | 7920.0 | *7826.7* | 5609.9 |
| 67.5° | 479.9 | 485.4 | 507.3 | 522.3 | 475.4 | 1303.5 | 3437.5 | 7016.6 | 9119.7 | *8997.5* | 6099.3 |
| 70° | 404.1 | 407.1 | 442.5 | 452.4 | 340.2 | 495.8 | 2208.3 | 6870.5 | 10230.1 | *10142.8* | 6624.5 |
| 72.5° | *301.3* | *313.3* | *364.6* | *388.6* | *272.9* | *263.4* | *1039.6* | *6007.0* | *10418.2* | *10419.2* | *6589.1* |
| 75° | 204.5 | 215.5 | 274.4 | 319.8 | 210.5 | 184.6 | 419.5 | 4485.5 | 9071.8 | *9071.8* | 5776.0 |
| 77.5° | 139.7 | 148.7 | 191.1 | 250.9 | 159.6 | 126.7 | 217.5 | 2846.9 | 6508.3 | *6737.3* | 4116.9 |
| 80° | 61.9 | 67.3 | 123.2 | 182.1 | 121.2 | 81.8 | 123.2 | 1558.9 | 3935.8 | *3887.4* | 1613.7 |
| 82.5° | 30.4 | 34.9 | 78.8 | 113.7 | 78.3 | 50.4 | 64.8 | 741.3 | 1275.5 | *1212.2* | 251.9 |
| 85° | 6.0 | 8.0 | 42.4 | 48.4 | 36.4 | 22.4 | 24.4 | 228.0 | 153.6 | *175.6* | 53.4 |
| 87.5° | 0.0 | 0.0 | 13.0 | 9.0 | 4.0 | 5.0 | 5.0 | 20.5 | 12.0 | *14.0* | 14.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 |

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Scaled Data Report

REPORT NUMBER: P1202646
CATALOG NUMBER: GWC-SB2A-740-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 | 1328.9 |
| 2.5° | 1333.4 | 1314.9 | 1274.5 | 1234.6 | 1193.7 | 1156.3 | 1130.4 | 1104.4 | 1088.5 | 1081.5 | 1082.5 |
| 5° | 1343.9 | 1306.5 | 1221.6 | 1132.9 | 1045.1 | 959.3 | 894.9 | 834.6 | 815.6 | 784.2 | 786.2 |
| 7.5° | 1360.3 | 1299.5 | 1165.8 | 1016.1 | 873.5 | 747.8 | 657.0 | 584.6 | 555.7 | 527.8 | 527.3 |
| 10° | 1371.3 | 1286.5 | 1092.0 | 891.9 | 698.9 | 557.7 | 470.9 | 418.5 | 399.6 | 382.6 | 382.1 |
| 12.5° | 1375.8 | 1262.6 | 1007.1 | 752.7 | 543.7 | 425.0 | 373.1 | 348.7 | 342.2 | 336.2 | 336.2 |
| 15° | 1379.8 | 1239.1 | 912.4 | 618.6 | 429.5 | 355.7 | 335.2 | 327.2 | 322.7 | 318.8 | 318.8 |
| 17.5° | 1383.3 | 1209.2 | 804.1 | 502.8 | 362.7 | 327.7 | 317.8 | 309.3 | 305.8 | 301.3 | 301.3 |
| 20° | 1395.2 | 1180.2 | 707.3 | 415.0 | 326.2 | 307.8 | 296.8 | 287.8 | 284.8 | 281.8 | 282.3 |
| 22.5° | 1417.7 | 1156.8 | 613.6 | 355.7 | 304.3 | 287.3 | 273.4 | 263.4 | 261.4 | 259.4 | 257.9 |
| 25° | 1444.6 | 1127.9 | 525.3 | 317.3 | 282.8 | 263.9 | 248.4 | 239.9 | 237.9 | 238.4 | 237.4 |
| 27.5° | 1479.0 | 1095.9 | 449.5 | 292.8 | 263.9 | 241.9 | 224.5 | 218.0 | 219.0 | 221.0 | 220.0 |
| 30° | 1517.0 | 1066.5 | 390.1 | 275.9 | 246.9 | 222.5 | 205.0 | 200.5 | 204.0 | 207.0 | 206.0 |
| 32.5° | 1573.3 | 1040.6 | 348.7 | 262.4 | 232.0 | 206.5 | 192.6 | 187.1 | 191.1 | 195.0 | 194.0 |
| 35° | 1650.1 | 1027.6 | 325.2 | 250.9 | 219.0 | 194.0 | 180.1 | 176.1 | 180.1 | 181.1 | 180.6 |
| 37.5° | 1744.4 | 1026.6 | 315.3 | 241.4 | 207.0 | 183.6 | 168.1 | 166.6 | 169.6 | 170.1 | 169.1 |
| 40° | 1866.1 | 1033.1 | 307.8 | 234.5 | 194.5 | 171.6 | 157.1 | 155.6 | 156.6 | 160.1 | 159.6 |
| 42.5° | 2020.3 | 1060.0 | 297.3 | 225.5 | 181.1 | 159.6 | 148.2 | 144.7 | 144.2 | 148.2 | 147.7 |
| 45° | 2213.8 | 1119.4 | 283.3 | 211.0 | 169.1 | 149.7 | 138.2 | 134.2 | 132.7 | 133.7 | 135.2 |
| 47.5° | 2424.8 | 1192.2 | 269.4 | 197.5 | 160.6 | 141.7 | 130.2 | 125.2 | 122.7 | 122.7 | 122.7 |
| 50° | 2629.4 | 1274.5 | 259.9 | 183.6 | 154.6 | 134.2 | 121.7 | 116.7 | 112.7 | 111.7 | 111.2 |
| 52.5° | 2831.9 | 1355.3 | 252.4 | 169.6 | 147.7 | 124.7 | 113.7 | 108.2 | 103.8 | 101.8 | 100.8 |
| 55° | 3016.5 | 1432.2 | 239.4 | 156.1 | 138.7 | 114.7 | 105.8 | 100.3 | 94.8 | 91.3 | 89.8 |
| 57.5° | 3193.5 | 1496.0 | 215.5 | 142.2 | 124.7 | 105.3 | 97.3 | 91.3 | 84.8 | 80.3 | 78.3 |
| 60° | 3354.7 | 1528.9 | 185.6 | 127.2 | 110.7 | 95.3 | 87.8 | 82.3 | 73.8 | 66.3 | 64.3 |
| 62.5° | 3477.4 | 1516.0 | 153.1 | 110.2 | 96.3 | 86.3 | 76.8 | 71.3 | 61.4 | 52.4 | 48.9 |
| 65° | 3603.1 | 1445.1 | 122.2 | 92.3 | 84.3 | 74.3 | 64.3 | 58.9 | 47.4 | 37.9 | 35.4 |
| 67.5° | 3766.2 | 1294.0 | 96.3 | 76.8 | 72.8 | 58.9 | 50.4 | 46.9 | 38.9 | 29.9 | 27.9 |
| 70° | 3871.0 | 1005.2 | 74.8 | 62.4 | 59.9 | 42.9 | 38.9 | 38.4 | 30.9 | 22.9 | 20.5 |
| 72.5° | *3583.6* | *659.0* | *57.4* | *47.4* | *42.9* | *27.9* | *29.9* | *29.9* | *22.4* | *15.5* | *13.5* |
| 75° | 2991.5 | 385.6 | 41.4 | 33.9 | 24.4 | 18.0 | 20.5 | 20.5 | 14.0 | 7.5 | 6.0 |
| 77.5° | 2136.5 | 205.5 | 27.4 | 21.0 | 12.5 | 8.0 | 11.0 | 10.5 | 4.5 | 0.5 | 0.0 |
| 80° | 817.1 | 70.8 | 13.0 | 8.5 | 3.5 | 1.5 | 1.0 | 0.5 | 0.5 | 0.0 | 0.0 |
| 82.5° | 124.7 | 18.5 | 2.5 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 22.4 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.0 | 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 |


HS
SS

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

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-3-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-740-U-5WQ

Data in this report applies to families of products SA1C-740-U-5WQ

Data valid for all products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

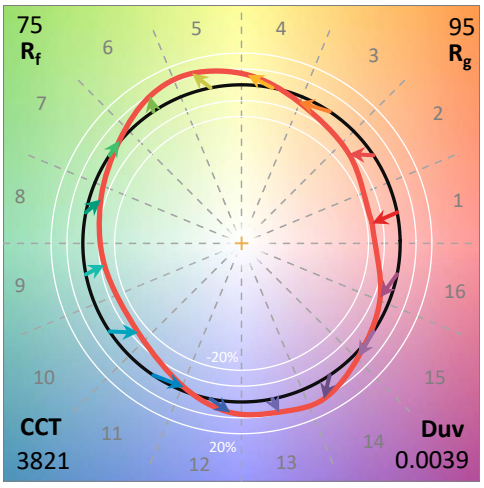
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-3-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 11/05/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-740-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-3-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 4000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 3821 | CRI (Ra): | 72.3 | | |
| CIE u': | 0.2264 | R1: | 68.5 | R9: | -33.5 |
| CIE v': | 0.5098 | R2: | 78.5 | R10: | 50.8 |
| Duv: | 0.0039 | R3: | 88.2 | R11: | 69.2 |
| CIE x: | 0.3918 | R4: | 72.2 | R12: | 48.9 |
| CIE y: | 0.3921 | R5: | 69.0 | R13: | 69.8 |
| CIE z: | 0.2161 | R6: | 71.0 | R14: | 93.4 |
| Peak Wavelength (nm): | 585 | R7: | 80.4 | | |
| Dominant Wavelength (nm): | 577 | R8: | 50.4 | | |
| Purity: | 35.4 | | | | |

| | |
|---|---|
| Rf: | 75.5 |
| Rg: | 94.8 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 67M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.0./44% |
| Sphere Temperature (°C): | 25.7 |

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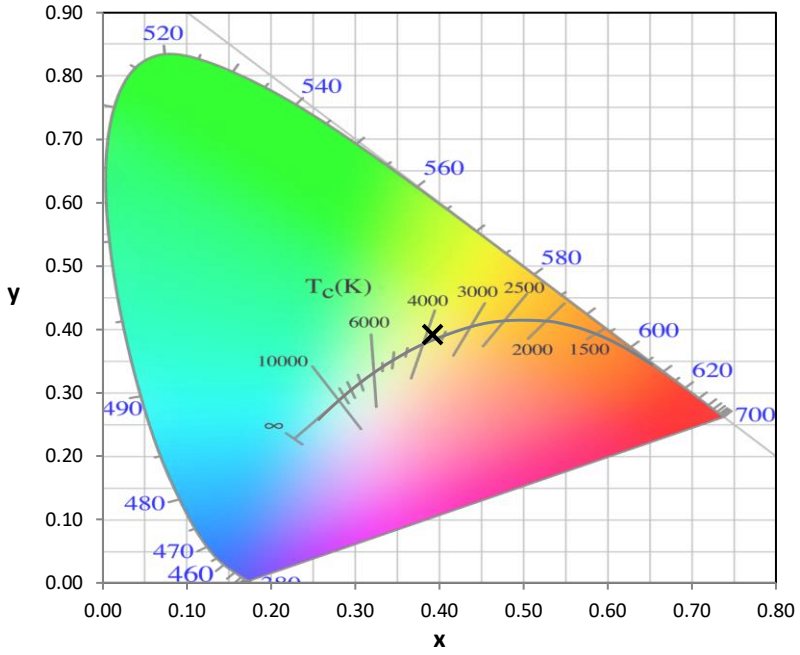
REPORT NUMBER: SP1-1908-441-3-R4

| 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 |

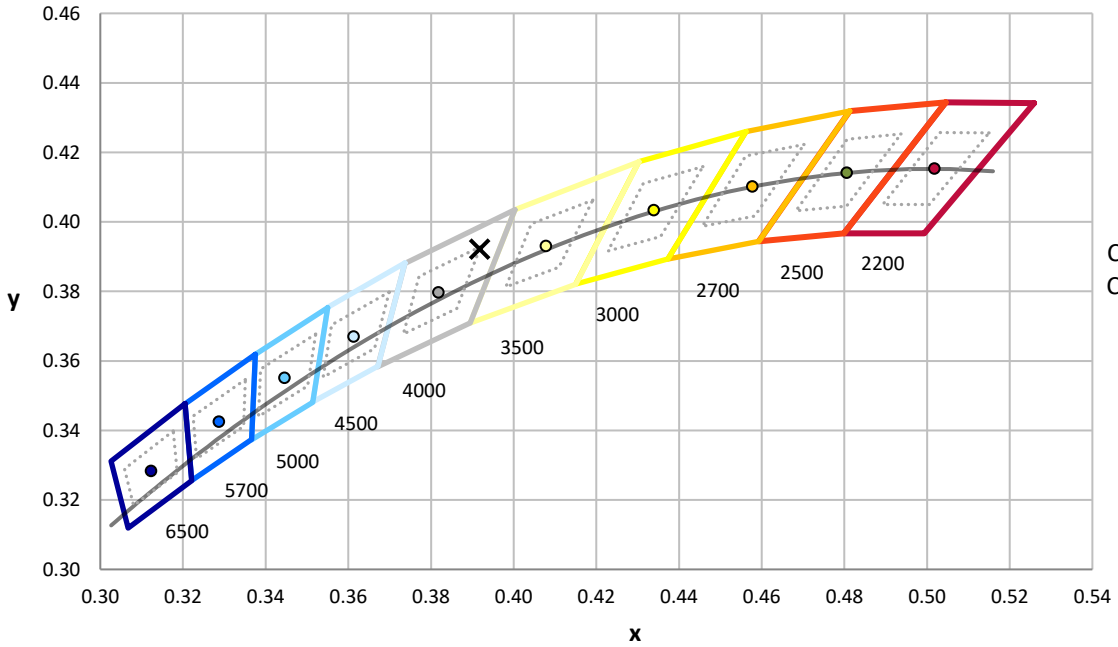
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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-3-R4

## CIE 1931 Chromaticity Diagram




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



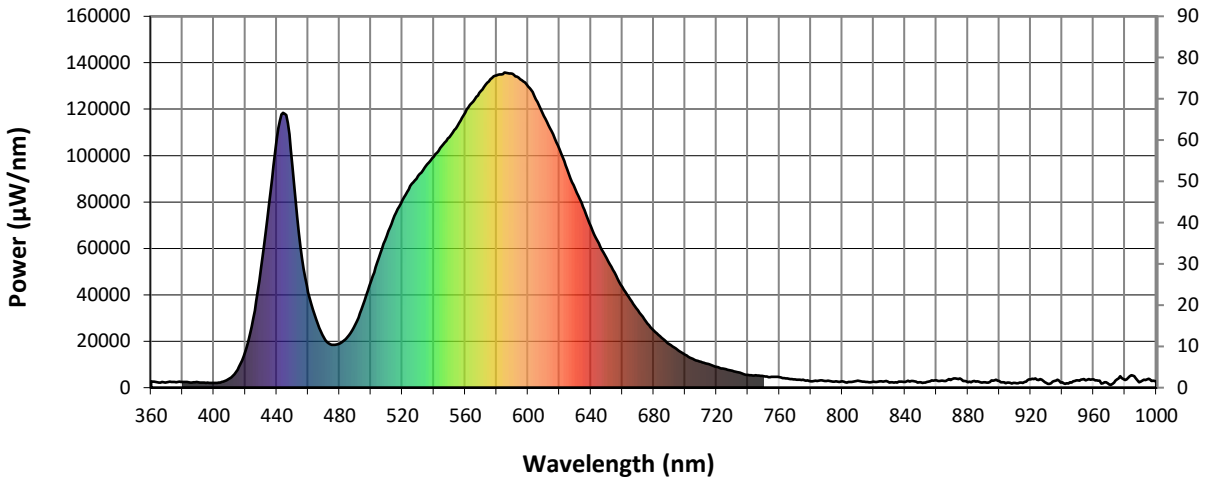

CCT = 3821K
CIE x = 0.3918
CIE y = 0.3921
Duv = 0.0039

Point lies inside the ANSI 4000K 7-step quadrangle

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## Photopic Flux vs. Wavelength



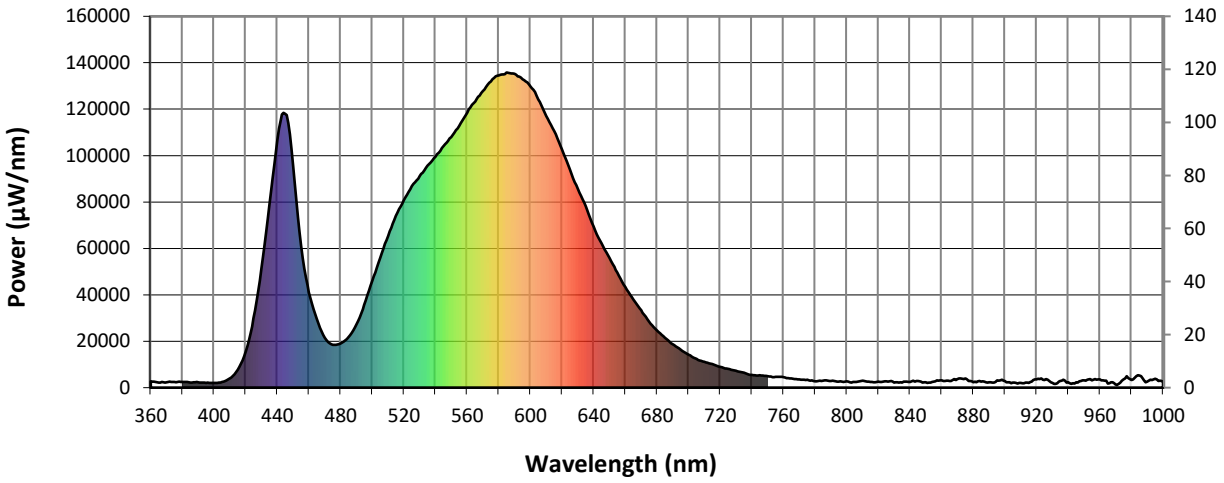

######

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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## Scotopic Flux vs. Wavelength



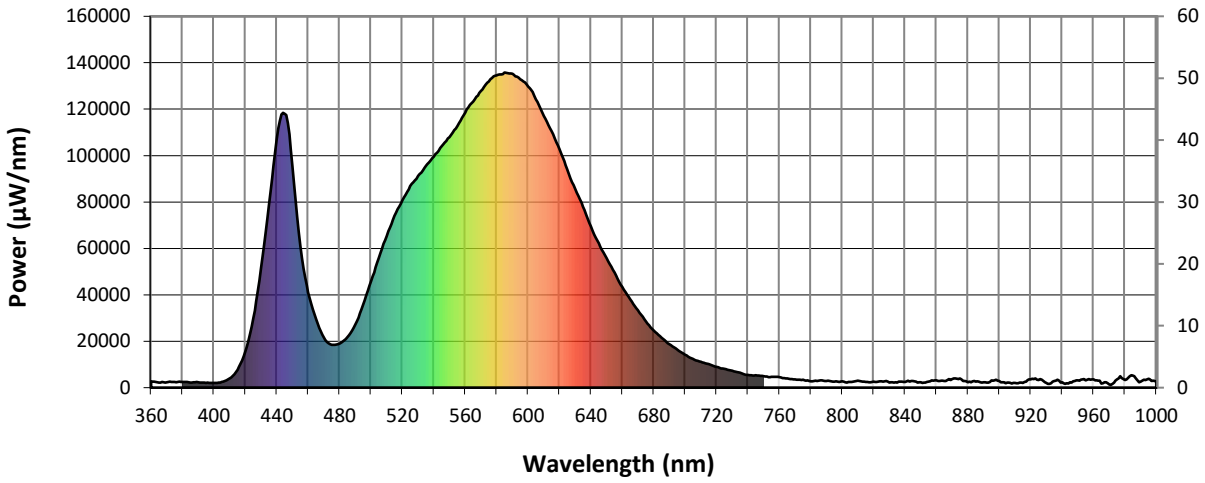

**Scotopic Lumens: 10930.8** **S/P: 1.47**

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 4115.9** **M/P: 0.55**

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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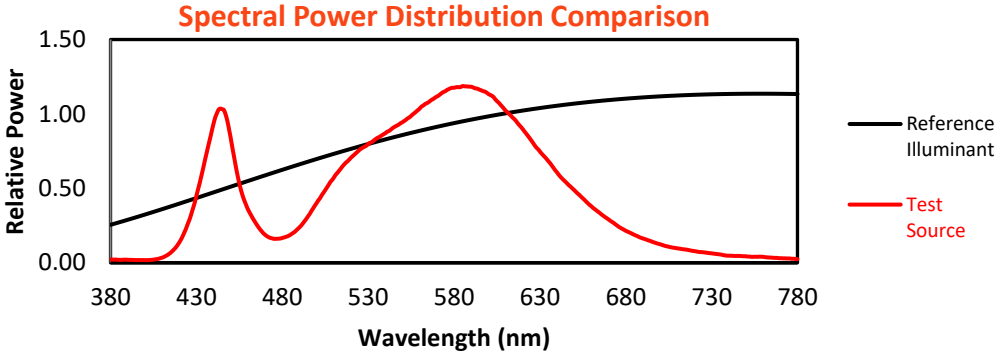
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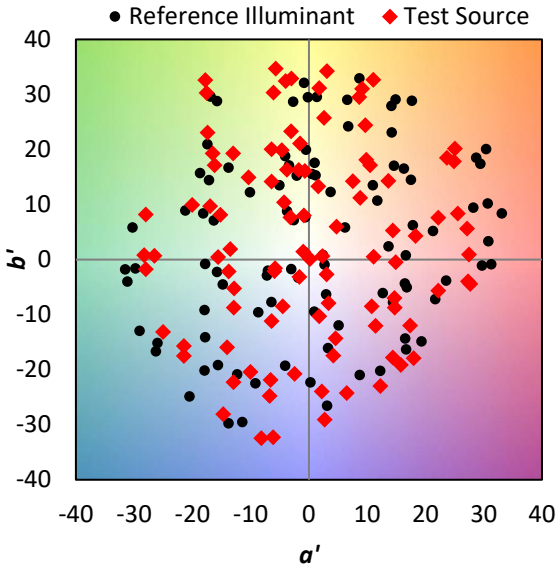
## Summary

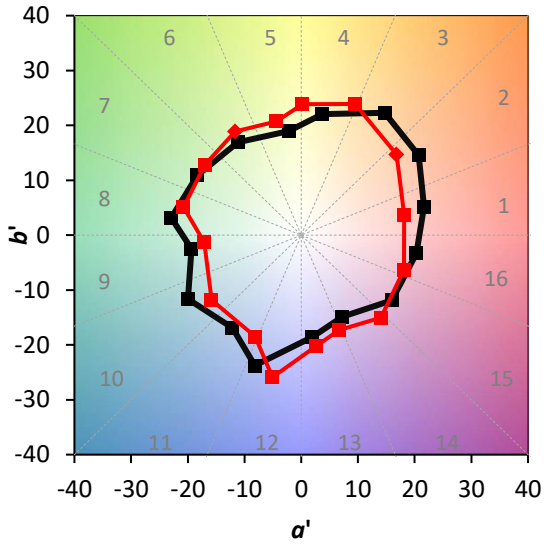
$R_f$ = 75.5
$R_g$ = 94.8
CIE $R_a$ = 72.3
$R_9$ = -33.5

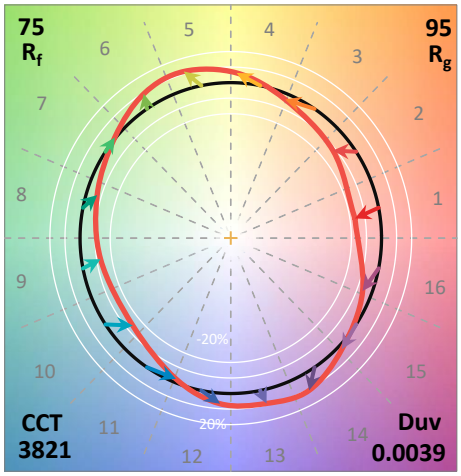
## Spectral Power Distribution Comparison

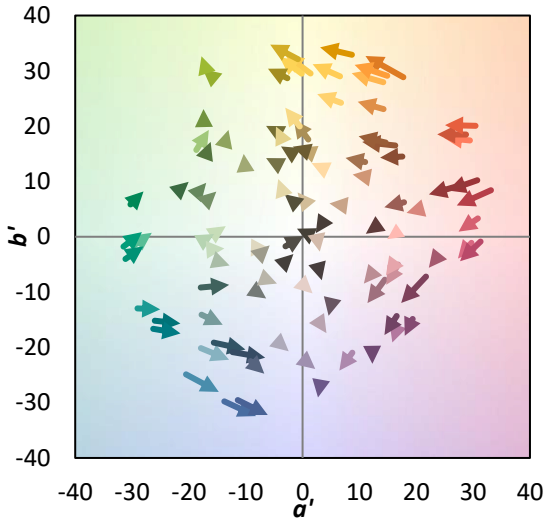



## Color Vector Graphics



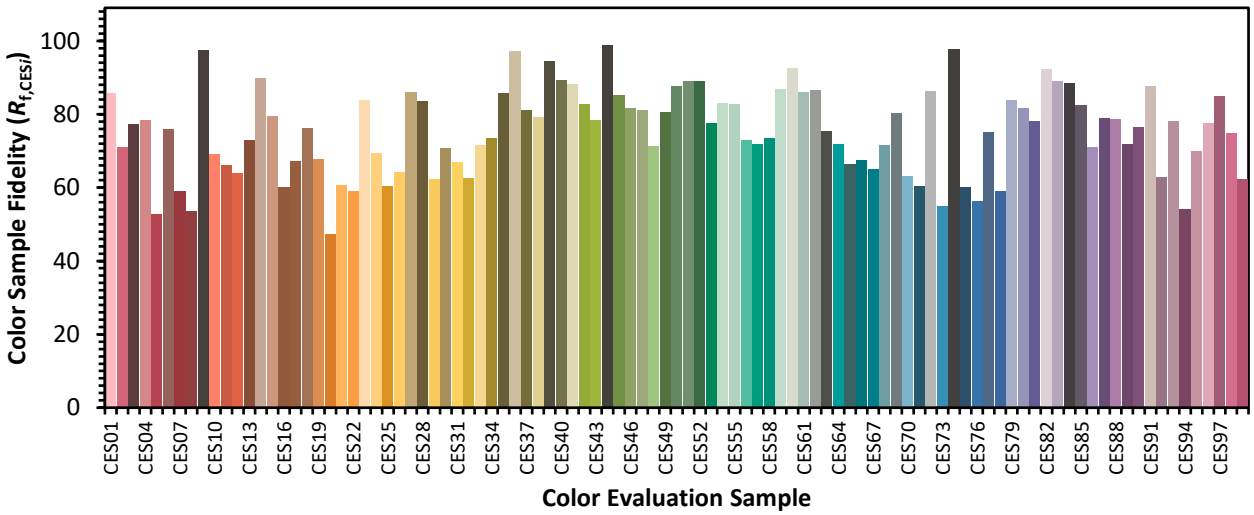
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 64 | CES51 = 89 | CES76 = 56 |
| CES02 = 61 | CES27 = 86 | CES52 = 89 | CES77 = 75 |
| CES03 = 30 | CES28 = 83 | CES53 = 78 | CES78 = 59 |
| CES04 = 70 | CES29 = 62 | CES54 = 83 | CES79 = 84 |
| CES05 = 47 | CES30 = 71 | CES55 = 83 | CES80 = 82 |
| CES06 = 50 | CES31 = 67 | CES56 = 73 | CES81 = 78 |
| CES07 = 40 | CES32 = 63 | CES57 = 72 | CES82 = 92 |
| CES08 = 39 | CES33 = 72 | CES58 = 73 | CES83 = 89 |
| CES09 = 29 | CES34 = 73 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 86 | CES60 = 92 | CES85 = 83 |
| CES11 = 57 | CES36 = 97 | CES61 = 86 | CES86 = 71 |
| CES12 = 63 | CES37 = 81 | CES62 = 87 | CES87 = 79 |
| CES13 = 42 | CES38 = 79 | CES63 = 75 | CES88 = 79 |
| CES14 = 74 | CES39 = 94 | CES64 = 72 | CES89 = 72 |
| CES15 = 71 | CES40 = 89 | CES65 = 66 | CES90 = 77 |
| CES16 = 46 | CES41 = 88 | CES66 = 67 | CES91 = 88 |
| CES17 = 49 | CES42 = 83 | CES67 = 65 | CES92 = 63 |
| CES18 = 56 | CES43 = 78 | CES68 = 71 | CES93 = 78 |
| CES19 = 72 | CES44 = 99 | CES69 = 80 | CES94 = 54 |
| CES20 = 65 | CES45 = 85 | CES70 = 63 | CES95 = 70 |
| CES21 = 86 | CES46 = 82 | CES71 = 60 | CES96 = 78 |
| CES22 = 78 | CES47 = 81 | CES72 = 86 | CES97 = 85 |
| CES23 = 92 | CES48 = 71 | CES73 = 55 | CES98 = 75 |
| CES24 = 91 | CES49 = 81 | CES74 = 98 | CES99 = 62 |
| CES25 = 72 | CES50 = 88 | CES75 = 60 | |

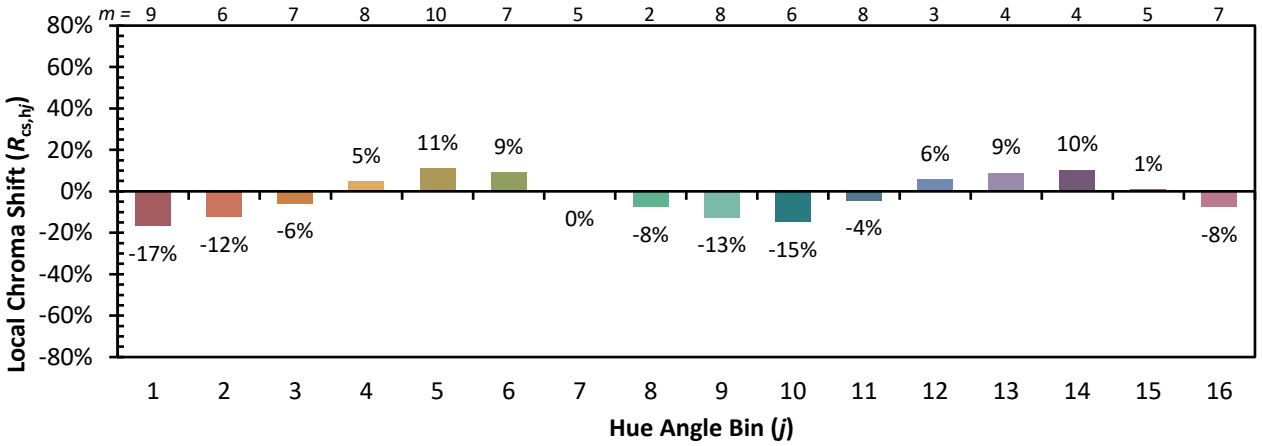


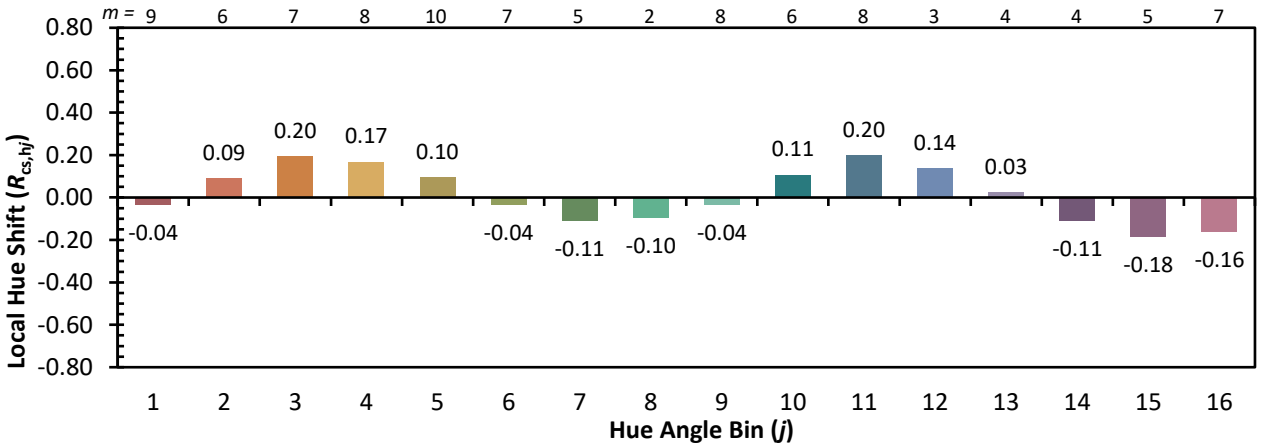
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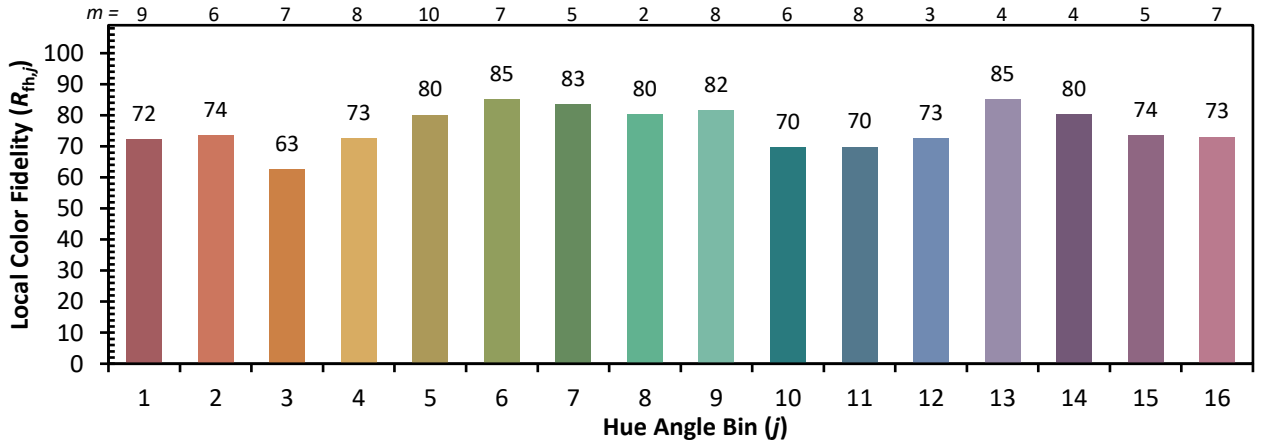
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### Color Rendition by Hue-Angle Bin



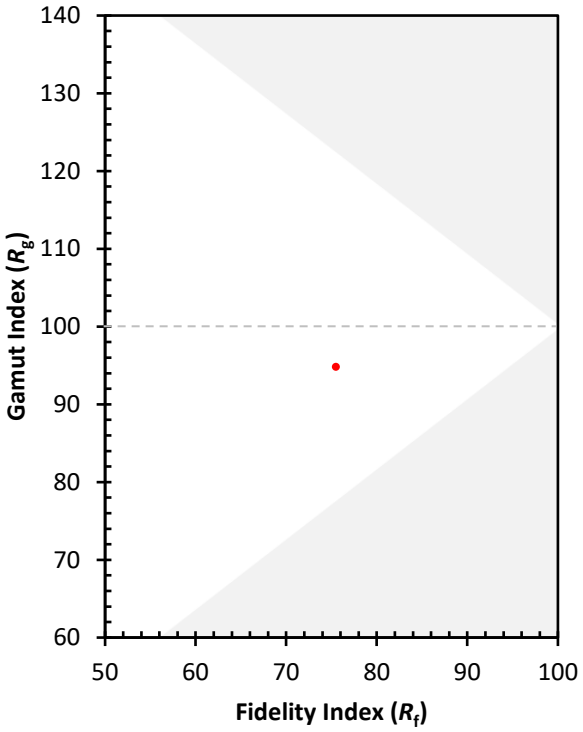



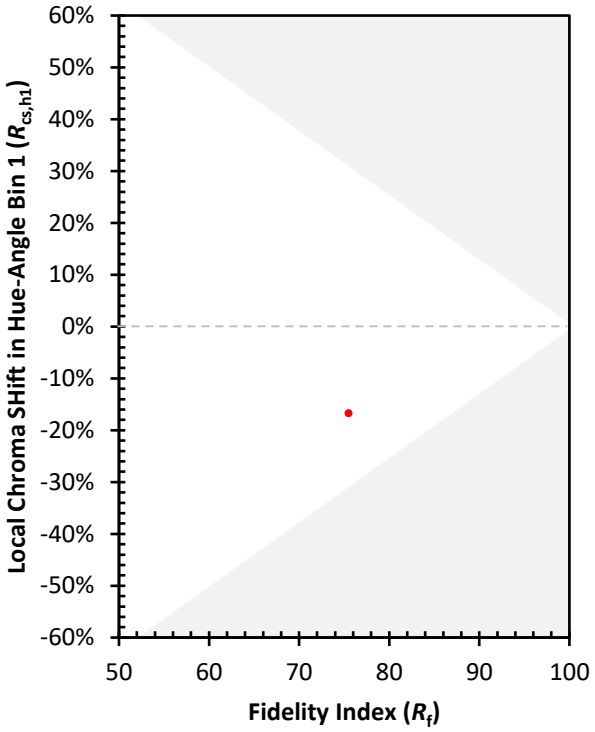
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### Measure Comparisons




(END OF REPORT)