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: P1203420

Luminaire Tested: GWC-SB2C-750-U-SL4-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: | P1203420 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB2C-750-U-SL4-HSS |
| Description: | GALLEON WALL LUMINAIRE |
| | (2) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 11059 lumens |
| Efficiency: | N/A |
| Efficacy: | 109.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 100.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.857 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.472 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

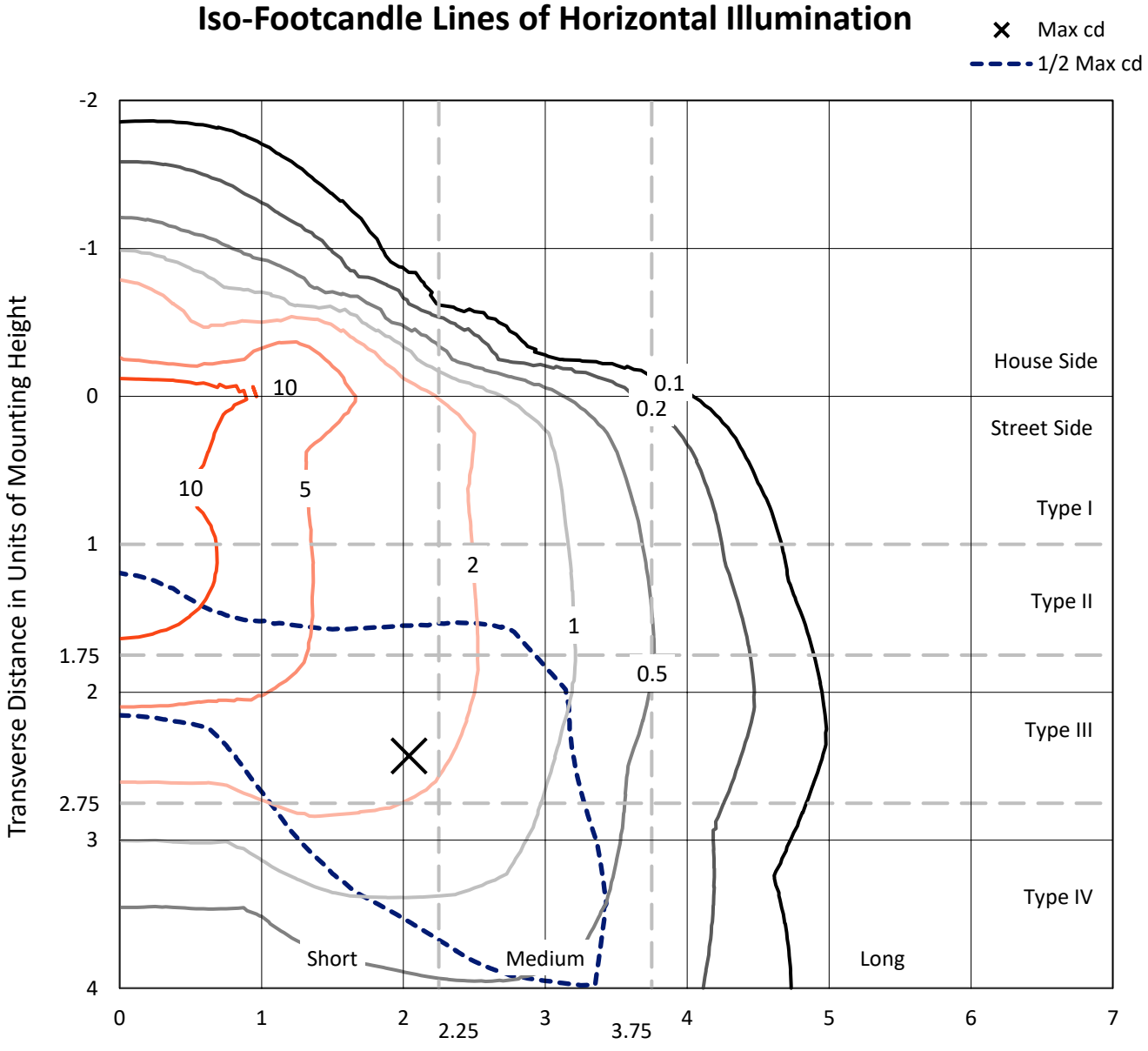


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REPORT NUMBER: P1203420
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## Iso-Footcandle Lines of Horizontal Illumination



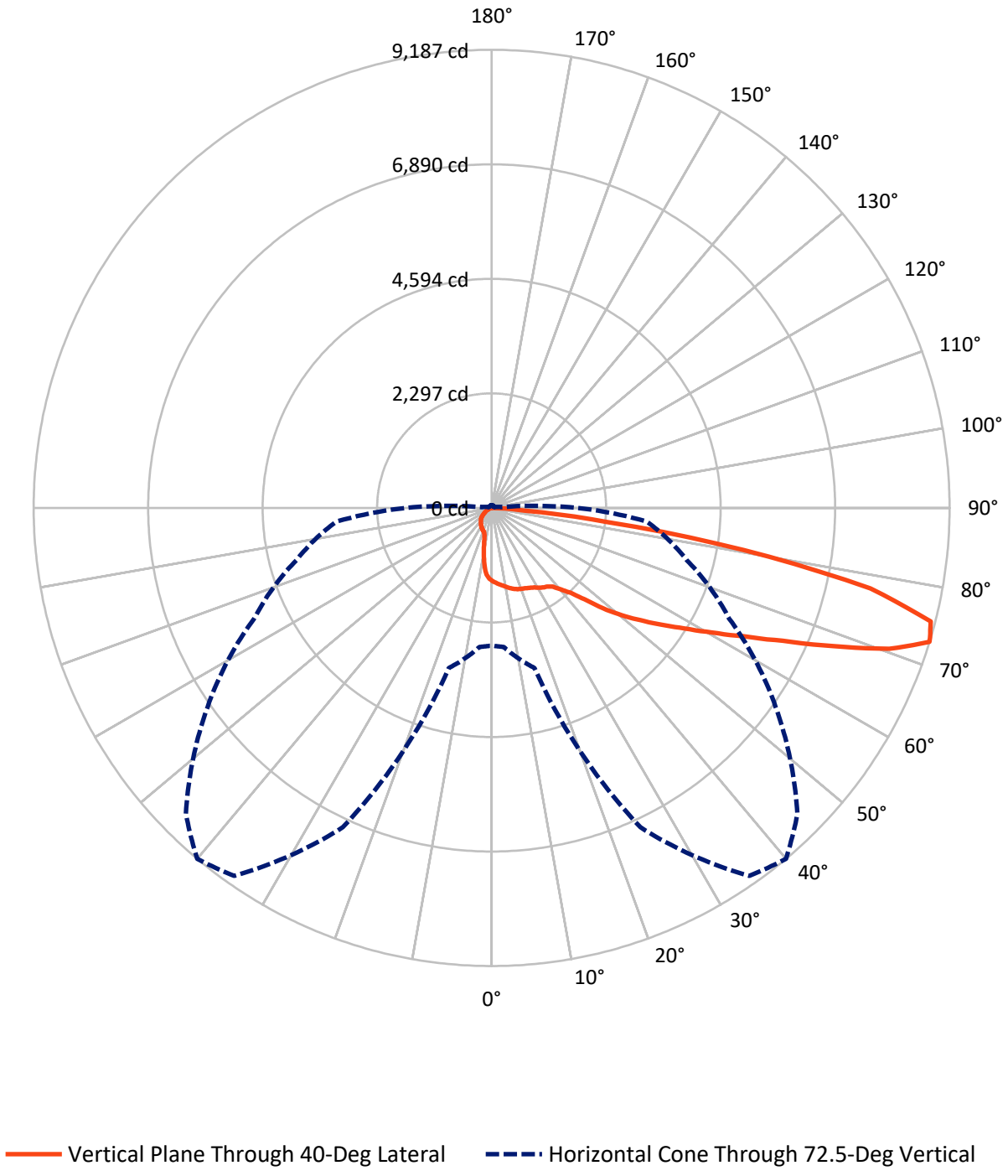

Based on 10 foot mounting height. Maximum calculated value = 28.4 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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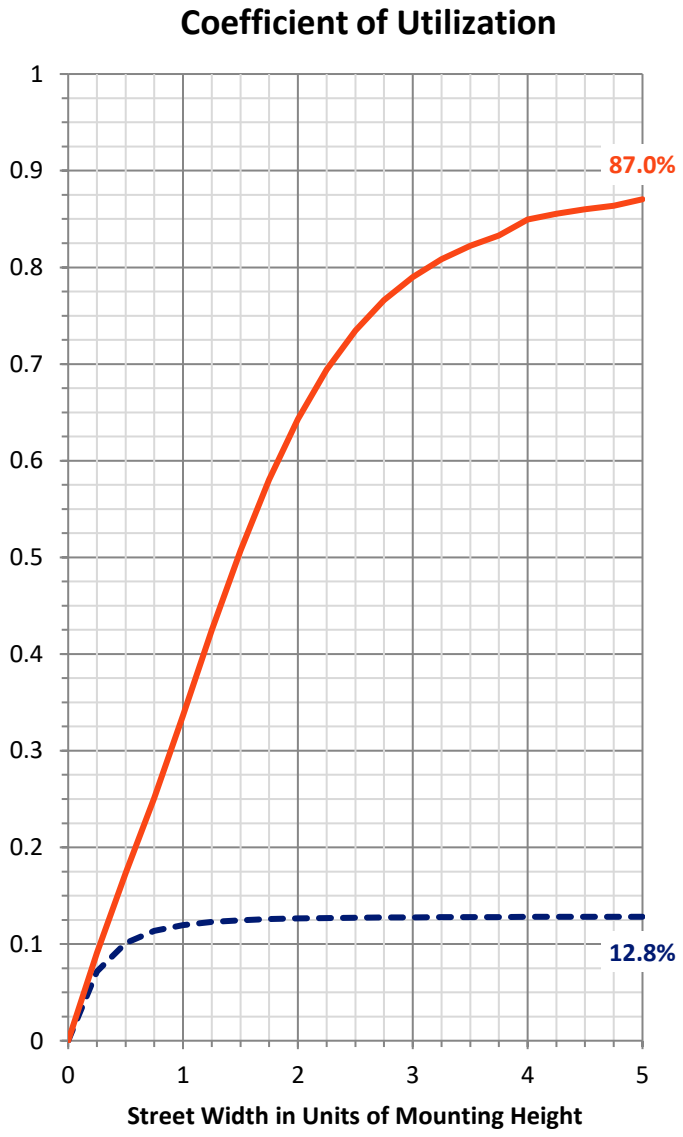
REPORT NUMBER: P1203420
CATALOG NUMBER: GWC-SB2C-750-U-SL4-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1428.2 | 0.0 | 1428.2 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| **Street Side** | Lumens | 9630.8 | 0.0 | 9630.8 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| **Total** | Lumens | 11059.0 | 0.0 | 11059.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 133.7 | 1.2 |
| 10°-20° | 363.2 | 3.3 |
| 20°-30° | 587.6 | 5.3 |
| 30°-40° | 867.6 | 7.8 |
| 40°-50° | 1460.1 | 13.2 |
| 50°-60° | 2267.2 | 20.5 |
| 60°-70° | 2836.9 | 25.7 |
| 70°-80° | 2322.5 | 21.0 |
| 80°-90° | 220.2 | 2.0 |
| 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° | 11059.0 | 100.0 |
| 0°-180° | 11059.0 | 100.0 |



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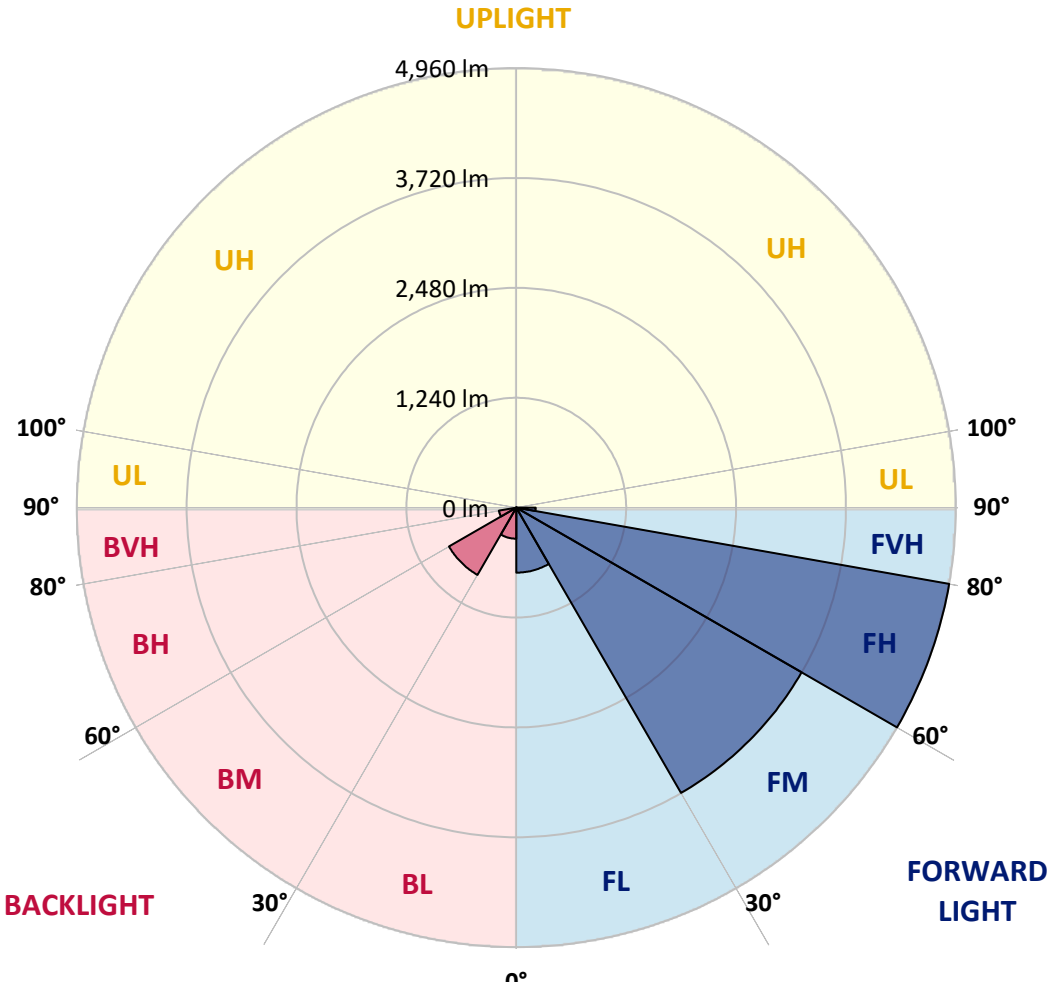
Scaled Data Report

REPORT NUMBER: P1203420
CATALOG NUMBER: GWC-SB2C-750-U-SL4-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 734.0 | 6.6 | | | |
| FM | (30°-60°) | 3717.9 | 33.6 | | | |
| FH | (60°-80°) | 4960.5 | 44.9 | | | G2/5000 |
| FVH | (80°-90°) | 218.5 | 2.0 | | | G2/225 |
| BL | (0°-30°) | 350.5 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 877.0 | 7.9 | B1/1000 | | |
| BH | (60°-80°) | 199.0 | 1.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.7 | 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 IV Short



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REPORT NUMBER: P1203420
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 |
| 2.5° | 1508.4 | 1514.3 | 1510.9 | 1504.3 | 1502.6 | 1499.3 | 1495.1 | 1493.5 | 1487.6 | 1482.6 | 1476.8 |
| 5° | 1550.9 | 1556.8 | 1552.6 | 1543.4 | 1539.3 | 1535.1 | 1529.3 | 1524.3 | 1512.6 | 1501.8 | 1488.5 |
| 7.5° | 1597.6 | 1602.6 | 1597.6 | 1584.2 | 1577.6 | 1572.6 | 1564.3 | 1556.8 | 1543.4 | 1527.6 | 1510.9 |
| 10° | 1649.2 | 1653.4 | 1645.9 | 1628.4 | 1617.6 | 1610.1 | 1602.6 | 1594.2 | 1581.7 | 1564.3 | 1544.3 |
| 12.5° | 1697.5 | 1702.5 | 1690.9 | 1670.0 | 1657.5 | 1650.0 | 1641.7 | 1635.1 | 1622.6 | 1605.9 | 1585.1 |
| 15° | 1741.7 | 1749.2 | 1729.2 | 1706.7 | 1692.5 | 1686.7 | 1678.4 | 1674.2 | 1665.9 | 1654.2 | 1635.1 |
| 17.5° | 1775.0 | 1780.0 | 1759.2 | 1732.5 | 1716.7 | 1712.5 | 1706.7 | 1709.2 | 1707.5 | 1701.7 | 1689.2 |
| 20° | 1803.3 | 1806.6 | 1779.2 | 1746.7 | 1729.2 | 1730.0 | 1728.3 | 1736.7 | 1740.0 | 1740.0 | 1739.2 |
| 22.5° | 1838.3 | 1839.1 | 1804.1 | 1763.3 | 1742.5 | 1748.3 | 1750.8 | 1760.0 | 1766.7 | 1773.3 | 1788.3 |
| 25° | 1884.1 | 1882.4 | 1840.8 | 1785.0 | 1766.7 | 1775.0 | 1780.8 | 1784.1 | 1791.6 | 1802.5 | 1836.6 |
| 27.5° | 1952.4 | 1947.4 | 1894.1 | 1820.0 | 1798.3 | 1805.8 | 1816.6 | 1815.0 | 1811.6 | 1820.0 | 1877.4 |
| 30° | 2039.0 | 2032.4 | 1961.6 | 1869.1 | 1849.1 | 1855.8 | 1859.1 | 1844.1 | 1820.0 | 1827.5 | 1913.3 |
| 32.5° | 2176.5 | 2164.8 | 2066.5 | 1924.1 | 1893.3 | 1900.8 | 1896.6 | 1865.8 | 1830.0 | 1837.5 | 1949.1 |
| 35° | 2415.5 | 2387.2 | 2248.1 | 2039.0 | 1943.2 | 1934.9 | 1924.9 | 1894.9 | 1850.8 | 1843.3 | 1979.1 |
| 37.5° | 2923.6 | 2873.6 | 2636.2 | 2263.1 | 2056.5 | 2002.4 | 1971.6 | 1941.6 | 1873.3 | 1843.3 | 2013.2 |
| 40° | 3496.7 | 3445.9 | 3171.8 | 2637.9 | 2244.8 | 2153.1 | 2079.8 | 1996.5 | 1896.6 | 1854.1 | 2066.5 |
| 42.5° | 4094.7 | 4038.9 | 3757.4 | 3102.7 | 2513.8 | 2325.6 | 2189.0 | 2040.7 | 1934.9 | 1887.4 | 2137.3 |
| 45° | 4762.7 | 4692.8 | 4324.6 | 3587.5 | 2904.4 | 2612.1 | 2364.7 | 2131.5 | 2001.5 | 1946.6 | 2233.9 |
| 47.5° | 5467.4 | 5376.6 | 4890.2 | 4058.1 | 3325.1 | 3008.6 | 2686.2 | 2293.9 | 2099.8 | 2034.9 | 2364.7 |
| 50° | 6092.1 | 6002.1 | 5474.1 | 4550.3 | 3718.2 | 3385.9 | 3052.7 | 2518.8 | 2247.3 | 2159.8 | 2540.5 |
| 52.5° | 6541.0 | 6472.7 | 6005.5 | 5058.4 | 4127.2 | 3739.9 | 3385.1 | 2780.3 | 2433.8 | 2319.7 | 2747.9 |
| 55° | 6841.7 | 6779.3 | 6382.0 | 5539.9 | 4602.8 | 4129.7 | 3712.4 | 3064.4 | 2658.7 | 2511.3 | 2976.9 |
| 57.5° | 7024.1 | 6988.3 | 6654.3 | 5969.7 | 5074.2 | 4556.2 | 4087.2 | 3376.7 | 2923.6 | 2737.0 | 3232.6 |
| 60° | 7089.1 | 7060.0 | 6823.4 | 6379.5 | 5644.0 | 5068.4 | 4527.8 | 3729.1 | 3245.1 | 2993.6 | 3495.0 |
| 62.5° | 6915.9 | 6921.7 | 6945.0 | 6865.1 | 6244.5 | 5668.1 | 5055.9 | 4152.2 | 3601.6 | 3284.3 | 3741.5 |
| 65° | 6100.4 | 6148.7 | 6591.9 | 7403.1 | 7040.0 | 6419.4 | 5728.1 | 4668.6 | 4009.8 | 3614.9 | 3937.3 |
| 67.5° | 5050.9 | 5120.9 | 5672.3 | 7718.0 | 7887.9 | 7394.8 | 6664.3 | 5326.6 | 4496.2 | 3951.4 | 4011.4 |
| 70° | 3866.5 | 3941.5 | 4609.5 | 7652.2 | 8681.7 | 8461.0 | 7822.1 | 6163.7 | 5000.1 | 4184.7 | 3822.3 |
| 72.5° | 2759.5 | 2797.8 | 3324.2 | 7066.6 | 9007.4 | 9187.3 | 8675.0 | 6956.7 | 5257.5 | 4055.6 | 3117.7 |
| 75° | 1939.1 | 1932.4 | 2281.4 | 5690.6 | 8500.1 | 9099.0 | 8376.0 | 6527.7 | 4757.7 | 3221.8 | 1922.4 |
| 77.5° | 844.6 | 846.3 | 1139.5 | 3455.9 | 6784.3 | 7771.3 | 6962.5 | 4088.9 | 3316.8 | 1707.5 | 811.3 |
| 80° | 219.1 | 225.7 | 418.1 | 1376.0 | 4084.7 | 5129.2 | 4246.3 | 1797.5 | 1532.6 | 416.5 | 154.9 |
| 82.5° | 77.5 | 82.5 | 192.4 | 432.3 | 1506.8 | 2352.2 | 1890.8 | 574.7 | 399.8 | 119.1 | 41.6 |
| 85° | 22.5 | 26.7 | 103.3 | 132.4 | 311.5 | 664.7 | 458.9 | 111.6 | 98.3 | 61.6 | 10.8 |
| 87.5° | 0.0 | 3.3 | 20.8 | 18.3 | 18.3 | 12.5 | 23.3 | 12.5 | 15.8 | 7.5 | 3.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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REPORT NUMBER: P1203420
CATALOG NUMBER: GWC-SB2C-750-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 | 1464.3 |
| 2.5° | 1471.8 | 1466.0 | 1453.5 | 1440.1 | 1427.7 | 1416.0 | 1412.7 | 1400.2 | 1394.3 | 1395.2 | 1394.3 |
| 5° | 1479.3 | 1468.5 | 1444.3 | 1415.2 | 1385.2 | 1351.0 | 1322.7 | 1282.7 | 1248.6 | 1244.4 | 1241.9 |
| 7.5° | 1499.3 | 1481.8 | 1442.6 | 1386.0 | 1311.0 | 1216.9 | 1129.5 | 1042.8 | 993.7 | 967.0 | 965.4 |
| 10° | 1530.1 | 1506.8 | 1446.8 | 1338.5 | 1179.4 | 1011.2 | 878.7 | 769.6 | 713.8 | 688.0 | 683.0 |
| 12.5° | 1566.8 | 1540.9 | 1453.5 | 1257.7 | 1009.5 | 788.8 | 645.5 | 578.9 | 567.2 | 565.6 | 564.7 |
| 15° | 1618.4 | 1590.1 | 1461.0 | 1148.6 | 825.4 | 600.5 | 534.7 | 535.6 | 544.7 | 549.7 | 548.9 |
| 17.5° | 1675.9 | 1647.5 | 1450.1 | 1015.3 | 643.9 | 513.1 | 511.4 | 518.9 | 532.2 | 537.2 | 536.4 |
| 20° | 1734.2 | 1707.5 | 1411.8 | 858.8 | 520.6 | 488.9 | 495.6 | 503.9 | 517.3 | 523.9 | 523.9 |
| 22.5° | 1794.1 | 1770.8 | 1351.0 | 692.2 | 469.8 | 471.4 | 479.8 | 488.1 | 503.1 | 510.6 | 510.6 |
| 25° | 1858.3 | 1838.3 | 1270.2 | 554.7 | 448.1 | 453.1 | 463.9 | 473.9 | 489.8 | 498.9 | 498.9 |
| 27.5° | 1923.2 | 1908.3 | 1178.6 | 463.1 | 428.1 | 434.0 | 446.5 | 459.8 | 475.6 | 486.4 | 487.3 |
| 30° | 1994.0 | 1985.7 | 1105.3 | 429.0 | 409.0 | 414.0 | 428.1 | 443.1 | 460.6 | 473.9 | 475.6 |
| 32.5° | 2066.5 | 2064.8 | 1069.5 | 454.0 | 391.5 | 394.8 | 407.3 | 422.3 | 444.0 | 460.6 | 462.3 |
| 35° | 2138.1 | 2141.5 | 1048.7 | 524.7 | 385.6 | 376.5 | 384.8 | 398.1 | 424.0 | 444.8 | 448.1 |
| 37.5° | 2229.8 | 2238.1 | 1047.8 | 601.4 | 399.8 | 358.2 | 364.0 | 373.2 | 395.6 | 419.8 | 424.0 |
| 40° | 2366.4 | 2410.5 | 1101.1 | 667.2 | 424.8 | 341.5 | 343.2 | 344.8 | 356.5 | 376.5 | 383.2 |
| 42.5° | 2548.0 | 2677.1 | 1293.5 | 712.2 | 434.8 | 326.5 | 320.7 | 311.5 | 309.9 | 320.7 | 326.5 |
| 45° | 2773.7 | 2999.4 | 1631.7 | 737.1 | 424.8 | 309.9 | 294.0 | 269.9 | 260.7 | 268.2 | 268.2 |
| 47.5° | 3039.4 | 3352.6 | 2032.4 | 743.0 | 408.1 | 289.0 | 260.7 | 229.1 | 221.6 | 224.1 | 223.2 |
| 50° | 3298.4 | 3617.4 | 2384.7 | 694.7 | 380.7 | 262.4 | 224.1 | 197.4 | 192.4 | 193.2 | 193.2 |
| 52.5° | 3527.5 | 3708.2 | 2484.6 | 580.6 | 344.0 | 229.9 | 192.4 | 174.1 | 170.8 | 170.8 | 169.9 |
| 55° | 3679.1 | 3609.9 | 2215.6 | 444.0 | 298.2 | 196.6 | 164.9 | 155.8 | 154.1 | 153.3 | 151.6 |
| 57.5° | 3710.7 | 3290.1 | 1673.4 | 320.7 | 233.2 | 165.8 | 146.6 | 141.6 | 138.3 | 134.9 | 133.3 |
| 60° | 3597.5 | 2757.0 | 1065.3 | 224.1 | 174.9 | 141.6 | 129.9 | 126.6 | 119.9 | 113.3 | 110.8 |
| 62.5° | 3352.6 | 2082.3 | 589.7 | 155.8 | 140.8 | 120.8 | 114.9 | 110.8 | 98.3 | 87.5 | 84.1 |
| 65° | 3023.6 | 1384.3 | 260.7 | 121.6 | 114.9 | 101.6 | 98.3 | 92.5 | 77.5 | 65.0 | 62.5 |
| 67.5° | 2692.9 | 797.1 | 117.4 | 97.5 | 92.5 | 83.3 | 80.8 | 76.6 | 65.8 | 54.1 | 52.5 |
| 70° | 2315.6 | 404.0 | 80.8 | 77.5 | 71.6 | 63.3 | 65.8 | 65.0 | 54.1 | 44.1 | 42.5 |
| 72.5° | *1724.2* | *200.7* | *60.8* | *58.3* | *51.6* | *45.0* | *54.1* | *53.3* | *42.5* | *33.3* | *31.7* |
| 75° | 976.2 | 99.1 | 44.1 | 40.8 | 30.8 | 33.3 | 43.3 | 40.8 | 29.2 | 21.7 | 20.0 |
| 77.5° | 387.3 | 50.8 | 29.2 | 25.0 | 18.3 | 22.5 | 31.7 | 27.5 | 15.0 | 9.2 | 8.3 |
| 80° | 89.1 | 25.0 | 15.0 | 10.8 | 8.3 | 13.3 | 16.7 | 10.0 | 4.2 | 0.8 | 0.0 |
| 82.5° | 25.0 | 10.8 | 5.0 | 4.2 | 4.2 | 5.0 | 4.2 | 1.7 | 0.0 | 0.0 | 0.0 |
| 85° | 8.3 | 5.0 | 1.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 3.3 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


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

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

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

Test Date: 10/02/2019

Luminaire Tested: SA1C-750-U-5WQ

Data in this report applies to products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

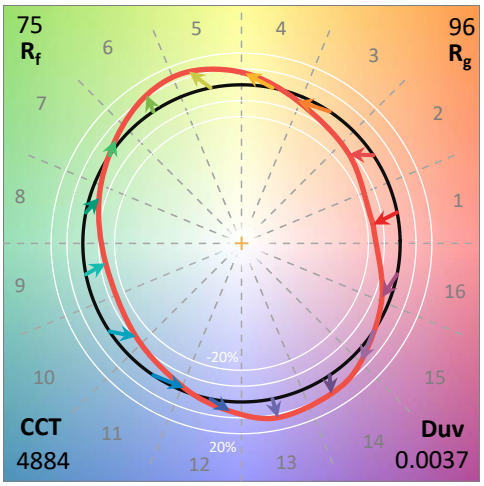
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-4-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON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

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

## Spectral Parameters

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

| | |
|---|---|
| Rf: | 74.9 |
| Rg: | 96.3 |




## Test Conditions

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

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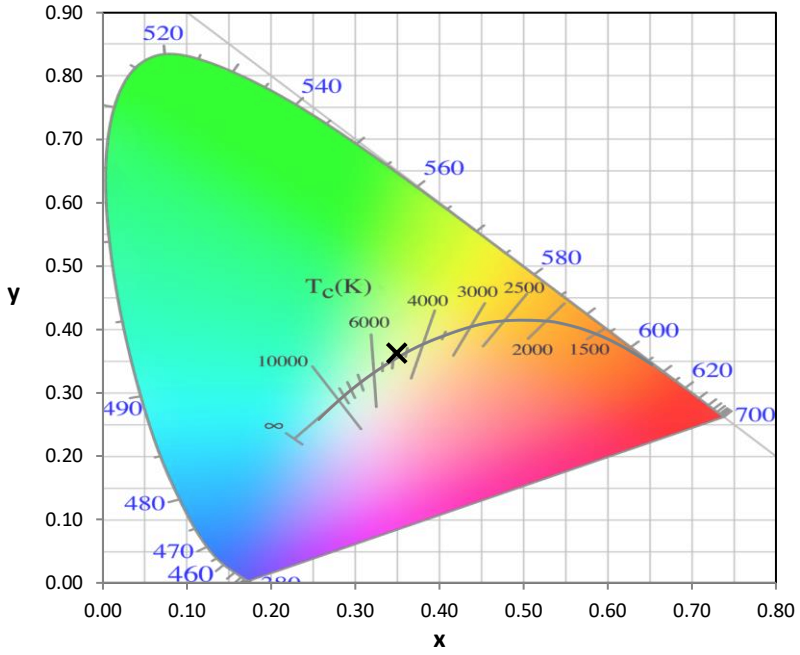
REPORT NUMBER: SP1-1908-441-4-R4

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

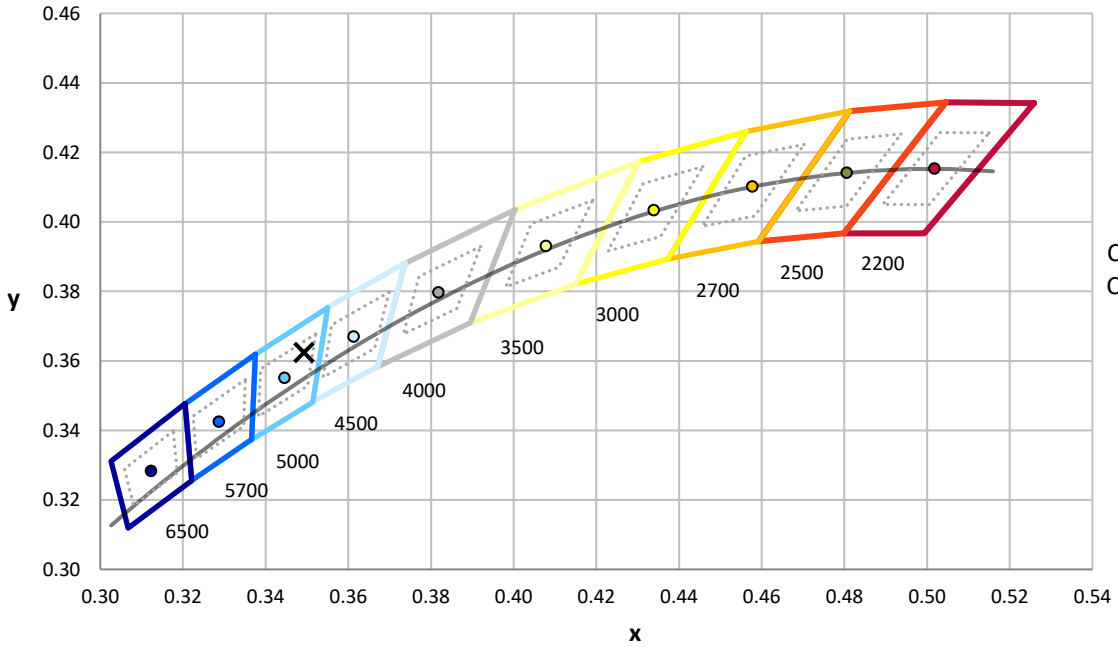
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1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



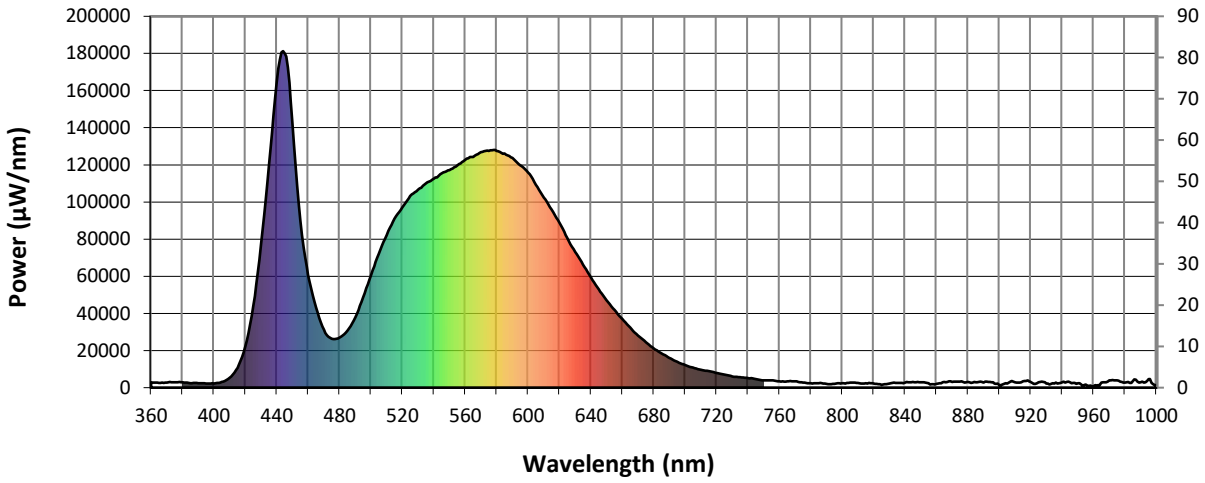

CCT = 4884K
CIE x = 0.3493
CIE y = 0.3624
Duv = 0.0037

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



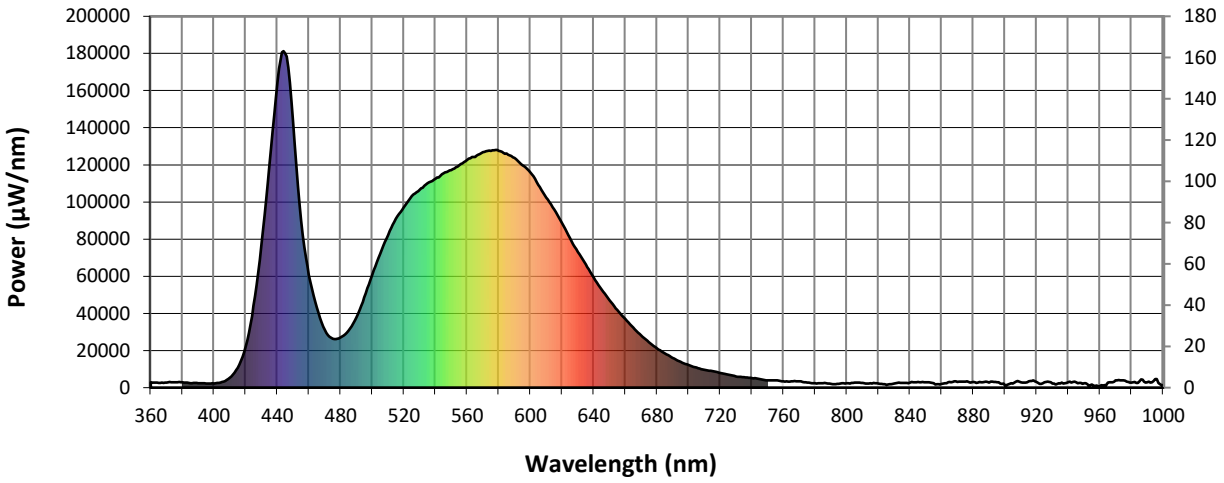

######

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

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## Scotopic Flux vs. Wavelength



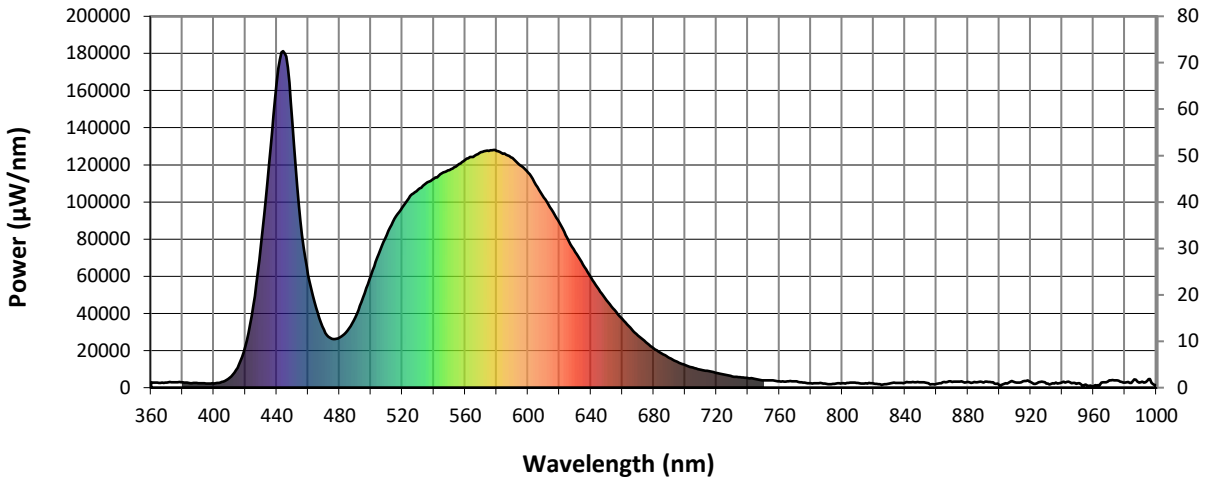

**Scotopic Lumens: 13493.5** **S/P: 1.77**

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

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## Melanopic Flux vs. Wavelength




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

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

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Peachtree City, GA 30269

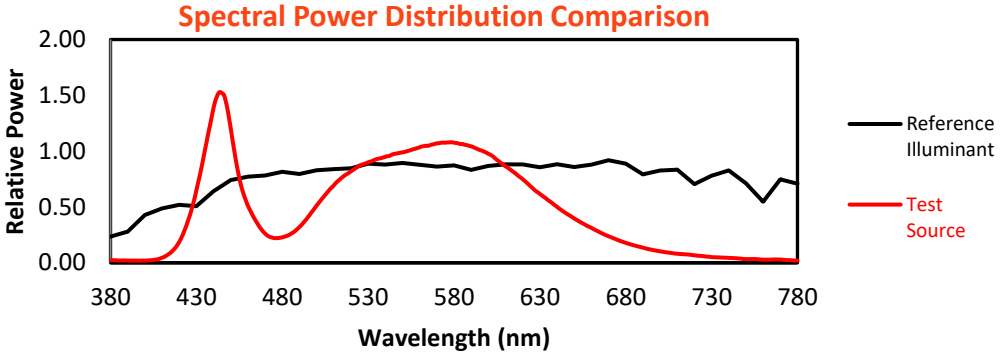
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# TM-30-18

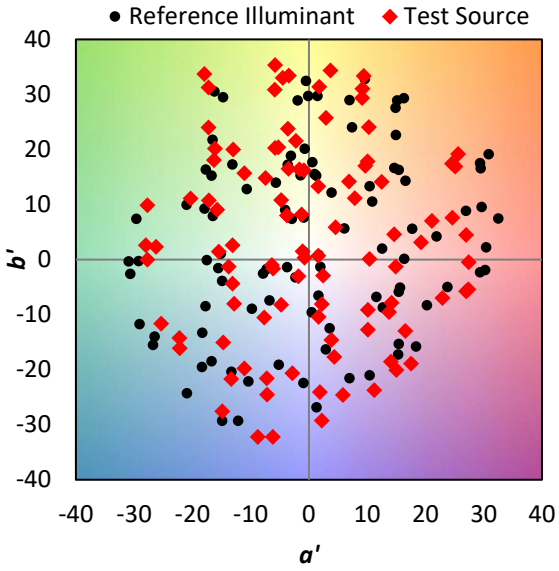
## Summary

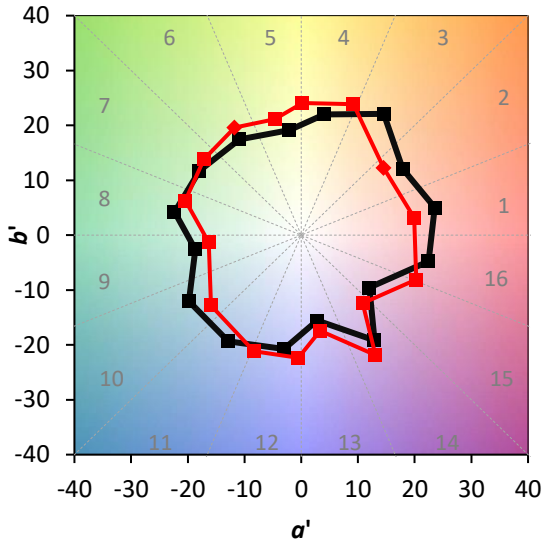
$R_f$ = 74.9
$R_g$ = 96.3
CIE $R_a$ = 73.5
$R_9$ = -28.4

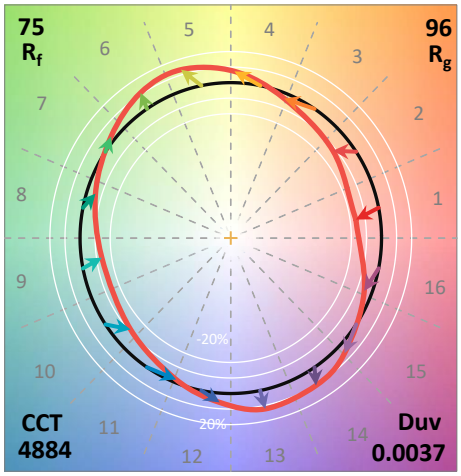
## Spectral Power Distribution Comparison

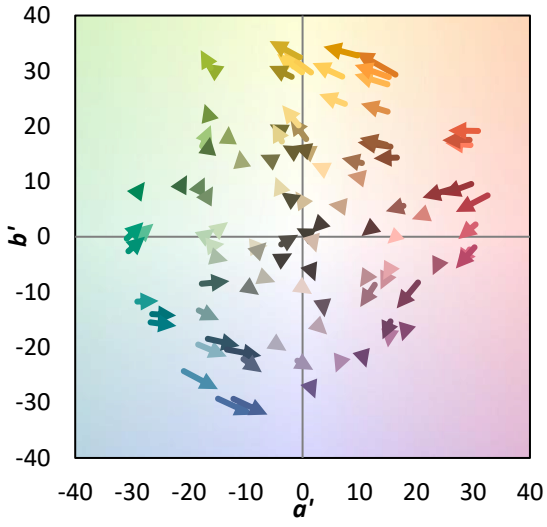



## Color Vector Graphics



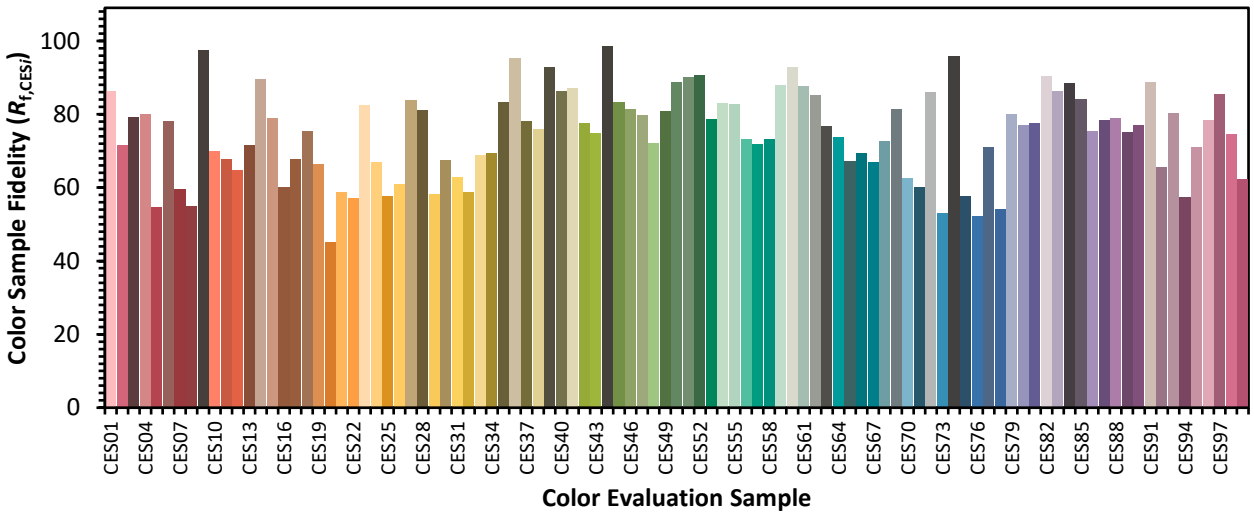
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Peachtree City, GA 30269

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

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

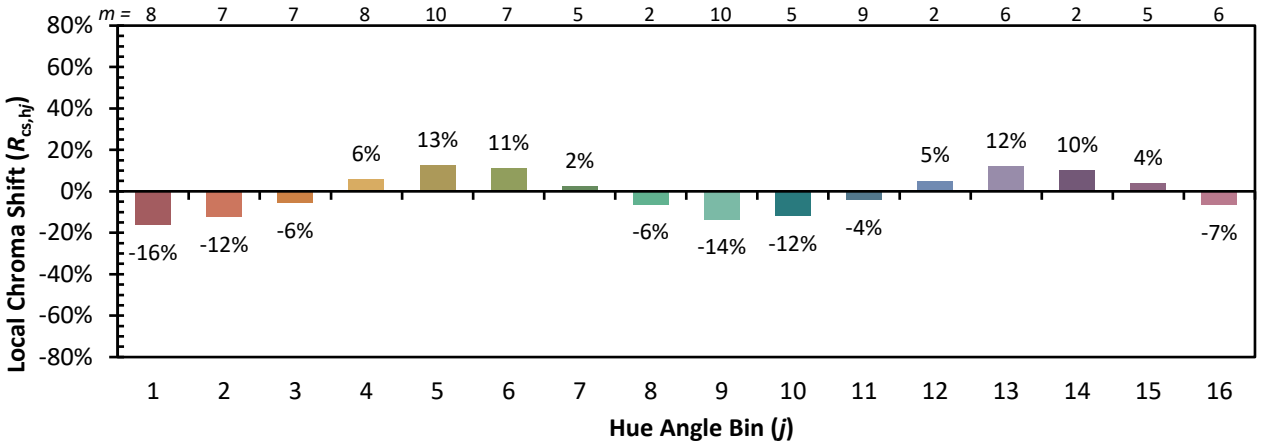


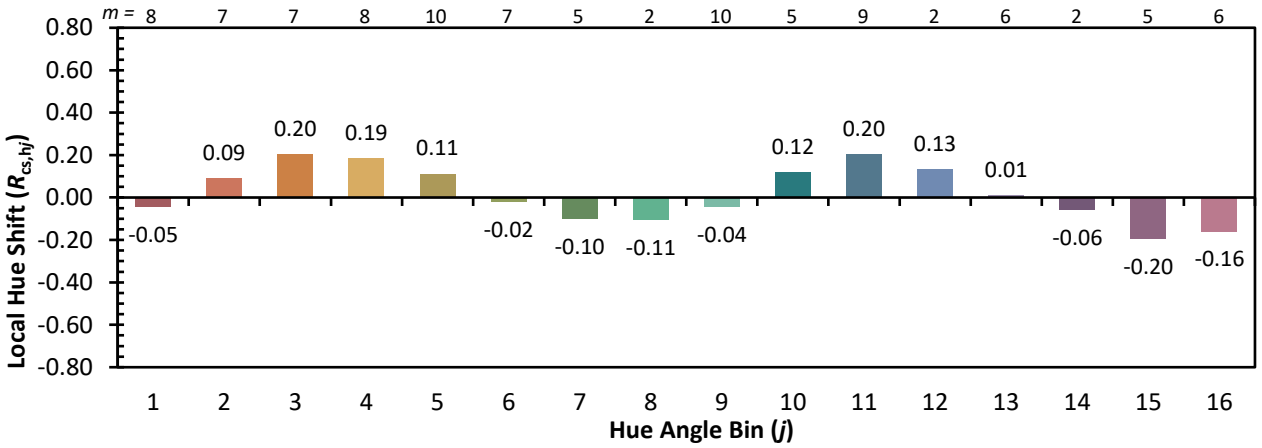
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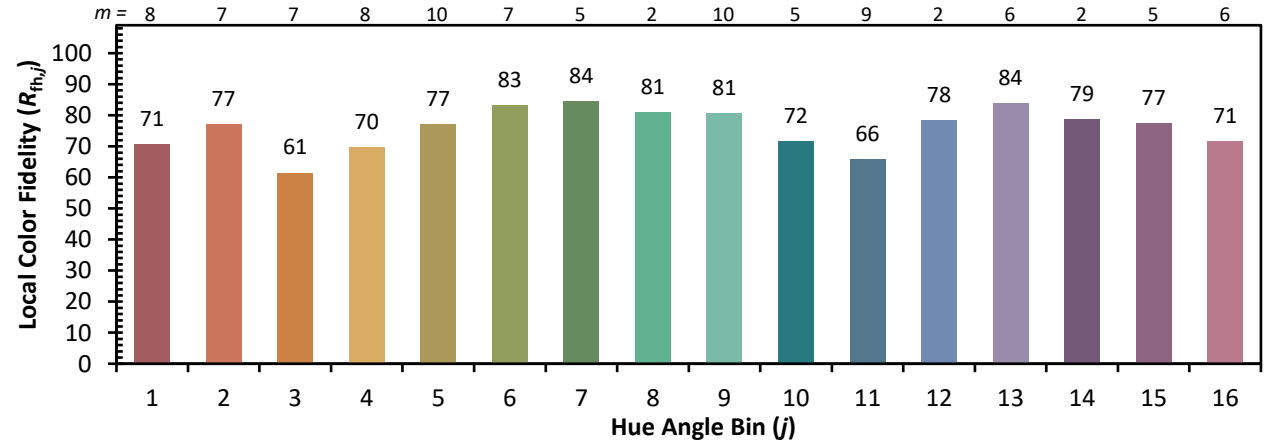
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### Color Rendition by Hue-Angle Bin



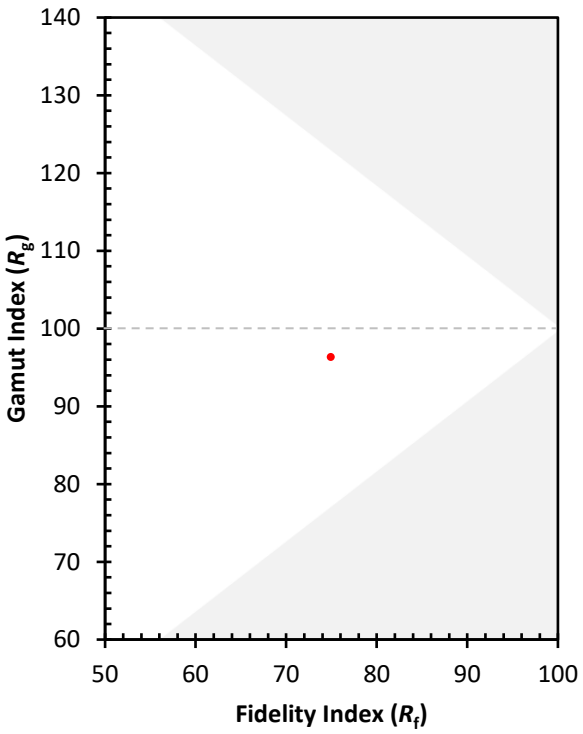



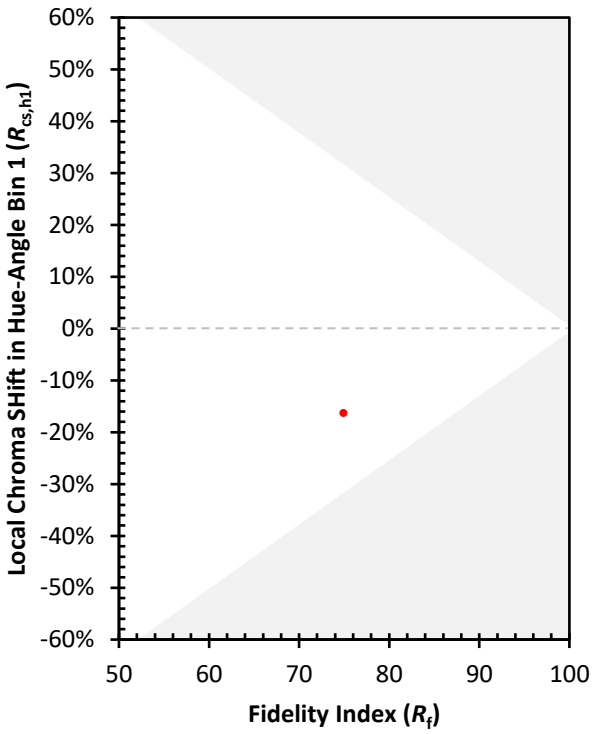
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### Measure Comparisons




(END OF REPORT)