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: P1198712

Luminaire Tested: GPC-SB1D-727-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: | P1198712 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB1D-727-U-SL2-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS 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: | 7691 lumens |
| Efficiency: | N/A |
| Efficacy: | 96.6 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 79.6 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.638 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.997 |
| Total Harmonic Distortion (THDi): | 6.673 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

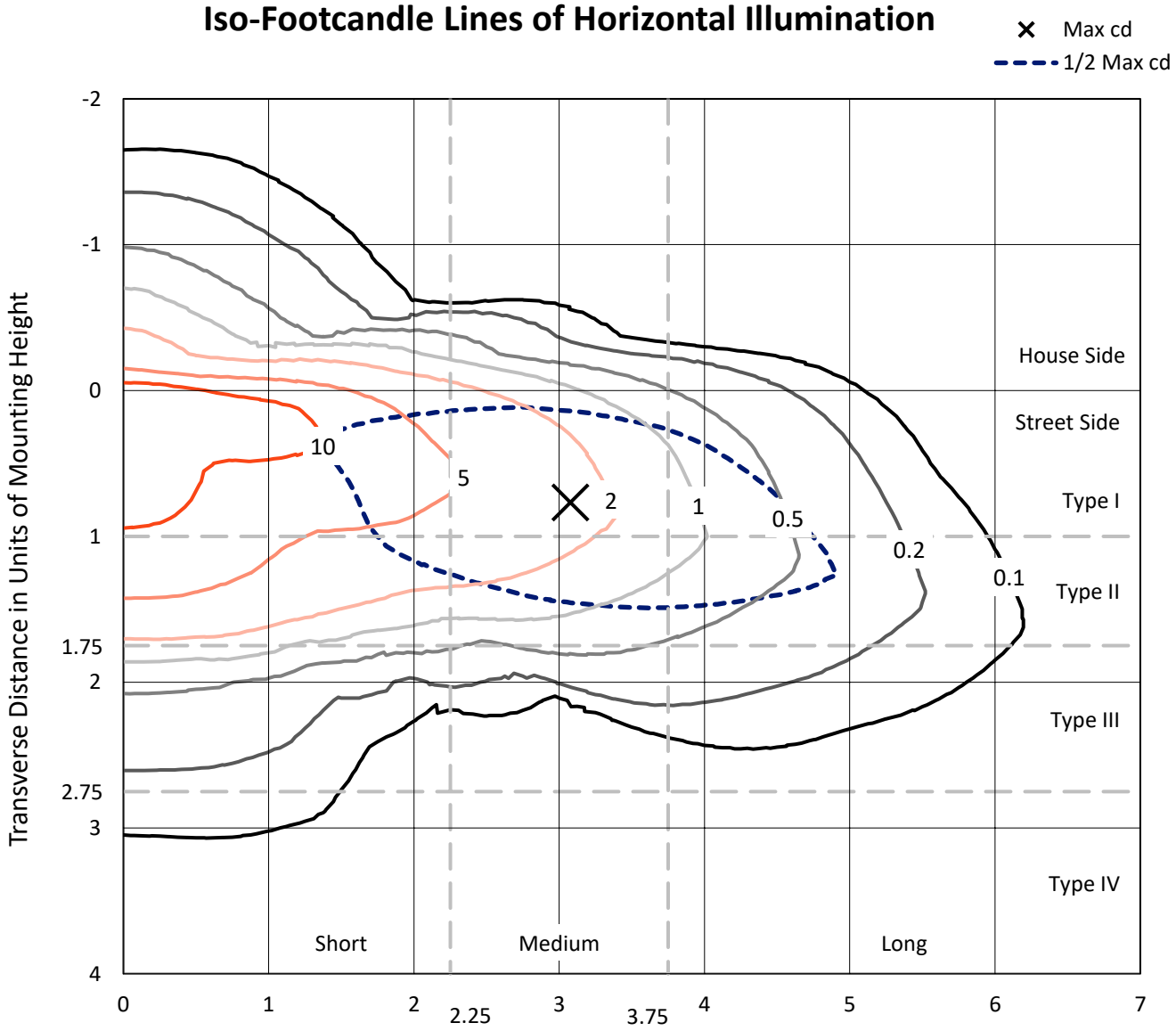


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Scaled Data Report

REPORT NUMBER: P1198712
CATALOG NUMBER: GPC-SB1D-727-U-SL2-HSS

## Iso-Footcandle Lines of Horizontal Illumination



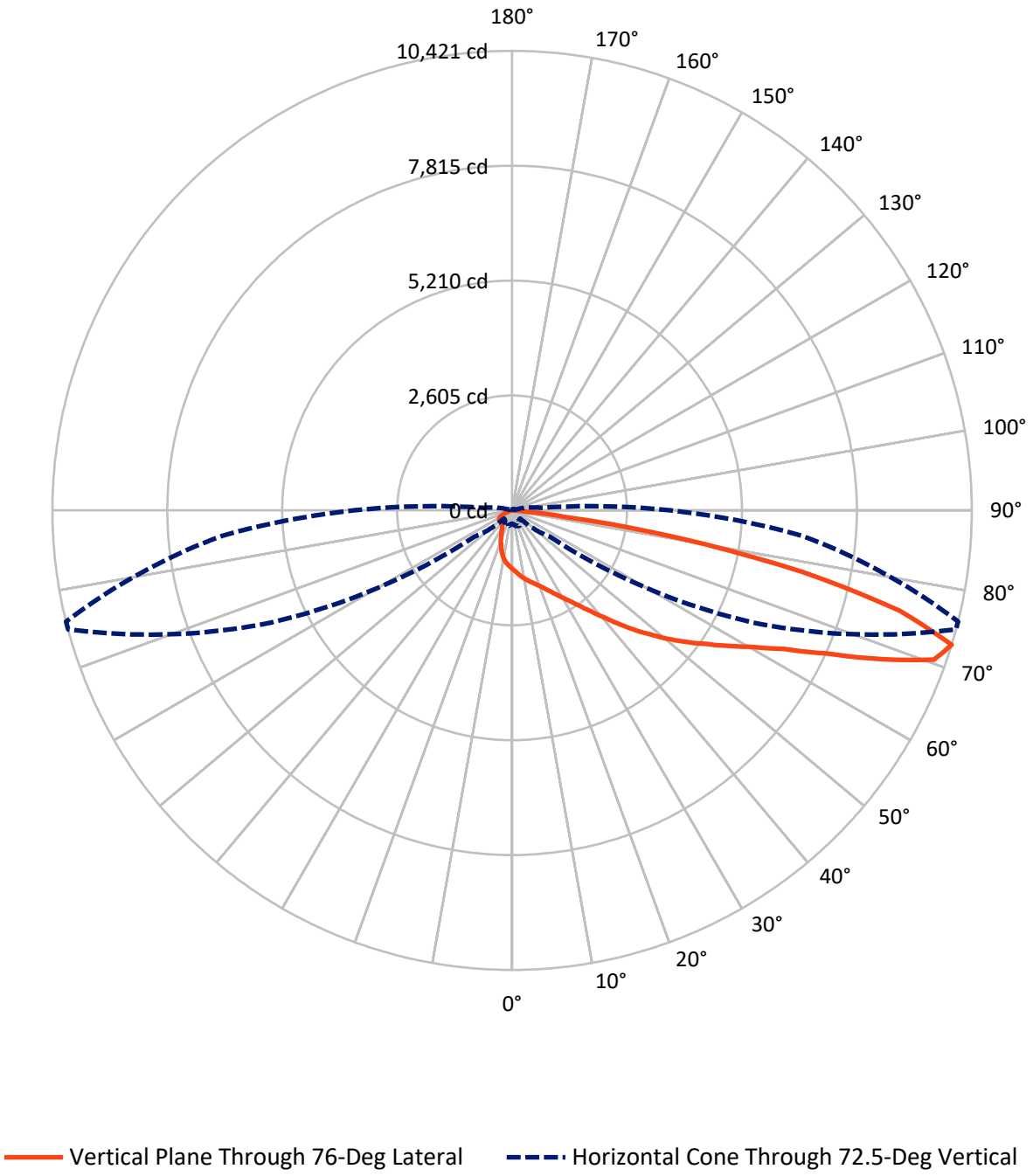

Based on 10 foot mounting height. Maximum calculated value = 17.5 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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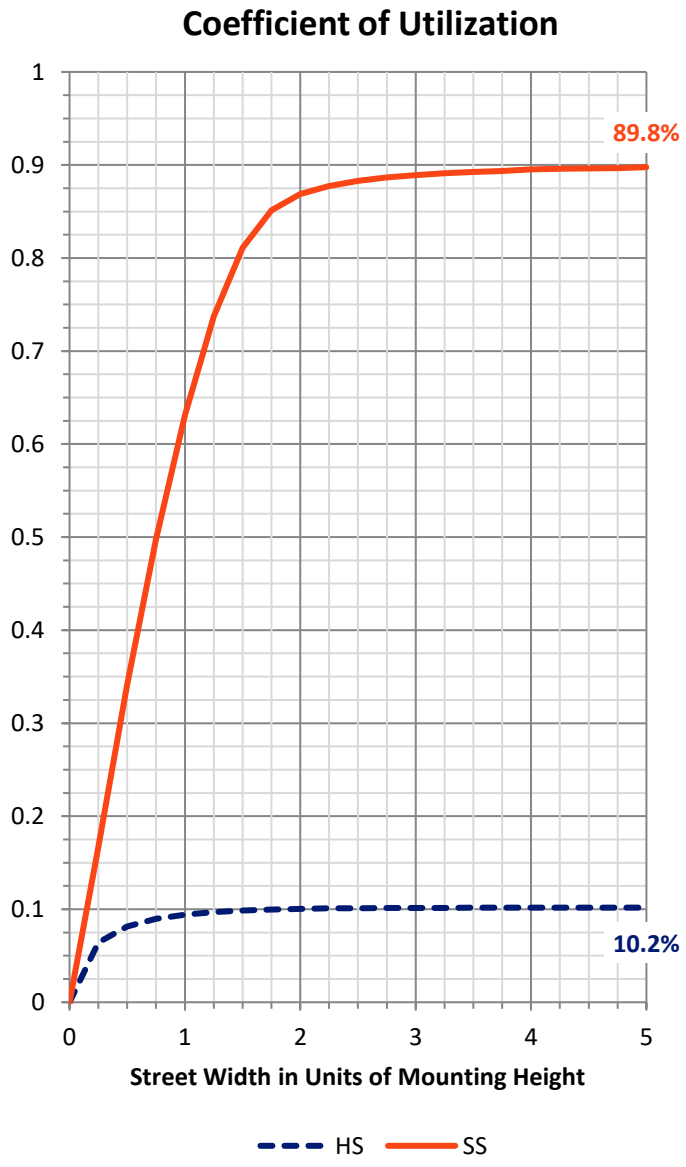
REPORT NUMBER: P1198712
CATALOG NUMBER: GPC-SB1D-727-U-SL2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 787.2 | 0.0 | 787.2 |
| | % Fixture | 10.2 | 0.0 | 10.2 |
| **Street Side** | Lumens | 6903.8 | 0.0 | 6903.8 |
| | % Fixture | 89.8 | 0.0 | 89.8 |
| **Total** | Lumens | 7691.0 | 0.0 | 7691.0 |
| | % 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° | 513.0 | 6.7 |
| 30°-40° | 793.7 | 10.3 |
| 40°-50° | 1205.4 | 15.7 |
| 50°-60° | 1661.8 | 21.6 |
| 60°-70° | 1755.6 | 22.8 |
| 70°-80° | 1204.4 | 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° | 7691.0 | 100.0 |
| 0°-180° | 7691.0 | 100.0 |



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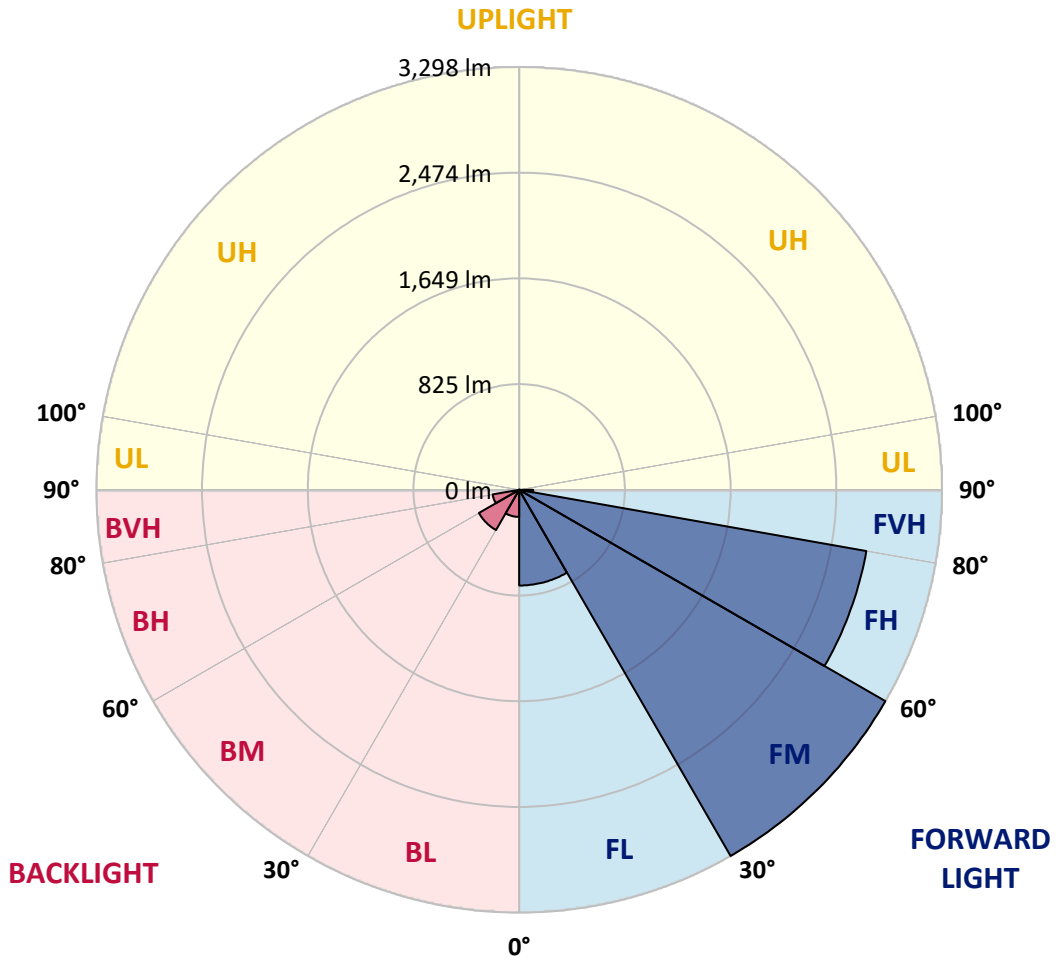
Scaled Data Report

REPORT NUMBER: P1198712
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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°) | 746.4 | 9.7 | | | |
| FM | (30°-60°) | 3298.5 | 42.9 | | | |
| FH | (60°-80°) | 2749.9 | 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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REPORT NUMBER: P1198712
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | *1329.1* | 1329.1 |
| 2.5° | 1545.1 | 1524.6 | 1528.6 | 1508.2 | 1498.7 | 1475.7 | 1451.8 | 1420.4 | 1385.4 | *1385.4* | 1351.5 |
| 5° | 1707.7 | 1694.8 | 1694.8 | 1670.8 | 1652.4 | 1616.4 | 1573.5 | 1518.2 | 1452.3 | *1445.8* | 1381.5 |
| 7.5° | 1807.5 | 1799.5 | 1804.5 | 1790.6 | 1775.6 | 1738.2 | 1687.3 | 1614.9 | 1521.6 | *1513.7* | 1416.9 |
| 10° | 1827.0 | 1826.5 | 1840.4 | 1844.4 | 1854.4 | 1835.5 | 1790.1 | 1706.7 | 1590.0 | *1578.5* | 1447.3 |
| 12.5° | 1751.6 | 1742.2 | 1776.6 | 1817.0 | 1873.9 | 1899.3 | 1875.9 | 1790.6 | 1652.4 | *1636.4* | 1475.7 |
| 15° | 1627.9 | 1629.9 | 1662.8 | 1725.2 | 1820.0 | 1910.8 | 1941.2 | 1872.4 | 1715.7 | *1696.8* | 1502.7 |
| 17.5° | 1557.1 | 1549.6 | 1578.0 | 1633.9 | 1738.7 | 1866.9 | 1971.7 | 1948.7 | 1783.1 | *1761.6* | 1530.1 |
| 20° | 1548.6 | 1548.1 | 1554.6 | 1580.0 | 1659.8 | 1804.0 | 1968.2 | 2023.0 | 1862.4 | *1837.5* | 1569.5 |
| 22.5° | 1607.5 | 1606.5 | 1601.0 | 1596.0 | 1617.9 | 1742.7 | 1953.2 | 2093.9 | 1957.2 | *1930.2* | 1625.4 |
| 25° | 1697.8 | 1696.3 | 1687.8 | 1657.3 | 1635.9 | 1709.7 | 1939.2 | 2159.7 | 2069.4 | *2039.5* | 1693.3 |
| 27.5° | 1808.0 | 1807.0 | 1791.6 | 1745.7 | 1690.3 | 1712.7 | 1932.2 | 2227.6 | 2199.2 | *2169.7* | 1771.6 |
| 30° | 1943.2 | 1941.2 | 1909.3 | 1844.4 | 1772.1 | 1760.1 | 1941.7 | 2303.9 | 2334.4 | *2311.9* | 1861.9 |
| 32.5° | 2112.8 | 2107.4 | 2065.4 | 1967.7 | 1866.4 | 1823.5 | 1959.7 | 2382.3 | 2494.5 | *2473.6* | 1982.6 |
| 35° | 2244.1 | 2235.6 | 2211.1 | 2124.8 | 1975.6 | 1901.3 | 2001.6 | 2475.0 | 2687.1 | *2668.6* | 2136.8 |
| 37.5° | 2356.8 | 2348.3 | 2328.4 | 2257.5 | 2132.3 | 2000.6 | 2068.9 | 2598.8 | 2914.6 | *2905.6* | 2324.9 |
| 40° | 2478.5 | 2464.6 | 2455.1 | 2379.3 | 2266.0 | 2143.8 | 2165.2 | 2743.5 | 3176.5 | *3177.5* | 2550.9 |
| 42.5° | 2572.3 | 2566.8 | 2567.8 | 2509.5 | 2395.2 | 2313.4 | 2292.9 | 2906.6 | 3490.3 | *3499.8* | 2822.8 |
| 45° | 2652.7 | 2648.2 | 2666.6 | 2625.7 | 2525.4 | 2424.7 | 2442.6 | 3091.2 | 3833.6 | *3853.0* | 3127.1 |
| 47.5° | 2714.5 | 2719.5 | 2745.9 | 2719.5 | 2660.6 | 2503.0 | 2575.3 | 3290.3 | 4194.3 | *4196.8* | 3441.4 |
| 50° | 2776.4 | 2778.4 | 2822.3 | 2809.3 | 2785.4 | 2602.3 | 2697.6 | 3512.8 | 4574.4 | *4578.9* | 3735.3 |
| 52.5° | 2795.8 | 2792.8 | 2862.7 | 2894.6 | 2895.6 | 2725.0 | 2855.7 | 3755.2 | 4947.1 | *4961.6* | 4037.6 |
| 55° | 2696.1 | 2704.5 | 2817.3 | 2947.0 | 2998.4 | 2894.6 | 3069.2 | 4062.1 | 5344.2 | *5350.2* | 4336.9 |
| 57.5° | 2208.1 | 2255.0 | 2504.5 | 2805.3 | 3064.7 | 3137.6 | 3376.1 | 4420.8 | 5802.7 | *5797.2* | 4640.3 |
| 60° | 1340.0 | 1395.9 | 1694.3 | 2352.8 | 2848.2 | 3381.5 | 3828.1 | 4976.5 | 6303.6 | *6288.1* | 4947.1 |
| 62.5° | 749.3 | 766.3 | 861.6 | 1408.4 | 2166.2 | 3226.4 | 4269.6 | 5690.5 | 6976.1 | *6923.7* | 5248.9 |
| 65° | 552.3 | 557.8 | 580.2 | 690.0 | 1064.7 | 2481.5 | 4172.8 | 6544.1 | 7921.0 | *7827.8* | 5610.6 |
| 67.5° | 479.9 | 485.4 | 507.4 | 522.3 | 475.5 | 1303.6 | 3437.9 | 7017.5 | 9120.9 | *8998.7* | 6100.1 |
| 70° | 404.1 | 407.1 | 442.5 | 452.5 | 340.3 | 495.9 | 2208.6 | 6871.4 | 10231.5 | *10144.1* | 6625.4 |
| 72.5° | *301.3* | *313.3* | *364.7* | *388.6* | *272.9* | *263.4* | *1039.7* | *6007.8* | *10419.5* | *10420.5* | *6590.0* |
| 75° | 204.5 | 215.5 | 274.4 | 319.8 | 210.5 | 184.6 | 419.6 | 4486.1 | 9073.0 | *9073.0* | 5776.8 |
| 77.5° | 139.7 | 148.7 | 191.1 | 250.9 | 159.6 | 126.7 | 217.5 | 2847.2 | 6509.2 | *6738.2* | 4117.4 |
| 80° | 61.9 | 67.4 | 123.2 | 182.1 | 121.2 | 81.8 | 123.2 | 1559.1 | 3936.3 | *3887.9* | 1613.9 |
| 82.5° | 30.4 | 34.9 | 78.8 | 113.7 | 78.3 | 50.4 | 64.9 | 741.4 | 1275.7 | *1212.3* | 251.9 |
| 85° | 6.0 | 8.0 | 42.4 | 48.4 | 36.4 | 22.5 | 24.4 | 228.0 | 153.7 | *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: P1198712
CATALOG NUMBER: GPC-SB1D-727-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 | 1329.1 |
| 2.5° | 1333.6 | 1315.1 | 1274.7 | 1234.8 | 1193.9 | 1156.5 | 1130.5 | 1104.6 | 1088.6 | 1081.6 | 1082.6 |
| 5° | 1344.0 | 1306.6 | 1221.8 | 1133.0 | 1045.2 | 959.4 | 895.0 | 834.7 | 815.7 | 784.3 | 786.3 |
| 7.5° | 1360.5 | 1299.6 | 1165.9 | 1016.3 | 873.6 | 747.9 | 657.1 | 584.7 | 555.8 | 527.8 | 527.3 |
| 10° | 1371.5 | 1286.7 | 1092.1 | 892.0 | 699.0 | 557.8 | 471.0 | 418.6 | 399.6 | 382.7 | 382.2 |
| 12.5° | 1376.0 | 1262.7 | 1007.3 | 752.8 | 543.8 | 425.1 | 373.2 | 348.7 | 342.2 | 336.3 | 336.3 |
| 15° | 1380.0 | 1239.3 | 912.5 | 618.6 | 429.6 | 355.7 | 335.3 | 327.3 | 322.8 | 318.8 | 318.8 |
| 17.5° | 1383.5 | 1209.3 | 804.2 | 502.9 | 362.7 | 327.8 | 317.8 | 309.3 | 305.8 | 301.3 | 301.3 |
| 20° | 1395.4 | 1180.4 | 707.4 | 415.1 | 326.3 | 307.8 | 296.8 | 287.9 | 284.9 | 281.9 | 282.4 |
| 22.5° | 1417.9 | 1157.0 | 613.6 | 355.7 | 304.3 | 287.4 | 273.4 | 263.4 | 261.4 | 259.4 | 257.9 |
| 25° | 1444.8 | 1128.0 | 525.3 | 317.3 | 282.9 | 263.9 | 248.5 | 240.0 | 238.0 | 238.5 | 237.5 |
| 27.5° | 1479.2 | 1096.1 | 449.5 | 292.9 | 263.9 | 242.0 | 224.5 | 218.0 | 219.0 | 221.0 | 220.0 |
| 30° | 1517.2 | 1066.6 | 390.1 | 275.9 | 247.0 | 222.5 | 205.0 | 200.6 | 204.1 | 207.0 | 206.0 |
| 32.5° | 1573.5 | 1040.7 | 348.7 | 262.4 | 232.0 | 206.5 | 192.6 | 187.1 | 191.1 | 195.1 | 194.1 |
| 35° | 1650.4 | 1027.7 | 325.3 | 250.9 | 219.0 | 194.1 | 180.1 | 176.1 | 180.1 | 181.1 | 180.6 |
| 37.5° | 1744.7 | 1026.7 | 315.3 | 241.5 | 207.0 | 183.6 | 168.1 | 166.6 | 169.6 | 170.1 | 169.1 |
| 40° | 1866.4 | 1033.2 | 307.8 | 234.5 | 194.6 | 171.6 | 157.2 | 155.7 | 156.7 | 160.1 | 159.6 |
| 42.5° | 2020.5 | 1060.2 | 297.3 | 225.5 | 181.1 | 159.6 | 148.2 | 144.7 | 144.2 | 148.2 | 147.7 |
| 45° | 2214.1 | 1119.5 | 283.4 | 211.0 | 169.1 | 149.7 | 138.2 | 134.2 | 132.7 | 133.7 | 135.2 |
| 47.5° | 2425.2 | 1192.4 | 269.4 | 197.6 | 160.6 | 141.7 | 130.2 | 125.2 | 122.7 | 122.7 | 122.7 |
| 50° | 2629.7 | 1274.7 | 259.9 | 183.6 | 154.7 | 134.2 | 121.7 | 116.7 | 112.8 | 111.8 | 111.3 |
| 52.5° | 2832.3 | 1355.5 | 252.4 | 169.6 | 147.7 | 124.7 | 113.7 | 108.3 | 103.8 | 101.8 | 100.8 |
| 55° | 3016.9 | 1432.3 | 239.5 | 156.2 | 138.7 | 114.7 | 105.8 | 100.3 | 94.8 | 91.3 | 89.8 |
| 57.5° | 3194.0 | 1496.2 | 215.5 | 142.2 | 124.7 | 105.3 | 97.3 | 91.3 | 84.8 | 80.3 | 78.3 |
| 60° | 3355.1 | 1529.1 | 185.6 | 127.2 | 110.8 | 95.3 | 87.8 | 82.3 | 73.8 | 66.4 | 64.4 |
| 62.5° | 3477.8 | 1516.2 | 153.2 | 110.3 | 96.3 | 86.3 | 76.8 | 71.3 | 61.4 | 52.4 | 48.9 |
| 65° | 3603.6 | 1445.3 | 122.2 | 92.3 | 84.3 | 74.3 | 64.4 | 58.9 | 47.4 | 37.9 | 35.4 |
| 67.5° | 3766.7 | 1294.1 | 96.3 | 76.8 | 72.8 | 58.9 | 50.4 | 46.9 | 38.9 | 29.9 | 27.9 |
| 70° | 3871.5 | 1005.3 | 74.8 | 62.4 | 59.9 | 42.9 | 38.9 | 38.4 | 30.9 | 22.9 | 20.5 |
| 72.5° | *3584.1* | *659.0* | *57.4* | *47.4* | *42.9* | *27.9* | *29.9* | *29.9* | *22.5* | *15.5* | *13.5* |
| 75° | 2991.9 | 385.7 | 41.4 | 33.9 | 24.4 | 18.0 | 20.5 | 20.5 | 14.0 | 7.5 | 6.0 |
| 77.5° | 2136.8 | 205.5 | 27.4 | 21.0 | 12.5 | 8.0 | 11.0 | 10.5 | 4.5 | 0.5 | 0.0 |
| 80° | 817.2 | 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° | 22.5 | 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 |

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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: SP1-1908-441-1-R4

Test Date: 08/20/2019

Luminaire Tested: SA1C-727-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

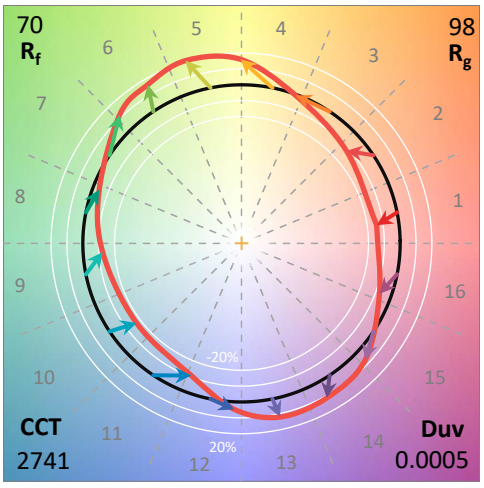
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-727-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-1-R3. TO UPDATE THE CATALOG NUMBER.***TESTED IN SITU. (1) 70 CRI, 2700K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 2741 | CRI (Ra): | 71.5 | | |
| CIE u': | 0.2605 | R1: | 69.2 | R9: | -16.1 |
| CIE v': | 0.5272 | R2: | 79.4 | R10: | 51.4 |
| Duv: | 0.0005 | R3: | 87.8 | R11: | 63.1 |
| CIE x: | 0.4573 | R4: | 69.4 | R12: | 42.0 |
| CIE y: | 0.4113 | R5: | 66.4 | R13: | 70.2 |
| CIE z: | 0.1313 | R6: | 69.8 | R14: | 92.4 |
| Peak Wavelength (nm): | 602 | R7: | 79.8 | | |
| Dominant Wavelength (nm): | 583 | R8: | 50.1 | | |
| Purity: | 61.2 | | | | |

| | |
|---|---|
| Rf: | 69.9 |
| Rg: | 98.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 56M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.3./42% |
| Sphere Temperature (°C): | 25.7 |

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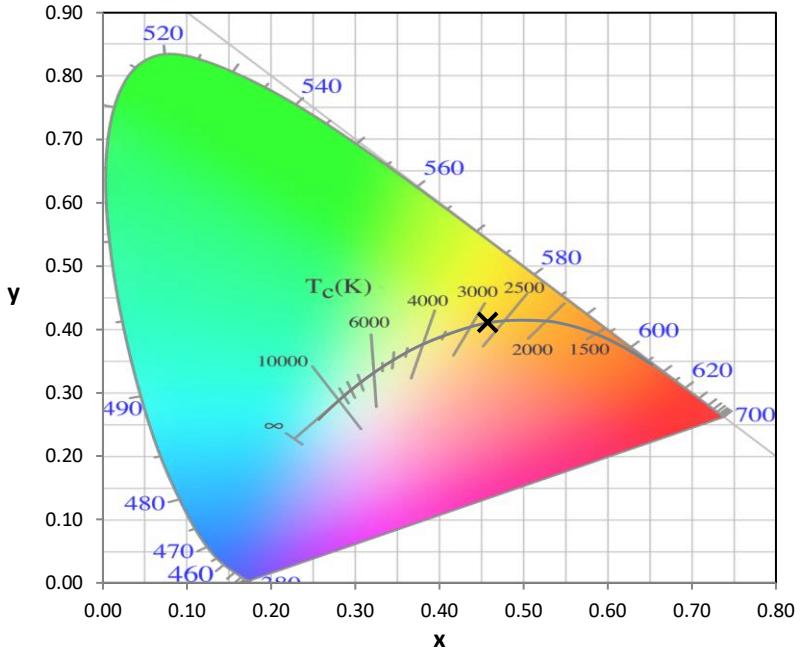
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

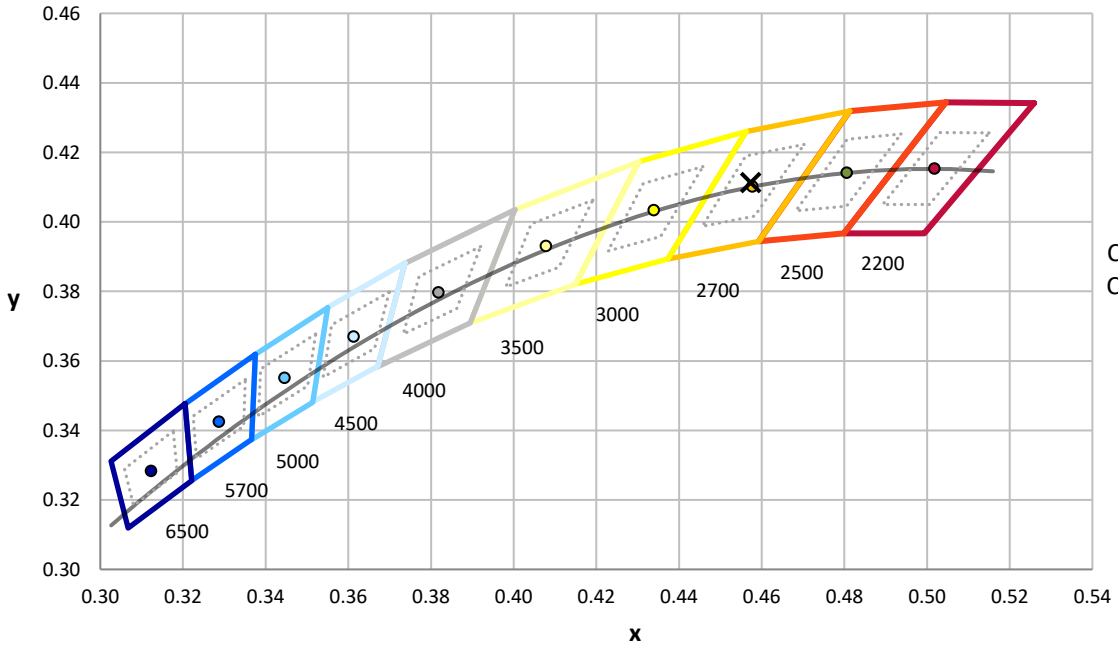
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Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## CIE 1931 Chromaticity Diagram




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



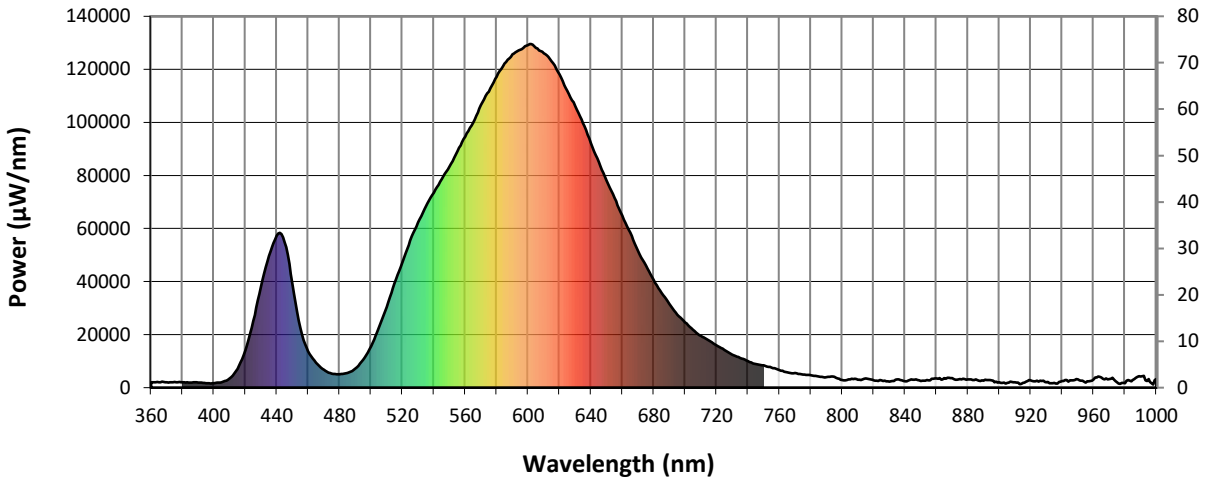

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



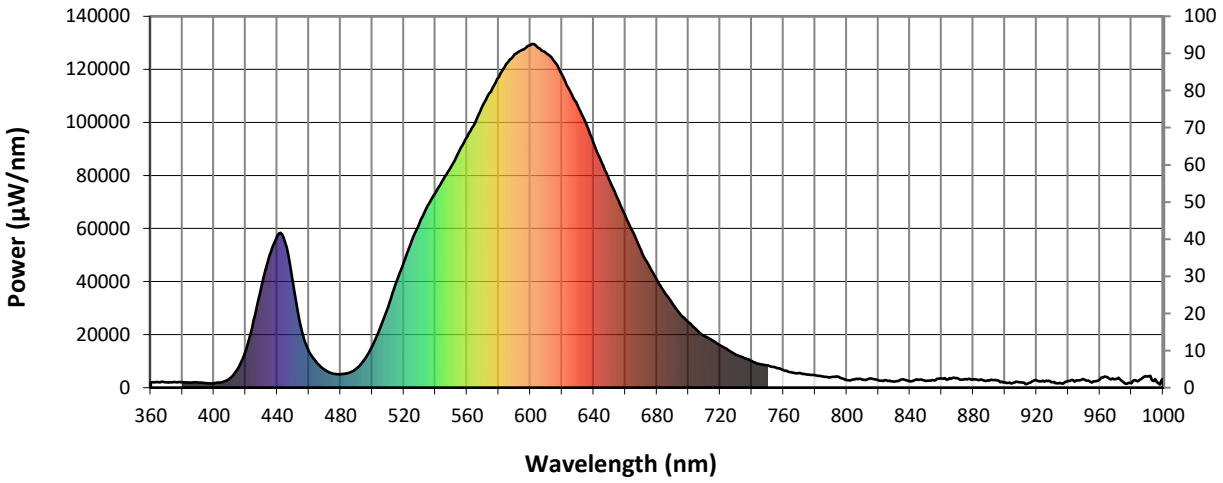

######

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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## Scotopic Flux vs. Wavelength



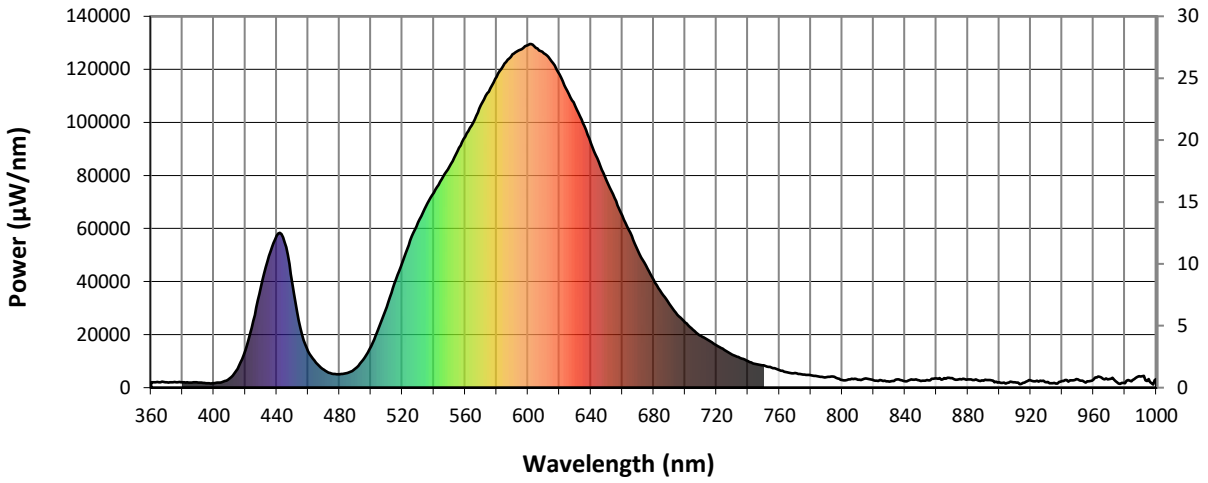

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 2145.7** **M/P: 0.35**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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Peachtree City, GA 30269

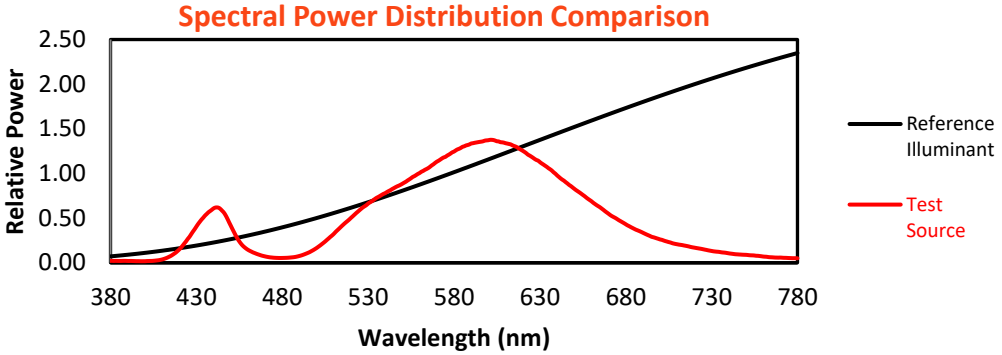
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# TM-30-18

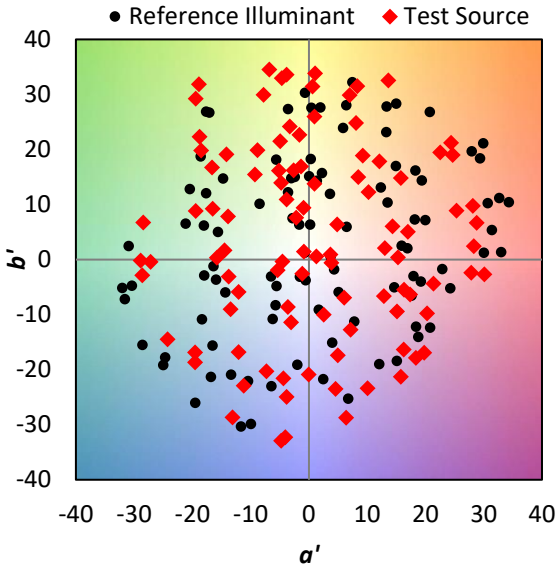
## Summary

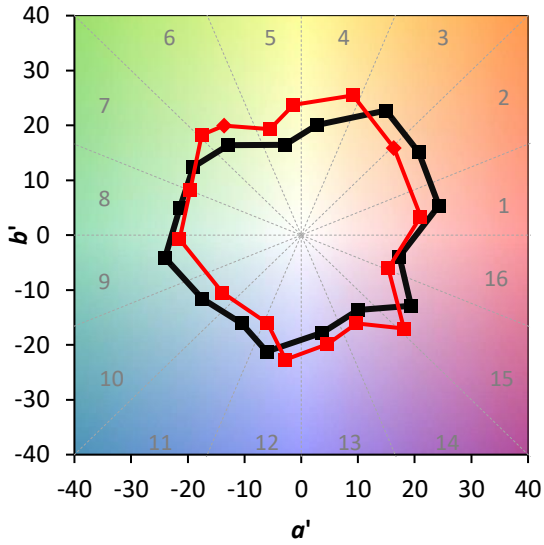
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

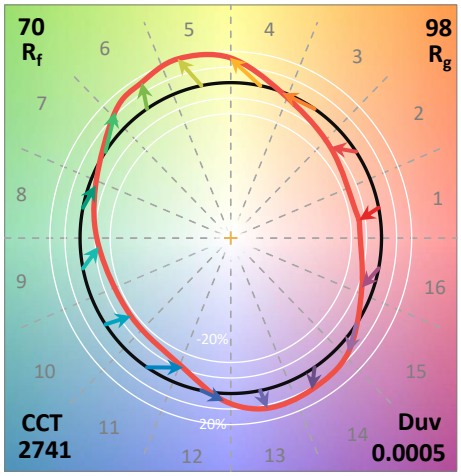
## Spectral Power Distribution Comparison

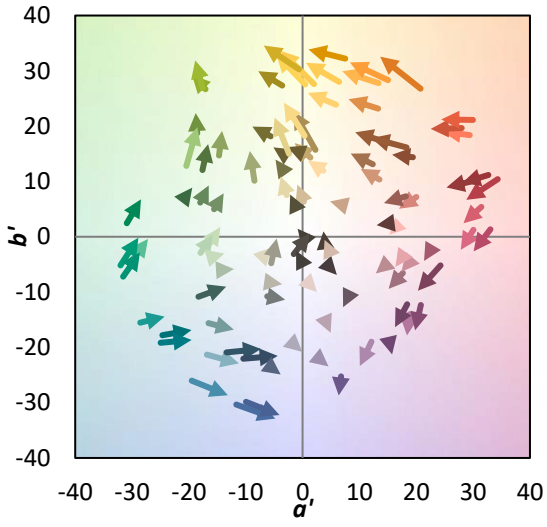



## Color Vector Graphics



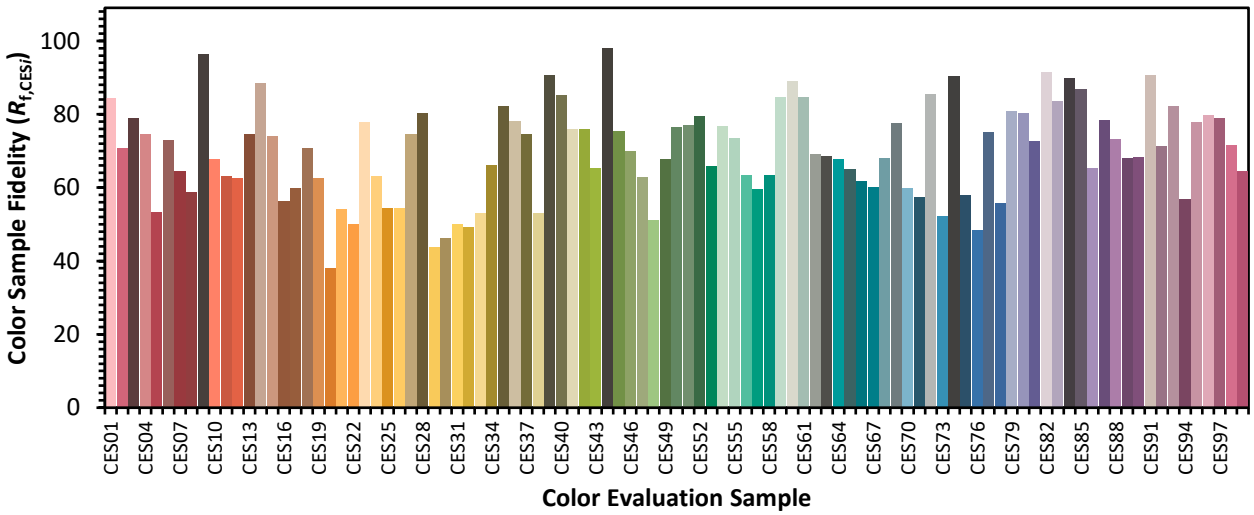
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 54 | CES51 = 77 | CES76 = 48 |
| CES02 = 63 | CES27 = 74 | CES52 = 80 | CES77 = 75 |
| CES03 = 31 | CES28 = 80 | CES53 = 66 | CES78 = 56 |
| CES04 = 71 | CES29 = 44 | CES54 = 77 | CES79 = 81 |
| CES05 = 50 | CES30 = 46 | CES55 = 74 | CES80 = 80 |
| CES06 = 52 | CES31 = 50 | CES56 = 63 | CES81 = 73 |
| CES07 = 42 | CES32 = 49 | CES57 = 60 | CES82 = 91 |
| CES08 = 41 | CES33 = 53 | CES58 = 63 | CES83 = 84 |
| CES09 = 29 | CES34 = 66 | CES59 = 85 | CES84 = 90 |
| CES10 = 77 | CES35 = 82 | CES60 = 89 | CES85 = 87 |
| CES11 = 60 | CES36 = 78 | CES61 = 85 | CES86 = 65 |
| CES12 = 66 | CES37 = 75 | CES62 = 69 | CES87 = 78 |
| CES13 = 43 | CES38 = 53 | CES63 = 68 | CES88 = 73 |
| CES14 = 74 | CES39 = 91 | CES64 = 68 | CES89 = 68 |
| CES15 = 71 | CES40 = 85 | CES65 = 65 | CES90 = 68 |
| CES16 = 48 | CES41 = 76 | CES66 = 62 | CES91 = 91 |
| CES17 = 50 | CES42 = 76 | CES67 = 60 | CES92 = 71 |
| CES18 = 57 | CES43 = 65 | CES68 = 68 | CES93 = 82 |
| CES19 = 73 | CES44 = 98 | CES69 = 77 | CES94 = 57 |
| CES20 = 67 | CES45 = 75 | CES70 = 60 | CES95 = 78 |
| CES21 = 88 | CES46 = 70 | CES71 = 57 | CES96 = 80 |
| CES22 = 80 | CES47 = 63 | CES72 = 86 | CES97 = 79 |
| CES23 = 92 | CES48 = 51 | CES73 = 52 | CES98 = 71 |
| CES24 = 91 | CES49 = 68 | CES74 = 90 | CES99 = 64 |
| CES25 = 73 | CES50 = 77 | CES75 = 58 | |

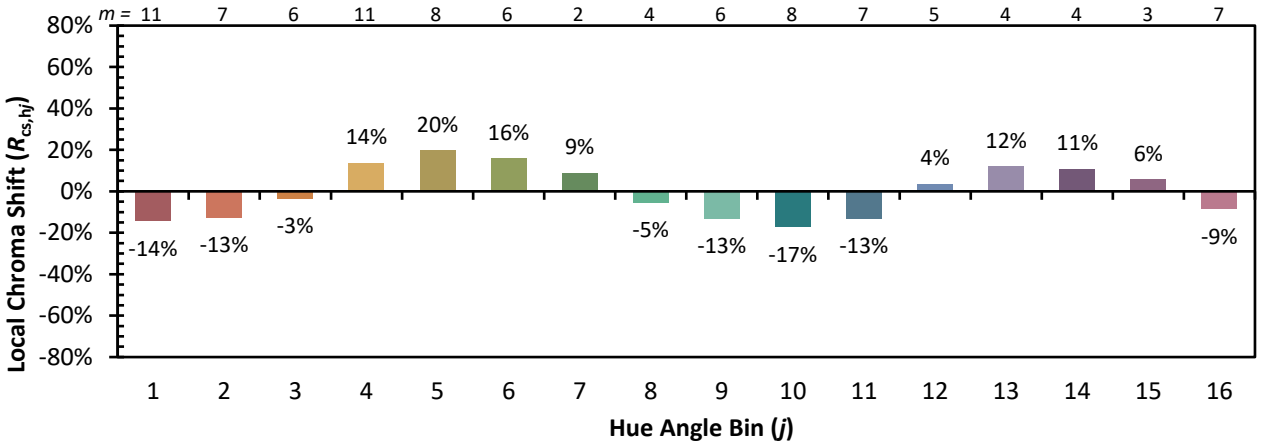


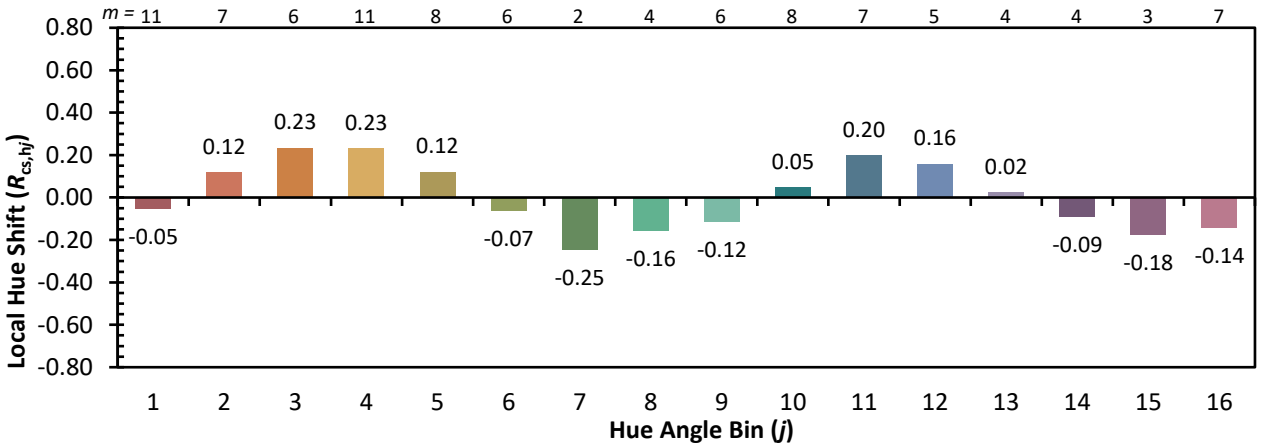
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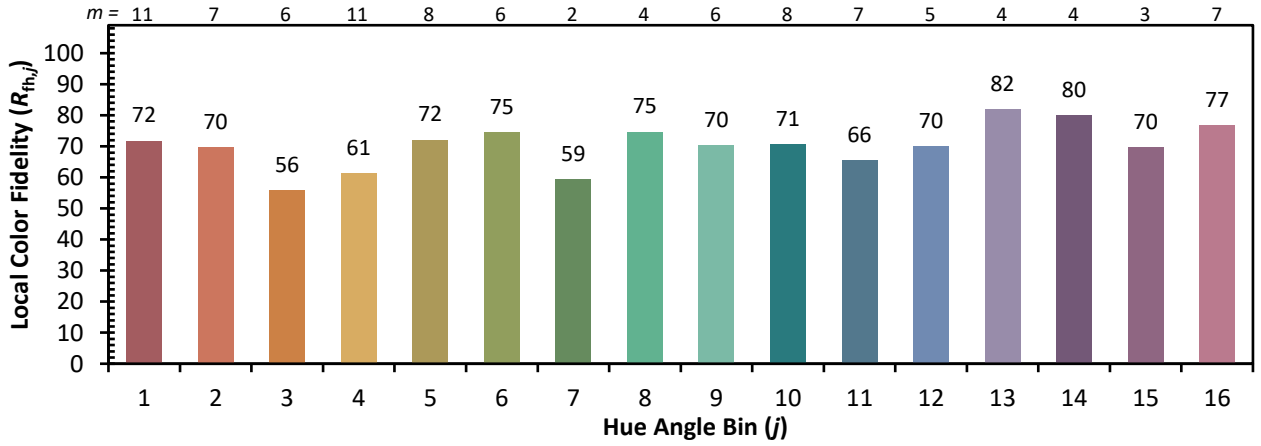
REPORT NUMBER: SP1-1908-441-1-R4

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### Color Rendition by Hue-Angle Bin



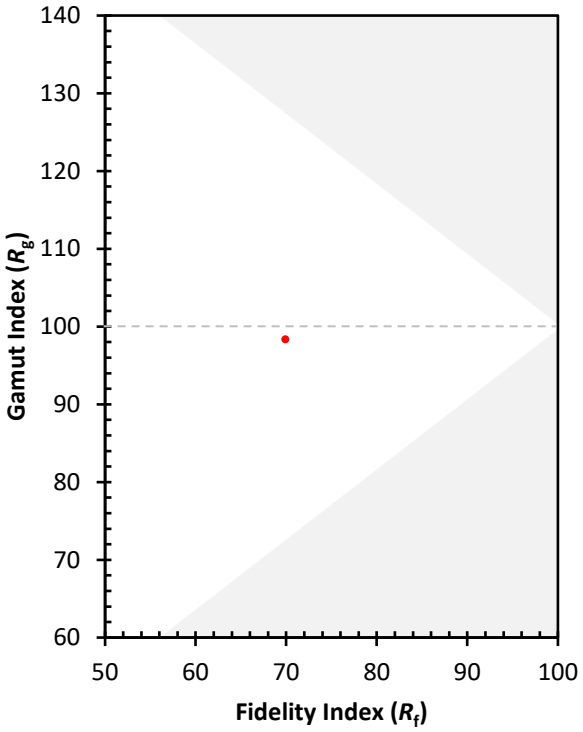



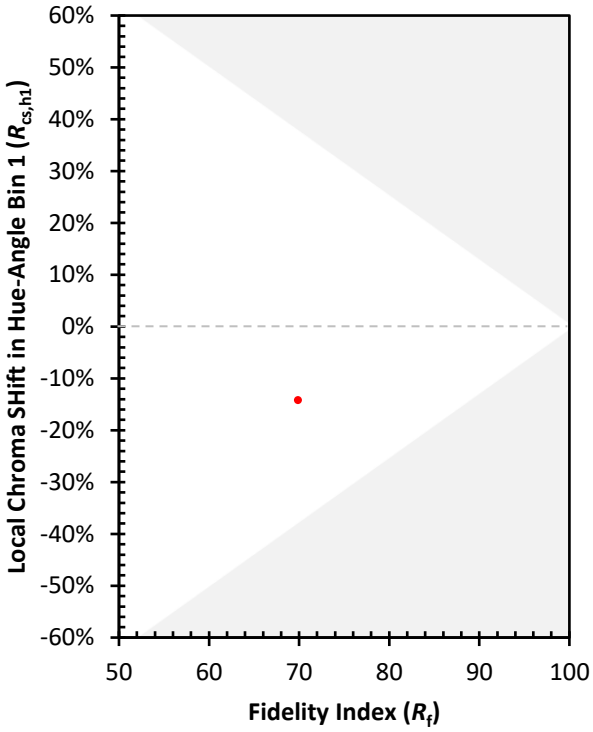
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### Measure Comparisons




(END OF REPORT)