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: P1200155

Luminaire Tested: GPC-SB2C-727-U-T3R-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: | P1200155 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2C-727-U-T3R-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III ROADWAY OPTI WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 11563 lumens |
| Efficiency: | N/A |
| Efficacy: | 114.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| 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 |

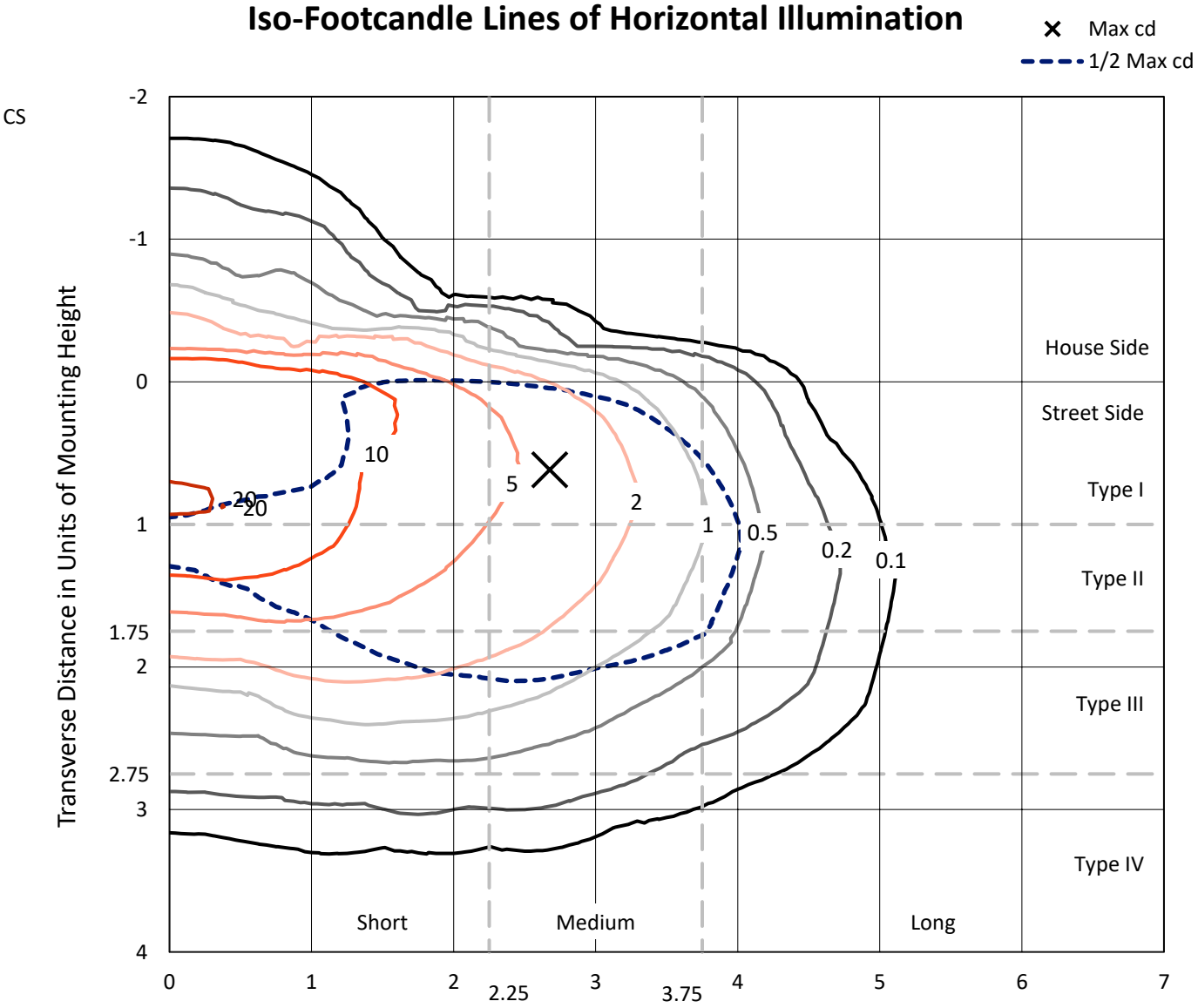


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Scaled Data Report

REPORT NUMBER: P1200155
CATALOG NUMBER: GPC-SB2C-727-U-T3R-HSS

## Iso-Footcandle Lines of Horizontal Illumination



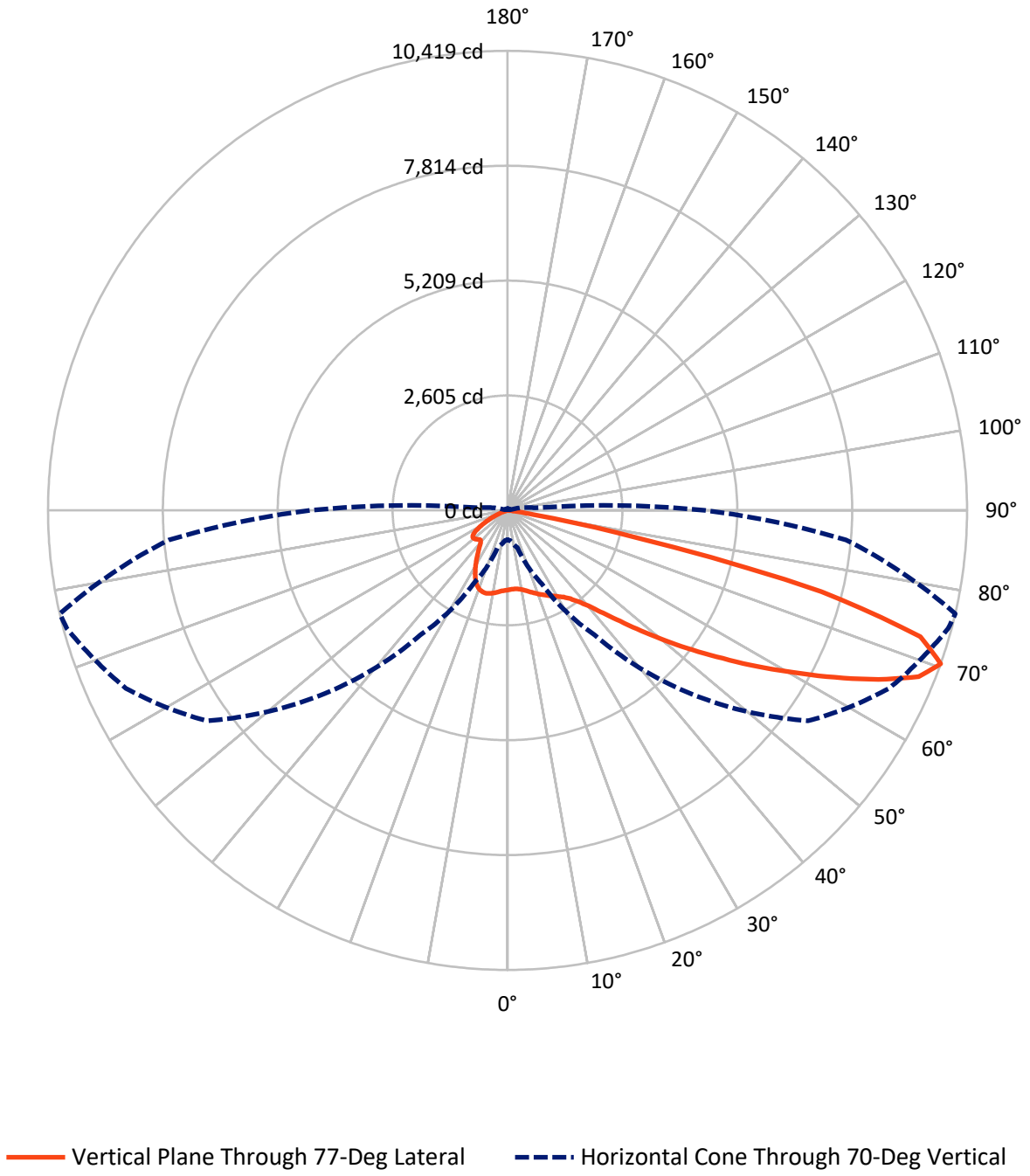

Based on 10 foot mounting height. Maximum calculated value = 21.2 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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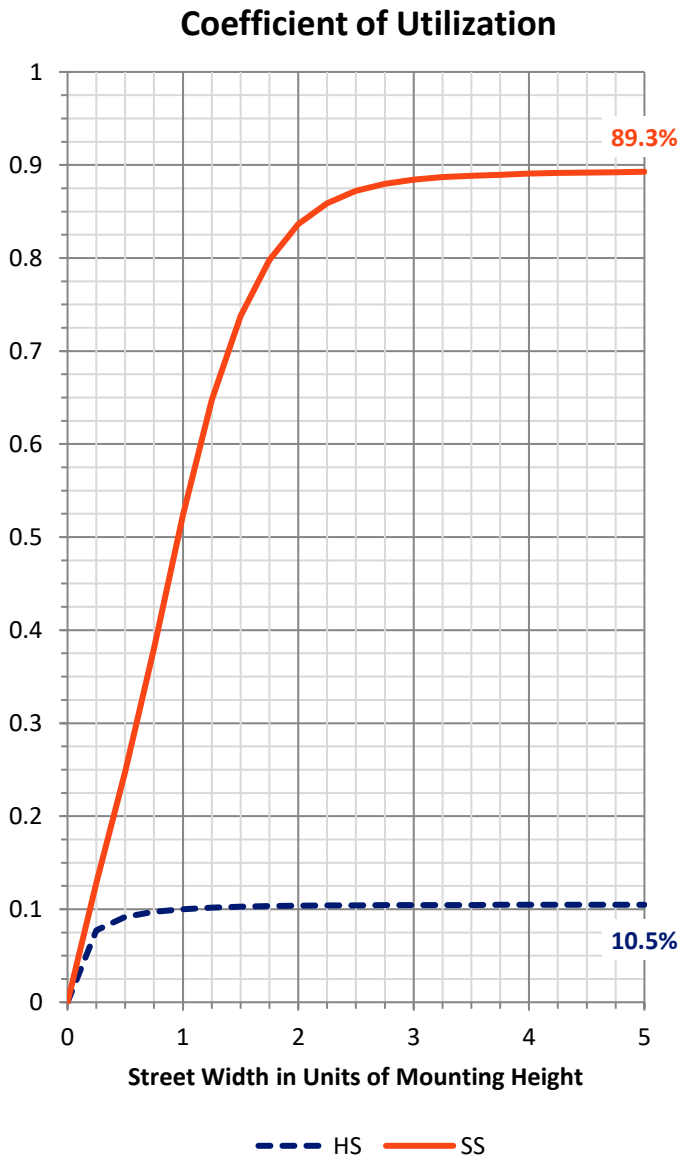
REPORT NUMBER: P1200155
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1218.9 | 0.0 | 1218.9 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| **Street Side** | Lumens | 10344.1 | 0.0 | 10344.1 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| **Total** | Lumens | 11563.0 | 0.0 | 11563.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 155.4 | 1.3 |
| 10°-20° | 369.0 | 3.2 |
| 20°-30° | 570.7 | 4.9 |
| 30°-40° | 1035.7 | 9.0 |
| 40°-50° | 1954.9 | 16.9 |
| 50°-60° | 2824.7 | 24.4 |
| 60°-70° | 3006.8 | 26.0 |
| 70°-80° | 1593.4 | 13.8 |
| 80°-90° | 52.3 | 0.5 |
| 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° | 11563.0 | 100.0 |
| 0°-180° | 11563.0 | 100.0 |



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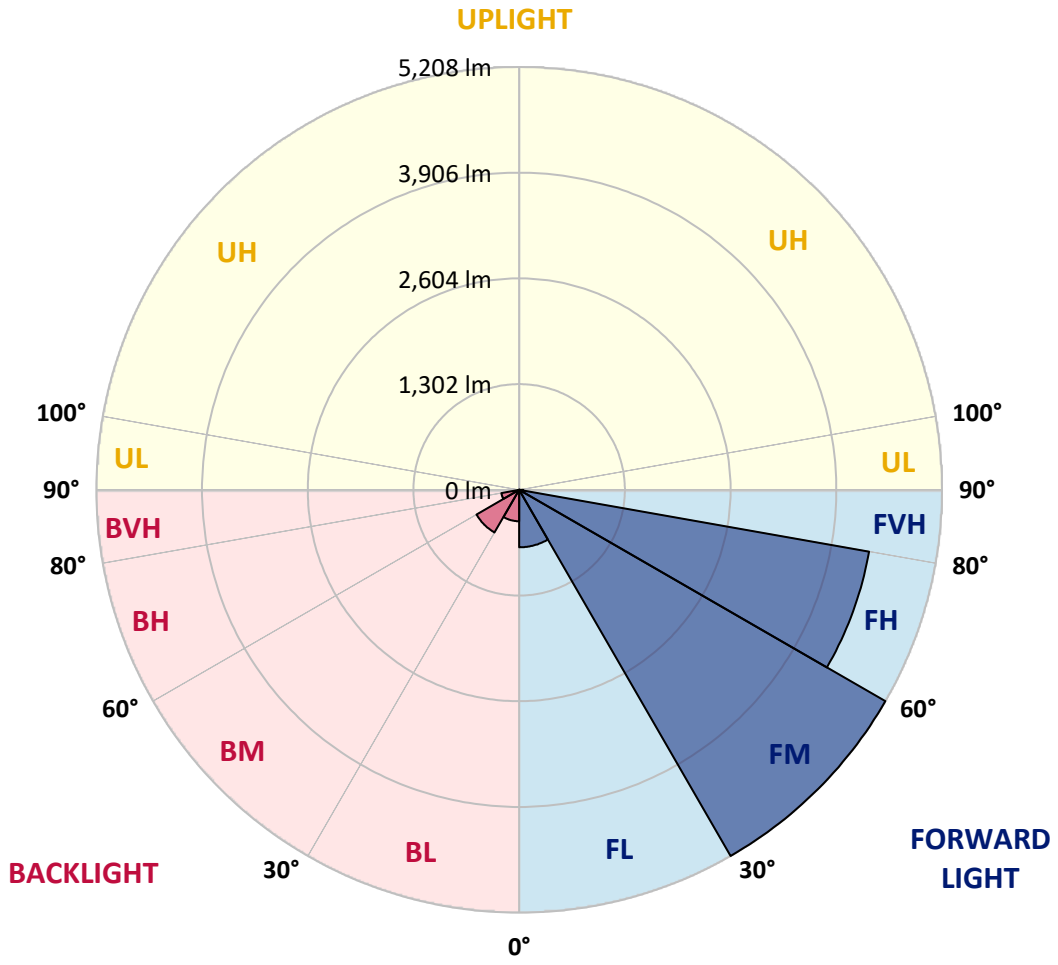
Scaled Data Report

REPORT NUMBER: P1200155
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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°) | 707.9 | 6.1 | | | |
| FM | (30°-60°) | 5208.5 | 45.0 | | | |
| FH | (60°-80°) | 4376.8 | 37.9 | | | G2/5000 |
| FVH | (80°-90°) | 50.9 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 387.3 | 3.3 | B1/500 | | |
| BM | (30°-60°) | 606.8 | 5.2 | B1/1000 | | |
| BH | (60°-80°) | 223.5 | 1.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.4 | 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 III Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | *1803.6* | 1803.6 |
| 2.5° | 1693.4 | 1708.7 | 1706.5 | 1716.7 | 1720.4 | 1735.0 | 1749.6 | 1769.3 | 1791.2 | *1790.5* | 1805.1 |
| 5° | 1597.7 | 1613.0 | 1616.7 | 1630.6 | 1648.1 | 1670.7 | 1700.7 | 1740.1 | 1781.0 | *1787.6* | 1816.8 |
| 7.5° | 1484.5 | 1500.6 | 1510.1 | 1537.8 | 1570.0 | 1616.7 | 1665.6 | 1723.3 | 1791.2 | *1800.7* | 1856.9 |
| 10° | 1371.3 | 1385.9 | 1398.4 | 1437.8 | 1488.9 | 1558.3 | 1637.9 | 1721.1 | 1812.4 | *1826.3* | 1905.8 |
| 12.5° | 1301.2 | 1315.1 | 1329.0 | 1363.3 | 1426.8 | 1511.5 | 1619.6 | 1731.3 | 1847.4 | *1867.1* | 1972.3 |
| 15° | 1276.4 | 1288.8 | 1299.8 | 1330.4 | 1389.6 | 1486.0 | 1616.0 | 1752.5 | 1892.0 | *1918.3* | 2052.6 |
| 17.5° | 1280.1 | 1286.6 | 1293.9 | 1317.3 | 1375.0 | 1474.3 | 1622.5 | 1789.0 | 1944.5 | *1967.9* | 2132.9 |
| 20° | 1301.2 | 1304.9 | 1305.6 | 1321.7 | 1372.8 | 1472.8 | 1635.7 | 1824.1 | 1994.2 | *2025.6* | 2212.5 |
| 22.5° | 1328.3 | 1329.7 | 1328.3 | 1339.2 | 1386.7 | 1483.8 | 1653.2 | 1866.4 | 2049.7 | *2078.9* | 2292.9 |
| 25° | 1454.6 | 1426.8 | 1391.8 | 1370.6 | 1410.0 | 1505.0 | 1679.5 | 1923.4 | 2110.3 | *2138.8* | 2371.0 |
| 27.5° | 1846.7 | 1767.1 | 1641.5 | 1500.6 | 1458.2 | 1535.6 | 1716.0 | 1981.1 | 2171.6 | *2197.2* | 2455.0 |
| 30° | 2483.4 | 2379.0 | 2165.8 | 1848.2 | 1613.0 | 1599.9 | 1763.5 | 2038.7 | 2236.6 | *2264.4* | 2544.8 |
| 32.5° | 3121.6 | 3096.1 | 2850.0 | 2410.4 | 1961.3 | 1743.0 | 1842.3 | 2116.9 | 2322.8 | *2344.7* | 2666.0 |
| 35° | 3767.2 | 3715.3 | 3513.8 | 3079.3 | 2498.0 | 2034.4 | 1973.8 | 2219.1 | 2436.0 | *2460.8* | 2842.7 |
| 37.5° | 4261.5 | 4230.1 | 4105.2 | 3747.4 | 3134.8 | 2484.2 | 2198.7 | 2377.6 | 2600.3 | *2628.0* | 3069.1 |
| 40° | 4698.2 | 4683.6 | 4641.2 | 4405.4 | 3846.7 | 3072.7 | 2548.4 | 2622.9 | 2828.1 | *2861.0* | 3346.6 |
| 42.5° | 5041.4 | 5075.7 | 5099.8 | 5034.1 | 4580.6 | 3744.5 | 3018.7 | 2967.6 | 3145.7 | *3179.3* | 3700.0 |
| 45° | 5392.6 | 5404.3 | 5501.4 | 5596.3 | 5309.4 | 4447.0 | 3548.8 | 3371.4 | 3540.8 | *3582.4* | 4123.5 |
| 47.5° | 5618.2 | 5665.0 | 5835.8 | 6003.1 | 5922.0 | 5143.6 | 4118.4 | 3848.2 | 3998.6 | *4076.8* | 4598.1 |
| 50° | 5635.0 | 5723.4 | 5958.5 | 6249.9 | 6368.2 | 5806.6 | 4737.6 | 4391.5 | 4551.4 | *4637.6* | 5104.9 |
| 52.5° | 5355.4 | 5492.6 | 5857.0 | 6283.5 | 6609.1 | 6368.2 | 5378.0 | 4934.8 | 5139.9 | *5252.4* | 5630.7 |
| 55° | 4106.0 | 4285.6 | 5475.1 | 6100.9 | 6618.6 | 6793.9 | 6001.6 | 5500.7 | 5795.7 | *5922.7* | 6198.8 |
| 57.5° | 3577.3 | 3667.8 | 4304.6 | 5784.0 | 6442.6 | 6965.5 | 6565.3 | 6039.6 | 6509.1 | *6666.8* | 6735.5 |
| 60° | 2976.3 | 3095.4 | 3610.2 | 5265.5 | 6203.9 | 6982.3 | 7063.3 | 6734.7 | 7282.4 | *7459.8* | 7227.6 |
| 62.5° | 2022.7 | 2151.9 | 2663.8 | 4374.7 | 5877.5 | 6974.2 | 7471.5 | 7450.3 | 8141.8 | *8332.4* | 7644.6 |
| 65° | 1253.0 | 1334.1 | 1671.5 | 3572.2 | 5421.1 | 6983.0 | 7898.7 | 8319.3 | 9048.8 | *9242.3* | 7967.3 |
| 67.5° | 990.2 | 1027.4 | 1203.4 | 2742.7 | 4634.6 | 6785.8 | 8325.1 | 9136.4 | 9902.4 | *10055.7* | 8065.9 |
| 70° | *665.2* | *687.9* | *875.5* | *1838.7* | *3448.1* | *5876.0* | *8317.1* | *9546.8* | *10342.0* | *10418.6* | *7706.6* |
| 72.5° | 350.5 | 368.0 | 511.9 | 851.4 | 2082.6 | 4176.8 | 7010.7 | 9056.1 | 9904.6 | *9789.2* | 6587.2 |
| 75° | 175.3 | 204.5 | 344.7 | 432.3 | 889.4 | 2329.4 | 4353.5 | 7140.0 | 7795.7 | *7348.8* | 4226.5 |
| 77.5° | 132.9 | 160.6 | 284.8 | 284.8 | 309.6 | 784.2 | 1843.8 | 3894.2 | 3591.9 | *2990.9* | 1240.6 |
| 80° | 84.7 | 109.5 | 249.0 | 215.4 | 129.2 | 199.3 | 480.5 | 1090.9 | 763.1 | *580.5* | 225.6 |
| 82.5° | 49.7 | 71.6 | 207.4 | 142.4 | 72.3 | 73.8 | 135.8 | 232.2 | 197.9 | *154.1* | 69.4 |
| 85° | 19.7 | 46.7 | 142.4 | 56.2 | 28.5 | 18.3 | 40.9 | 49.7 | 40.9 | *30.7* | 17.5 |
| 87.5° | 0.0 | 11.0 | 24.8 | 0.0 | 2.2 | 1.5 | 2.9 | 3.7 | 3.7 | *2.9* | 5.8 |
| 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: P1200155
CATALOG NUMBER: GPC-SB2C-727-U-T3R-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 | 1803.6 |
| 2.5° | 1811.7 | 1813.1 | 1817.5 | 1818.2 | 1808.0 | 1794.9 | 1789.7 | 1787.6 | 1778.8 | 1778.1 | 1779.5 |
| 5° | 1833.6 | 1840.1 | 1833.6 | 1814.6 | 1769.3 | 1705.8 | 1657.6 | 1618.1 | 1582.4 | 1571.4 | 1564.8 |
| 7.5° | 1877.4 | 1883.9 | 1864.2 | 1789.7 | 1675.8 | 1549.5 | 1435.6 | 1355.3 | 1283.0 | 1256.0 | 1245.0 |
| 10° | 1940.2 | 1948.9 | 1886.9 | 1736.4 | 1534.9 | 1331.9 | 1139.1 | 1003.3 | 897.4 | 854.3 | 836.1 |
| 12.5° | 2019.0 | 2022.7 | 1899.3 | 1655.4 | 1351.6 | 1061.7 | 788.6 | 643.3 | 549.1 | 514.1 | 503.1 |
| 15° | 2105.9 | 2100.8 | 1900.7 | 1545.1 | 1101.9 | 750.7 | 514.8 | 422.8 | 384.8 | 373.1 | 373.1 |
| 17.5° | 2197.2 | 2176.0 | 1871.5 | 1385.9 | 828.1 | 513.3 | 381.9 | 360.0 | 353.4 | 350.5 | 349.8 |
| 20° | 2287.0 | 2239.6 | 1818.2 | 1177.8 | 594.4 | 383.4 | 346.8 | 340.3 | 336.6 | 335.2 | 333.7 |
| 22.5° | 2368.8 | 2287.7 | 1726.9 | 936.1 | 431.6 | 338.8 | 327.9 | 322.0 | 315.5 | 312.5 | 311.8 |
| 25° | 2448.4 | 2315.5 | 1598.4 | 710.5 | 345.4 | 316.9 | 308.1 | 297.2 | 288.4 | 284.8 | 283.3 |
| 27.5° | 2525.8 | 2333.0 | 1437.8 | 525.8 | 308.1 | 296.5 | 280.4 | 265.1 | 258.5 | 257.0 | 255.6 |
| 30° | 2608.3 | 2338.9 | 1255.2 | 392.1 | 285.5 | 270.9 | 247.5 | 230.0 | 226.4 | 227.1 | 227.1 |
| 32.5° | 2709.1 | 2347.6 | 1071.2 | 321.3 | 266.5 | 240.2 | 212.5 | 194.2 | 191.3 | 194.2 | 193.5 |
| 35° | 2829.6 | 2365.2 | 893.8 | 295.7 | 249.7 | 208.8 | 178.9 | 163.6 | 160.6 | 162.8 | 162.1 |
| 37.5° | 2993.1 | 2393.6 | 728.0 | 290.6 | 235.9 | 182.6 | 150.4 | 138.0 | 138.0 | 138.7 | 138.0 |
| 40° | 3210.7 | 2469.6 | 579.8 | 287.0 | 228.6 | 162.8 | 127.1 | 121.9 | 124.1 | 125.6 | 125.6 |
| 42.5° | 3475.8 | 2630.9 | 479.7 | 282.6 | 220.5 | 154.1 | 115.4 | 113.2 | 116.8 | 118.3 | 118.3 |
| 45° | 3773.0 | 2835.4 | 444.7 | 275.3 | 213.2 | 159.9 | 110.3 | 107.3 | 111.7 | 112.5 | 113.2 |
| 47.5° | 4080.4 | 3035.5 | 440.3 | 267.3 | 205.9 | 168.7 | 108.8 | 102.2 | 107.3 | 108.1 | 108.8 |
| 50° | 4391.5 | 3166.2 | 444.7 | 254.8 | 194.2 | 168.7 | 109.5 | 97.1 | 101.5 | 103.7 | 104.4 |
| 52.5° | 4704.7 | 3226.1 | 441.8 | 227.8 | 173.8 | 158.5 | 109.5 | 92.7 | 97.1 | 98.6 | 98.6 |
| 55° | 5008.5 | 3214.4 | 397.2 | 187.7 | 147.5 | 140.2 | 106.6 | 89.1 | 92.0 | 92.7 | 92.7 |
| 57.5° | 5248.8 | 3051.5 | 314.7 | 146.0 | 119.8 | 116.8 | 97.1 | 84.7 | 86.9 | 86.2 | 86.2 |
| 60° | 5374.3 | 2693.7 | 224.9 | 112.5 | 94.2 | 92.0 | 85.4 | 78.9 | 80.3 | 76.7 | 75.9 |
| 62.5° | 5375.8 | 2220.6 | 150.4 | 89.1 | 75.2 | 73.0 | 73.0 | 70.8 | 69.4 | 62.1 | 59.9 |
| 65° | 5261.2 | 1695.5 | 100.0 | 70.8 | 60.6 | 57.0 | 61.3 | 60.6 | 55.5 | 45.3 | 43.8 |
| 67.5° | 5001.2 | 1111.4 | 75.9 | 55.5 | 46.7 | 44.5 | 48.9 | 51.1 | 47.5 | 38.0 | 37.2 |
| 70° | *4466.7* | *647.0* | *62.8* | *43.1* | *35.1* | *32.9* | *39.4* | *43.8* | *39.4* | *30.7* | *29.2* |
| 72.5° | 3710.2 | 349.0 | 51.1 | 32.1 | 24.1 | 21.9 | 31.4 | 35.8 | 31.4 | 22.6 | 21.9 |
| 75° | 2407.5 | 186.9 | 39.4 | 21.2 | 12.4 | 13.9 | 23.4 | 26.3 | 21.9 | 14.6 | 13.1 |
| 77.5° | 808.3 | 82.5 | 24.8 | 10.2 | 5.8 | 5.8 | 13.9 | 16.1 | 10.2 | 5.1 | 4.4 |
| 80° | 180.4 | 34.3 | 10.2 | 4.4 | 2.2 | 2.2 | 2.9 | 2.9 | 1.5 | 0.0 | 0.0 |
| 82.5° | 59.1 | 13.9 | 4.4 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 22.6 | 5.1 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 8.8 | 0.7 | 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: SP1-1908-441-1-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

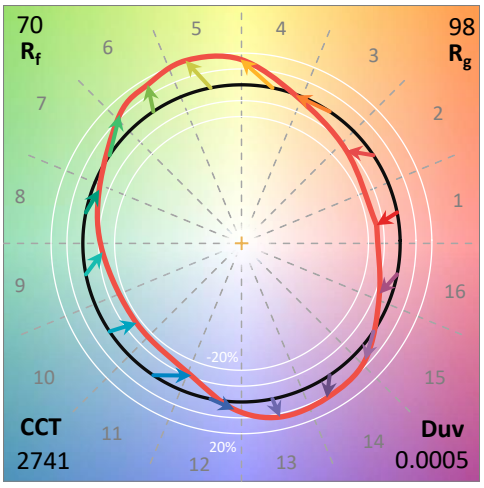
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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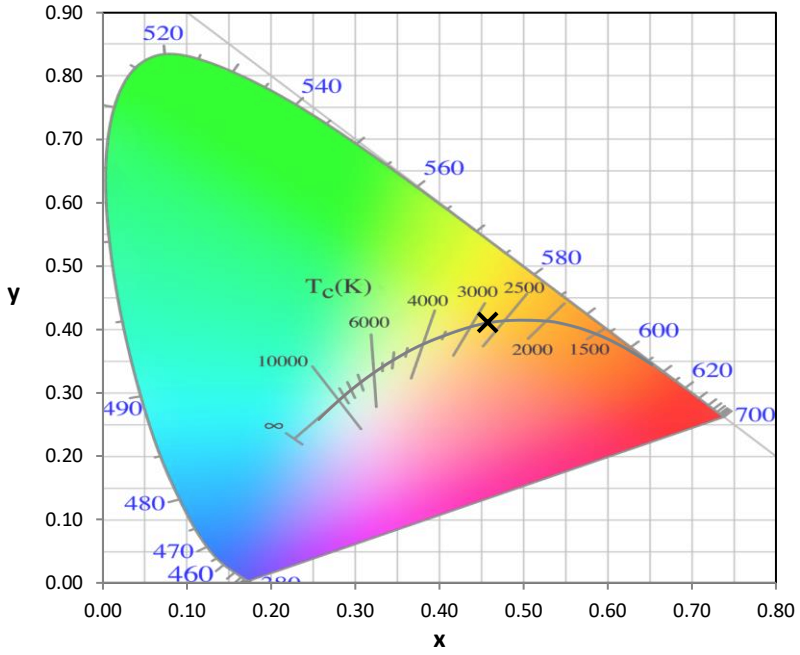
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

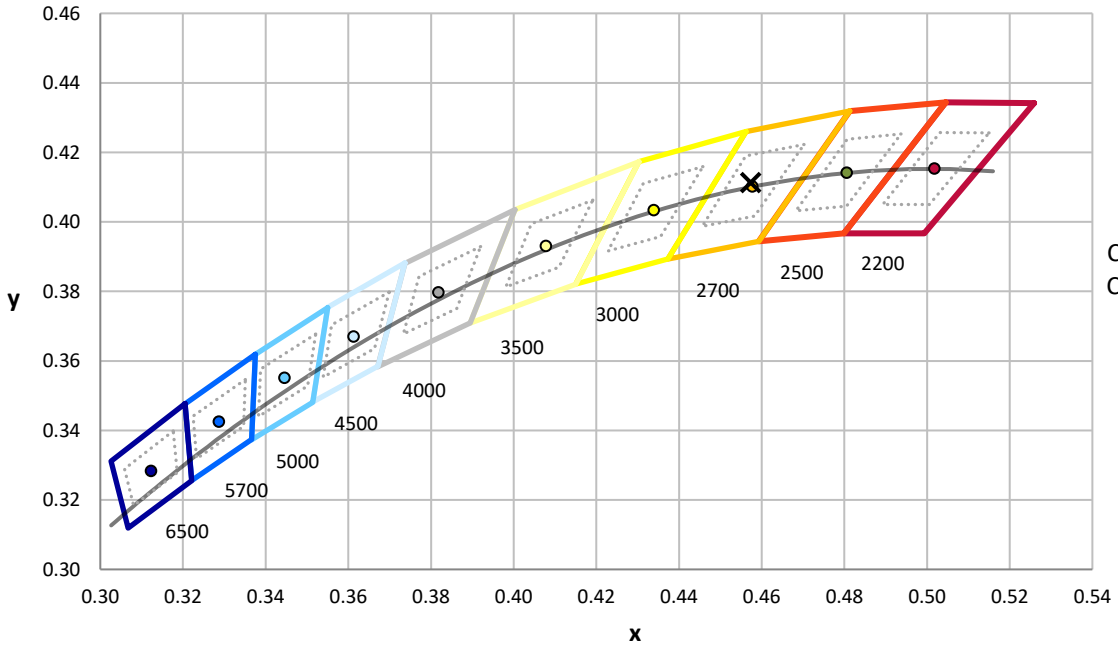
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Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



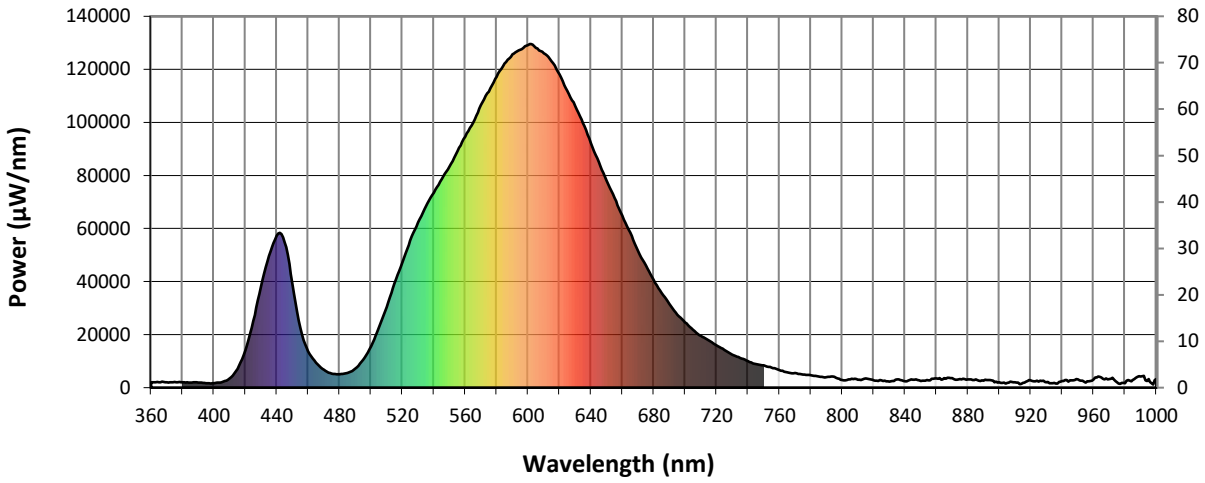

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



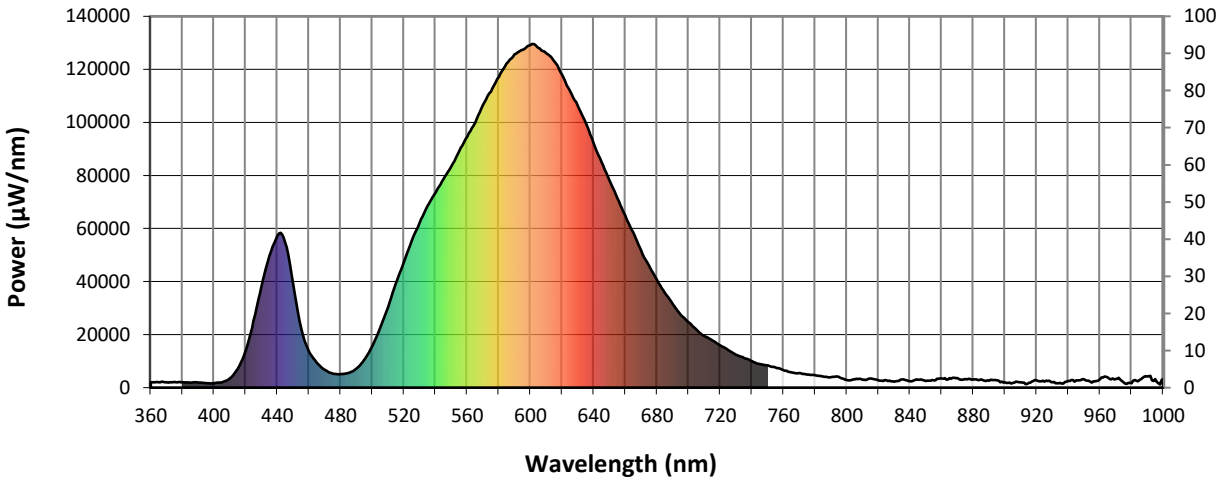

######

| 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



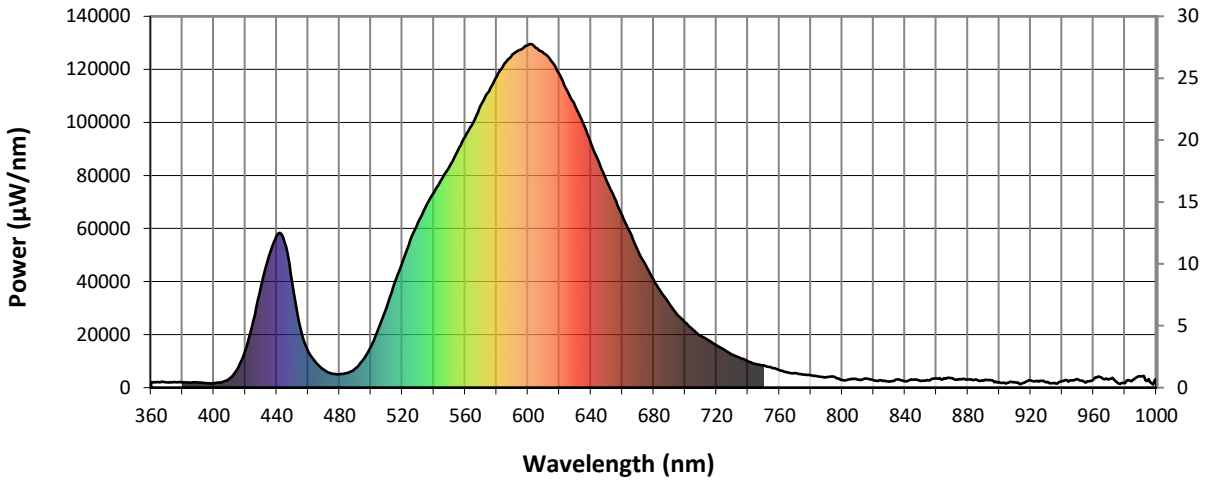

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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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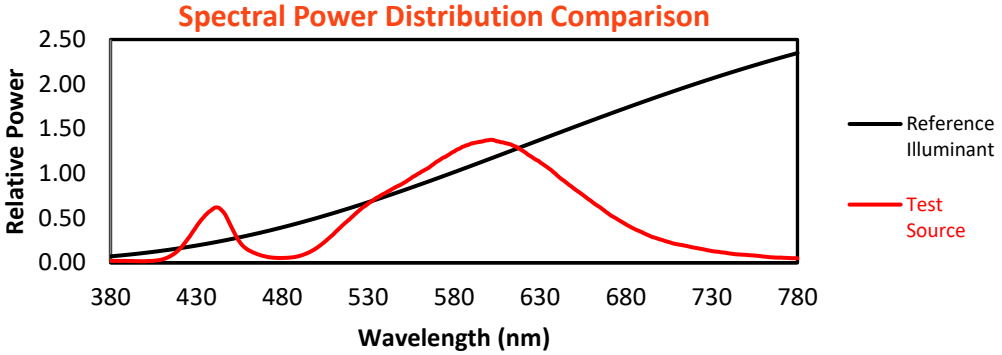
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# TM-30-18

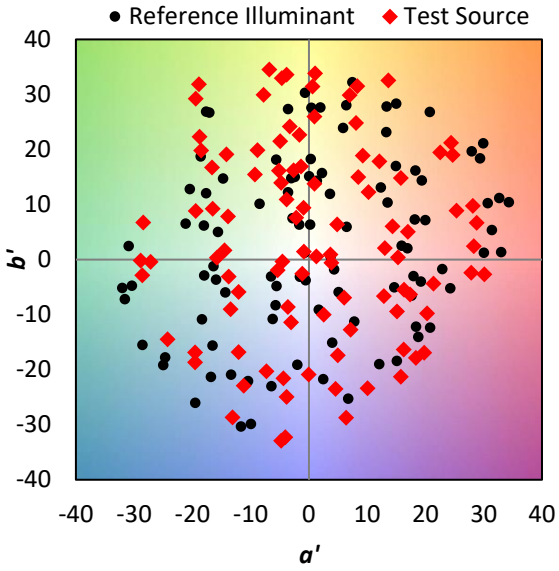
## Summary

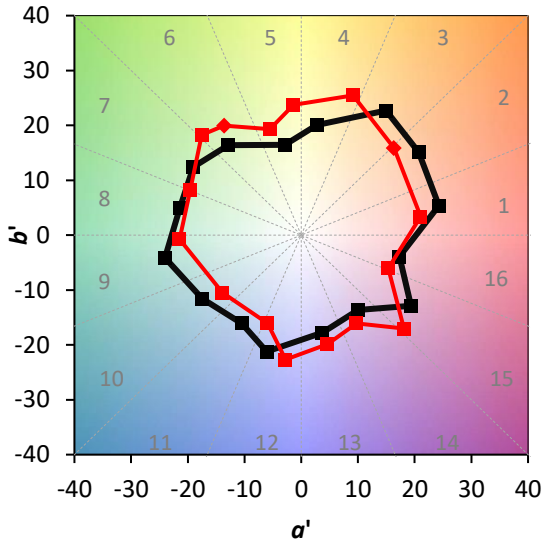
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

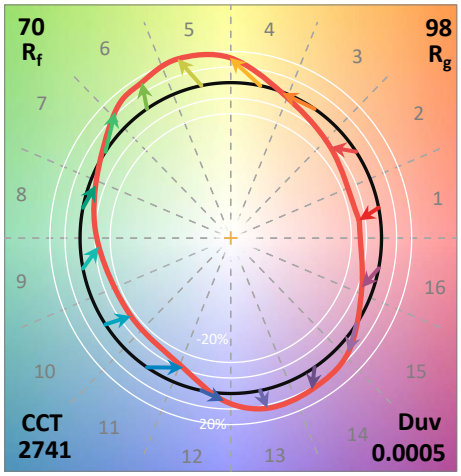
## Spectral Power Distribution Comparison

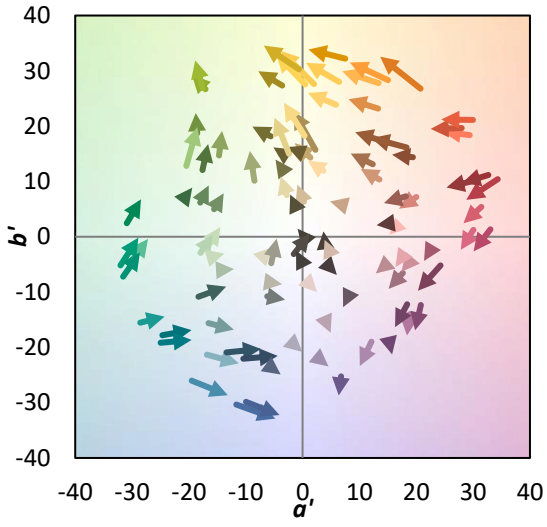



## Color Vector Graphics



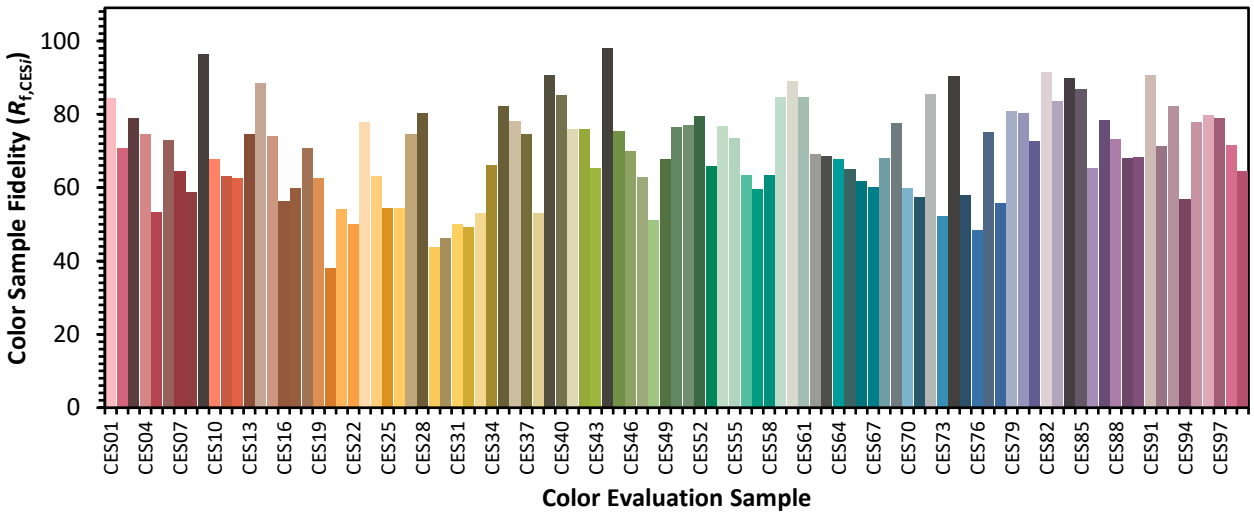
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Peachtree City, GA 30269

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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 | |

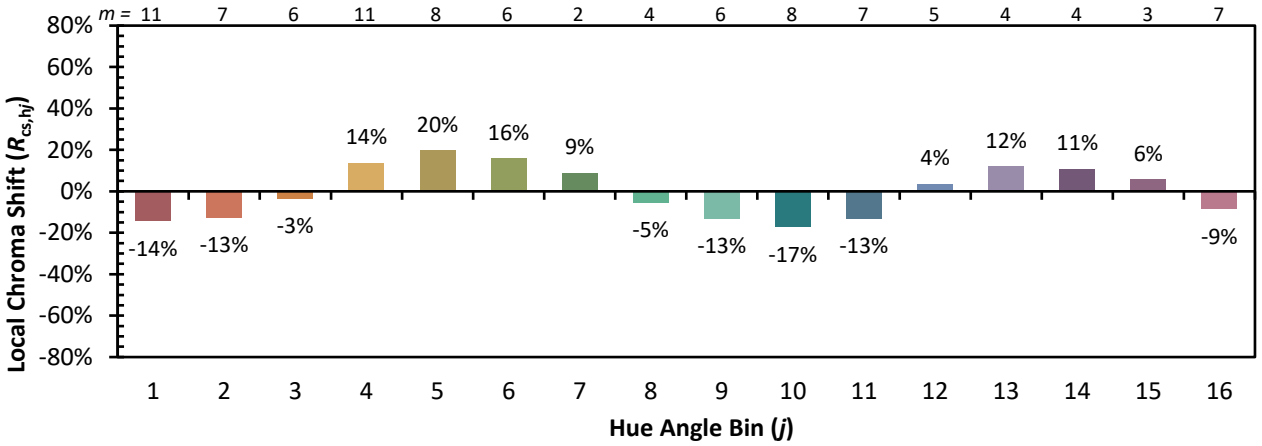


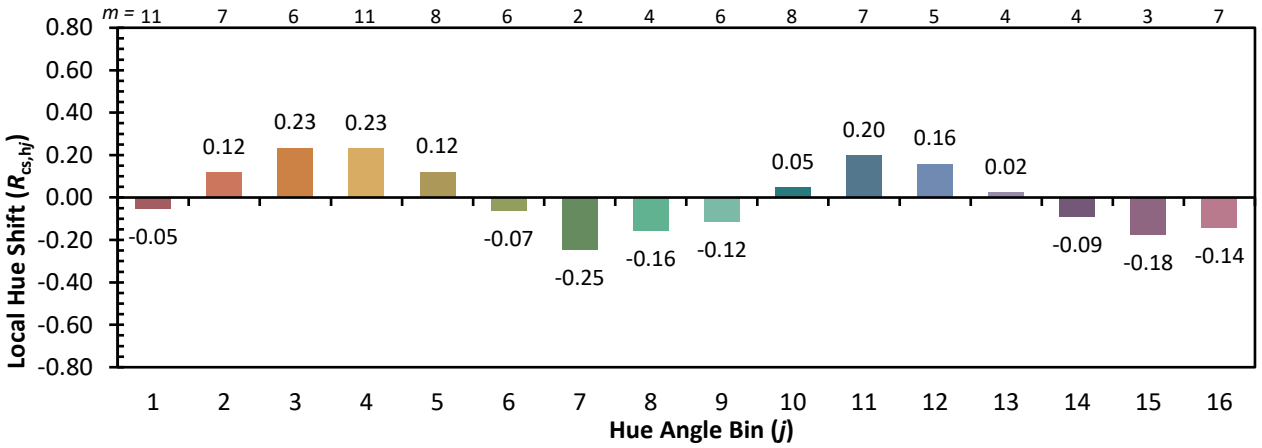
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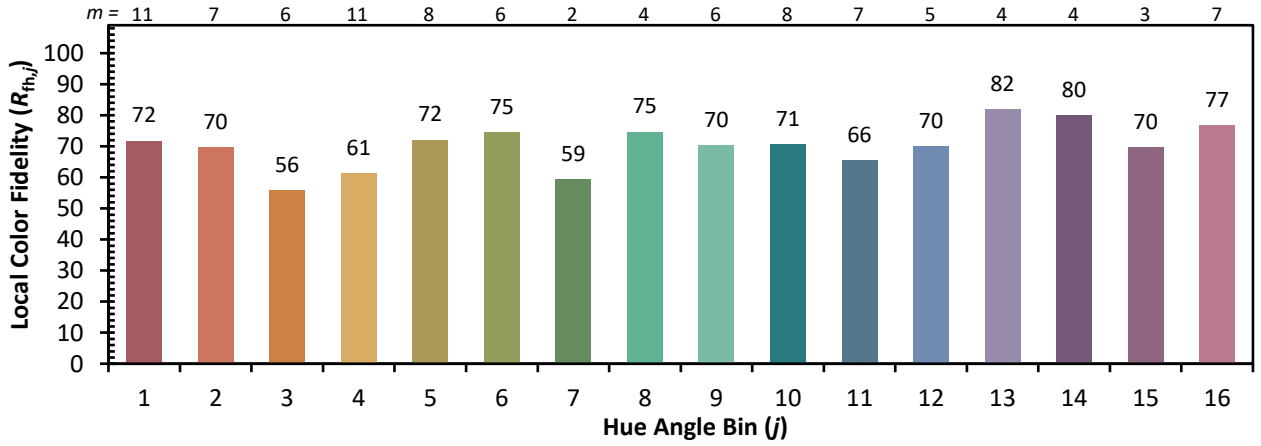
REPORT NUMBER: SP1-1908-441-1-R4

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### Color Rendition by Hue-Angle Bin



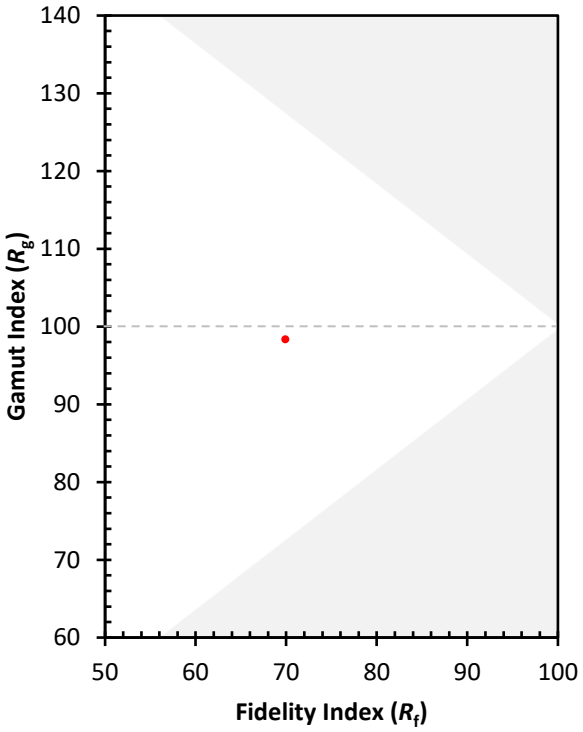



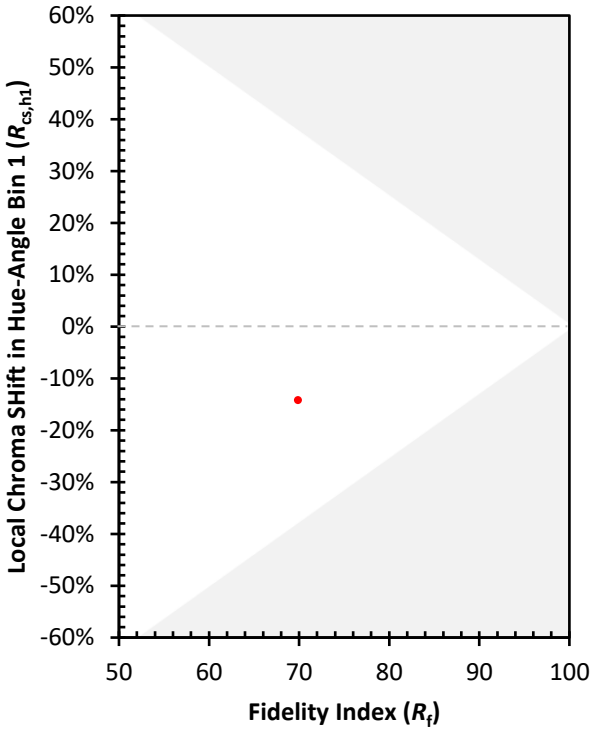
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### Measure Comparisons




(END OF REPORT)