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: P1198715

Luminaire Tested: GPC-SB1D-727-U-SL3

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: | P1198715 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB1D-727-U-SL3 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL LIGHT ELIMINATOR OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9274 lumens |
| Efficiency: | N/A |
| Efficacy: | 116.5 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Medium |
| BUG Rating: | B1 - U0 - G3 |

| | |
|---|---|
| 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 |

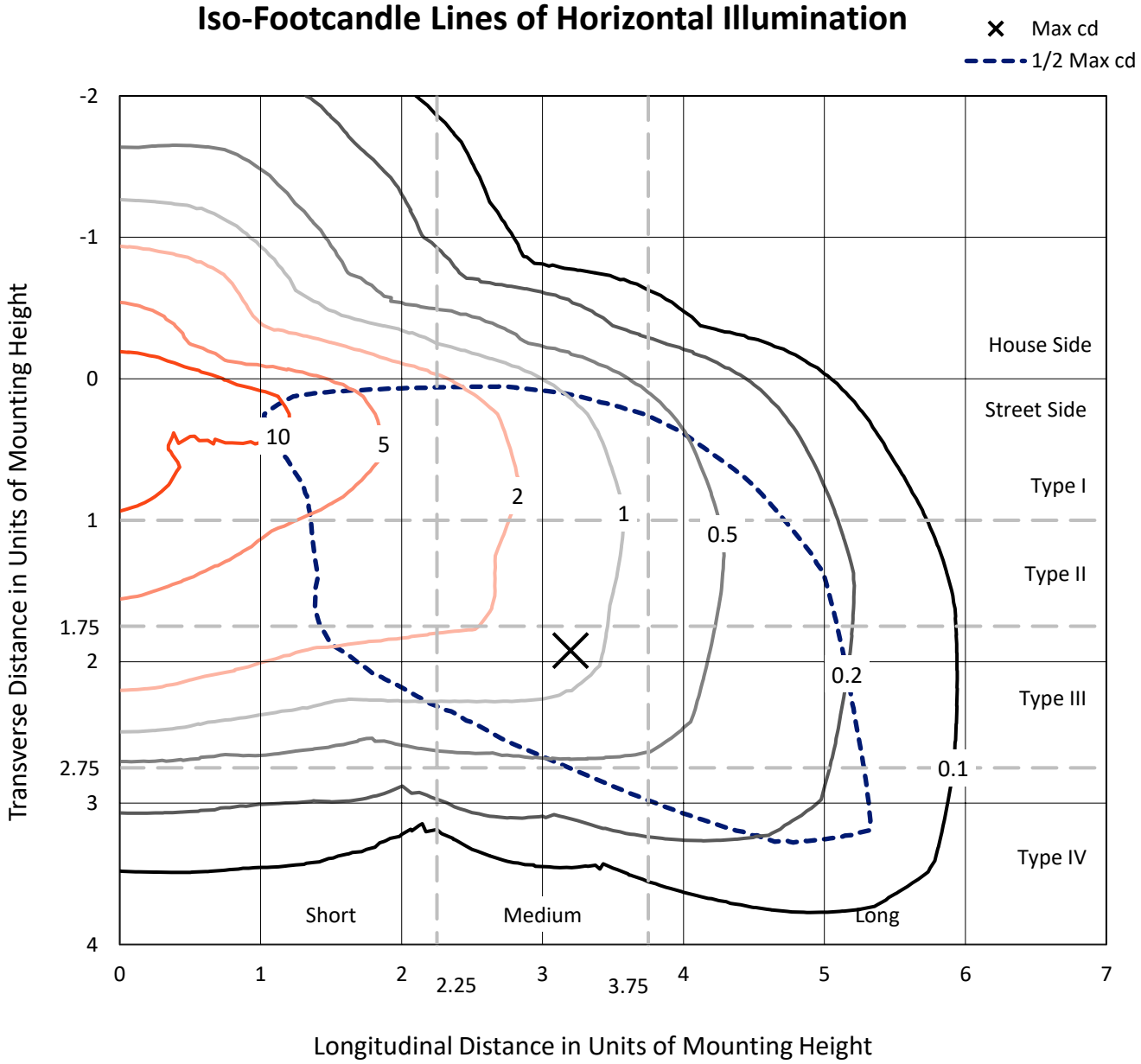


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REPORT NUMBER: P1198715
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## Iso-Footcandle Lines of Horizontal Illumination



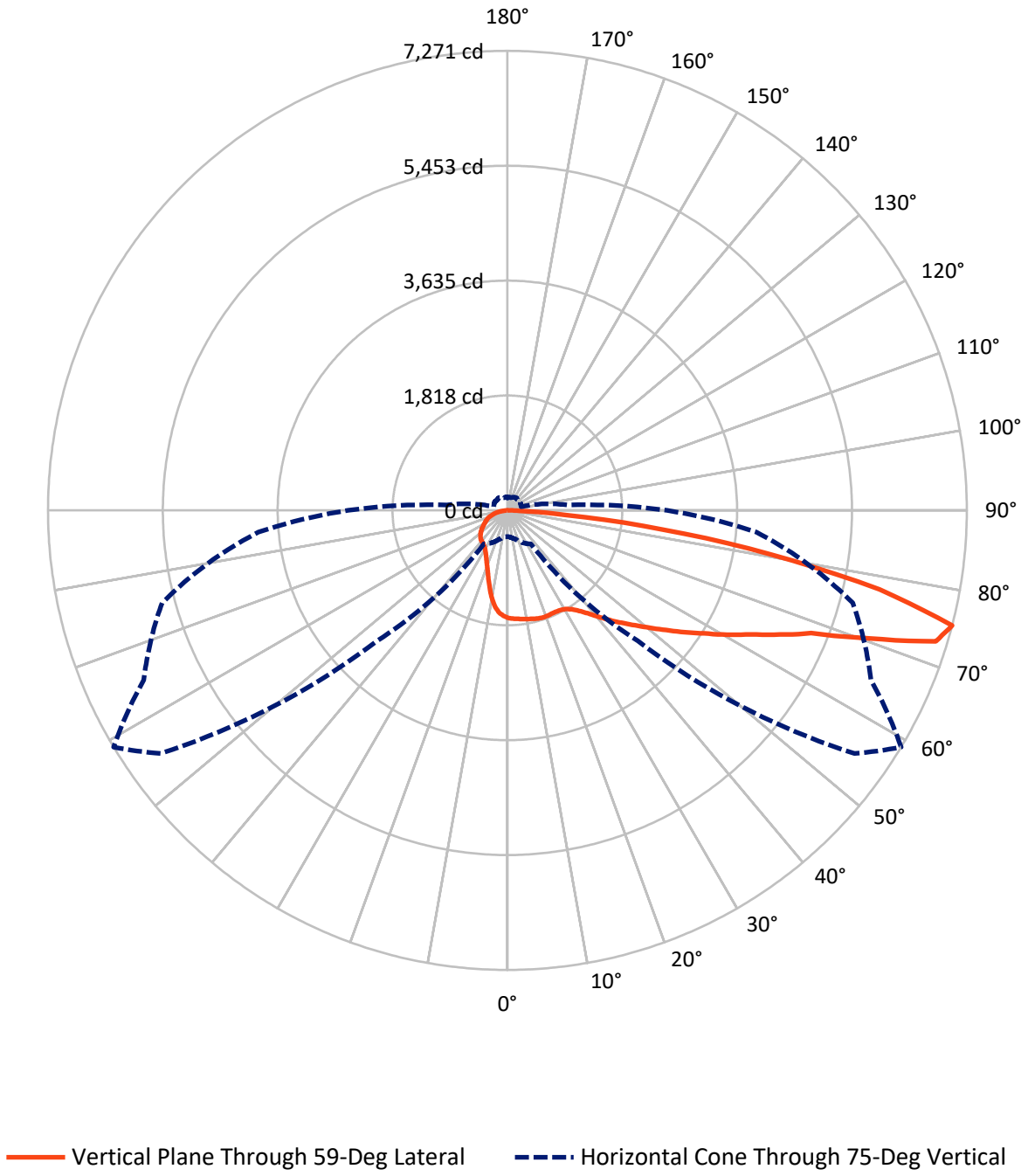

Based on 10 foot mounting height. Maximum calculated value = 17 fc
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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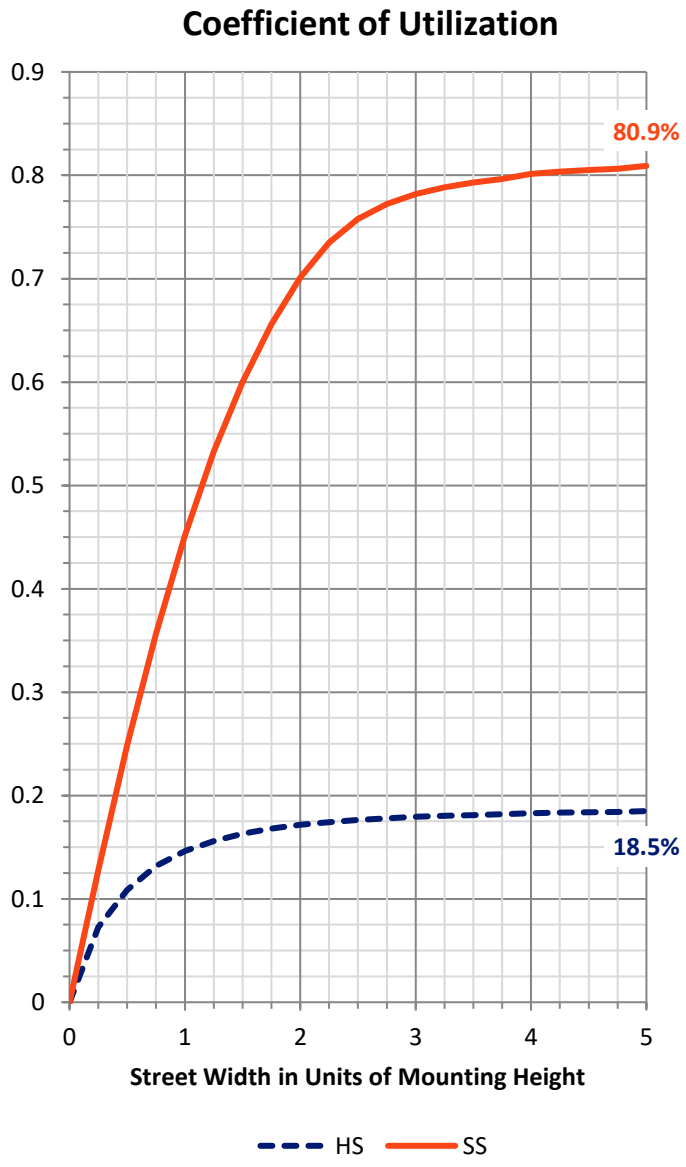
REPORT NUMBER: P1198715
CATALOG NUMBER: GPC-SB1D-727-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1739.4 | 0.0 | 1739.4 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| **Street Side** | Lumens | 7534.6 | 0.0 | 7534.6 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| **Total** | Lumens | 9274.0 | 0.0 | 9274.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 152.6 | 1.6 |
| 10°-20° | 390.1 | 4.2 |
| 20°-30° | 592.6 | 6.4 |
| 30°-40° | 880.9 | 9.5 |
| 40°-50° | 1310.0 | 14.1 |
| 50°-60° | 1778.2 | 19.2 |
| 60°-70° | 2170.8 | 23.4 |
| 70°-80° | 1703.7 | 18.4 |
| 80°-90° | 295.1 | 3.2 |
| 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° | 9274.0 | 100.0 |
| 0°-180° | 9274.0 | 100.0 |



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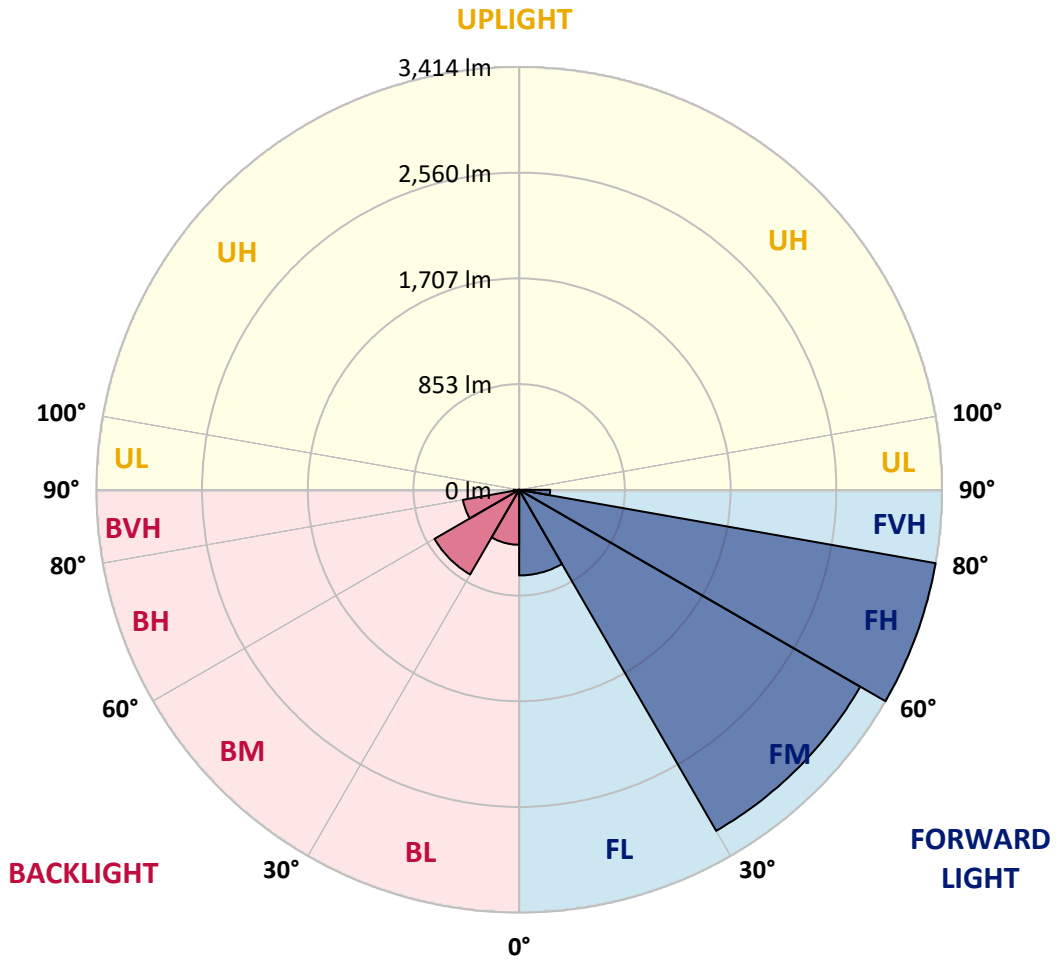
Scaled Data Report

REPORT NUMBER: P1198715
CATALOG NUMBER: GPC-SB1D-727-U-SL3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 691.5 | 7.5 | | | |
| FM | (30°-60°) | 3179.5 | 34.3 | | | |
| FH | (60°-80°) | 3413.7 | 36.8 | | | G2/5000 |
| FVH | (80°-90°) | 249.9 | 2.7 | | | G3/500 |
| BL | (0°-30°) | 443.9 | 4.8 | B1/500 | | |
| BM | (30°-60°) | 789.5 | 8.5 | B1/1000 | | |
| BH | (60°-80°) | 460.8 | 5.0 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 45.2 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G3**
Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | *1702.2* | 1702.2 | 1702.2 | 1702.2 |
| 2.5° | 1716.7 | 1710.7 | 1716.7 | 1714.2 | 1713.2 | 1711.2 | 1711.7 | *1715.2* | 1713.2 | 1715.7 | 1707.2 |
| 5° | 1705.2 | 1701.7 | 1707.7 | 1706.2 | 1712.7 | 1713.7 | 1720.2 | *1724.2* | 1726.7 | 1727.2 | 1720.7 |
| 7.5° | 1686.3 | 1682.8 | 1691.2 | 1698.2 | 1712.2 | 1716.2 | 1729.7 | *1736.1* | 1739.6 | 1745.6 | 1736.1 |
| 10° | 1616.9 | 1615.4 | 1636.4 | 1662.8 | 1695.7 | 1716.2 | 1736.6 | *1747.6* | 1753.1 | 1769.1 | 1758.1 |
| 12.5° | 1494.2 | 1496.2 | 1523.6 | 1574.5 | 1640.4 | 1706.2 | 1744.6 | *1760.6* | 1769.1 | 1789.0 | 1784.0 |
| 15° | 1376.9 | 1376.4 | 1406.4 | 1460.8 | 1553.1 | 1662.3 | 1748.6 | *1776.1* | 1790.5 | 1820.0 | 1816.0 |
| 17.5° | 1309.1 | 1307.1 | 1328.1 | 1369.5 | 1455.3 | 1595.0 | 1738.6 | *1784.5* | 1815.5 | 1852.4 | 1848.9 |
| 20° | 1296.6 | 1292.6 | 1303.6 | 1324.1 | 1384.9 | 1521.1 | 1712.7 | *1784.5* | 1835.4 | 1883.3 | 1881.3 |
| 22.5° | 1342.0 | 1335.5 | 1331.0 | 1328.6 | 1355.5 | 1460.3 | 1683.3 | *1778.6* | 1864.9 | 1927.7 | 1924.2 |
| 25° | 1433.3 | 1423.3 | 1400.4 | 1377.9 | 1370.0 | 1432.8 | 1657.3 | *1777.1* | 1908.8 | 1987.6 | 1974.6 |
| 27.5° | 1581.0 | 1568.5 | 1522.1 | 1468.2 | 1419.8 | 1446.8 | 1645.8 | *1786.0* | 1957.2 | 2050.9 | 2025.0 |
| 30° | 1764.1 | 1750.6 | 1692.2 | 1609.4 | 1522.6 | 1498.7 | 1660.3 | *1812.5* | 2019.0 | 2135.3 | 2084.4 |
| 32.5° | 1928.2 | 1913.3 | 1863.4 | 1779.1 | 1661.8 | 1588.5 | 1706.2 | *1862.9* | 2116.3 | 2252.5 | 2173.7 |
| 35° | 2073.9 | 2056.4 | 2011.5 | 1933.7 | 1832.4 | 1714.7 | 1789.0 | *1952.2* | 2254.5 | 2443.1 | 2294.9 |
| 37.5° | 2216.6 | 2196.1 | 2147.2 | 2064.9 | 1994.1 | 1882.8 | 1903.3 | *2066.9* | 2438.1 | 2674.6 | 2455.6 |
| 40° | 2376.2 | 2346.8 | 2287.4 | 2206.1 | 2137.3 | 2079.9 | 2053.4 | *2207.6* | 2624.7 | 2933.0 | 2656.1 |
| 42.5° | 2530.9 | 2502.9 | 2432.1 | 2362.8 | 2276.4 | 2260.0 | 2227.6 | *2372.2* | 2828.7 | 3216.9 | 2859.7 |
| 45° | 2697.5 | 2664.1 | 2578.3 | 2490.5 | 2436.1 | 2379.7 | 2396.2 | *2536.9* | 3028.8 | 3506.2 | 3073.2 |
| 47.5° | 2853.7 | 2816.2 | 2715.0 | 2617.2 | 2587.3 | 2480.5 | 2550.8 | *2718.0* | 3236.8 | 3799.6 | 3284.7 |
| 50° | 2938.0 | 2901.1 | 2816.7 | 2728.4 | 2705.0 | 2604.7 | 2718.5 | *2917.0* | 3454.8 | 4091.9 | 3487.8 |
| 52.5° | 3008.3 | 2968.4 | 2858.2 | 2809.3 | 2802.3 | 2739.9 | 2925.0 | *3144.5* | 3672.8 | 4350.3 | 3683.8 |
| 55° | 3083.2 | 3038.8 | 2898.1 | 2854.2 | 2886.1 | 2891.6 | 3170.0 | *3402.4* | 3903.3 | 4602.3 | 3868.9 |
| 57.5° | 3169.5 | 3113.1 | 2936.5 | 2892.1 | 2967.9 | 3069.2 | 3451.3 | *3669.9* | 4129.8 | 4835.8 | 4033.5 |
| 60° | 3250.8 | 3193.9 | 3010.3 | 2952.4 | 3056.2 | 3275.2 | 3774.1 | *3993.6* | 4386.3 | 5043.8 | 4189.2 |
| 62.5° | 3266.7 | 3219.9 | 3069.2 | 3068.7 | 3176.0 | 3515.7 | 4156.3 | *4320.4* | 4610.3 | 5249.3 | 4328.9 |
| 65° | 2990.4 | 2960.9 | 2871.6 | 3064.2 | 3347.6 | 3861.9 | 4581.8 | *4738.5* | 4895.1 | 5429.0 | 4451.6 |
| 67.5° | 2275.9 | 2279.9 | 2273.5 | 2645.1 | 3208.9 | 4359.3 | 5198.0 | *5186.0* | 5246.9 | 5630.5 | 4592.8 |
| 70° | 1040.7 | 1064.1 | 1216.8 | 1825.9 | 2570.8 | 4416.7 | 6216.7 | *6061.5* | 5688.4 | 5891.4 | 4715.0 |
| 72.5° | 562.3 | 580.2 | 642.6 | 884.5 | 1545.6 | 3926.8 | 6978.0 | *7088.3* | 6275.6 | 6067.0 | 4580.8 |
| 75° | *412.6* | *422.6* | *466.0* | *562.3* | *649.1* | *2918.5* | *6705.1* | *7270.9* | *6348.9* | *5657.4* | *3955.7* |
| 77.5° | 308.8 | 313.3 | 348.7 | 445.5 | 332.3 | 1538.6 | 5357.6 | *6021.6* | 5434.9 | 4648.2 | 2922.0 |
| 80° | 224.0 | 229.0 | 255.4 | 334.3 | 233.0 | 562.8 | 3678.8 | *4226.6* | 3722.2 | 2962.9 | 1456.3 |
| 82.5° | 154.7 | 156.7 | 168.1 | 227.5 | 162.6 | 218.5 | 2087.4 | *2478.5* | 2077.9 | 1039.7 | 393.1 |
| 85° | 93.3 | 95.8 | 100.8 | 132.7 | 92.3 | 103.8 | 901.0 | *931.9* | 621.1 | 248.4 | 122.2 |
| 87.5° | 38.4 | 40.9 | 44.9 | 55.9 | 36.4 | 28.9 | 148.7 | *186.6* | 116.2 | 72.8 | 37.9 |
| 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: P1198715
CATALOG NUMBER: GPC-SB1D-727-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 | 1702.2 |
| 2.5° | 1704.7 | 1701.2 | 1691.7 | 1678.8 | 1666.8 | 1651.8 | 1645.3 | 1639.9 | 1634.9 | 1625.4 | 1620.9 |
| 5° | 1715.2 | 1705.7 | 1680.3 | 1647.3 | 1609.9 | 1569.0 | 1529.1 | 1501.7 | 1478.2 | 1460.8 | 1446.3 |
| 7.5° | 1731.2 | 1713.2 | 1666.8 | 1599.5 | 1513.6 | 1425.8 | 1346.5 | 1290.1 | 1247.7 | 1232.3 | 1205.3 |
| 10° | 1747.6 | 1726.2 | 1645.3 | 1526.6 | 1378.4 | 1243.2 | 1138.0 | 1080.1 | 1046.2 | 1035.2 | 1018.2 |
| 12.5° | 1767.1 | 1735.6 | 1611.9 | 1425.3 | 1227.3 | 1079.1 | 987.3 | 953.4 | 935.9 | 929.9 | 931.4 |
| 15° | 1795.5 | 1743.6 | 1561.5 | 1298.6 | 1083.1 | 959.4 | 900.0 | 876.6 | 867.6 | 867.1 | 869.1 |
| 17.5° | 1817.0 | 1745.1 | 1483.2 | 1162.9 | 972.3 | 887.0 | 838.1 | 829.2 | 835.1 | 844.1 | 847.6 |
| 20° | 1840.9 | 1731.7 | 1380.4 | 1039.2 | 894.5 | 823.7 | 803.2 | 809.2 | 823.7 | 836.6 | 841.1 |
| 22.5° | 1857.9 | 1707.2 | 1256.2 | 942.9 | 827.2 | 787.3 | 786.3 | 798.7 | 806.7 | 813.2 | 816.7 |
| 25° | 1872.8 | 1665.8 | 1124.5 | 862.1 | 771.8 | 765.3 | 776.3 | 772.3 | 766.8 | 772.3 | 775.8 |
| 27.5° | 1883.8 | 1600.4 | 1006.8 | 791.2 | 732.9 | 750.3 | 743.8 | 734.9 | 734.4 | 737.4 | 742.4 |
| 30° | 1880.3 | 1513.1 | 910.0 | 723.9 | 705.4 | 722.4 | 706.9 | 705.4 | 703.9 | 705.4 | 710.9 |
| 32.5° | 1880.3 | 1413.9 | 835.6 | 677.5 | 688.0 | 681.5 | 680.0 | 676.5 | 670.5 | 670.0 | 676.5 |
| 35° | 1890.8 | 1314.6 | 771.8 | 652.6 | 673.5 | 658.0 | 659.0 | 650.6 | 638.1 | 632.1 | 638.1 |
| 37.5° | 1912.3 | 1234.8 | 708.4 | 640.6 | 648.1 | 647.6 | 643.6 | 629.1 | 607.2 | 588.2 | 594.7 |
| 40° | 1964.1 | 1211.3 | 665.0 | 635.1 | 636.1 | 642.1 | 631.6 | 603.7 | 553.8 | 522.8 | 526.8 |
| 42.5° | 2045.5 | 1250.7 | 655.5 | 621.6 | 628.1 | 634.1 | 613.6 | 548.8 | 513.4 | 494.9 | 494.9 |
| 45° | 2148.7 | 1319.6 | 676.0 | 602.2 | 609.1 | 619.6 | 558.8 | 527.8 | 511.9 | 512.4 | 514.9 |
| 47.5° | 2279.4 | 1391.9 | 713.9 | 585.2 | 581.7 | 587.7 | 522.3 | 503.4 | 481.4 | 486.9 | 500.9 |
| 50° | 2430.6 | 1465.2 | 749.8 | 562.3 | 551.3 | 531.8 | 498.9 | 480.9 | 453.0 | 440.0 | 443.5 |
| 52.5° | 2594.2 | 1536.1 | 764.3 | 534.3 | 518.3 | 495.9 | 482.9 | 461.0 | 427.1 | 405.6 | 405.1 |
| 55° | 2749.4 | 1600.4 | 748.3 | 500.9 | 485.4 | 468.0 | 466.0 | 452.5 | 416.1 | 386.1 | 386.1 |
| 57.5° | 2896.1 | 1654.3 | 708.4 | 467.0 | 452.0 | 441.5 | 455.0 | 448.5 | 402.6 | 364.2 | 362.2 |
| 60° | 3020.3 | 1691.2 | 650.6 | 432.5 | 422.1 | 416.6 | 437.0 | 435.0 | 383.6 | 340.7 | 339.2 |
| 62.5° | 3119.1 | 1705.7 | 586.7 | 399.6 | 397.1 | 387.1 | 412.1 | 412.1 | 359.7 | 317.8 | 316.3 |
| 65° | 3196.4 | 1691.7 | 521.8 | 367.2 | 372.2 | 357.2 | 381.7 | 378.7 | 334.3 | 297.3 | 295.3 |
| 67.5° | 3264.8 | 1645.8 | 450.0 | 335.3 | 346.7 | 327.8 | 349.7 | 342.7 | 306.3 | 276.9 | 274.9 |
| 70° | 3295.2 | 1539.1 | 368.2 | 303.3 | 317.3 | 298.8 | 317.8 | 304.8 | 274.9 | 254.9 | 250.9 |
| 72.5° | 3050.7 | 1279.2 | 289.9 | 269.9 | 281.9 | 266.9 | 283.4 | 268.4 | 241.0 | 232.0 | 224.5 |
| 75° | *2523.9* | *959.9* | *223.0* | *233.5* | *242.5* | *231.0* | *242.0* | *231.0* | *206.0* | *212.5* | *194.1* |
| 77.5° | 1832.9 | 648.1 | 170.6 | 195.1 | 199.1 | 193.1 | 202.6 | 190.1 | 167.6 | 166.1 | 158.6 |
| 80° | 911.5 | 379.7 | 133.7 | 154.2 | 152.7 | 148.7 | 159.6 | 153.7 | 134.7 | 142.7 | 141.2 |
| 82.5° | 263.9 | 162.6 | 97.3 | 108.3 | 105.3 | 106.3 | 114.2 | 117.2 | 175.6 | 174.1 | 178.1 |
| 85° | 82.8 | 63.9 | 58.4 | 60.4 | 57.4 | 58.9 | 67.4 | 133.7 | 123.7 | 72.3 | 78.3 |
| 87.5° | 21.5 | 22.0 | 14.5 | 15.5 | 16.0 | 19.0 | 21.5 | 81.3 | 38.9 | 25.4 | 26.9 |
| 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

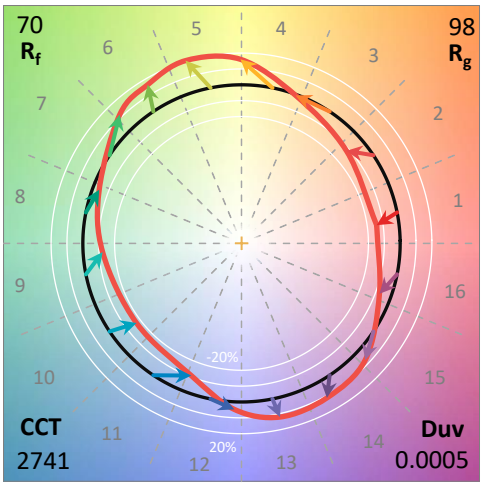
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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1121 Highway 74 South
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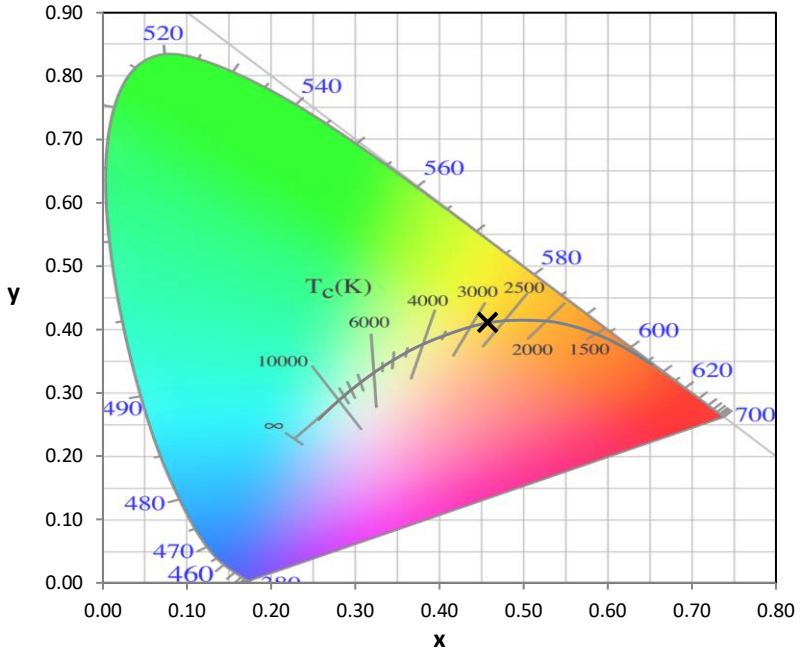
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

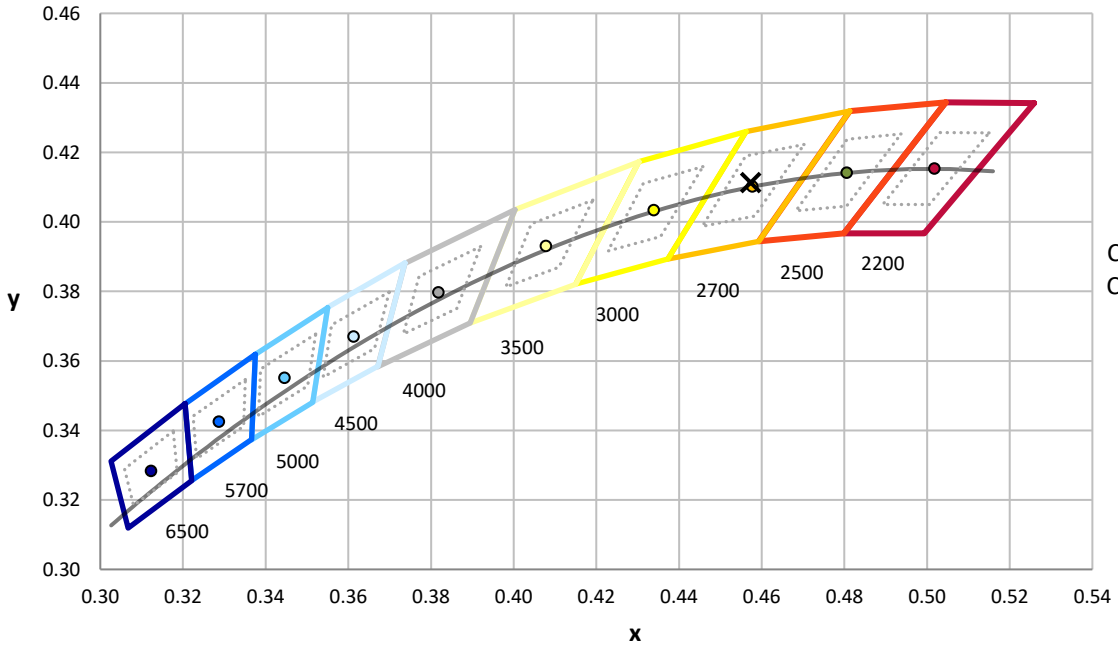
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REPORT NUMBER: SP1-1908-441-1-R4

## CIE 1931 Chromaticity Diagram




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



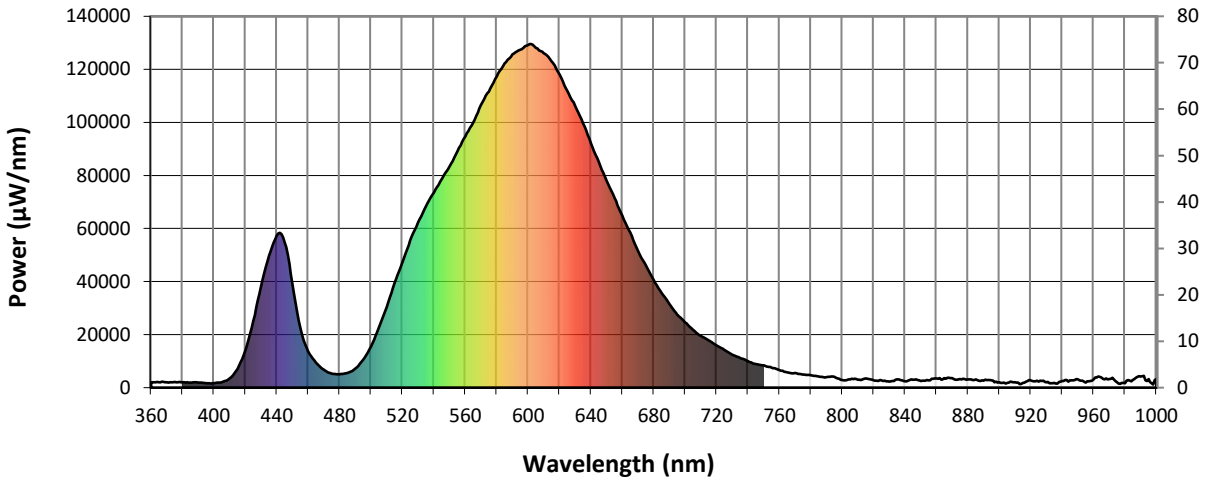

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



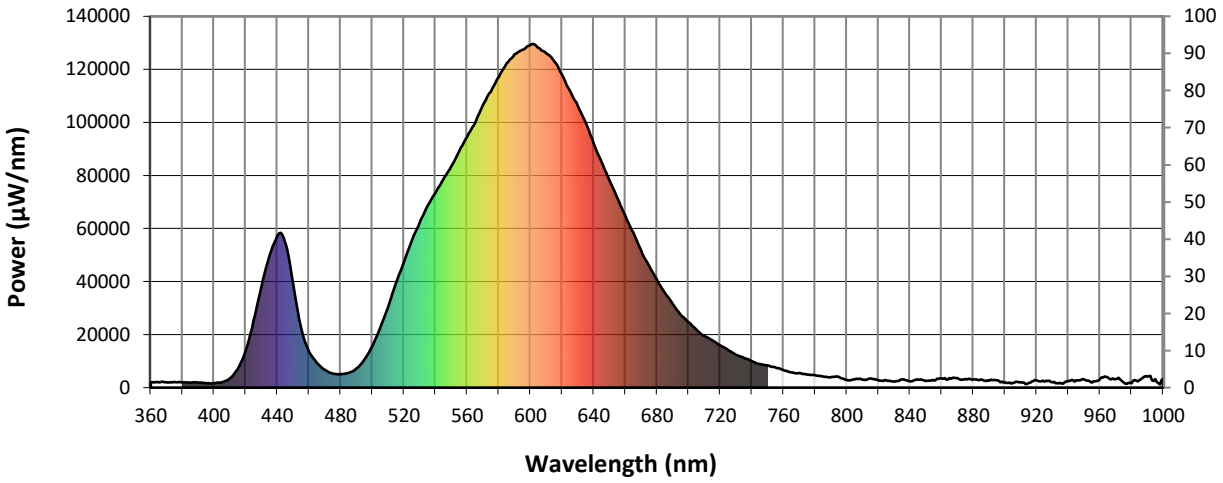

######

| 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



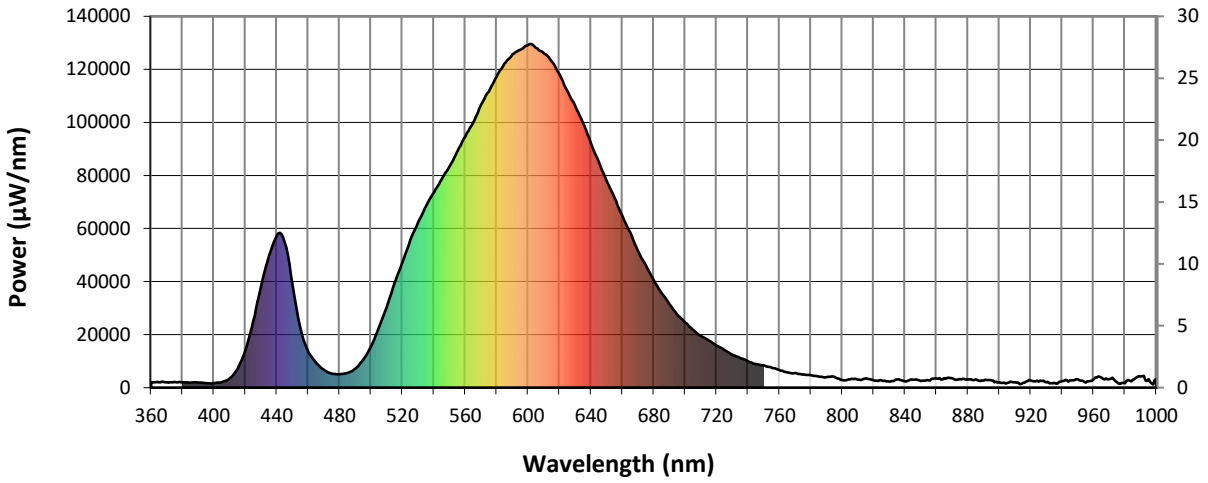

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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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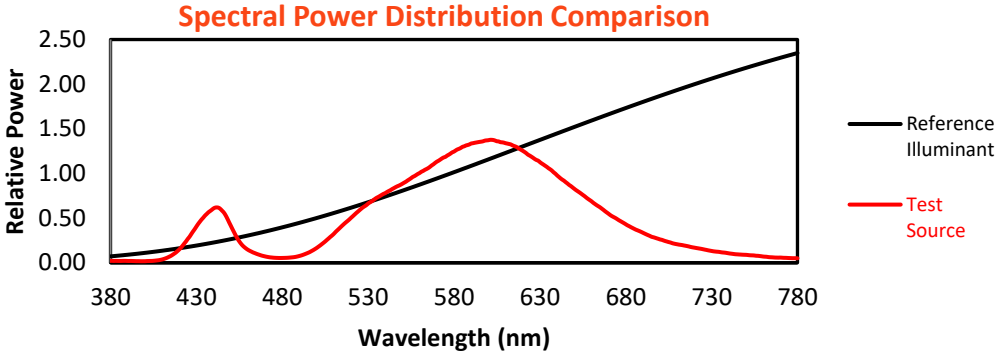
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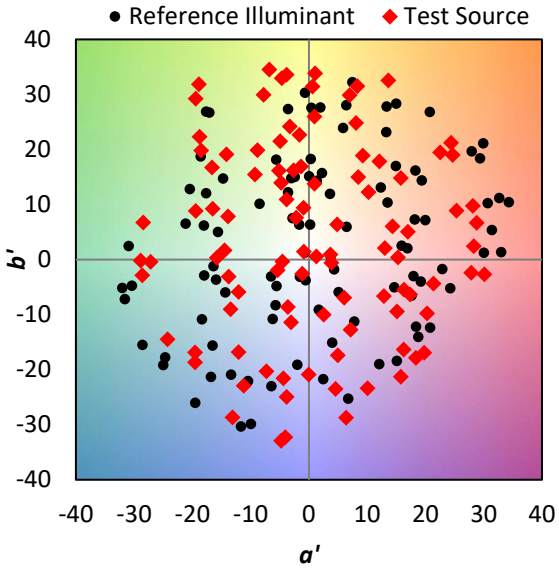
## Summary

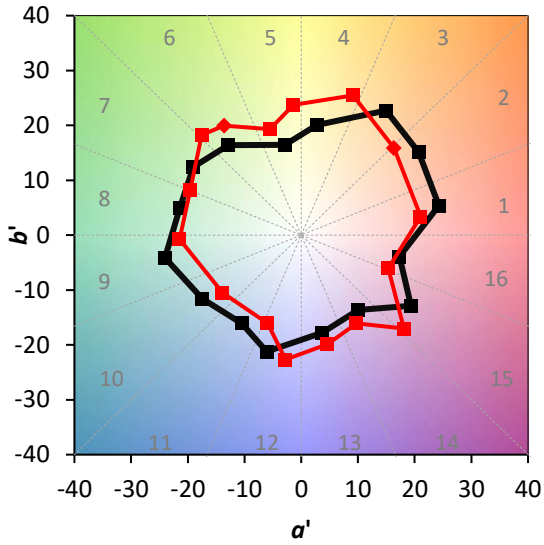
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

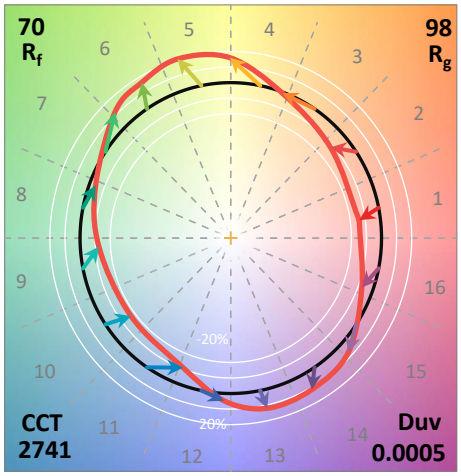
## Spectral Power Distribution Comparison

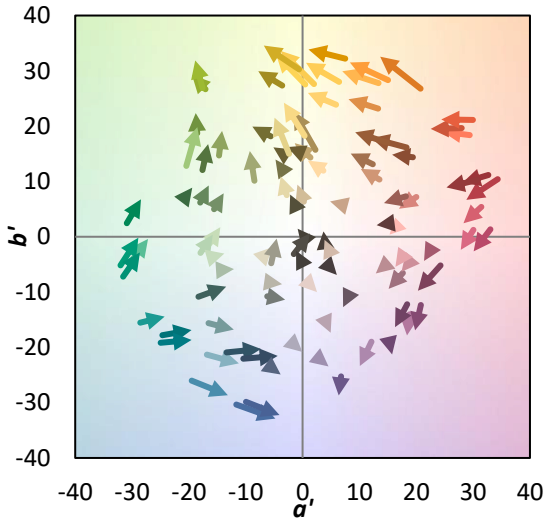



## Color Vector Graphics



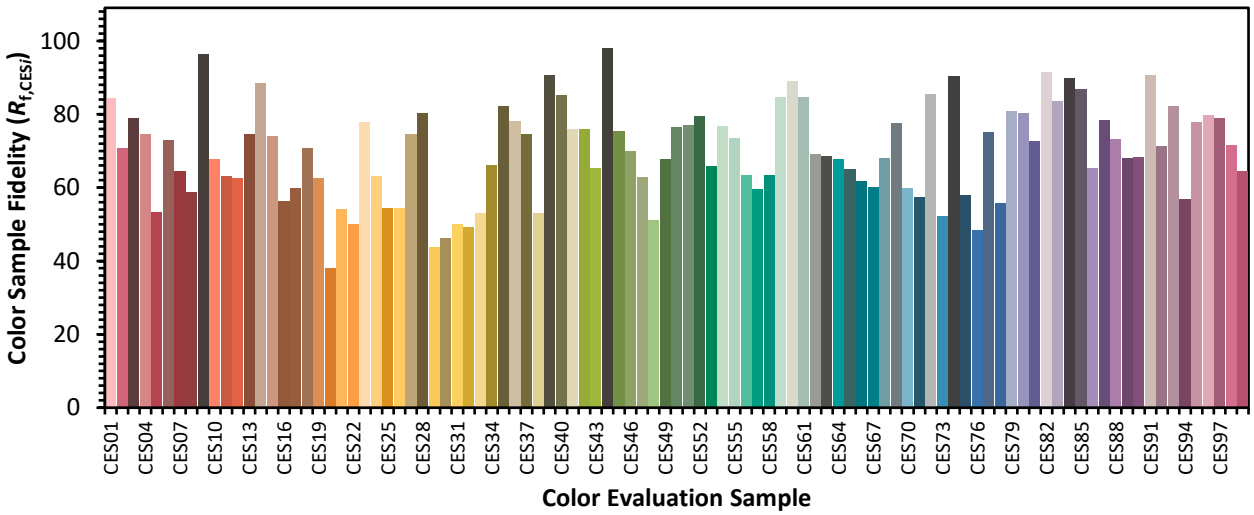
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Peachtree City, GA 30269

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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 | |

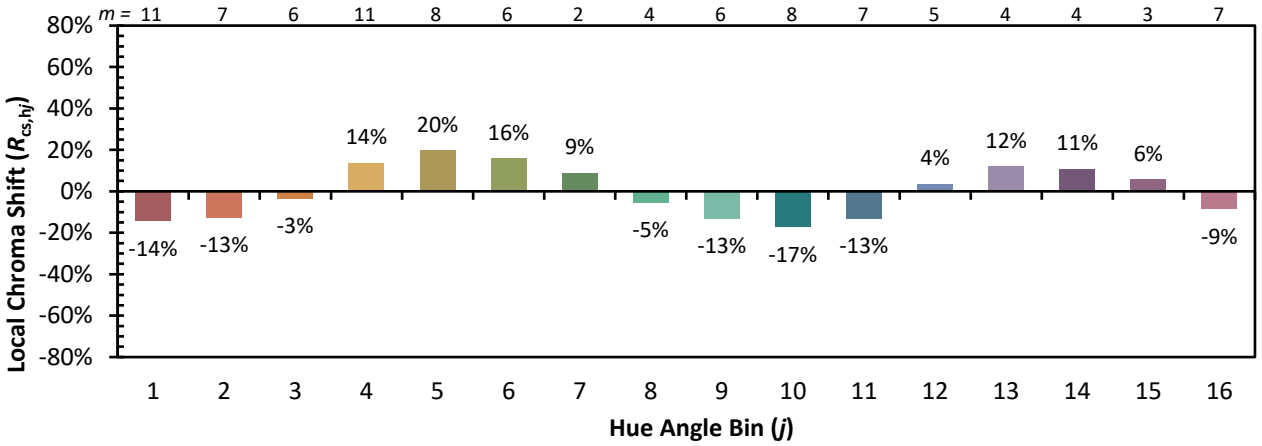


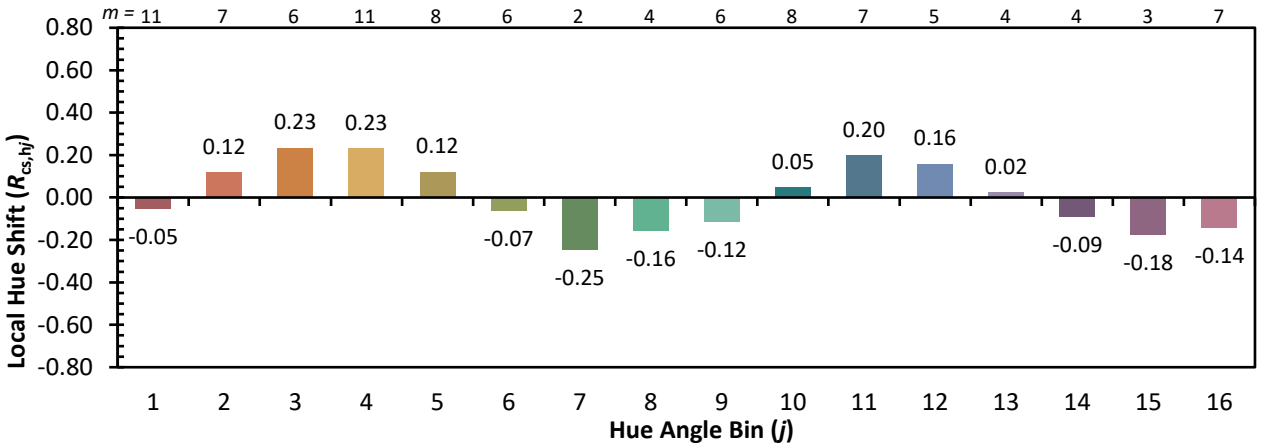
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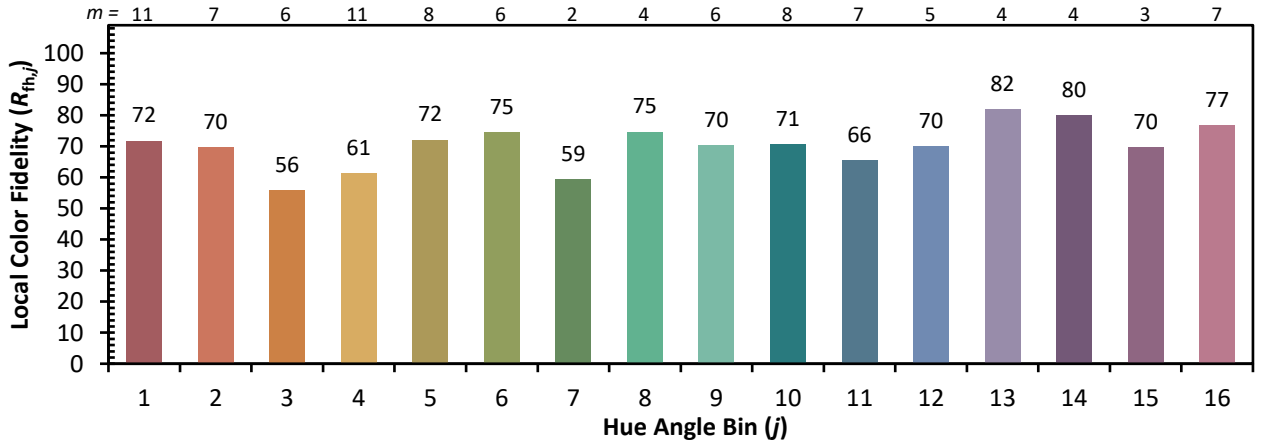
REPORT NUMBER: SP1-1908-441-1-R4

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### Color Rendition by Hue-Angle Bin



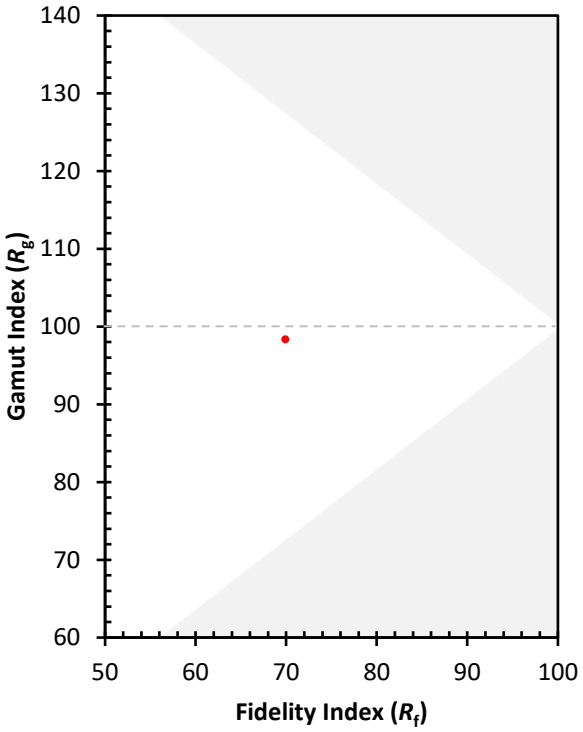



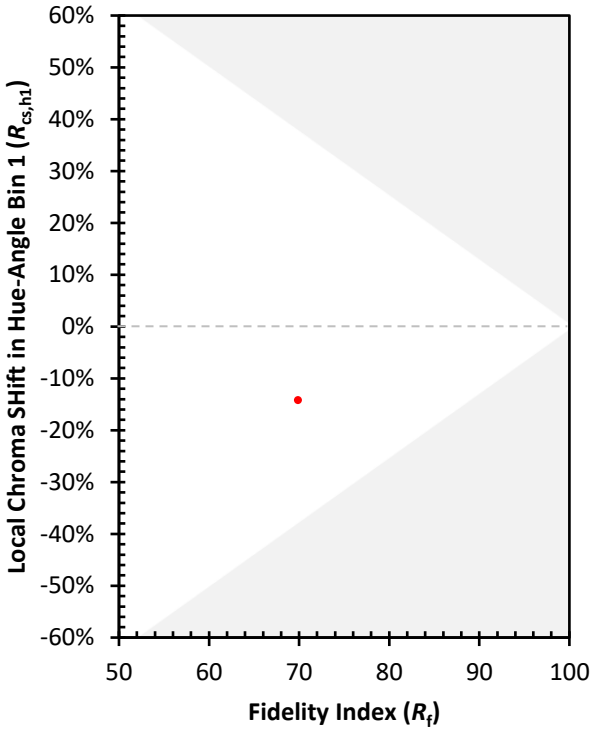
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### Measure Comparisons




(END OF REPORT)