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: P1198713

Luminaire Tested: GPC-SB1D-727-U-SL2

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: | P1198713 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB1D-727-U-SL2 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9432 lumens |
| Efficiency: | N/A |
| Efficacy: | 118.5 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B2 - 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 |

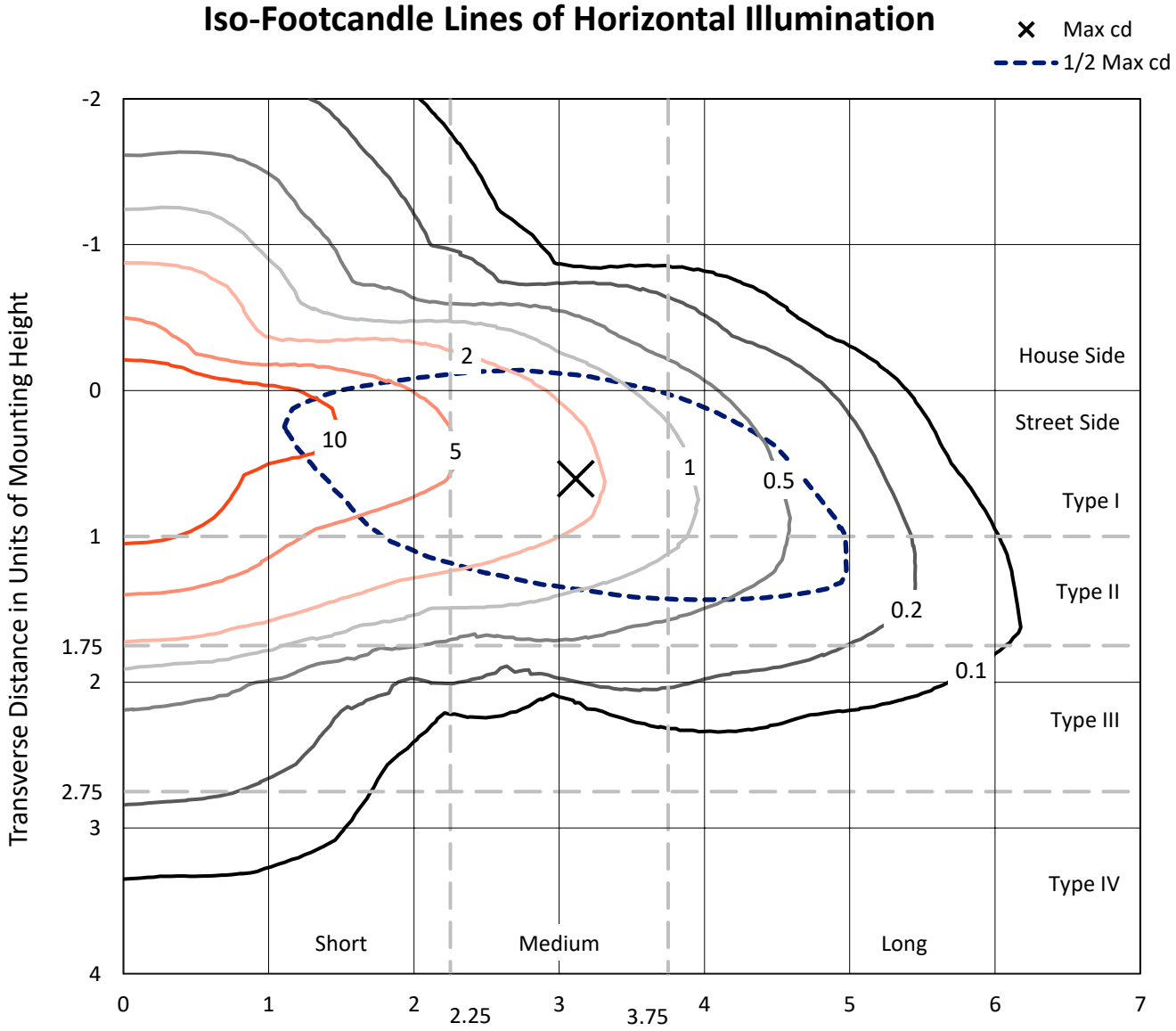


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REPORT NUMBER: P1198713
CATALOG NUMBER: GPC-SB1D-727-U-SL2

## Iso-Footcandle Lines of Horizontal Illumination



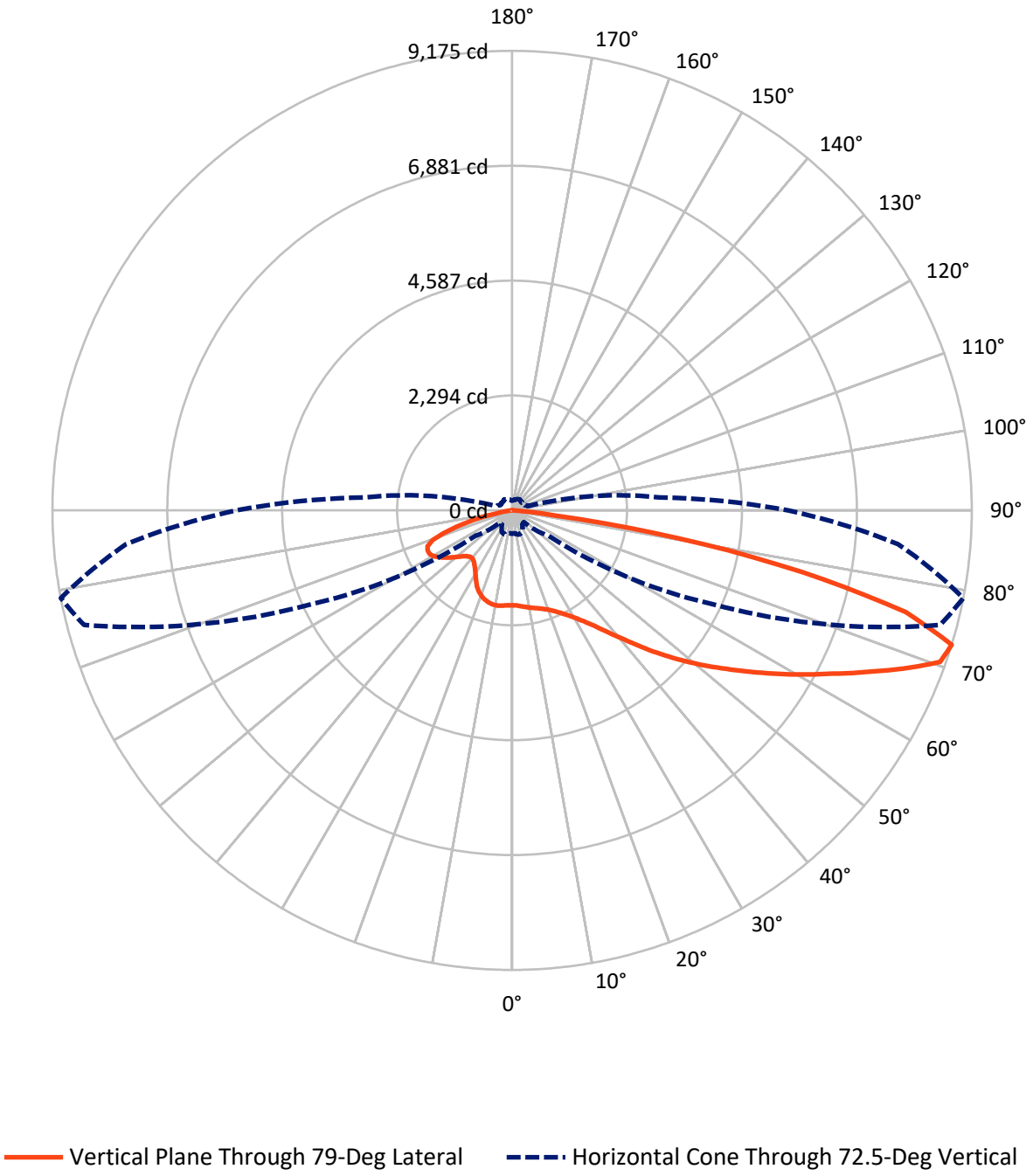

Based on 10 foot mounting height. Maximum calculated value = 19 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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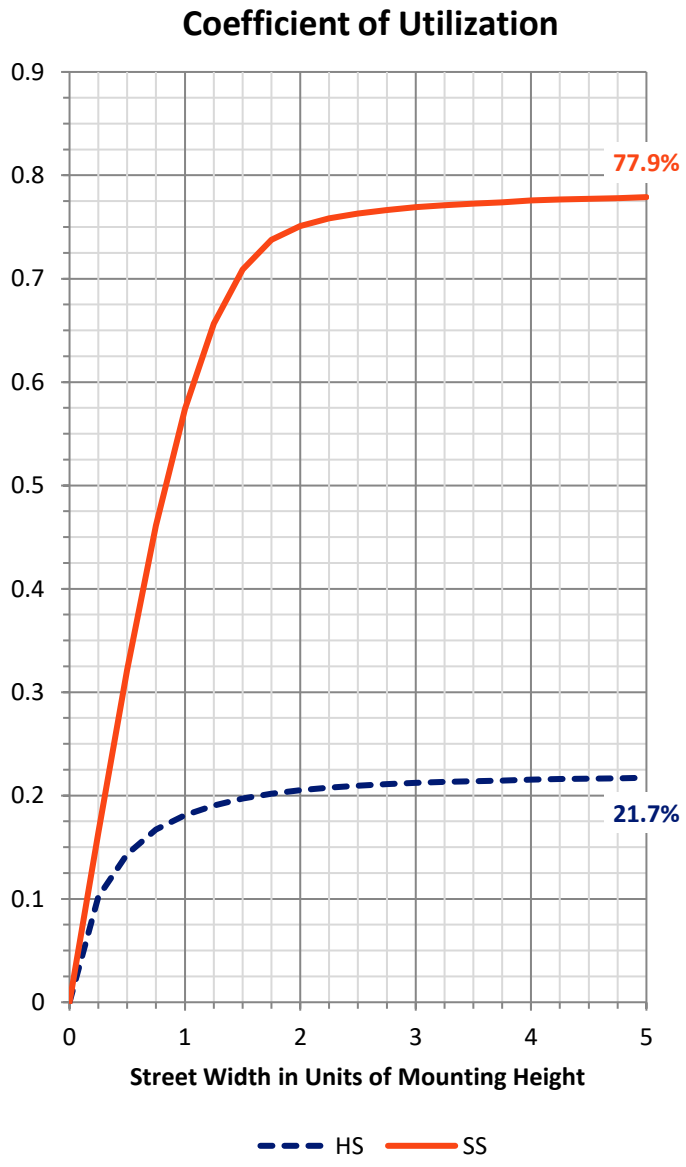
REPORT NUMBER: P1198713
CATALOG NUMBER: GPC-SB1D-727-U-SL2

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2075.6 | 0.0 | 2075.6 |
| | % Fixture | 22.0 | 0.0 | 22.0 |
| **Street Side** | Lumens | 7356.4 | 0.0 | 7356.4 |
| | % Fixture | 78.0 | 0.0 | 78.0 |
| **Total** | Lumens | 9432.0 | 0.0 | 9432.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 171.9 | 1.8 |
| 10°-20° | 449.3 | 4.8 |
| 20°-30° | 725.1 | 7.7 |
| 30°-40° | 1088.2 | 11.5 |
| 40°-50° | 1543.7 | 16.4 |
| 50°-60° | 1949.5 | 20.7 |
| 60°-70° | 1979.9 | 21.0 |
| 70°-80° | 1349.4 | 14.3 |
| 80°-90° | 175.1 | 1.9 |
| 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° | 9432.0 | 100.0 |
| 0°-180° | 9432.0 | 100.0 |



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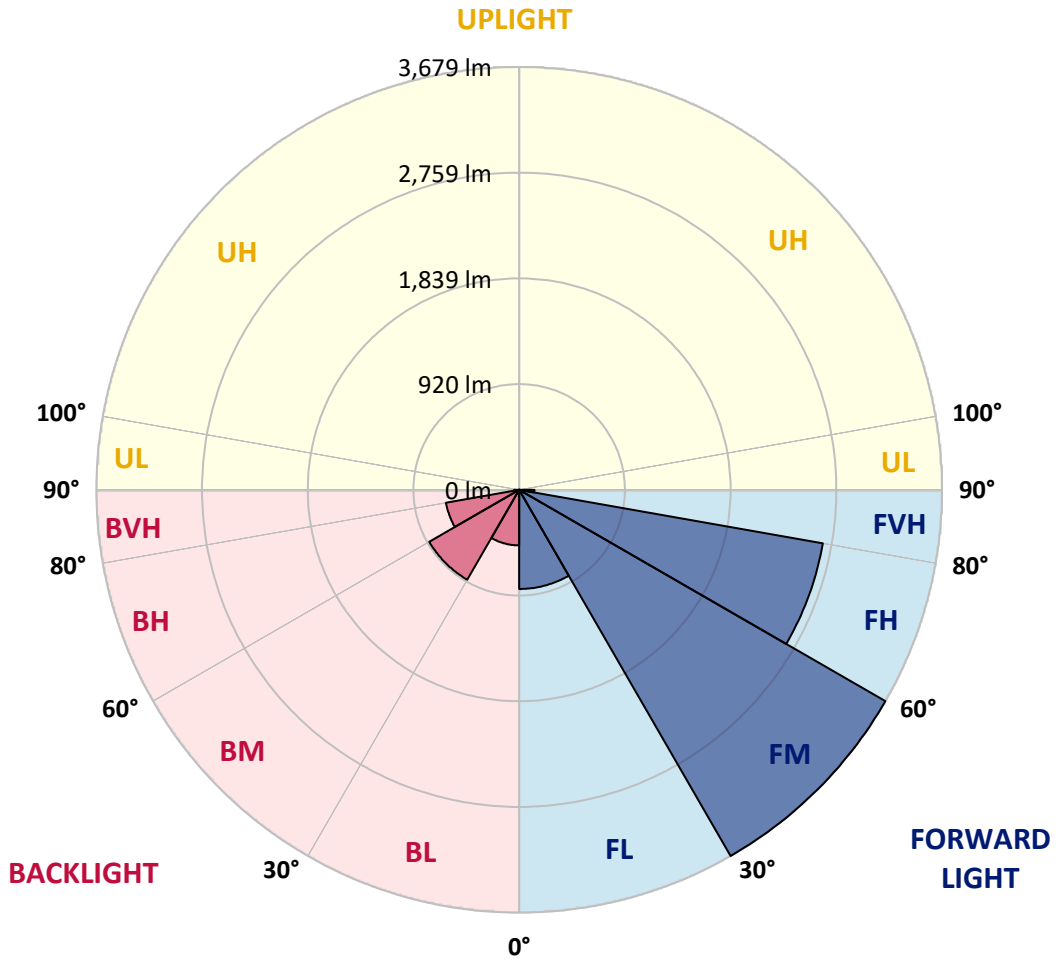
Scaled Data Report

REPORT NUMBER: P1198713
CATALOG NUMBER: GPC-SB1D-727-U-SL2

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 862.8 | 9.1 | | | |
| FM | (30°-60°) | 3678.7 | 39.0 | | | |
| FH | (60°-80°) | 2683.1 | 28.4 | | | G2/5000 |
| FVH | (80°-90°) | 131.9 | 1.4 | | | G2/225 |
| BL | (0°-30°) | 483.5 | 5.1 | B1/500 | | |
| BM | (30°-60°) | 902.6 | 9.6 | B1/1000 | | |
| BH | (60°-80°) | 646.3 | 6.9 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 43.2 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G2**
Type II Medium



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REPORT NUMBER: P1198713
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | *1893.4* | 1893.4 |
| 2.5° | 1894.4 | 1885.4 | 1890.9 | 1888.9 | 1891.4 | 1894.4 | 1895.4 | 1896.9 | 1901.9 | *1901.4* | 1900.9 |
| 5° | 1890.4 | 1881.4 | 1888.9 | 1886.4 | 1892.9 | 1899.9 | 1905.9 | 1911.3 | 1919.3 | *1922.8* | 1917.8 |
| 7.5° | 1881.9 | 1875.9 | 1883.4 | 1890.9 | 1902.9 | 1913.3 | 1921.8 | 1934.3 | 1945.8 | *1947.8* | 1951.3 |
| 10° | 1832.5 | 1828.0 | 1845.5 | 1864.9 | 1897.9 | 1926.3 | 1944.8 | 1959.2 | 1971.7 | *1973.7* | 1978.7 |
| 12.5° | 1781.1 | 1775.6 | 1795.1 | 1821.5 | 1874.9 | 1926.3 | 1965.2 | 1984.2 | 1995.2 | *2001.6* | 2009.1 |
| 15° | 1772.6 | 1768.2 | 1779.1 | 1802.1 | 1846.5 | 1912.8 | 1979.2 | 2014.1 | 2023.6 | *2031.1* | 2034.1 |
| 17.5° | 1813.6 | 1805.1 | 1809.6 | 1817.5 | 1843.5 | 1900.4 | 1990.2 | 2048.0 | 2062.5 | *2070.5* | 2070.5 |
| 20° | 1908.4 | 1896.4 | 1889.4 | 1873.4 | 1868.9 | 1902.4 | 1989.2 | 2089.0 | 2107.9 | *2117.9* | 2120.4 |
| 22.5° | 2034.6 | 2026.6 | 2011.6 | 1971.2 | 1927.3 | 1926.8 | 2008.1 | 2141.3 | 2176.8 | *2186.2* | 2180.3 |
| 25° | 2187.2 | 2175.3 | 2156.3 | 2101.4 | 2017.1 | 1975.2 | 2040.1 | 2208.2 | 2267.6 | *2270.1* | 2252.6 |
| 27.5° | 2362.9 | 2344.9 | 2319.0 | 2246.6 | 2132.9 | 2051.0 | 2089.0 | 2285.0 | 2371.8 | *2370.8* | 2334.9 |
| 30° | 2548.0 | 2530.0 | 2502.6 | 2414.8 | 2271.6 | 2153.3 | 2156.8 | 2367.9 | 2495.6 | *2490.1* | 2428.7 |
| 32.5° | 2683.2 | 2669.7 | 2664.2 | 2596.4 | 2431.2 | 2274.1 | 2234.6 | 2459.7 | 2648.2 | *2643.3* | 2557.4 |
| 35° | 2786.9 | 2769.5 | 2776.0 | 2741.5 | 2605.3 | 2409.3 | 2329.9 | 2568.9 | 2833.8 | *2833.3* | 2726.6 |
| 37.5° | 2889.7 | 2874.3 | 2879.7 | 2856.8 | 2766.5 | 2580.9 | 2446.2 | 2702.6 | 3063.8 | *3074.8* | 2931.1 |
| 40° | 2983.5 | 2967.1 | 2989.0 | 2967.5 | 2891.7 | 2763.5 | 2578.4 | 2853.8 | 3330.3 | *3351.2* | 3178.6 |
| 42.5° | 3039.9 | 3026.9 | 3063.3 | 3063.8 | 3000.5 | 2917.7 | 2723.6 | 3020.4 | 3638.6 | *3685.5* | 3482.9 |
| 45° | 3059.3 | 3054.9 | 3109.7 | 3121.2 | 3096.8 | 3007.0 | 2854.3 | 3202.0 | 3970.9 | *4054.7* | 3829.7 |
| 47.5° | 3038.4 | 3029.9 | 3105.7 | 3148.2 | 3167.6 | 3048.9 | 2962.6 | 3398.6 | 4310.1 | *4432.9* | 4207.9 |
| 50° | 2932.6 | 2916.2 | 3028.9 | 3118.2 | 3187.6 | 3076.3 | 3071.8 | 3625.6 | 4695.8 | *4830.0* | 4588.0 |
| 52.5° | 2742.5 | 2730.1 | 2858.3 | 3013.4 | 3143.7 | 3089.8 | 3194.6 | 3873.6 | 5062.0 | *5235.6* | 4977.7 |
| 55° | 2499.6 | 2483.1 | 2624.3 | 2826.9 | 3034.4 | 3085.3 | 3317.3 | 4151.0 | 5494.1 | *5670.2* | 5380.3 |
| 57.5° | 2114.4 | 2081.5 | 2260.1 | 2499.6 | 2856.3 | 3079.8 | 3445.0 | 4426.9 | 5933.1 | *6144.1* | 5809.9 |
| 60° | 1552.6 | 1503.7 | 1722.8 | 2006.6 | 2508.0 | 3026.4 | 3603.2 | 4736.2 | 6460.0 | *6650.0* | 6278.9 |
| 62.5° | 904.0 | 875.6 | 1018.8 | 1283.7 | 1890.4 | 2712.1 | 3692.0 | 5095.9 | 6977.8 | *7177.4* | 6739.8 |
| 65° | 702.0 | 694.0 | 706.5 | 726.9 | 1052.2 | 2030.6 | 3418.1 | 5446.7 | 7636.4 | *7776.1* | 7220.3 |
| 67.5° | 642.1 | 636.1 | 641.6 | 603.2 | 533.8 | 1131.0 | 2704.1 | 5535.5 | 8341.9 | *8426.7* | 7640.9 |
| 70° | 570.8 | 563.8 | 581.7 | 548.8 | 420.1 | 514.4 | 1747.2 | 5213.2 | 8903.1 | *9062.3* | 7960.7 |
| 72.5° | *465.0* | *457.0* | *498.9* | *483.9* | *353.7* | *330.3* | *877.6* | *4447.3* | *8844.3* | *9174.6* | *7731.7* |
| 75° | 357.2 | 352.7 | 402.6 | 415.1 | 288.4 | 259.9 | 421.1 | 3305.8 | 7783.1 | *8115.9* | 6663.5 |
| 77.5° | 277.4 | 273.9 | 299.3 | 344.8 | 232.5 | 201.6 | 258.9 | 2096.9 | 5865.3 | *5923.6* | 4592.0 |
| 80° | 208.0 | 198.1 | 221.5 | 266.9 | 181.1 | 147.2 | 175.6 | 1222.8 | 3707.4 | *3360.7* | 1998.7 |
| 82.5° | 130.2 | 125.2 | 144.7 | 178.1 | 127.7 | 101.3 | 114.3 | 675.5 | 1485.8 | *875.1* | 385.7 |
| 85° | 74.3 | 72.3 | 78.8 | 101.8 | 69.3 | 58.4 | 65.4 | 298.4 | 271.4 | *186.6* | 116.2 |
| 87.5° | 29.9 | 28.9 | 35.9 | 45.4 | 25.4 | 21.5 | 23.0 | 71.8 | 59.9 | *55.4* | 38.4 |
| 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: P1198713
CATALOG NUMBER: GPC-SB1D-727-U-SL2

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 |
| 2.5° | 1898.9 | 1898.9 | 1891.9 | 1880.9 | 1868.4 | 1860.5 | 1847.5 | 1844.0 | 1830.5 | 1826.5 | 1833.0 |
| 5° | 1921.8 | 1917.8 | 1896.4 | 1865.4 | 1823.0 | 1784.1 | 1741.2 | 1714.3 | 1676.4 | 1662.9 | 1672.9 |
| 7.5° | 1950.8 | 1939.8 | 1902.9 | 1835.0 | 1746.2 | 1658.9 | 1568.1 | 1499.2 | 1433.4 | 1409.9 | 1412.9 |
| 10° | 1977.2 | 1961.7 | 1898.9 | 1780.1 | 1626.5 | 1475.3 | 1330.6 | 1229.3 | 1152.5 | 1121.1 | 1128.0 |
| 12.5° | 2003.6 | 1975.2 | 1872.4 | 1688.8 | 1456.3 | 1251.3 | 1097.1 | 1018.3 | 970.9 | 933.0 | 945.4 |
| 15° | 2028.6 | 1988.7 | 1831.5 | 1566.6 | 1269.7 | 1061.7 | 947.9 | 885.1 | 847.2 | 822.2 | 826.7 |
| 17.5° | 2057.5 | 2000.2 | 1770.2 | 1411.4 | 1092.1 | 930.5 | 837.7 | 799.8 | 792.3 | 789.3 | 791.3 |
| 20° | 2097.9 | 2010.6 | 1689.3 | 1237.8 | 961.4 | 825.7 | 777.8 | 774.3 | 773.8 | 772.3 | 777.3 |
| 22.5° | 2141.3 | 2023.1 | 1582.6 | 1080.2 | 850.2 | 760.3 | 751.9 | 744.9 | 740.4 | 739.9 | 745.4 |
| 25° | 2192.7 | 2027.1 | 1448.9 | 950.9 | 755.4 | 729.4 | 719.4 | 709.0 | 706.0 | 706.0 | 709.0 |
| 27.5° | 2242.6 | 2013.6 | 1293.2 | 838.7 | 702.0 | 701.0 | 688.0 | 684.5 | 684.0 | 685.5 | 689.5 |
| 30° | 2292.5 | 1988.2 | 1138.5 | 734.9 | 671.0 | 671.0 | 666.6 | 669.0 | 671.0 | 676.0 | 679.5 |
| 32.5° | 2359.9 | 1961.2 | 1009.3 | 658.1 | 644.1 | 639.1 | 643.6 | 648.6 | 650.6 | 657.1 | 662.6 |
| 35° | 2458.7 | 1942.3 | 906.5 | 616.2 | 616.2 | 609.7 | 612.2 | 611.2 | 606.7 | 603.7 | 610.7 |
| 37.5° | 2589.4 | 1941.3 | 821.7 | 596.7 | 592.7 | 591.7 | 592.2 | 585.7 | 568.3 | 547.3 | 547.8 |
| 40° | 2746.5 | 1968.2 | 756.4 | 583.2 | 580.2 | 586.2 | 583.2 | 565.8 | 517.9 | 481.5 | 480.5 |
| 42.5° | 2957.6 | 2045.1 | 714.4 | 566.8 | 575.7 | 583.2 | 571.3 | 510.9 | 478.5 | 454.0 | 453.0 |
| 45° | 3206.0 | 2169.8 | 693.0 | 549.3 | 567.3 | 576.2 | 518.4 | 491.9 | 466.0 | 436.6 | 434.6 |
| 47.5° | 3487.4 | 2326.9 | 688.0 | 532.8 | 548.3 | 553.8 | 495.9 | 483.9 | 454.5 | 422.6 | 420.1 |
| 50° | 3793.8 | 2513.0 | 701.5 | 513.4 | 520.9 | 501.9 | 488.4 | 477.5 | 447.0 | 415.6 | 412.1 |
| 52.5° | 4110.6 | 2718.1 | 728.4 | 486.9 | 493.4 | 472.5 | 485.4 | 476.0 | 442.5 | 400.1 | 397.1 |
| 55° | 4421.9 | 2924.6 | 754.4 | 456.0 | 465.5 | 446.0 | 477.0 | 470.0 | 422.1 | 374.2 | 371.7 |
| 57.5° | 4738.2 | 3130.2 | 779.8 | 428.6 | 438.5 | 420.6 | 463.5 | 454.0 | 399.1 | 350.2 | 349.2 |
| 60° | 5067.0 | 3329.8 | 791.8 | 402.1 | 409.1 | 397.1 | 443.0 | 426.6 | 373.2 | 325.8 | 324.3 |
| 62.5° | 5374.8 | 3495.9 | 772.3 | 375.7 | 380.2 | 375.2 | 416.1 | 394.1 | 347.2 | 298.4 | 297.9 |
| 65° | 5683.6 | 3594.7 | 712.5 | 349.7 | 350.7 | 348.2 | 378.2 | 359.2 | 316.8 | 274.4 | 271.4 |
| 67.5° | 5963.5 | 3650.1 | 617.2 | 321.8 | 319.3 | 318.3 | 342.8 | 321.3 | 287.4 | 250.5 | 247.5 |
| 70° | 6022.9 | 3509.4 | 471.5 | 288.9 | 288.9 | 286.4 | 303.8 | 281.9 | 254.9 | 225.0 | 224.0 |
| 72.5° | *5501.0* | *2952.1* | *334.8* | *251.5* | *255.4* | *250.5* | *264.9* | *246.5* | *222.0* | *202.1* | *196.1* |
| 75° | 4435.9 | 2164.8 | 243.5 | 213.0 | 220.0 | 211.5 | 225.0 | 212.0 | 191.1 | 190.6 | 171.6 |
| 77.5° | 3047.9 | 1338.6 | 176.6 | 175.6 | 180.6 | 169.6 | 185.1 | 178.1 | 159.2 | 150.7 | 141.2 |
| 80° | 1300.7 | 533.8 | 128.7 | 135.7 | 135.7 | 125.7 | 143.7 | 145.7 | 129.2 | 125.2 | 125.2 |
| 82.5° | 258.9 | 151.7 | 90.3 | 93.3 | 87.8 | 84.8 | 101.8 | 112.8 | 155.7 | 173.1 | 173.6 |
| 85° | 77.8 | 55.9 | 54.4 | 50.9 | 44.9 | 45.4 | 59.9 | 113.3 | 139.7 | 79.8 | 68.9 |
| 87.5° | 21.5 | 14.0 | 14.5 | 11.5 | 9.5 | 12.5 | 20.5 | 85.8 | 46.9 | 20.0 | 17.0 |
| 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

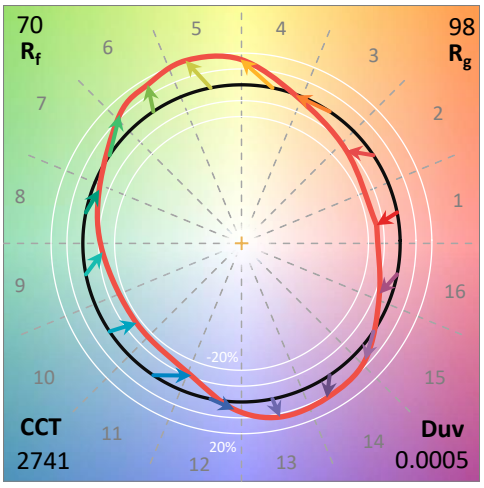
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON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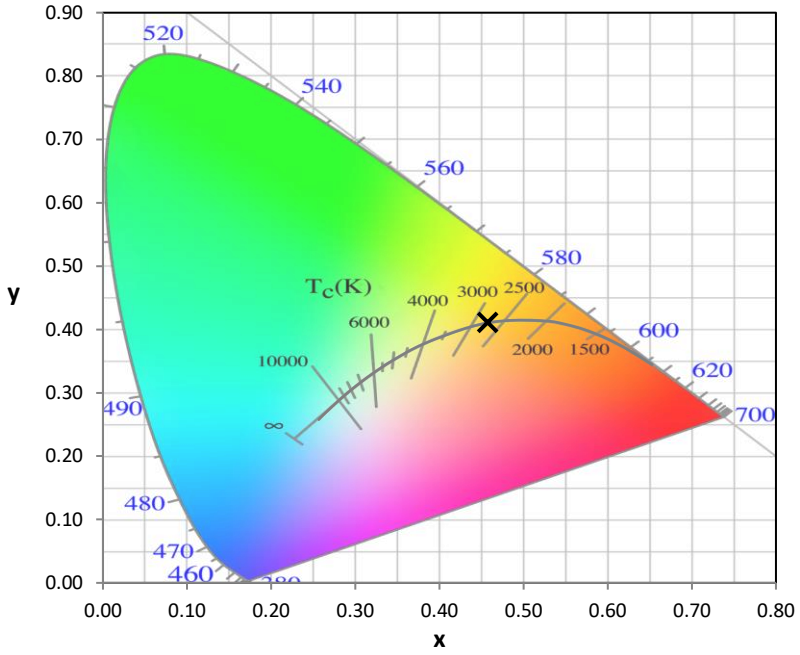
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

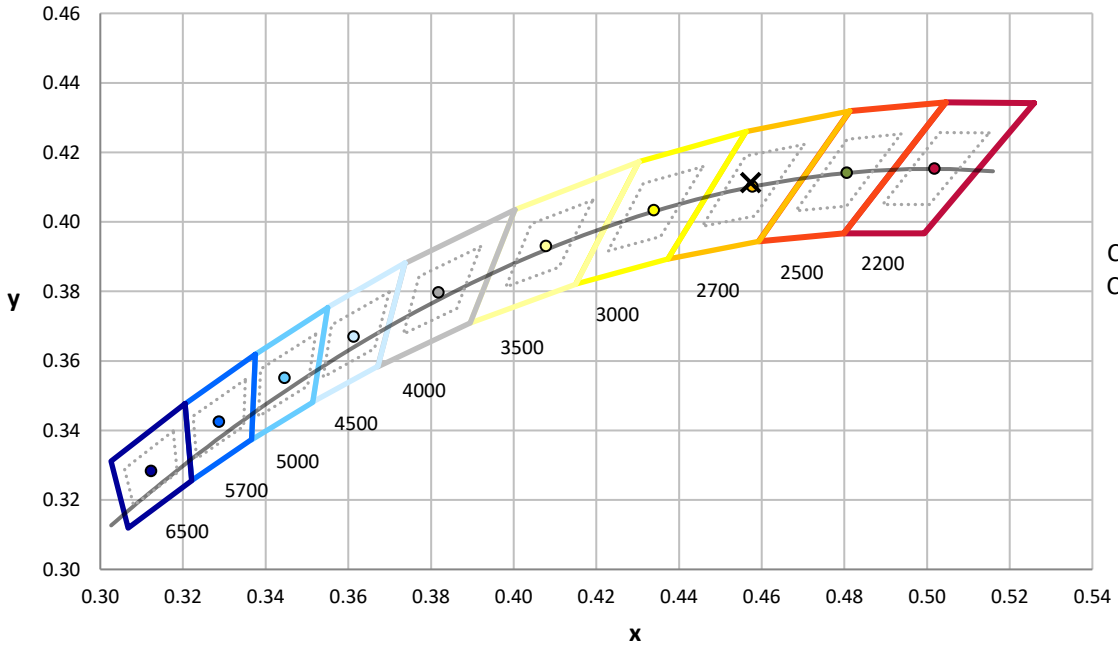
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1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



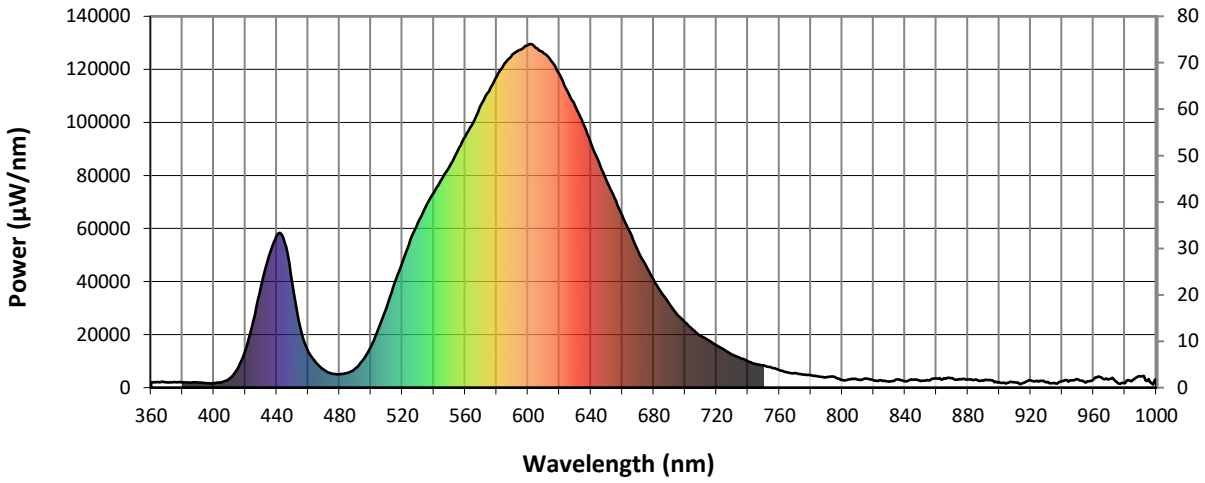

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



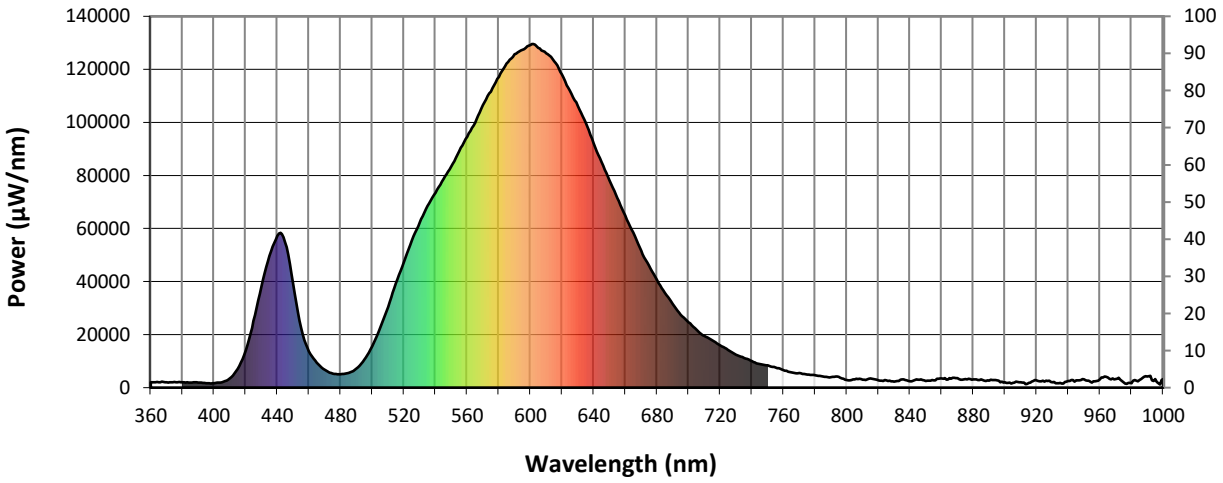

######

| 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



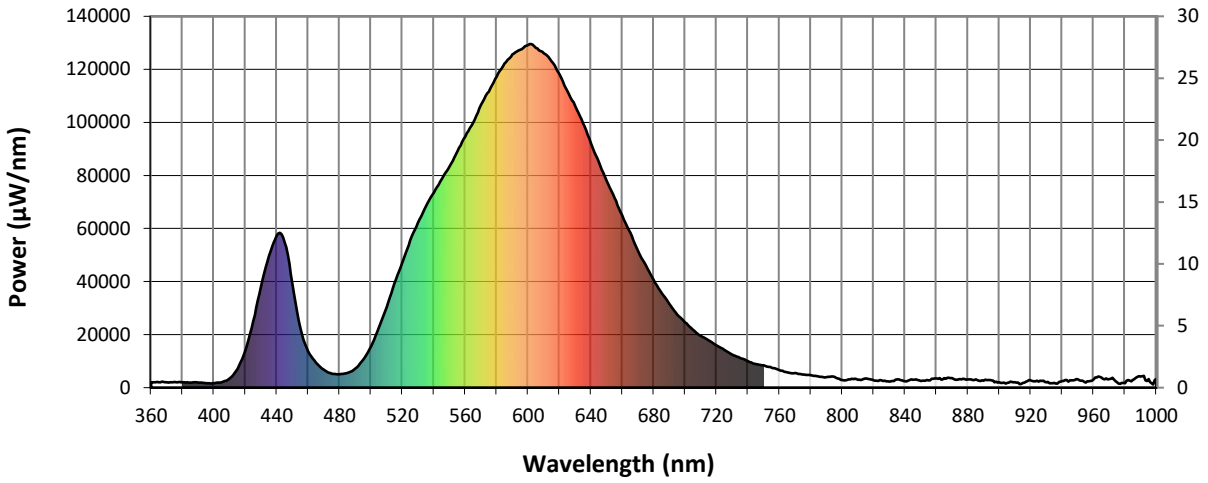

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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

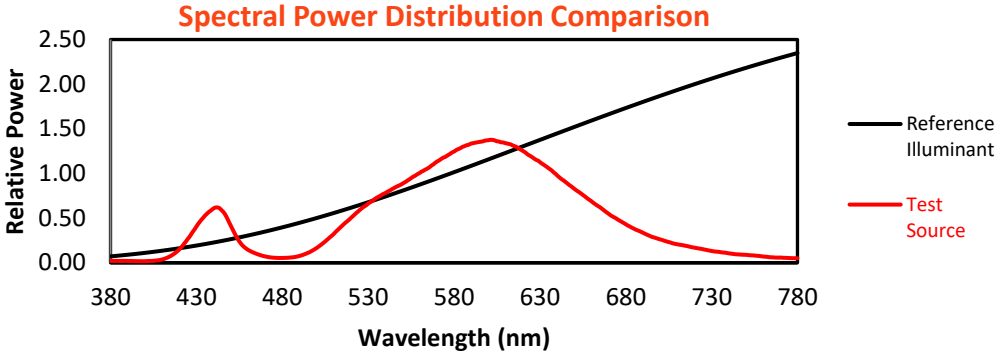
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# TM-30-18

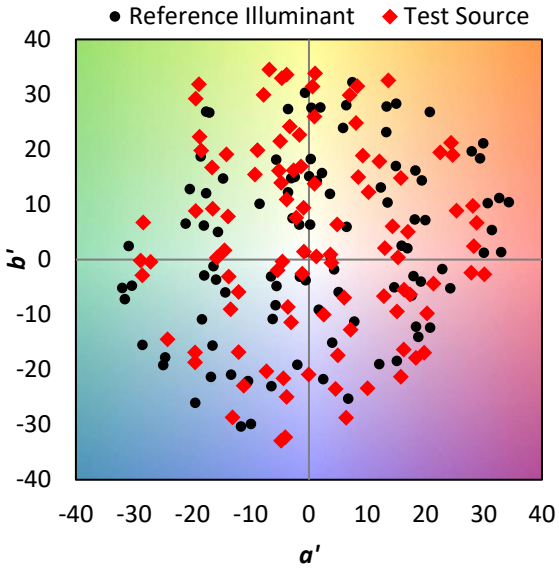
## Summary

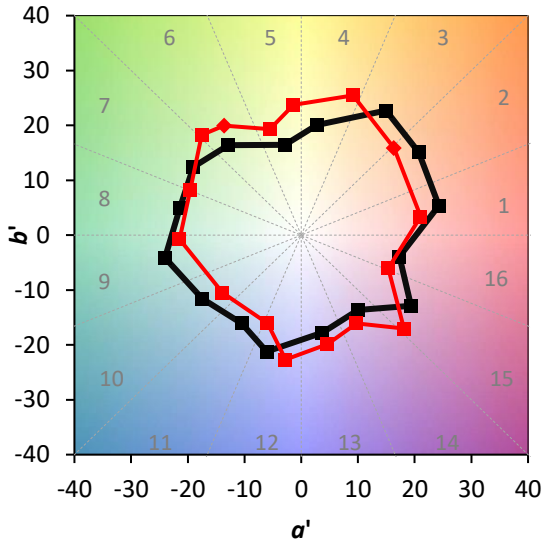
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

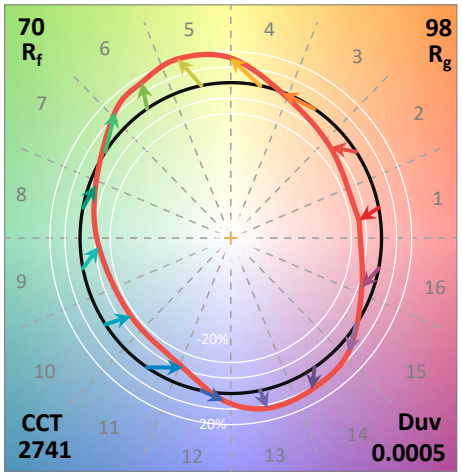
## Spectral Power Distribution Comparison

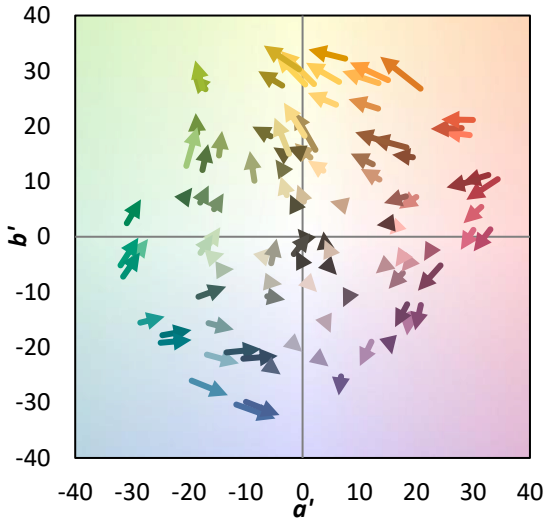



## Color Vector Graphics



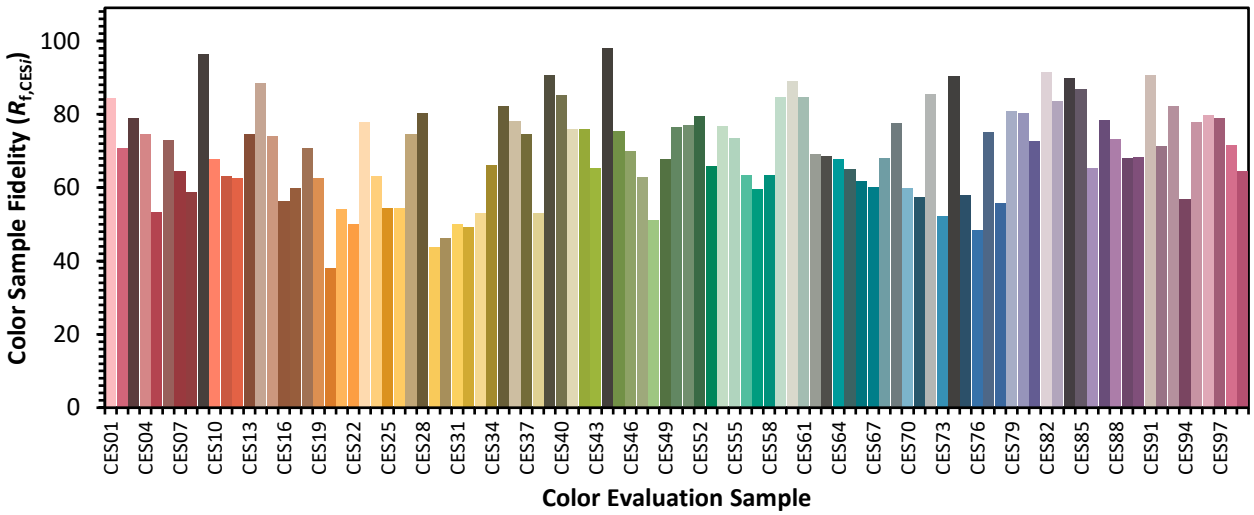
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Peachtree City, GA 30269

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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 | |

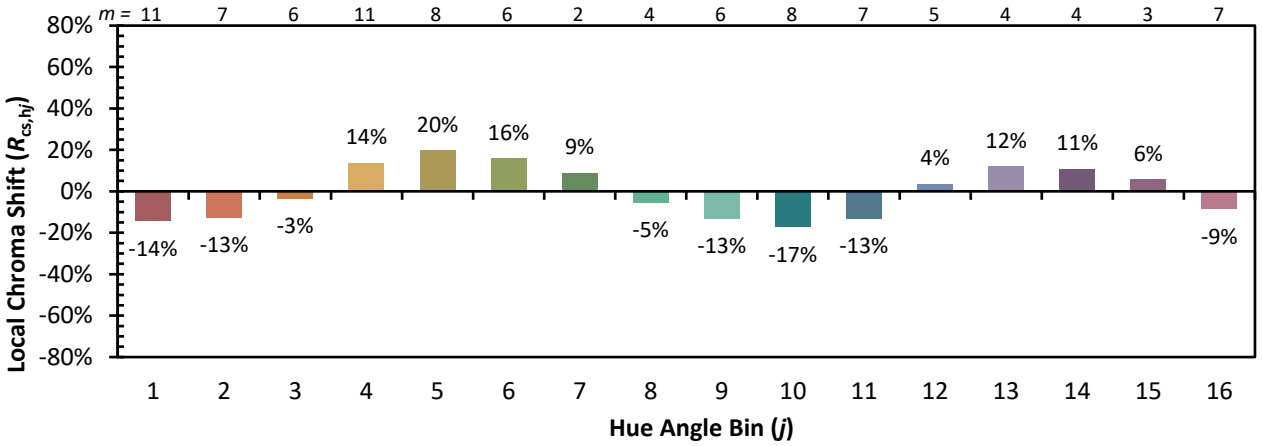


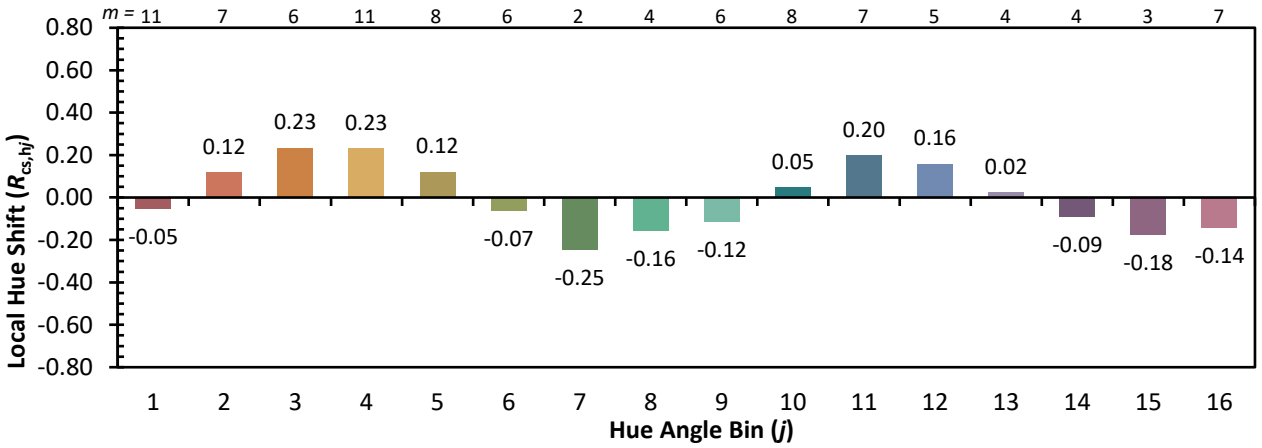
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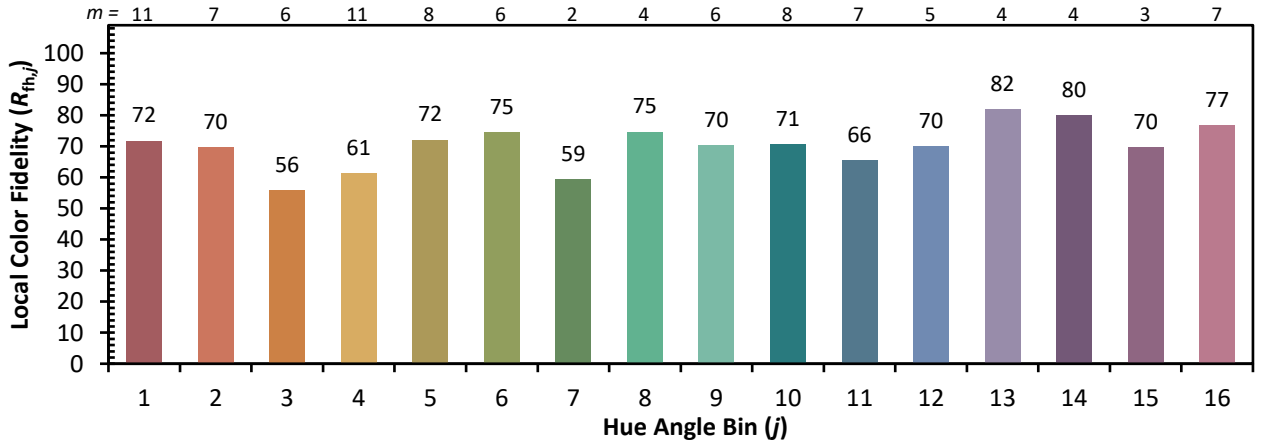
REPORT NUMBER: SP1-1908-441-1-R4

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### Color Rendition by Hue-Angle Bin



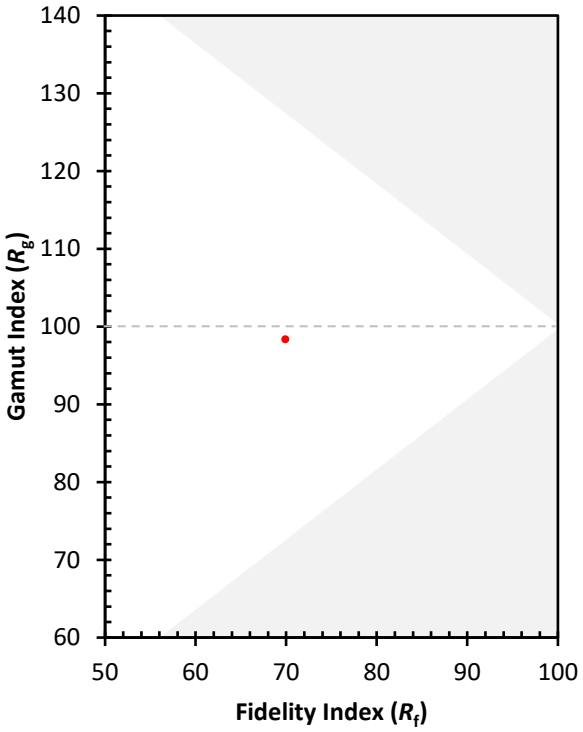



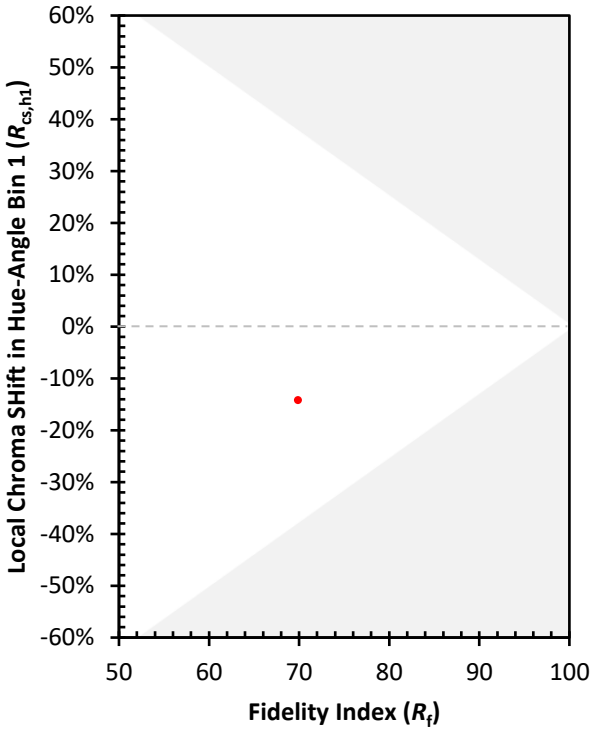
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### Measure Comparisons




(END OF REPORT)