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: P1200285

Luminaire Tested: GPC-SB2C-760-U-SL4

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: | P1200285 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2C-760-U-SL4 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 15704 lumens |
| Efficiency: | N/A |
| Efficacy: | 155.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Medium |
| BUG Rating: | B3 - U0 - G3 |

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

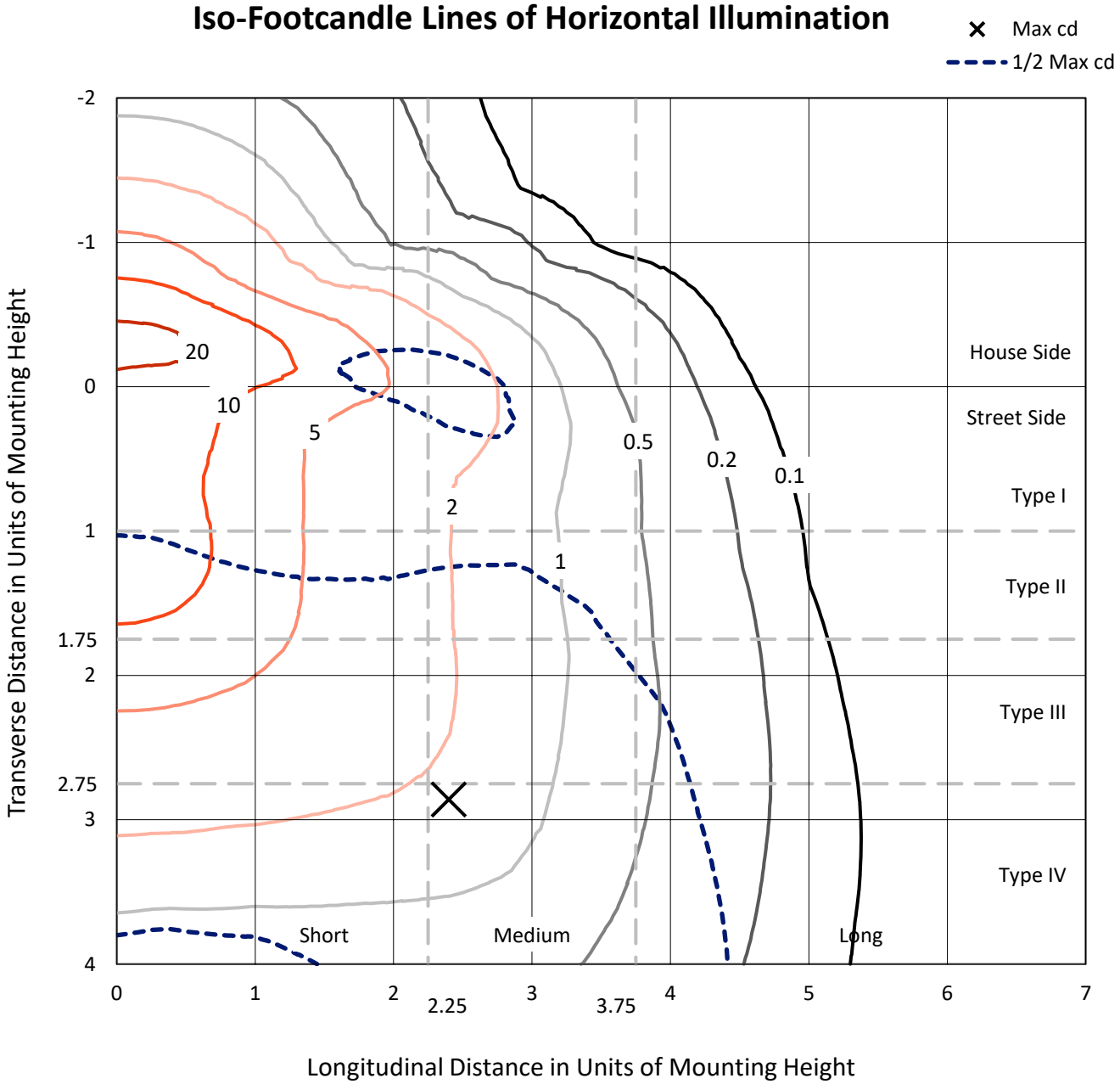


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## Iso-Footcandle Lines of Horizontal Illumination



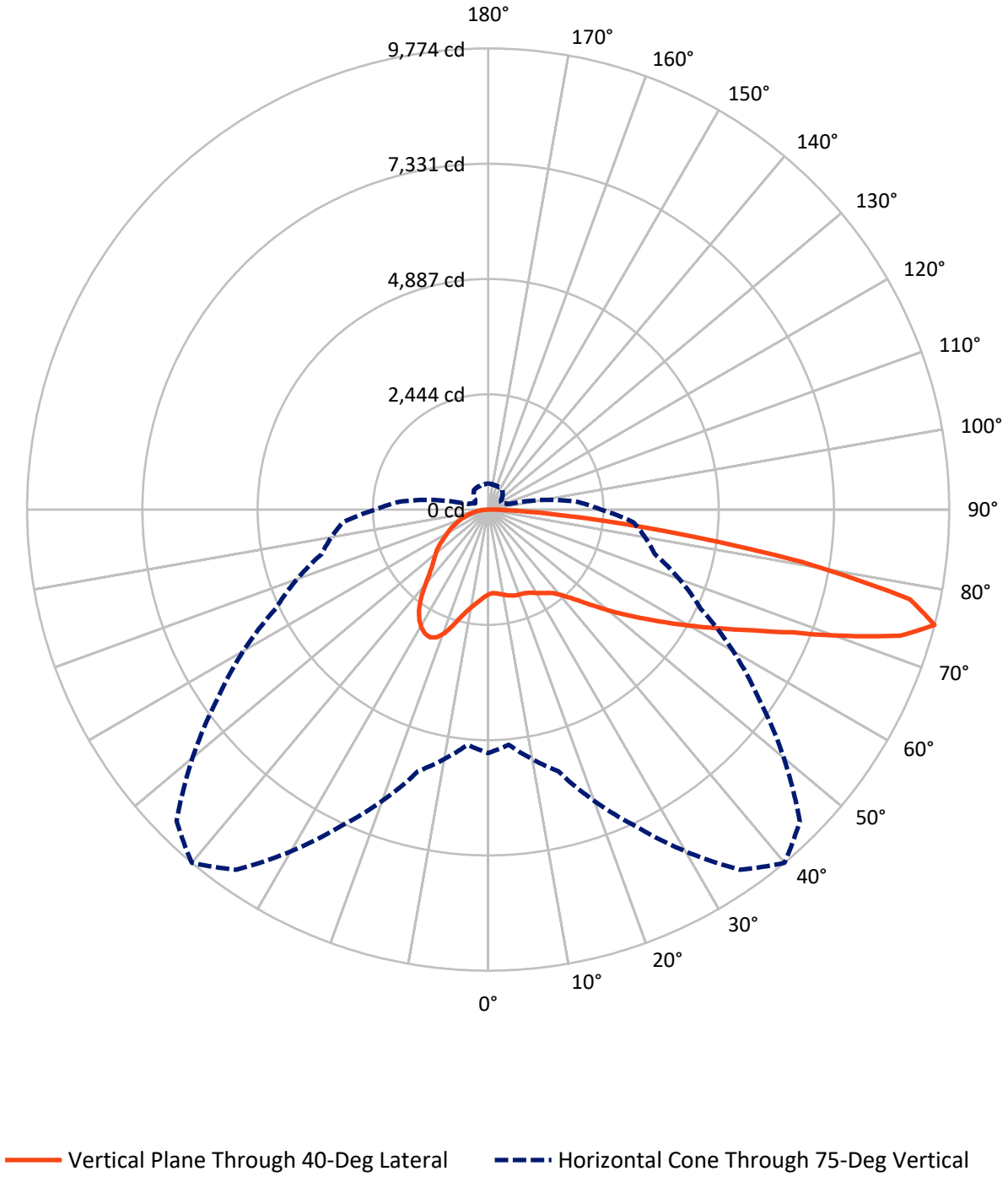

Based on 10 foot mounting height. Maximum calculated value = 23.2 fc
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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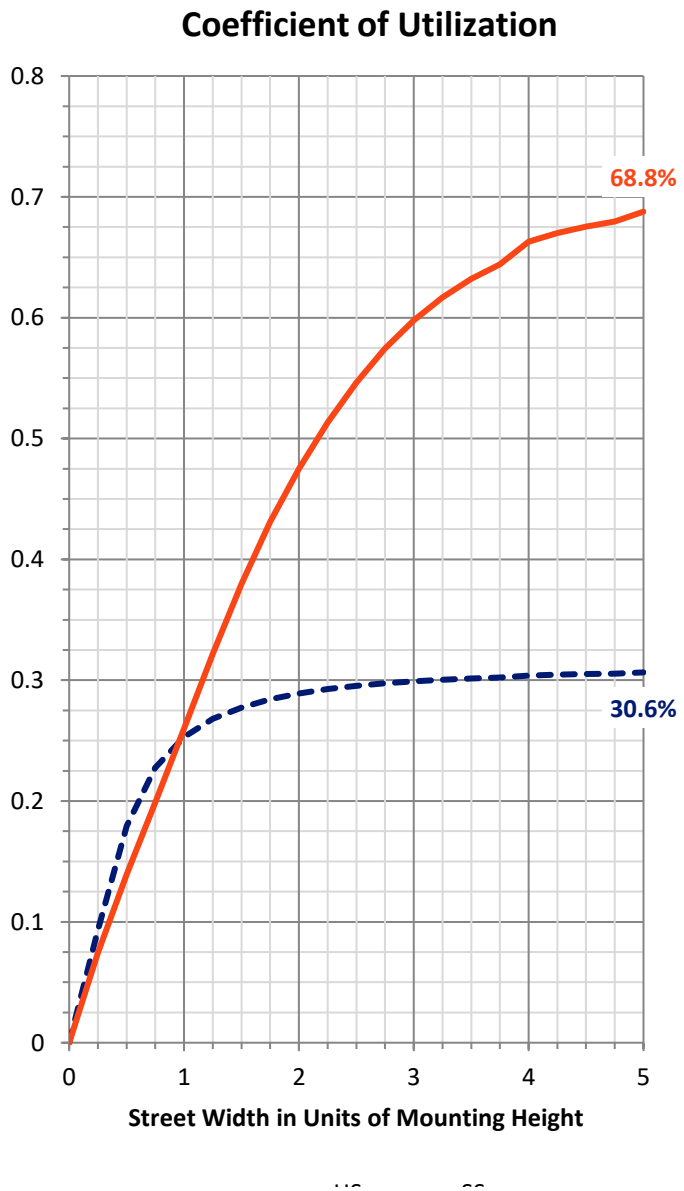
REPORT NUMBER: P1200285
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 4865.6 | 0.0 | 4865.6 |
| | % Fixture | 31.0 | 0.0 | 31.0 |
| **Street Side** | Lumens | 10838.4 | 0.0 | 10838.4 |
| | % Fixture | 69.0 | 0.0 | 69.0 |
| **Total** | Lumens | 15704.0 | 0.0 | 15704.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 179.3 | 1.1 |
| 10°-20° | 601.8 | 3.8 |
| 20°-30° | 1098.9 | 7.0 |
| 30°-40° | 1558.5 | 9.9 |
| 40°-50° | 2104.5 | 13.4 |
| 50°-60° | 2831.1 | 18.0 |
| 60°-70° | 3593.3 | 22.9 |
| 70°-80° | 3261.2 | 20.8 |
| 80°-90° | 475.4 | 3.0 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 15704.0 | 100.0 |
| 0°-180° | 15704.0 | 100.0 |



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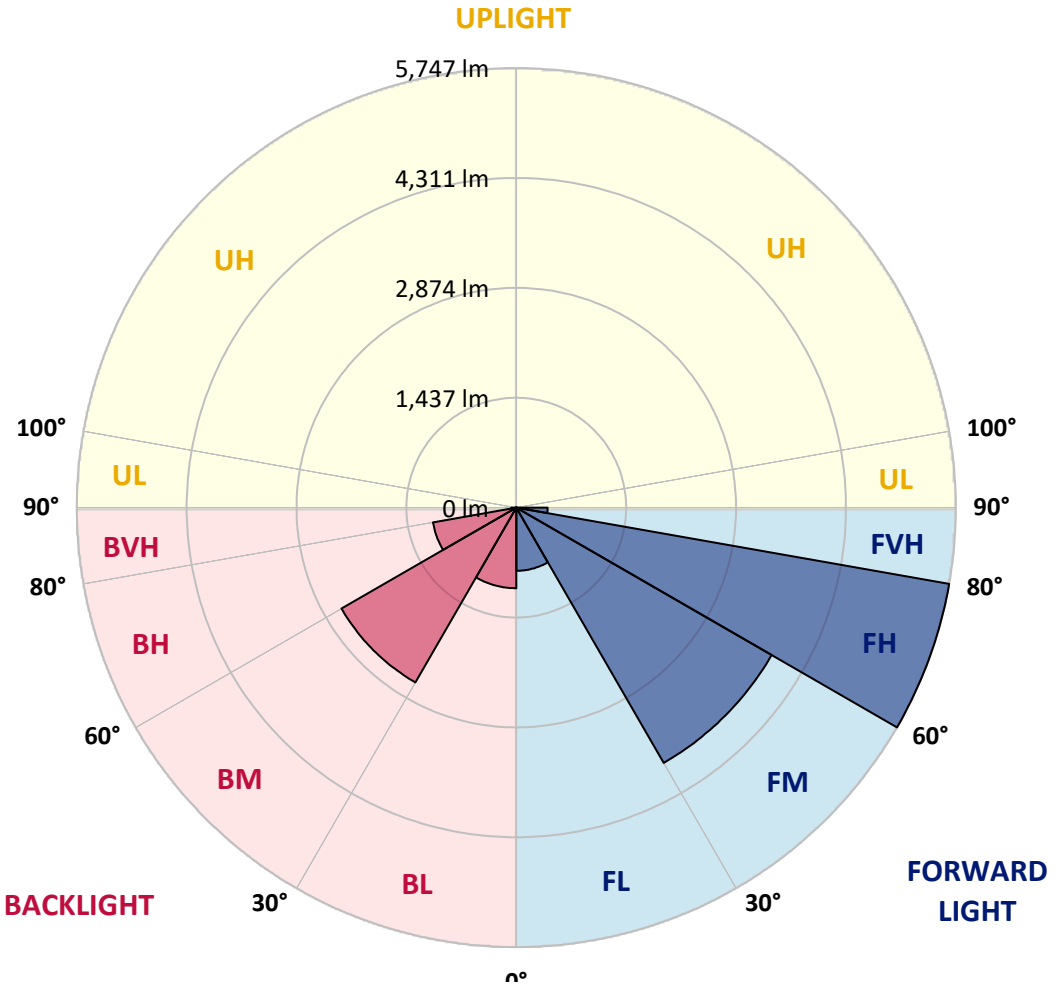
Scaled Data Report

REPORT NUMBER: P1200285
CATALOG NUMBER: GPC-SB2C-760-U-SL4

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 826.0 | 5.3 | | | |
| FM | (30°-60°) | 3855.0 | 24.5 | | | |
| FH | (60°-80°) | 5747.4 | 36.6 | | | G3/7500 |
| FVH | (80°-90°) | 409.9 | 2.6 | | | G3/500 |
| BL | (0°-30°) | 1053.9 | 6.7 | B3/2500 | | |
| BM | (30°-60°) | 2639.2 | 16.8 | B3/5000 | | |
| BH | (60°-80°) | 1107.1 | 7.0 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 65.4 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G3**
Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 | *1795.8* | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 |
| 2.5° | 1768.3 | 1778.3 | 1775.8 | 1772.5 | 1772.5 | *1773.3* | 1772.5 | 1778.3 | 1784.1 | 1789.9 | 1799.1 |
| 5° | 1786.6 | 1796.6 | 1791.6 | 1787.4 | 1784.1 | *1783.3* | 1780.8 | 1779.9 | 1783.3 | 1790.8 | 1803.3 |
| 7.5° | 1822.4 | 1832.4 | 1824.9 | 1817.4 | 1810.8 | *1807.4* | 1804.1 | 1799.1 | 1796.6 | 1800.8 | 1818.3 |
| 10° | 1862.4 | 1872.4 | 1863.2 | 1849.9 | 1839.1 | *1834.9* | 1831.6 | 1826.6 | 1823.3 | 1825.8 | 1844.9 |
| 12.5° | 1902.4 | 1912.4 | 1899.9 | 1881.6 | 1867.4 | *1864.9* | 1860.7 | 1859.1 | 1858.2 | 1857.4 | 1876.6 |
| 15° | 1939.9 | 1948.2 | 1932.4 | 1910.7 | 1895.7 | *1891.6* | 1887.4 | 1889.9 | 1894.1 | 1899.1 | 1920.7 |
| 17.5° | 1969.0 | 1977.3 | 1954.0 | 1925.7 | 1911.5 | *1909.9* | 1907.4 | 1915.7 | 1927.4 | 1939.9 | 1966.5 |
| 20° | 1995.7 | 2004.0 | 1974.0 | 1935.7 | 1919.0 | *1919.0* | 1919.9 | 1937.4 | 1954.0 | 1972.4 | 2009.0 |
| 22.5° | 2033.2 | 2039.8 | 2003.2 | 1950.7 | 1926.5 | *1928.2* | 1934.9 | 1952.4 | 1973.2 | 1998.2 | 2049.0 |
| 25° | 2089.0 | 2094.0 | 2049.0 | 1979.0 | 1951.5 | *1956.5* | 1962.4 | 1970.7 | 1990.7 | 2019.8 | 2088.1 |
| 27.5° | 2178.9 | 2183.1 | 2123.9 | 2029.0 | 1987.3 | *1995.7* | 2004.0 | 1998.2 | 2007.3 | 2032.3 | 2119.8 |
| 30° | 2305.5 | 2308.0 | 2233.1 | 2107.3 | 2048.1 | *2052.3* | 2054.0 | 2029.8 | 2012.3 | 2032.3 | 2142.3 |
| 32.5° | 2455.4 | 2454.6 | 2365.5 | 2202.2 | 2117.3 | *2113.1* | 2099.0 | 2051.5 | 2010.7 | 2028.2 | 2162.3 |
| 35° | 2687.8 | 2678.7 | 2563.7 | 2335.5 | 2195.6 | *2169.8* | 2136.4 | 2075.6 | 2019.0 | 2024.0 | 2179.7 |
| 37.5° | 3072.6 | 3044.3 | 2885.2 | 2553.7 | 2312.2 | *2246.4* | 2197.2 | 2114.8 | 2037.3 | 2022.3 | 2200.6 |
| 40° | 3506.6 | 3470.8 | 3295.9 | 2852.7 | 2487.1 | *2381.3* | 2302.2 | 2170.6 | 2067.3 | 2029.8 | 2231.4 |
| 42.5° | 4021.3 | 3970.5 | 3782.3 | 3205.1 | 2708.7 | *2555.4* | 2436.3 | 2241.4 | 2111.4 | 2054.0 | 2273.0 |
| 45° | 4653.5 | 4586.1 | 4319.5 | 3602.4 | 2987.7 | *2783.6* | 2624.5 | 2348.8 | 2178.9 | 2100.6 | 2335.5 |
| 47.5° | 5292.4 | 5309.0 | 4930.0 | 4057.1 | 3322.5 | *3065.1* | 2860.2 | 2510.4 | 2277.2 | 2175.6 | 2436.3 |
| 50° | 5971.2 | 5982.9 | 5537.2 | 4561.1 | 3702.3 | *3383.3* | 3125.1 | 2691.2 | 2413.8 | 2282.2 | 2587.0 |
| 52.5° | 6500.9 | 6502.6 | 6088.6 | 5088.3 | 4098.0 | *3733.1* | 3410.8 | 2897.7 | 2572.1 | 2423.8 | 2787.8 |
| 55° | 6832.4 | 6828.3 | 6475.1 | 5587.2 | 4552.7 | *4100.5* | 3727.3 | 3132.6 | 2765.3 | 2590.4 | 3040.2 |
| 57.5° | 7073.1 | 7060.7 | 6741.6 | 6016.2 | 5037.5 | *4534.4* | 4085.5 | 3399.1 | 2993.5 | 2788.6 | 3372.5 |
| 60° | 7164.8 | 7157.3 | 6922.4 | 6386.8 | 5547.2 | *5014.2* | 4498.6 | 3697.3 | 3252.5 | 3022.7 | 3799.8 |
| 62.5° | 7199.8 | 7213.9 | 7099.8 | 6745.8 | 6092.8 | *5545.6* | 4952.5 | 4053.8 | 3544.1 | 3287.5 | 4250.4 |
| 65° | 7323.0 | 7348.8 | 7325.5 | 7215.6 | 6709.2 | *6167.8* | 5554.7 | 4477.8 | 3862.2 | 3571.6 | 4721.0 |
| 67.5° | 7567.1 | 7592.9 | 7602.9 | 7777.8 | 7462.1 | *6943.2* | 6306.0 | 5005.8 | 4234.6 | 3866.4 | 5075.0 |
| 70° | 7561.2 | 7553.7 | 7730.3 | 8225.1 | 8405.0 | *8016.8* | 7318.9 | 5655.5 | 4678.5 | 4111.3 | 5120.0 |
| 72.5° | 6882.4 | 6822.4 | 7239.7 | 8220.1 | 9189.6 | *9138.0* | 8555.7 | 6493.4 | 5061.6 | 4141.3 | 4442.8 |
| 75° | *5163.3* | *5003.3* | *5740.5* | *7408.0* | *9320.4* | *9774.3* | *9342.0* | *7013.2* | *4970.9* | *3659.0* | *3091.8* |
| 77.5° | 2208.1 | 2047.3 | 2916.0 | 5483.9 | 8341.7 | *9137.1* | 8620.7 | 6118.6 | 3968.0 | 2419.6 | 1518.4 |
| 80° | 578.0 | 577.2 | 881.2 | 2486.3 | 5673.0 | *6747.5* | 5919.6 | 3951.4 | 2267.2 | 864.6 | 419.0 |
| 82.5° | 239.0 | 233.2 | 324.0 | 967.0 | 2772.0 | *3786.4* | 3090.1 | 1762.5 | 818.8 | 234.1 | 139.1 |
| 85° | 89.1 | 88.3 | 157.4 | 334.0 | 977.8 | *1561.7* | 1130.3 | 450.6 | 204.1 | 114.1 | 62.5 |
| 87.5° | 25.0 | 24.2 | 34.1 | 115.8 | 238.2 | *361.5* | 193.2 | 74.1 | 57.5 | 45.0 | 18.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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CATALOG NUMBER: GPC-SB2C-760-U-SL4

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 | 1795.8 |
| 2.5° | 1801.6 | 1805.8 | 1813.3 | 1819.1 | 1826.6 | 1834.9 | 1846.6 | 1854.1 | 1861.6 | 1866.6 | 1863.2 |
| 5° | 1809.1 | 1818.3 | 1837.4 | 1856.6 | 1879.1 | 1899.9 | 1924.0 | 1941.5 | 1955.7 | 1959.9 | 1961.5 |
| 7.5° | 1825.8 | 1840.8 | 1873.2 | 1905.7 | 1941.5 | 1975.7 | 2010.7 | 2040.7 | 2064.8 | 2074.0 | 2074.8 |
| 10° | 1854.9 | 1874.9 | 1920.7 | 1966.5 | 2014.0 | 2066.5 | 2111.4 | 2154.8 | 2188.9 | 2203.1 | 2203.9 |
| 12.5° | 1891.6 | 1916.5 | 1976.5 | 2039.8 | 2105.6 | 2178.1 | 2236.4 | 2289.7 | 2332.2 | 2351.3 | 2351.3 |
| 15° | 1939.0 | 1971.5 | 2048.1 | 2133.1 | 2229.7 | 2330.5 | 2404.6 | 2463.8 | 2511.3 | 2534.6 | 2532.9 |
| 17.5° | 1990.7 | 2034.0 | 2130.6 | 2258.9 | 2397.1 | 2529.6 | 2616.2 | 2659.5 | 2708.7 | 2731.1 | 2730.3 |
| 20° | 2040.7 | 2094.0 | 2232.2 | 2418.8 | 2602.9 | 2743.6 | 2813.6 | 2825.3 | 2828.6 | 2831.1 | 2837.8 |
| 22.5° | 2092.3 | 2163.9 | 2359.7 | 2620.4 | 2817.8 | 2915.2 | 2925.2 | 2875.2 | 2805.3 | 2772.8 | 2781.9 |
| 25° | 2148.9 | 2243.9 | 2526.2 | 2842.8 | 3002.7 | 3014.3 | 2937.7 | 2816.1 | 2683.7 | 2622.9 | 2632.0 |
| 27.5° | 2203.9 | 2336.3 | 2726.1 | 3055.1 | 3135.9 | 3033.5 | 2868.6 | 2696.2 | 2536.2 | 2472.1 | 2479.6 |
| 30° | 2258.9 | 2442.1 | 2946.9 | 3240.9 | 3196.7 | 2986.0 | 2759.5 | 2567.1 | 2406.3 | 2338.8 | 2346.3 |
| 32.5° | 2314.7 | 2565.4 | 3200.9 | 3375.0 | 3185.9 | 2885.2 | 2623.7 | 2422.1 | 2280.5 | 2209.7 | 2218.9 |
| 35° | 2378.0 | 2717.0 | 3441.6 | 3448.3 | 3113.5 | 2737.0 | 2444.6 | 2248.9 | 2125.6 | 2069.0 | 2081.5 |
| 37.5° | 2460.4 | 2909.4 | 3654.0 | 3466.6 | 2986.8 | 2519.6 | 2222.2 | 2044.0 | 1942.4 | 1916.5 | 1934.9 |
| 40° | 2562.9 | 3140.9 | 3816.4 | 3437.5 | 2799.4 | 2255.5 | 1979.0 | 1836.6 | 1779.1 | 1784.9 | 1804.9 |
| 42.5° | 2696.2 | 3400.0 | 3930.5 | 3362.5 | 2538.7 | 1983.2 | 1765.8 | 1702.5 | 1730.0 | 1753.3 | 1775.0 |
| 45° | 2869.4 | 3669.0 | 4001.3 | 3235.1 | 2243.9 | 1752.5 | 1640.0 | 1655.0 | 1675.8 | 1678.3 | 1695.0 |
| 47.5° | 3091.0 | 3941.4 | 4048.0 | 3042.7 | 1943.2 | 1590.0 | 1560.1 | 1563.4 | 1559.2 | 1541.7 | 1555.1 |
| 50° | 3367.5 | 4206.2 | 4089.6 | 2787.8 | 1687.5 | 1488.4 | 1448.4 | 1436.8 | 1379.3 | 1322.7 | 1330.2 |
| 52.5° | 3682.3 | 4449.5 | 4107.1 | 2471.3 | 1488.4 | 1403.5 | 1338.5 | 1265.2 | 1157.8 | 1140.3 | 1146.1 |
| 55° | 4032.2 | 4674.3 | 4062.1 | 2082.3 | 1321.0 | 1294.4 | 1196.1 | 1107.8 | 1096.1 | 1081.1 | 1083.6 |
| 57.5° | 4450.3 | 4916.7 | 3970.5 | 1648.3 | 1149.4 | 1166.9 | 1071.1 | 1081.1 | 1060.3 | 1037.0 | 1032.8 |
| 60° | 4907.6 | 5167.4 | 3809.8 | 1252.7 | 972.0 | 1007.8 | 1038.6 | 1037.8 | 1032.0 | 1012.8 | 1006.2 |
| 62.5° | 5319.0 | 5332.3 | 3493.3 | 959.5 | 816.3 | 884.6 | 968.7 | 967.9 | 962.9 | 952.0 | 947.9 |
| 65° | 5563.9 | 5307.4 | 2965.2 | 755.5 | 688.0 | 782.9 | 873.7 | 880.4 | 881.2 | 880.4 | 880.4 |
| 67.5° | 5520.6 | 5015.0 | 2240.6 | 601.4 | 582.2 | 679.7 | 779.6 | 788.8 | 795.4 | 797.1 | 798.8 |
| 70° | 5030.8 | 4372.8 | 1460.9 | 479.8 | 488.1 | 588.9 | 690.5 | 699.7 | 705.5 | 712.1 | 715.5 |
| 72.5° | 3921.4 | 3215.1 | 836.3 | 388.1 | 405.6 | 510.6 | 602.2 | 613.0 | 616.4 | 628.9 | 633.9 |
| 75° | *2389.6* | *1890.7* | *451.4* | *305.7* | *333.2* | *436.4* | *514.7* | *527.2* | *533.1* | *548.1* | *549.7* |
| 77.5° | 1136.1 | 818.8 | 257.4 | 238.2 | 268.2 | 356.5 | 434.8 | 448.9 | 433.1 | 441.4 | 434.8 |
| 80° | 384.0 | 304.0 | 162.4 | 181.6 | 204.9 | 278.2 | 348.2 | 362.3 | 329.0 | 327.3 | 324.0 |
| 82.5° | 134.1 | 123.3 | 103.3 | 120.8 | 132.4 | 199.1 | 263.2 | 281.5 | 244.9 | 244.0 | 232.4 |
| 85° | 52.5 | 50.0 | 57.5 | 65.8 | 79.1 | 122.4 | 173.2 | 182.4 | 150.8 | 121.6 | 119.9 |
| 87.5° | 10.8 | 11.7 | 14.2 | 15.0 | 24.2 | 42.5 | 62.5 | 76.6 | 60.8 | 51.6 | 47.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


HS
SS

0

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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

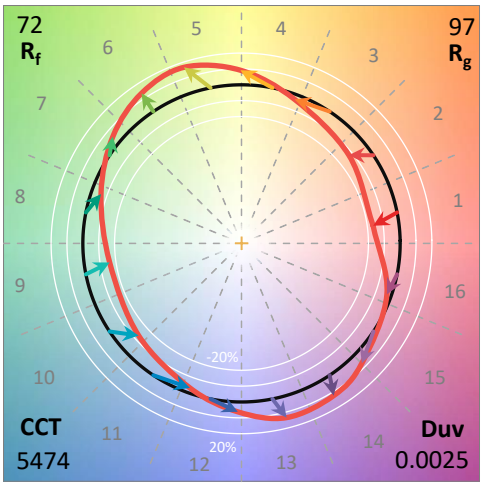
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-760-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

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

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 5474 | CRI (Ra): | 71.7 | | |
| CIE u': | 0.2052 | R1: | 70.6 | R9: | -27.1 |
| CIE v': | 0.4804 | R2: | 74.6 | R10: | 40.8 |
| Duv: | 0.0025 | R3: | 78.3 | R11: | 74.6 |
| CIE x: | 0.3330 | R4: | 73.8 | R12: | 50.4 |
| CIE y: | 0.3466 | R5: | 72.4 | R13: | 70.0 |
| CIE z: | 0.3204 | R6: | 67.5 | R14: | 87.8 |
| Peak Wavelength (nm): | 442 | R7: | 77.5 | | |
| Dominant Wavelength (nm): | 554 | R8: | 58.9 | | |
| Purity: | 4.1 | | | | |

| | |
|---|---|
| Rf: | 72.1 |
| Rg: | 97.2 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 240M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 24.6/31% |
| Sphere Temperature (°C): | 25.9 |

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1121 Highway 74 South
Peachtree City, GA 30269

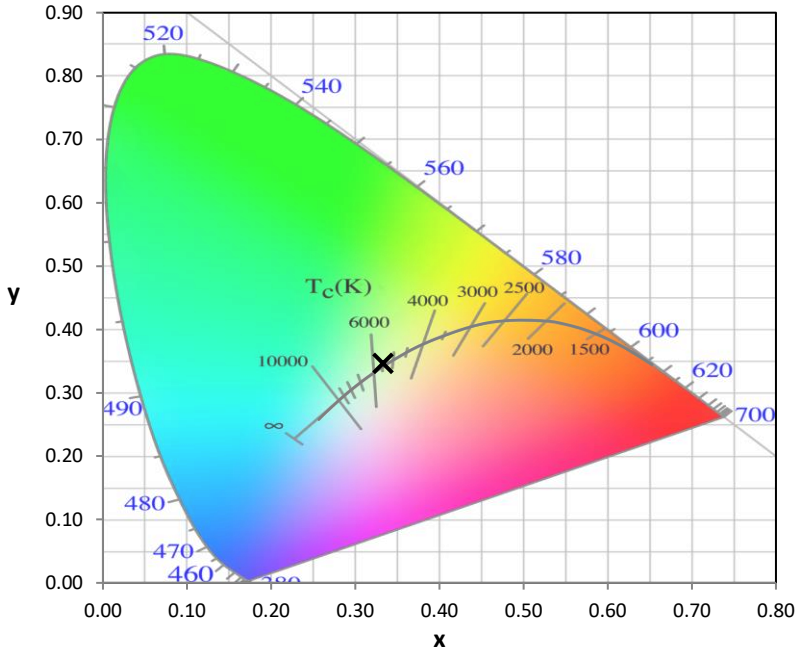
REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

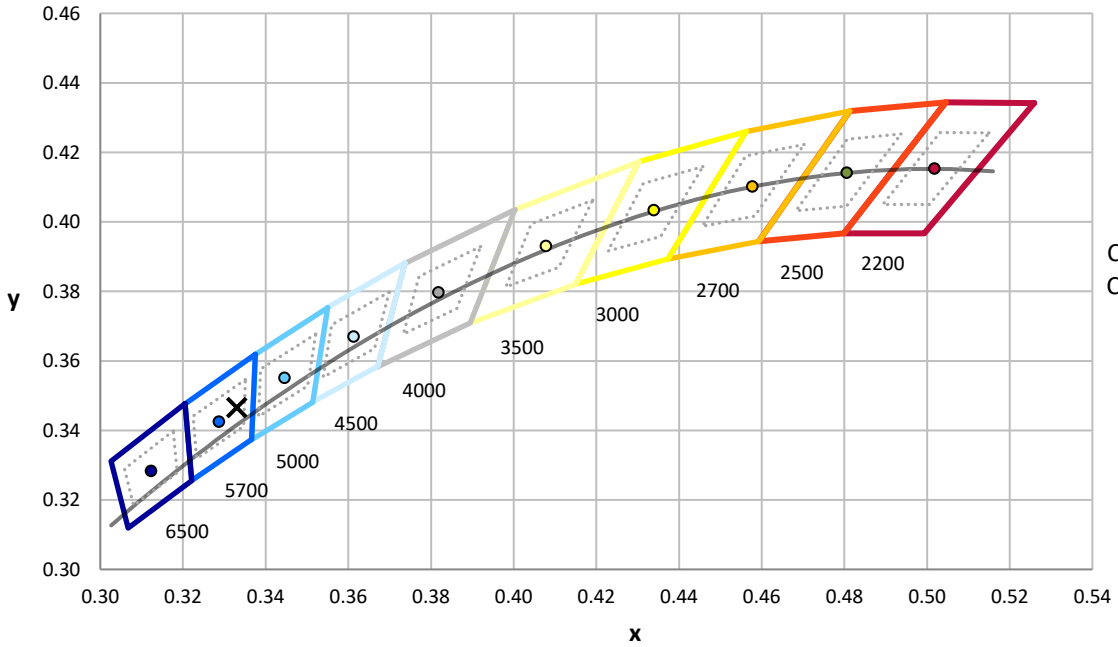
Cooper Lighting Solutions Photometric Lab
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## CIE 1931 Chromaticity Diagram




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



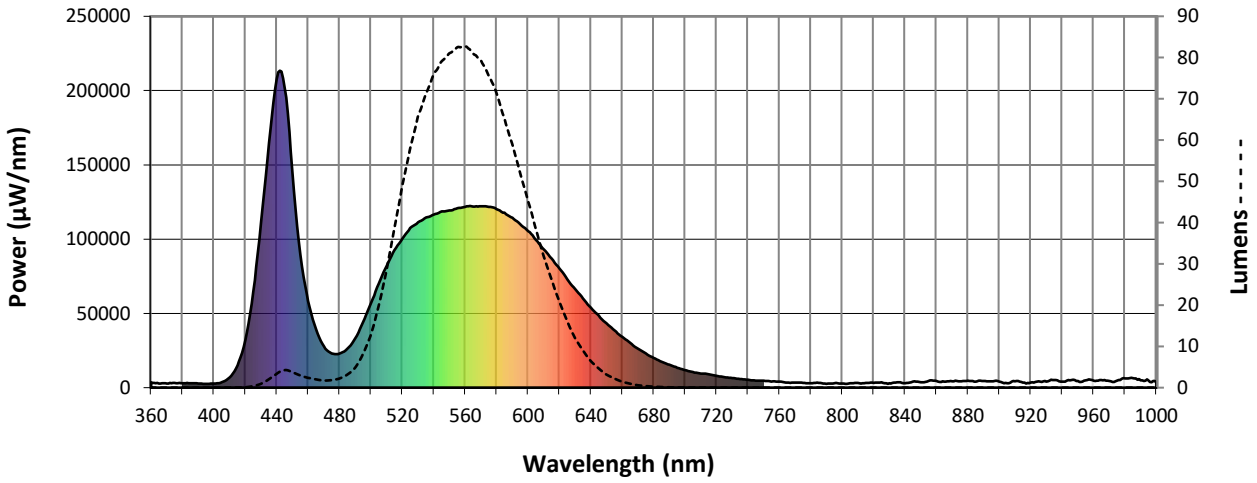

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



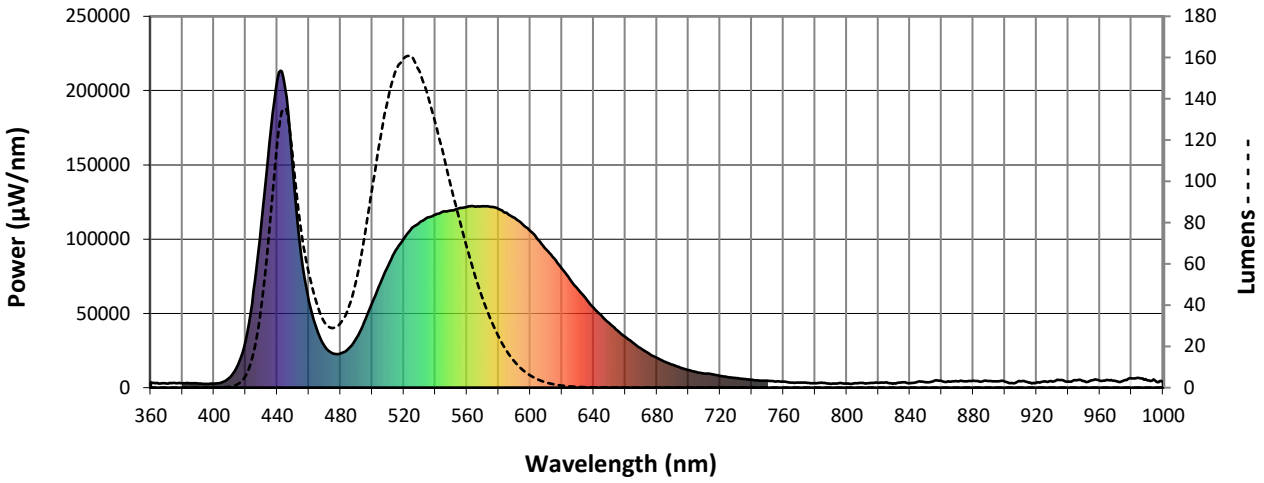

**Photopic Lumens: 7459.9**

| 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 | 3540 | 0.0 | 490 | 33363 | 4.7 | 620 | 80193 | 20.9 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 8.0 | 625 | 73091 | 16.1 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 12.6 | 630 | 66269 | 12.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 19.6 | 635 | 60012 | 9.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 28.2 | 640 | 53914 | 6.4 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 38.4 | 645 | 48385 | 4.7 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 48.6 | 650 | 43219 | 3.2 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 57.7 | 655 | 38562 | 2.2 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 65.6 | 660 | 34110 | 1.4 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.0 | 535 | 114505 | 71.0 | 665 | 30085 | 1.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.0 | 540 | 116408 | 75.8 | 670 | 26205 | 0.6 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 0.0 | 545 | 118700 | 79.0 | 675 | 22906 | 0.4 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 0.1 | 550 | 119209 | 81.0 | 680 | 20058 | 0.2 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 0.3 | 555 | 120742 | 82.5 | 685 | 17413 | 0.1 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 0.9 | 560 | 121594 | 82.6 | 690 | 15447 | 0.1 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 1.9 | 565 | 121913 | 81.1 | 695 | 13398 | 0.1 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 3.3 | 570 | 122147 | 79.4 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 4.2 | 575 | 121605 | 75.7 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 3.8 | 580 | 120248 | 71.5 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 3.0 | 585 | 117717 | 65.4 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 2.4 | 590 | 114359 | 59.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 2.0 | 595 | 109974 | 52.1 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 1.7 | 600 | 105269 | 45.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 1.8 | 605 | 99453 | 38.5 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 2.2 | 610 | 92921 | 31.9 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 3.1 | 615 | 86989 | 26.3 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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## Scotopic Flux vs. Wavelength



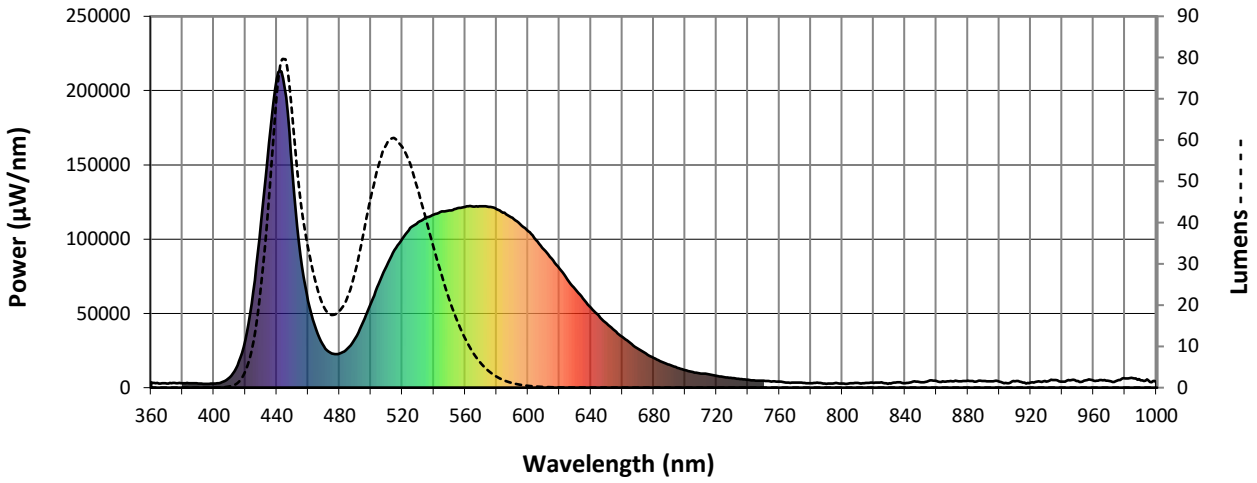

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| 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 | 3540 | 0.0 | 490 | 33363 | 27.8 | 620 | 80193 | 0.1 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 36.5 | 625 | 73091 | 0.0 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 45.8 | 630 | 66269 | 0.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 53.7 | 635 | 60012 | 0.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 58.9 | 640 | 53914 | 0.0 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 60.5 | 645 | 48385 | 0.0 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 58.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 54.5 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 48.1 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 41.2 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.3 | 540 | 116408 | 34.1 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.0 | 545 | 118700 | 27.6 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 3.6 | 550 | 119209 | 21.4 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 10.1 | 555 | 120742 | 16.3 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 23.4 | 560 | 121594 | 12.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 43.9 | 565 | 121913 | 8.6 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 69.4 | 570 | 122147 | 6.0 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 79.6 | 575 | 121605 | 4.0 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 67.0 | 580 | 120248 | 2.7 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 46.9 | 585 | 117717 | 1.7 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 34.4 | 590 | 114359 | 1.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 25.7 | 595 | 109974 | 0.7 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 19.8 | 600 | 105269 | 0.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 17.6 | 605 | 99453 | 0.3 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 18.5 | 610 | 92921 | 0.2 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 21.6 | 615 | 86989 | 0.1 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 5527.6** **M/P: 0.74**

| 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 | 3540 | 0.0 | 490 | 33363 | 51.4 | 620 | 80193 | 1.0 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 71.4 | 625 | 73091 | 0.6 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 95.4 | 630 | 66269 | 0.4 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 119.1 | 635 | 60012 | 0.2 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 138.9 | 640 | 53914 | 0.1 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 153.5 | 645 | 48385 | 0.1 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 159.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 160.7 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 153.5 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 142.7 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.4 | 540 | 116408 | 128.6 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.5 | 545 | 118700 | 113.8 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 5.3 | 550 | 119209 | 97.5 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 15.8 | 555 | 120742 | 82.5 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 37.8 | 560 | 121594 | 68.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 73.6 | 565 | 121913 | 54.7 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 116.1 | 570 | 122147 | 43.1 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 135.1 | 575 | 121605 | 33.1 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 112.7 | 580 | 120248 | 24.8 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 78.3 | 585 | 117717 | 18.0 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 56.3 | 590 | 114359 | 12.7 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 41.5 | 595 | 109974 | 8.8 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 31.9 | 600 | 105269 | 5.9 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 28.9 | 605 | 99453 | 3.9 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 31.1 | 610 | 92921 | 2.5 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 38.0 | 615 | 86989 | 1.6 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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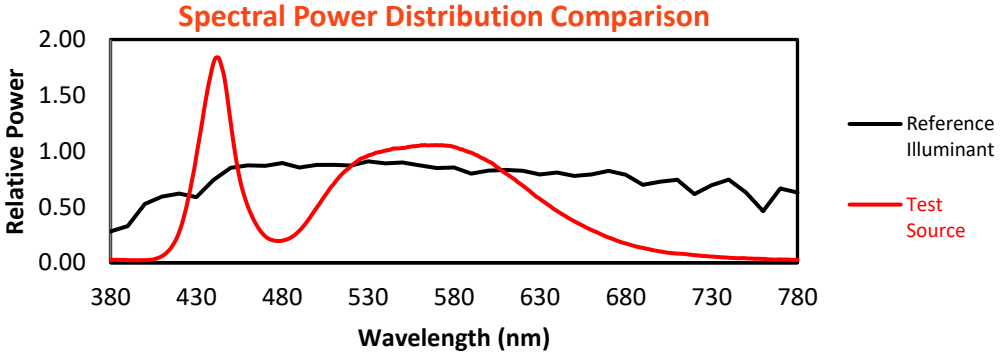
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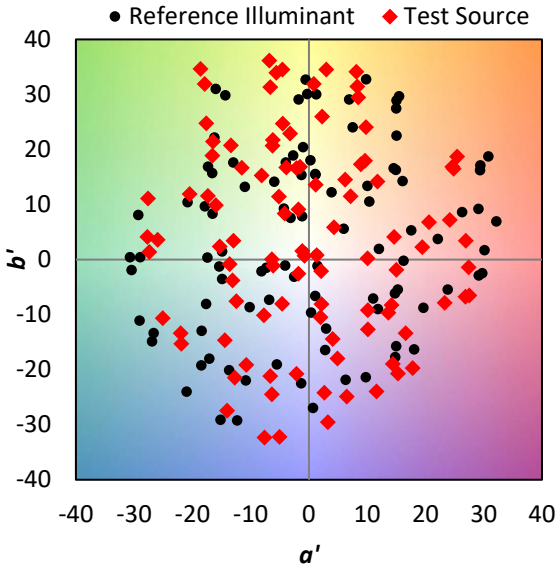
## Summary

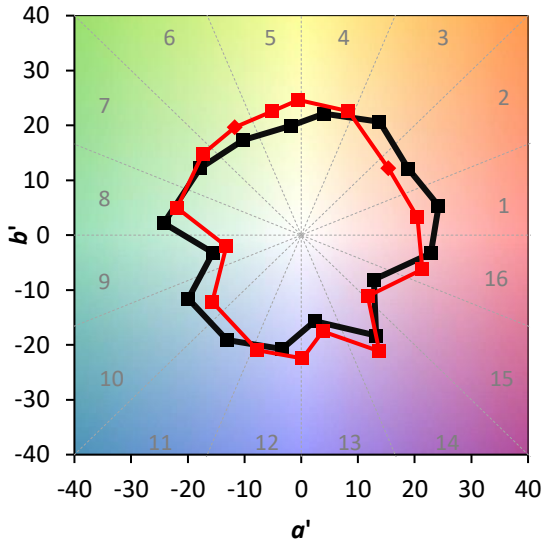
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

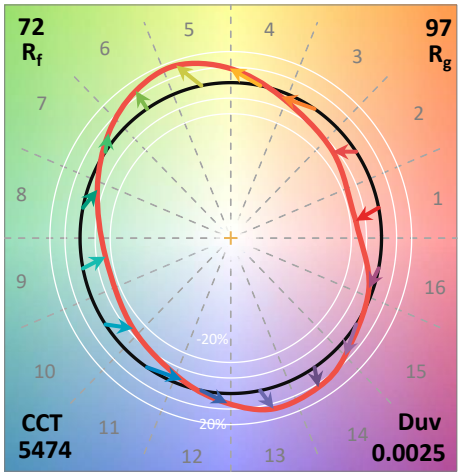
## Spectral Power Distribution Comparison

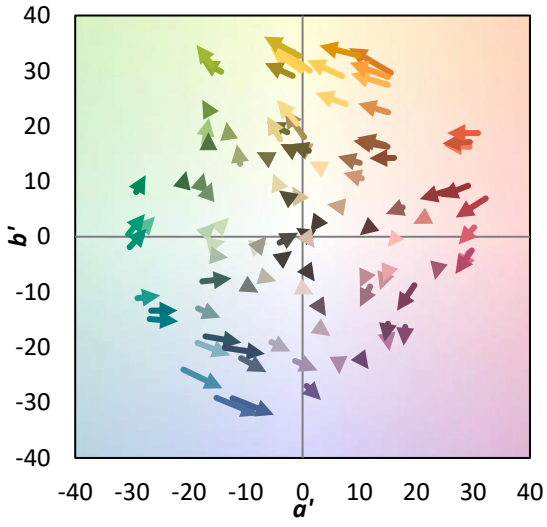



## Color Vector Graphics



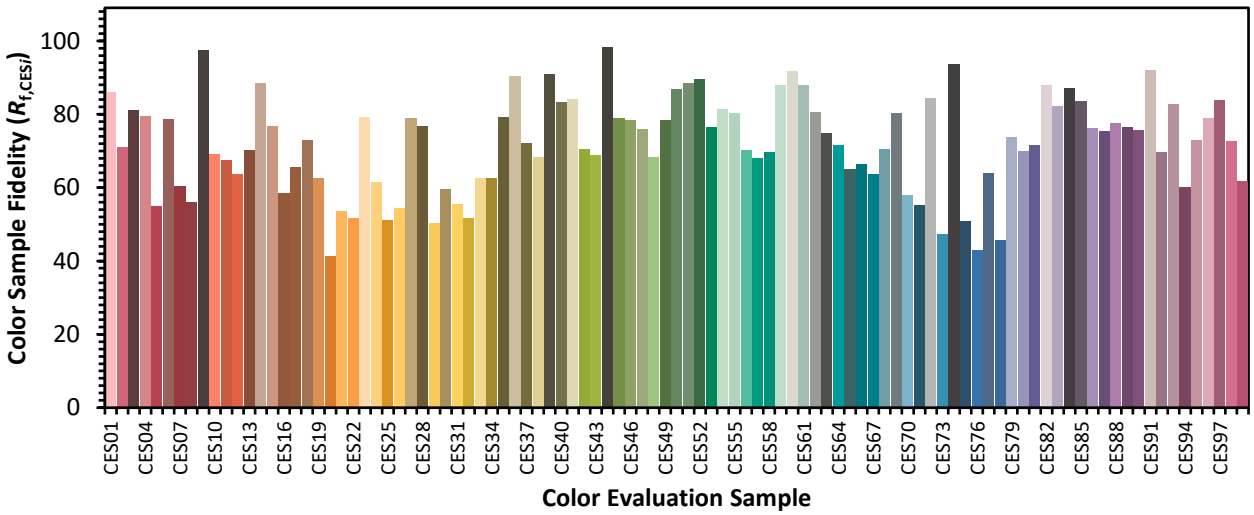
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## Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 54 | CES51 = 88 | CES76 = 43 |
| CES02 = 59 | CES27 = 79 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 50 | CES54 = 81 | CES79 = 74 |
| CES05 = 46 | CES30 = 59 | CES55 = 80 | CES80 = 70 |
| CES06 = 50 | CES31 = 55 | CES56 = 70 | CES81 = 71 |
| CES07 = 38 | CES32 = 52 | CES57 = 68 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 82 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 84 |
| CES11 = 55 | CES36 = 90 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 72 | CES62 = 81 | CES87 = 75 |
| CES13 = 41 | CES38 = 68 | CES63 = 75 | CES88 = 77 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 84 | CES66 = 66 | CES91 = 92 |
| CES17 = 48 | CES42 = 70 | CES67 = 64 | CES92 = 70 |
| CES18 = 55 | CES43 = 69 | CES68 = 71 | CES93 = 83 |
| CES19 = 70 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 73 |
| CES21 = 85 | CES46 = 78 | CES71 = 55 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 68 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 78 | CES74 = 94 | CES99 = 62 |
| CES25 = 71 | CES50 = 87 | CES75 = 51 | |

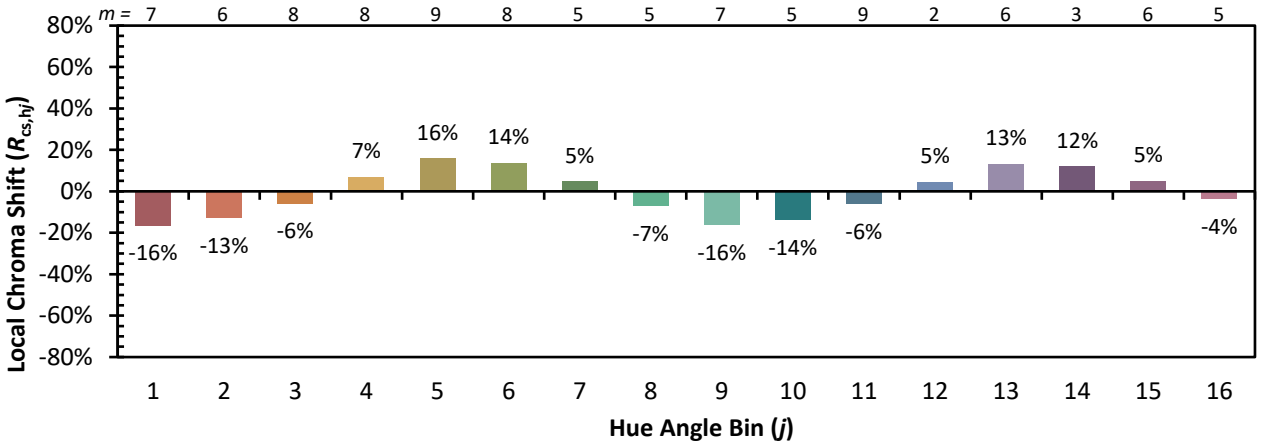


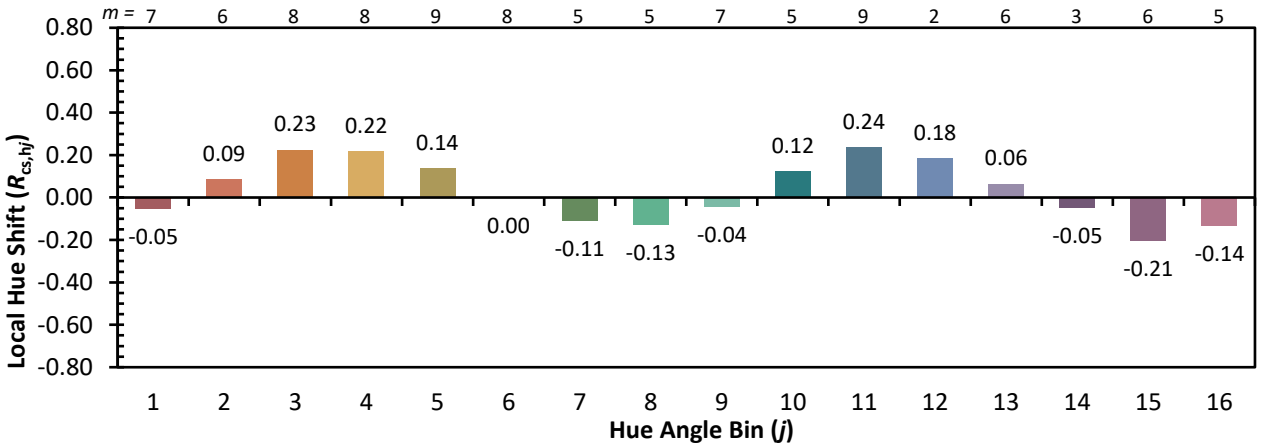
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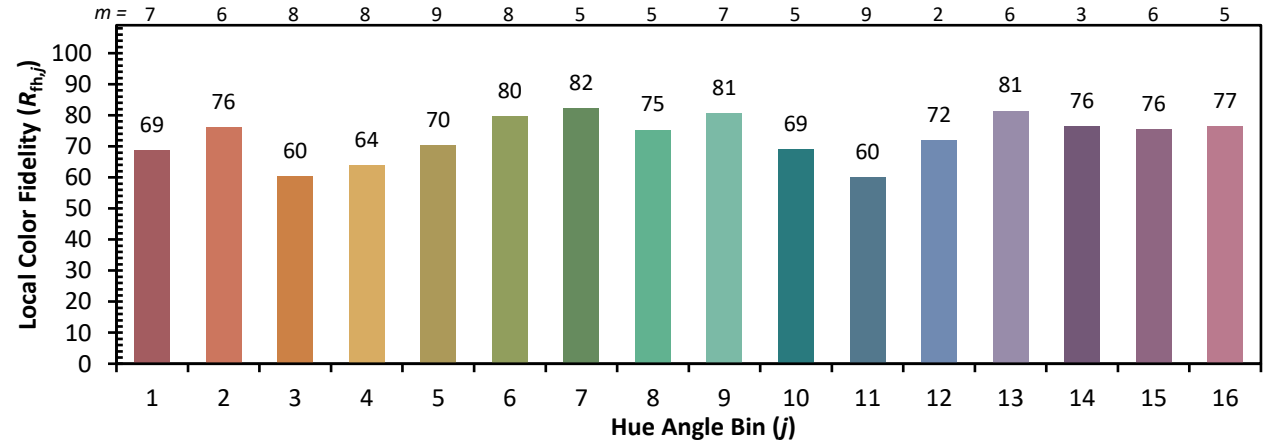
REPORT NUMBER: SP1-1908-441-9-R4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



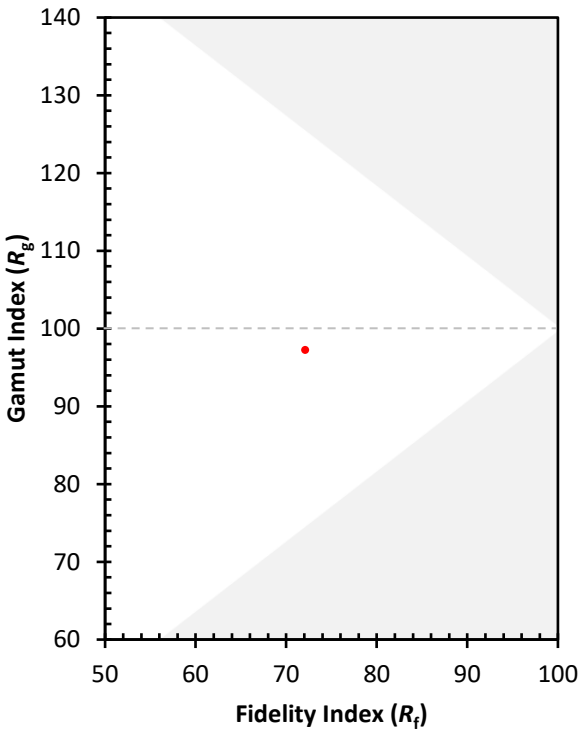



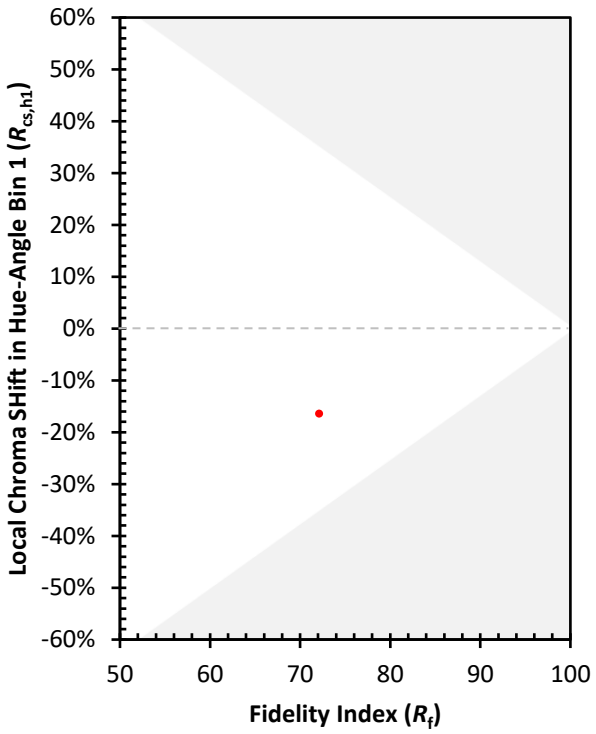
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### Measure Comparisons




(END OF REPORT)