Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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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: P1200115

Luminaire Tested: GPC-SB2C-722-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: | P1200115 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/12/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2C-722-U-SL3 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 2200K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 12090 lumens |
| Efficiency: | N/A |
| Efficacy: | 119.8 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Medium |
| BUG Rating: | B2 - 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 |

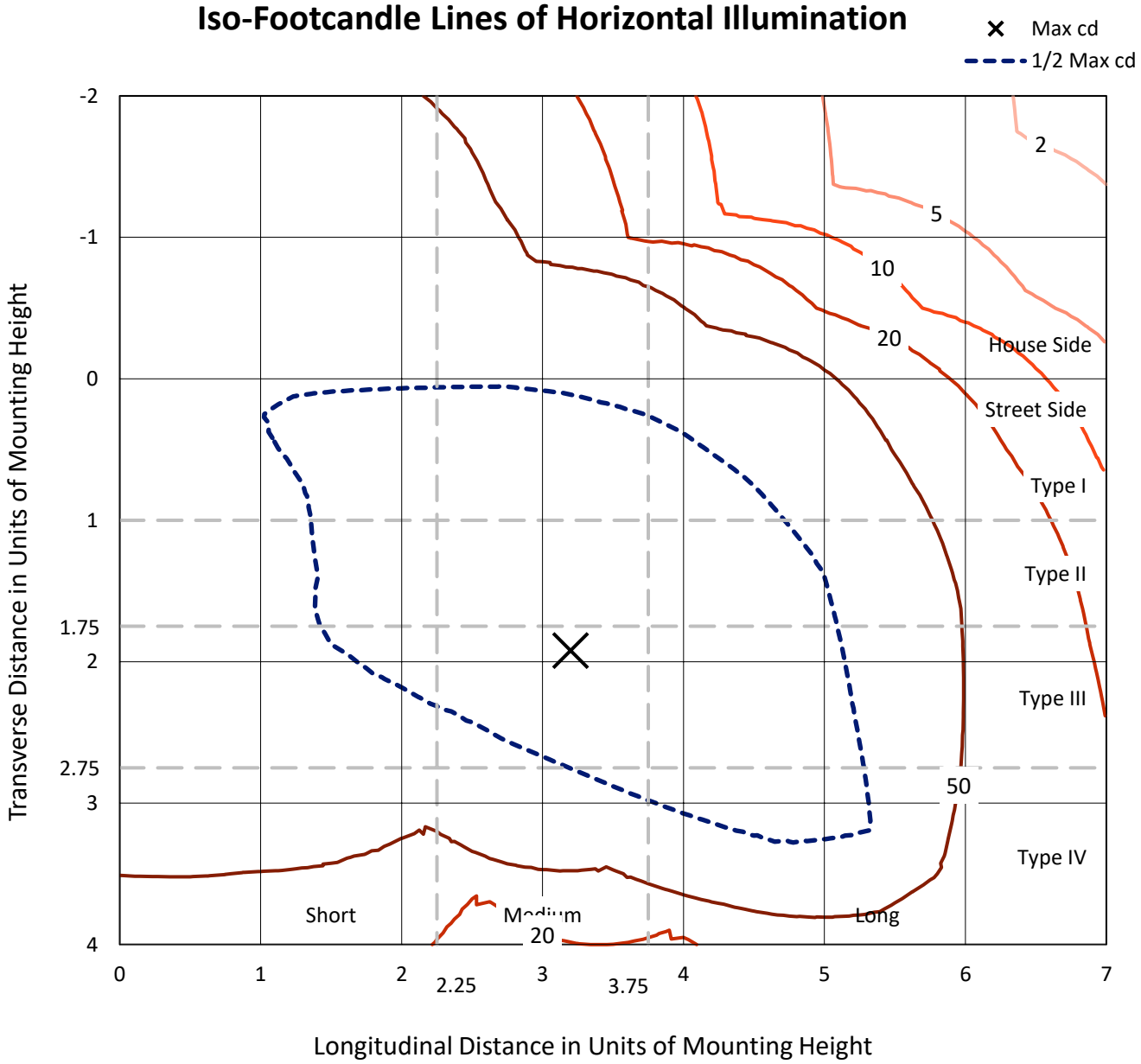


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REPORT NUMBER: P1200115
CATALOG NUMBER: GPC-SB2C-722-U-SL3

## Iso-Footcandle Lines of Horizontal Illumination



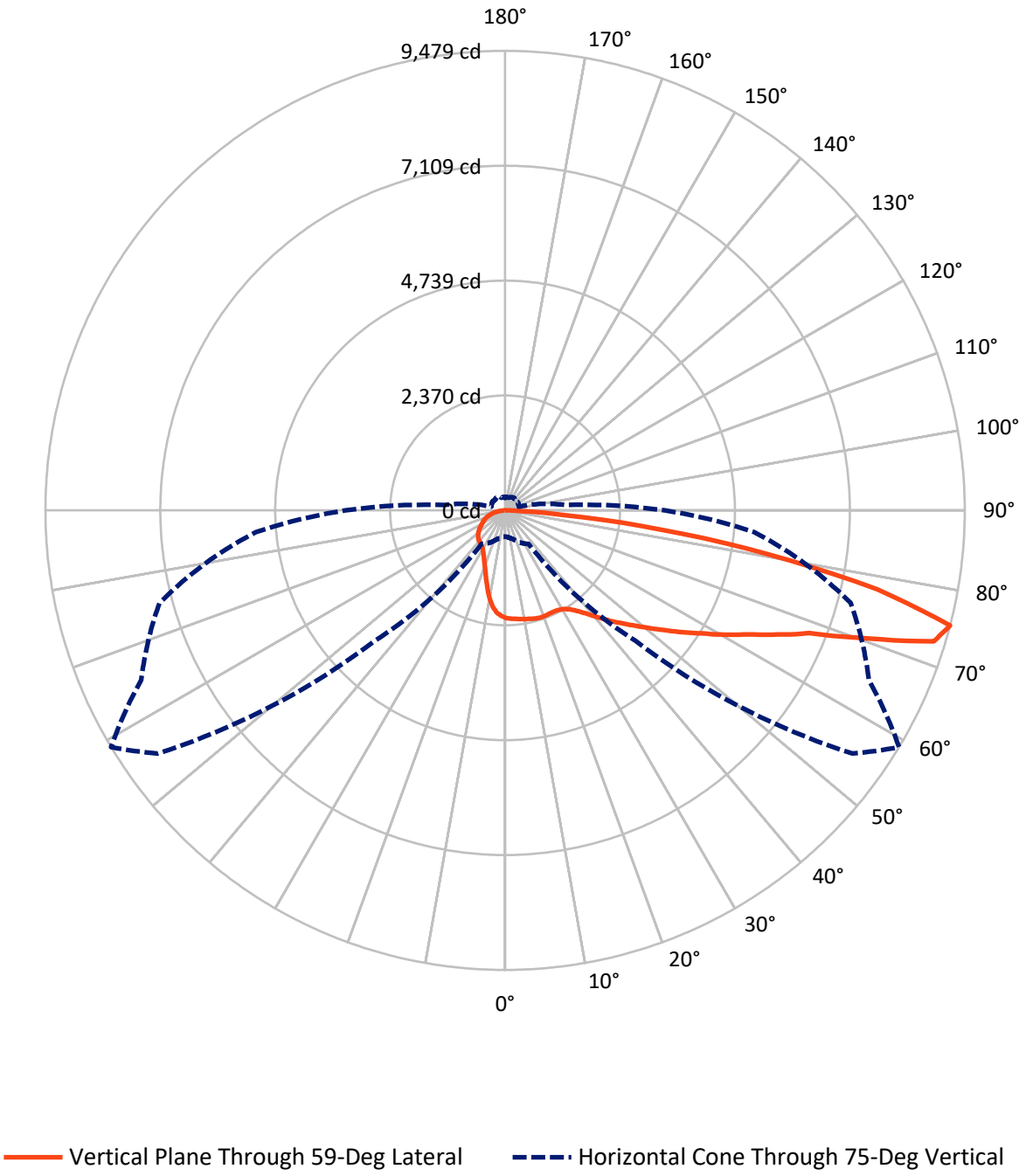

Based on 0.5 foot mounting height. Maximum calculated value = 8876.4 fc
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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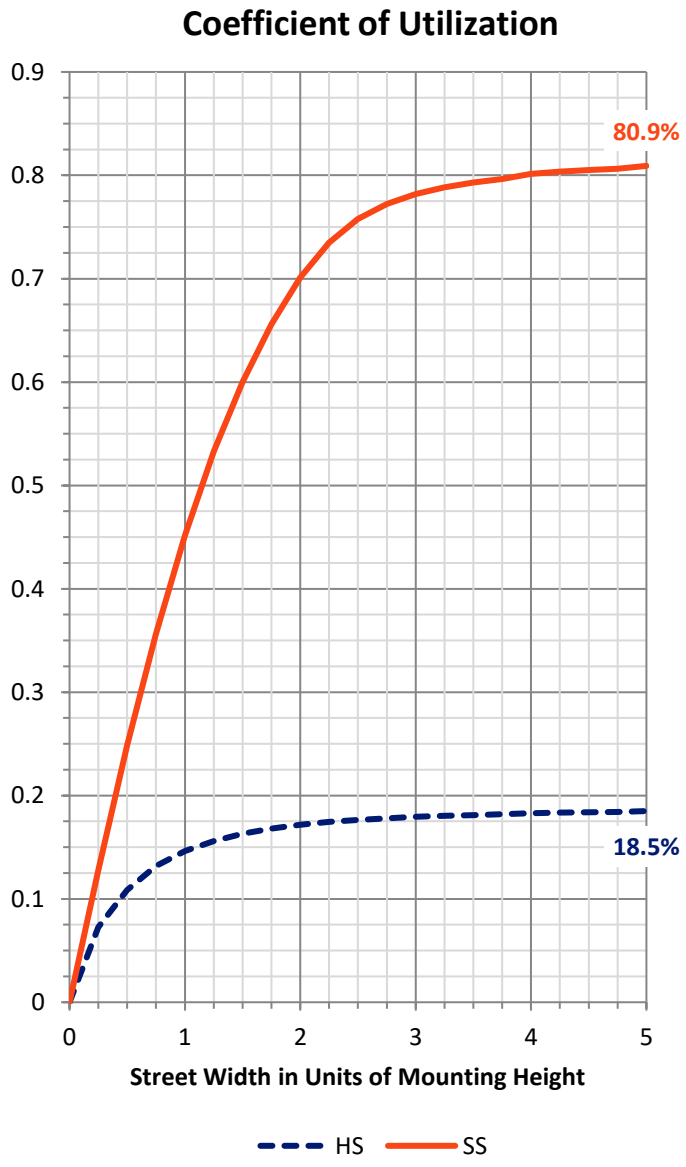
REPORT NUMBER: P1200115
CATALOG NUMBER: GPC-SB2C-722-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2267.6 | 0.0 | 2267.6 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| **Street Side** | Lumens | 9822.4 | 0.0 | 9822.4 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| **Total** | Lumens | 12090.0 | 0.0 | 12090.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 199.0 | 1.6 |
| 10°-20° | 508.6 | 4.2 |
| 20°-30° | 772.5 | 6.4 |
| 30°-40° | 1148.3 | 9.5 |
| 40°-50° | 1707.8 | 14.1 |
| 50°-60° | 2318.1 | 19.2 |
| 60°-70° | 2830.0 | 23.4 |
| 70°-80° | 2221.0 | 18.4 |
| 80°-90° | 384.7 | 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° | 12090.0 | 100.0 |
| 0°-180° | 12090.0 | 100.0 |



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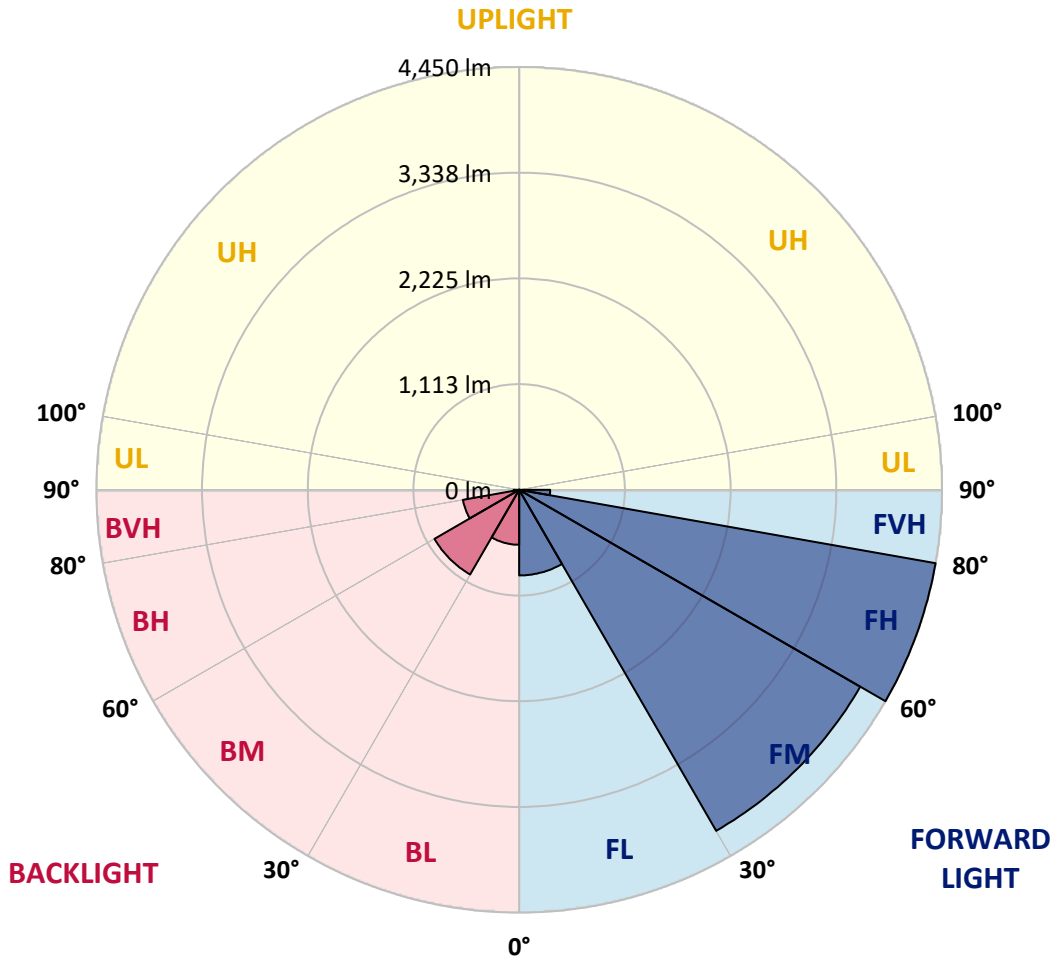
Scaled Data Report

REPORT NUMBER: P1200115
CATALOG NUMBER: GPC-SB2C-722-U-SL3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 901.4 | 7.5 | | | |
| FM | (30°-60°) | 4145.0 | 34.3 | | | |
| FH | (60°-80°) | 4450.2 | 36.8 | | | G2/5000 |
| FVH | (80°-90°) | 325.8 | 2.7 | | | G3/500 |
| BL | (0°-30°) | 578.7 | 4.8 | B2/1000 | | |
| BM | (30°-60°) | 1029.2 | 8.5 | B2/2500 | | |
| BH | (60°-80°) | 600.8 | 5.0 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 58.9 | 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-G3**
Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 |
| 2.5° | 2238.0 | 2230.1 | 2238.0 | 2234.7 | 2233.4 | 2230.8 | 2231.4 | 2236.0 | 2233.4 | 2236.7 | 2225.6 |
| 5° | 2223.0 | 2218.4 | 2226.2 | 2224.3 | 2232.8 | 2234.1 | 2242.5 | 2247.7 | 2251.0 | 2251.6 | 2243.2 |
| 7.5° | 2198.3 | 2193.7 | 2204.8 | 2213.9 | 2232.1 | 2237.3 | 2254.9 | 2263.3 | 2267.9 | 2275.7 | 2263.3 |
| 10° | 2107.9 | 2105.9 | 2133.2 | 2167.7 | 2210.6 | 2237.3 | 2264.0 | 2278.3 | 2285.4 | 2306.2 | 2291.9 |
| 12.5° | 1947.9 | 1950.5 | 1986.3 | 2052.6 | 2138.4 | 2224.3 | 2274.4 | 2295.2 | 2306.2 | 2332.3 | 2325.8 |
| 15° | 1795.0 | 1794.4 | 1833.4 | 1904.3 | 2024.6 | 2167.1 | 2279.6 | 2315.3 | 2334.2 | 2372.6 | 2367.4 |
| 17.5° | 1706.6 | 1704.0 | 1731.3 | 1785.3 | 1897.2 | 2079.3 | 2266.6 | 2326.4 | 2366.7 | 2414.9 | 2410.3 |
| 20° | 1690.3 | 1685.1 | 1699.4 | 1726.1 | 1805.5 | 1983.0 | 2232.8 | 2326.4 | 2392.7 | 2455.2 | 2452.6 |
| 22.5° | 1749.5 | 1741.1 | 1735.2 | 1732.0 | 1767.1 | 1903.7 | 2194.4 | 2318.6 | 2431.1 | 2513.1 | 2508.5 |
| 25° | 1868.5 | 1855.5 | 1825.6 | 1796.3 | 1785.9 | 1867.9 | 2160.6 | 2316.6 | 2488.3 | 2591.1 | 2574.2 |
| 27.5° | 2061.1 | 2044.8 | 1984.3 | 1914.1 | 1851.0 | 1886.1 | 2145.6 | 2328.4 | 2551.4 | 2673.7 | 2639.9 |
| 30° | 2299.7 | 2282.2 | 2206.1 | 2098.1 | 1985.0 | 1953.7 | 2164.5 | 2362.8 | 2632.1 | 2783.6 | 2717.3 |
| 32.5° | 2513.7 | 2494.2 | 2429.2 | 2319.3 | 2166.4 | 2070.8 | 2224.3 | 2428.5 | 2758.9 | 2936.5 | 2833.7 |
| 35° | 2703.6 | 2680.9 | 2622.3 | 2520.9 | 2388.8 | 2235.4 | 2332.3 | 2544.9 | 2939.1 | 3184.9 | 2991.7 |
| 37.5° | 2889.6 | 2863.0 | 2799.2 | 2691.9 | 2599.6 | 2454.5 | 2481.2 | 2694.5 | 3178.4 | 3486.7 | 3201.2 |
| 40° | 3097.8 | 3059.4 | 2982.0 | 2876.0 | 2786.2 | 2711.4 | 2677.0 | 2877.9 | 3421.6 | 3823.6 | 3462.6 |
| 42.5° | 3299.4 | 3263.0 | 3170.6 | 3080.2 | 2967.7 | 2946.2 | 2903.9 | 3092.6 | 3687.6 | 4193.6 | 3728.0 |
| 45° | 3516.6 | 3473.0 | 3361.2 | 3246.7 | 3175.8 | 3102.3 | 3123.8 | 3307.2 | 3948.4 | 4570.9 | 4006.3 |
| 47.5° | 3720.2 | 3671.4 | 3539.4 | 3411.9 | 3372.9 | 3233.7 | 3325.4 | 3543.3 | 4219.7 | 4953.3 | 4282.1 |
| 50° | 3830.1 | 3782.0 | 3672.0 | 3556.9 | 3526.4 | 3395.6 | 3543.9 | 3802.8 | 4503.9 | 5334.4 | 4546.8 |
| 52.5° | 3921.8 | 3869.8 | 3726.0 | 3662.3 | 3653.2 | 3571.9 | 3813.2 | 4099.3 | 4788.1 | 5671.3 | 4802.4 |
| 55° | 4019.3 | 3961.5 | 3778.1 | 3720.8 | 3762.4 | 3769.6 | 4132.5 | 4435.6 | 5088.6 | 5999.7 | 5043.7 |
| 57.5° | 4131.9 | 4058.4 | 3828.1 | 3770.2 | 3869.1 | 4001.1 | 4499.3 | 4784.2 | 5383.8 | 6304.1 | 5258.3 |
| 60° | 4237.9 | 4163.7 | 3924.4 | 3848.9 | 3984.2 | 4269.7 | 4920.1 | 5206.3 | 5718.1 | 6575.3 | 5461.2 |
| 62.5° | 4258.7 | 4197.5 | 4001.1 | 4000.5 | 4140.3 | 4583.2 | 5418.3 | 5632.3 | 6010.2 | 6843.3 | 5643.3 |
| 65° | 3898.4 | 3860.0 | 3743.6 | 3994.6 | 4364.0 | 5034.6 | 5973.1 | 6177.3 | 6381.5 | 7077.4 | 5803.3 |
| 67.5° | 2967.0 | 2972.2 | 2963.8 | 3448.3 | 4183.2 | 5683.0 | 6776.3 | 6760.7 | 6840.0 | 7340.2 | 5987.4 |
| 70° | 1356.7 | 1387.3 | 1586.3 | 2380.4 | 3351.4 | 5757.8 | 8104.4 | 7902.1 | 7415.6 | 7680.3 | 6146.7 |
| 72.5° | 733.0 | 756.4 | 837.7 | 1153.1 | 2014.9 | 5119.1 | 9096.8 | 9240.6 | 8181.1 | 7909.3 | 5971.8 |
| 75° | 537.9 | 550.9 | 607.5 | 733.0 | 846.1 | 3804.7 | 8741.1 | 9478.6 | 8276.7 | 7375.3 | 5156.9 |
| 77.5° | 402.6 | 408.4 | 454.6 | 580.8 | 433.2 | 2005.8 | 6984.4 | 7850.1 | 7085.2 | 6059.6 | 3809.3 |
| 80° | 292.0 | 298.5 | 333.0 | 435.8 | 303.7 | 733.6 | 4795.9 | 5510.0 | 4852.5 | 3862.6 | 1898.5 |
| 82.5° | 201.6 | 204.2 | 219.2 | 296.6 | 212.0 | 284.9 | 2721.2 | 3231.1 | 2708.8 | 1355.4 | 512.5 |
| 85° | 121.6 | 124.9 | 131.4 | 173.0 | 120.3 | 135.3 | 1174.6 | 1214.9 | 809.7 | 323.9 | 159.3 |
| 87.5° | 50.1 | 53.3 | 58.5 | 72.8 | 47.5 | 37.7 | 193.8 | 243.2 | 151.5 | 95.0 | 49.4 |
| 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: P1200115
CATALOG NUMBER: GPC-SB2C-722-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 | 2219.1 |
| 2.5° | 2222.3 | 2217.8 | 2205.4 | 2188.5 | 2172.9 | 2153.4 | 2144.9 | 2137.8 | 2131.3 | 2118.9 | 2113.1 |
| 5° | 2236.0 | 2223.6 | 2190.5 | 2147.6 | 2098.8 | 2045.4 | 1993.4 | 1957.6 | 1927.1 | 1904.3 | 1885.4 |
| 7.5° | 2256.8 | 2233.4 | 2172.9 | 2085.1 | 1973.2 | 1858.8 | 1755.4 | 1681.9 | 1626.6 | 1606.4 | 1571.3 |
| 10° | 2278.3 | 2250.3 | 2144.9 | 1990.2 | 1797.0 | 1620.7 | 1483.5 | 1408.1 | 1363.8 | 1349.5 | 1327.4 |
| 12.5° | 2303.6 | 2262.7 | 2101.4 | 1858.1 | 1599.9 | 1406.8 | 1287.1 | 1242.9 | 1220.1 | 1212.3 | 1214.3 |
| 15° | 2340.7 | 2273.1 | 2035.7 | 1692.9 | 1412.0 | 1250.7 | 1173.3 | 1142.7 | 1131.0 | 1130.4 | 1133.0 |
| 17.5° | 2368.7 | 2275.0 | 1933.6 | 1516.0 | 1267.6 | 1156.4 | 1092.6 | 1080.9 | 1088.7 | 1100.4 | 1105.0 |
| 20° | 2399.9 | 2257.5 | 1799.6 | 1354.7 | 1166.1 | 1073.8 | 1047.1 | 1054.9 | 1073.8 | 1090.7 | 1096.5 |
| 22.5° | 2422.0 | 2225.6 | 1637.7 | 1229.2 | 1078.3 | 1026.3 | 1025.0 | 1041.3 | 1051.7 | 1060.1 | 1064.7 |
| 25° | 2441.5 | 2171.6 | 1466.0 | 1123.9 | 1006.1 | 997.7 | 1012.0 | 1006.8 | 999.6 | 1006.8 | 1011.3 |
| 27.5° | 2455.8 | 2086.4 | 1312.5 | 1031.5 | 955.4 | 978.2 | 969.7 | 958.0 | 957.4 | 961.3 | 967.8 |
| 30° | 2451.3 | 1972.6 | 1186.3 | 943.7 | 919.6 | 941.7 | 921.6 | 919.6 | 917.7 | 919.6 | 926.8 |
| 32.5° | 2451.3 | 1843.2 | 1089.4 | 883.2 | 896.9 | 888.4 | 886.5 | 881.9 | 874.1 | 873.5 | 881.9 |
| 35° | 2464.9 | 1713.7 | 1006.1 | 850.7 | 878.0 | 857.8 | 859.2 | 848.1 | 831.8 | 824.0 | 831.8 |
| 37.5° | 2492.9 | 1609.7 | 923.5 | 835.1 | 844.8 | 844.2 | 839.0 | 820.1 | 791.5 | 766.8 | 775.3 |
| 40° | 2560.5 | 1579.1 | 867.0 | 827.9 | 829.2 | 837.0 | 823.4 | 787.0 | 721.9 | 681.6 | 686.8 |
| 42.5° | 2666.6 | 1630.5 | 854.6 | 810.4 | 818.8 | 826.6 | 800.0 | 715.4 | 669.2 | 645.2 | 645.2 |
| 45° | 2801.2 | 1720.3 | 881.3 | 785.0 | 794.1 | 807.8 | 728.4 | 688.1 | 667.3 | 667.9 | 671.2 |
| 47.5° | 2971.6 | 1814.6 | 930.7 | 762.9 | 758.3 | 766.1 | 680.9 | 656.2 | 627.6 | 634.8 | 653.0 |
| 50° | 3168.6 | 1910.2 | 977.5 | 733.0 | 718.7 | 693.3 | 650.4 | 627.0 | 590.5 | 573.6 | 578.2 |
| 52.5° | 3382.0 | 2002.5 | 996.4 | 696.6 | 675.7 | 646.5 | 629.6 | 601.0 | 556.7 | 528.8 | 528.1 |
| 55° | 3584.2 | 2086.4 | 975.6 | 653.0 | 632.8 | 610.1 | 607.5 | 589.9 | 542.4 | 503.4 | 503.4 |
| 57.5° | 3775.4 | 2156.7 | 923.5 | 608.8 | 589.2 | 575.6 | 593.1 | 584.7 | 524.9 | 474.8 | 472.2 |
| 60° | 3937.4 | 2204.8 | 848.1 | 563.9 | 550.2 | 543.1 | 569.7 | 567.1 | 500.1 | 444.2 | 442.3 |
| 62.5° | 4066.2 | 2223.6 | 764.8 | 521.0 | 517.7 | 504.7 | 537.2 | 537.2 | 468.9 | 414.3 | 412.3 |
| 65° | 4167.0 | 2205.4 | 680.3 | 478.7 | 485.2 | 465.7 | 497.5 | 493.6 | 435.8 | 387.6 | 385.0 |
| 67.5° | 4256.1 | 2145.6 | 586.6 | 437.1 | 452.0 | 427.3 | 455.9 | 446.8 | 399.3 | 361.0 | 358.4 |
| 70° | 4295.8 | 2006.4 | 480.0 | 395.4 | 413.6 | 389.6 | 414.3 | 397.4 | 358.4 | 332.3 | 327.1 |
| 72.5° | 3977.1 | 1667.6 | 377.9 | 351.9 | 367.5 | 348.0 | 369.4 | 349.9 | 314.1 | 302.4 | 292.7 |
| 75° | *3290.3* | *1251.3* | *290.7* | *304.4* | *316.1* | *301.1* | *315.4* | *301.1* | *268.6* | *277.1* | *253.0* |
| 77.5° | 2389.5 | 844.8 | 222.4 | 254.3 | 259.5 | 251.7 | 264.1 | 247.8 | 218.5 | 216.6 | 206.8 |
| 80° | 1188.2 | 494.9 | 174.3 | 201.0 | 199.0 | 193.8 | 208.1 | 200.3 | 175.6 | 186.0 | 184.1 |
| 82.5° | 344.1 | 212.0 | 126.8 | 141.1 | 137.2 | 138.5 | 148.9 | 152.8 | 228.9 | 227.0 | 232.2 |
| 85° | 108.0 | 83.2 | 76.1 | 78.7 | 74.8 | 76.7 | 87.8 | 174.3 | 161.3 | 94.3 | 102.1 |
| 87.5° | 28.0 | 28.6 | 18.9 | 20.2 | 20.8 | 24.7 | 28.0 | 106.0 | 50.7 | 33.2 | 35.1 |
| 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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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

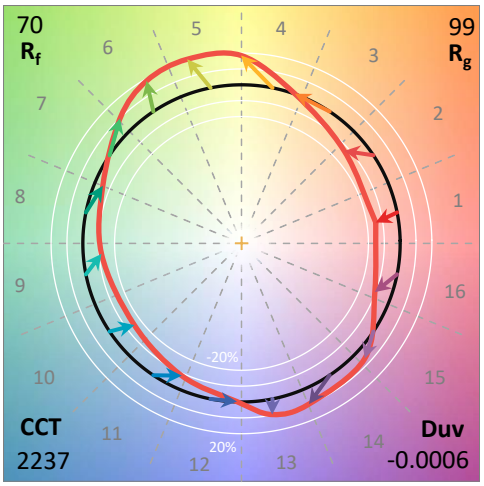
| | |
|---|---|
| Test Method: | LM-79-2008 Report |
| Number: | SP1-1908-441-10-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-722-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): | 2237 | CRI (Ra): | 72.0 | | |
| CIE u': | 0.2876 | R1: | 68.9 | R9: | -17.4 |
| CIE v': | 0.5346 | R2: | 83.0 | R10: | 61.3 |
| Duv: | -0.0006 | R3: | 95.2 | R11: | 59.8 |
| CIE x: | 0.5005 | R4: | 66.2 | R12: | 50.5 |
| CIE y: | 0.4134 | R5: | 65.9 | R13: | 71.1 |
| CIE z: | 0.0860 | R6: | 76.3 | R14: | 96.9 |
| Peak Wavelength (nm): | 603 | R7: | 76.7 | | |
| Dominant Wavelength (nm): | 587 | R8: | 43.8 | | |
| Purity: | 74.5 | | | | |

| | |
|---|---|
| Rf: | 69.8 |
| Rg: | 99.2 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 71M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 24.7/41% |
| Sphere Temperature (°C): | 25.6 |

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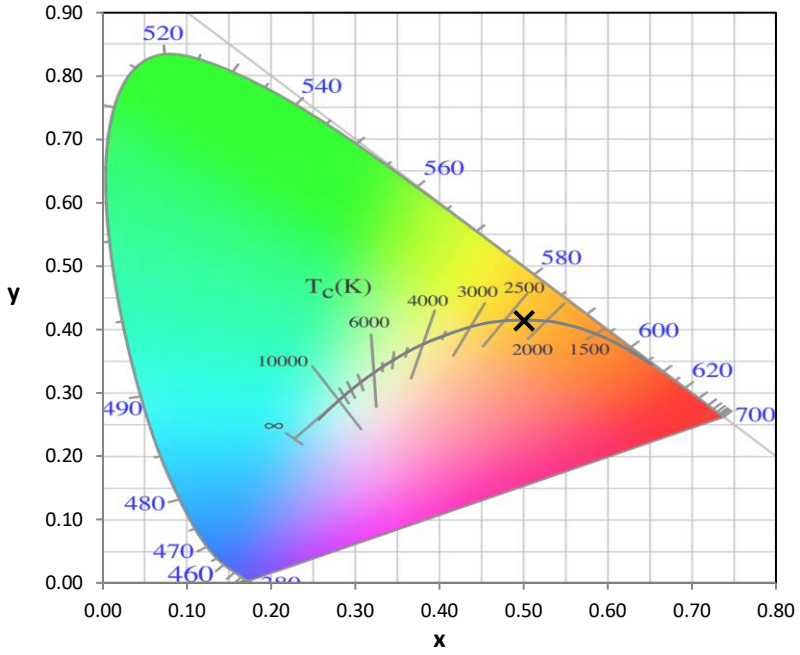
REPORT NUMBER: SP1-1908-441-10-R4

| 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 |

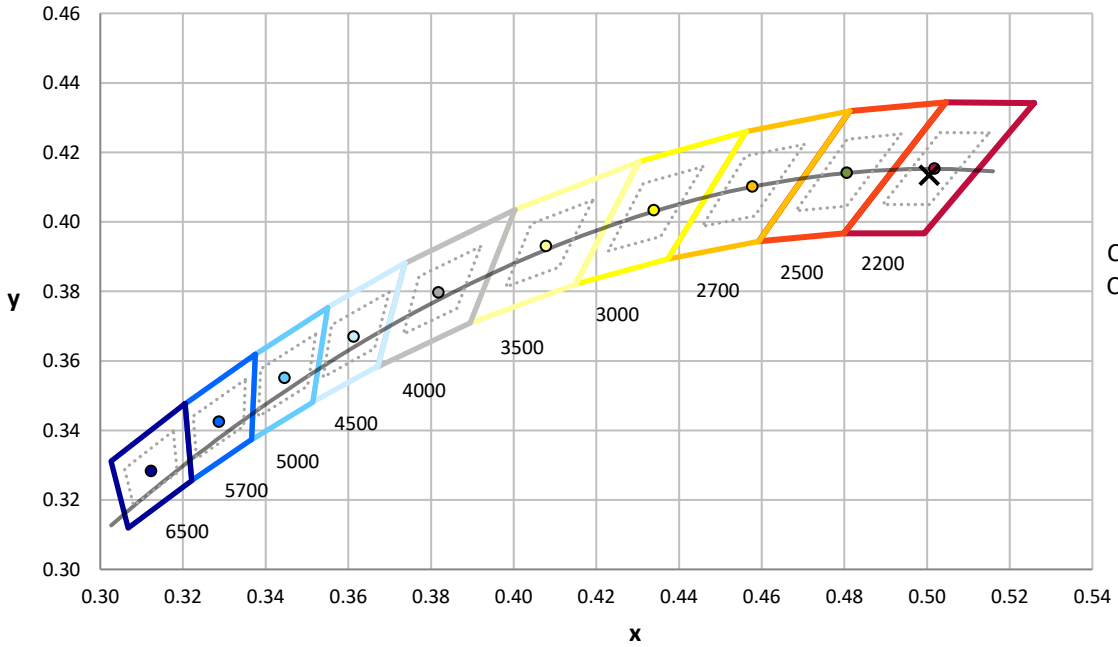
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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## CIE 1931 Chromaticity Diagram




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



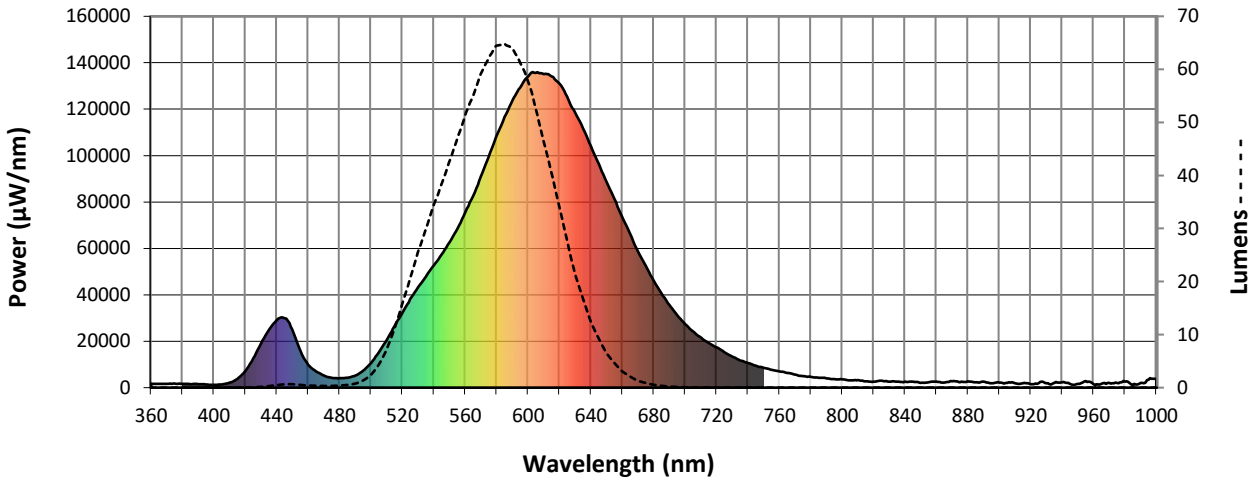

CCT = 2237K
CIE x = 0.5005
CIE y = 0.4134
Duv = -0.0006

Point lies inside the ANSI 2200K 4-step quadrangle

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## Photopic Flux vs. Wavelength



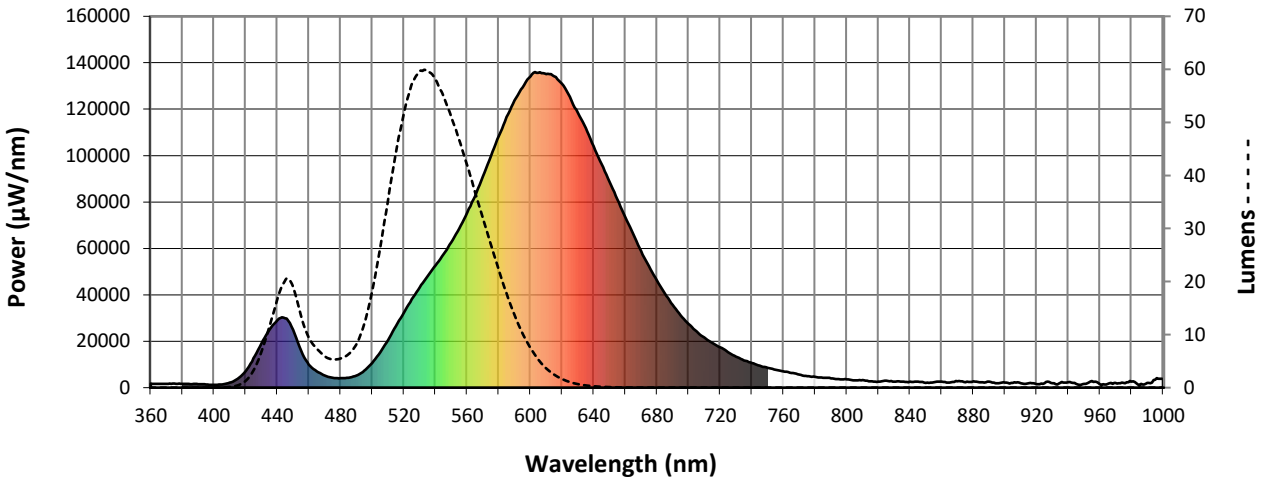

**Photopic Lumens: 5530.5**

| 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 | 1768 | 0.0 | 490 | 5206 | 0.7 | 620 | 130919 | 34.1 | 750 | 8553 | 0.0 | 880 | 2713 | 0.0 |
| 365 | 1569 | 0.0 | 495 | 7286 | 1.3 | 625 | 125335 | 27.7 | 755 | 7696 | 0.0 | 885 | 2316 | 0.0 |
| 370 | 1594 | 0.0 | 500 | 10654 | 2.4 | 630 | 118388 | 21.4 | 760 | 6978 | 0.0 | 890 | 2539 | 0.0 |
| 375 | 1744 | 0.0 | 505 | 15189 | 4.2 | 635 | 111855 | 16.8 | 765 | 6377 | 0.0 | 895 | 1933 | 0.0 |
| 380 | 1659 | 0.0 | 510 | 20541 | 7.1 | 640 | 104062 | 12.4 | 770 | 5600 | 0.0 | 900 | 2216 | 0.0 |
| 385 | 1504 | 0.0 | 515 | 26492 | 11.0 | 645 | 96365 | 9.3 | 775 | 5000 | 0.0 | 905 | 2067 | 0.0 |
| 390 | 1541 | 0.0 | 520 | 32294 | 15.7 | 650 | 88651 | 6.5 | 780 | 4709 | 0.0 | 910 | 1959 | 0.0 |
| 395 | 1355 | 0.0 | 525 | 38123 | 20.5 | 655 | 81152 | 4.7 | 785 | 4305 | 0.0 | 915 | 1874 | 0.0 |
| 400 | 1243 | 0.0 | 530 | 43232 | 25.5 | 660 | 73523 | 3.1 | 790 | 4040 | 0.0 | 920 | 1484 | 0.0 |
| 405 | 1417 | 0.0 | 535 | 48012 | 29.8 | 665 | 66123 | 2.1 | 795 | 3642 | 0.0 | 925 | 1914 | 0.0 |
| 410 | 2147 | 0.0 | 540 | 52623 | 34.3 | 670 | 58677 | 1.3 | 800 | 3594 | 0.0 | 930 | 1948 | 0.0 |
| 415 | 3837 | 0.0 | 545 | 57516 | 38.3 | 675 | 52349 | 0.9 | 805 | 3190 | 0.0 | 935 | 2079 | 0.0 |
| 420 | 7159 | 0.0 | 550 | 62613 | 42.5 | 680 | 46159 | 0.5 | 810 | 3241 | 0.0 | 940 | 2263 | 0.0 |
| 425 | 12599 | 0.1 | 555 | 68554 | 46.8 | 685 | 40525 | 0.3 | 815 | 2732 | 0.0 | 945 | 1688 | 0.0 |
| 430 | 19019 | 0.2 | 560 | 75325 | 51.2 | 690 | 35615 | 0.2 | 820 | 2612 | 0.0 | 950 | 1560 | 0.0 |
| 435 | 24875 | 0.3 | 565 | 82533 | 54.9 | 695 | 31158 | 0.1 | 825 | 2966 | 0.0 | 955 | 2826 | 0.0 |
| 440 | 29103 | 0.5 | 570 | 90909 | 59.1 | 700 | 27409 | 0.1 | 830 | 2574 | 0.0 | 960 | 1477 | 0.0 |
| 445 | 29901 | 0.6 | 575 | 99621 | 62.0 | 705 | 24204 | 0.1 | 835 | 2633 | 0.0 | 965 | 1568 | 0.0 |
| 450 | 24862 | 0.6 | 580 | 108484 | 64.5 | 710 | 21558 | 0.0 | 840 | 2526 | 0.0 | 970 | 2030 | 0.0 |
| 455 | 15942 | 0.5 | 585 | 116679 | 64.8 | 715 | 19222 | 0.0 | 845 | 2631 | 0.0 | 975 | 1986 | 0.0 |
| 460 | 9916 | 0.4 | 590 | 123752 | 64.0 | 720 | 17310 | 0.0 | 850 | 2079 | 0.0 | 980 | 2540 | 0.0 |
| 465 | 7051 | 0.4 | 595 | 129324 | 61.3 | 725 | 15280 | 0.0 | 855 | 2309 | 0.0 | 985 | 1139 | 0.0 |
| 470 | 5227 | 0.3 | 600 | 134082 | 57.8 | 730 | 13282 | 0.0 | 860 | 2528 | 0.0 | 990 | 2018 | 0.0 |
| 475 | 4257 | 0.3 | 605 | 135698 | 52.6 | 735 | 11753 | 0.0 | 865 | 2121 | 0.0 | 995 | 3445 | 0.0 |
| 480 | 4052 | 0.4 | 610 | 135144 | 46.4 | 740 | 10654 | 0.0 | 870 | 2751 | 0.0 | 1000 | 3704 | 0.0 |
| 485 | 4298 | 0.5 | 615 | 134180 | 40.5 | 745 | 9451 | 0.0 | 875 | 2317 | 0.0 | | | |

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## Scotopic Flux vs. Wavelength



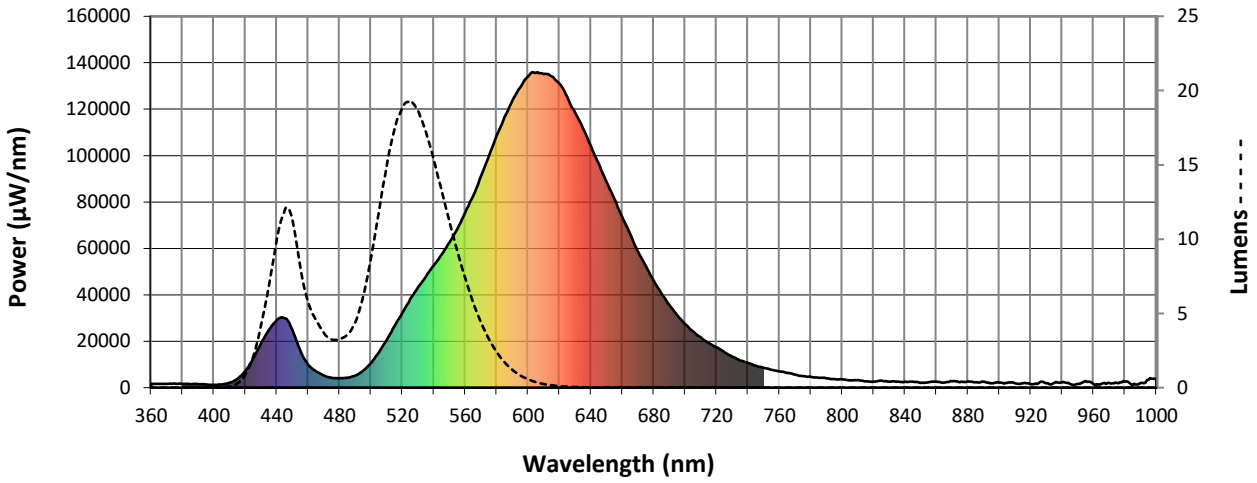

**Scotopic Lumens: 4696.9** **S/P: 0.85**

| 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 | 1768 | 0.0 | 490 | 5206 | 4.3 | 620 | 130919 | 0.1 | 750 | 8553 | 0.0 | 880 | 2713 | 0.0 |
| 365 | 1569 | 0.0 | 495 | 7286 | 6.0 | 625 | 125335 | 0.1 | 755 | 7696 | 0.0 | 885 | 2316 | 0.0 |
| 370 | 1594 | 0.0 | 500 | 10654 | 8.6 | 630 | 118388 | 0.0 | 760 | 6978 | 0.0 | 890 | 2539 | 0.0 |
| 375 | 1744 | 0.0 | 505 | 15189 | 11.7 | 635 | 111855 | 0.0 | 765 | 6377 | 0.0 | 895 | 1933 | 0.0 |
| 380 | 1659 | 0.0 | 510 | 20541 | 14.7 | 640 | 104062 | 0.0 | 770 | 5600 | 0.0 | 900 | 2216 | 0.0 |
| 385 | 1504 | 0.0 | 515 | 26492 | 17.3 | 645 | 96365 | 0.0 | 775 | 5000 | 0.0 | 905 | 2067 | 0.0 |
| 390 | 1541 | 0.0 | 520 | 32294 | 18.8 | 650 | 88651 | 0.0 | 780 | 4709 | 0.0 | 910 | 1959 | 0.0 |
| 395 | 1355 | 0.0 | 525 | 38123 | 19.3 | 655 | 81152 | 0.0 | 785 | 4305 | 0.0 | 915 | 1874 | 0.0 |
| 400 | 1243 | 0.0 | 530 | 43232 | 18.7 | 660 | 73523 | 0.0 | 790 | 4040 | 0.0 | 920 | 1484 | 0.0 |
| 405 | 1417 | 0.0 | 535 | 48012 | 17.3 | 665 | 66123 | 0.0 | 795 | 3642 | 0.0 | 925 | 1914 | 0.0 |
| 410 | 2147 | 0.1 | 540 | 52623 | 15.4 | 670 | 58677 | 0.0 | 800 | 3594 | 0.0 | 930 | 1948 | 0.0 |
| 415 | 3837 | 0.3 | 545 | 57516 | 13.4 | 675 | 52349 | 0.0 | 805 | 3190 | 0.0 | 935 | 2079 | 0.0 |
| 420 | 7159 | 0.8 | 550 | 62613 | 11.2 | 680 | 46159 | 0.0 | 810 | 3241 | 0.0 | 940 | 2263 | 0.0 |
| 425 | 12599 | 2.0 | 555 | 68554 | 9.2 | 685 | 40525 | 0.0 | 815 | 2732 | 0.0 | 945 | 1688 | 0.0 |
| 430 | 19019 | 4.0 | 560 | 75325 | 7.4 | 690 | 35615 | 0.0 | 820 | 2612 | 0.0 | 950 | 1560 | 0.0 |
| 435 | 24875 | 6.6 | 565 | 82533 | 5.8 | 695 | 31158 | 0.0 | 825 | 2966 | 0.0 | 955 | 2826 | 0.0 |
| 440 | 29103 | 9.7 | 570 | 90909 | 4.4 | 700 | 27409 | 0.0 | 830 | 2574 | 0.0 | 960 | 1477 | 0.0 |
| 445 | 29901 | 11.8 | 575 | 99621 | 3.3 | 705 | 24204 | 0.0 | 835 | 2633 | 0.0 | 965 | 1568 | 0.0 |
| 450 | 24862 | 11.5 | 580 | 108484 | 2.4 | 710 | 21558 | 0.0 | 840 | 2526 | 0.0 | 970 | 2030 | 0.0 |
| 455 | 15942 | 8.4 | 585 | 116679 | 1.7 | 715 | 19222 | 0.0 | 845 | 2631 | 0.0 | 975 | 1986 | 0.0 |
| 460 | 9916 | 5.8 | 590 | 123752 | 1.2 | 720 | 17310 | 0.0 | 850 | 2079 | 0.0 | 980 | 2540 | 0.0 |
| 465 | 7051 | 4.6 | 595 | 129324 | 0.8 | 725 | 15280 | 0.0 | 855 | 2309 | 0.0 | 985 | 1139 | 0.0 |
| 470 | 5227 | 3.7 | 600 | 134082 | 0.6 | 730 | 13282 | 0.0 | 860 | 2528 | 0.0 | 990 | 2018 | 0.0 |
| 475 | 4257 | 3.3 | 605 | 135698 | 0.4 | 735 | 11753 | 0.0 | 865 | 2121 | 0.0 | 995 | 3445 | 0.0 |
| 480 | 4052 | 3.3 | 610 | 135144 | 0.2 | 740 | 10654 | 0.0 | 870 | 2751 | 0.0 | 1000 | 3704 | 0.0 |
| 485 | 4298 | 3.5 | 615 | 134180 | 0.2 | 745 | 9451 | 0.0 | 875 | 2317 | 0.0 | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 1470.8** **M/P: 0.27**

| 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 | 1768 | 0.0 | 490 | 5206 | 8.0 | 620 | 130919 | 1.6 | 750 | 8553 | 0.0 | 880 | 2713 | 0.0 |
| 365 | 1569 | 0.0 | 495 | 7286 | 11.8 | 625 | 125335 | 1.1 | 755 | 7696 | 0.0 | 885 | 2316 | 0.0 |
| 370 | 1594 | 0.0 | 500 | 10654 | 17.8 | 630 | 118388 | 0.7 | 760 | 6978 | 0.0 | 890 | 2539 | 0.0 |
| 375 | 1744 | 0.0 | 505 | 15189 | 25.8 | 635 | 111855 | 0.4 | 765 | 6377 | 0.0 | 895 | 1933 | 0.0 |
| 380 | 1659 | 0.0 | 510 | 20541 | 34.8 | 640 | 104062 | 0.3 | 770 | 5600 | 0.0 | 900 | 2216 | 0.0 |
| 385 | 1504 | 0.0 | 515 | 26492 | 43.9 | 645 | 96365 | 0.2 | 775 | 5000 | 0.0 | 905 | 2067 | 0.0 |
| 390 | 1541 | 0.0 | 520 | 32294 | 51.3 | 650 | 88651 | 0.1 | 780 | 4709 | 0.0 | 910 | 1959 | 0.0 |
| 395 | 1355 | 0.0 | 525 | 38123 | 57.0 | 655 | 81152 | 0.1 | 785 | 4305 | 0.0 | 915 | 1874 | 0.0 |
| 400 | 1243 | 0.0 | 530 | 43232 | 59.6 | 660 | 73523 | 0.0 | 790 | 4040 | 0.0 | 920 | 1484 | 0.0 |
| 405 | 1417 | 0.0 | 535 | 48012 | 59.8 | 665 | 66123 | 0.0 | 795 | 3642 | 0.0 | 925 | 1914 | 0.0 |
| 410 | 2147 | 0.1 | 540 | 52623 | 58.1 | 670 | 58677 | 0.0 | 800 | 3594 | 0.0 | 930 | 1948 | 0.0 |
| 415 | 3837 | 0.4 | 545 | 57516 | 55.1 | 675 | 52349 | 0.0 | 805 | 3190 | 0.0 | 935 | 2079 | 0.0 |
| 420 | 7159 | 1.2 | 550 | 62613 | 51.2 | 680 | 46159 | 0.0 | 810 | 3241 | 0.0 | 940 | 2263 | 0.0 |
| 425 | 12599 | 3.1 | 555 | 68554 | 46.9 | 685 | 40525 | 0.0 | 815 | 2732 | 0.0 | 945 | 1688 | 0.0 |
| 430 | 19019 | 6.5 | 560 | 75325 | 42.1 | 690 | 35615 | 0.0 | 820 | 2612 | 0.0 | 950 | 1560 | 0.0 |
| 435 | 24875 | 11.1 | 565 | 82533 | 37.0 | 695 | 31158 | 0.0 | 825 | 2966 | 0.0 | 955 | 2826 | 0.0 |
| 440 | 29103 | 16.3 | 570 | 90909 | 32.1 | 700 | 27409 | 0.0 | 830 | 2574 | 0.0 | 960 | 1477 | 0.0 |
| 445 | 29901 | 20.0 | 575 | 99621 | 27.1 | 705 | 24204 | 0.0 | 835 | 2633 | 0.0 | 965 | 1568 | 0.0 |
| 450 | 24862 | 19.3 | 580 | 108484 | 22.4 | 710 | 21558 | 0.0 | 840 | 2526 | 0.0 | 970 | 2030 | 0.0 |
| 455 | 15942 | 13.9 | 585 | 116679 | 17.8 | 715 | 19222 | 0.0 | 845 | 2631 | 0.0 | 975 | 1986 | 0.0 |
| 460 | 9916 | 9.6 | 590 | 123752 | 13.8 | 720 | 17310 | 0.0 | 850 | 2079 | 0.0 | 980 | 2540 | 0.0 |
| 465 | 7051 | 7.4 | 595 | 129324 | 10.3 | 725 | 15280 | 0.0 | 855 | 2309 | 0.0 | 985 | 1139 | 0.0 |
| 470 | 5227 | 6.0 | 600 | 134082 | 7.6 | 730 | 13282 | 0.0 | 860 | 2528 | 0.0 | 990 | 2018 | 0.0 |
| 475 | 4257 | 5.3 | 605 | 135698 | 5.3 | 735 | 11753 | 0.0 | 865 | 2121 | 0.0 | 995 | 3445 | 0.0 |
| 480 | 4052 | 5.5 | 610 | 135144 | 3.7 | 740 | 10654 | 0.0 | 870 | 2751 | 0.0 | 1000 | 3704 | 0.0 |
| 485 | 4298 | 6.2 | 615 | 134180 | 2.5 | 745 | 9451 | 0.0 | 875 | 2317 | 0.0 | | | |

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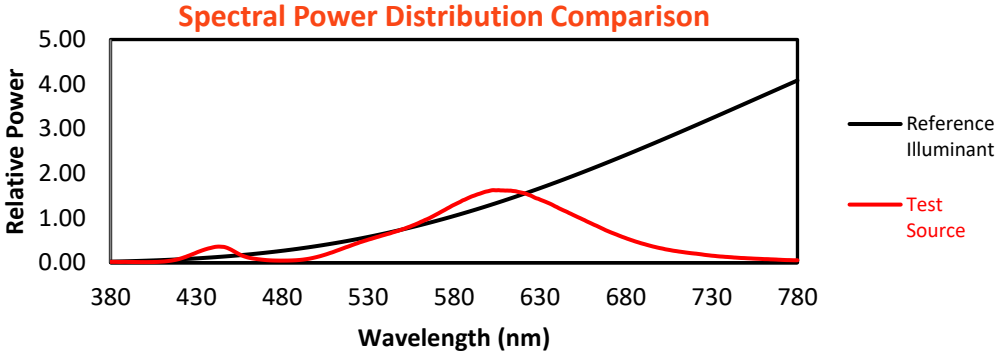
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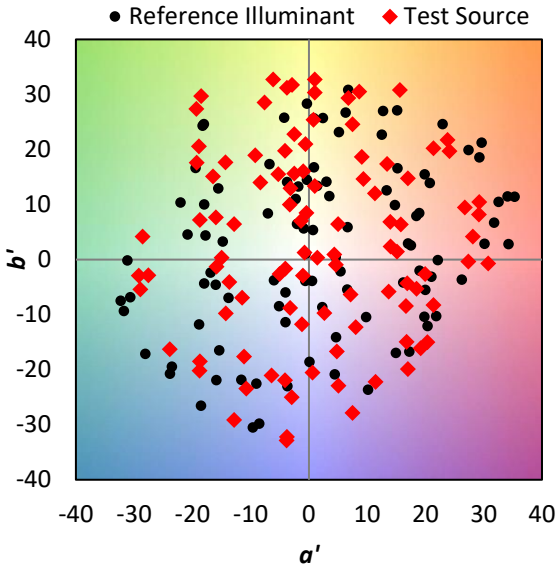
## Summary

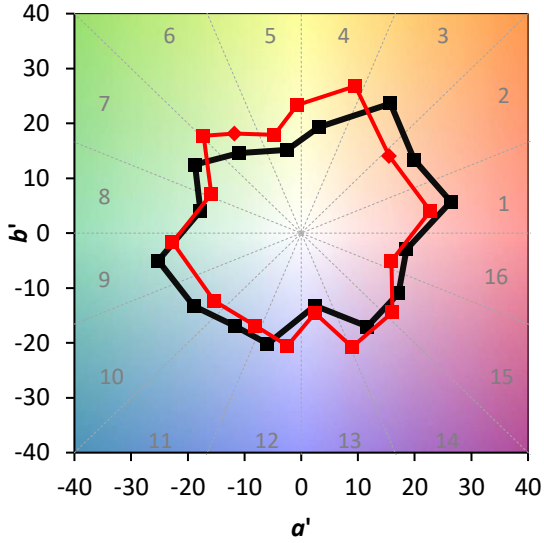
$R_f$ = 69.8
$R_g$ = 99.2
CIE $R_a$ = 72.0
$R_9$ = -17.4

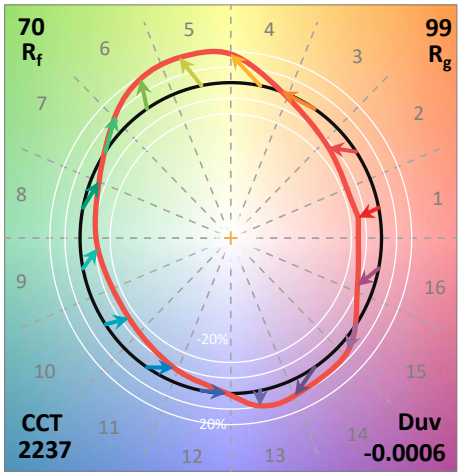
## Spectral Power Distribution Comparison

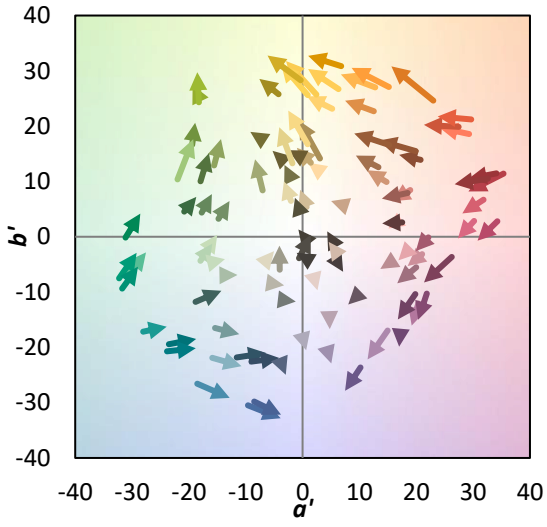



## Color Vector Graphics



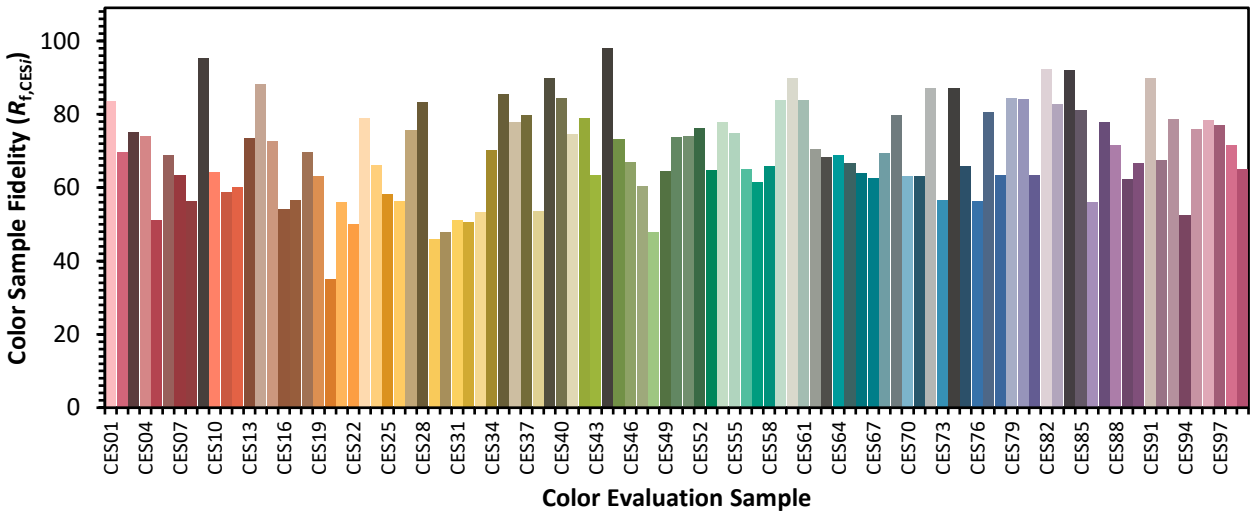
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 87 | CES26 = 56 | CES51 = 74 | CES76 = 56 |
| CES02 = 65 | CES27 = 76 | CES52 = 76 | CES77 = 81 |
| CES03 = 32 | CES28 = 83 | CES53 = 65 | CES78 = 63 |
| CES04 = 72 | CES29 = 46 | CES54 = 78 | CES79 = 84 |
| CES05 = 52 | CES30 = 48 | CES55 = 75 | CES80 = 84 |
| CES06 = 52 | CES31 = 51 | CES56 = 65 | CES81 = 63 |
| CES07 = 44 | CES32 = 51 | CES57 = 62 | CES82 = 92 |
| CES08 = 42 | CES33 = 53 | CES58 = 66 | CES83 = 83 |
| CES09 = 29 | CES34 = 70 | CES59 = 84 | CES84 = 92 |
| CES10 = 78 | CES35 = 85 | CES60 = 90 | CES85 = 81 |
| CES11 = 61 | CES36 = 78 | CES61 = 84 | CES86 = 56 |
| CES12 = 68 | CES37 = 80 | CES62 = 70 | CES87 = 78 |
| CES13 = 45 | CES38 = 53 | CES63 = 68 | CES88 = 72 |
| CES14 = 75 | CES39 = 90 | CES64 = 69 | CES89 = 62 |
| CES15 = 72 | CES40 = 84 | CES65 = 67 | CES90 = 67 |
| CES16 = 49 | CES41 = 75 | CES66 = 64 | CES91 = 90 |
| CES17 = 51 | CES42 = 79 | CES67 = 63 | CES92 = 67 |
| CES18 = 57 | CES43 = 64 | CES68 = 69 | CES93 = 79 |
| CES19 = 74 | CES44 = 98 | CES69 = 80 | CES94 = 52 |
| CES20 = 68 | CES45 = 73 | CES70 = 63 | CES95 = 76 |
| CES21 = 89 | CES46 = 67 | CES71 = 63 | CES96 = 78 |
| CES22 = 81 | CES47 = 60 | CES72 = 87 | CES97 = 77 |
| CES23 = 92 | CES48 = 48 | CES73 = 56 | CES98 = 71 |
| CES24 = 92 | CES49 = 64 | CES74 = 87 | CES99 = 65 |
| CES25 = 74 | CES50 = 74 | CES75 = 66 | |

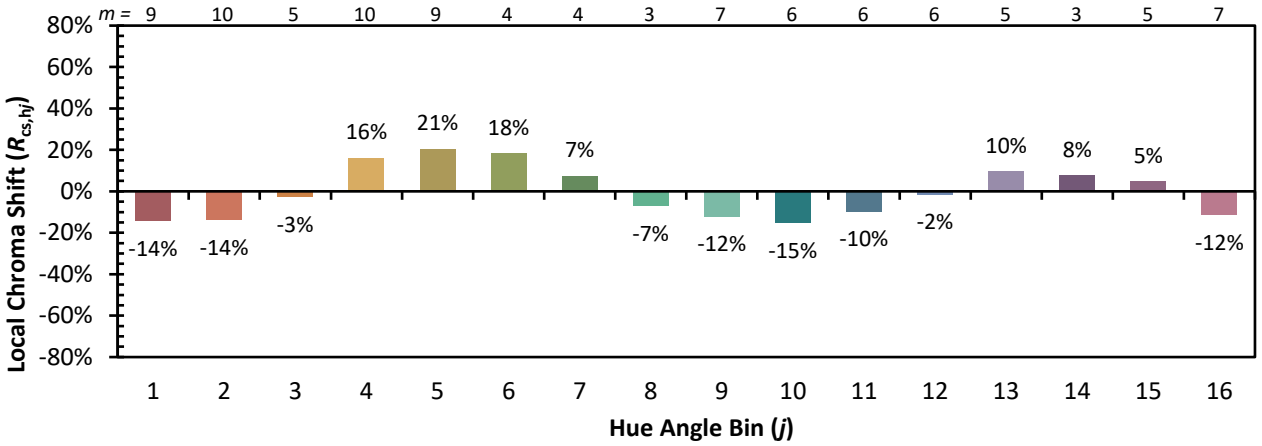


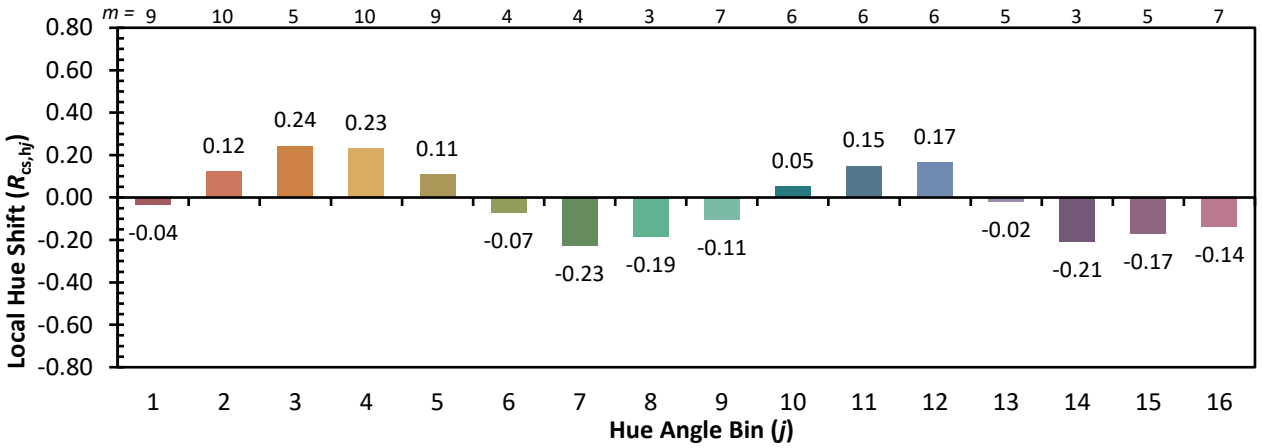
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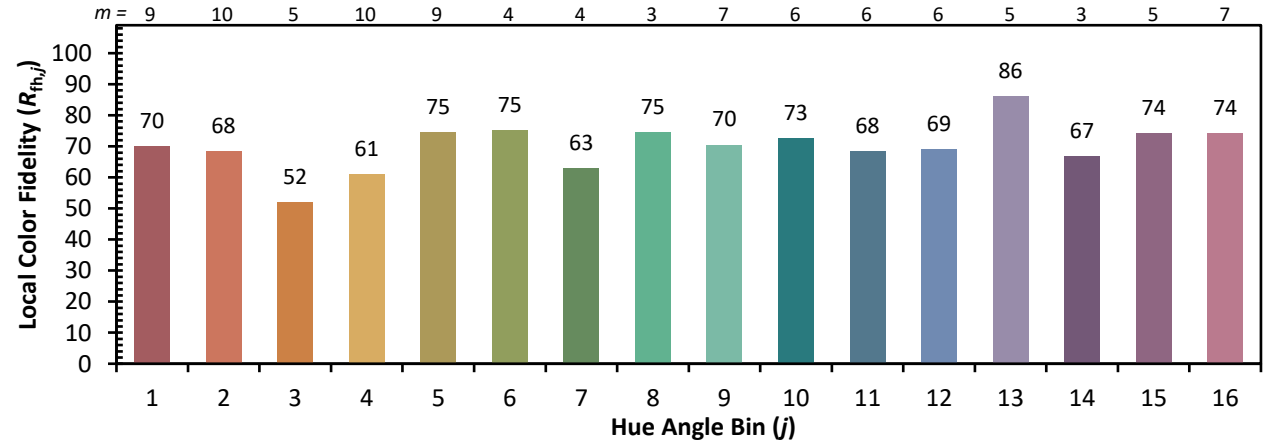
REPORT NUMBER: SP1-1908-441-10-R4

## TM-30-18

### Color Rendition by Hue-Angle Bin



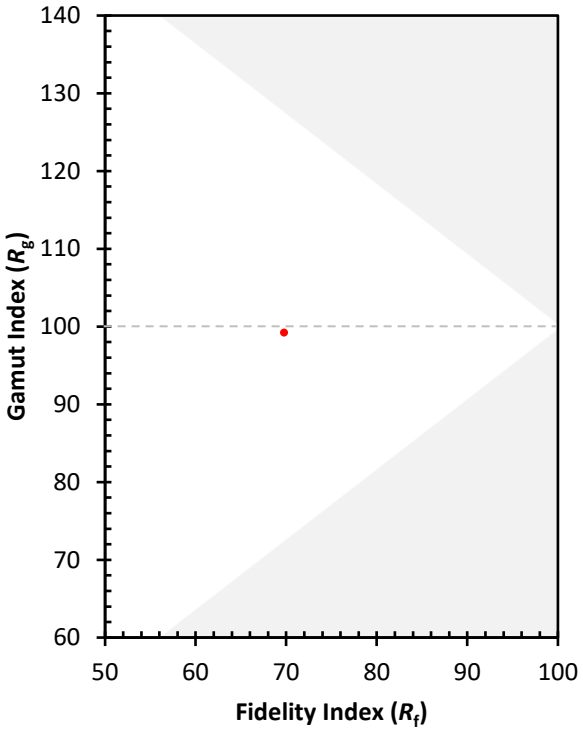



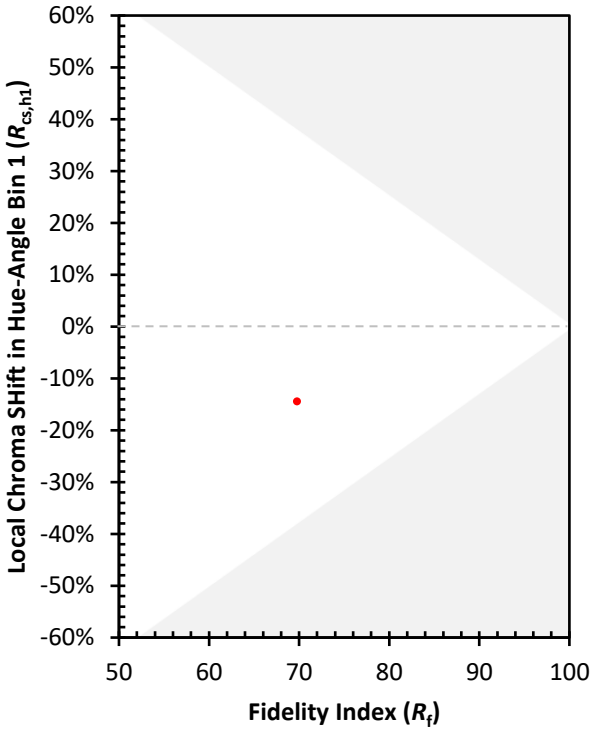
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### Measure Comparisons




(END OF REPORT)