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

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1121 Highway 74 South
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: P1200731

Luminaire Tested: GPC-SB2D-750-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: | P1200731 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2D-750-U-SL3 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 5000K, 900mA 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: | 21038 lumens |
| Efficiency: | N/A |
| Efficacy: | 142.5 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Medium |
| BUG Rating: | B3 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 147.6 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 1.234 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.999 |
| Total Harmonic Distortion (THDi): | 3.108 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

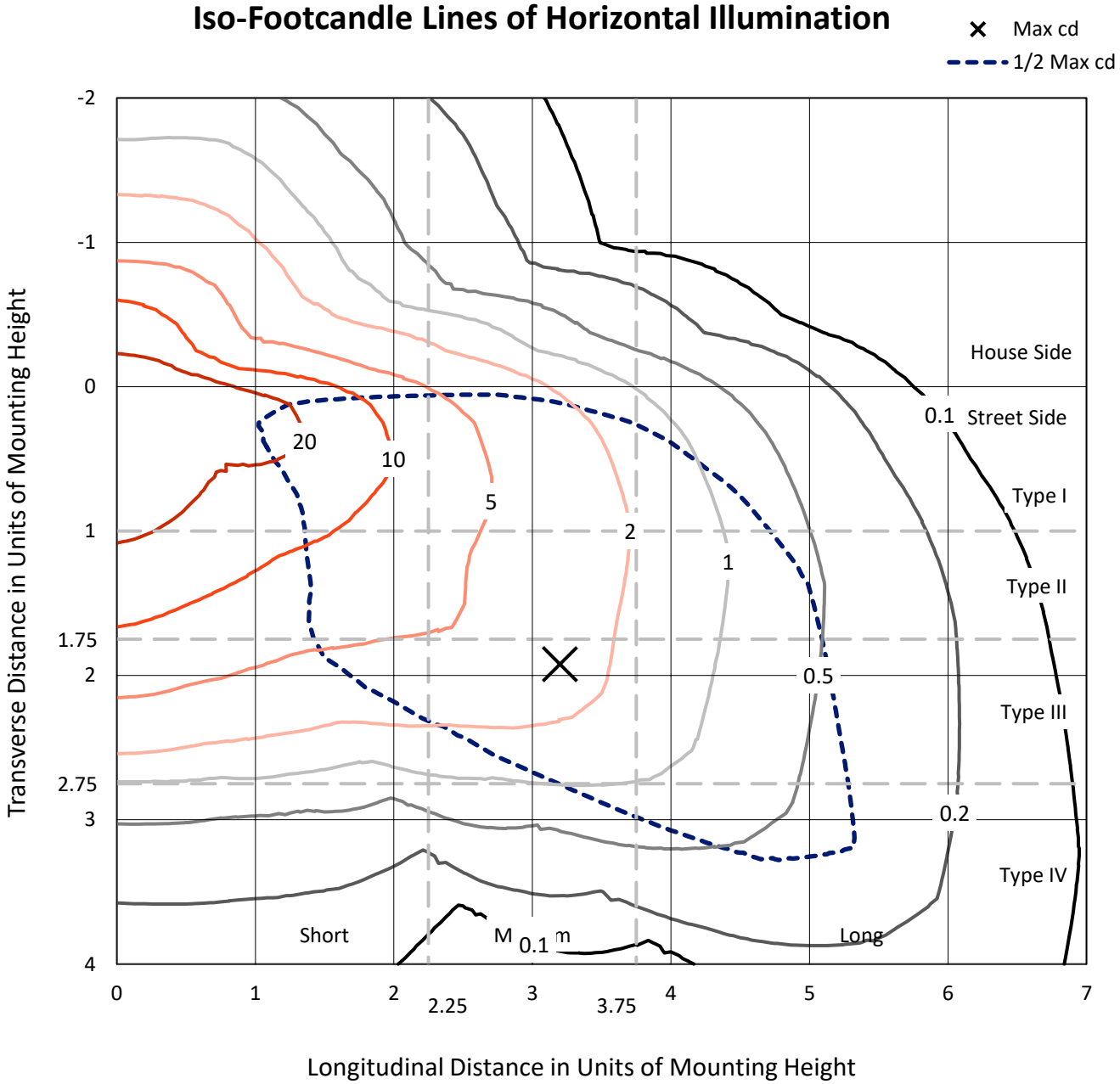


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REPORT NUMBER: P1200731
CATALOG NUMBER: GPC-SB2D-750-U-SL3

## Iso-Footcandle Lines of Horizontal Illumination



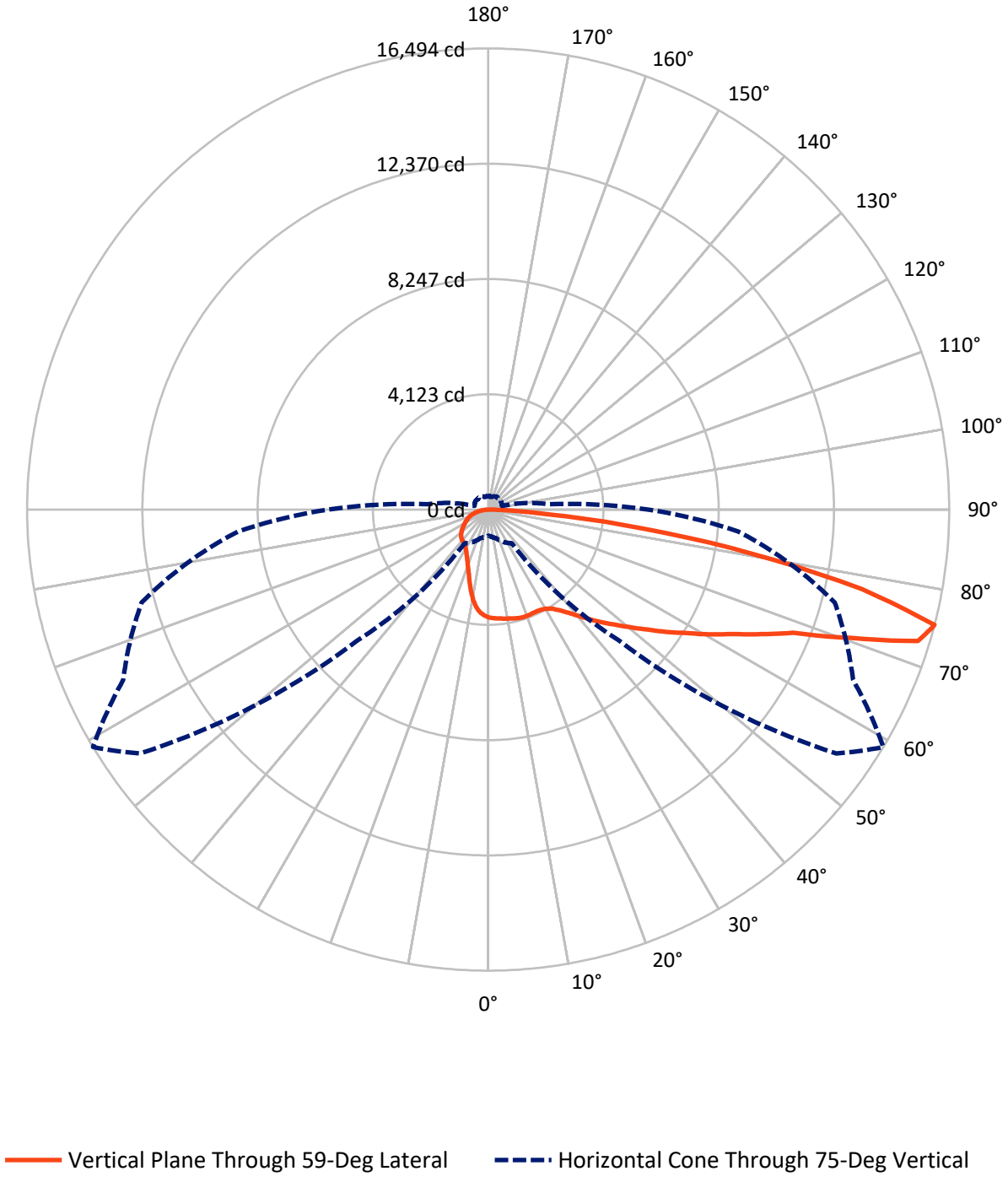

Based on 10 foot mounting height. Maximum calculated value = 38.6 fc
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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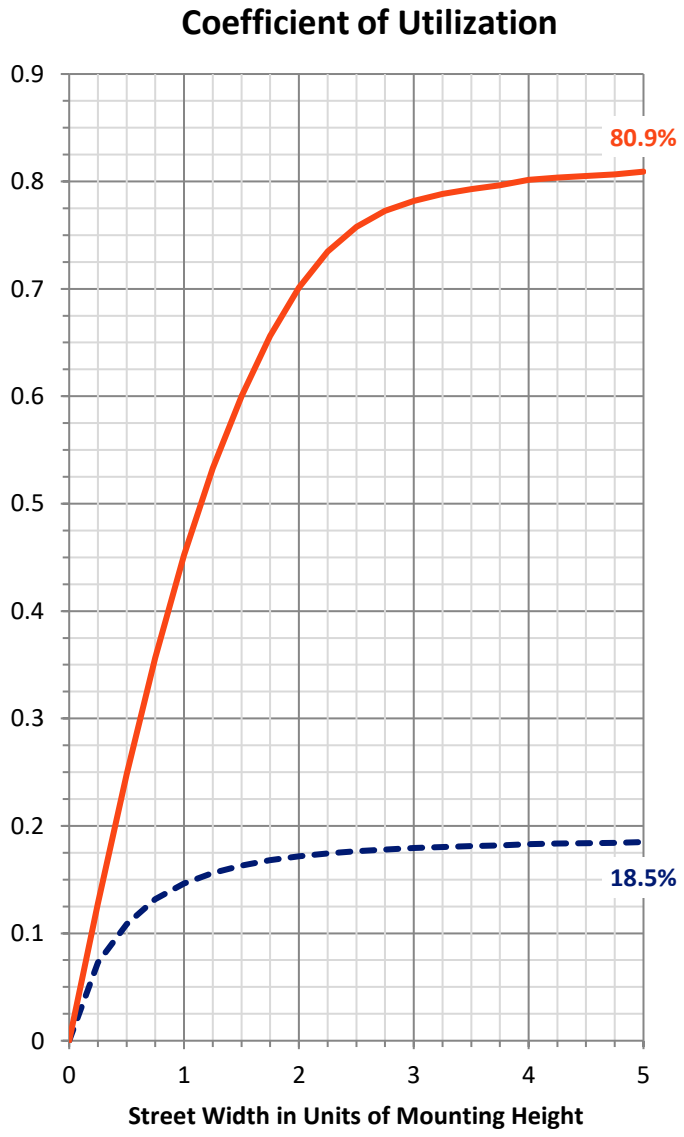
REPORT NUMBER: P1200731
CATALOG NUMBER: GPC-SB2D-750-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3945.8 | 0.0 | 3945.8 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| **Street Side** | Lumens | 17092.2 | 0.0 | 17092.2 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| **Total** | Lumens | 21038.0 | 0.0 | 21038.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 346.2 | 1.6 |
| 10°-20° | 885.0 | 4.2 |
| 20°-30° | 1344.3 | 6.4 |
| 30°-40° | 1998.2 | 9.5 |
| 40°-50° | 2971.7 | 14.1 |
| 50°-60° | 4033.8 | 19.2 |
| 60°-70° | 4924.6 | 23.4 |
| 70°-80° | 3864.7 | 18.4 |
| 80°-90° | 669.5 | 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° | 21038.0 | 100.0 |
| 0°-180° | 21038.0 | 100.0 |



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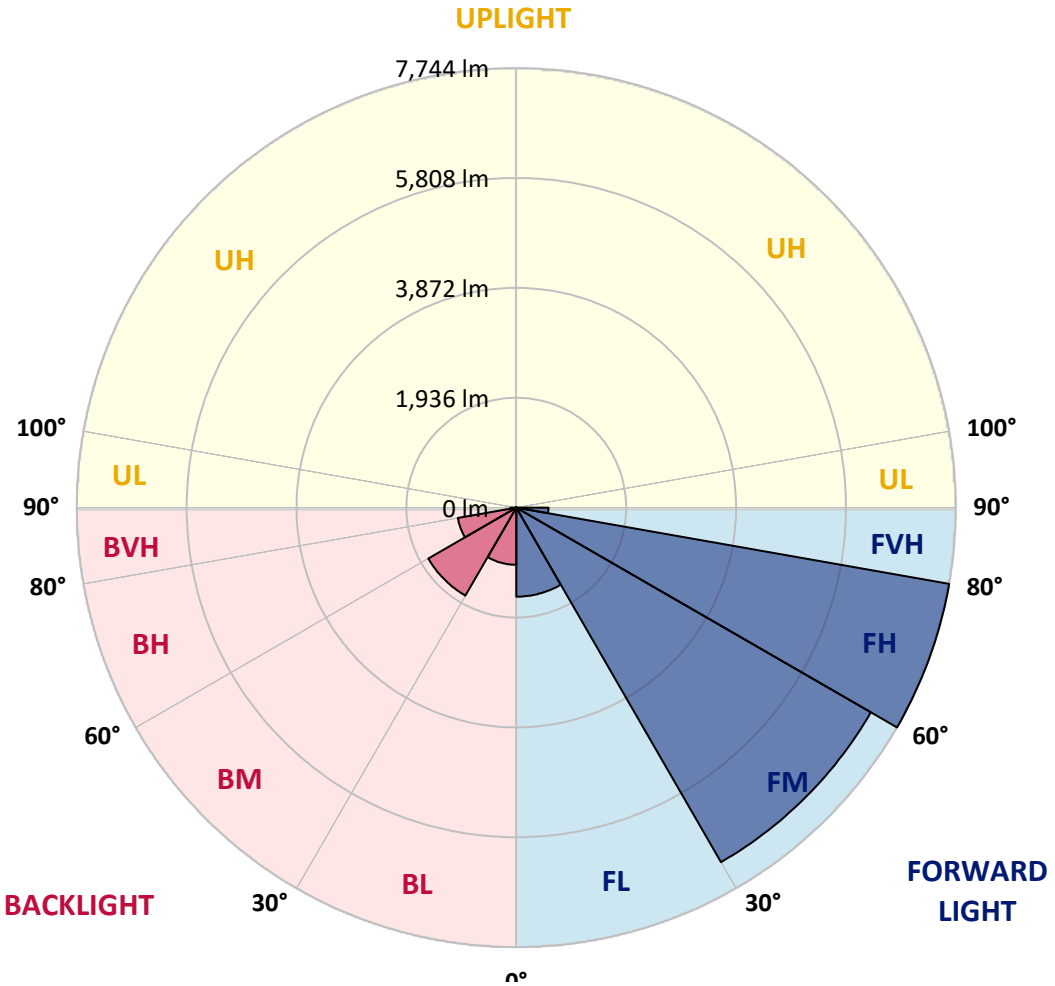
Scaled Data Report

REPORT NUMBER: P1200731
CATALOG NUMBER: GPC-SB2D-750-U-SL3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1568.6 | 7.5 | | | |
| FM | (30°-60°) | 7212.7 | 34.3 | | | |
| FH | (60°-80°) | 7743.9 | 36.8 | | | G4/12000 |
| FVH | (80°-90°) | 567.0 | 2.7 | | | G4/750 |
| BL | (0°-30°) | 1006.9 | 4.8 | B3/2500 | | |
| BM | (30°-60°) | 1791.0 | 8.5 | B2/2500 | | |
| BH | (60°-80°) | 1045.4 | 5.0 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 102.5 | 0.5 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G4**
Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 |
| 2.5° | 3894.3 | 3880.7 | 3894.3 | 3888.6 | 3886.4 | 3881.8 | 3883.0 | 3890.9 | 3886.4 | 3892.0 | 3872.8 |
| 5° | 3868.3 | 3860.3 | 3873.9 | 3870.5 | 3885.2 | 3887.5 | 3902.2 | 3911.3 | 3916.9 | 3918.1 | 3903.4 |
| 7.5° | 3825.3 | 3817.3 | 3836.6 | 3852.4 | 3884.1 | 3893.2 | 3923.7 | 3938.4 | 3946.4 | 3959.9 | 3938.4 |
| 10° | 3668.0 | 3664.6 | 3712.1 | 3772.1 | 3846.8 | 3893.2 | 3939.6 | 3964.5 | 3976.9 | 4013.1 | 3988.2 |
| 12.5° | 3389.5 | 3394.1 | 3456.3 | 3571.8 | 3721.1 | 3870.5 | 3957.7 | 3993.9 | 4013.1 | 4058.4 | 4047.1 |
| 15° | 3123.6 | 3122.5 | 3190.4 | 3313.7 | 3523.1 | 3770.9 | 3966.7 | 4029.0 | 4061.8 | 4128.6 | 4119.5 |
| 17.5° | 2969.7 | 2965.1 | 3012.7 | 3106.6 | 3301.3 | 3618.2 | 3944.1 | 4048.2 | 4118.4 | 4202.1 | 4194.2 |
| 20° | 2941.4 | 2932.3 | 2957.2 | 3003.6 | 3141.7 | 3450.7 | 3885.2 | 4048.2 | 4163.7 | 4272.3 | 4267.8 |
| 22.5° | 3044.4 | 3029.7 | 3019.5 | 3013.8 | 3074.9 | 3312.6 | 3818.5 | 4034.6 | 4230.4 | 4373.0 | 4365.1 |
| 25° | 3251.5 | 3228.8 | 3176.8 | 3125.9 | 3107.7 | 3250.3 | 3759.6 | 4031.2 | 4330.0 | 4508.8 | 4479.4 |
| 27.5° | 3586.5 | 3558.2 | 3452.9 | 3330.7 | 3220.9 | 3282.0 | 3733.6 | 4051.6 | 4439.8 | 4652.6 | 4593.7 |
| 30° | 4001.8 | 3971.3 | 3838.8 | 3651.0 | 3454.1 | 3399.7 | 3766.4 | 4111.6 | 4580.1 | 4843.8 | 4728.4 |
| 32.5° | 4374.2 | 4340.2 | 4227.0 | 4035.8 | 3769.8 | 3603.4 | 3870.5 | 4225.9 | 4800.8 | 5109.8 | 4931.0 |
| 35° | 4704.6 | 4665.0 | 4563.2 | 4386.6 | 4156.9 | 3889.8 | 4058.4 | 4428.5 | 5114.3 | 5542.1 | 5206.0 |
| 37.5° | 5028.3 | 4981.9 | 4871.0 | 4684.2 | 4523.5 | 4271.2 | 4317.6 | 4688.8 | 5530.8 | 6067.2 | 5570.4 |
| 40° | 5390.5 | 5323.7 | 5189.0 | 5004.5 | 4848.4 | 4718.2 | 4658.2 | 5007.9 | 5954.1 | 6653.5 | 6025.4 |
| 42.5° | 5741.3 | 5677.9 | 5517.2 | 5359.9 | 5164.1 | 5126.8 | 5053.2 | 5381.4 | 6416.9 | 7297.4 | 6487.1 |
| 45° | 6119.3 | 6043.5 | 5848.8 | 5649.6 | 5526.3 | 5398.4 | 5435.7 | 5754.9 | 6870.8 | 7953.8 | 6971.5 |
| 47.5° | 6473.5 | 6388.6 | 6158.9 | 5937.1 | 5869.2 | 5627.0 | 5786.6 | 6165.7 | 7342.7 | 8619.3 | 7451.3 |
| 50° | 6664.8 | 6581.0 | 6389.8 | 6189.5 | 6136.3 | 5908.8 | 6166.8 | 6617.3 | 7837.3 | 9282.5 | 7912.0 |
| 52.5° | 6824.4 | 6733.8 | 6483.7 | 6372.8 | 6357.0 | 6215.5 | 6635.4 | 7133.3 | 8331.8 | 9868.7 | 8356.7 |
| 55° | 6994.1 | 6893.4 | 6574.2 | 6474.7 | 6547.1 | 6559.5 | 7191.0 | 7718.4 | 8854.7 | 10440.3 | 8776.6 |
| 57.5° | 7189.9 | 7062.0 | 6661.4 | 6560.7 | 6732.7 | 6962.4 | 7829.3 | 8325.0 | 9368.5 | 10969.9 | 9150.1 |
| 60° | 7374.4 | 7245.4 | 6828.9 | 6697.6 | 6933.0 | 7429.8 | 8561.6 | 9059.5 | 9950.2 | 11441.8 | 9503.2 |
| 62.5° | 7410.6 | 7304.2 | 6962.4 | 6961.3 | 7204.6 | 7975.3 | 9428.5 | 9800.8 | 10458.4 | 11908.1 | 9820.1 |
| 65° | 6783.6 | 6716.8 | 6514.3 | 6951.1 | 7593.9 | 8760.8 | 10393.8 | 10749.2 | 11104.6 | 12315.5 | 10098.5 |
| 67.5° | 5163.0 | 5172.0 | 5157.3 | 6000.5 | 7279.3 | 9889.1 | 11791.5 | 11764.4 | 11902.5 | 12772.8 | 10418.7 |
| 70° | 2360.8 | 2414.0 | 2760.3 | 4142.1 | 5831.8 | 10019.2 | 14102.5 | 13750.6 | 12904.0 | 13364.7 | 10696.0 |
| 72.5° | 1275.5 | 1316.2 | 1457.7 | 2006.6 | 3506.1 | 8907.9 | 15829.6 | 16079.7 | 14236.1 | 13763.0 | 10391.6 |
| 75° | 935.9 | 958.6 | 1057.0 | 1275.5 | 1472.4 | 6620.6 | 15210.5 | 16493.9 | 14402.5 | 12833.9 | 8973.5 |
| 77.5° | 700.5 | 710.7 | 791.1 | 1010.6 | 753.7 | 3490.3 | 12153.7 | 13660.0 | 12329.1 | 10544.4 | 6628.6 |
| 80° | 508.1 | 519.5 | 579.4 | 758.3 | 528.5 | 1276.6 | 8345.4 | 9588.1 | 8443.9 | 6721.4 | 3303.5 |
| 82.5° | 350.8 | 355.4 | 381.4 | 516.1 | 368.9 | 495.7 | 4735.2 | 5622.5 | 4713.7 | 2358.5 | 891.8 |
| 85° | 211.6 | 217.3 | 228.6 | 301.0 | 209.4 | 235.4 | 2043.9 | 2114.1 | 1409.0 | 563.6 | 277.3 |
| 87.5° | 87.1 | 92.8 | 101.9 | 126.8 | 82.6 | 65.6 | 337.3 | 423.3 | 263.7 | 165.2 | 86.0 |
| 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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REPORT NUMBER: P1200731
CATALOG NUMBER: GPC-SB2D-750-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 | 3861.5 |
| 2.5° | 3867.1 | 3859.2 | 3837.7 | 3808.3 | 3781.1 | 3747.2 | 3732.5 | 3720.0 | 3708.7 | 3687.2 | 3677.0 |
| 5° | 3890.9 | 3869.4 | 3811.7 | 3737.0 | 3652.1 | 3559.3 | 3468.8 | 3406.5 | 3353.3 | 3313.7 | 3280.9 |
| 7.5° | 3927.1 | 3886.4 | 3781.1 | 3628.3 | 3433.7 | 3234.5 | 3054.6 | 2926.7 | 2830.5 | 2795.4 | 2734.3 |
| 10° | 3964.5 | 3915.8 | 3732.5 | 3463.1 | 3127.0 | 2820.3 | 2581.5 | 2450.2 | 2373.2 | 2348.3 | 2309.9 |
| 12.5° | 4008.6 | 3937.3 | 3656.6 | 3233.4 | 2784.1 | 2447.9 | 2239.7 | 2162.7 | 2123.1 | 2109.6 | 2112.9 |
| 15° | 4073.1 | 3955.4 | 3542.3 | 2945.9 | 2457.0 | 2176.3 | 2041.6 | 1988.5 | 1968.1 | 1967.0 | 1971.5 |
| 17.5° | 4121.8 | 3958.8 | 3364.6 | 2638.1 | 2205.8 | 2012.2 | 1901.3 | 1880.9 | 1894.5 | 1914.9 | 1922.8 |
| 20° | 4176.1 | 3928.3 | 3131.5 | 2357.4 | 2029.2 | 1868.5 | 1822.1 | 1835.7 | 1868.5 | 1897.9 | 1908.1 |
| 22.5° | 4214.6 | 3872.8 | 2849.7 | 2139.0 | 1876.4 | 1785.9 | 1783.6 | 1811.9 | 1830.0 | 1844.7 | 1852.6 |
| 25° | 4248.5 | 3778.9 | 2550.9 | 1955.6 | 1750.8 | 1736.1 | 1761.0 | 1751.9 | 1739.5 | 1751.9 | 1759.8 |
| 27.5° | 4273.4 | 3630.6 | 2283.8 | 1794.9 | 1662.5 | 1702.1 | 1687.4 | 1667.0 | 1665.9 | 1672.7 | 1684.0 |
| 30° | 4265.5 | 3432.6 | 2064.3 | 1642.1 | 1600.3 | 1638.8 | 1603.7 | 1600.3 | 1596.9 | 1600.3 | 1612.7 |
| 32.5° | 4265.5 | 3207.3 | 1895.7 | 1536.9 | 1560.7 | 1545.9 | 1542.6 | 1534.6 | 1521.1 | 1519.9 | 1534.6 |
| 35° | 4289.3 | 2982.1 | 1750.8 | 1480.3 | 1527.8 | 1492.8 | 1495.0 | 1475.8 | 1447.5 | 1433.9 | 1447.5 |
| 37.5° | 4337.9 | 2801.0 | 1607.1 | 1453.1 | 1470.1 | 1469.0 | 1459.9 | 1427.1 | 1377.3 | 1334.3 | 1349.0 |
| 40° | 4455.6 | 2747.9 | 1508.6 | 1440.7 | 1443.0 | 1456.5 | 1432.8 | 1369.4 | 1256.2 | 1186.1 | 1195.1 |
| 42.5° | 4640.1 | 2837.3 | 1487.1 | 1410.1 | 1424.9 | 1438.4 | 1392.0 | 1244.9 | 1164.6 | 1122.7 | 1122.7 |
| 45° | 4874.4 | 2993.4 | 1533.5 | 1366.0 | 1381.8 | 1405.6 | 1267.5 | 1197.4 | 1161.2 | 1162.3 | 1167.9 |
| 47.5° | 5170.9 | 3157.5 | 1619.5 | 1327.5 | 1319.6 | 1333.2 | 1184.9 | 1141.9 | 1092.1 | 1104.6 | 1136.3 |
| 50° | 5513.8 | 3323.9 | 1701.0 | 1275.5 | 1250.6 | 1206.4 | 1131.7 | 1091.0 | 1027.6 | 998.2 | 1006.1 |
| 52.5° | 5885.0 | 3484.6 | 1733.8 | 1212.1 | 1175.9 | 1124.9 | 1095.5 | 1045.7 | 968.8 | 920.1 | 919.0 |
| 55° | 6237.0 | 3630.6 | 1697.6 | 1136.3 | 1101.2 | 1061.6 | 1057.0 | 1026.5 | 943.9 | 876.0 | 876.0 |
| 57.5° | 6569.7 | 3752.8 | 1607.1 | 1059.3 | 1025.4 | 1001.6 | 1032.1 | 1017.4 | 913.3 | 826.2 | 821.6 |
| 60° | 6851.5 | 3836.6 | 1475.8 | 981.2 | 957.4 | 945.0 | 991.4 | 986.9 | 870.3 | 773.0 | 769.6 |
| 62.5° | 7075.6 | 3869.4 | 1330.9 | 906.5 | 900.9 | 878.2 | 934.8 | 934.8 | 816.0 | 720.9 | 717.5 |
| 65° | 7251.0 | 3837.7 | 1183.8 | 833.0 | 844.3 | 810.3 | 865.8 | 859.0 | 758.3 | 674.5 | 670.0 |
| 67.5° | 7406.1 | 3733.6 | 1020.8 | 760.5 | 786.6 | 743.5 | 793.3 | 777.5 | 694.9 | 628.1 | 623.6 |
| 70° | 7475.1 | 3491.4 | 835.2 | 688.1 | 719.8 | 677.9 | 720.9 | 691.5 | 623.6 | 578.3 | 569.3 |
| 72.5° | 6920.6 | 2901.8 | 657.5 | 612.3 | 639.4 | 605.5 | 642.8 | 608.9 | 546.6 | 526.3 | 509.3 |
| 75° | *5725.4* | *2177.5* | *505.9* | *529.7* | *550.0* | *524.0* | *548.9* | *524.0* | *467.4* | *482.1* | *440.2* |
| 77.5° | 4158.0 | 1470.1 | 387.1 | 442.5 | 451.6 | 438.0 | 459.5 | 431.2 | 380.3 | 376.9 | 359.9 |
| 80° | 2067.7 | 861.2 | 303.3 | 349.7 | 346.3 | 337.3 | 362.2 | 348.6 | 305.6 | 323.7 | 320.3 |
| 82.5° | 598.7 | 368.9 | 220.7 | 245.6 | 238.8 | 241.1 | 259.2 | 266.0 | 398.4 | 395.0 | 404.0 |
| 85° | 187.9 | 144.9 | 132.4 | 136.9 | 130.1 | 133.5 | 152.8 | 303.3 | 280.7 | 164.1 | 177.7 |
| 87.5° | 48.7 | 49.8 | 32.8 | 35.1 | 36.2 | 43.0 | 48.7 | 184.5 | 88.3 | 57.7 | 61.1 |
| 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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# LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-4-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-750-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

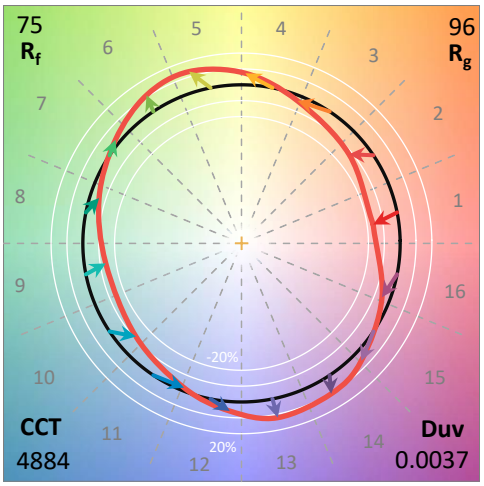
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-4-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-750-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): | 4884 | CRI (Ra): | 73.5 | | |
| CIE u': | 0.2101 | R1: | 70.5 | R9: | -28.4 |
| CIE v': | 0.4904 | R2: | 77.7 | R10: | 48.6 |
| Duv: | 0.0037 | R3: | 84.6 | R11: | 73.2 |
| CIE x: | 0.3493 | R4: | 74.7 | R12: | 50.7 |
| CIE y: | 0.3624 | R5: | 71.9 | R13: | 71.2 |
| CIE z: | 0.2884 | R6: | 70.7 | R14: | 91.4 |
| Peak Wavelength (nm): | 444 | R7: | 81.2 | | |
| Dominant Wavelength (nm): | 571 | R8: | 56.9 | | |
| Purity: | 13.7 | | | | |

| | |
|---|---|
| Rf: | 74.9 |
| Rg: | 96.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 240M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.0./44% |
| Sphere Temperature (°C): | 25.7 |

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1121 Highway 74 South
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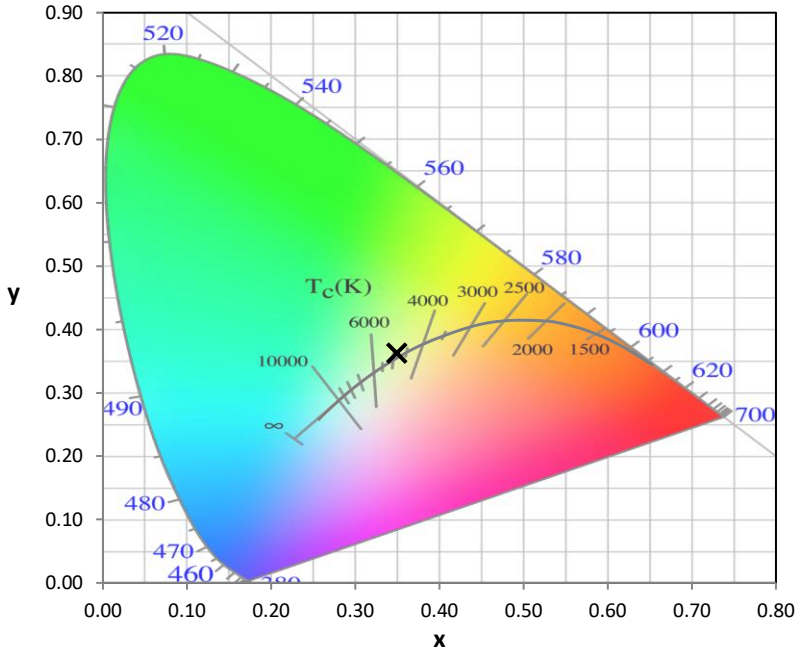
REPORT NUMBER: SP1-1908-441-4-R4

| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

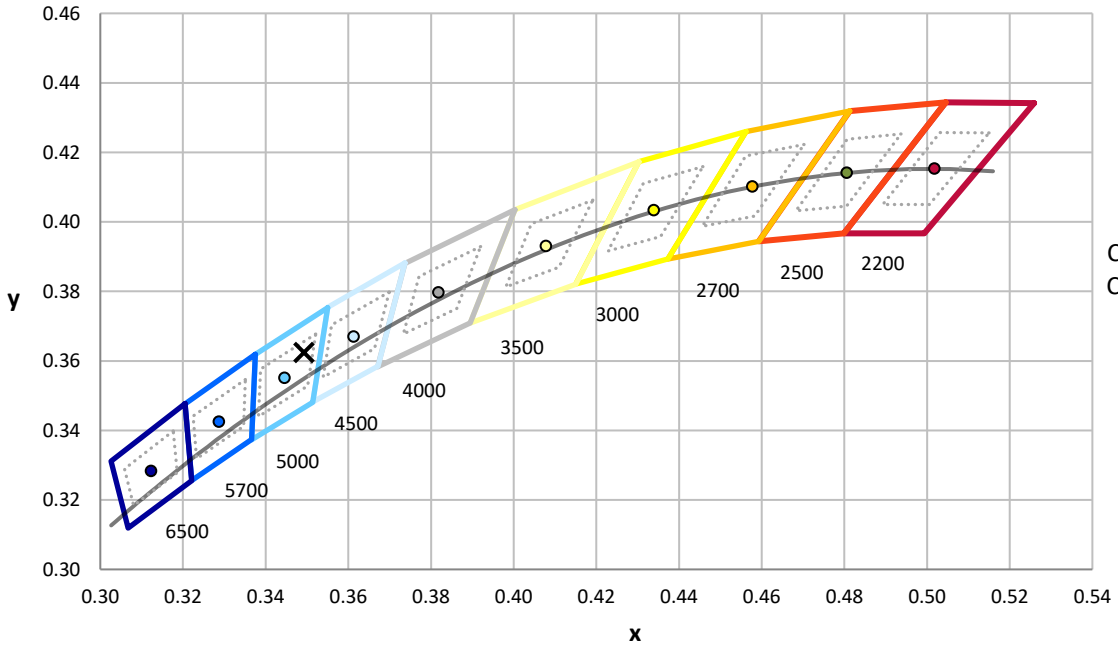
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REPORT NUMBER: SP1-1908-441-4-R4

## CIE 1931 Chromaticity Diagram




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



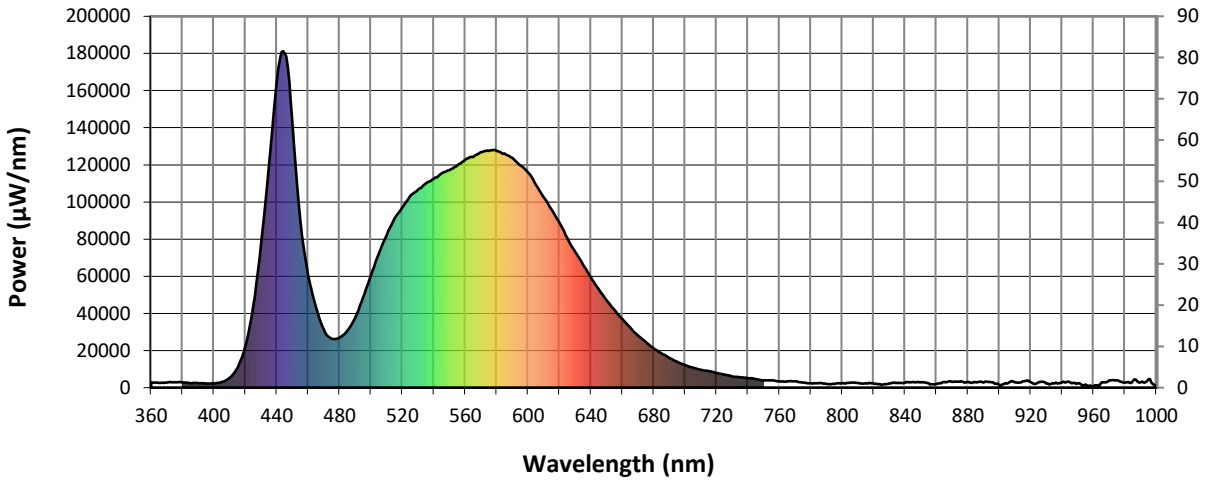

CCT = 4884K
CIE x = 0.3493
CIE y = 0.3624
Duv = 0.0037

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



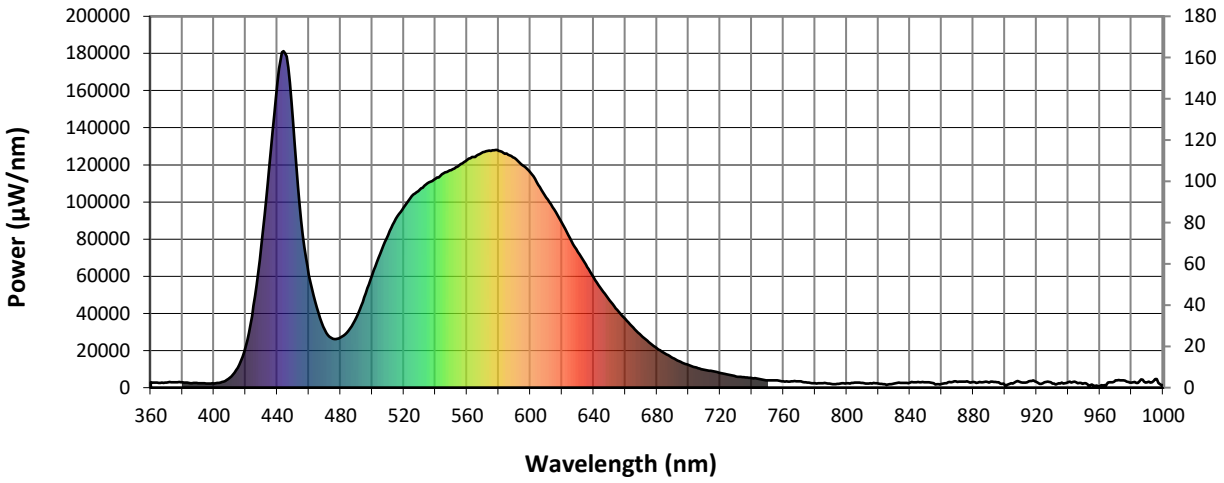

######

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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## Scotopic Flux vs. Wavelength



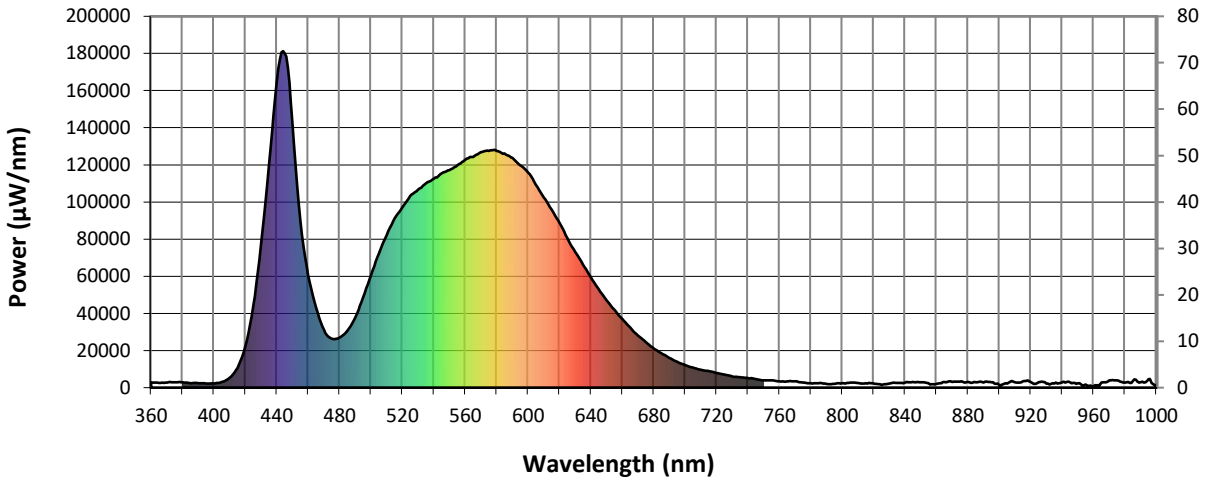

**Scotopic Lumens: 13493.5** **S/P: 1.77**

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 5378.9** **M/P: 0.71**

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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Peachtree City, GA 30269

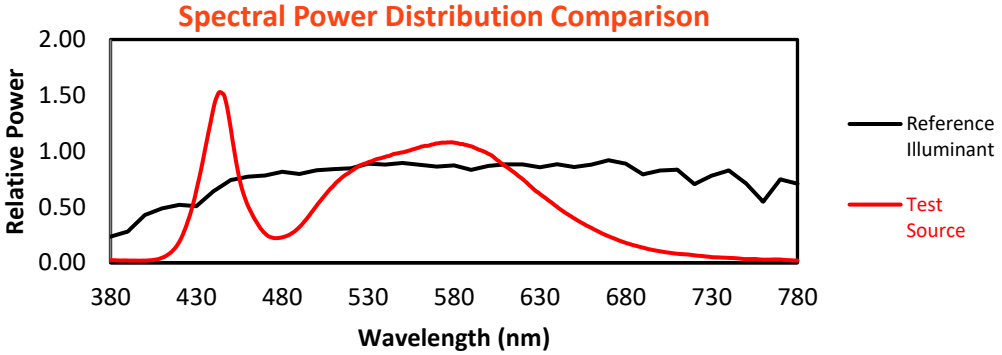
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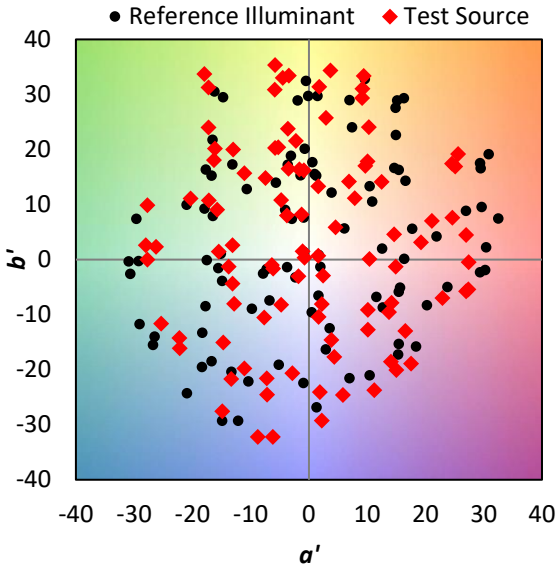
## Summary

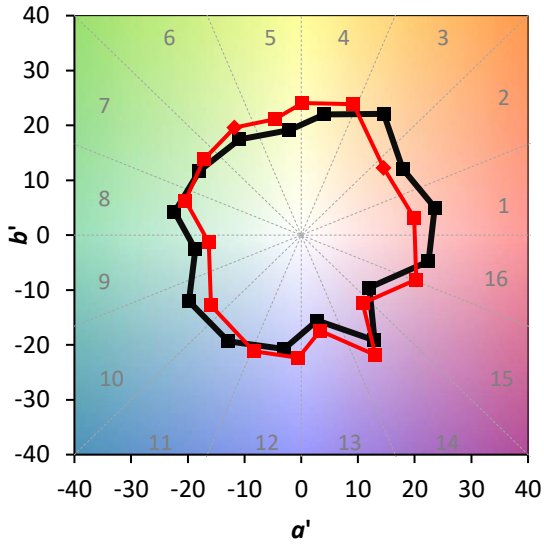
$R_f$ = 74.9
$R_g$ = 96.3
CIE $R_a$ = 73.5
$R_9$ = -28.4

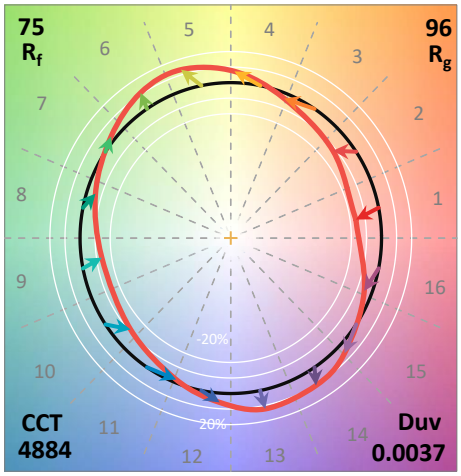
## Spectral Power Distribution Comparison

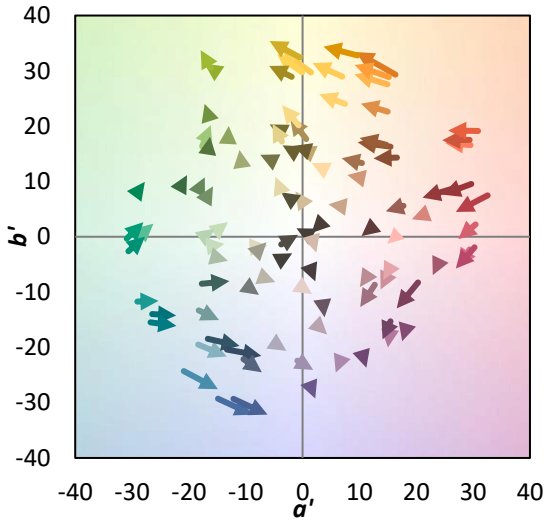



## Color Vector Graphics



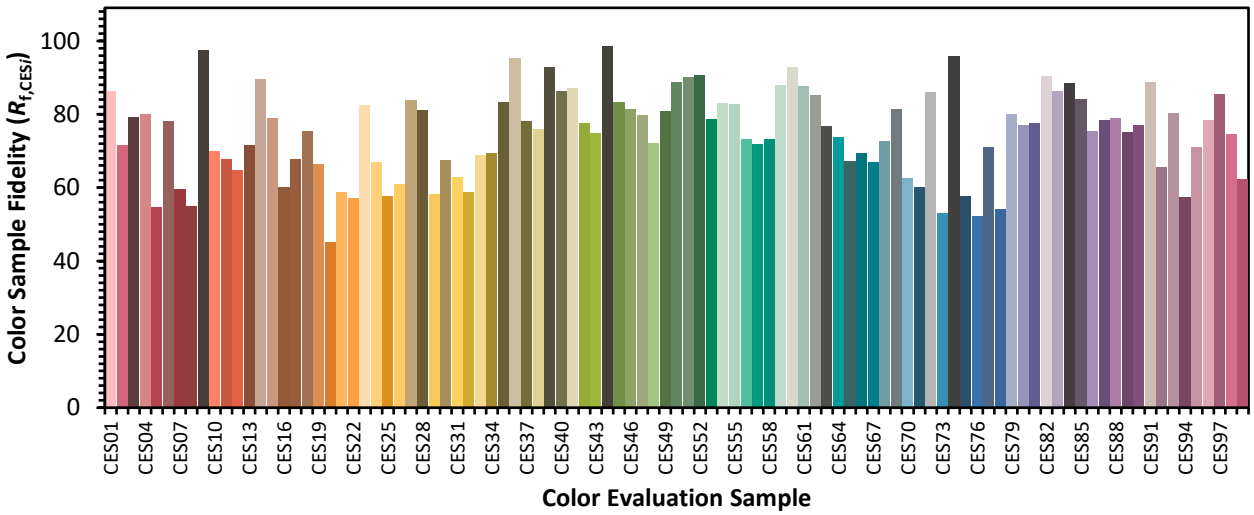
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1121 Highway 74 South
Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 61 | CES51 = 90 | CES76 = 52 |
| CES02 = 60 | CES27 = 84 | CES52 = 91 | CES77 = 71 |
| CES03 = 30 | CES28 = 81 | CES53 = 79 | CES78 = 54 |
| CES04 = 69 | CES29 = 58 | CES54 = 83 | CES79 = 80 |
| CES05 = 46 | CES30 = 67 | CES55 = 83 | CES80 = 77 |
| CES06 = 50 | CES31 = 63 | CES56 = 73 | CES81 = 77 |
| CES07 = 39 | CES32 = 59 | CES57 = 72 | CES82 = 90 |
| CES08 = 38 | CES33 = 69 | CES58 = 73 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 88 | CES84 = 88 |
| CES10 = 73 | CES35 = 83 | CES60 = 93 | CES85 = 84 |
| CES11 = 56 | CES36 = 95 | CES61 = 88 | CES86 = 75 |
| CES12 = 61 | CES37 = 78 | CES62 = 85 | CES87 = 78 |
| CES13 = 41 | CES38 = 76 | CES63 = 77 | CES88 = 79 |
| CES14 = 74 | CES39 = 93 | CES64 = 74 | CES89 = 75 |
| CES15 = 70 | CES40 = 86 | CES65 = 67 | CES90 = 77 |
| CES16 = 46 | CES41 = 87 | CES66 = 69 | CES91 = 89 |
| CES17 = 49 | CES42 = 78 | CES67 = 67 | CES92 = 66 |
| CES18 = 55 | CES43 = 75 | CES68 = 73 | CES93 = 80 |
| CES19 = 71 | CES44 = 99 | CES69 = 81 | CES94 = 57 |
| CES20 = 64 | CES45 = 83 | CES70 = 63 | CES95 = 71 |
| CES21 = 85 | CES46 = 81 | CES71 = 60 | CES96 = 78 |
| CES22 = 77 | CES47 = 80 | CES72 = 86 | CES97 = 85 |
| CES23 = 91 | CES48 = 72 | CES73 = 53 | CES98 = 75 |
| CES24 = 90 | CES49 = 81 | CES74 = 96 | CES99 = 62 |
| CES25 = 71 | CES50 = 89 | CES75 = 58 | |

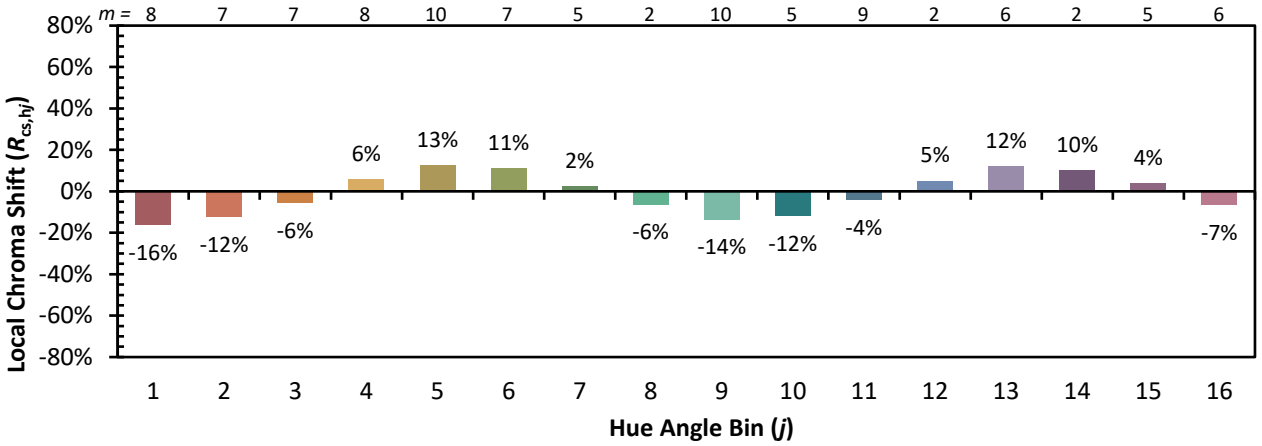


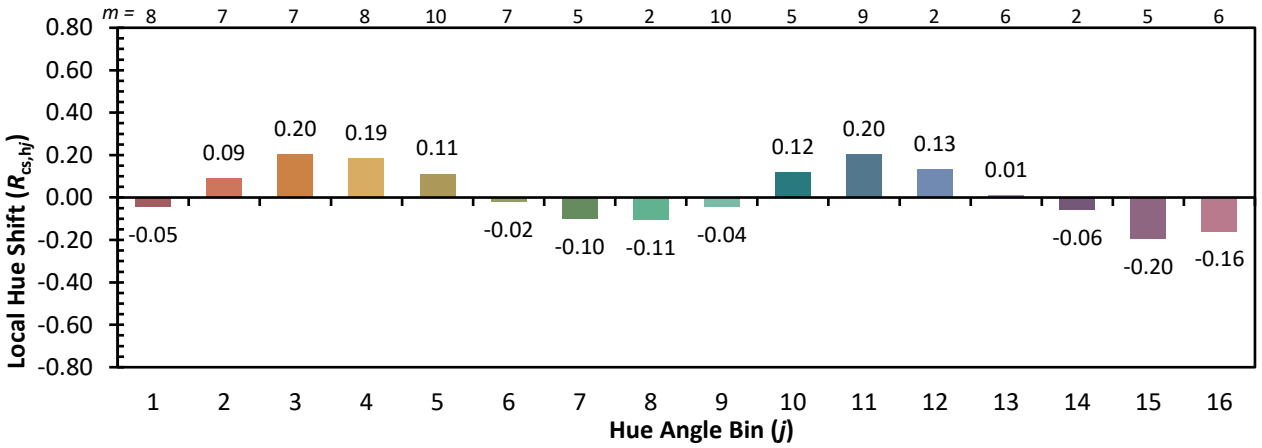
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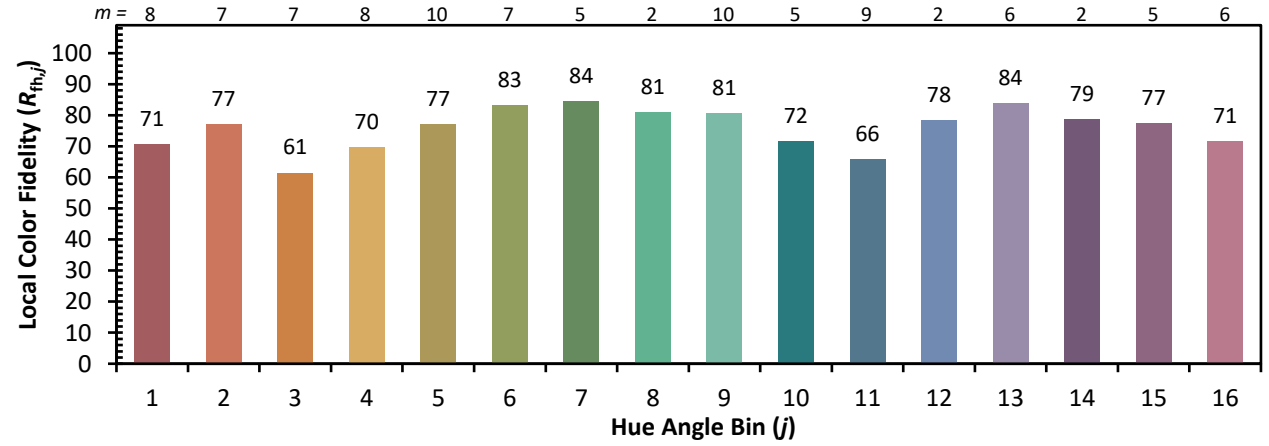
REPORT NUMBER: SP1-1908-441-4-R4

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### Color Rendition by Hue-Angle Bin



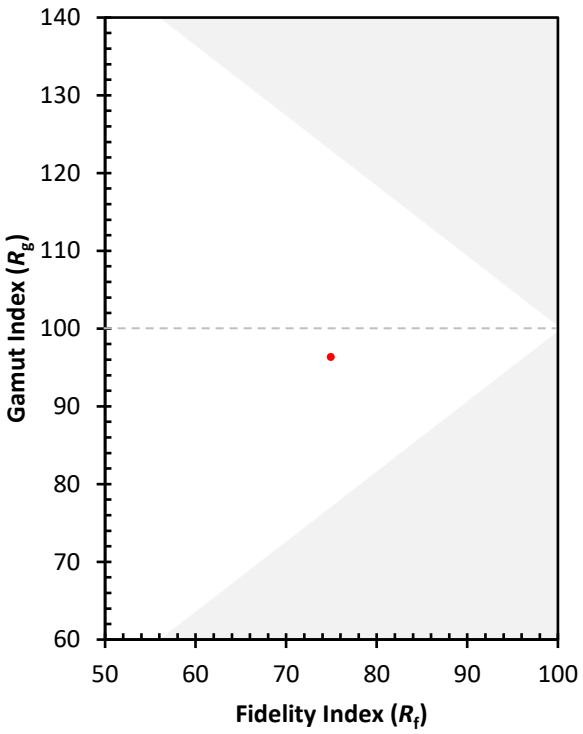



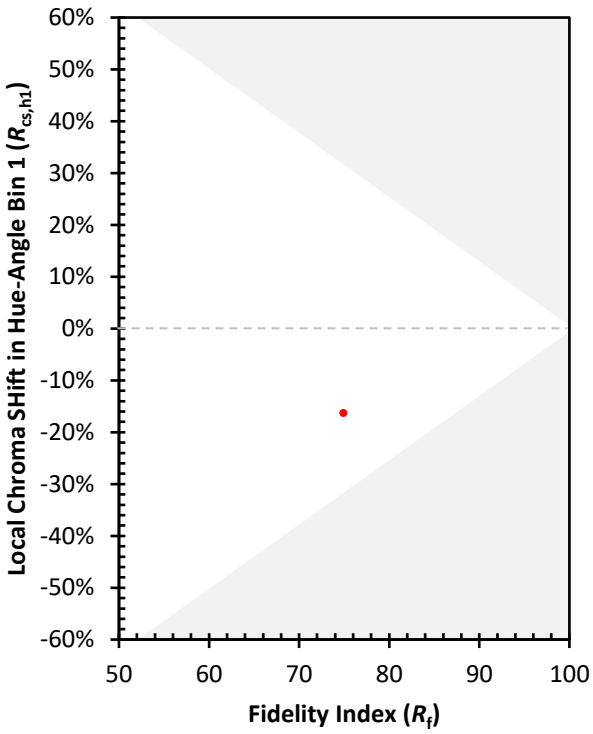
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### Measure Comparisons




(END OF REPORT)