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: P1198380

Luminaire Tested: GPC-SB1C-760-U-SL4-HSS

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: | P1198380 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB1C-760-U-SL4-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 70 CRI, 5700K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 5561 lumens |
| Efficiency: | N/A |
| Efficacy: | 102.2 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 54.4 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.437 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.993 |
| Total Harmonic Distortion (THDi): | 9.314 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

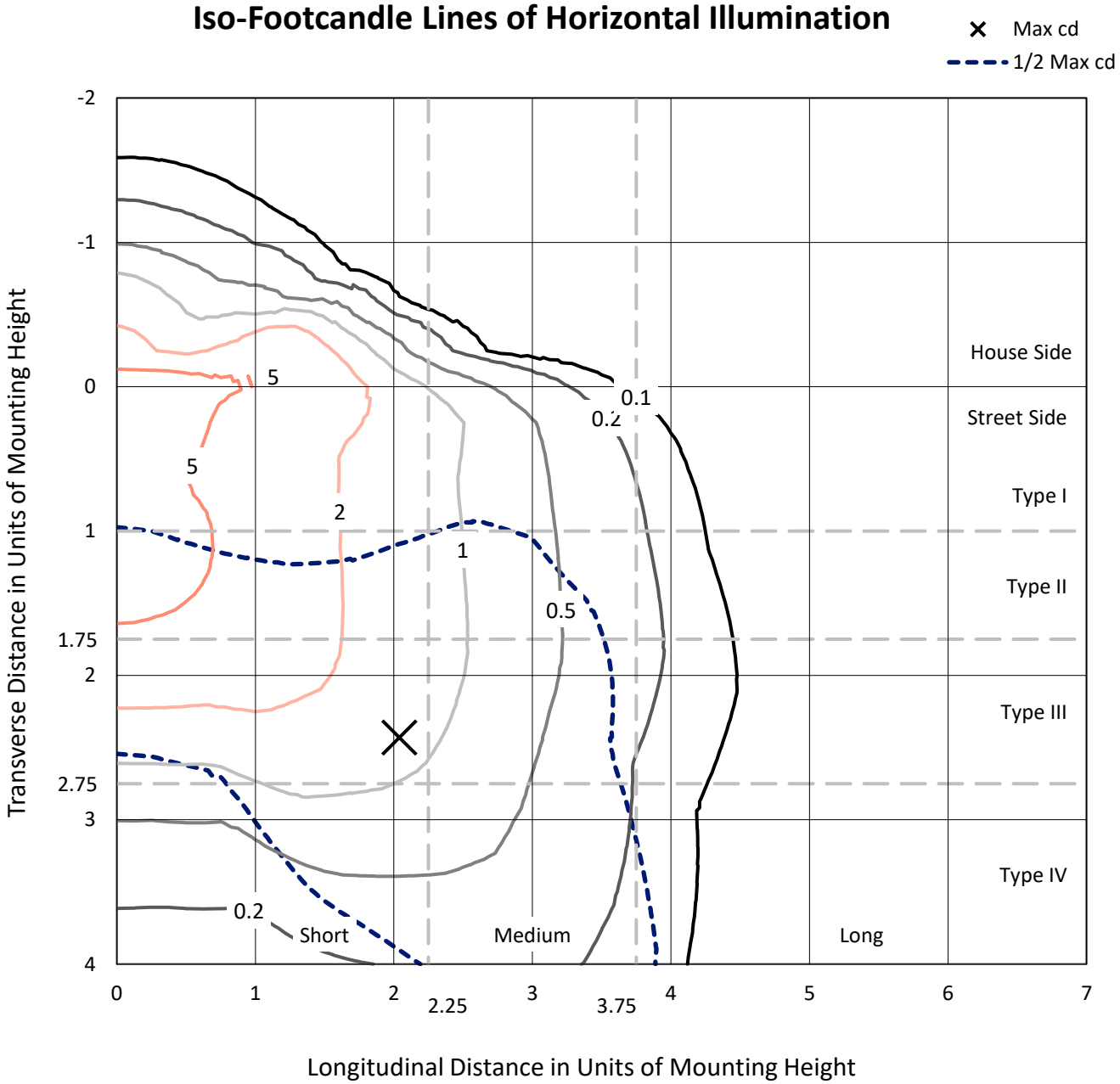


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REPORT NUMBER: P1198380
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## Iso-Footcandle Lines of Horizontal Illumination



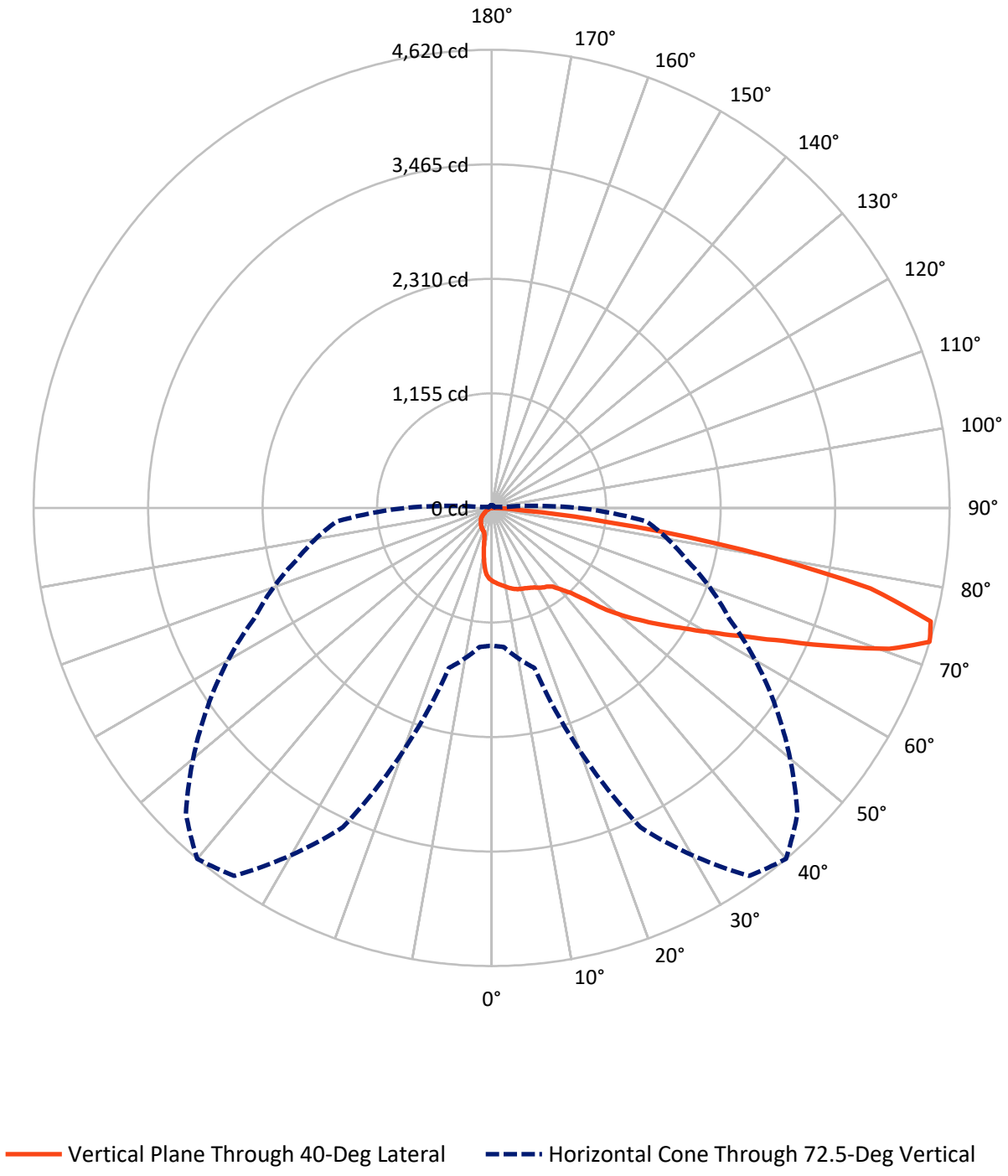

Based on 10 foot mounting height. Maximum calculated value = 8.5 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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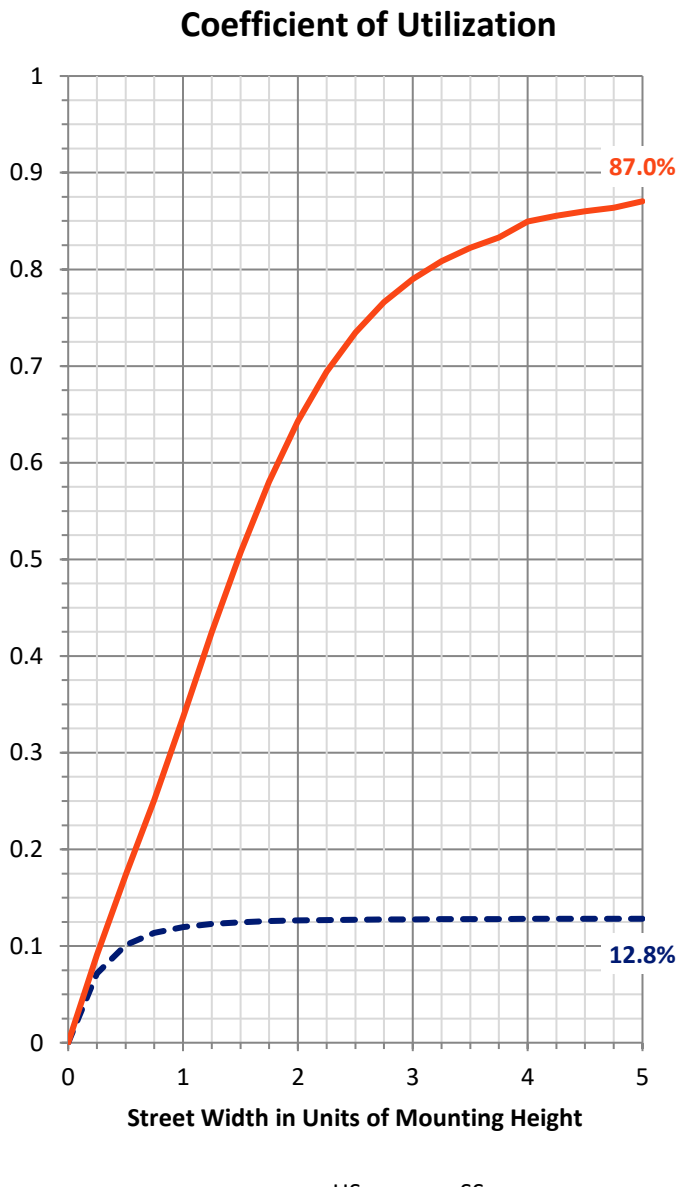
REPORT NUMBER: P1198380
CATALOG NUMBER: GPC-SB1C-760-U-SL4-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 718.1 | 0.0 | 718.1 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| **Street Side** | Lumens | 4842.9 | 0.0 | 4842.9 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| **Total** | Lumens | 5561.0 | 0.0 | 5561.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 67.2 | 1.2 |
| 10°-20° | 182.6 | 3.3 |
| 20°-30° | 295.5 | 5.3 |
| 30°-40° | 436.2 | 7.8 |
| 40°-50° | 734.2 | 13.2 |
| 50°-60° | 1140.0 | 20.5 |
| 60°-70° | 1426.5 | 25.7 |
| 70°-80° | 1167.9 | 21.0 |
| 80°-90° | 110.7 | 2.0 |
| 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° | 5561.0 | 100.0 |
| 0°-180° | 5561.0 | 100.0 |



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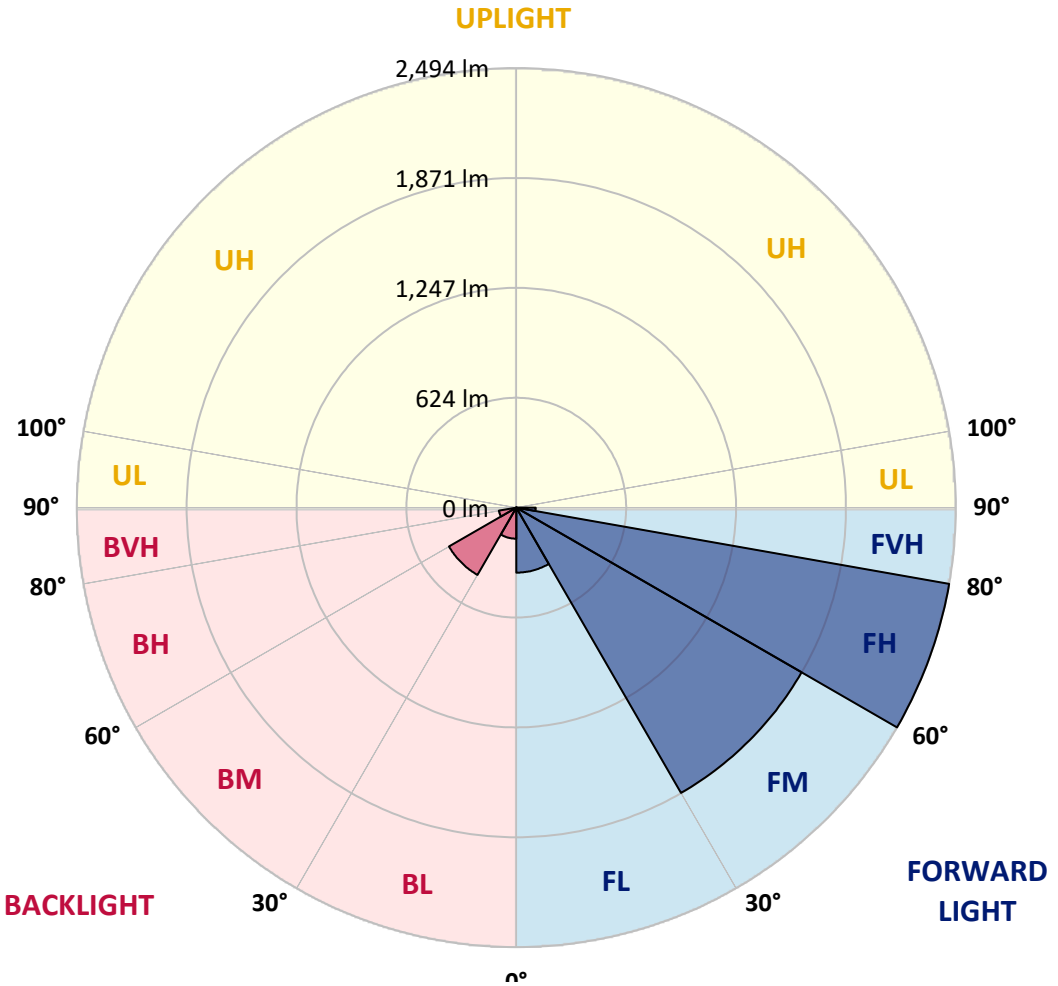
Scaled Data Report

REPORT NUMBER: P1198380
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## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 369.1 | 6.6 | | | |
| FM | (30°-60°) | 1869.5 | 33.6 | | | |
| FH | (60°-80°) | 2494.4 | 44.9 | | | G2/5000 |
| FVH | (80°-90°) | 109.9 | 2.0 | | | G2/225 |
| BL | (0°-30°) | 176.3 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 441.0 | 7.9 | B1/1000 | | |
| BH | (60°-80°) | 100.0 | 1.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.8 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G2**
Type IV Short



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REPORT NUMBER: P1198380
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 |
| 2.5° | 758.5 | 761.5 | 759.8 | 756.4 | 755.6 | 753.9 | 751.8 | 751.0 | 748.0 | 745.5 | 742.6 |
| 5° | 779.9 | 782.8 | 780.7 | 776.1 | 774.0 | 771.9 | 769.0 | 766.5 | 760.6 | 755.2 | 748.5 |
| 7.5° | 803.3 | 805.8 | 803.3 | 796.6 | 793.3 | 790.8 | 786.6 | 782.8 | 776.1 | 768.2 | 759.8 |
| 10° | 829.3 | 831.4 | 827.6 | 818.8 | 813.4 | 809.6 | 805.8 | 801.7 | 795.4 | 786.6 | 776.5 |
| 12.5° | 853.6 | 856.1 | 850.2 | 839.8 | 833.5 | 829.7 | 825.5 | 822.2 | 815.9 | 807.5 | 797.1 |
| 15° | 875.8 | 879.6 | 869.5 | 858.2 | 851.1 | 848.2 | 844.0 | 841.9 | 837.7 | 831.8 | 822.2 |
| 17.5° | 892.5 | 895.1 | 884.6 | 871.2 | 863.2 | 861.1 | 858.2 | 859.5 | 858.6 | 855.7 | 849.4 |
| 20° | 906.8 | 908.5 | 894.6 | 878.3 | 869.5 | 869.9 | 869.1 | 873.3 | 875.0 | 875.0 | 874.5 |
| 22.5° | 924.4 | 924.8 | 907.2 | 886.7 | 876.2 | 879.1 | 880.4 | 885.0 | 888.4 | 891.7 | 899.3 |
| 25° | 947.4 | 946.6 | 925.6 | 897.6 | 888.4 | 892.5 | 895.5 | 897.2 | 900.9 | 906.4 | 923.5 |
| 27.5° | 981.8 | 979.2 | 952.4 | 915.2 | 904.3 | 908.0 | 913.5 | 912.7 | 911.0 | 915.2 | 944.1 |
| 30° | 1025.3 | 1022.0 | 986.4 | 939.9 | 929.8 | 933.2 | 934.9 | 927.3 | 915.2 | 918.9 | 962.1 |
| 32.5° | 1094.4 | 1088.6 | 1039.1 | 967.5 | 952.0 | 955.8 | 953.7 | 938.2 | 920.2 | 924.0 | 980.1 |
| 35° | 1214.6 | 1200.4 | 1130.5 | 1025.3 | 977.2 | 973.0 | 967.9 | 952.9 | 930.7 | 926.9 | 995.2 |
| 37.5° | 1470.1 | 1445.0 | 1325.6 | 1138.0 | 1034.1 | 1006.9 | 991.4 | 976.3 | 942.0 | 926.9 | 1012.3 |
| 40° | 1758.3 | 1732.7 | 1594.9 | 1326.5 | 1128.8 | 1082.7 | 1045.8 | 1004.0 | 953.7 | 932.3 | 1039.1 |
| 42.5° | 2059.0 | 2031.0 | 1889.4 | 1560.2 | 1264.1 | 1169.4 | 1100.7 | 1026.2 | 973.0 | 949.1 | 1074.7 |
| 45° | 2394.9 | 2359.7 | 2174.6 | 1803.9 | 1460.5 | 1313.5 | 1189.1 | 1071.8 | 1006.5 | 978.8 | 1123.3 |
| 47.5° | 2749.3 | 2703.6 | 2459.0 | 2040.6 | 1672.0 | 1512.9 | 1350.8 | 1153.5 | 1055.9 | 1023.2 | 1189.1 |
| 50° | 3063.4 | 3018.2 | 2752.6 | 2288.1 | 1869.7 | 1702.6 | 1535.1 | 1266.6 | 1130.0 | 1086.1 | 1277.5 |
| 52.5° | 3289.2 | 3254.8 | 3019.8 | 2543.6 | 2075.4 | 1880.6 | 1702.2 | 1398.1 | 1223.9 | 1166.5 | 1381.8 |
| 55° | 3440.4 | 3408.9 | 3209.2 | 2785.7 | 2314.5 | 2076.6 | 1866.8 | 1540.9 | 1336.9 | 1262.8 | 1496.9 |
| 57.5° | 3532.1 | 3514.1 | 3346.1 | 3001.8 | 2551.6 | 2291.1 | 2055.3 | 1698.0 | 1470.1 | 1376.3 | 1625.5 |
| 60° | 3564.8 | 3550.1 | 3431.1 | 3207.9 | 2838.1 | 2548.6 | 2276.8 | 1875.1 | 1631.8 | 1505.3 | 1757.5 |
| 62.5° | 3477.6 | 3480.6 | 3492.3 | 3452.1 | 3140.0 | 2850.2 | 2542.4 | 2087.9 | 1811.1 | 1651.5 | 1881.4 |
| 65° | 3067.6 | 3091.9 | 3314.7 | 3722.7 | 3540.0 | 3228.0 | 2880.4 | 2347.6 | 2016.3 | 1817.8 | 1979.9 |
| 67.5° | 2539.8 | 2575.0 | 2852.3 | 3881.0 | 3966.4 | 3718.5 | 3351.1 | 2678.5 | 2260.9 | 1987.0 | 2017.1 |
| 70° | 1944.3 | 1982.0 | 2317.9 | 3847.9 | 4365.6 | 4254.6 | 3933.3 | 3099.4 | 2514.3 | 2104.3 | 1922.1 |
| 72.5° | 1387.6 | 1406.9 | 1671.6 | 3553.4 | 4529.3 | 4619.8 | 4362.2 | 3498.2 | 2643.7 | 2039.3 | 1567.7 |
| 75° | 975.1 | 971.7 | 1147.2 | 2861.5 | 4274.3 | 4575.4 | 4211.9 | 3282.5 | 2392.4 | 1620.1 | 966.7 |
| 77.5° | 424.7 | 425.5 | 573.0 | 1737.8 | 3411.5 | 3907.8 | 3501.1 | 2056.1 | 1667.8 | 858.6 | 408.0 |
| 80° | 110.2 | 113.5 | 210.3 | 691.9 | 2054.0 | 2579.2 | 2135.2 | 903.9 | 770.7 | 209.4 | 77.9 |
| 82.5° | 39.0 | 41.5 | 96.8 | 217.4 | 757.7 | 1182.8 | 950.8 | 289.0 | 201.0 | 59.9 | 20.9 |
| 85° | 11.3 | 13.4 | 51.9 | 66.6 | 156.6 | 334.2 | 230.8 | 56.1 | 49.4 | 31.0 | 5.4 |
| 87.5° | 0.0 | 1.7 | 10.5 | 9.2 | 9.2 | 6.3 | 11.7 | 6.3 | 8.0 | 3.8 | 1.7 |
| 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: P1198380
CATALOG NUMBER: GPC-SB1C-760-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 | 736.3 |
| 2.5° | 740.1 | 737.2 | 730.9 | 724.2 | 717.9 | 712.0 | 710.4 | 704.1 | 701.1 | 701.6 | 701.1 |
| 5° | 743.9 | 738.4 | 726.3 | 711.6 | 696.5 | 679.4 | 665.1 | 645.0 | 627.8 | 625.7 | 624.5 |
| 7.5° | 753.9 | 745.1 | 725.4 | 697.0 | 659.3 | 611.9 | 567.9 | 524.4 | 499.7 | 486.3 | 485.4 |
| 10° | 769.4 | 757.7 | 727.5 | 673.1 | 593.1 | 508.5 | 441.9 | 387.0 | 358.9 | 346.0 | 343.4 |
| 12.5° | 787.8 | 774.9 | 730.9 | 632.4 | 507.6 | 396.6 | 324.6 | 291.1 | 285.2 | 284.4 | 284.0 |
| 15° | 813.8 | 799.6 | 734.6 | 577.6 | 415.1 | 302.0 | 268.9 | 269.3 | 273.9 | 276.4 | 276.0 |
| 17.5° | 842.7 | 828.5 | 729.2 | 510.6 | 323.8 | 258.0 | 257.2 | 260.9 | 267.6 | 270.2 | 269.7 |
| 20° | 872.0 | 858.6 | 709.9 | 431.8 | 261.8 | 245.9 | 249.2 | 253.4 | 260.1 | 263.5 | 263.5 |
| 22.5° | 902.2 | 890.5 | 679.4 | 348.1 | 236.2 | 237.1 | 241.3 | 245.4 | 253.0 | 256.7 | 256.7 |
| 25° | 934.4 | 924.4 | 638.7 | 278.9 | 225.3 | 227.8 | 233.3 | 238.3 | 246.3 | 250.9 | 250.9 |
| 27.5° | 967.1 | 959.6 | 592.7 | 232.9 | 215.3 | 218.2 | 224.5 | 231.2 | 239.2 | 244.6 | 245.0 |
| 30° | 1002.7 | 998.5 | 555.8 | 215.7 | 205.7 | 208.2 | 215.3 | 222.8 | 231.6 | 238.3 | 239.2 |
| 32.5° | 1039.1 | 1038.3 | 537.8 | 228.3 | 196.9 | 198.5 | 204.8 | 212.4 | 223.2 | 231.6 | 232.5 |
| 35° | 1075.2 | 1076.8 | 527.3 | 263.9 | 193.9 | 189.3 | 193.5 | 200.2 | 213.2 | 223.7 | 225.3 |
| 37.5° | 1121.2 | 1125.4 | 526.9 | 302.4 | 201.0 | 180.1 | 183.0 | 187.6 | 198.9 | 211.1 | 213.2 |
| 40° | 1189.9 | 1212.1 | 553.7 | 335.5 | 213.6 | 171.7 | 172.6 | 173.4 | 179.3 | 189.3 | 192.7 |
| 42.5° | 1281.2 | 1346.2 | 650.5 | 358.1 | 218.6 | 164.2 | 161.3 | 156.6 | 155.8 | 161.3 | 164.2 |
| 45° | 1394.7 | 1508.2 | 820.5 | 370.7 | 213.6 | 155.8 | 147.9 | 135.7 | 131.1 | 134.9 | 134.9 |
| 47.5° | 1528.3 | 1685.8 | 1022.0 | 373.6 | 205.2 | 145.3 | 131.1 | 115.2 | 111.4 | 112.7 | 112.2 |
| 50° | 1658.6 | 1819.0 | 1199.1 | 349.3 | 191.4 | 131.9 | 112.7 | 99.3 | 96.8 | 97.2 | 97.2 |
| 52.5° | 1773.8 | 1864.7 | 1249.4 | 291.9 | 173.0 | 115.6 | 96.8 | 87.5 | 85.9 | 85.9 | 85.4 |
| 55° | 1850.0 | 1815.3 | 1114.1 | 223.2 | 149.9 | 98.8 | 82.9 | 78.3 | 77.5 | 77.1 | 76.2 |
| 57.5° | 1865.9 | 1654.4 | 841.5 | 161.3 | 117.3 | 83.3 | 73.7 | 71.2 | 69.5 | 67.9 | 67.0 |
| 60° | 1809.0 | 1386.4 | 535.7 | 112.7 | 88.0 | 71.2 | 65.3 | 63.7 | 60.3 | 57.0 | 55.7 |
| 62.5° | 1685.8 | 1047.1 | 296.5 | 78.3 | 70.8 | 60.7 | 57.8 | 55.7 | 49.4 | 44.0 | 42.3 |
| 65° | 1520.4 | 696.1 | 131.1 | 61.2 | 57.8 | 51.1 | 49.4 | 46.5 | 39.0 | 32.7 | 31.4 |
| 67.5° | 1354.1 | 400.8 | 59.1 | 49.0 | 46.5 | 41.9 | 40.6 | 38.5 | 33.1 | 27.2 | 26.4 |
| 70° | 1164.4 | 203.1 | 40.6 | 39.0 | 36.0 | 31.8 | 33.1 | 32.7 | 27.2 | 22.2 | 21.4 |
| 72.5° | *867.0* | *100.9* | *30.6* | *29.3* | *26.0* | *22.6* | *27.2* | *26.8* | *21.4* | *16.8* | *15.9* |
| 75° | 490.9 | 49.8 | 22.2 | 20.5 | 15.5 | 16.8 | 21.8 | 20.5 | 14.7 | 10.9 | 10.1 |
| 77.5° | 194.8 | 25.5 | 14.7 | 12.6 | 9.2 | 11.3 | 15.9 | 13.8 | 7.5 | 4.6 | 4.2 |
| 80° | 44.8 | 12.6 | 7.5 | 5.4 | 4.2 | 6.7 | 8.4 | 5.0 | 2.1 | 0.4 | 0.0 |
| 82.5° | 12.6 | 5.4 | 2.5 | 2.1 | 2.1 | 2.5 | 2.1 | 0.8 | 0.0 | 0.0 | 0.0 |
| 85° | 4.2 | 2.5 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.7 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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

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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

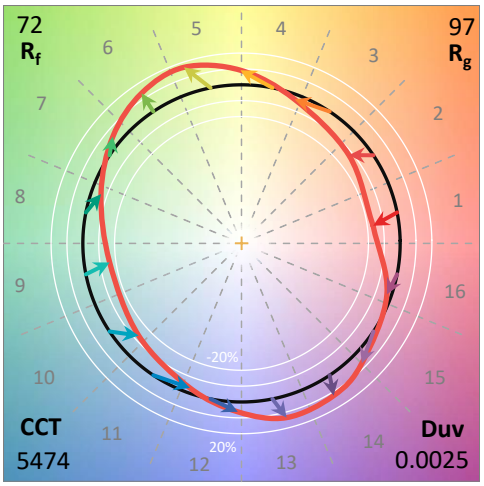
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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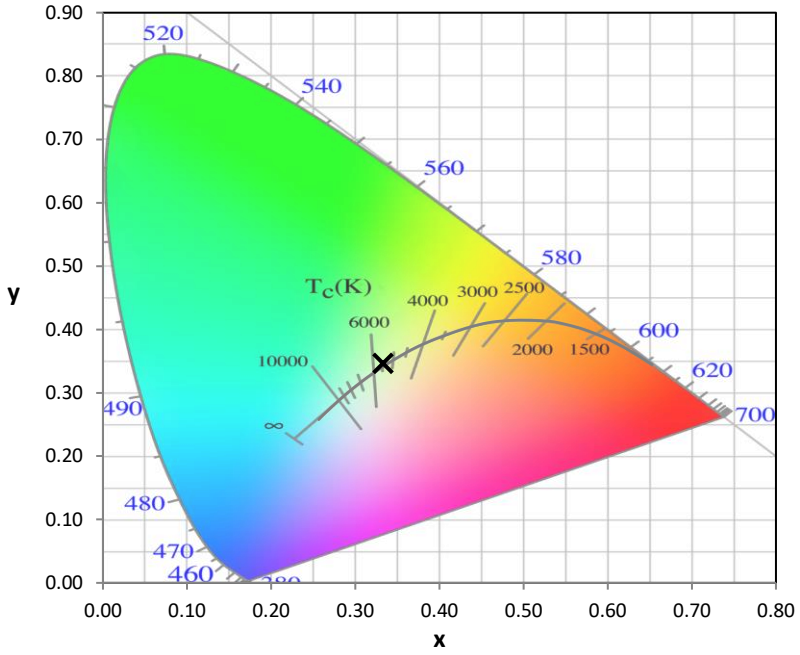
REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

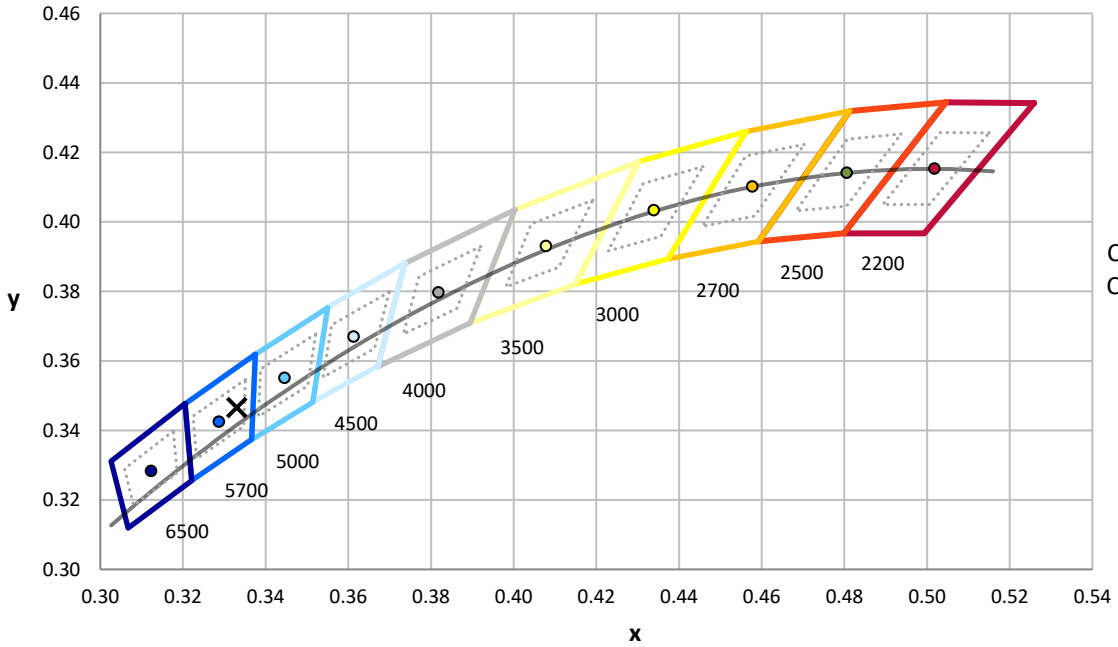
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



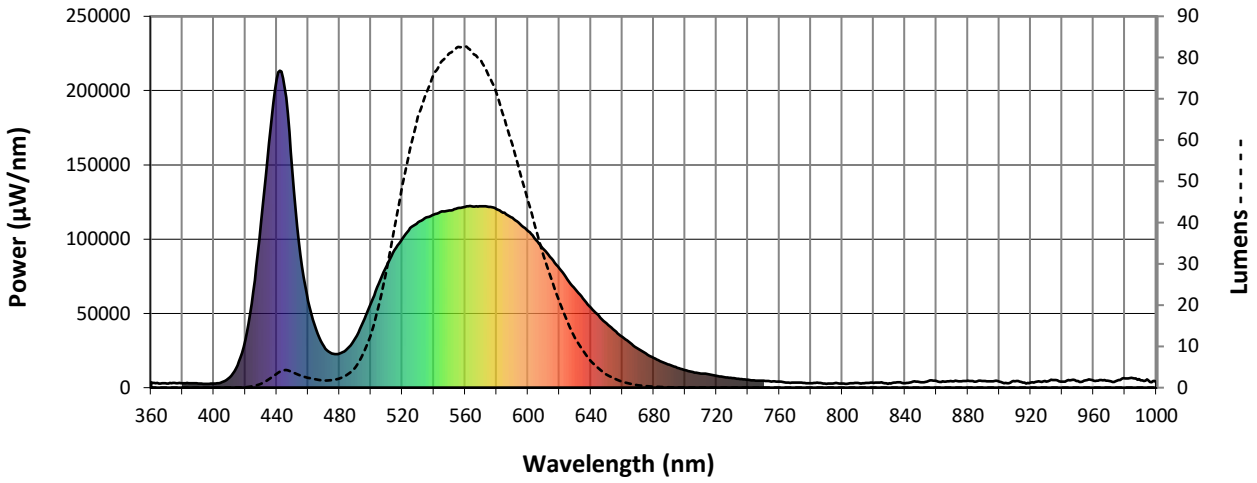

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



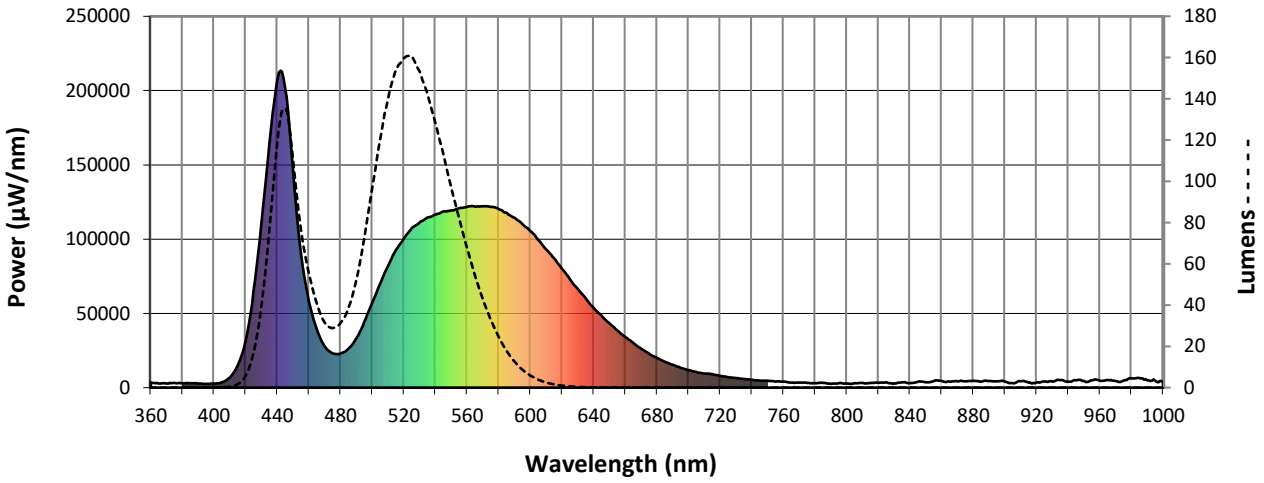

**Photopic Lumens: 7459.9**

| 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



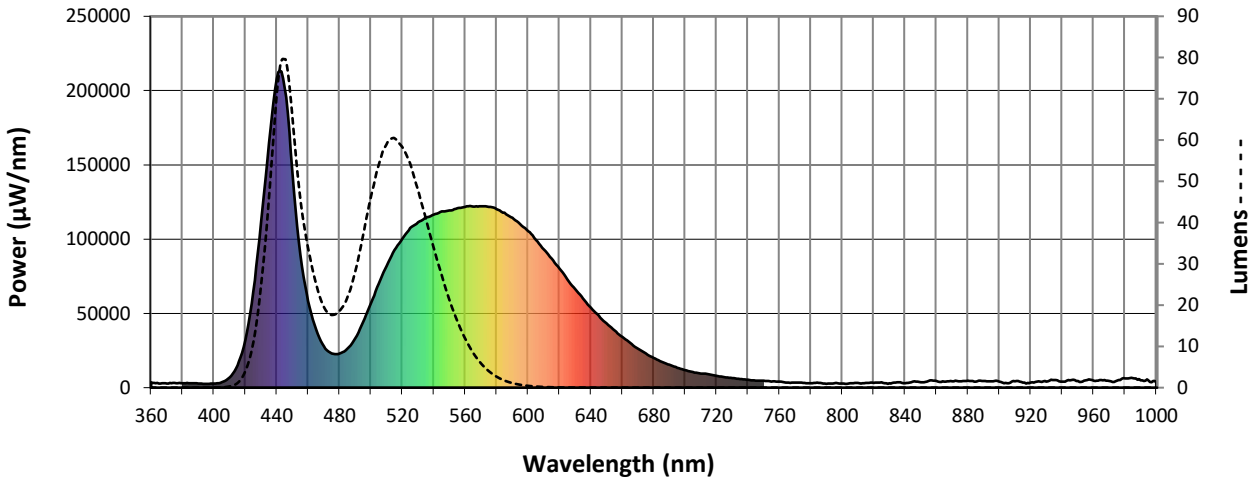

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| 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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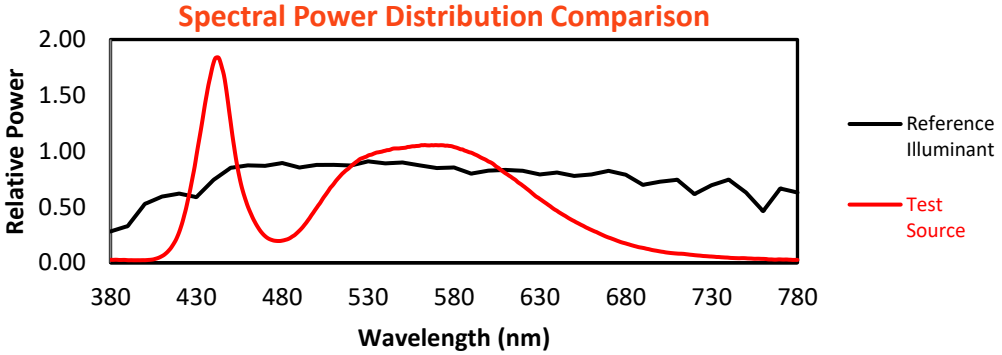
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# TM-30-18

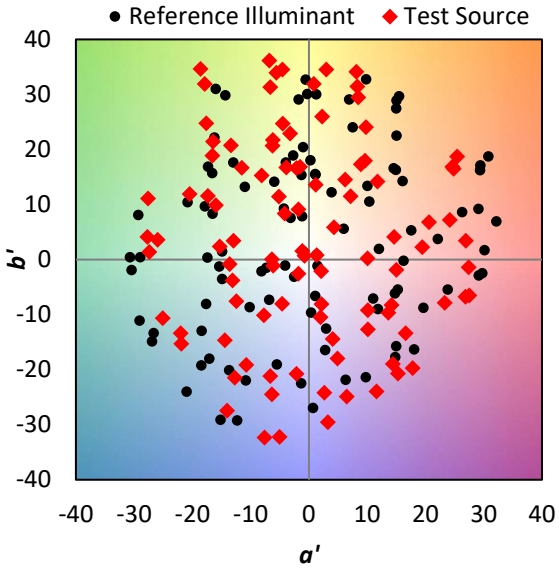
## Summary

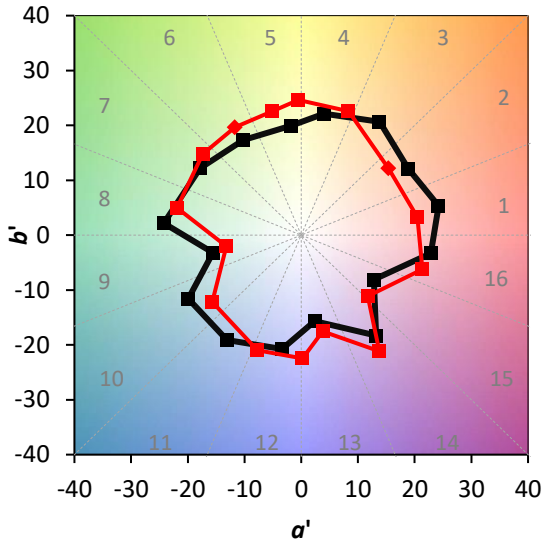
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

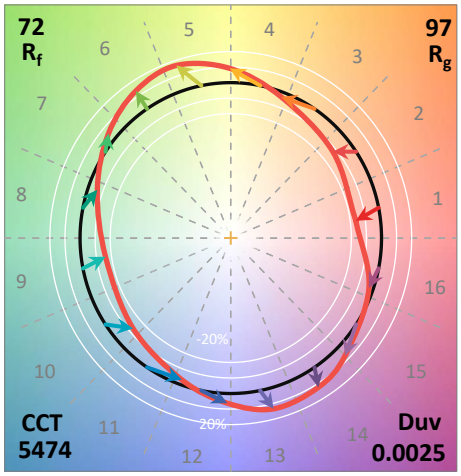
## Spectral Power Distribution Comparison

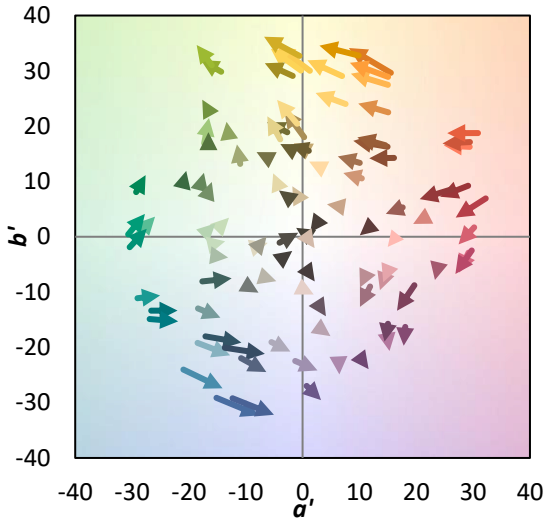



## Color Vector Graphics



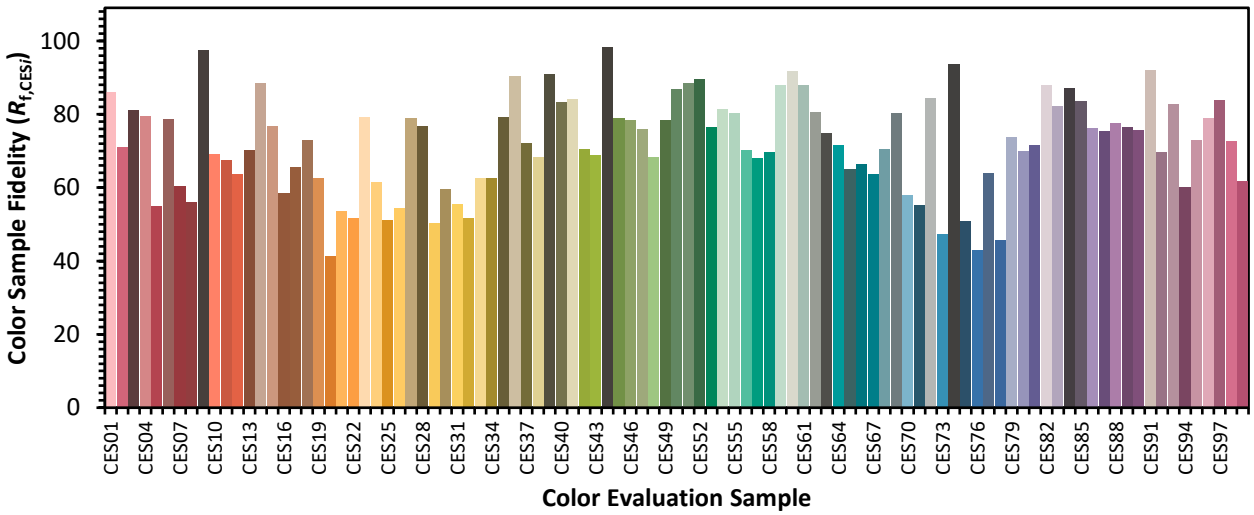
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Peachtree City, GA 30269

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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 | |

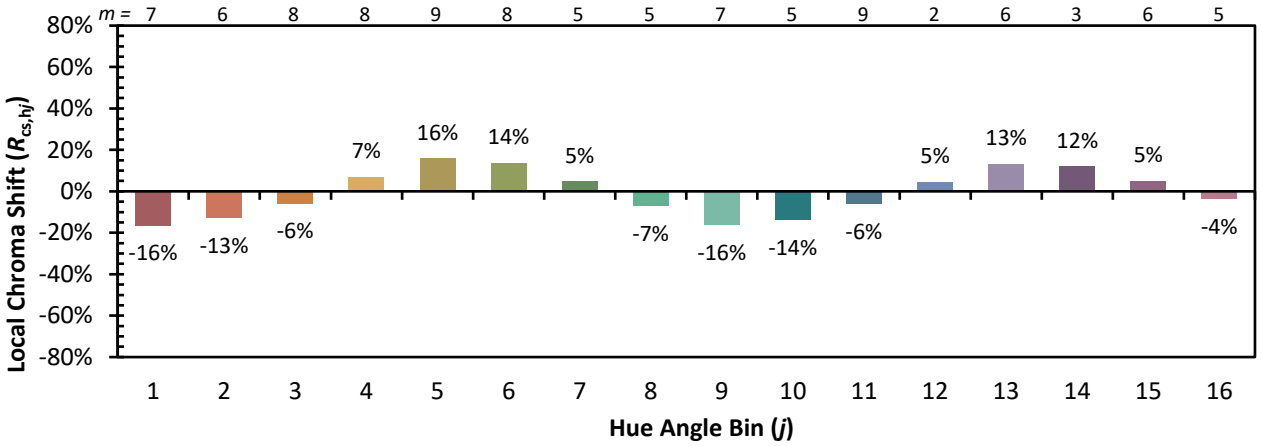


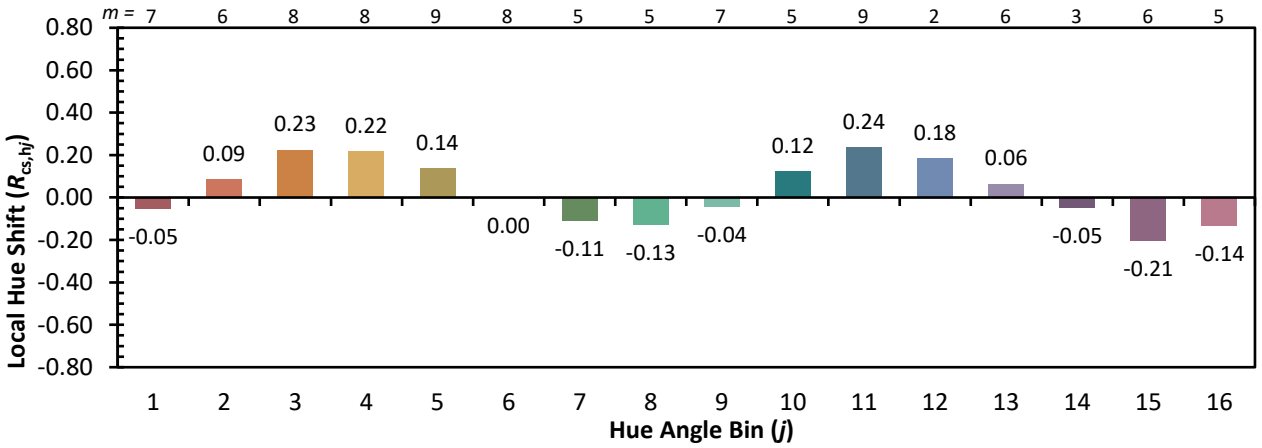
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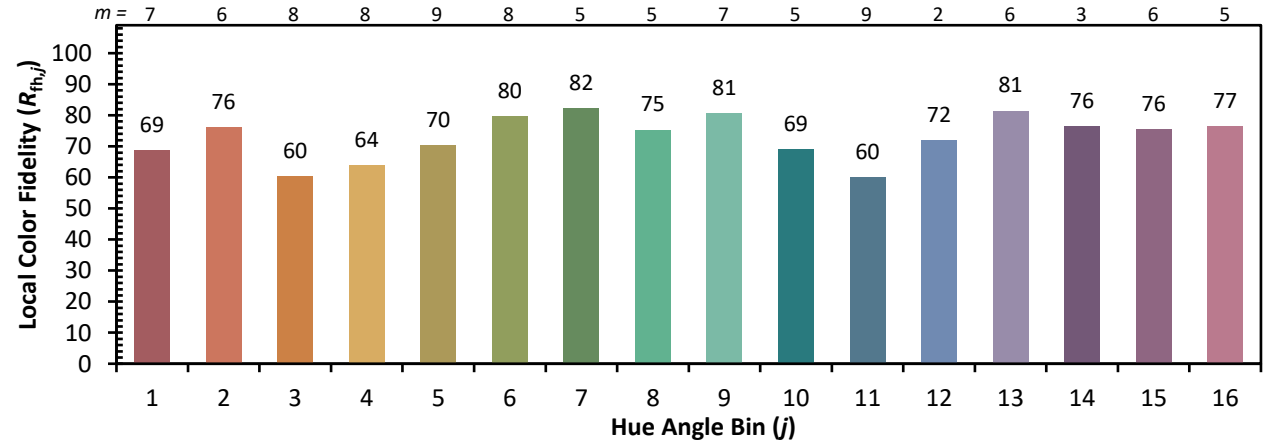
REPORT NUMBER: SP1-1908-441-9-R4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



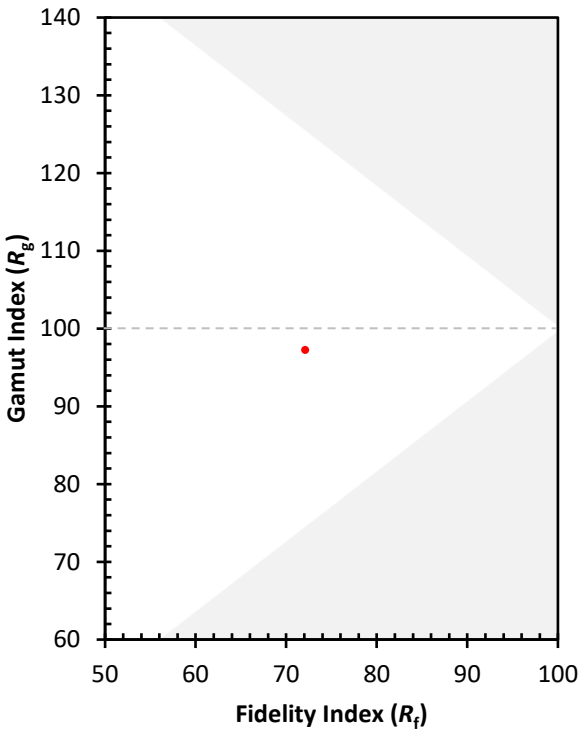



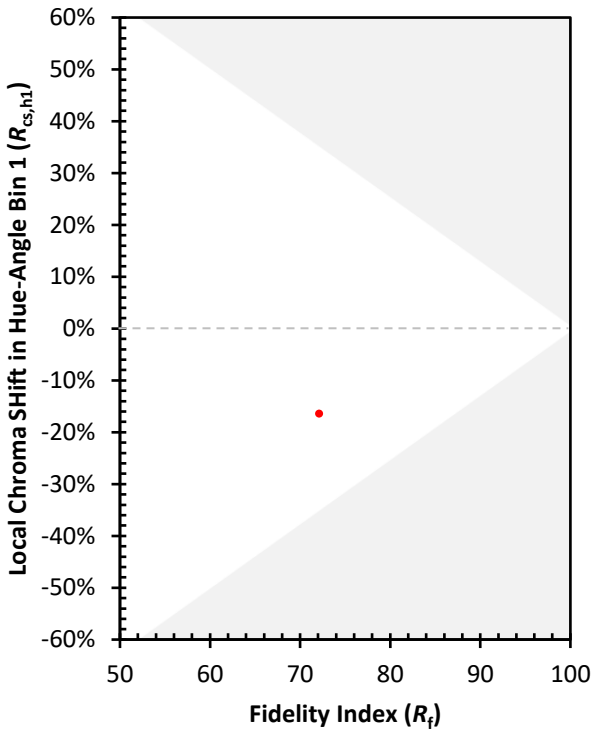
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### Measure Comparisons




(END OF REPORT)