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: P1202663

Luminaire Tested: GWC-SB2A-740-U-T4W

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: | P1202663 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB2A-740-U-T4W |
| Description: | GALLEON WALL LUMINAIRE |
| | (2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9470 lumens |
| Efficiency: | N/A |
| Efficacy: | 165.3 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 57.3 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.484 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.038 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

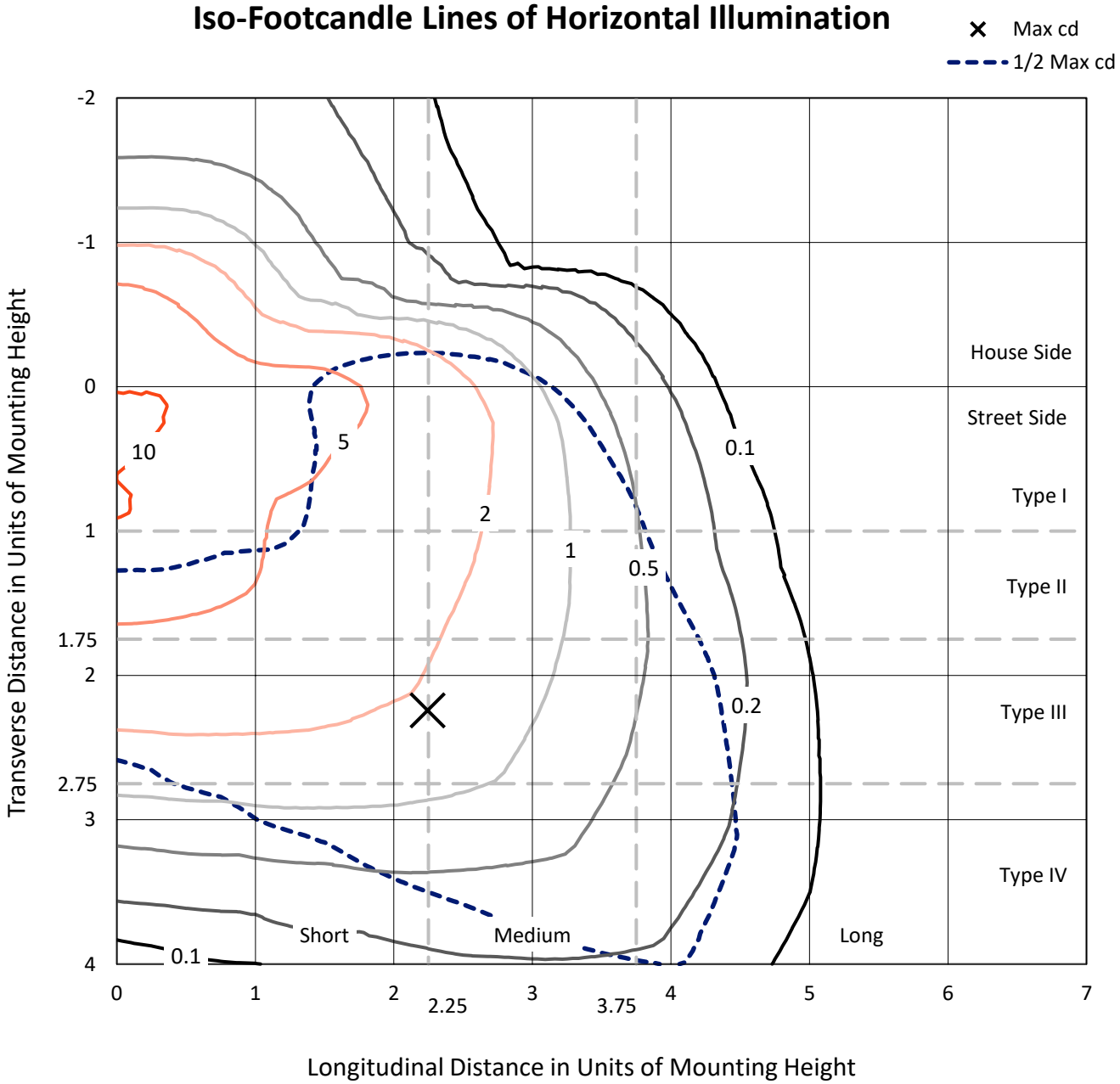


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Scaled Data Report

REPORT NUMBER: P1202663
CATALOG NUMBER: GWC-SB2A-740-U-T4W

## Iso-Footcandle Lines of Horizontal Illumination



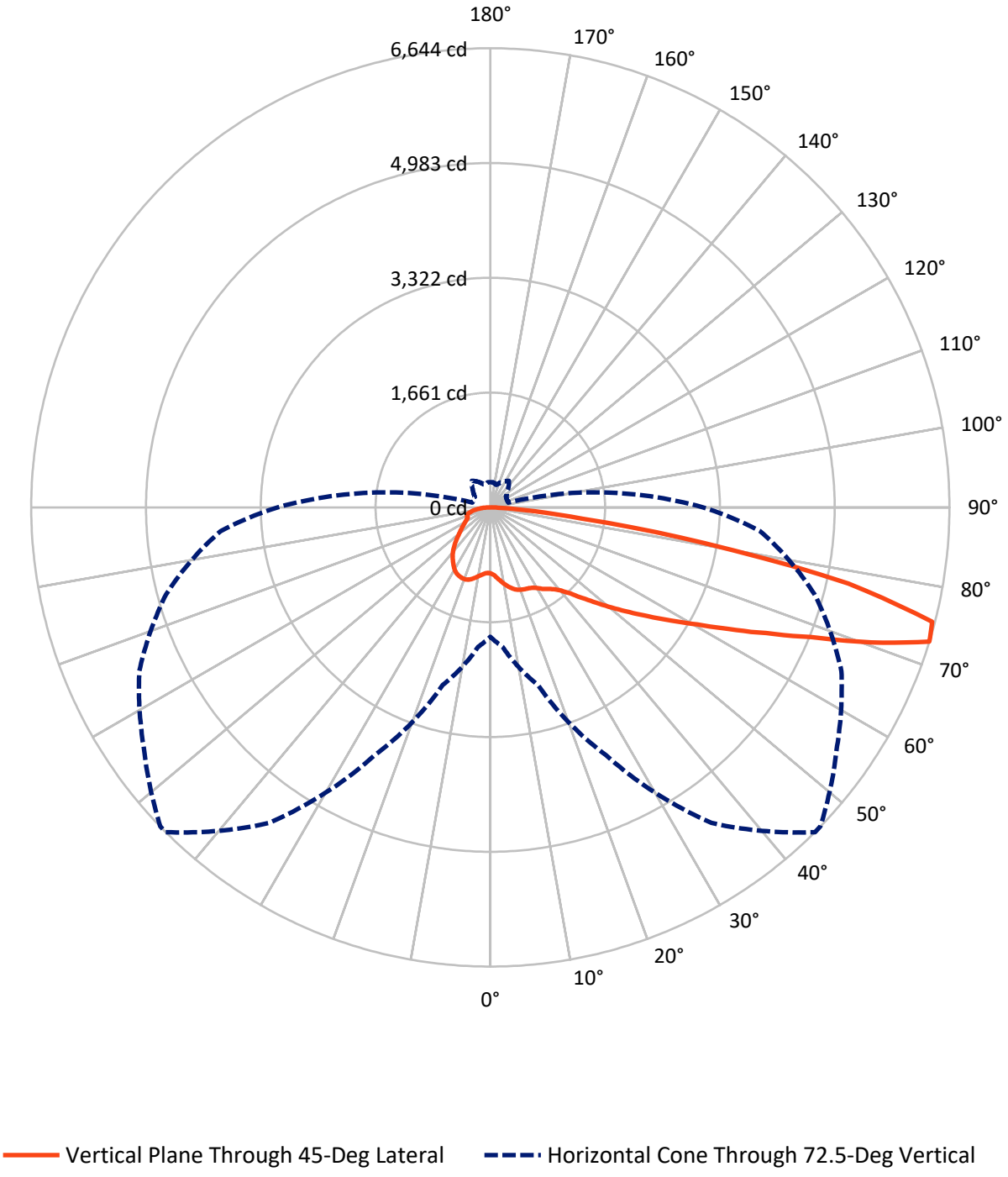

Based on 10 foot mounting height. Maximum calculated value = 11 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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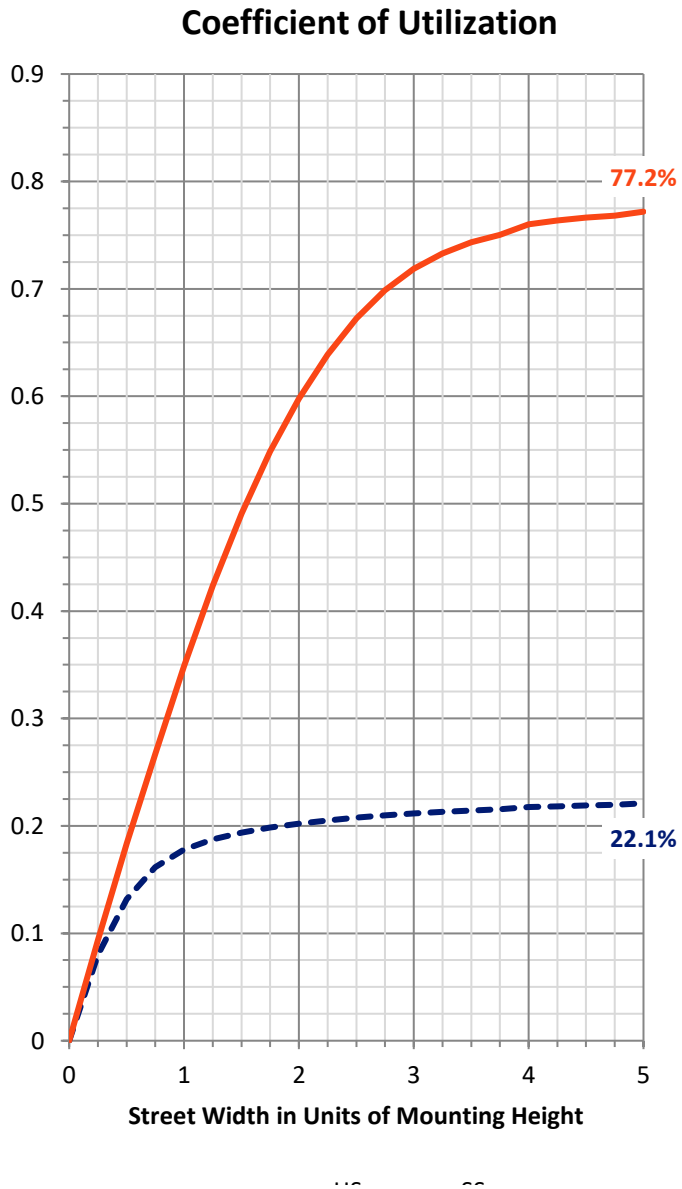
REPORT NUMBER: P1202663
CATALOG NUMBER: GWC-SB2A-740-U-T4W

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2140.8 | 0.0 | 2140.8 |
| | % Fixture | 22.6 | 0.0 | 22.6 |
| **Street Side** | Lumens | 7329.2 | 0.0 | 7329.2 |
| | % Fixture | 77.4 | 0.0 | 77.4 |
| **Total** | Lumens | 9470.0 | 0.0 | 9470.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 97.2 | 1.0 |
| 10°-20° | 324.2 | 3.4 |
| 20°-30° | 564.0 | 6.0 |
| 30°-40° | 808.5 | 8.5 |
| 40°-50° | 1138.4 | 12.0 |
| 50°-60° | 1743.6 | 18.4 |
| 60°-70° | 2525.9 | 26.7 |
| 70°-80° | 2017.1 | 21.3 |
| 80°-90° | 251.2 | 2.7 |
| 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° | 9470.0 | 100.0 |
| 0°-180° | 9470.0 | 100.0 |



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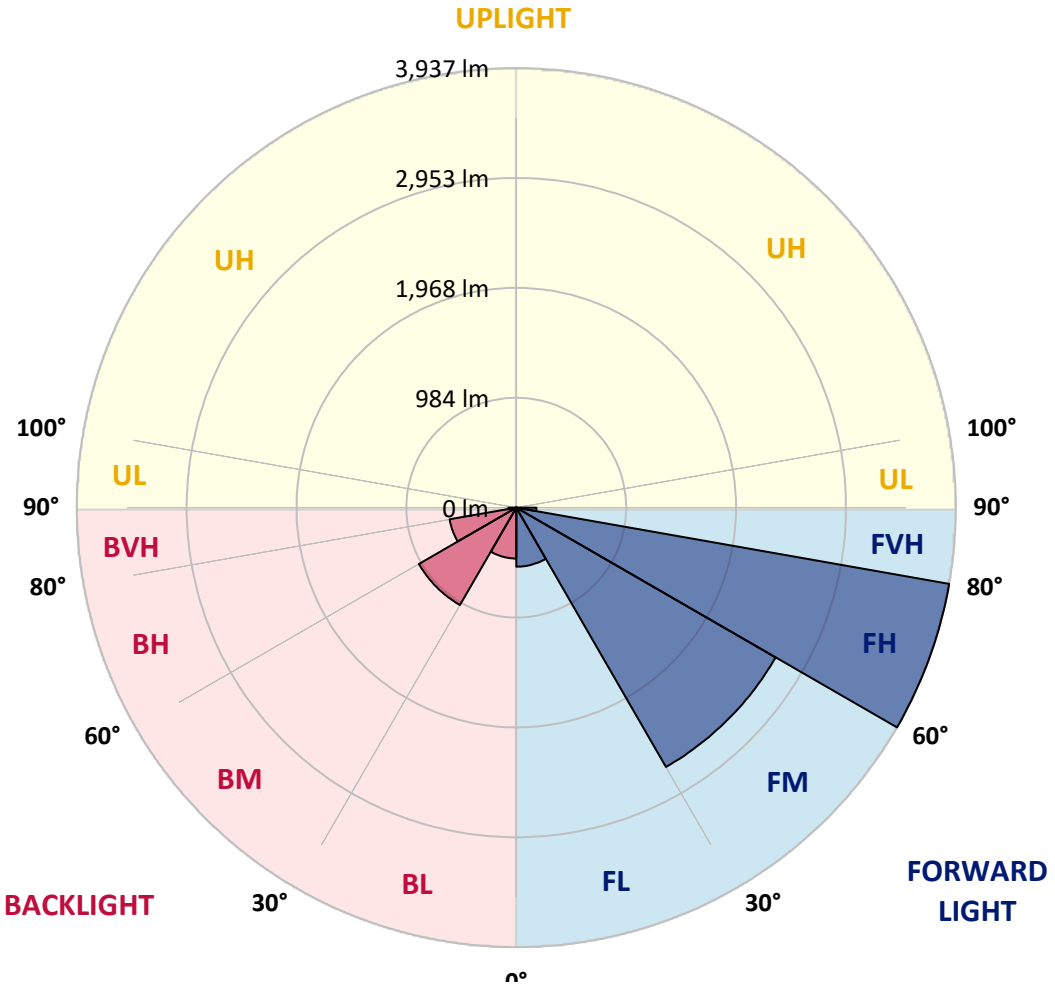
Scaled Data Report

REPORT NUMBER: P1202663
CATALOG NUMBER: GWC-SB2A-740-U-T4W

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 529.6 | 5.6 | | | |
| FM | (30°-60°) | 2682.4 | 28.3 | | | |
| FH | (60°-80°) | 3937.0 | 41.6 | | | G2/5000 |
| FVH | (80°-90°) | 180.2 | 1.9 | | | G2/225 |
| BL | (0°-30°) | 455.8 | 4.8 | B1/500 | | |
| BM | (30°-60°) | 1008.0 | 10.6 | B2/2500 | | |
| BH | (60°-80°) | 606.0 | 6.4 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 71.0 | 0.7 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G2**
Type IV Short



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REPORT NUMBER: P1202663
CATALOG NUMBER: GWC-SB2A-740-U-T4W

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 |
| 2.5° | 992.8 | 999.2 | 993.3 | 987.8 | 985.3 | 978.8 | 978.3 | 974.3 | 971.8 | 964.8 | 962.8 |
| 5° | 1062.1 | 1070.6 | 1060.6 | 1049.6 | 1039.6 | 1023.7 | 1021.7 | 1010.2 | 997.2 | 982.3 | 973.8 |
| 7.5° | 1140.4 | 1147.9 | 1136.4 | 1120.0 | 1102.5 | 1076.1 | 1075.6 | 1054.6 | 1034.2 | 1008.7 | 994.3 |
| 10° | 1208.8 | 1218.7 | 1203.3 | 1180.8 | 1158.9 | 1128.9 | 1125.5 | 1101.5 | 1075.6 | 1042.6 | 1020.7 |
| 12.5° | 1269.1 | 1276.1 | 1261.1 | 1233.7 | 1208.3 | 1178.3 | 1173.8 | 1147.4 | 1118.5 | 1081.1 | 1053.1 |
| 15° | 1317.0 | 1326.0 | 1306.0 | 1276.6 | 1249.7 | 1220.2 | 1216.2 | 1192.3 | 1163.4 | 1124.0 | 1088.0 |
| 17.5° | 1348.4 | 1355.9 | 1335.5 | 1302.6 | 1276.6 | 1252.2 | 1249.2 | 1229.2 | 1203.8 | 1163.9 | 1125.5 |
| 20° | 1360.4 | 1368.4 | 1347.0 | 1313.5 | 1289.6 | 1270.6 | 1269.1 | 1254.7 | 1237.2 | 1200.8 | 1161.9 |
| 22.5° | 1372.4 | 1379.9 | 1351.9 | 1317.0 | 1296.1 | 1284.1 | 1283.6 | 1274.1 | 1267.1 | 1237.2 | 1199.3 |
| 25° | 1420.8 | 1422.8 | 1385.4 | 1335.0 | 1305.0 | 1294.6 | 1294.1 | 1293.6 | 1296.6 | 1273.1 | 1239.7 |
| 27.5° | 1462.7 | 1462.2 | 1430.3 | 1382.9 | 1336.5 | 1314.5 | 1314.0 | 1319.0 | 1328.5 | 1309.0 | 1281.6 |
| 30° | 1524.1 | 1518.6 | 1480.7 | 1431.3 | 1388.9 | 1354.9 | 1351.9 | 1347.5 | 1354.9 | 1339.5 | 1323.5 |
| 32.5° | 1654.3 | 1636.8 | 1575.4 | 1487.6 | 1432.3 | 1406.3 | 1402.3 | 1374.4 | 1377.4 | 1367.9 | 1359.9 |
| 35° | 1840.8 | 1817.9 | 1736.1 | 1594.4 | 1486.1 | 1449.2 | 1447.2 | 1411.8 | 1405.8 | 1397.3 | 1400.3 |
| 37.5° | 2062.8 | 2034.4 | 1939.1 | 1749.0 | 1578.9 | 1499.1 | 1496.1 | 1464.2 | 1439.7 | 1430.8 | 1447.7 |
| 40° | 2285.8 | 2249.9 | 2171.1 | 1937.6 | 1715.6 | 1582.4 | 1572.9 | 1524.6 | 1496.6 | 1481.6 | 1517.6 |
| 42.5° | 2502.3 | 2472.4 | 2405.1 | 2149.1 | 1884.2 | 1704.1 | 1683.2 | 1600.4 | 1579.4 | 1565.5 | 1630.3 |
| 45° | 2693.9 | 2667.0 | 2617.6 | 2375.1 | 2081.8 | 1869.8 | 1849.3 | 1714.1 | 1707.6 | 1707.6 | 1801.4 |
| 47.5° | 2849.6 | 2843.6 | 2791.2 | 2605.6 | 2314.8 | 2058.3 | 2022.9 | 1872.3 | 1889.7 | 1916.7 | 2044.4 |
| 50° | 3022.2 | 3005.7 | 2949.8 | 2832.6 | 2588.6 | 2274.4 | 2245.4 | 2066.3 | 2131.7 | 2205.5 | 2395.6 |
| 52.5° | 3180.8 | 3189.8 | 3127.4 | 3069.1 | 2897.9 | 2515.3 | 2464.4 | 2295.3 | 2436.5 | 2558.7 | 2807.1 |
| 55° | 3343.9 | 3344.4 | 3327.0 | 3319.0 | 3222.2 | 2781.7 | 2725.8 | 2570.7 | 2795.2 | 2946.8 | 3287.1 |
| 57.5° | 3497.1 | 3498.1 | 3524.0 | 3594.4 | 3598.4 | 3089.0 | 3025.7 | 2908.9 | 3193.8 | 3348.4 | 3781.9 |
| 60° | 3633.8 | 3640.8 | 3711.6 | 3876.2 | 3929.1 | 3441.2 | 3381.4 | 3308.5 | 3605.8 | 3761.5 | 4302.3 |
| 62.5° | 3679.7 | 3705.1 | 3862.8 | 4096.7 | 4255.9 | 3873.2 | 3814.4 | 3771.0 | 4038.9 | 4183.5 | 4737.3 |
| 65° | 3601.9 | 3660.2 | 3965.0 | 4278.8 | 4592.1 | 4386.6 | 4328.2 | 4280.8 | 4488.8 | 4625.0 | 5094.5 |
| 67.5° | 3410.8 | 3486.1 | 3959.0 | 4469.9 | 5000.2 | 5004.2 | 4949.8 | 4838.6 | 4971.3 | 5023.6 | 5210.7 |
| 70° | 2907.4 | 3020.2 | 3610.3 | 4541.2 | 5468.6 | 5848.8 | 5796.4 | 5510.0 | 5452.7 | 5199.2 | 4883.5 |
| 72.5° | 1873.3 | 2024.9 | 2658.5 | 3954.1 | 5572.9 | 6643.5 | 6640.5 | 6116.2 | 5604.8 | 4858.0 | 3916.6 |
| 75° | 683.5 | 776.2 | 1235.2 | 2481.9 | 4677.9 | 6603.1 | 6622.5 | 6012.4 | 5116.4 | 3752.5 | 2440.0 |
| 77.5° | 248.9 | 272.4 | 403.1 | 953.8 | 2877.0 | 5298.0 | 5338.4 | 4806.6 | 3641.8 | 1883.2 | 966.8 |
| 80° | 130.7 | 143.7 | 206.5 | 370.2 | 1232.7 | 3146.4 | 3209.7 | 2856.5 | 1711.6 | 567.2 | 289.8 |
| 82.5° | 72.3 | 78.3 | 115.7 | 201.0 | 555.2 | 1345.5 | 1383.4 | 1128.4 | 602.1 | 240.5 | 119.7 |
| 85° | 38.9 | 41.4 | 54.4 | 109.8 | 271.4 | 466.4 | 476.9 | 337.2 | 240.0 | 141.2 | 57.9 |
| 87.5° | 11.5 | 14.0 | 18.0 | 34.9 | 106.3 | 104.8 | 107.3 | 66.8 | 94.8 | 71.3 | 19.0 |
| 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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Scaled Data Report

REPORT NUMBER: P1202663
CATALOG NUMBER: GWC-SB2A-740-U-T4W

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 | 955.3 |
| 2.5° | 959.8 | 958.3 | 952.8 | 950.3 | 947.4 | 946.9 | 949.4 | 949.9 | 950.3 | 950.8 | 952.8 |
| 5° | 968.8 | 963.8 | 958.8 | 955.8 | 956.8 | 957.3 | 962.3 | 965.8 | 968.3 | 970.3 | 971.3 |
| 7.5° | 986.3 | 982.3 | 973.8 | 973.3 | 974.8 | 979.3 | 985.8 | 993.8 | 998.2 | 1001.7 | 1002.7 |
| 10° | 1012.2 | 1004.7 | 994.7 | 996.2 | 999.2 | 1005.7 | 1019.2 | 1025.7 | 1033.2 | 1039.6 | 1038.2 |
| 12.5° | 1038.7 | 1032.2 | 1020.7 | 1021.7 | 1026.7 | 1038.2 | 1051.1 | 1059.1 | 1064.1 | 1069.1 | 1071.1 |
| 15° | 1073.1 | 1061.6 | 1049.1 | 1049.1 | 1058.1 | 1070.6 | 1076.6 | 1083.0 | 1086.0 | 1091.5 | 1093.5 |
| 17.5° | 1108.5 | 1093.5 | 1077.1 | 1076.1 | 1087.0 | 1093.0 | 1096.5 | 1097.5 | 1098.5 | 1104.5 | 1106.5 |
| 20° | 1143.9 | 1127.4 | 1104.0 | 1102.0 | 1104.5 | 1103.5 | 1103.0 | 1102.0 | 1103.5 | 1111.0 | 1114.0 |
| 22.5° | 1178.8 | 1159.9 | 1127.4 | 1118.5 | 1111.5 | 1102.0 | 1101.5 | 1101.0 | 1102.0 | 1109.5 | 1114.5 |
| 25° | 1219.7 | 1196.8 | 1153.4 | 1126.5 | 1103.0 | 1090.0 | 1091.5 | 1092.0 | 1093.0 | 1099.0 | 1107.0 |
| 27.5° | 1264.1 | 1238.7 | 1177.3 | 1124.0 | 1081.6 | 1072.6 | 1070.1 | 1071.6 | 1075.1 | 1084.5 | 1094.0 |
| 30° | 1308.5 | 1278.6 | 1199.3 | 1114.0 | 1054.6 | 1042.1 | 1034.2 | 1037.7 | 1048.6 | 1058.1 | 1068.6 |
| 32.5° | 1348.9 | 1319.0 | 1216.7 | 1092.0 | 1020.2 | 1000.7 | 990.3 | 994.7 | 1005.7 | 1009.2 | 1021.7 |
| 35° | 1396.3 | 1362.4 | 1224.2 | 1057.1 | 982.8 | 952.8 | 938.9 | 932.4 | 937.9 | 934.4 | 945.4 |
| 37.5° | 1449.2 | 1413.8 | 1223.2 | 1011.2 | 938.9 | 904.5 | 885.0 | 860.6 | 849.1 | 837.1 | 844.6 |
| 40° | 1527.5 | 1476.7 | 1211.3 | 955.8 | 884.5 | 853.1 | 818.1 | 776.7 | 750.8 | 727.4 | 728.9 |
| 42.5° | 1634.3 | 1564.0 | 1189.3 | 895.0 | 823.1 | 793.7 | 746.3 | 697.9 | 657.0 | 618.1 | 614.6 |
| 45° | 1793.4 | 1678.2 | 1161.9 | 830.1 | 756.8 | 727.9 | 676.5 | 622.1 | 575.7 | 525.8 | 519.8 |
| 47.5° | 2022.9 | 1831.9 | 1135.9 | 756.3 | 686.9 | 660.5 | 614.1 | 563.7 | 508.8 | 460.5 | 455.0 |
| 50° | 2338.2 | 2052.4 | 1112.0 | 684.5 | 618.1 | 598.1 | 561.2 | 509.8 | 454.5 | 415.6 | 413.1 |
| 52.5° | 2739.3 | 2352.2 | 1102.0 | 615.1 | 553.7 | 546.3 | 516.8 | 468.9 | 416.6 | 383.6 | 381.1 |
| 55° | 3199.8 | 2710.9 | 1102.0 | 548.8 | 497.4 | 499.9 | 479.4 | 435.0 | 389.6 | 360.2 | 357.2 |
| 57.5° | 3669.7 | 3074.0 | 1082.1 | 487.4 | 449.5 | 460.0 | 447.0 | 408.1 | 367.2 | 336.7 | 331.7 |
| 60° | 4102.7 | 3378.4 | 1001.2 | 431.5 | 407.1 | 423.5 | 415.1 | 381.6 | 331.7 | 306.3 | 302.3 |
| 62.5° | 4435.5 | 3550.0 | 845.6 | 387.1 | 372.2 | 391.1 | 386.6 | 346.7 | 325.3 | 314.8 | 311.3 |
| 65° | 4602.1 | 3522.0 | 646.5 | 347.7 | 342.7 | 372.2 | 362.7 | 361.2 | 344.2 | 332.2 | 328.3 |
| 67.5° | 4499.8 | 3281.6 | 468.9 | 318.8 | 325.8 | 354.7 | 391.1 | 397.1 | 365.7 | 342.2 | 338.2 |
| 70° | 4051.3 | 2846.6 | 349.2 | 291.3 | 304.3 | 355.2 | 446.0 | 415.6 | 358.7 | 331.3 | 326.8 |
| 72.5° | *3082.0* | *2122.7* | *270.9* | *262.4* | *276.4* | *357.7* | *470.4* | *407.1* | *338.7* | *366.2* | *363.2* |
| 75° | 1762.5 | 1165.4 | 217.5 | 227.0 | 241.5 | 334.2 | 458.0 | 385.1 | 323.3 | 336.2 | 336.2 |
| 77.5° | 672.0 | 448.0 | 179.6 | 192.1 | 194.1 | 291.8 | 438.0 | 383.6 | 307.8 | 300.3 | 273.9 |
| 80° | 233.0 | 175.1 | 148.7 | 152.7 | 150.2 | 259.4 | 420.0 | 333.7 | 251.9 | 225.5 | 218.0 |
| 82.5° | 95.3 | 87.3 | 117.7 | 112.7 | 106.8 | 201.5 | 339.2 | 272.9 | 206.0 | 182.1 | 180.1 |
| 85° | 41.4 | 55.4 | 77.8 | 68.3 | 61.9 | 139.7 | 271.9 | 231.0 | 174.1 | 150.2 | 149.7 |
| 87.5° | 8.5 | 21.0 | 32.9 | 30.9 | 31.9 | 93.3 | 193.1 | 164.1 | 123.2 | 92.3 | 72.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


HS
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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: SP1-1908-441-3-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-740-U-5WQ

Data in this report applies to families of products SA1C-740-U-5WQ

Data valid for all products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

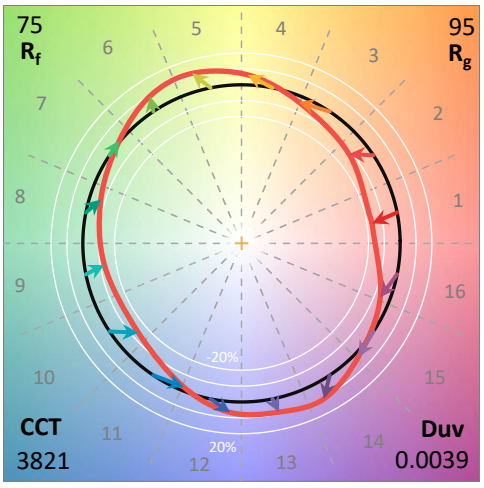
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-3-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 11/05/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-740-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-3-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 4000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 3821 | CRI (Ra): | 72.3 | | |
| CIE u': | 0.2264 | R1: | 68.5 | R9: | -33.5 |
| CIE v': | 0.5098 | R2: | 78.5 | R10: | 50.8 |
| Duv: | 0.0039 | R3: | 88.2 | R11: | 69.2 |
| CIE x: | 0.3918 | R4: | 72.2 | R12: | 48.9 |
| CIE y: | 0.3921 | R5: | 69.0 | R13: | 69.8 |
| CIE z: | 0.2161 | R6: | 71.0 | R14: | 93.4 |
| Peak Wavelength (nm): | 585 | R7: | 80.4 | | |
| Dominant Wavelength (nm): | 577 | R8: | 50.4 | | |
| Purity: | 35.4 | | | | |

| | |
|---|---|
| Rf: | 75.5 |
| Rg: | 94.8 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 67M |
| 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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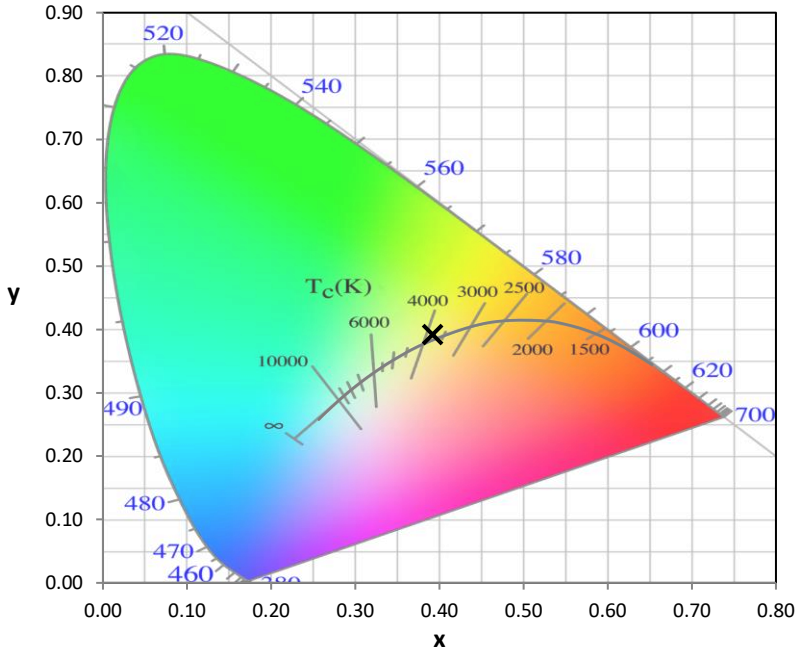
REPORT NUMBER: SP1-1908-441-3-R4

| 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 |

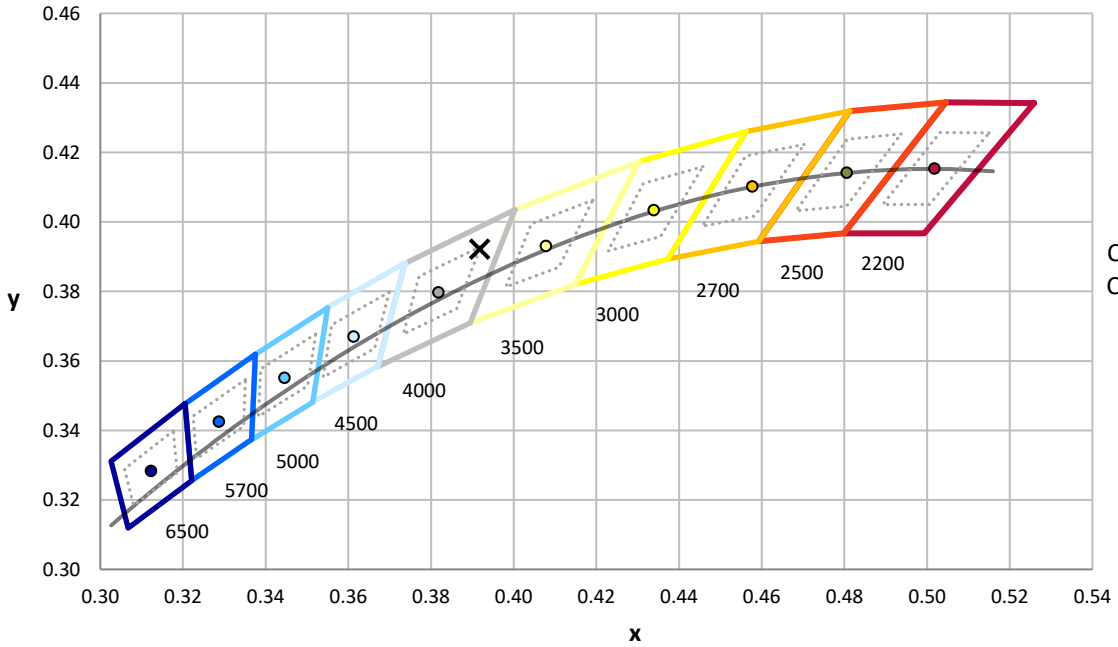
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REPORT NUMBER: SP1-1908-441-3-R4

## CIE 1931 Chromaticity Diagram




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



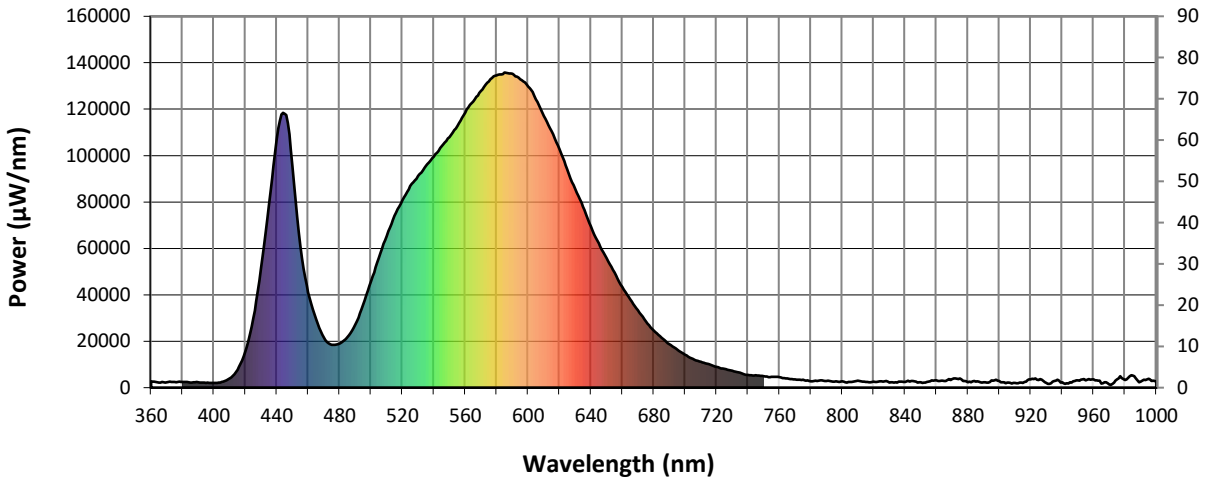

CCT = 3821K
CIE x = 0.3918
CIE y = 0.3921
Duv = 0.0039

Point lies inside the ANSI 4000K 7-step quadrangle

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## Photopic Flux vs. Wavelength



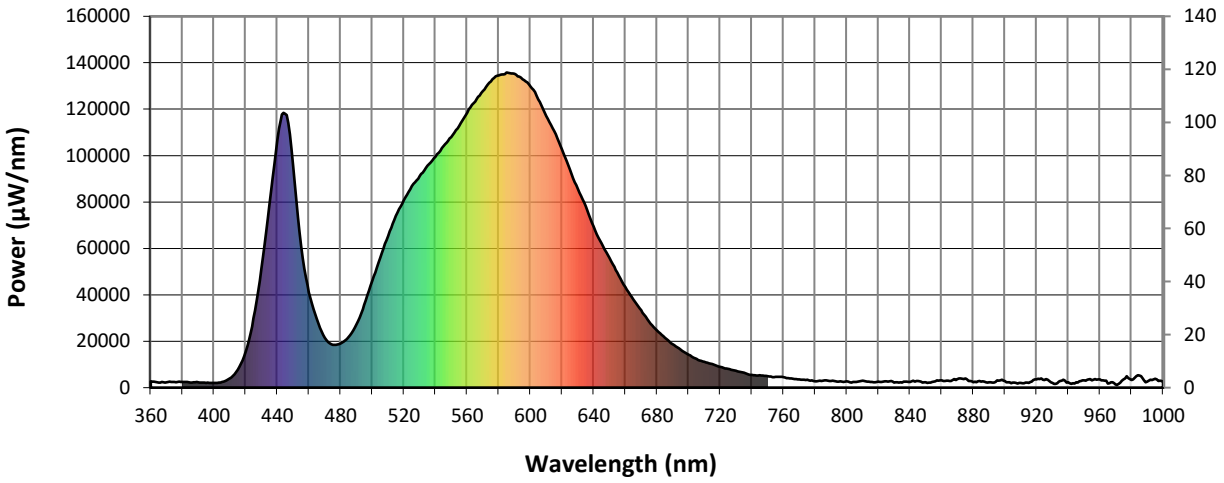

######

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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## Scotopic Flux vs. Wavelength



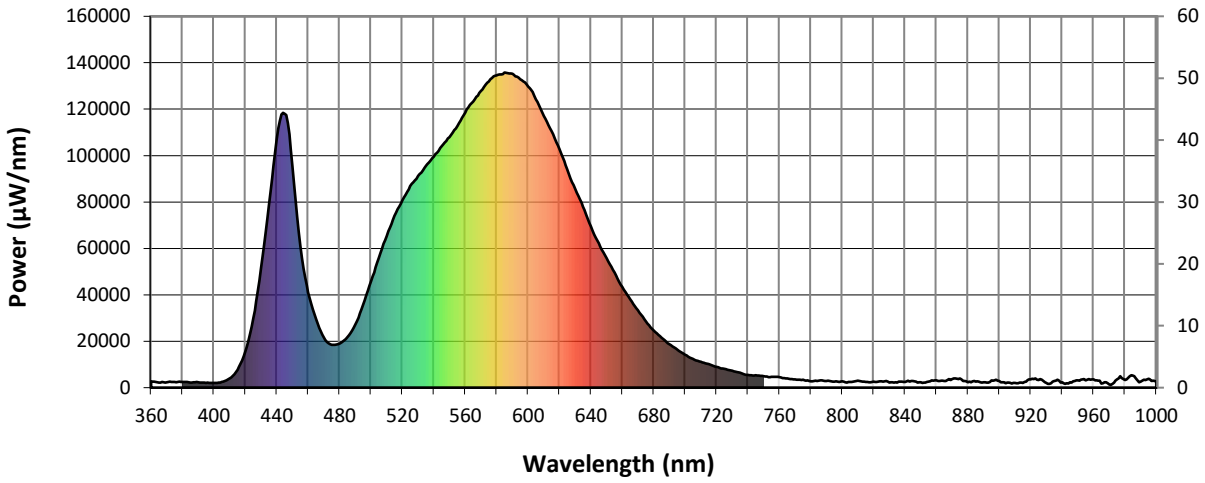

**Scotopic Lumens: 10930.8** **S/P: 1.47**

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 4115.9** **M/P: 0.55**

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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Peachtree City, GA 30269

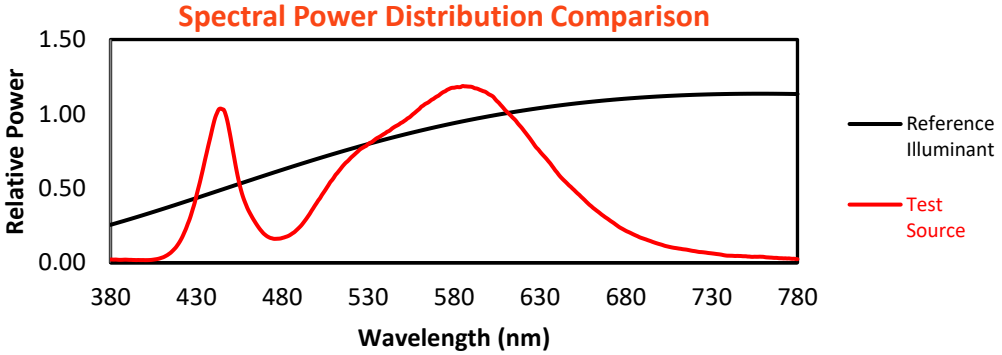
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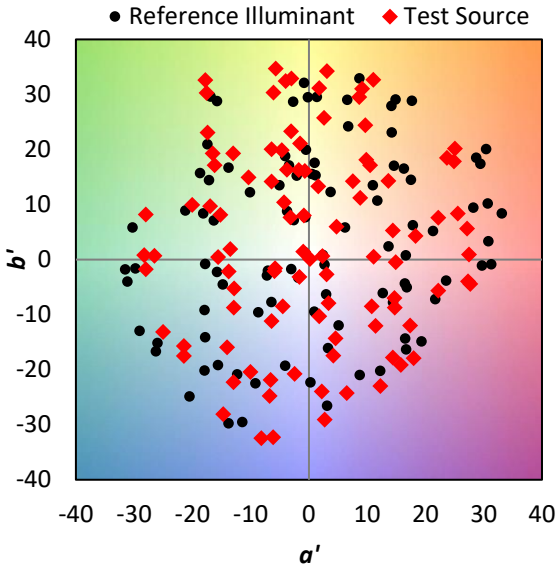
## Summary

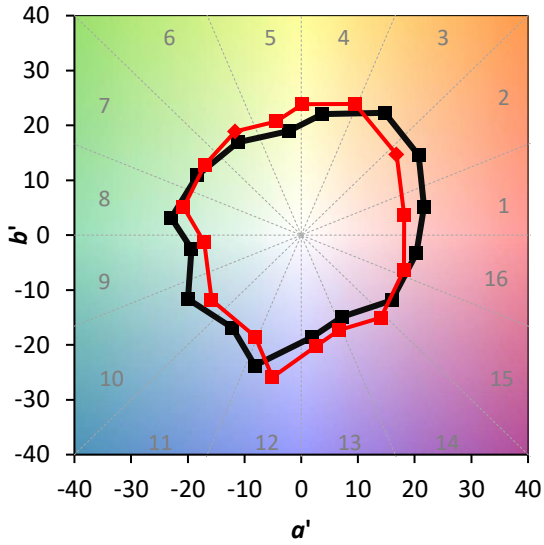
$R_f$ = 75.5
$R_g$ = 94.8
CIE $R_a$ = 72.3
$R_9$ = -33.5

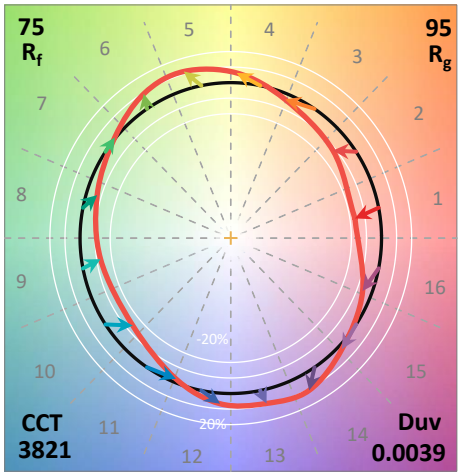
## Spectral Power Distribution Comparison

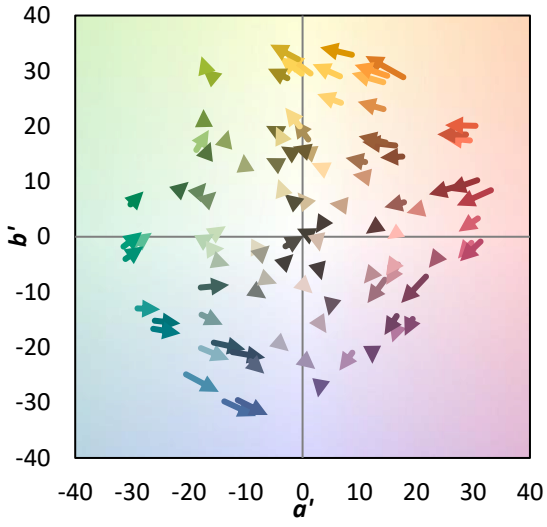



## Color Vector Graphics



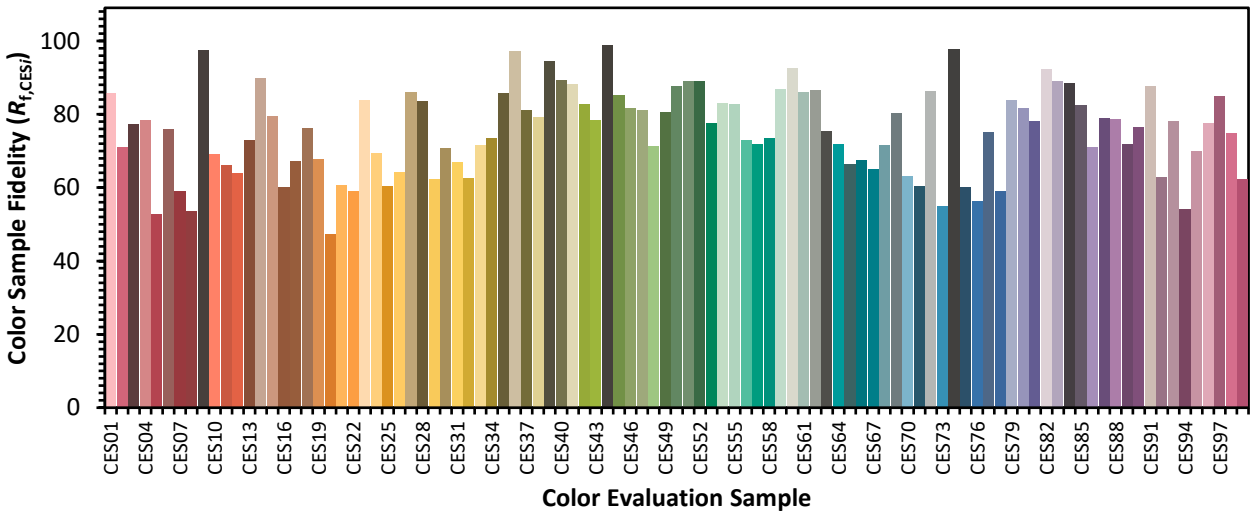
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 64 | CES51 = 89 | CES76 = 56 |
| CES02 = 61 | CES27 = 86 | CES52 = 89 | CES77 = 75 |
| CES03 = 30 | CES28 = 83 | CES53 = 78 | CES78 = 59 |
| CES04 = 70 | CES29 = 62 | CES54 = 83 | CES79 = 84 |
| CES05 = 47 | CES30 = 71 | CES55 = 83 | CES80 = 82 |
| CES06 = 50 | CES31 = 67 | CES56 = 73 | CES81 = 78 |
| CES07 = 40 | CES32 = 63 | CES57 = 72 | CES82 = 92 |
| CES08 = 39 | CES33 = 72 | CES58 = 73 | CES83 = 89 |
| CES09 = 29 | CES34 = 73 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 86 | CES60 = 92 | CES85 = 83 |
| CES11 = 57 | CES36 = 97 | CES61 = 86 | CES86 = 71 |
| CES12 = 63 | CES37 = 81 | CES62 = 87 | CES87 = 79 |
| CES13 = 42 | CES38 = 79 | CES63 = 75 | CES88 = 79 |
| CES14 = 74 | CES39 = 94 | CES64 = 72 | CES89 = 72 |
| CES15 = 71 | CES40 = 89 | CES65 = 66 | CES90 = 77 |
| CES16 = 46 | CES41 = 88 | CES66 = 67 | CES91 = 88 |
| CES17 = 49 | CES42 = 83 | CES67 = 65 | CES92 = 63 |
| CES18 = 56 | CES43 = 78 | CES68 = 71 | CES93 = 78 |
| CES19 = 72 | CES44 = 99 | CES69 = 80 | CES94 = 54 |
| CES20 = 65 | CES45 = 85 | CES70 = 63 | CES95 = 70 |
| CES21 = 86 | CES46 = 82 | CES71 = 60 | CES96 = 78 |
| CES22 = 78 | CES47 = 81 | CES72 = 86 | CES97 = 85 |
| CES23 = 92 | CES48 = 71 | CES73 = 55 | CES98 = 75 |
| CES24 = 91 | CES49 = 81 | CES74 = 98 | CES99 = 62 |
| CES25 = 72 | CES50 = 88 | CES75 = 60 | |

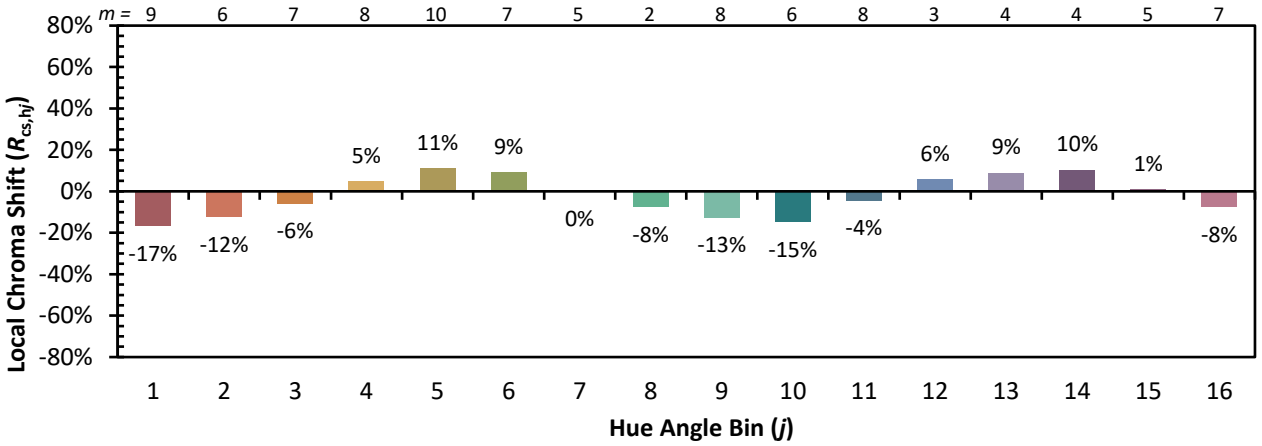


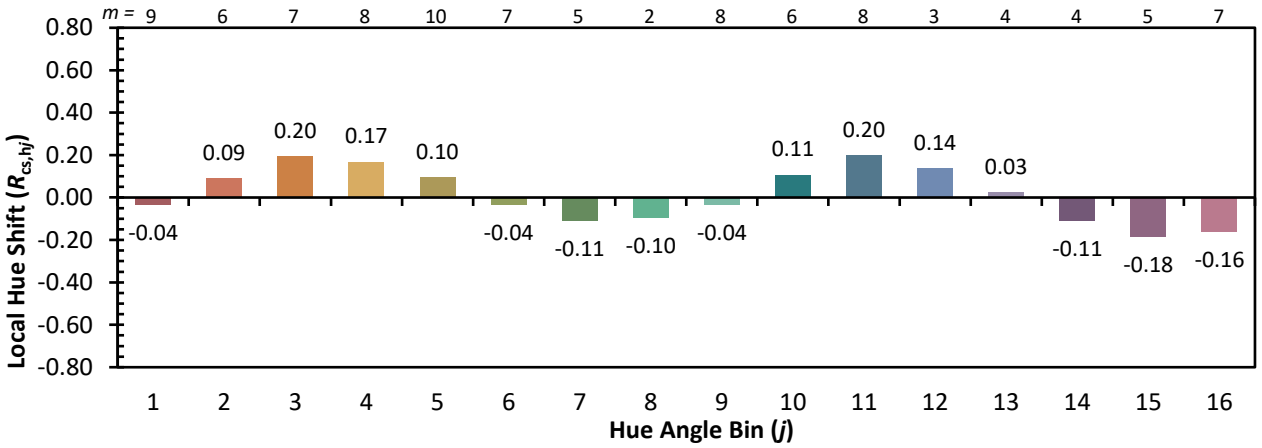
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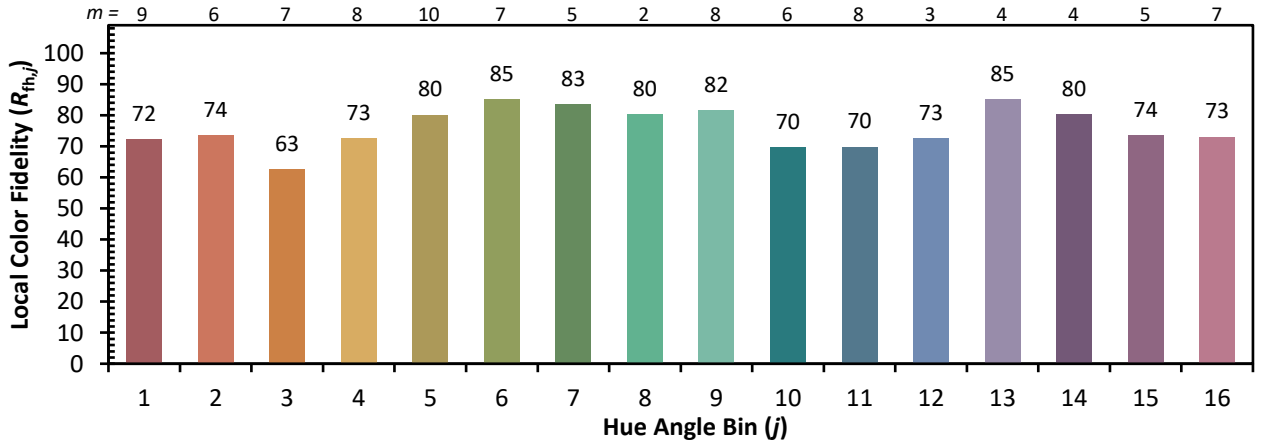
REPORT NUMBER: SP1-1908-441-3-R4

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### Color Rendition by Hue-Angle Bin



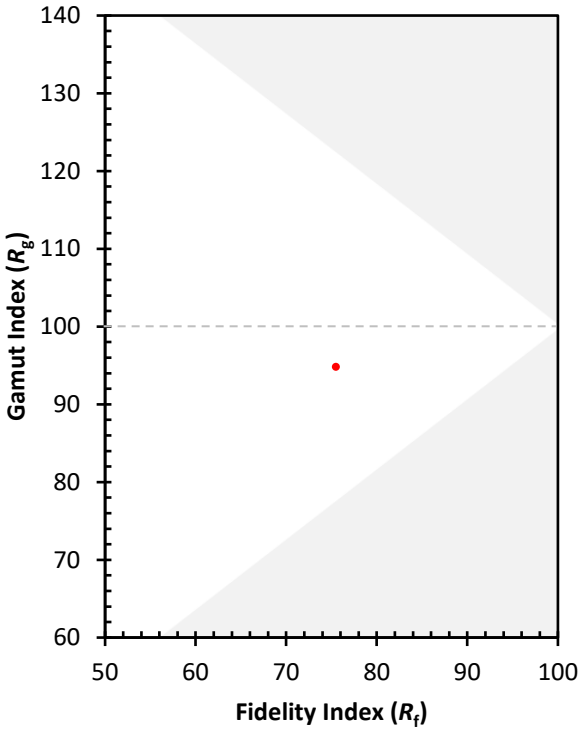



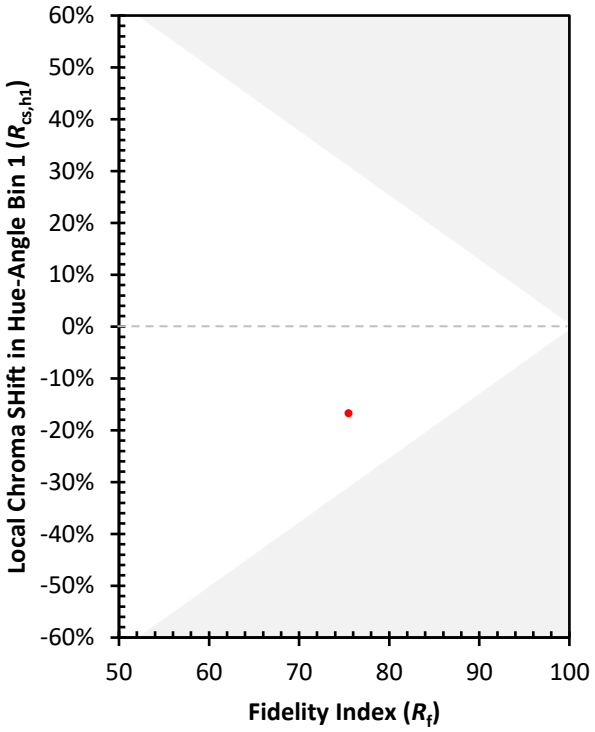
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### Measure Comparisons




(END OF REPORT)