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: P1199683

Luminaire Tested: GPC-SB2B-727-U-T4FT

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: | P1199683 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2B-727-U-T4FT |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV FORWARD THRC OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 10322 lumens |
| Efficiency: | N/A |
| Efficacy: | 139.7 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): | 73.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.627 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.988 |
| Total Harmonic Distortion (THDi): | 13.593 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

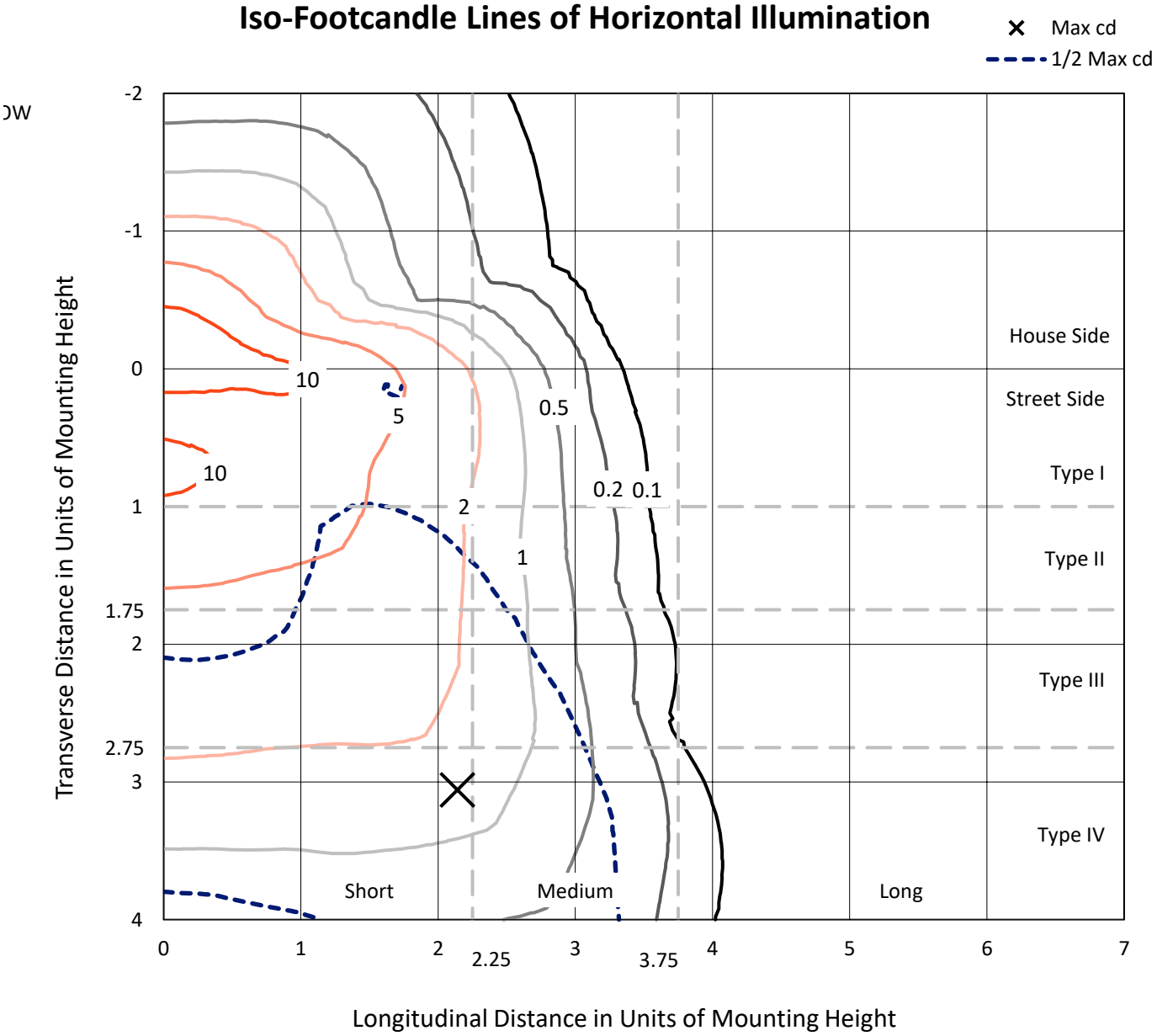


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Scaled Data Report

REPORT NUMBER: P1199683
CATALOG NUMBER: GPC-SB2B-727-U-T4FT

## Iso-Footcandle Lines of Horizontal Illumination



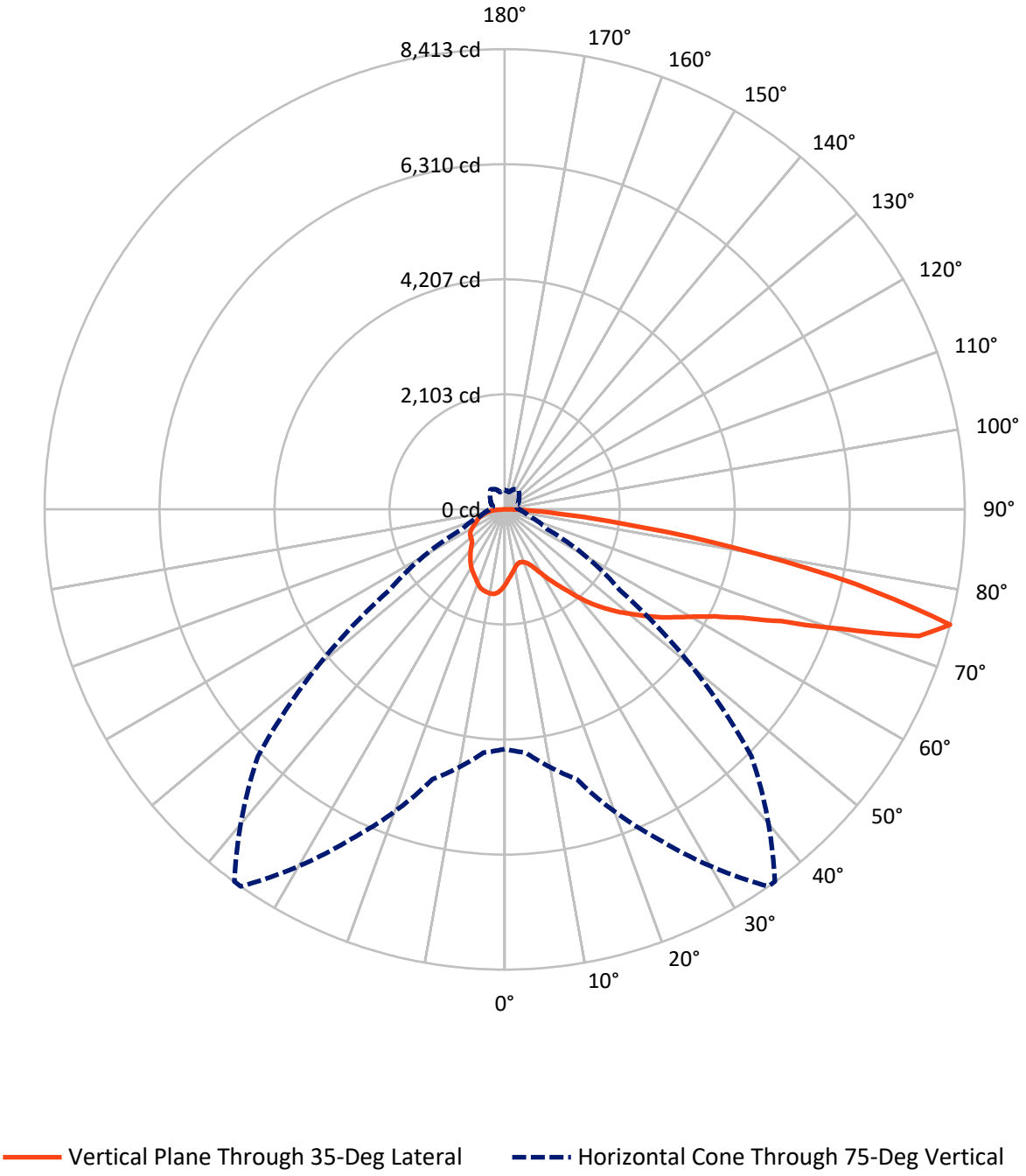

Based on 10 foot mounting height. Maximum calculated value = 15.2 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

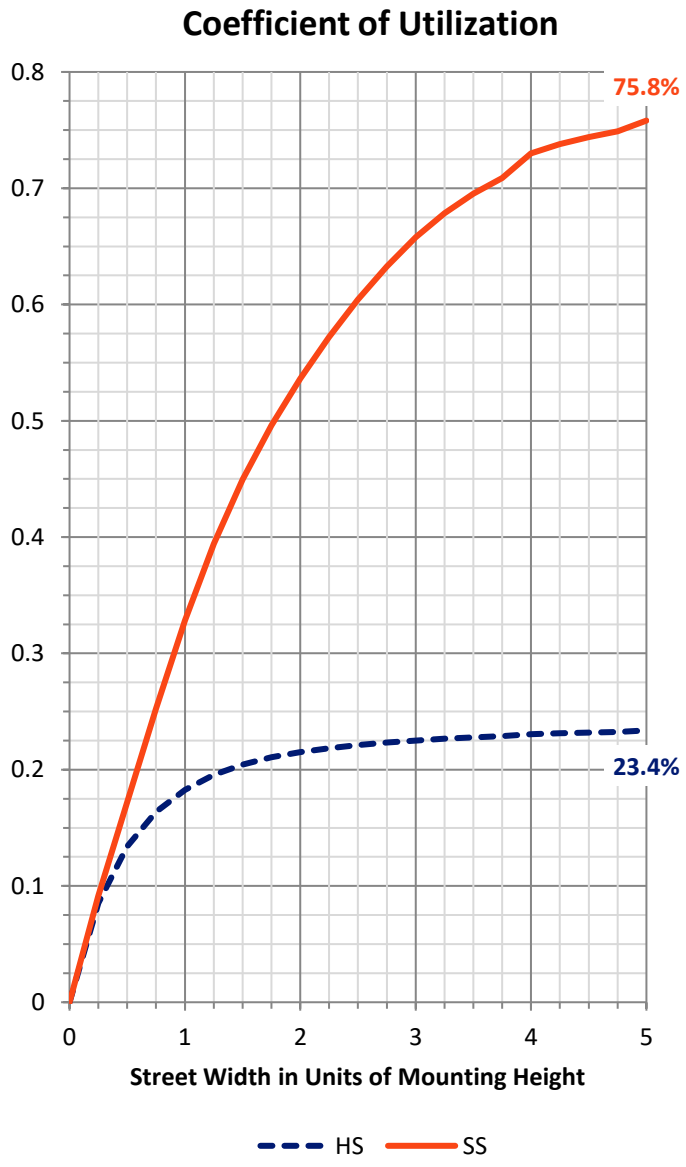
REPORT NUMBER: P1199683
CATALOG NUMBER: GPC-SB2B-727-U-T4FT

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2456.4 | 0.0 | 2456.4 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| **Street Side** | Lumens | 7865.6 | 0.0 | 7865.6 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| **Total** | Lumens | 10322.0 | 0.0 | 10322.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 130.2 | 1.3 |
| 10°-20° | 375.6 | 3.6 |
| 20°-30° | 630.8 | 6.1 |
| 30°-40° | 980.3 | 9.5 |
| 40°-50° | 1455.1 | 14.1 |
| 50°-60° | 2008.8 | 19.5 |
| 60°-70° | 2437.2 | 23.6 |
| 70°-80° | 2014.1 | 19.5 |
| 80°-90° | 289.7 | 2.8 |
| 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° | 10322.0 | 100.0 |
| 0°-180° | 10322.0 | 100.0 |



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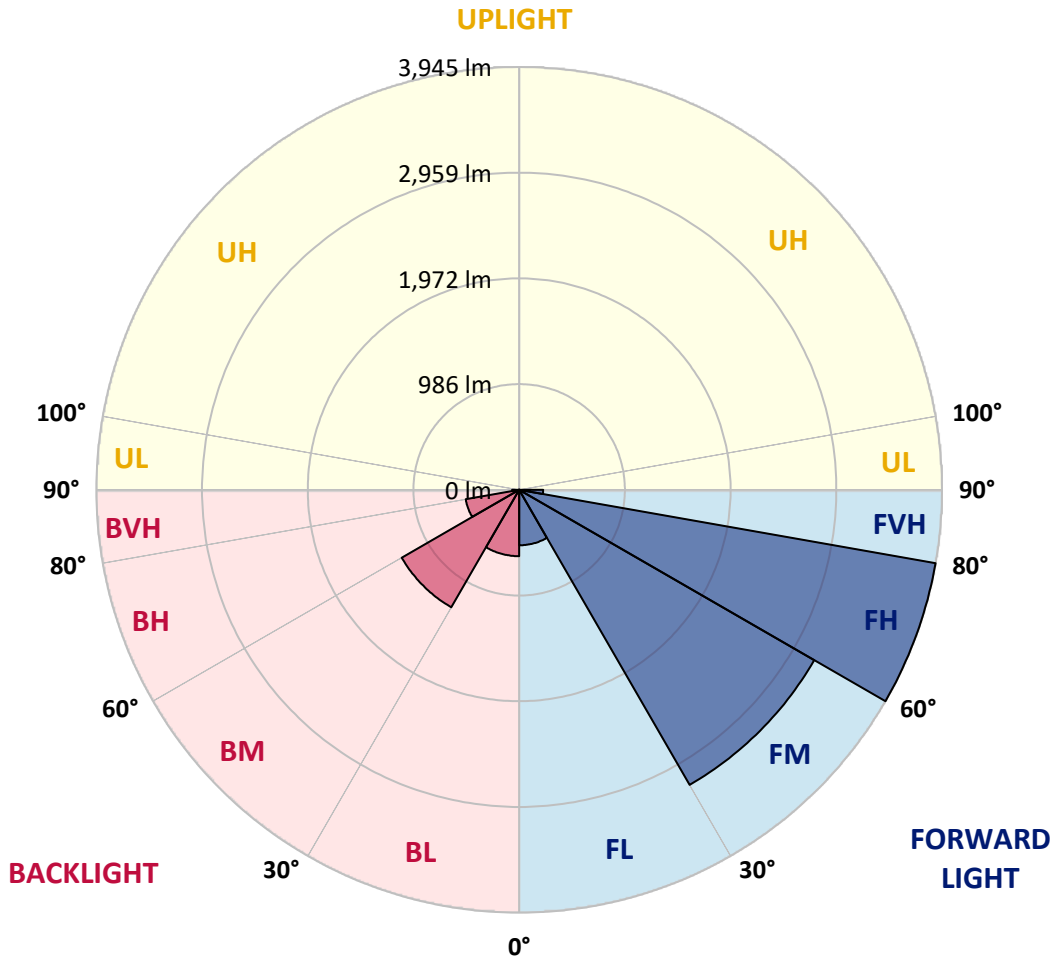
Scaled Data Report

REPORT NUMBER: P1199683
CATALOG NUMBER: GPC-SB2B-727-U-T4FT

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 517.6 | 5.0 | | | |
| FM | (30°-60°) | 3178.6 | 30.8 | | | |
| FH | (60°-80°) | 3944.9 | 38.2 | | | G2/5000 |
| FVH | (80°-90°) | 224.5 | 2.2 | | | G2/225 |
| BL | (0°-30°) | 619.0 | 6.0 | B2/1000 | | |
| BM | (30°-60°) | 1265.7 | 12.3 | B2/2500 | | |
| BH | (60°-80°) | 506.4 | 4.9 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 65.2 | 0.6 | | | 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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Scaled Data Report

REPORT NUMBER: P1199683
CATALOG NUMBER: GPC-SB2B-727-U-T4FT

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 |
| 2.5° | 1268.3 | 1276.2 | 1279.5 | 1277.8 | 1286.2 | 1285.1 | 1296.8 | 1311.3 | 1331.4 | 1350.9 | 1379.4 |
| 5° | 1170.7 | 1179.1 | 1186.3 | 1193.0 | 1209.2 | 1214.2 | 1232.6 | 1260.5 | 1297.4 | 1334.7 | 1381.6 |
| 7.5° | 1079.7 | 1087.0 | 1098.1 | 1110.4 | 1137.8 | 1142.8 | 1173.5 | 1217.0 | 1268.3 | 1323.0 | 1387.8 |
| 10° | 1005.5 | 1012.8 | 1024.5 | 1038.4 | 1072.5 | 1078.6 | 1117.7 | 1175.7 | 1242.7 | 1311.9 | 1394.4 |
| 12.5° | 973.7 | 975.9 | 982.6 | 996.6 | 1026.2 | 1030.1 | 1073.0 | 1139.4 | 1217.6 | 1303.5 | 1404.5 |
| 15° | 972.0 | 976.5 | 977.1 | 984.3 | 1008.9 | 1010.5 | 1050.2 | 1116.0 | 1201.9 | 1301.8 | 1419.6 |
| 17.5° | 988.8 | 992.1 | 987.1 | 991.6 | 1012.2 | 1015.0 | 1046.3 | 1104.8 | 1196.9 | 1309.1 | 1445.2 |
| 20° | 1033.4 | 1036.2 | 1021.1 | 1015.0 | 1030.1 | 1032.3 | 1063.0 | 1112.1 | 1201.9 | 1324.1 | 1480.4 |
| 22.5° | 1128.3 | 1130.0 | 1093.1 | 1068.0 | 1069.1 | 1070.2 | 1097.0 | 1141.7 | 1221.5 | 1351.5 | 1525.0 |
| 25° | 1276.2 | 1275.0 | 1216.4 | 1167.9 | 1140.0 | 1133.9 | 1151.7 | 1189.7 | 1254.4 | 1387.8 | 1582.5 |
| 27.5° | 1449.1 | 1440.8 | 1382.2 | 1309.6 | 1248.8 | 1239.9 | 1236.0 | 1252.2 | 1301.3 | 1435.7 | 1652.8 |
| 30° | 1644.4 | 1636.6 | 1573.6 | 1478.7 | 1394.4 | 1379.9 | 1343.1 | 1334.7 | 1371.0 | 1501.0 | 1750.5 |
| 32.5° | 1858.7 | 1853.7 | 1778.4 | 1663.4 | 1550.7 | 1533.9 | 1472.0 | 1449.7 | 1478.1 | 1599.8 | 1886.6 |
| 35° | 2038.4 | 2033.9 | 1971.4 | 1853.1 | 1715.3 | 1694.7 | 1631.6 | 1606.5 | 1621.0 | 1726.5 | 2064.6 |
| 37.5° | 2200.8 | 2198.5 | 2145.0 | 2051.8 | 1909.5 | 1884.4 | 1813.5 | 1805.1 | 1802.3 | 1893.3 | 2280.6 |
| 40° | 2351.4 | 2345.8 | 2290.0 | 2240.9 | 2135.5 | 2112.6 | 2050.1 | 2042.8 | 2021.6 | 2098.6 | 2525.0 |
| 42.5° | 2518.3 | 2503.8 | 2422.8 | 2400.0 | 2371.5 | 2352.5 | 2315.2 | 2316.3 | 2269.4 | 2330.2 | 2783.9 |
| 45° | 2654.4 | 2646.0 | 2562.9 | 2549.5 | 2580.2 | 2572.4 | 2604.8 | 2613.1 | 2522.2 | 2572.9 | 3052.8 |
| 47.5° | 2800.6 | 2792.8 | 2722.5 | 2713.0 | 2796.2 | 2798.4 | 2912.8 | 2915.6 | 2768.8 | 2825.2 | 3322.3 |
| 50° | 2980.8 | 2969.7 | 2899.9 | 2911.7 | 3004.8 | 3013.2 | 3222.5 | 3203.5 | 2995.9 | 3081.3 | 3589.6 |
| 52.5° | 3099.7 | 3106.4 | 3091.3 | 3110.3 | 3237.5 | 3245.3 | 3527.1 | 3478.6 | 3220.8 | 3334.1 | 3851.9 |
| 55° | 3187.3 | 3200.7 | 3247.6 | 3291.1 | 3483.1 | 3490.9 | 3814.5 | 3740.3 | 3407.2 | 3568.4 | 4098.5 |
| 57.5° | 3300.0 | 3281.1 | 3368.7 | 3453.5 | 3716.3 | 3736.9 | 4094.1 | 3992.5 | 3572.3 | 3770.4 | 4267.6 |
| 60° | 3461.8 | 3448.5 | 3516.5 | 3642.1 | 3977.4 | 4010.4 | 4389.8 | 4219.6 | 3693.4 | 3930.6 | 4300.5 |
| 62.5° | 3790.0 | 3756.5 | 3767.1 | 3878.1 | 4306.7 | 4350.2 | 4723.5 | 4417.7 | 3753.7 | 3993.1 | 4124.2 |
| 65° | 4280.4 | 4223.0 | 4169.4 | 4246.4 | 4770.4 | 4813.3 | 5100.1 | 4573.4 | 3731.4 | 3872.0 | 3656.0 |
| 67.5° | 4898.1 | 4841.2 | 4775.4 | 4847.9 | 5453.4 | 5487.4 | 5565.0 | 4661.0 | 3555.6 | 3405.5 | 2828.5 |
| 70° | 5407.6 | 5386.4 | 5465.1 | 5763.6 | 6544.3 | 6545.4 | 6160.9 | 4588.5 | 3074.0 | 2414.5 | 1636.6 |
| 72.5° | 5340.1 | 5327.3 | 5741.8 | 6664.8 | 7919.2 | 7889.6 | 6725.0 | 4039.4 | 2070.7 | 1089.2 | 613.2 |
| 75° | 4380.9 | 4464.0 | 5106.3 | 6648.6 | 8413.0 | 8409.1 | 6379.6 | 2567.9 | 856.5 | 451.4 | 316.9 |
| 77.5° | 2349.2 | 2480.9 | 3315.1 | 4908.7 | 6567.7 | 6666.5 | 4485.2 | 898.4 | 367.7 | 289.0 | 219.3 |
| 80° | 766.1 | 881.1 | 1321.4 | 2499.3 | 4267.6 | 4249.2 | 1922.3 | 352.7 | 251.7 | 204.8 | 151.8 |
| 82.5° | 325.3 | 338.7 | 590.4 | 1180.2 | 2190.2 | 2156.1 | 612.1 | 202.6 | 176.9 | 140.1 | 93.7 |
| 85° | 127.2 | 142.3 | 260.6 | 545.7 | 948.6 | 928.0 | 221.0 | 100.4 | 113.3 | 91.5 | 55.8 |
| 87.5° | 41.9 | 50.8 | 93.2 | 186.9 | 295.2 | 284.6 | 54.1 | 34.6 | 49.1 | 41.9 | 20.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report

REPORT NUMBER: P1199683
CATALOG NUMBER: GPC-SB2B-727-U-T4FT

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 | 1375.5 |
| 2.5° | 1387.2 | 1396.1 | 1406.7 | 1422.3 | 1435.7 | 1446.9 | 1458.6 | 1465.9 | 1468.7 | 1477.0 | 1476.5 |
| 5° | 1397.2 | 1416.8 | 1443.0 | 1468.7 | 1493.8 | 1508.8 | 1522.2 | 1528.9 | 1535.1 | 1539.5 | 1540.6 |
| 7.5° | 1414.0 | 1439.1 | 1480.4 | 1513.9 | 1535.1 | 1547.3 | 1556.3 | 1554.0 | 1556.3 | 1557.4 | 1559.1 |
| 10° | 1428.5 | 1463.6 | 1512.7 | 1544.6 | 1560.7 | 1561.3 | 1559.1 | 1551.2 | 1547.3 | 1547.9 | 1549.0 |
| 12.5° | 1445.8 | 1484.8 | 1537.9 | 1564.6 | 1569.1 | 1556.8 | 1547.3 | 1533.9 | 1528.9 | 1526.7 | 1525.6 |
| 15° | 1469.2 | 1513.9 | 1565.2 | 1575.2 | 1564.1 | 1548.5 | 1532.3 | 1510.5 | 1499.4 | 1490.4 | 1493.2 |
| 17.5° | 1497.7 | 1546.8 | 1586.4 | 1579.1 | 1555.2 | 1529.5 | 1503.3 | 1470.3 | 1447.5 | 1438.0 | 1438.5 |
| 20° | 1537.3 | 1581.4 | 1602.6 | 1570.8 | 1534.5 | 1495.4 | 1450.8 | 1410.6 | 1389.4 | 1379.9 | 1378.8 |
| 22.5° | 1585.3 | 1627.7 | 1618.2 | 1556.3 | 1504.9 | 1442.4 | 1386.6 | 1357.1 | 1346.5 | 1339.8 | 1340.9 |
| 25° | 1642.8 | 1679.0 | 1629.4 | 1535.1 | 1456.4 | 1372.1 | 1329.2 | 1319.7 | 1314.7 | 1309.6 | 1309.6 |
| 27.5° | 1717.5 | 1737.1 | 1637.7 | 1503.8 | 1380.5 | 1297.4 | 1281.7 | 1283.4 | 1281.7 | 1273.4 | 1275.0 |
| 30° | 1816.3 | 1812.4 | 1645.5 | 1453.0 | 1293.4 | 1229.8 | 1231.0 | 1238.2 | 1239.3 | 1233.7 | 1236.5 |
| 32.5° | 1946.3 | 1906.7 | 1649.5 | 1387.2 | 1210.3 | 1170.7 | 1171.8 | 1179.6 | 1185.2 | 1175.7 | 1180.2 |
| 35° | 2103.7 | 2016.6 | 1643.3 | 1304.6 | 1146.1 | 1114.3 | 1106.0 | 1108.2 | 1109.9 | 1100.9 | 1107.1 |
| 37.5° | 2287.3 | 2139.9 | 1616.0 | 1213.1 | 1093.1 | 1059.1 | 1041.2 | 1026.2 | 1017.2 | 1008.9 | 1014.4 |
| 40° | 2488.7 | 2274.4 | 1565.8 | 1123.8 | 1034.0 | 1000.5 | 973.7 | 945.3 | 915.1 | 904.0 | 909.0 |
| 42.5° | 2699.6 | 2412.8 | 1504.9 | 1038.4 | 965.9 | 938.6 | 910.1 | 868.8 | 823.6 | 800.7 | 803.5 |
| 45° | 2918.4 | 2554.5 | 1445.2 | 954.2 | 896.2 | 884.4 | 851.5 | 801.8 | 752.7 | 723.7 | 721.5 |
| 47.5° | 3132.6 | 2688.5 | 1357.6 | 869.4 | 830.9 | 843.7 | 818.0 | 772.3 | 717.6 | 671.8 | 666.8 |
| 50° | 3337.4 | 2814.0 | 1214.2 | 783.4 | 777.9 | 831.4 | 806.9 | 741.0 | 678.5 | 619.9 | 614.9 |
| 52.5° | 3540.5 | 2915.6 | 1030.6 | 705.3 | 749.4 | 828.1 | 792.4 | 719.8 | 643.4 | 582.0 | 575.3 |
| 55° | 3712.9 | 2968.0 | 853.7 | 638.4 | 708.1 | 799.6 | 775.1 | 694.7 | 593.7 | 528.4 | 522.8 |
| 57.5° | 3811.2 | 2925.6 | 706.4 | 572.5 | 651.2 | 752.7 | 745.5 | 641.1 | 534.6 | 484.3 | 477.7 |
| 60° | 3768.7 | 2753.7 | 585.9 | 515.0 | 597.1 | 702.0 | 694.2 | 588.1 | 489.4 | 441.9 | 435.2 |
| 62.5° | 3534.9 | 2426.2 | 490.5 | 464.8 | 548.0 | 650.1 | 642.8 | 547.4 | 454.8 | 409.0 | 401.8 |
| 65° | 3064.0 | 1973.7 | 416.3 | 423.0 | 498.3 | 587.6 | 598.2 | 513.4 | 427.4 | 382.8 | 375.5 |
| 67.5° | 2336.9 | 1429.6 | 358.2 | 386.7 | 449.8 | 526.2 | 556.9 | 488.8 | 404.6 | 362.1 | 355.4 |
| 70° | 1332.0 | 811.9 | 309.1 | 351.5 | 406.8 | 469.3 | 525.1 | 469.3 | 380.0 | 344.8 | 340.4 |
| 72.5° | 505.0 | 372.7 | 267.3 | 316.4 | 365.5 | 421.3 | 489.9 | 438.6 | 351.5 | 325.3 | 320.9 |
| 75° | *269.5* | *227.1* | *224.9* | *275.1* | *318.1* | *374.4* | *445.8* | *408.5* | *330.3* | *343.7* | *354.9* |
| 77.5° | 183.6 | 160.7 | 188.0 | 235.5 | 266.2 | 322.5 | 399.0 | 362.7 | 286.3 | 285.1 | 262.8 |
| 80° | 127.2 | 113.8 | 152.9 | 189.7 | 205.9 | 271.2 | 348.2 | 311.4 | 233.2 | 217.6 | 208.1 |
| 82.5° | 76.4 | 74.2 | 114.4 | 141.7 | 145.6 | 209.3 | 288.5 | 261.1 | 190.8 | 166.3 | 167.4 |
| 85° | 41.9 | 44.1 | 73.1 | 83.1 | 84.8 | 146.2 | 226.0 | 202.0 | 146.8 | 123.3 | 124.4 |
| 87.5° | 11.7 | 15.1 | 26.8 | 32.9 | 40.7 | 75.9 | 134.5 | 120.0 | 73.7 | 51.3 | 51.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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# LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-1-R4

Test Date: 08/20/2019

Luminaire Tested: SA1C-727-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

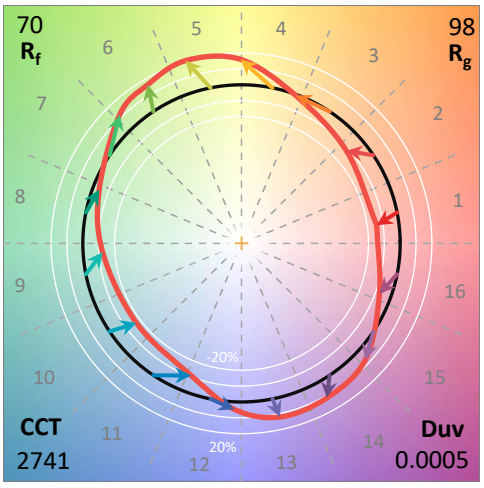
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-727-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-1-R3. TO UPDATE THE CATALOG NUMBER.***TESTED IN SITU. (1) 70 CRI, 2700K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 2741 | CRI (Ra): | 71.5 | | |
| CIE u': | 0.2605 | R1: | 69.2 | R9: | -16.1 |
| CIE v': | 0.5272 | R2: | 79.4 | R10: | 51.4 |
| Duv: | 0.0005 | R3: | 87.8 | R11: | 63.1 |
| CIE x: | 0.4573 | R4: | 69.4 | R12: | 42.0 |
| CIE y: | 0.4113 | R5: | 66.4 | R13: | 70.2 |
| CIE z: | 0.1313 | R6: | 69.8 | R14: | 92.4 |
| Peak Wavelength (nm): | 602 | R7: | 79.8 | | |
| Dominant Wavelength (nm): | 583 | R8: | 50.1 | | |
| Purity: | 61.2 | | | | |

| | |
|---|---|
| Rf: | 69.9 |
| Rg: | 98.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 56M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.3./42% |
| Sphere Temperature (°C): | 25.7 |

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1121 Highway 74 South
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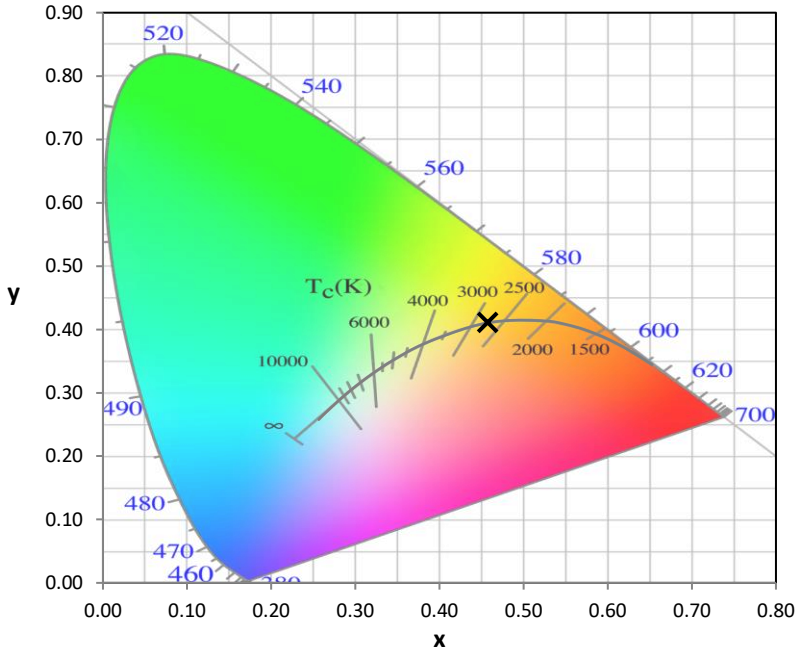
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

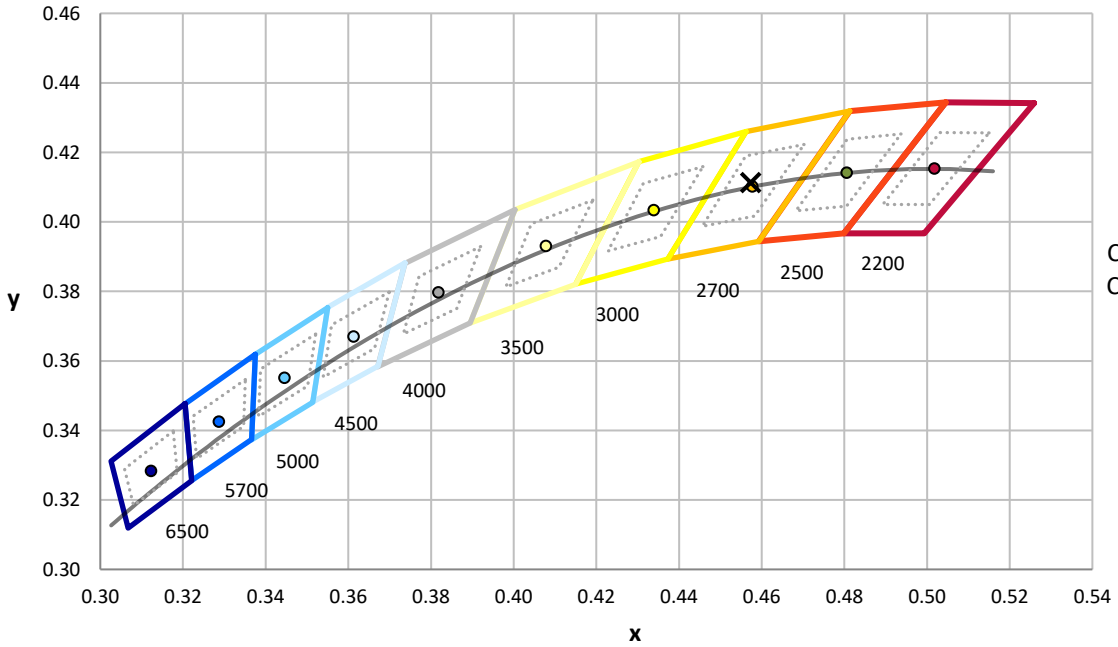
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REPORT NUMBER: SP1-1908-441-1-R4

## CIE 1931 Chromaticity Diagram




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



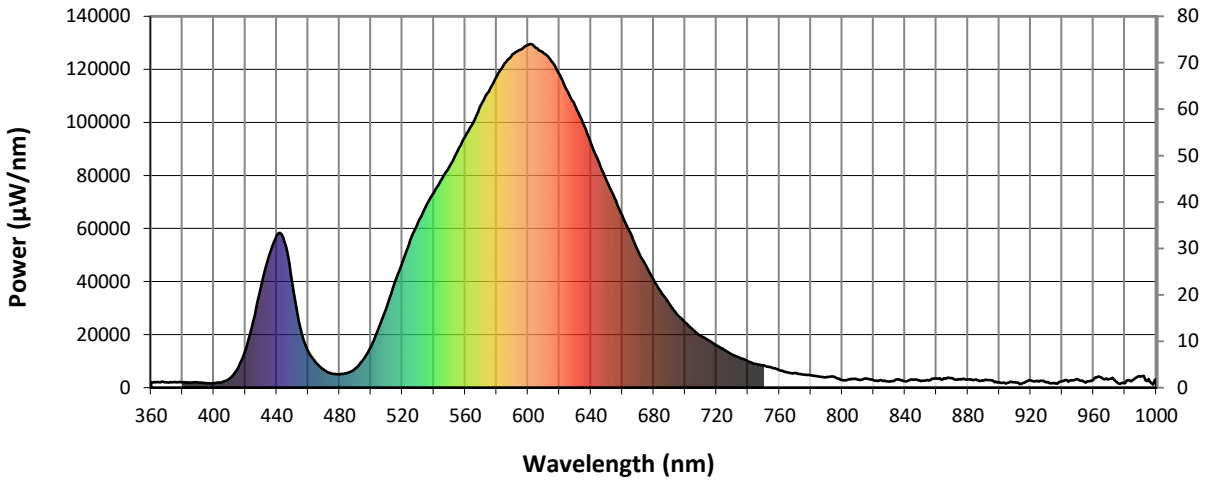

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



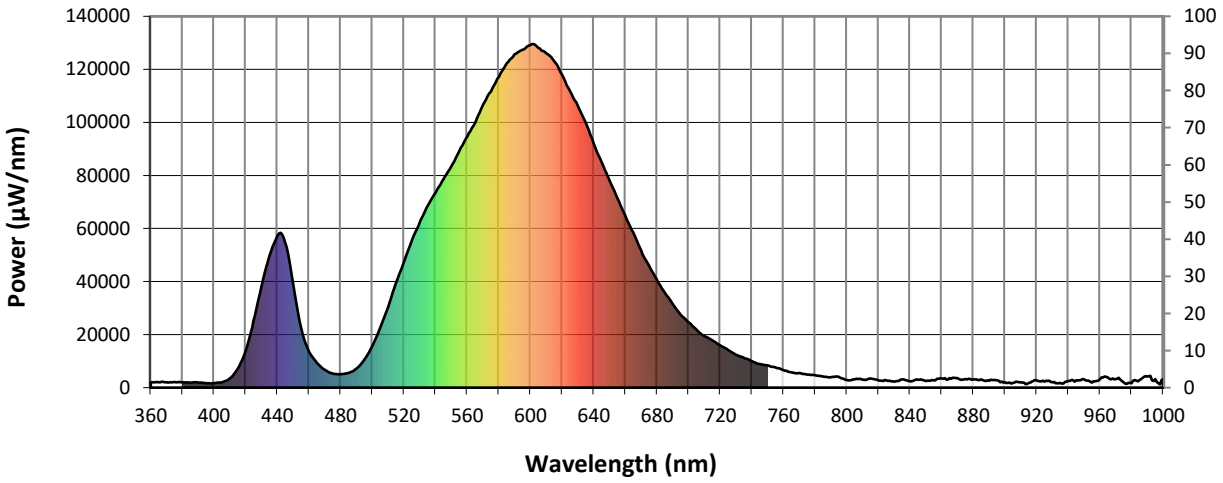

######

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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## Scotopic Flux vs. Wavelength



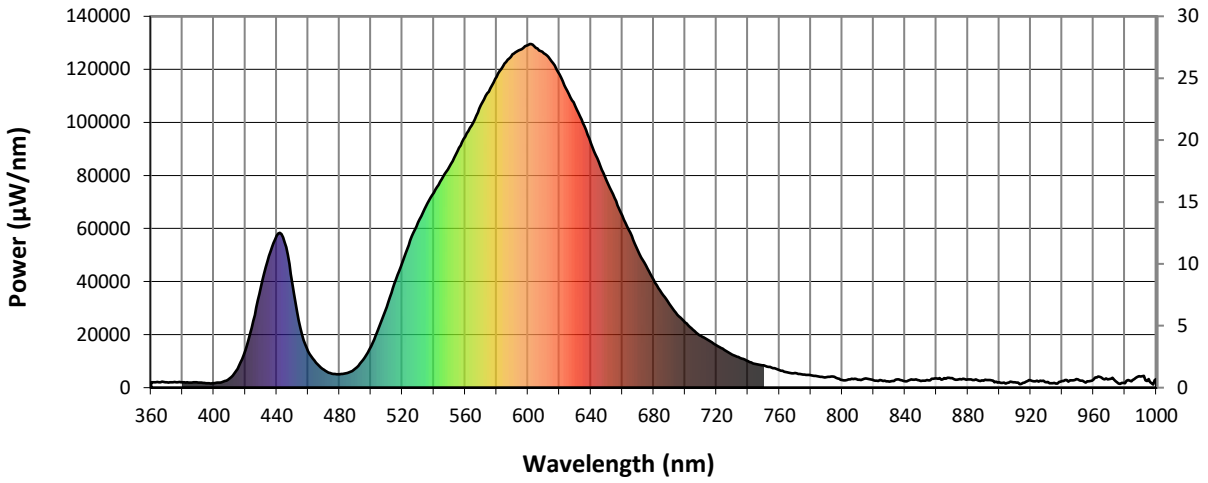

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 2145.7** **M/P: 0.35**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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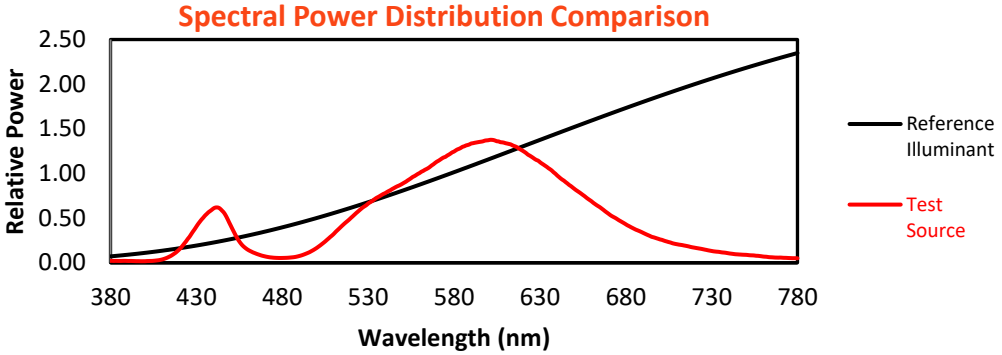
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# TM-30-18

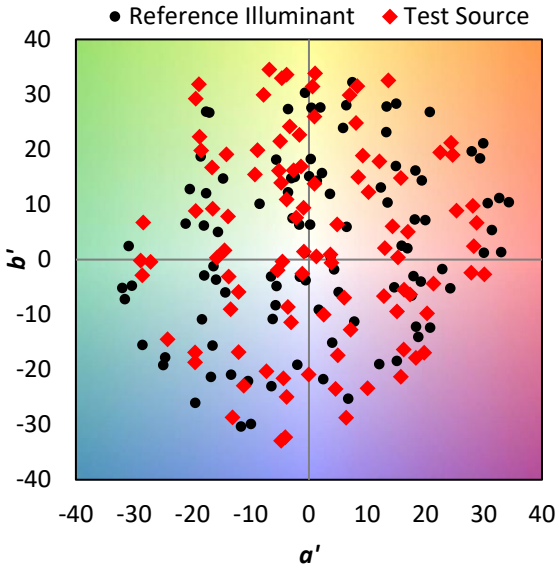
## Summary

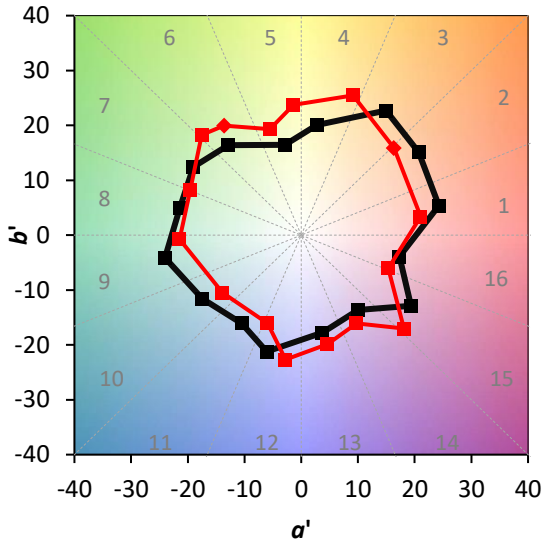
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

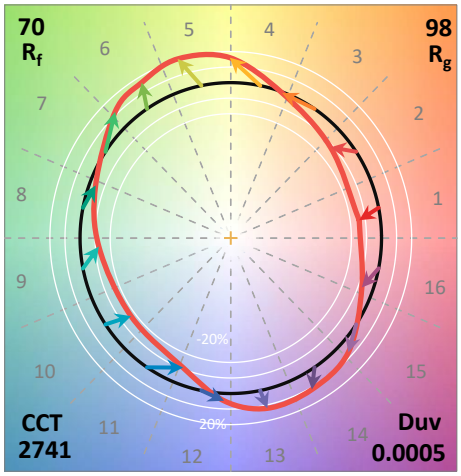
## Spectral Power Distribution Comparison

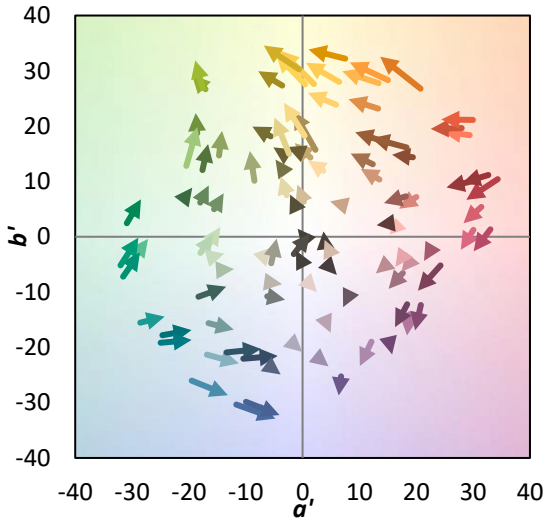



## Color Vector Graphics



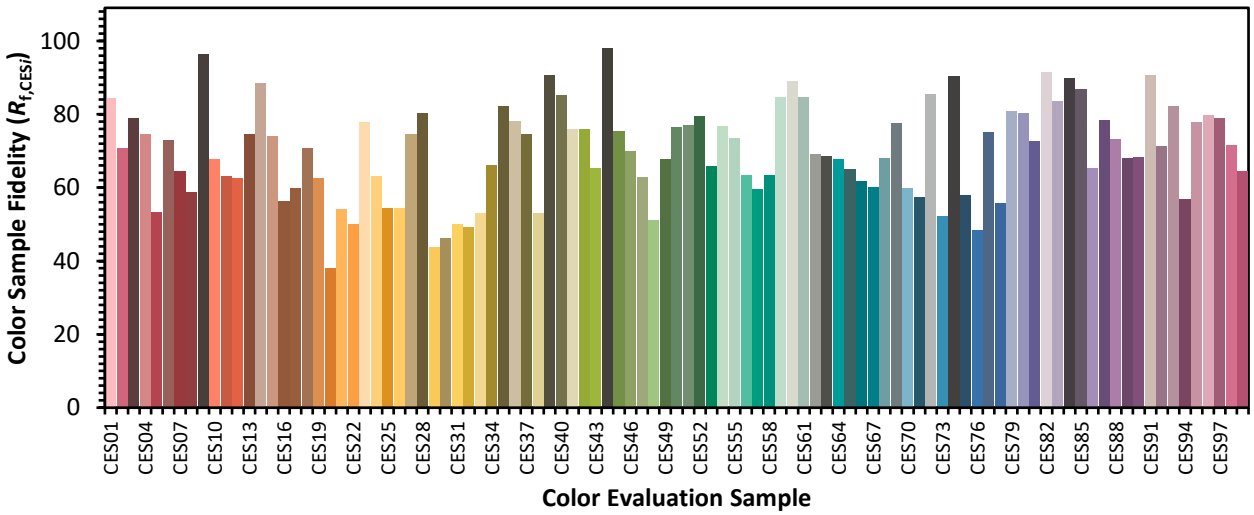
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 54 | CES51 = 77 | CES76 = 48 |
| CES02 = 63 | CES27 = 74 | CES52 = 80 | CES77 = 75 |
| CES03 = 31 | CES28 = 80 | CES53 = 66 | CES78 = 56 |
| CES04 = 71 | CES29 = 44 | CES54 = 77 | CES79 = 81 |
| CES05 = 50 | CES30 = 46 | CES55 = 74 | CES80 = 80 |
| CES06 = 52 | CES31 = 50 | CES56 = 63 | CES81 = 73 |
| CES07 = 42 | CES32 = 49 | CES57 = 60 | CES82 = 91 |
| CES08 = 41 | CES33 = 53 | CES58 = 63 | CES83 = 84 |
| CES09 = 29 | CES34 = 66 | CES59 = 85 | CES84 = 90 |
| CES10 = 77 | CES35 = 82 | CES60 = 89 | CES85 = 87 |
| CES11 = 60 | CES36 = 78 | CES61 = 85 | CES86 = 65 |
| CES12 = 66 | CES37 = 75 | CES62 = 69 | CES87 = 78 |
| CES13 = 43 | CES38 = 53 | CES63 = 68 | CES88 = 73 |
| CES14 = 74 | CES39 = 91 | CES64 = 68 | CES89 = 68 |
| CES15 = 71 | CES40 = 85 | CES65 = 65 | CES90 = 68 |
| CES16 = 48 | CES41 = 76 | CES66 = 62 | CES91 = 91 |
| CES17 = 50 | CES42 = 76 | CES67 = 60 | CES92 = 71 |
| CES18 = 57 | CES43 = 65 | CES68 = 68 | CES93 = 82 |
| CES19 = 73 | CES44 = 98 | CES69 = 77 | CES94 = 57 |
| CES20 = 67 | CES45 = 75 | CES70 = 60 | CES95 = 78 |
| CES21 = 88 | CES46 = 70 | CES71 = 57 | CES96 = 80 |
| CES22 = 80 | CES47 = 63 | CES72 = 86 | CES97 = 79 |
| CES23 = 92 | CES48 = 51 | CES73 = 52 | CES98 = 71 |
| CES24 = 91 | CES49 = 68 | CES74 = 90 | CES99 = 64 |
| CES25 = 73 | CES50 = 77 | CES75 = 58 | |

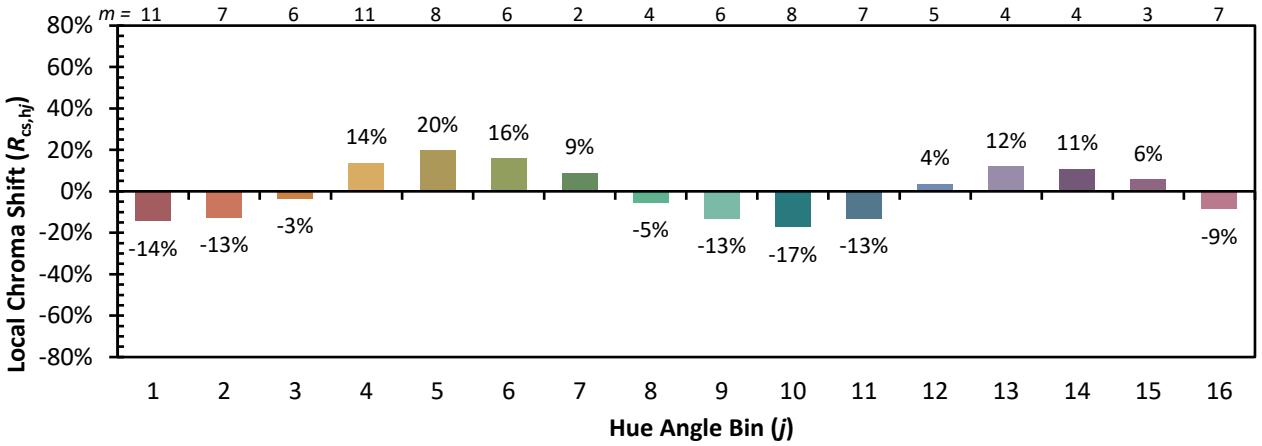


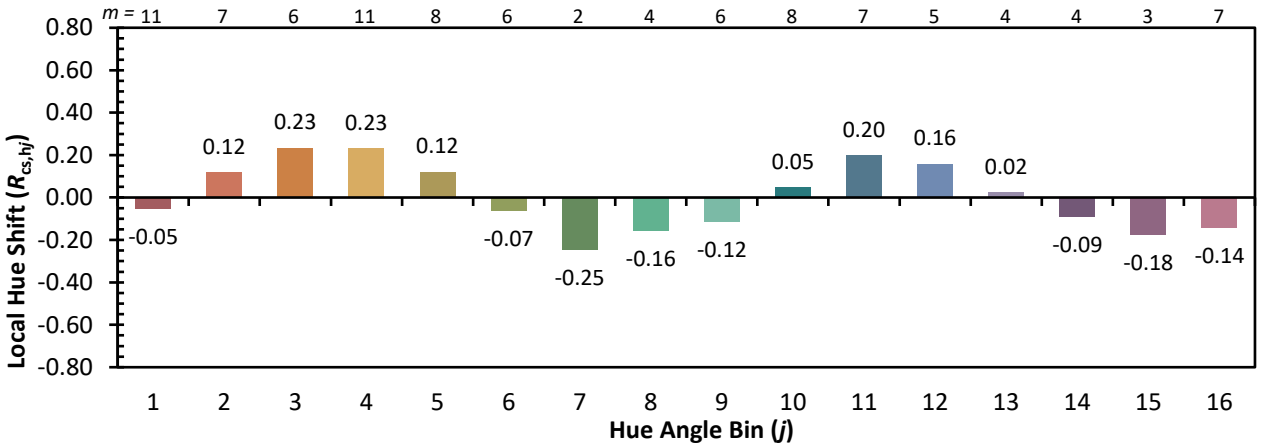
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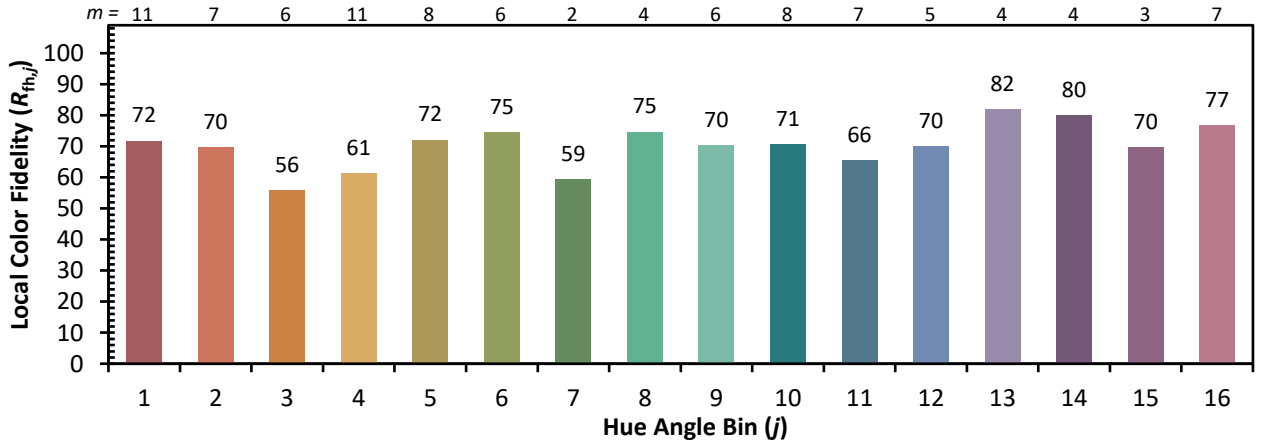
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### Color Rendition by Hue-Angle Bin



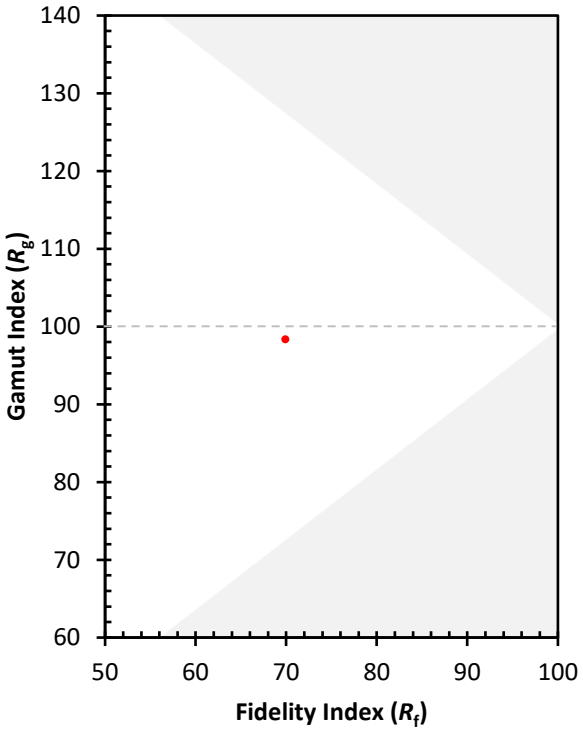



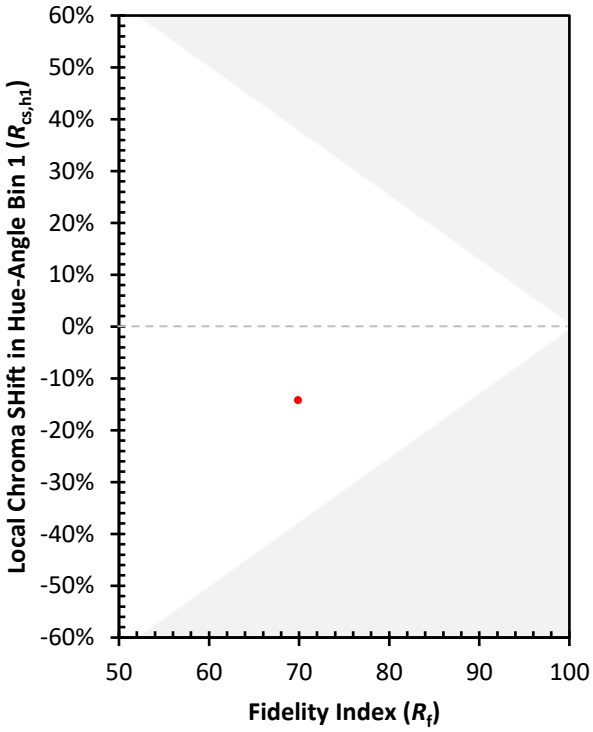
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### Measure Comparisons




(END OF REPORT)