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: P1199232

Luminaire Tested: GPC-SB2A-730-U-T3R

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: | P1199232 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2A-730-U-T3R |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III ROADWAY OPTI |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9207 lumens |
| Efficiency: | N/A |
| Efficacy: | 160.7 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| 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 |

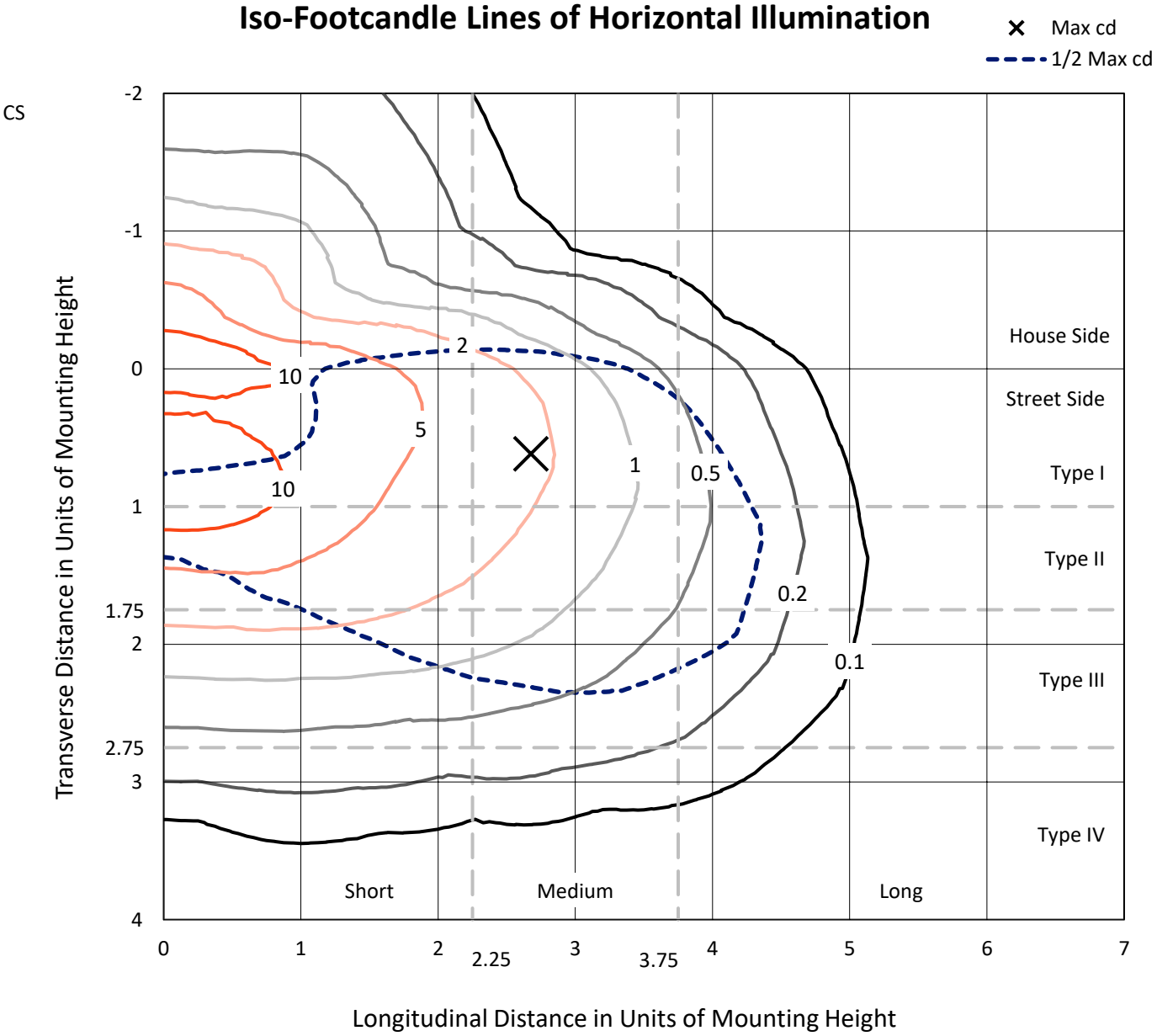


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REPORT NUMBER: P1199232
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## Iso-Footcandle Lines of Horizontal Illumination



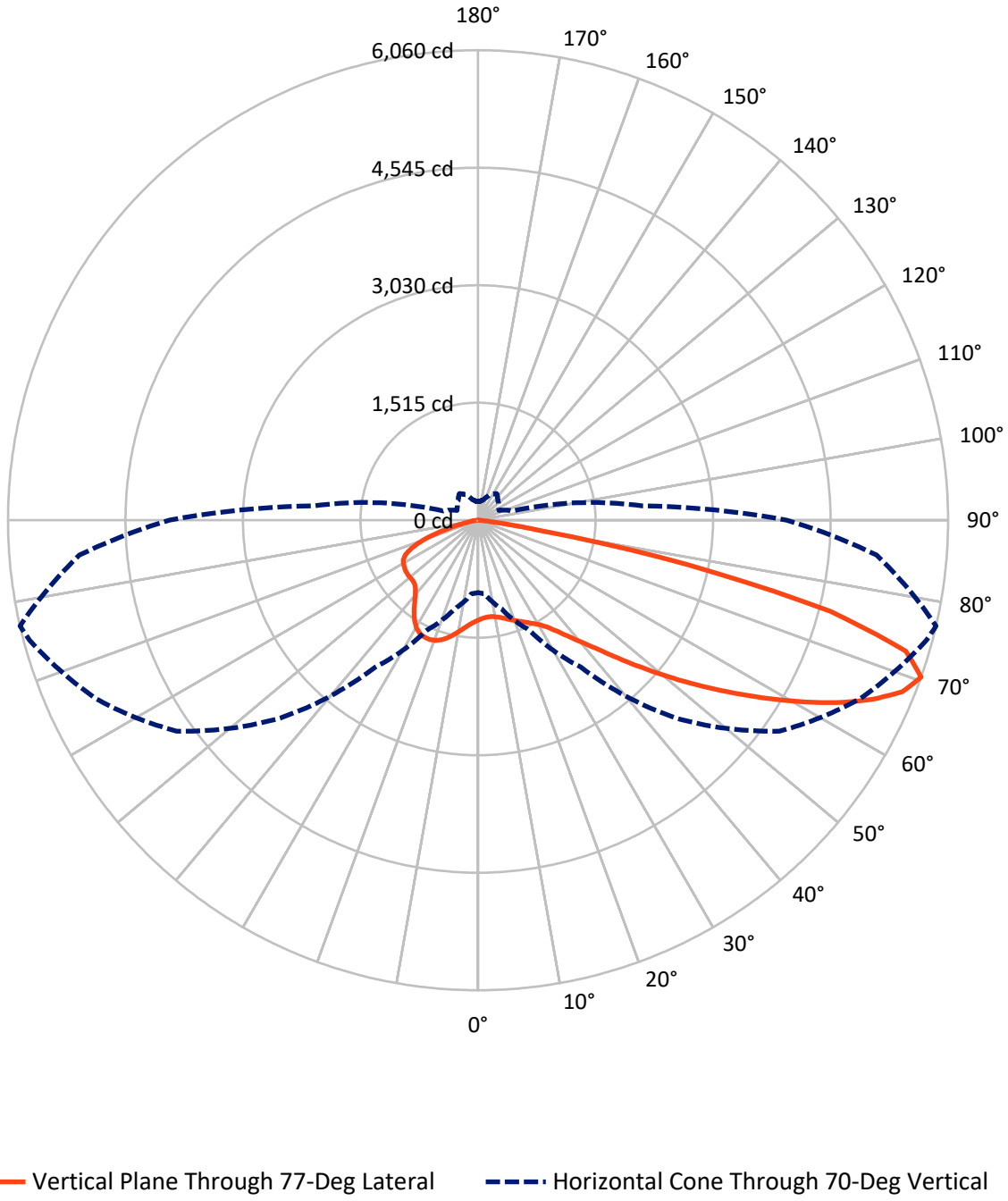

Based on 10 foot mounting height. Maximum calculated value = 15.2 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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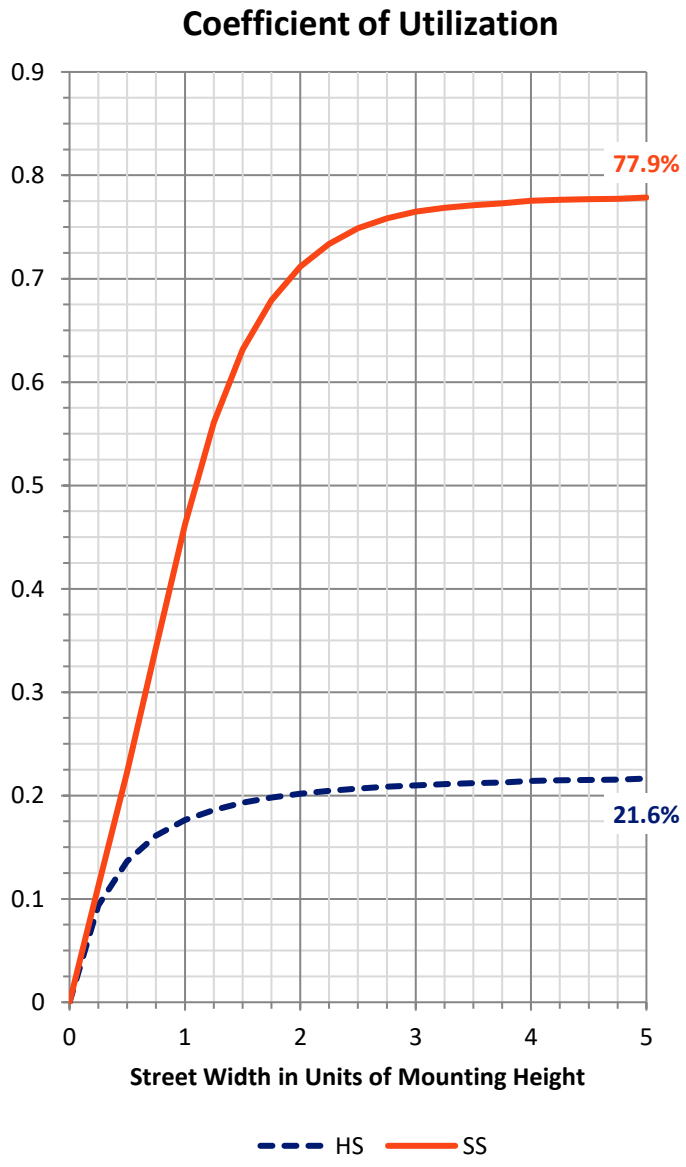
REPORT NUMBER: P1199232
CATALOG NUMBER: GPC-SB2A-730-U-T3R

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2016.2 | 0.0 | 2016.2 |
| | % Fixture | 21.9 | 0.0 | 21.9 |
| **Street Side** | Lumens | 7190.8 | 0.0 | 7190.8 |
| | % Fixture | 78.1 | 0.0 | 78.1 |
| **Total** | Lumens | 9207.0 | 0.0 | 9207.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 122.5 | 1.3 |
| 10°-20° | 353.6 | 3.8 |
| 20°-30° | 604.6 | 6.6 |
| 30°-40° | 972.3 | 10.6 |
| 40°-50° | 1518.0 | 16.5 |
| 50°-60° | 2027.7 | 22.0 |
| 60°-70° | 2161.2 | 23.5 |
| 70°-80° | 1330.4 | 14.5 |
| 80°-90° | 116.6 | 1.3 |
| 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° | 9207.0 | 100.0 |
| 0°-180° | 9207.0 | 100.0 |



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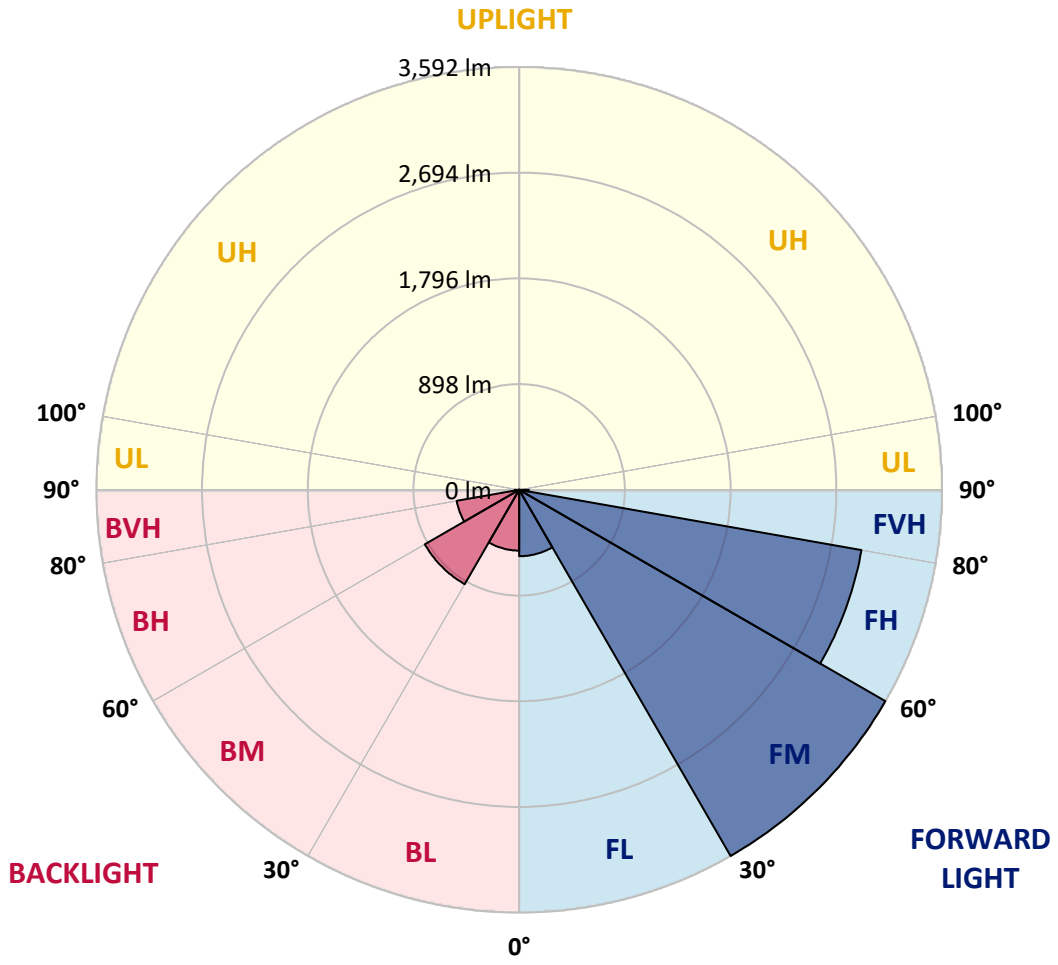
Scaled Data Report

REPORT NUMBER: P1199232
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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°) | 564.1 | 6.1 | | | |
| FM | (30°-60°) | 3592.4 | 39.0 | | | |
| FH | (60°-80°) | 2952.8 | 32.1 | | | G2/5000 |
| FVH | (80°-90°) | 81.5 | 0.9 | | | G1/100 |
| BL | (0°-30°) | 516.6 | 5.6 | B2/1000 | | |
| BM | (30°-60°) | 925.7 | 10.1 | B1/1000 | | |
| BH | (60°-80°) | 538.8 | 5.9 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 35.1 | 0.4 | | | 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 III Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | *1284.5* | 1284.5 |
| 2.5° | 1184.0 | 1183.6 | 1189.7 | 1191.6 | 1202.9 | 1210.9 | 1226.0 | 1242.0 | 1262.8 | *1265.1* | 1277.9 |
| 5° | 1115.7 | 1115.7 | 1122.7 | 1130.3 | 1144.9 | 1160.9 | 1184.0 | 1211.8 | 1247.7 | *1253.3* | 1284.9 |
| 7.5° | 1057.7 | 1061.4 | 1067.6 | 1082.2 | 1099.1 | 1122.3 | 1157.6 | 1197.2 | 1244.4 | *1253.3* | 1304.3 |
| 10° | 1011.0 | 1015.2 | 1022.8 | 1034.5 | 1060.0 | 1092.1 | 1138.3 | 1189.2 | 1252.4 | *1266.5* | 1332.6 |
| 12.5° | 996.4 | 1000.6 | 1004.8 | 1013.8 | 1037.4 | 1075.1 | 1130.3 | 1193.0 | 1271.7 | *1285.9* | 1371.2 |
| 15° | 1030.3 | 1035.5 | 1032.2 | 1029.8 | 1042.1 | 1076.5 | 1134.0 | 1206.7 | 1295.8 | *1316.1* | 1418.8 |
| 17.5° | 1108.6 | 1110.5 | 1102.9 | 1080.8 | 1078.9 | 1097.3 | 1152.0 | 1225.5 | 1326.0 | *1348.1* | 1466.9 |
| 20° | 1234.9 | 1231.6 | 1216.1 | 1172.2 | 1147.2 | 1143.5 | 1182.6 | 1253.8 | 1357.1 | *1380.7* | 1518.8 |
| 22.5° | 1406.6 | 1402.8 | 1371.7 | 1302.4 | 1246.7 | 1210.0 | 1226.9 | 1290.6 | 1392.0 | *1418.4* | 1569.3 |
| 25° | 1620.7 | 1615.5 | 1569.7 | 1475.4 | 1389.1 | 1298.1 | 1287.3 | 1339.2 | 1434.9 | *1459.4* | 1622.1 |
| 27.5° | 1870.6 | 1866.3 | 1816.8 | 1692.3 | 1567.9 | 1418.8 | 1362.3 | 1396.2 | 1479.7 | *1507.5* | 1681.5 |
| 30° | 2139.4 | 2151.6 | 2063.9 | 1930.0 | 1772.5 | 1576.3 | 1463.2 | 1466.5 | 1537.7 | *1562.7* | 1753.6 |
| 32.5° | 2455.3 | 2476.5 | 2370.9 | 2201.1 | 1986.1 | 1747.5 | 1590.5 | 1564.6 | 1622.1 | *1642.8* | 1844.6 |
| 35° | 2768.4 | 2792.4 | 2704.7 | 2517.1 | 2269.5 | 1949.3 | 1723.5 | 1677.2 | 1734.3 | *1756.9* | 1965.4 |
| 37.5° | 3039.0 | 3071.1 | 3025.8 | 2862.7 | 2572.7 | 2192.6 | 1897.0 | 1809.8 | 1872.5 | *1900.8* | 2127.6 |
| 40° | 3252.6 | 3301.7 | 3298.4 | 3196.5 | 2930.1 | 2487.8 | 2117.2 | 1973.4 | 2044.1 | *2074.8* | 2324.2 |
| 42.5° | 3426.2 | 3468.6 | 3505.4 | 3500.2 | 3303.1 | 2823.1 | 2376.1 | 2186.0 | 2239.8 | *2275.2* | 2545.3 |
| 45° | 3545.9 | 3591.2 | 3670.4 | 3755.8 | 3661.9 | 3181.9 | 2672.7 | 2438.3 | 2487.3 | *2540.6* | 2808.9 |
| 47.5° | 3653.0 | 3704.4 | 3807.2 | 3942.5 | 3966.5 | 3542.2 | 2997.5 | 2732.1 | 2776.9 | *2832.0* | 3073.5 |
| 50° | 3662.4 | 3706.7 | 3866.1 | 4058.0 | 4183.0 | 3888.3 | 3346.5 | 3061.7 | 3103.6 | *3162.6* | 3356.9 |
| 52.5° | 3434.7 | 3504.4 | 3782.7 | 4054.7 | 4282.5 | 4177.8 | 3693.1 | 3404.5 | 3451.6 | *3522.4* | 3650.2 |
| 55° | 2666.1 | 2768.4 | 3537.9 | 3928.4 | 4247.1 | 4365.0 | 4022.7 | 3769.0 | 3829.3 | *3903.4* | 3945.3 |
| 57.5° | 2296.4 | 2341.2 | 2808.5 | 3698.2 | 4085.8 | 4413.6 | 4300.9 | 4137.2 | 4234.4 | *4315.5* | 4257.5 |
| 60° | 2063.9 | 2101.2 | 2377.5 | 3340.4 | 3873.7 | 4336.7 | 4515.9 | 4480.5 | 4648.4 | *4745.1* | 4576.7 |
| 62.5° | 1814.9 | 1850.3 | 2101.6 | 2789.1 | 3602.1 | 4208.9 | 4651.7 | 4797.4 | 5072.8 | *5178.4* | 4877.6 |
| 65° | 1567.9 | 1598.0 | 1839.0 | 2343.5 | 3256.9 | 4081.1 | 4721.9 | 5071.4 | 5465.6 | *5575.0* | 5127.5 |
| 67.5° | 1292.5 | 1317.5 | 1545.2 | 1977.1 | 2837.2 | 3906.2 | 4756.8 | 5286.8 | 5807.4 | *5901.3* | 5251.0 |
| 70° | *932.7* | *952.0* | *1187.3* | *1563.6* | *2310.5* | *3605.4* | *4742.7* | *5439.6* | *5984.7* | *6059.7* | *5157.6* |
| 72.5° | 440.9 | 458.3 | 734.7 | 1015.2 | 1632.0 | 3019.7 | 4456.5 | 5318.4 | 5804.6 | *5767.3* | 4586.1 |
| 75° | 235.3 | 250.4 | 422.0 | 556.9 | 862.0 | 2070.0 | 3646.8 | 4581.4 | 4874.3 | *4693.2* | 3389.4 |
| 77.5° | 159.4 | 171.2 | 261.2 | 334.3 | 393.7 | 982.7 | 2344.0 | 3172.0 | 3051.8 | *2752.8* | 1697.5 |
| 80° | 126.4 | 138.6 | 214.1 | 226.3 | 190.5 | 355.1 | 968.5 | 1468.4 | 1054.8 | *843.6* | 482.9 |
| 82.5° | 97.1 | 110.8 | 180.1 | 164.1 | 103.7 | 145.7 | 282.0 | 464.5 | 270.2 | *205.6* | 116.9 |
| 85° | 59.4 | 74.0 | 141.5 | 104.7 | 58.5 | 66.5 | 95.7 | 129.2 | 82.5 | *68.8* | 42.0 |
| 87.5° | 30.2 | 42.4 | 71.7 | 38.2 | 26.4 | 15.6 | 25.5 | 25.5 | 21.7 | *18.9* | 10.8 |
| 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: P1199232
CATALOG NUMBER: GPC-SB2A-730-U-T3R

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 | 1284.5 |
| 2.5° | 1289.2 | 1298.6 | 1314.6 | 1329.7 | 1341.5 | 1352.8 | 1364.1 | 1370.3 | 1372.2 | 1379.7 | 1384.0 |
| 5° | 1304.3 | 1321.7 | 1352.8 | 1382.1 | 1400.5 | 1411.8 | 1419.8 | 1424.5 | 1425.4 | 1427.8 | 1431.6 |
| 7.5° | 1332.1 | 1359.9 | 1403.3 | 1432.5 | 1446.2 | 1445.3 | 1442.0 | 1430.2 | 1425.4 | 1421.2 | 1422.1 |
| 10° | 1371.2 | 1408.0 | 1461.3 | 1481.6 | 1473.1 | 1450.4 | 1421.2 | 1386.8 | 1370.8 | 1355.2 | 1350.5 |
| 12.5° | 1419.8 | 1466.5 | 1518.8 | 1517.9 | 1475.9 | 1417.9 | 1350.0 | 1297.2 | 1263.7 | 1239.7 | 1234.0 |
| 15° | 1478.7 | 1532.5 | 1572.6 | 1540.5 | 1448.6 | 1344.3 | 1244.9 | 1176.0 | 1145.8 | 1119.4 | 1116.6 |
| 17.5° | 1539.6 | 1597.1 | 1615.5 | 1533.4 | 1379.7 | 1235.4 | 1122.7 | 1068.5 | 1038.8 | 1024.6 | 1028.9 |
| 20° | 1599.0 | 1656.0 | 1640.9 | 1492.9 | 1275.0 | 1111.9 | 1011.4 | 981.7 | 975.6 | 978.9 | 977.5 |
| 22.5° | 1661.7 | 1712.6 | 1646.1 | 1414.6 | 1141.6 | 985.5 | 930.3 | 931.3 | 945.0 | 954.9 | 957.2 |
| 25° | 1725.8 | 1760.2 | 1632.5 | 1301.4 | 998.2 | 892.6 | 878.9 | 894.0 | 920.9 | 940.2 | 945.4 |
| 27.5° | 1787.6 | 1802.7 | 1602.7 | 1161.4 | 875.2 | 826.1 | 828.5 | 859.6 | 900.2 | 927.0 | 933.6 |
| 30° | 1857.4 | 1840.4 | 1545.7 | 1003.9 | 789.8 | 769.1 | 788.9 | 825.2 | 865.7 | 889.8 | 895.4 |
| 32.5° | 1936.1 | 1872.9 | 1455.2 | 858.2 | 729.5 | 723.3 | 755.9 | 779.4 | 797.4 | 804.4 | 808.2 |
| 35° | 2034.2 | 1918.7 | 1339.2 | 755.9 | 675.2 | 689.9 | 721.0 | 709.2 | 702.1 | 698.3 | 702.1 |
| 37.5° | 2161.5 | 1980.4 | 1203.4 | 689.4 | 631.4 | 665.8 | 678.5 | 641.8 | 613.9 | 600.3 | 603.6 |
| 40° | 2314.8 | 2071.0 | 1072.7 | 638.0 | 603.6 | 645.1 | 622.9 | 578.6 | 543.2 | 523.9 | 525.3 |
| 42.5° | 2485.0 | 2165.8 | 962.9 | 599.3 | 588.0 | 628.1 | 581.9 | 529.1 | 472.0 | 465.9 | 472.0 |
| 45° | 2663.7 | 2263.4 | 887.9 | 569.6 | 580.5 | 613.5 | 558.3 | 472.9 | 432.4 | 457.4 | 470.6 |
| 47.5° | 2842.4 | 2353.0 | 842.6 | 547.5 | 576.7 | 597.0 | 537.5 | 441.8 | 413.1 | 449.4 | 466.3 |
| 50° | 3041.4 | 2433.1 | 822.4 | 531.4 | 572.4 | 590.4 | 506.4 | 433.8 | 392.8 | 416.8 | 434.8 |
| 52.5° | 3239.0 | 2495.4 | 807.3 | 515.4 | 566.3 | 585.2 | 491.3 | 424.4 | 368.3 | 369.7 | 379.6 |
| 55° | 3436.1 | 2535.9 | 790.8 | 494.2 | 552.6 | 573.9 | 489.9 | 414.0 | 349.9 | 343.3 | 348.0 |
| 57.5° | 3646.4 | 2559.0 | 770.5 | 470.6 | 529.1 | 545.1 | 488.5 | 406.0 | 344.2 | 333.4 | 334.8 |
| 60° | 3860.5 | 2593.0 | 744.1 | 441.8 | 497.5 | 510.7 | 485.2 | 403.2 | 340.9 | 322.5 | 323.9 |
| 62.5° | 4052.4 | 2604.8 | 712.5 | 414.5 | 456.9 | 476.7 | 478.1 | 400.8 | 332.0 | 300.4 | 300.4 |
| 65° | 4178.3 | 2553.8 | 657.3 | 383.4 | 413.1 | 441.8 | 464.5 | 392.8 | 315.9 | 284.3 | 284.3 |
| 67.5° | 4173.1 | 2408.6 | 571.0 | 343.3 | 370.6 | 403.2 | 444.7 | 379.1 | 296.6 | 264.5 | 265.9 |
| 70° | *3978.8* | *2121.9* | *461.6* | *296.6* | *323.9* | *361.7* | *419.2* | *358.8* | *273.5* | *242.8* | *245.7* |
| 72.5° | 3412.5 | 1660.7 | 335.3 | 241.9 | 269.7 | 318.8 | 386.2 | 334.3 | 249.9 | 223.5 | 222.1 |
| 75° | 2437.8 | 1051.1 | 227.3 | 185.8 | 209.8 | 270.2 | 345.2 | 305.6 | 228.2 | 224.5 | 211.7 |
| 77.5° | 1245.3 | 502.2 | 150.4 | 135.8 | 146.2 | 213.1 | 290.0 | 273.0 | 231.5 | 185.3 | 165.0 |
| 80° | 405.0 | 185.3 | 94.8 | 92.4 | 97.1 | 141.9 | 224.5 | 224.0 | 175.4 | 125.9 | 111.3 |
| 82.5° | 129.2 | 79.7 | 61.8 | 59.4 | 57.1 | 89.1 | 156.5 | 177.3 | 118.4 | 79.7 | 79.2 |
| 85° | 51.4 | 47.6 | 36.3 | 33.5 | 24.0 | 42.0 | 82.0 | 117.9 | 88.2 | 57.5 | 58.9 |
| 87.5° | 18.9 | 18.9 | 9.9 | 7.1 | 5.2 | 14.1 | 22.2 | 35.4 | 50.5 | 29.7 | 29.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

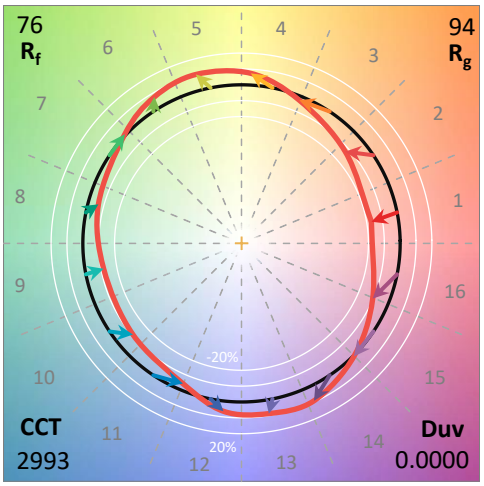
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-2-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-730-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-2-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. (1) 70 CRI, 3000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 2993 | CRI (Ra): | 71.8 | | |
| CIE u': | 0.2508 | R1: | 67.5 | R9: | -38.3 |
| CIE v': | 0.5215 | R2: | 82.9 | R10: | 62.5 |
| Duv: | 0.0000 | R3: | 94.7 | R11: | 63.7 |
| CIE x: | 0.4374 | R4: | 67.7 | R12: | 57.8 |
| CIE y: | 0.4043 | R5: | 67.9 | R13: | 70.4 |
| CIE z: | 0.1583 | R6: | 77.6 | R14: | 97.3 |
| Peak Wavelength (nm): | 593 | R7: | 76.0 | | |
| Dominant Wavelength (nm): | 582 | R8: | 40.5 | | |
| Purity: | 53 | | | | |

| | |
|---|---|
| Rf: | 75.7 |
| Rg: | 93.9 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 53M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.0./44% |
| Sphere Temperature (°C): | 25.7 |

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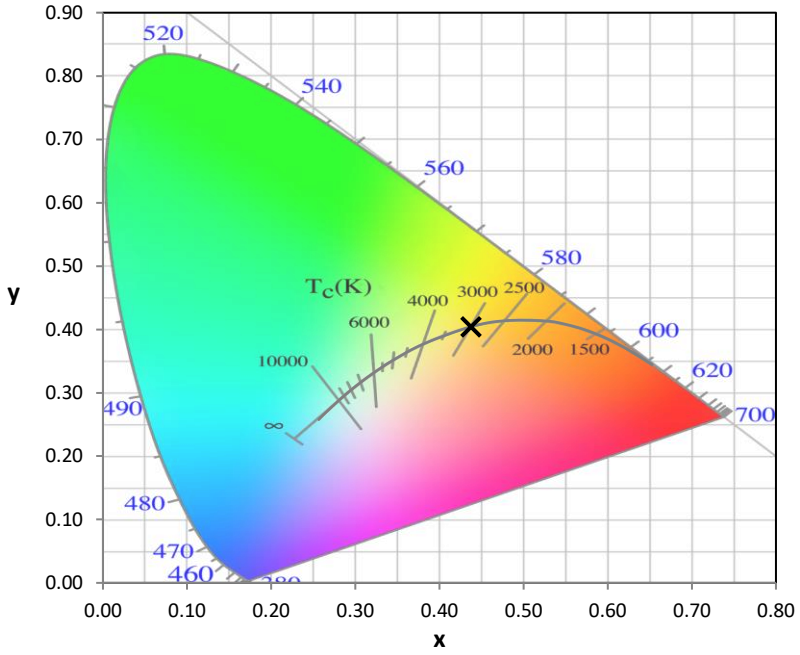
REPORT NUMBER: SP1-1908-441-2-R4

| 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 |

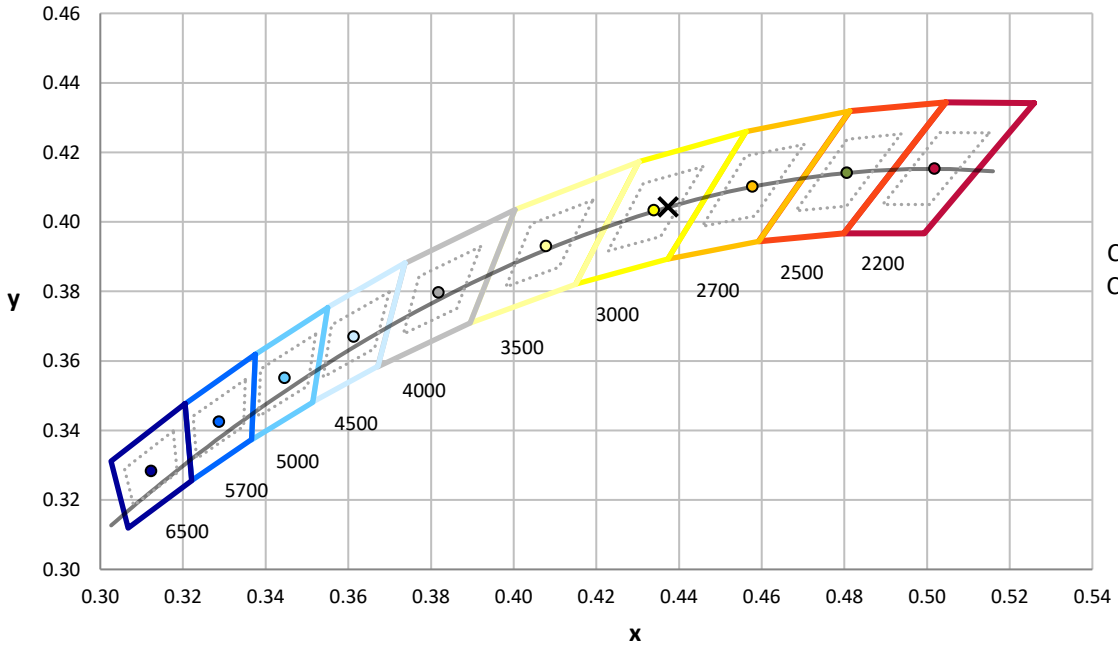
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Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-2-R4

## CIE 1931 Chromaticity Diagram




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



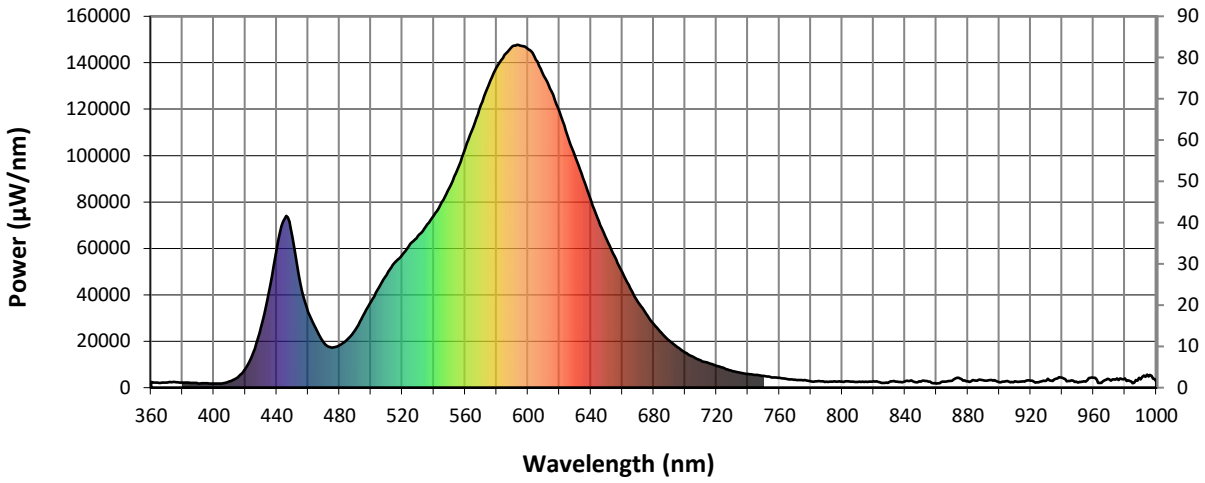

CCT = 2993K
CIE x = 0.4374
CIE y = 0.4043
Duv = 0.0000

Point lies inside the ANSI 3000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



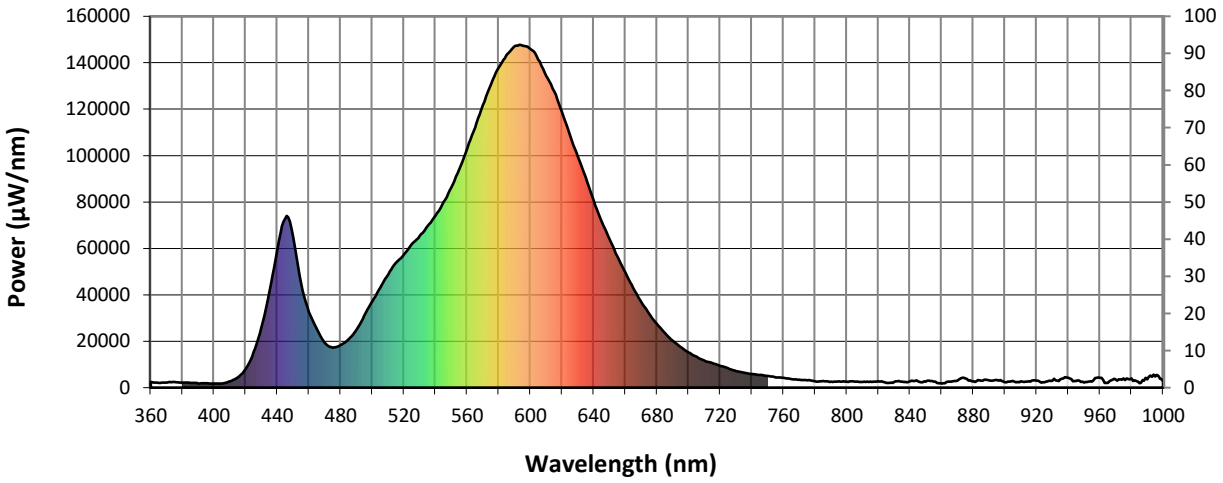

######

| 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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## Scotopic Flux vs. Wavelength



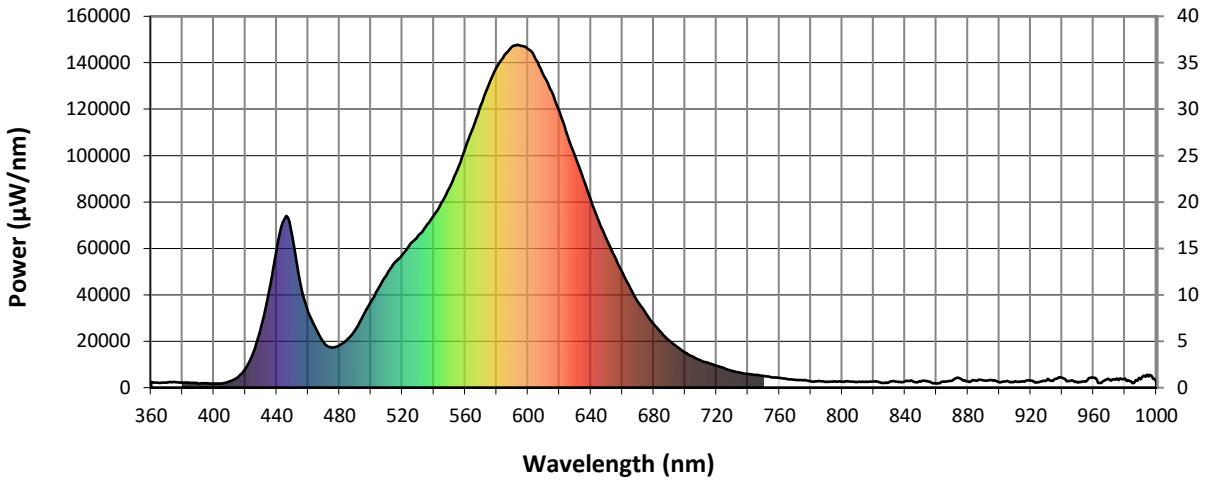

**Scotopic Lumens: 8494.8** **S/P: 1.23**

| 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 3101.5** **M/P: 0.45**

| 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 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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Peachtree City, GA 30269

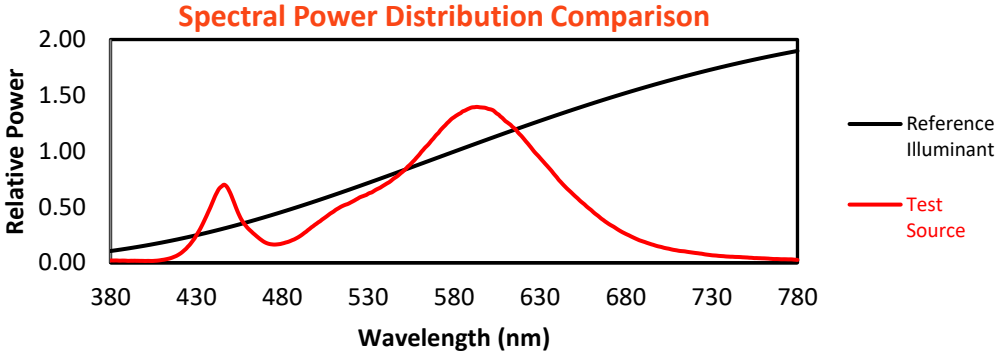
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# TM-30-18

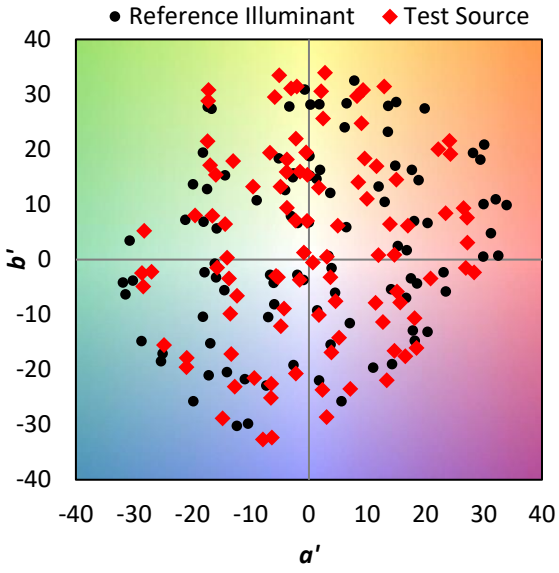
## Summary

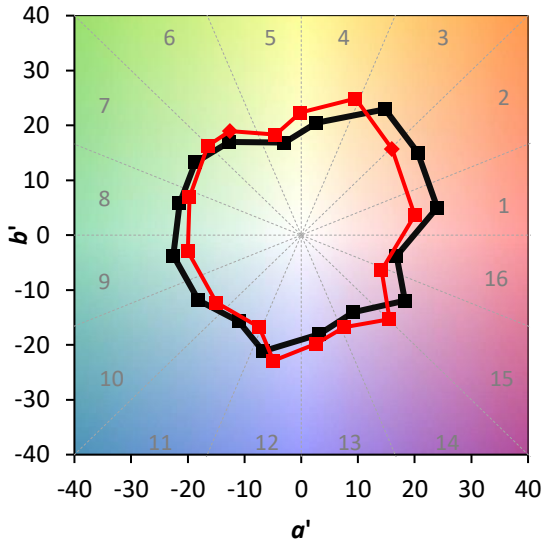
$R_f$ = 75.7
$R_g$ = 93.9
CIE $R_a$ = 71.8
$R_9$ = -38.3

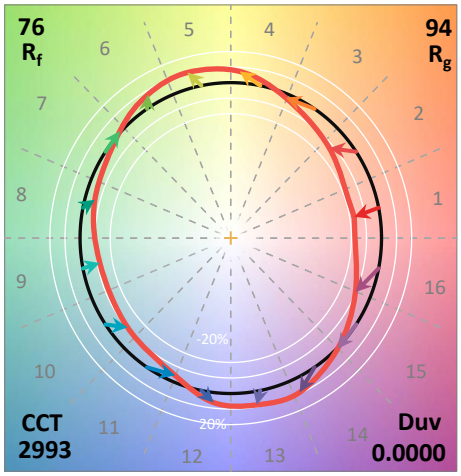
## Spectral Power Distribution Comparison

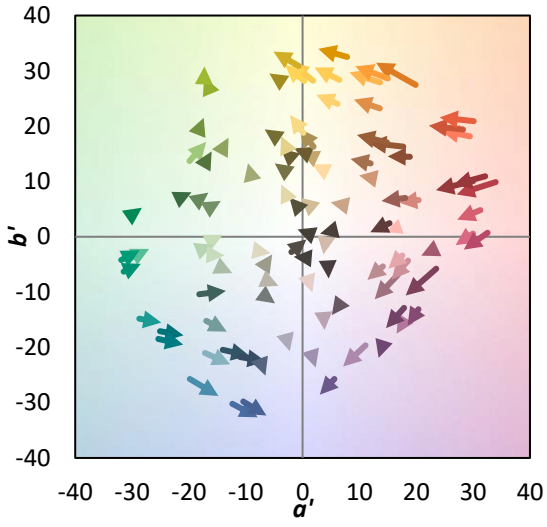



## Color Vector Graphics



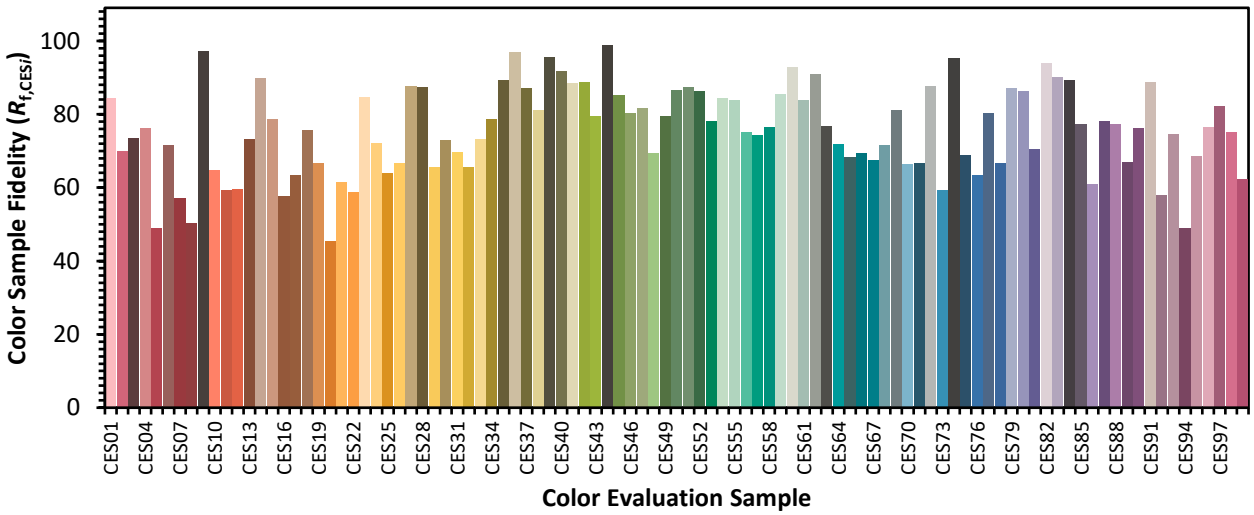
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 67 | CES51 = 87 | CES76 = 63 |
| CES02 = 63 | CES27 = 88 | CES52 = 86 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 66 | CES54 = 84 | CES79 = 87 |
| CES05 = 49 | CES30 = 73 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 70 | CES56 = 75 | CES81 = 71 |
| CES07 = 41 | CES32 = 65 | CES57 = 74 | CES82 = 94 |
| CES08 = 40 | CES33 = 73 | CES58 = 76 | CES83 = 90 |
| CES09 = 29 | CES34 = 79 | CES59 = 85 | CES84 = 89 |
| CES10 = 76 | CES35 = 89 | CES60 = 93 | CES85 = 77 |
| CES11 = 59 | CES36 = 97 | CES61 = 84 | CES86 = 61 |
| CES12 = 65 | CES37 = 87 | CES62 = 91 | CES87 = 78 |
| CES13 = 43 | CES38 = 81 | CES63 = 77 | CES88 = 77 |
| CES14 = 74 | CES39 = 95 | CES64 = 72 | CES89 = 67 |
| CES15 = 71 | CES40 = 92 | CES65 = 68 | CES90 = 76 |
| CES16 = 47 | CES41 = 88 | CES66 = 69 | CES91 = 89 |
| CES17 = 50 | CES42 = 89 | CES67 = 67 | CES92 = 58 |
| CES18 = 56 | CES43 = 79 | CES68 = 72 | CES93 = 74 |
| CES19 = 73 | CES44 = 99 | CES69 = 81 | CES94 = 49 |
| CES20 = 66 | CES45 = 85 | CES70 = 66 | CES95 = 68 |
| CES21 = 87 | CES46 = 80 | CES71 = 67 | CES96 = 76 |
| CES22 = 79 | CES47 = 82 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 69 | CES73 = 59 | CES98 = 75 |
| CES24 = 91 | CES49 = 80 | CES74 = 95 | CES99 = 62 |
| CES25 = 73 | CES50 = 87 | CES75 = 69 | |

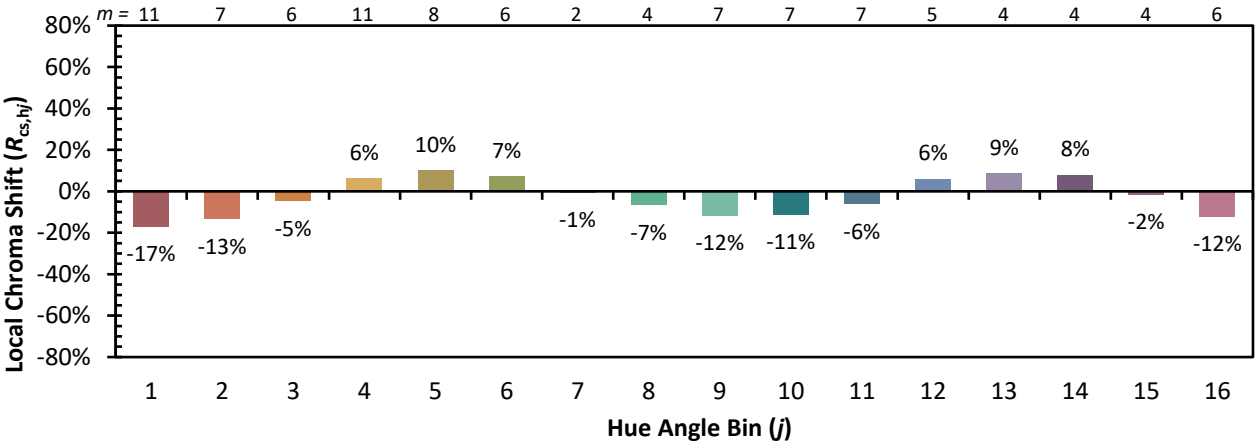


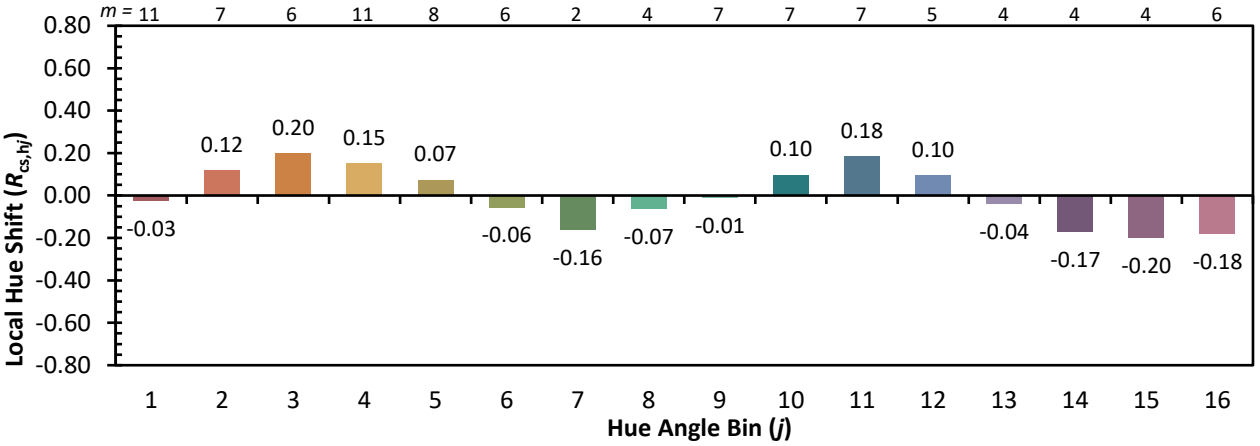
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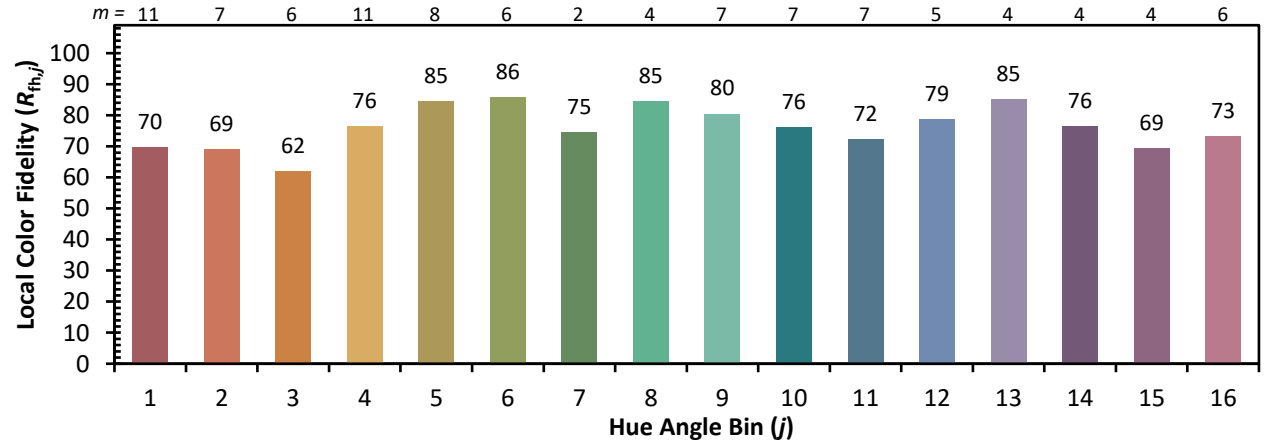
REPORT NUMBER: SP1-1908-441-2-R4

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## Color Rendition by Hue-Angle Bin



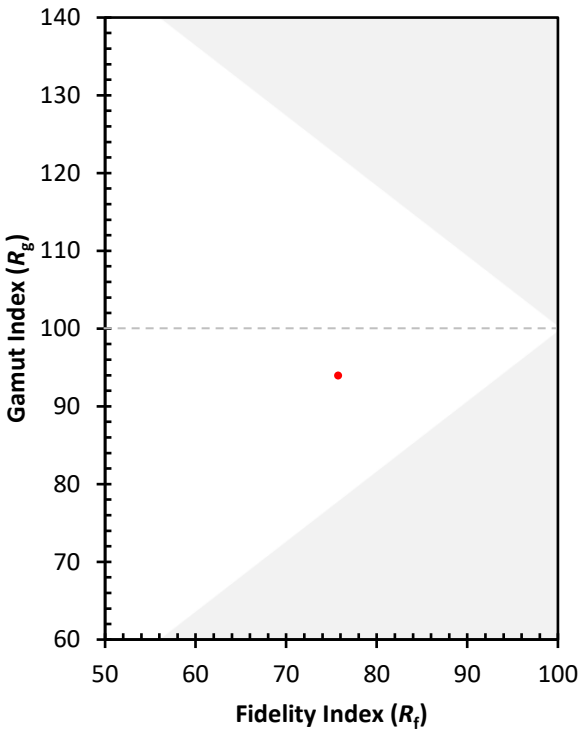



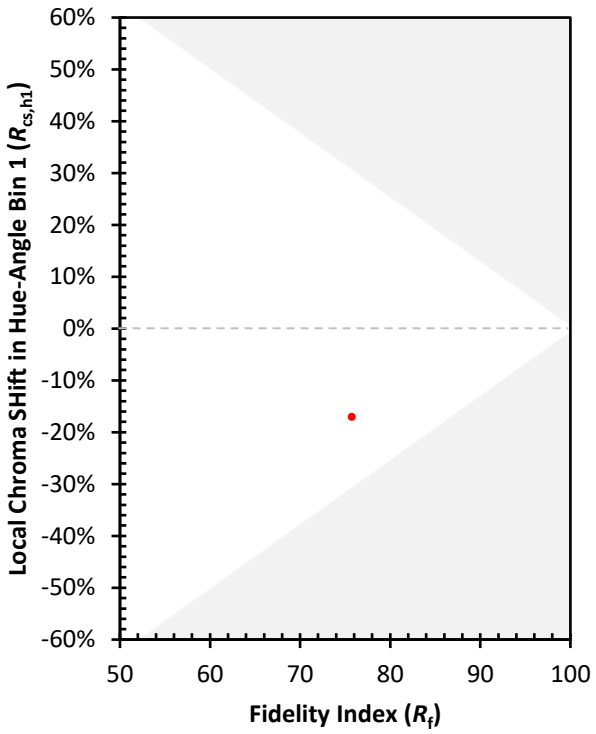
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### Measure Comparisons




(END OF REPORT)