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

Cooper Lighting Solutions Photometric Lab
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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: P1199707

Luminaire Tested: GPC-SB2B-730-U-T3R-HSS

Issue Date: 10/30/2025

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1199707 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2B-730-U-T3R-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III ROADWAY OPTI WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9373 lumens |
| Efficiency: | N/A |
| Efficacy: | 126.8 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B1 - 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 |

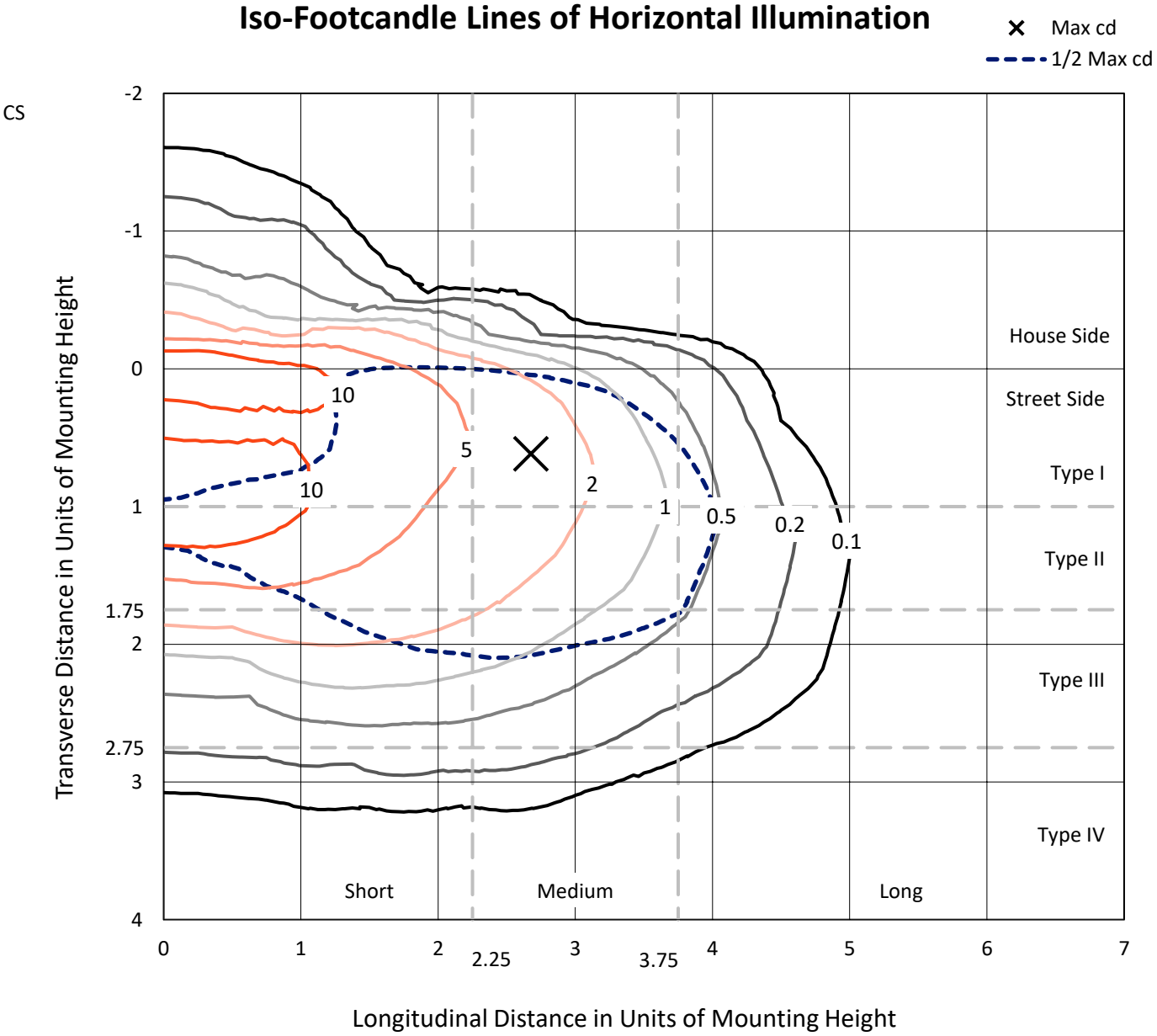


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REPORT NUMBER: P1199707
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## Iso-Footcandle Lines of Horizontal Illumination



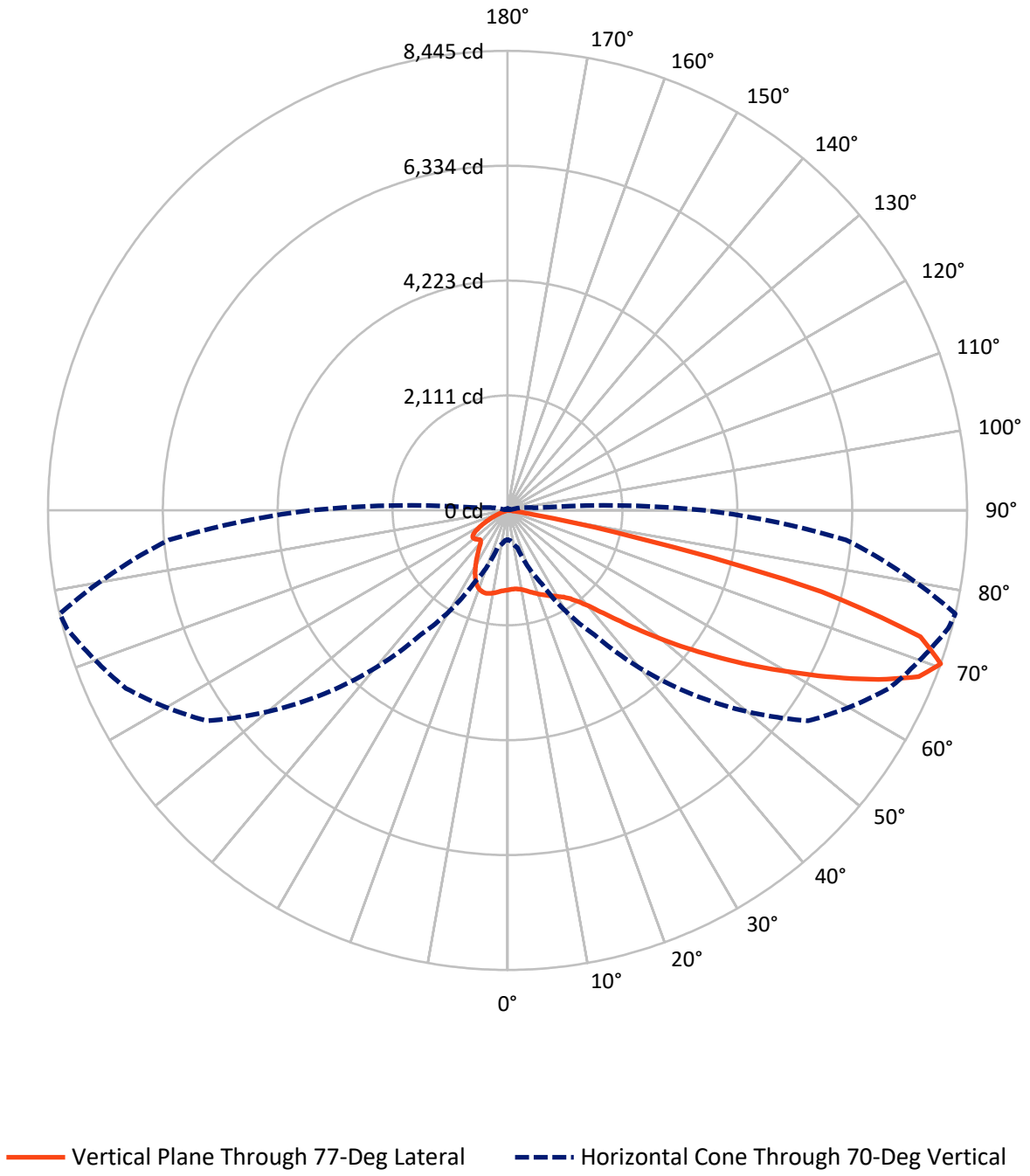

Based on 10 foot mounting height. Maximum calculated value = 17.2 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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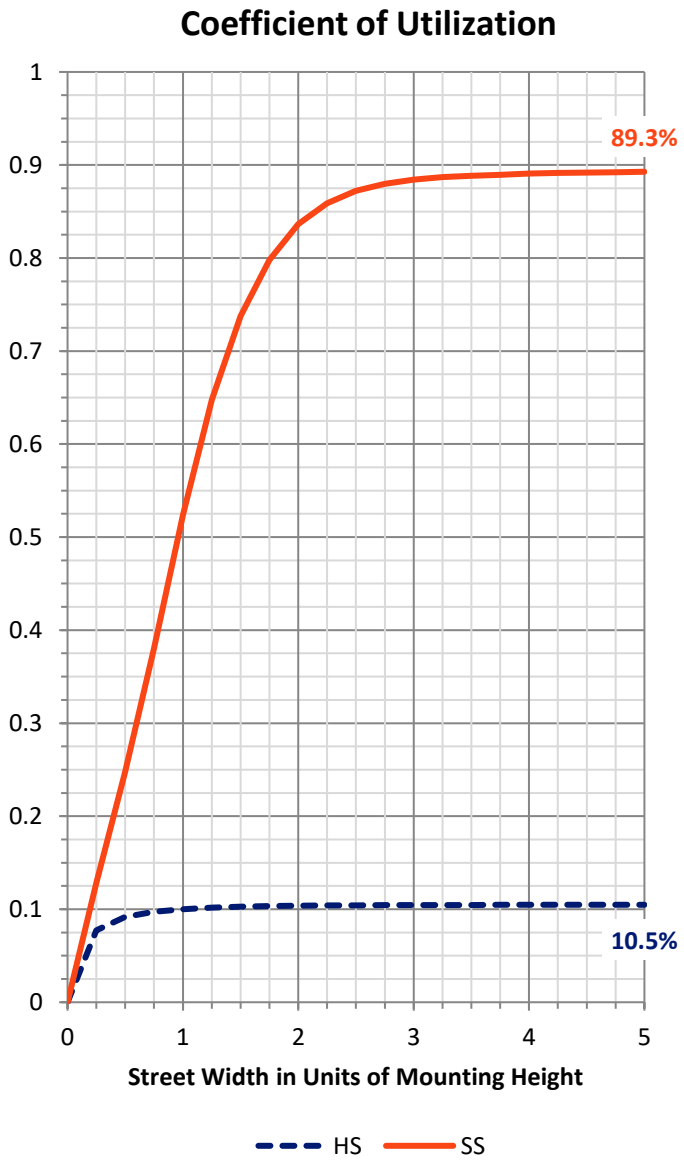
REPORT NUMBER: P1199707
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 988.1 | 0.0 | 988.1 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| **Street Side** | Lumens | 8385.0 | 0.0 | 8385.0 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| **Total** | Lumens | 9373.0 | 0.0 | 9373.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 126.0 | 1.3 |
| 10°-20° | 299.1 | 3.2 |
| 20°-30° | 462.7 | 4.9 |
| 30°-40° | 839.5 | 9.0 |
| 40°-50° | 1584.7 | 16.9 |
| 50°-60° | 2289.7 | 24.4 |
| 60°-70° | 2437.3 | 26.0 |
| 70°-80° | 1291.6 | 13.8 |
| 80°-90° | 42.4 | 0.5 |
| 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° | 9373.0 | 100.0 |
| 0°-180° | 9373.0 | 100.0 |



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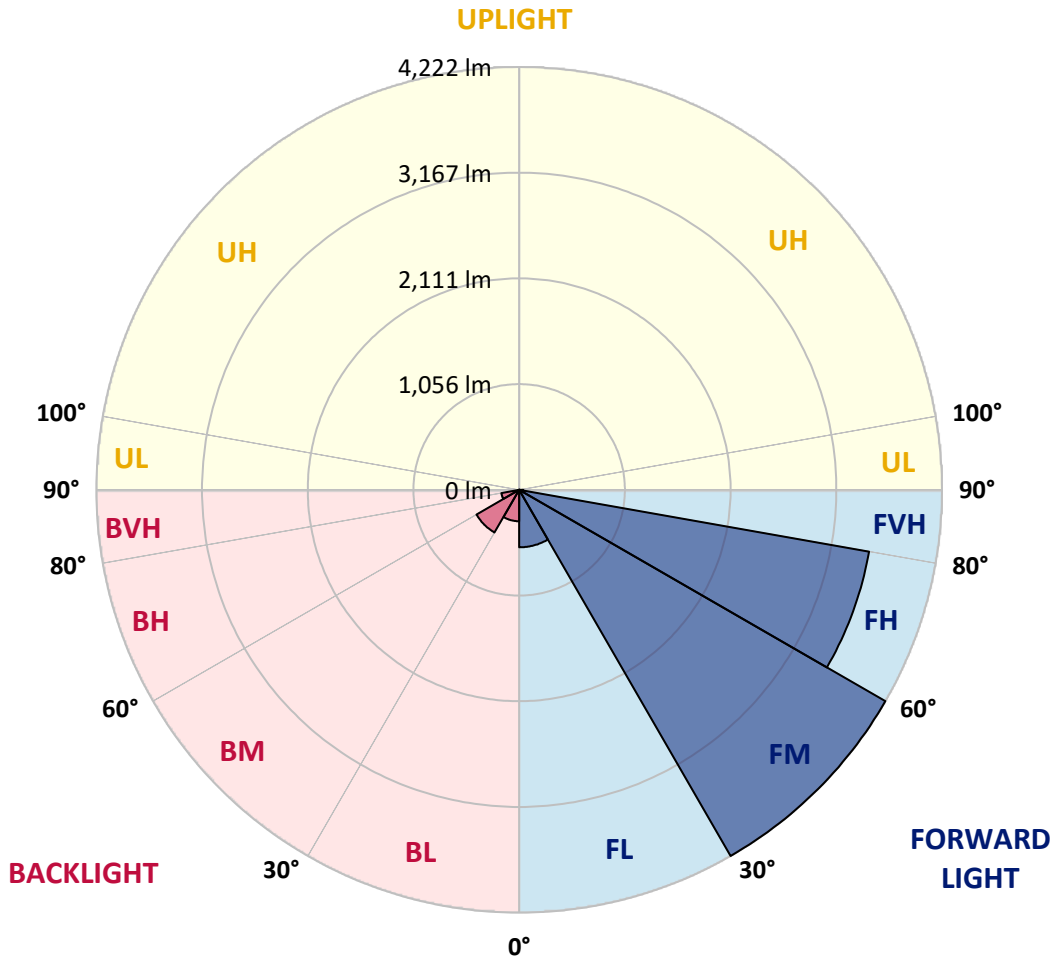
Scaled Data Report

REPORT NUMBER: P1199707
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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°) | 573.9 | 6.1 | | | |
| FM | (30°-60°) | 4222.0 | 45.0 | | | |
| FH | (60°-80°) | 3547.8 | 37.9 | | | G2/5000 |
| FVH | (80°-90°) | 41.3 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 313.9 | 3.3 | B1/500 | | |
| BM | (30°-60°) | 491.9 | 5.2 | B1/1000 | | |
| BH | (60°-80°) | 181.1 | 1.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.1 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G2**
Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | *1462.0* | 1462.0 |
| 2.5° | 1372.6 | 1385.1 | 1383.3 | 1391.6 | 1394.5 | 1406.4 | 1418.2 | 1434.2 | 1452.0 | *1451.4* | 1463.2 |
| 5° | 1295.1 | 1307.5 | 1310.5 | 1321.7 | 1335.9 | 1354.3 | 1378.6 | 1410.5 | 1443.7 | *1449.0* | 1472.7 |
| 7.5° | 1203.4 | 1216.4 | 1224.1 | 1246.6 | 1272.6 | 1310.5 | 1350.1 | 1396.9 | 1452.0 | *1459.7* | 1505.2 |
| 10° | 1111.6 | 1123.4 | 1133.5 | 1165.5 | 1206.9 | 1263.1 | 1327.7 | 1395.1 | 1469.1 | *1480.4* | 1544.9 |
| 12.5° | 1054.8 | 1066.0 | 1077.3 | 1105.1 | 1156.6 | 1225.3 | 1312.9 | 1403.4 | 1497.5 | *1513.5* | 1598.8 |
| 15° | 1034.7 | 1044.7 | 1053.6 | 1078.5 | 1126.4 | 1204.5 | 1309.9 | 1420.6 | 1533.6 | *1554.9* | 1663.9 |
| 17.5° | 1037.6 | 1042.9 | 1048.9 | 1067.8 | 1114.6 | 1195.1 | 1315.2 | 1450.2 | 1576.3 | *1595.2* | 1729.0 |
| 20° | 1054.8 | 1057.7 | 1058.3 | 1071.4 | 1112.8 | 1193.9 | 1325.9 | 1478.6 | 1616.5 | *1642.0* | 1793.5 |
| 22.5° | 1076.7 | 1077.9 | 1076.7 | 1085.6 | 1124.0 | 1202.8 | 1340.1 | 1512.9 | 1661.5 | *1685.2* | 1858.6 |
| 25° | 1179.1 | 1156.6 | 1128.2 | 1111.0 | 1143.0 | 1219.9 | 1361.4 | 1559.1 | 1710.6 | *1733.7* | 1921.9 |
| 27.5° | 1496.9 | 1432.4 | 1330.6 | 1216.4 | 1182.0 | 1244.8 | 1391.0 | 1605.9 | 1760.3 | *1781.1* | 1990.0 |
| 30° | 2013.1 | 1928.4 | 1755.6 | 1498.1 | 1307.5 | 1296.9 | 1429.5 | 1652.6 | 1813.0 | *1835.5* | 2062.8 |
| 32.5° | 2530.4 | 2509.7 | 2310.2 | 1953.9 | 1589.9 | 1412.9 | 1493.4 | 1715.9 | 1882.9 | *1900.6* | 2161.1 |
| 35° | 3053.7 | 3011.6 | 2848.3 | 2496.1 | 2024.9 | 1649.1 | 1599.9 | 1798.8 | 1974.6 | *1994.7* | 2304.3 |
| 37.5° | 3454.4 | 3428.9 | 3327.7 | 3037.7 | 2541.1 | 2013.7 | 1782.2 | 1927.3 | 2107.8 | *2130.3* | 2487.8 |
| 40° | 3808.4 | 3796.5 | 3762.2 | 3571.0 | 3118.2 | 2490.8 | 2065.8 | 2126.1 | 2292.5 | *2319.1* | 2712.7 |
| 42.5° | 4086.5 | 4114.4 | 4133.9 | 4080.6 | 3713.1 | 3035.3 | 2447.0 | 2405.5 | 2550.0 | *2577.2* | 2999.2 |
| 45° | 4371.3 | 4380.7 | 4459.5 | 4536.4 | 4303.8 | 3604.7 | 2876.7 | 2732.9 | 2870.2 | *2903.9* | 3342.5 |
| 47.5° | 4554.2 | 4592.0 | 4730.5 | 4866.1 | 4800.4 | 4169.4 | 3338.4 | 3119.4 | 3241.3 | *3304.6* | 3727.3 |
| 50° | 4567.8 | 4639.4 | 4830.0 | 5066.2 | 5162.1 | 4706.9 | 3840.3 | 3559.7 | 3689.4 | *3759.2* | 4138.0 |
| 52.5° | 4341.1 | 4452.4 | 4747.7 | 5093.4 | 5357.4 | 5162.1 | 4359.4 | 4000.1 | 4166.5 | *4257.6* | 4564.2 |
| 55° | 3328.3 | 3473.9 | 4438.1 | 4945.4 | 5365.1 | 5507.1 | 4864.9 | 4458.9 | 4698.0 | *4801.0* | 5024.7 |
| 57.5° | 2899.8 | 2973.2 | 3489.3 | 4688.5 | 5222.4 | 5646.2 | 5321.9 | 4895.7 | 5276.3 | *5404.1* | 5459.8 |
| 60° | 2412.6 | 2509.1 | 2926.4 | 4268.3 | 5028.9 | 5659.8 | 5725.5 | 5459.2 | 5903.1 | *6047.0* | 5858.7 |
| 62.5° | 1639.6 | 1744.4 | 2159.3 | 3546.1 | 4764.3 | 5653.3 | 6056.4 | 6039.3 | 6599.8 | *6754.3* | 6196.7 |
| 65° | 1015.7 | 1081.4 | 1354.9 | 2895.6 | 4394.3 | 5660.4 | 6402.7 | 6743.6 | 7335.0 | *7491.8* | 6458.3 |
| 67.5° | 802.6 | 832.8 | 975.5 | 2223.2 | 3756.9 | 5500.6 | 6748.4 | 7406.0 | 8026.9 | *8151.2* | 6538.2 |
| 70° | *539.2* | *557.6* | *709.7* | *1490.4* | *2795.0* | *4763.1* | *6741.9* | *7738.6* | *8383.2* | *8445.4* | *6247.0* |
| 72.5° | 284.1 | 298.3 | 414.9 | 690.2 | 1688.1 | 3385.7 | 5682.9 | 7340.9 | 8028.7 | *7935.2* | 5339.6 |
| 75° | 142.1 | 165.7 | 279.4 | 350.4 | 720.9 | 1888.2 | 3529.0 | 5787.7 | 6319.2 | *5957.0* | 3426.0 |
| 77.5° | 107.7 | 130.2 | 230.8 | 230.8 | 251.0 | 635.7 | 1494.6 | 3156.7 | 2911.6 | *2424.5* | 1005.7 |
| 80° | 68.7 | 88.8 | 201.8 | 174.6 | 104.8 | 161.6 | 389.5 | 884.3 | 618.5 | *470.6* | 182.9 |
| 82.5° | 40.2 | 58.0 | 168.1 | 115.4 | 58.6 | 59.8 | 110.1 | 188.2 | 160.4 | *124.9* | 56.2 |
| 85° | 16.0 | 37.9 | 115.4 | 45.6 | 23.1 | 14.8 | 33.1 | 40.2 | 33.1 | *24.9* | 14.2 |
| 87.5° | 0.0 | 8.9 | 20.1 | 0.0 | 1.8 | 1.2 | 2.4 | 3.0 | 3.0 | *2.4* | 4.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 |

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REPORT NUMBER: P1199707
CATALOG NUMBER: GPC-SB2B-730-U-T3R-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 | 1462.0 |
| 2.5° | 1468.5 | 1469.7 | 1473.3 | 1473.9 | 1465.6 | 1454.9 | 1450.8 | 1449.0 | 1441.9 | 1441.3 | 1442.5 |
| 5° | 1486.3 | 1491.6 | 1486.3 | 1470.9 | 1434.2 | 1382.7 | 1343.6 | 1311.7 | 1282.7 | 1273.8 | 1268.5 |
| 7.5° | 1521.8 | 1527.1 | 1511.1 | 1450.8 | 1358.4 | 1256.0 | 1163.7 | 1098.6 | 1040.0 | 1018.1 | 1009.2 |
| 10° | 1572.7 | 1579.8 | 1529.5 | 1407.6 | 1244.2 | 1079.6 | 923.4 | 813.3 | 727.5 | 692.5 | 677.7 |
| 12.5° | 1636.6 | 1639.6 | 1539.6 | 1341.9 | 1095.6 | 860.6 | 639.3 | 521.5 | 445.1 | 416.7 | 407.8 |
| 15° | 1707.1 | 1702.9 | 1540.7 | 1252.5 | 893.2 | 608.5 | 417.3 | 342.7 | 311.9 | 302.5 | 302.5 |
| 17.5° | 1781.1 | 1763.9 | 1517.1 | 1123.4 | 671.2 | 416.1 | 309.6 | 291.8 | 286.5 | 284.1 | 283.5 |
| 20° | 1853.9 | 1815.4 | 1473.9 | 954.8 | 481.8 | 310.8 | 281.2 | 275.8 | 272.9 | 271.7 | 270.5 |
| 22.5° | 1920.2 | 1854.5 | 1399.9 | 758.8 | 349.8 | 274.6 | 265.8 | 261.0 | 255.7 | 253.3 | 252.7 |
| 25° | 1984.7 | 1876.9 | 1295.7 | 575.9 | 280.0 | 256.9 | 249.8 | 240.9 | 233.8 | 230.8 | 229.7 |
| 27.5° | 2047.4 | 1891.2 | 1165.5 | 426.2 | 249.8 | 240.3 | 227.3 | 214.9 | 209.5 | 208.4 | 207.2 |
| 30° | 2114.3 | 1895.9 | 1017.5 | 317.9 | 231.4 | 219.6 | 200.7 | 186.5 | 183.5 | 184.1 | 184.1 |
| 32.5° | 2196.0 | 1903.0 | 868.3 | 260.4 | 216.0 | 194.7 | 172.2 | 157.4 | 155.1 | 157.4 | 156.9 |
| 35° | 2293.7 | 1917.2 | 724.5 | 239.7 | 202.4 | 169.3 | 145.0 | 132.6 | 130.2 | 132.0 | 131.4 |
| 37.5° | 2426.2 | 1940.3 | 590.1 | 235.6 | 191.2 | 148.0 | 121.9 | 111.9 | 111.9 | 112.5 | 111.9 |
| 40° | 2602.6 | 2001.8 | 470.0 | 232.6 | 185.3 | 132.0 | 103.0 | 98.8 | 100.6 | 101.8 | 101.8 |
| 42.5° | 2817.5 | 2132.7 | 388.9 | 229.1 | 178.8 | 124.9 | 93.5 | 91.7 | 94.7 | 95.9 | 95.9 |
| 45° | 3058.4 | 2298.4 | 360.5 | 223.2 | 172.8 | 129.6 | 89.4 | 87.0 | 90.6 | 91.2 | 91.7 |
| 47.5° | 3307.6 | 2460.6 | 356.9 | 216.6 | 166.9 | 136.7 | 88.2 | 82.9 | 87.0 | 87.6 | 88.2 |
| 50° | 3559.7 | 2566.5 | 360.5 | 206.6 | 157.4 | 136.7 | 88.8 | 78.7 | 82.3 | 84.1 | 84.6 |
| 52.5° | 3813.7 | 2615.1 | 358.1 | 184.7 | 140.9 | 128.4 | 88.8 | 75.2 | 78.7 | 79.9 | 79.9 |
| 55° | 4059.9 | 2605.6 | 322.0 | 152.1 | 119.6 | 113.6 | 86.4 | 72.2 | 74.6 | 75.2 | 75.2 |
| 57.5° | 4254.7 | 2473.6 | 255.1 | 118.4 | 97.1 | 94.7 | 78.7 | 68.7 | 70.4 | 69.8 | 69.8 |
| 60° | 4356.5 | 2183.6 | 182.3 | 91.2 | 76.4 | 74.6 | 69.3 | 63.9 | 65.1 | 62.2 | 61.6 |
| 62.5° | 4357.6 | 1800.0 | 121.9 | 72.2 | 61.0 | 59.2 | 59.2 | 57.4 | 56.2 | 50.3 | 48.5 |
| 65° | 4264.7 | 1374.4 | 81.1 | 57.4 | 49.1 | 46.2 | 49.7 | 49.1 | 45.0 | 36.7 | 35.5 |
| 67.5° | 4054.0 | 900.9 | 61.6 | 45.0 | 37.9 | 36.1 | 39.7 | 41.4 | 38.5 | 30.8 | 30.2 |
| 70° | *3620.7* | *524.4* | *50.9* | *34.9* | *28.4* | *26.6* | *32.0* | *35.5* | *32.0* | *24.9* | *23.7* |
| 72.5° | 3007.5 | 282.9 | 41.4 | 26.0 | 19.5 | 17.8 | 25.5 | 29.0 | 25.5 | 18.3 | 17.8 |
| 75° | 1951.5 | 151.5 | 32.0 | 17.2 | 10.1 | 11.2 | 18.9 | 21.3 | 17.8 | 11.8 | 10.7 |
| 77.5° | 655.2 | 66.9 | 20.1 | 8.3 | 4.7 | 4.7 | 11.2 | 13.0 | 8.3 | 4.1 | 3.6 |
| 80° | 146.2 | 27.8 | 8.3 | 3.6 | 1.8 | 1.8 | 2.4 | 2.4 | 1.2 | 0.0 | 0.0 |
| 82.5° | 47.9 | 11.2 | 3.6 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 18.3 | 4.1 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 7.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

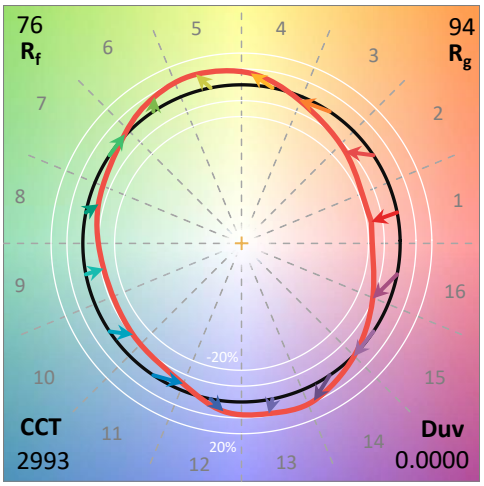
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-2-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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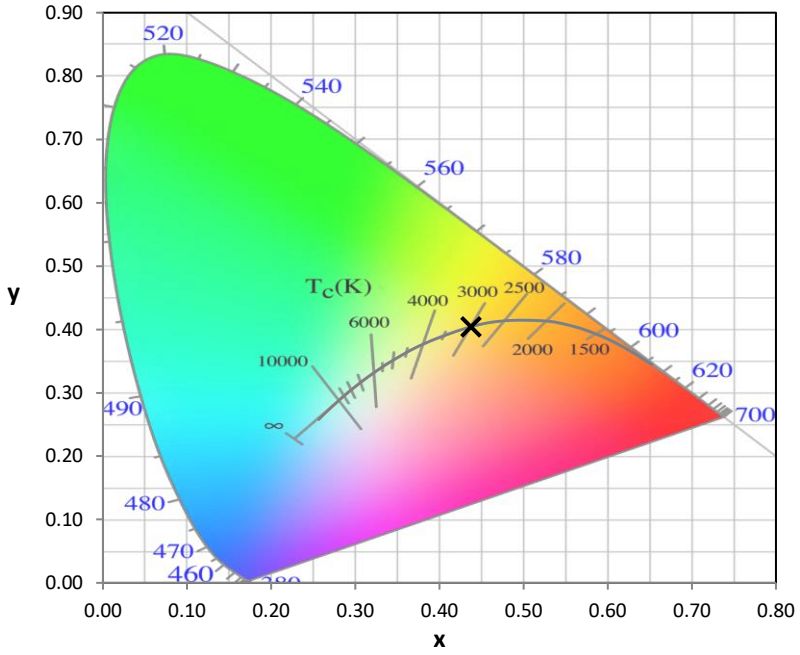
REPORT NUMBER: SP1-1908-441-2-R4

| 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 |

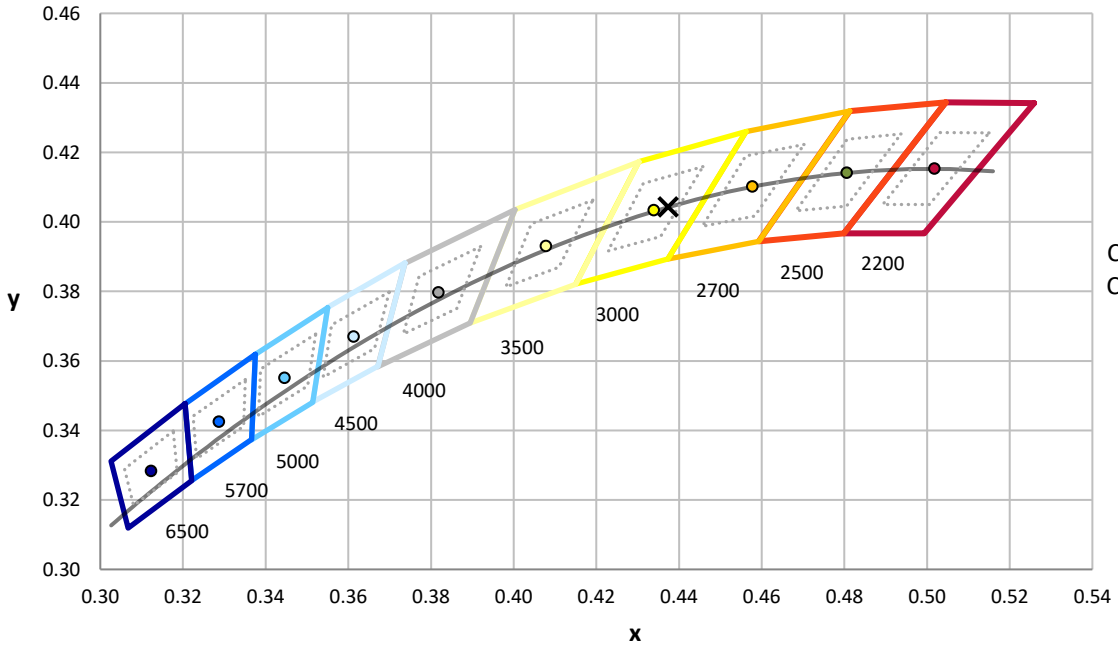
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Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



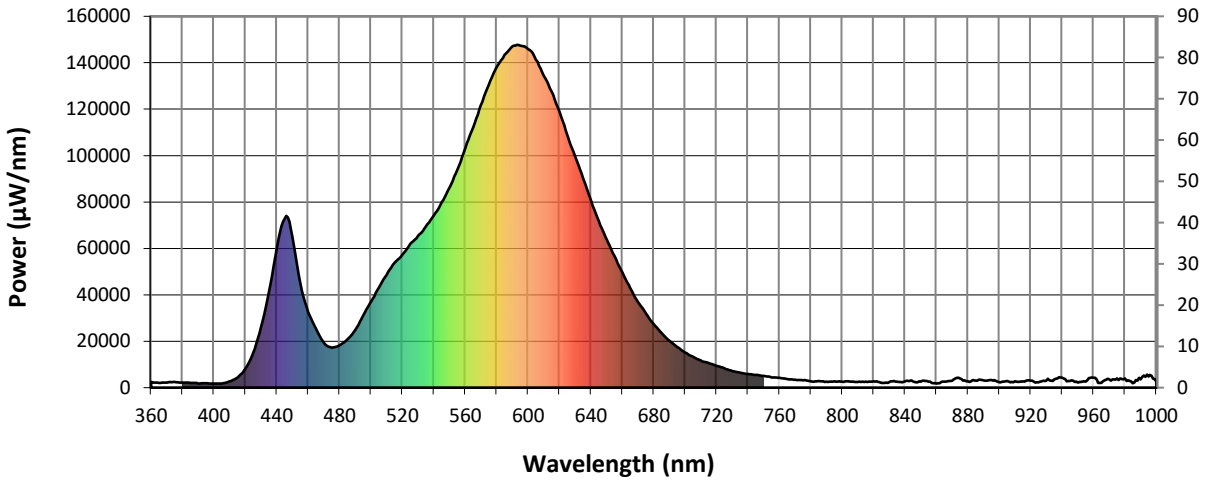

CCT = 2993K
CIE x = 0.4374
CIE y = 0.4043
Duv = 0.0000

Point lies inside the ANSI 3000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



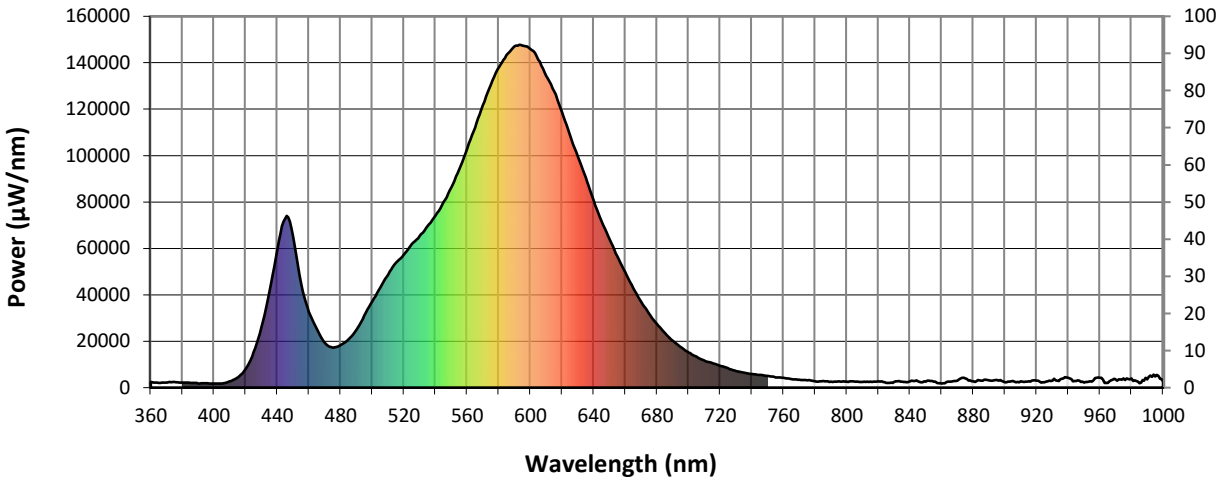

######

| 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



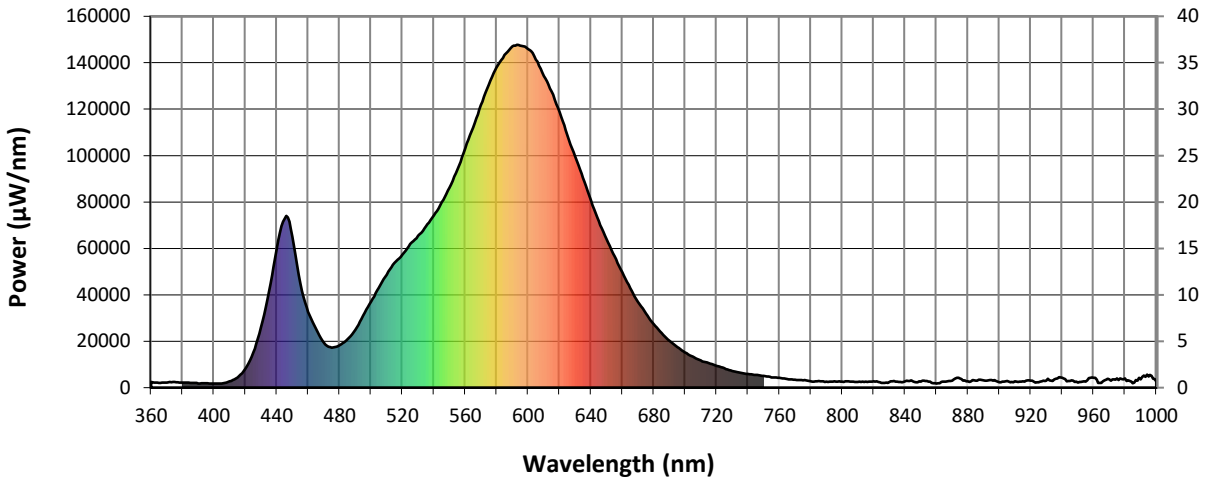

**Scotopic Lumens: 8494.8** **S/P: 1.23**

| 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

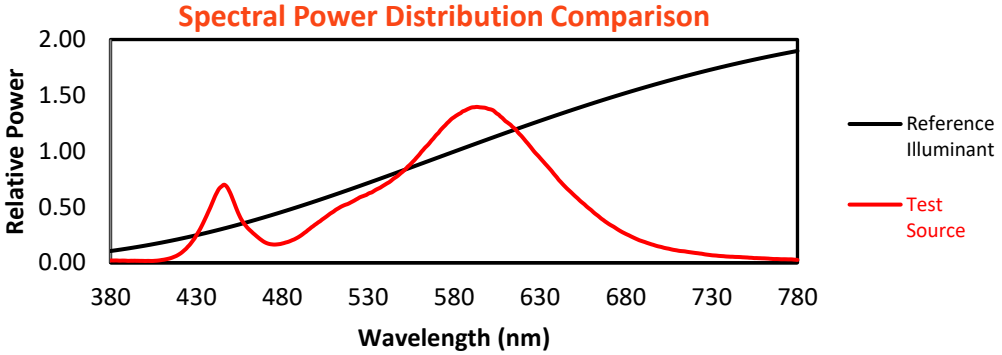
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# TM-30-18

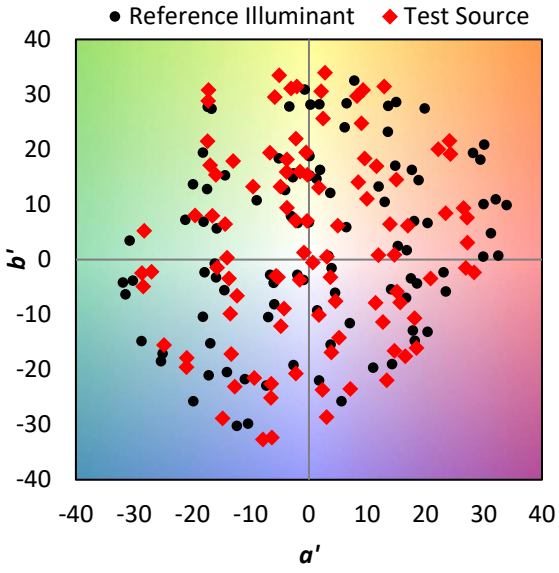
## Summary

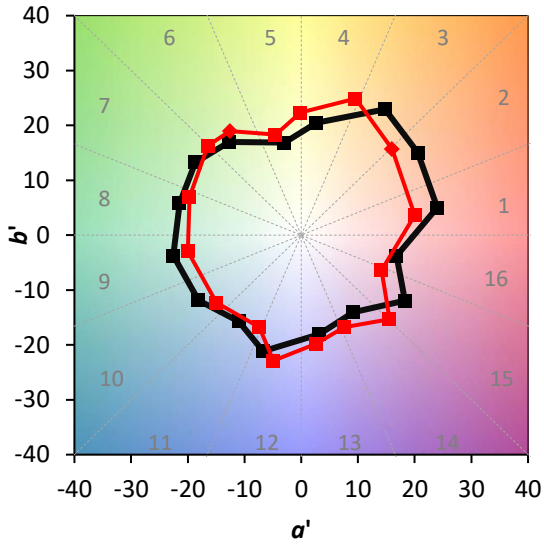
$R_f$ = 75.7
$R_g$ = 93.9
CIE $R_a$ = 71.8
$R_9$ = -38.3

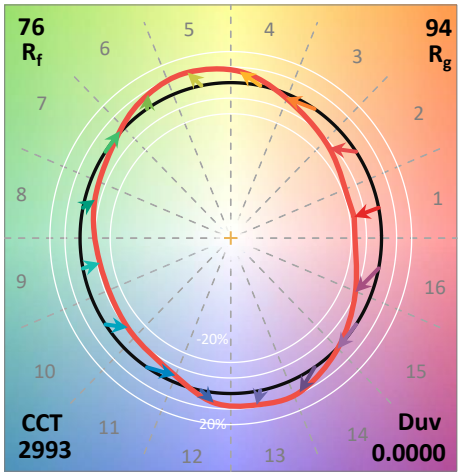
## Spectral Power Distribution Comparison

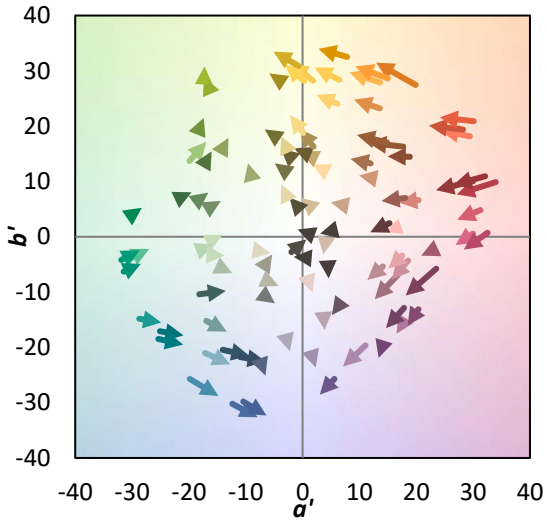



## Color Vector Graphics



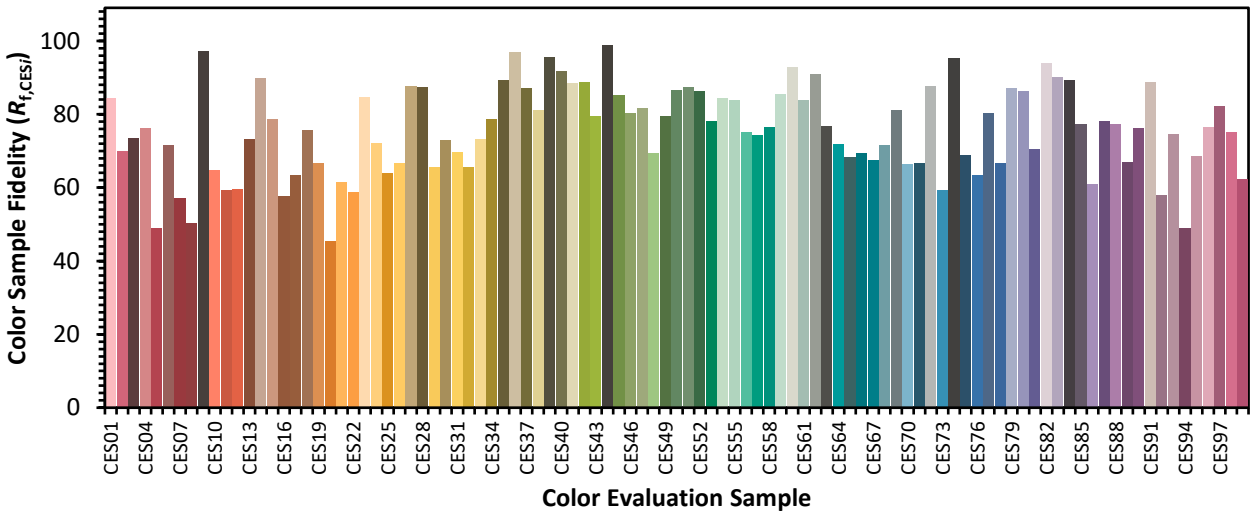
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Peachtree City, GA 30269

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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 | |

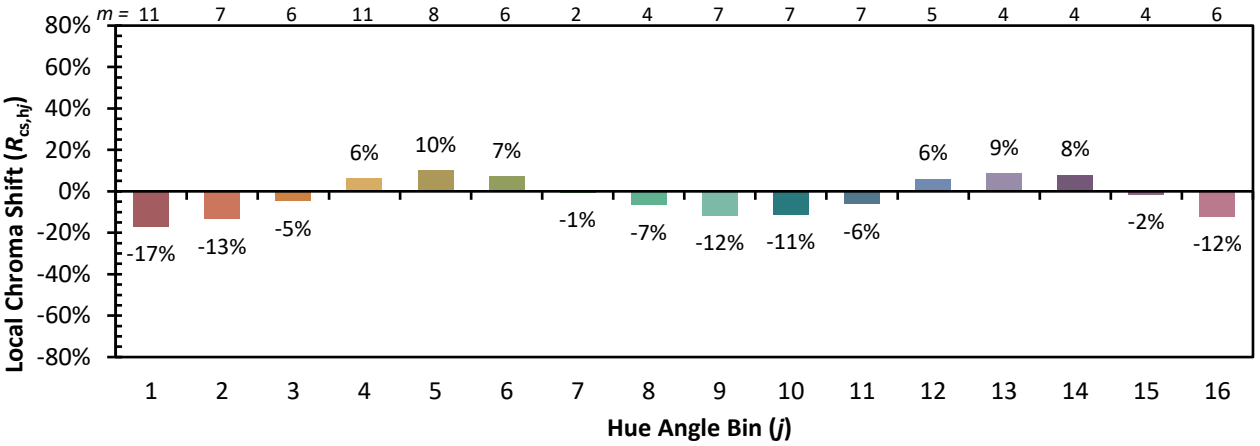


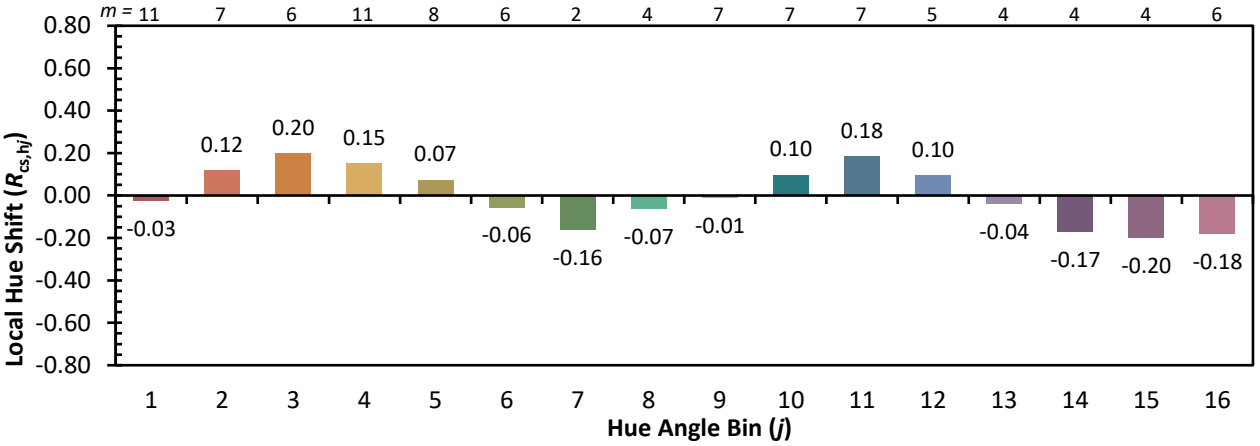
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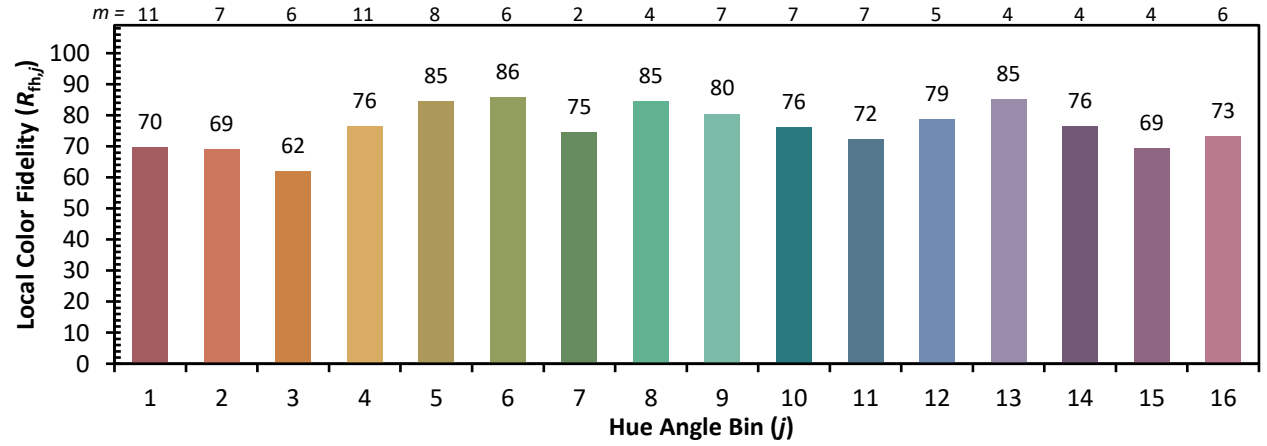
REPORT NUMBER: SP1-1908-441-2-R4

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## Color Rendition by Hue-Angle Bin



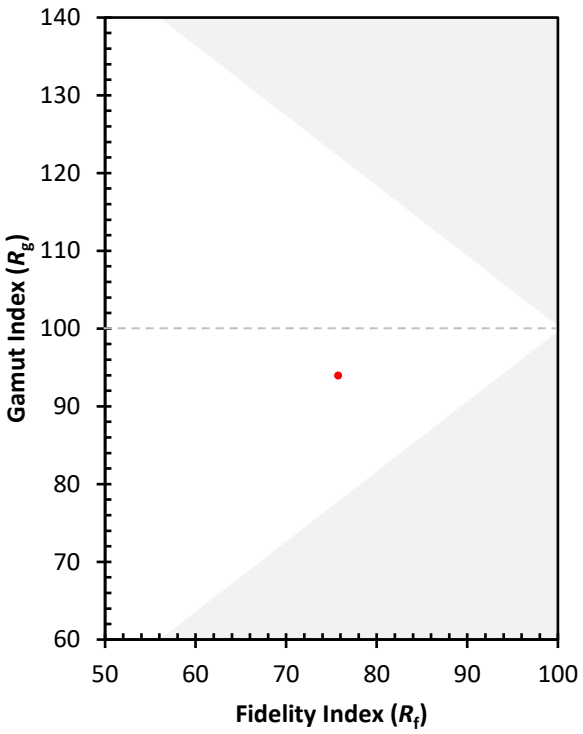



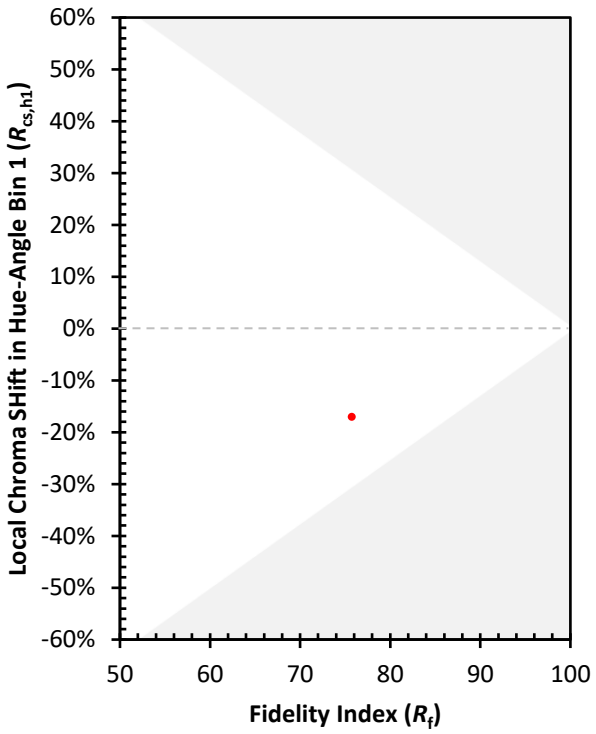
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### Measure Comparisons




(END OF REPORT)