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

Cooper Lighting Solutions Photometric Lab
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: P1203037

Luminaire Tested: GWC-SB2B-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: | P1203037 |
| | 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-SB2B-740-U-T4W |
| Description: | GALLEON WALL LUMINAIRE |
| | (2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 11889 lumens |
| Efficiency: | N/A |
| Efficacy: | 160.9 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G3 |

| | |
|---|---|
| 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 |

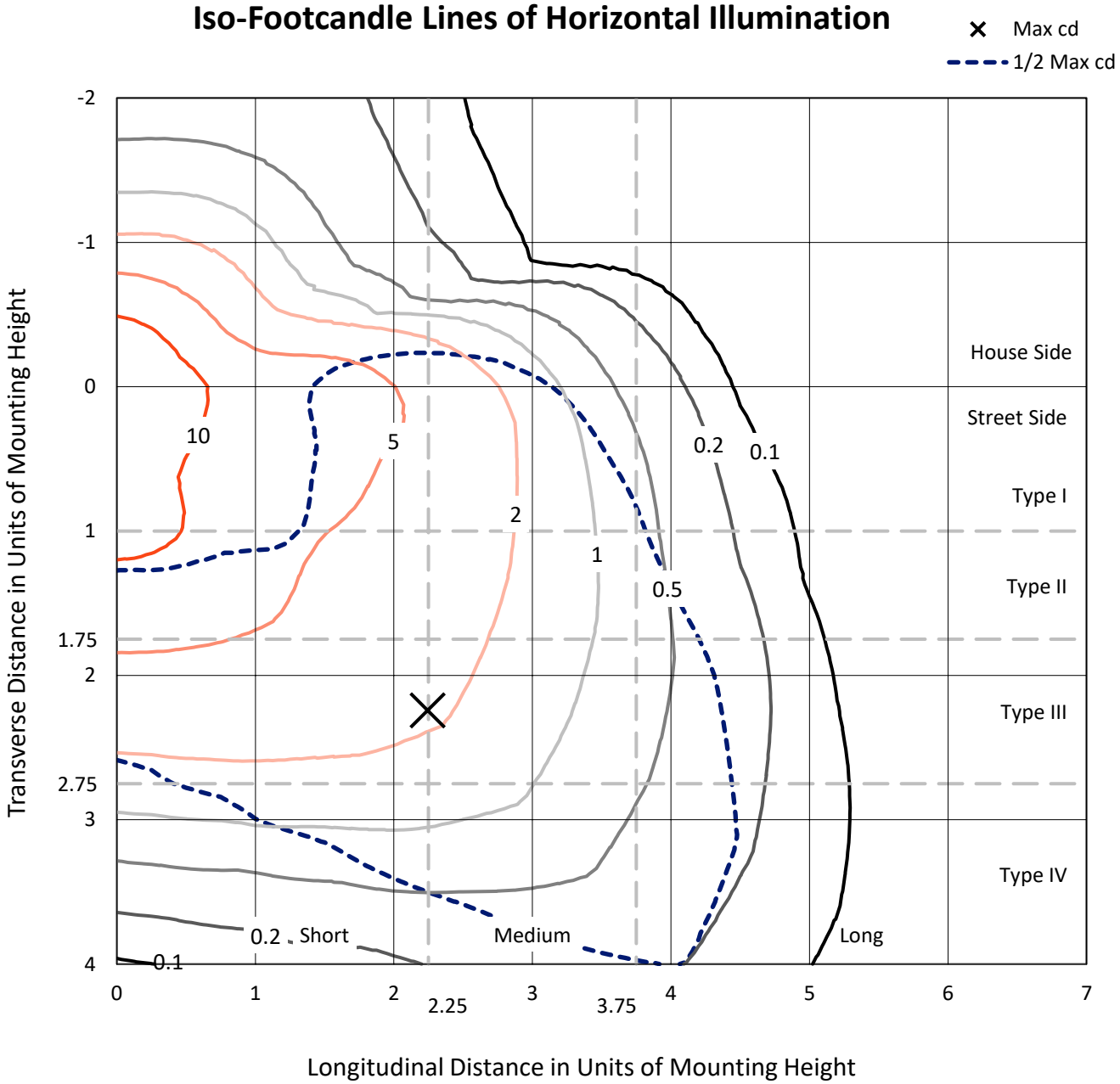


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Scaled Data Report

REPORT NUMBER: P1203037
CATALOG NUMBER: GWC-SB2B-740-U-T4W

## Iso-Footcandle Lines of Horizontal Illumination



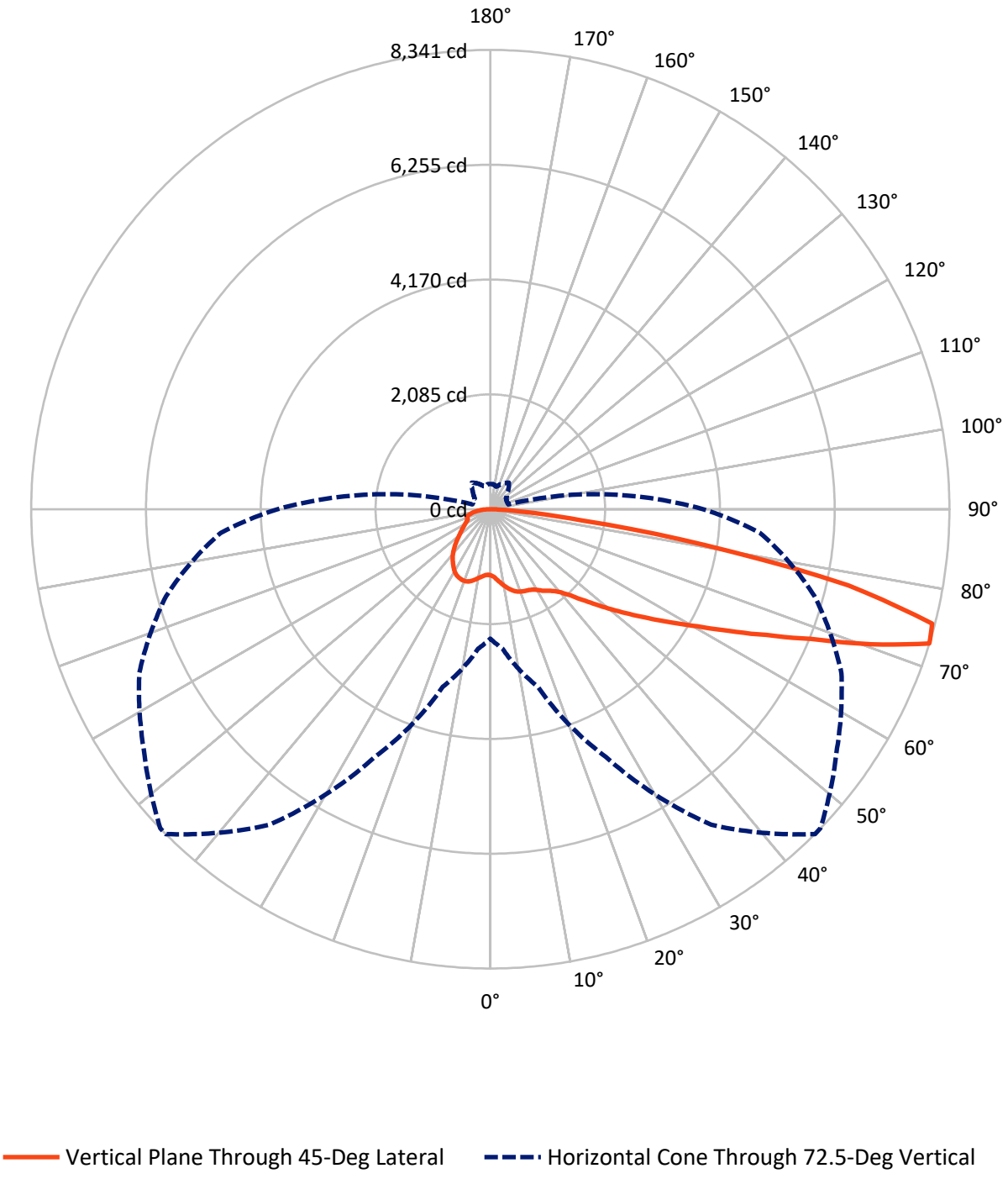

Based on 10 foot mounting height. Maximum calculated value = 13.8 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

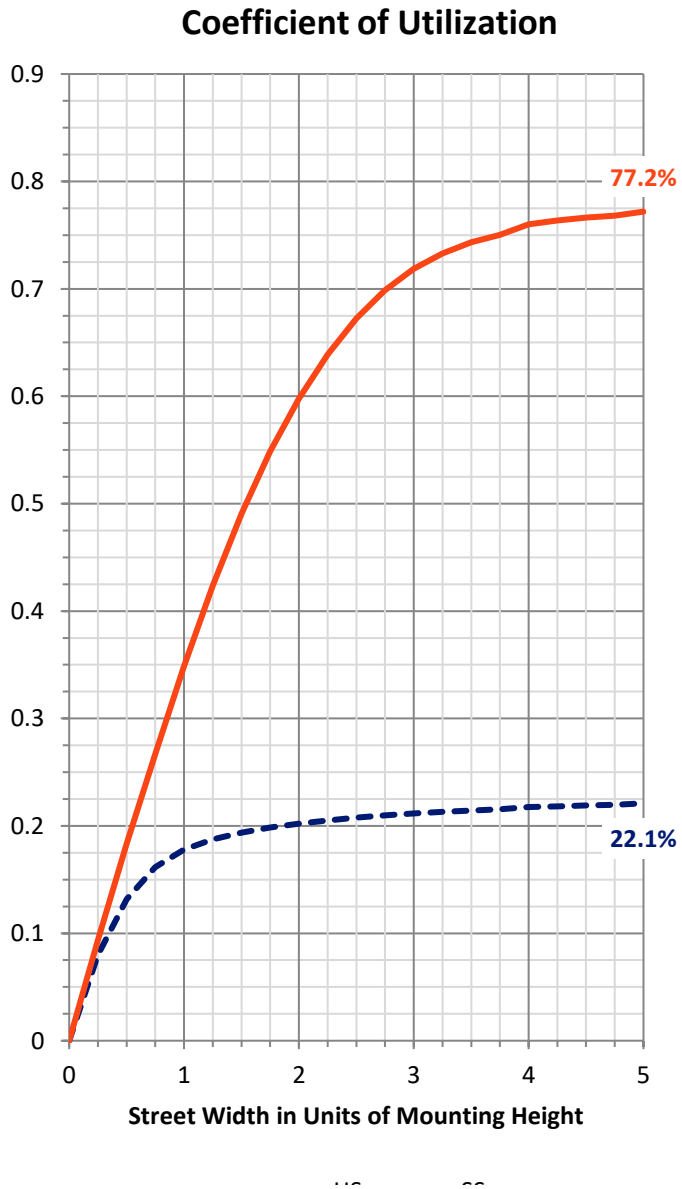
REPORT NUMBER: P1203037
CATALOG NUMBER: GWC-SB2B-740-U-T4W

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2687.7 | 0.0 | 2687.7 |
| | % Fixture | 22.6 | 0.0 | 22.6 |
| **Street Side** | Lumens | 9201.3 | 0.0 | 9201.3 |
| | % Fixture | 77.4 | 0.0 | 77.4 |
| **Total** | Lumens | 11889.0 | 0.0 | 11889.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 122.1 | 1.0 |
| 10°-20° | 407.0 | 3.4 |
| 20°-30° | 708.0 | 6.0 |
| 30°-40° | 1015.0 | 8.5 |
| 40°-50° | 1429.1 | 12.0 |
| 50°-60° | 2189.0 | 18.4 |
| 60°-70° | 3171.1 | 26.7 |
| 70°-80° | 2532.3 | 21.3 |
| 80°-90° | 315.4 | 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° | 11889.0 | 100.0 |
| 0°-180° | 11889.0 | 100.0 |



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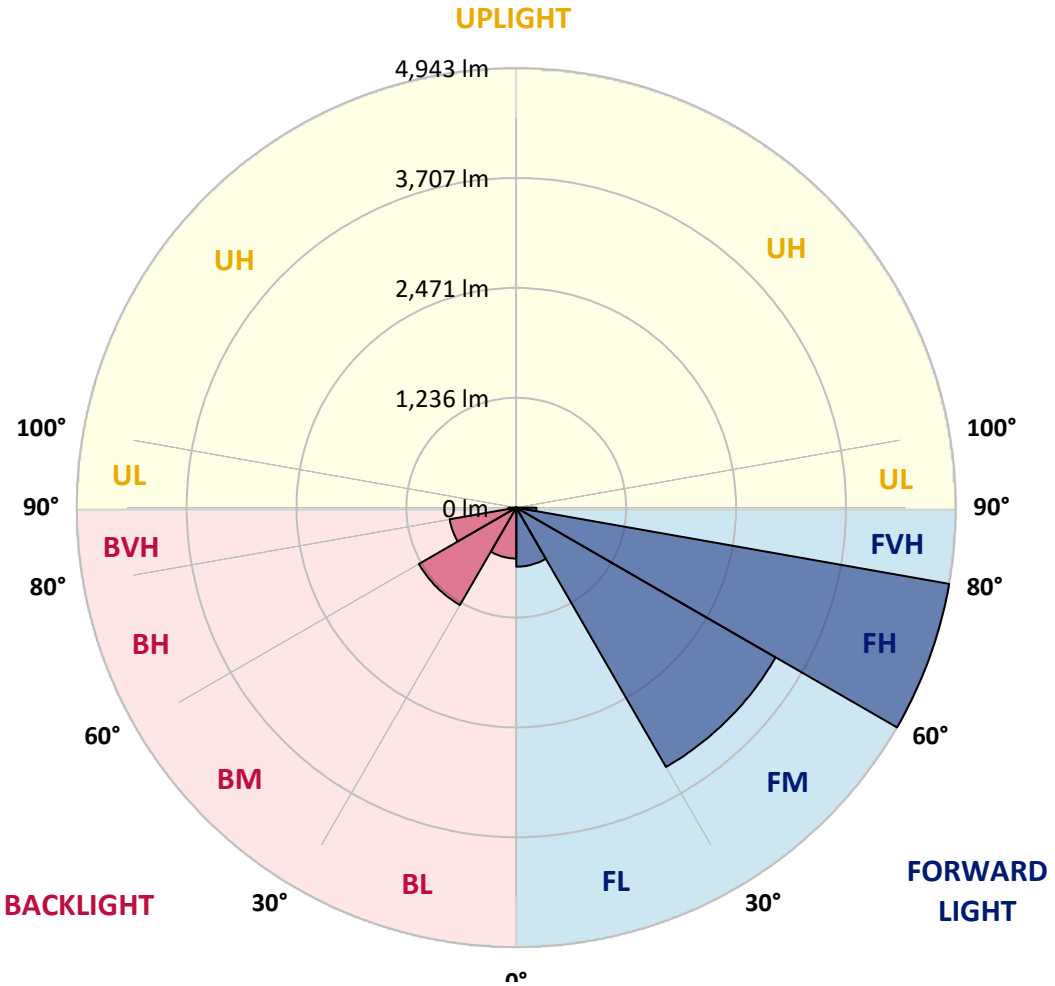
Scaled Data Report

REPORT NUMBER: P1203037
CATALOG NUMBER: GWC-SB2B-740-U-T4W

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 664.9 | 5.6 | | | |
| FM | (30°-60°) | 3367.6 | 28.3 | | | |
| FH | (60°-80°) | 4942.6 | 41.6 | | | G2/5000 |
| FVH | (80°-90°) | 226.3 | 1.9 | | | G3/500 |
| BL | (0°-30°) | 572.2 | 4.8 | B2/1000 | | |
| BM | (30°-60°) | 1265.5 | 10.6 | B2/2500 | | |
| BH | (60°-80°) | 760.8 | 6.4 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 89.1 | 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-G3**
Type IV Short



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REPORT NUMBER: P1203037
CATALOG NUMBER: GWC-SB2B-740-U-T4W

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 | *1199.4* | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 |
| 2.5° | 1246.3 | 1254.5 | 1247.0 | 1240.1 | 1236.9 | *1228.8* | 1228.2 | 1223.2 | 1220.0 | 1211.3 | 1208.8 |
| 5° | 1333.4 | 1344.0 | 1331.5 | 1317.7 | 1305.2 | *1285.2* | 1282.7 | 1268.3 | 1252.0 | 1233.2 | 1222.5 |
| 7.5° | 1431.7 | 1441.1 | 1426.7 | 1406.0 | 1384.1 | *1350.9* | 1350.3 | 1324.0 | 1298.3 | 1266.4 | 1248.2 |
| 10° | 1517.5 | 1530.1 | 1510.6 | 1482.5 | 1454.9 | *1417.3* | 1412.9 | 1382.9 | 1350.3 | 1309.0 | 1281.4 |
| 12.5° | 1593.3 | 1602.1 | 1583.3 | 1548.8 | 1516.9 | *1479.3* | 1473.7 | 1440.5 | 1404.2 | 1357.2 | 1322.1 |
| 15° | 1653.4 | 1664.7 | 1639.7 | 1602.7 | 1568.9 | *1531.9* | 1526.9 | 1496.9 | 1460.5 | 1411.1 | 1366.0 |
| 17.5° | 1692.9 | 1702.3 | 1676.6 | 1635.3 | 1602.7 | *1572.0* | 1568.3 | 1543.2 | 1511.3 | 1461.2 | 1412.9 |
| 20° | 1707.9 | 1717.9 | 1691.0 | 1649.1 | 1619.0 | *1595.2* | 1593.3 | 1575.2 | 1553.2 | 1507.5 | 1458.7 |
| 22.5° | 1723.0 | 1732.4 | 1697.3 | 1653.4 | 1627.1 | *1612.1* | 1611.5 | 1599.6 | 1590.8 | 1553.2 | 1505.6 |
| 25° | 1783.7 | 1786.2 | 1739.2 | 1676.0 | 1638.4 | *1625.3* | 1624.6 | 1624.0 | 1627.8 | 1598.3 | 1556.4 |
| 27.5° | 1836.3 | 1835.7 | 1795.6 | 1736.1 | 1677.9 | *1650.3* | 1649.7 | 1655.9 | 1667.8 | 1643.4 | 1609.0 |
| 30° | 1913.4 | 1906.5 | 1858.9 | 1796.9 | 1743.6 | *1701.0* | 1697.3 | 1691.6 | 1701.0 | 1681.6 | 1661.6 |
| 32.5° | 2076.8 | 2054.9 | 1977.9 | 1867.6 | 1798.1 | *1765.5* | 1760.5 | 1725.5 | 1729.2 | 1717.3 | 1707.3 |
| 35° | 2311.1 | 2282.2 | 2179.5 | 2001.7 | 1865.8 | *1819.4* | 1816.9 | 1772.4 | 1764.9 | 1754.3 | 1758.0 |
| 37.5° | 2589.8 | 2554.1 | 2434.4 | 2195.8 | 1982.2 | *1882.0* | 1878.3 | 1838.2 | 1807.5 | 1796.2 | 1817.5 |
| 40° | 2869.7 | 2824.6 | 2725.7 | 2432.6 | 2153.9 | *1986.6* | 1974.7 | 1914.0 | 1878.9 | 1860.1 | 1905.2 |
| 42.5° | 3141.5 | 3104.0 | 3019.4 | 2698.1 | 2365.5 | *2139.4* | 2113.1 | 2009.2 | 1982.9 | 1965.3 | 2046.8 |
| 45° | 3382.0 | 3348.2 | 3286.2 | 2981.8 | 2613.6 | *2347.4* | 2321.7 | 2152.0 | 2143.8 | 2143.8 | 2261.6 |
| 47.5° | 3577.4 | 3569.9 | 3504.2 | 3271.2 | 2906.0 | *2584.1* | 2539.7 | 2350.5 | 2372.4 | 2406.3 | 2566.6 |
| 50° | 3794.1 | 3773.5 | 3703.3 | 3556.1 | 3249.9 | *2855.3* | 2819.0 | 2594.1 | 2676.2 | 2768.9 | 3007.5 |
| 52.5° | 3993.3 | 4004.6 | 3926.3 | 3853.0 | 3638.2 | *3157.8* | 3093.9 | 2881.6 | 3058.9 | 3212.3 | 3524.2 |
| 55° | 4198.1 | 4198.7 | 4176.8 | 4166.8 | 4045.3 | *3492.3* | 3422.1 | 3227.3 | 3509.2 | 3699.6 | 4126.7 |
| 57.5° | 4390.4 | 4391.6 | 4424.2 | 4512.5 | 4517.5 | *3878.1* | 3798.5 | 3652.0 | 4009.6 | 4203.7 | 4748.0 |
| 60° | 4562.0 | 4570.8 | 4659.7 | 4866.4 | 4932.8 | *4320.2* | 4245.1 | 4153.6 | 4526.9 | 4722.3 | 5401.2 |
| 62.5° | 4619.6 | 4651.5 | 4849.5 | 5143.2 | 5343.0 | *4862.6* | 4788.7 | 4734.2 | 5070.5 | 5252.2 | 5947.4 |
| 65° | 4521.9 | 4595.2 | 4977.8 | 5371.8 | 5765.1 | *5507.1* | 5433.8 | 5374.3 | 5635.5 | 5806.4 | 6395.8 |
| 67.5° | 4282.0 | 4376.6 | 4970.3 | 5611.7 | 6277.4 | *6282.4* | 6214.2 | 6074.5 | 6241.1 | 6306.9 | 6541.7 |
| 70° | 3650.1 | 3791.6 | 4532.5 | 5701.2 | 6865.5 | *7342.8* | 7277.0 | 6917.5 | 6845.5 | 6527.3 | 6130.9 |
| 72.5° | *2351.8* | *2542.2* | *3337.6* | *4964.1* | *6996.4* | *8340.5* | *8336.7* | *7678.5* | *7036.5* | *6098.9* | *4917.1* |
| 75° | 858.0 | 974.5 | 1550.7 | 3115.9 | 5872.8 | *8289.7* | 8314.2 | 7548.2 | 6423.4 | 4711.0 | 3063.2 |
| 77.5° | 312.5 | 342.0 | 506.1 | 1197.5 | 3611.9 | *6651.3* | 6702.1 | 6034.4 | 4572.0 | 2364.3 | 1213.8 |
| 80° | 164.1 | 180.4 | 259.3 | 464.7 | 1547.6 | *3950.1* | 4029.6 | 3586.2 | 2148.8 | 712.1 | 363.9 |
| 82.5° | 90.8 | 98.3 | 145.3 | 252.4 | 697.1 | *1689.1* | 1736.7 | 1416.7 | 755.9 | 301.9 | 150.3 |
| 85° | 48.9 | 52.0 | 68.3 | 137.8 | 340.7 | *585.6* | 598.7 | 423.4 | 301.3 | 177.2 | 72.7 |
| 87.5° | 14.4 | 17.5 | 22.5 | 43.8 | 133.4 | *131.5* | 134.7 | 83.9 | 119.0 | 89.6 | 23.8 |
| 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: P1203037
CATALOG NUMBER: GWC-SB2B-740-U-T4W

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 | 1199.4 |
| 2.5° | 1205.0 | 1203.1 | 1196.2 | 1193.1 | 1189.3 | 1188.7 | 1191.9 | 1192.5 | 1193.1 | 1193.7 | 1196.2 |
| 5° | 1216.3 | 1210.0 | 1203.8 | 1200.0 | 1201.2 | 1201.9 | 1208.1 | 1212.5 | 1215.7 | 1218.2 | 1219.4 |
| 7.5° | 1238.2 | 1233.2 | 1222.5 | 1221.9 | 1223.8 | 1229.4 | 1237.6 | 1247.6 | 1253.2 | 1257.6 | 1258.9 |
| 10° | 1270.8 | 1261.4 | 1248.8 | 1250.7 | 1254.5 | 1262.6 | 1279.5 | 1287.7 | 1297.1 | 1305.2 | 1303.3 |
| 12.5° | 1304.0 | 1295.8 | 1281.4 | 1282.7 | 1288.9 | 1303.3 | 1319.6 | 1329.6 | 1335.9 | 1342.2 | 1344.7 |
| 15° | 1347.2 | 1332.8 | 1317.1 | 1317.1 | 1328.4 | 1344.0 | 1351.6 | 1359.7 | 1363.5 | 1370.3 | 1372.9 |
| 17.5° | 1391.6 | 1372.9 | 1352.2 | 1350.9 | 1364.7 | 1372.2 | 1376.6 | 1377.9 | 1379.1 | 1386.6 | 1389.1 |
| 20° | 1436.1 | 1415.4 | 1386.0 | 1383.5 | 1386.6 | 1385.4 | 1384.8 | 1383.5 | 1385.4 | 1394.8 | 1398.5 |
| 22.5° | 1480.0 | 1456.2 | 1415.4 | 1404.2 | 1395.4 | 1383.5 | 1382.9 | 1382.2 | 1383.5 | 1392.9 | 1399.2 |
| 25° | 1531.3 | 1502.5 | 1448.0 | 1414.2 | 1384.8 | 1368.5 | 1370.3 | 1371.0 | 1372.2 | 1379.7 | 1389.8 |
| 27.5° | 1587.0 | 1555.1 | 1478.1 | 1411.1 | 1357.8 | 1346.5 | 1343.4 | 1345.3 | 1349.7 | 1361.6 | 1373.5 |
| 30° | 1642.8 | 1605.2 | 1505.6 | 1398.5 | 1324.0 | 1308.3 | 1298.3 | 1302.7 | 1316.5 | 1328.4 | 1341.5 |
| 32.5° | 1693.5 | 1655.9 | 1527.6 | 1371.0 | 1280.8 | 1256.4 | 1243.2 | 1248.8 | 1262.6 | 1267.0 | 1282.7 |
| 35° | 1753.0 | 1710.4 | 1536.9 | 1327.1 | 1233.8 | 1196.2 | 1178.7 | 1170.6 | 1177.4 | 1173.1 | 1186.8 |
| 37.5° | 1819.4 | 1774.9 | 1535.7 | 1269.5 | 1178.7 | 1135.5 | 1111.1 | 1080.4 | 1066.0 | 1050.9 | 1060.3 |
| 40° | 1917.7 | 1853.9 | 1520.7 | 1200.0 | 1110.4 | 1071.0 | 1027.1 | 975.2 | 942.6 | 913.1 | 915.0 |
| 42.5° | 2051.8 | 1963.5 | 1493.1 | 1123.6 | 1033.4 | 996.4 | 936.9 | 876.2 | 824.8 | 776.0 | 771.6 |
| 45° | 2251.6 | 2106.9 | 1458.7 | 1042.2 | 950.1 | 913.8 | 849.3 | 781.0 | 722.8 | 660.1 | 652.6 |
| 47.5° | 2539.7 | 2299.8 | 1426.1 | 949.5 | 862.4 | 829.2 | 771.0 | 707.7 | 638.8 | 578.1 | 571.2 |
| 50° | 2935.5 | 2576.6 | 1396.0 | 859.3 | 776.0 | 750.9 | 704.6 | 640.1 | 570.6 | 521.7 | 518.6 |
| 52.5° | 3439.0 | 2953.0 | 1383.5 | 772.2 | 695.2 | 685.8 | 648.8 | 588.7 | 523.0 | 481.6 | 478.5 |
| 55° | 4017.1 | 3403.3 | 1383.5 | 688.9 | 624.4 | 627.6 | 601.9 | 546.1 | 489.1 | 452.2 | 448.4 |
| 57.5° | 4607.1 | 3859.3 | 1358.4 | 611.9 | 564.3 | 577.5 | 561.2 | 512.3 | 461.0 | 422.8 | 416.5 |
| 60° | 5150.7 | 4241.3 | 1257.0 | 541.8 | 511.1 | 531.7 | 521.1 | 479.1 | 416.5 | 384.5 | 379.5 |
| 62.5° | 5568.5 | 4456.8 | 1061.6 | 486.0 | 467.2 | 491.0 | 485.4 | 435.3 | 408.3 | 395.2 | 390.8 |
| 65° | 5777.6 | 4421.7 | 811.7 | 436.5 | 430.3 | 467.2 | 455.3 | 453.4 | 432.1 | 417.1 | 412.1 |
| 67.5° | 5649.2 | 4119.8 | 588.7 | 400.2 | 409.0 | 445.3 | 491.0 | 498.5 | 459.1 | 429.6 | 424.6 |
| 70° | 5086.2 | 3573.7 | 438.4 | 365.8 | 382.0 | 445.9 | 559.9 | 521.7 | 450.3 | 415.9 | 410.2 |
| 72.5° | *3869.3* | *2664.9* | *340.1* | *329.4* | *347.0* | *449.1* | *590.6* | *511.1* | *425.3* | *459.7* | *455.9* |
| 75° | 2212.7 | 1463.0 | 273.1 | 285.0 | 303.1 | 419.6 | 574.9 | 483.5 | 405.8 | 422.1 | 422.1 |
| 77.5° | 843.6 | 562.4 | 225.5 | 241.1 | 243.6 | 366.4 | 549.9 | 481.6 | 386.4 | 377.0 | 343.8 |
| 80° | 292.5 | 219.8 | 186.6 | 191.6 | 188.5 | 325.7 | 527.3 | 419.0 | 316.3 | 283.1 | 273.7 |
| 82.5° | 119.6 | 109.6 | 147.8 | 141.5 | 134.0 | 253.0 | 425.9 | 342.6 | 258.7 | 228.6 | 226.1 |
| 85° | 52.0 | 69.5 | 97.7 | 85.8 | 77.7 | 175.4 | 341.3 | 290.0 | 218.6 | 188.5 | 187.9 |
| 87.5° | 10.6 | 26.3 | 41.3 | 38.8 | 40.1 | 117.1 | 242.4 | 206.1 | 154.7 | 115.9 | 90.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


HS
SS

0

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1121 Highway 74 South
Peachtree City, GA 30269

# 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

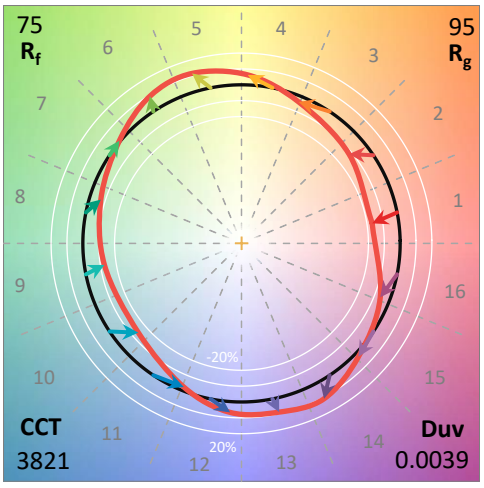
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-3-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 11/05/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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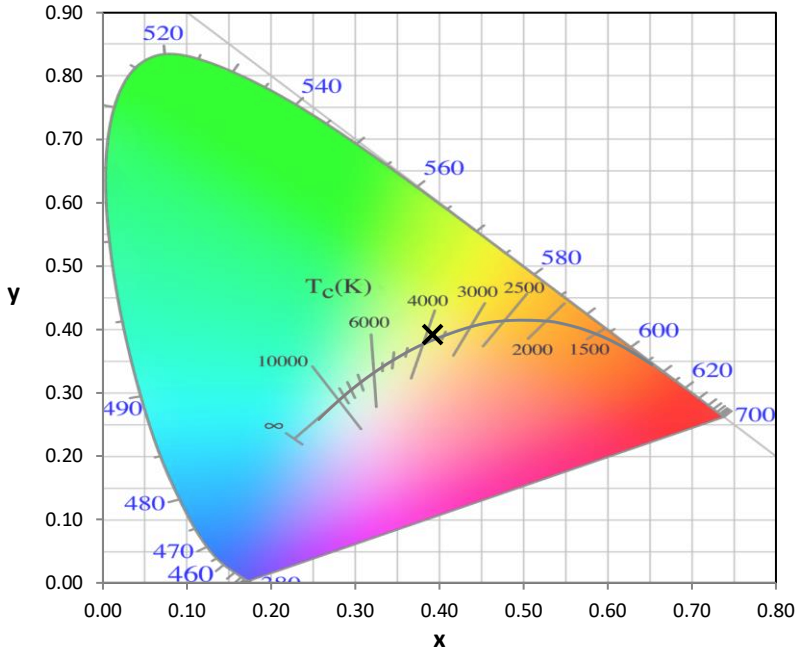
REPORT NUMBER: SP1-1908-441-3-R4

| 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 |

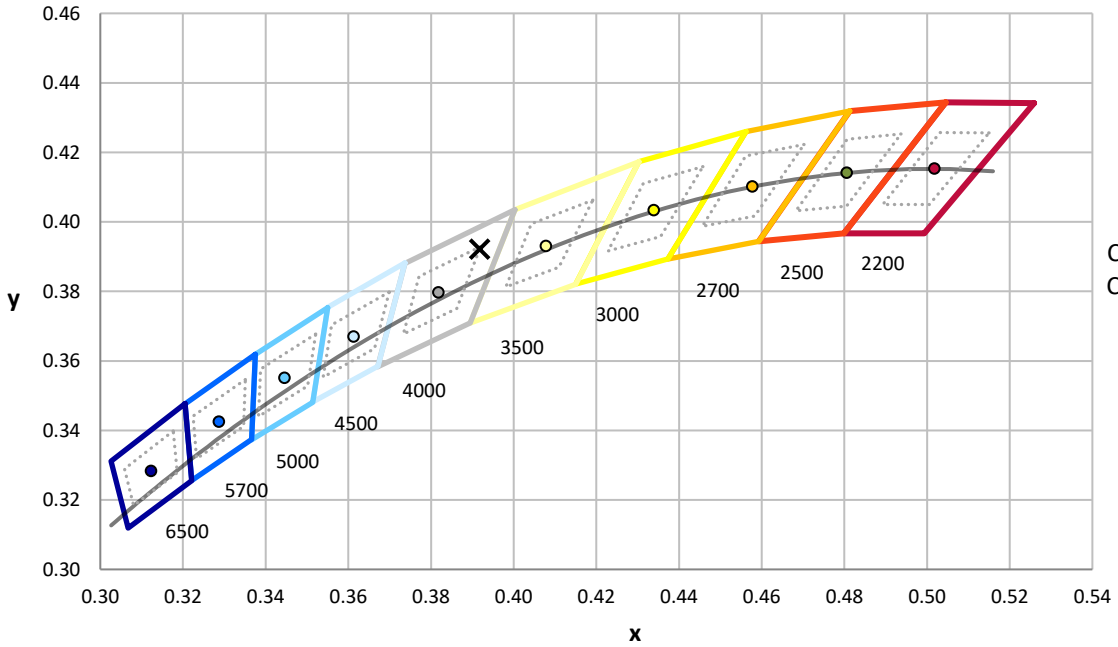
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Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



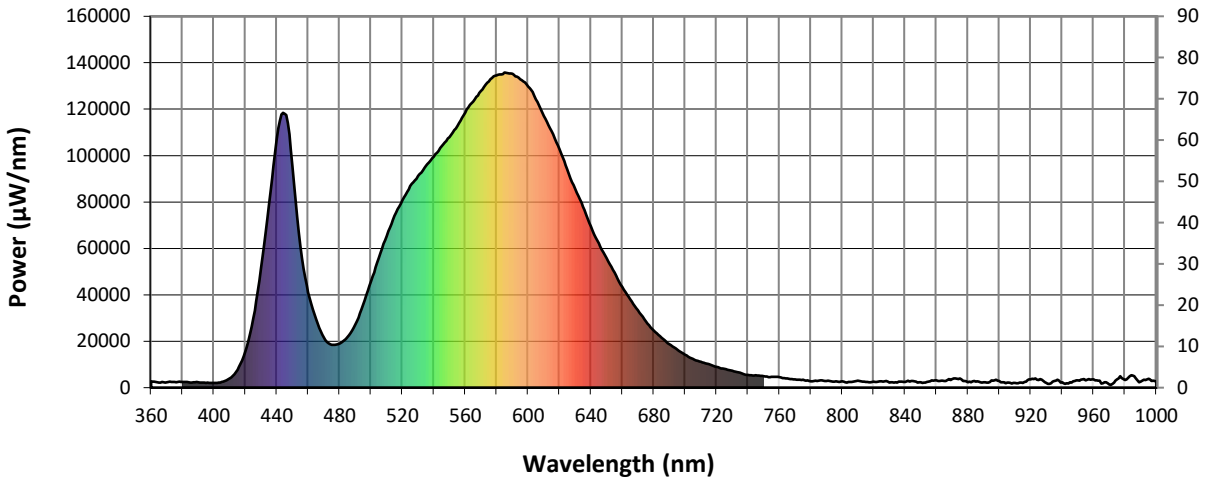

CCT = 3821K
CIE x = 0.3918
CIE y = 0.3921
Duv = 0.0039

Point lies inside the ANSI 4000K 7-step quadrangle

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## Photopic Flux vs. Wavelength



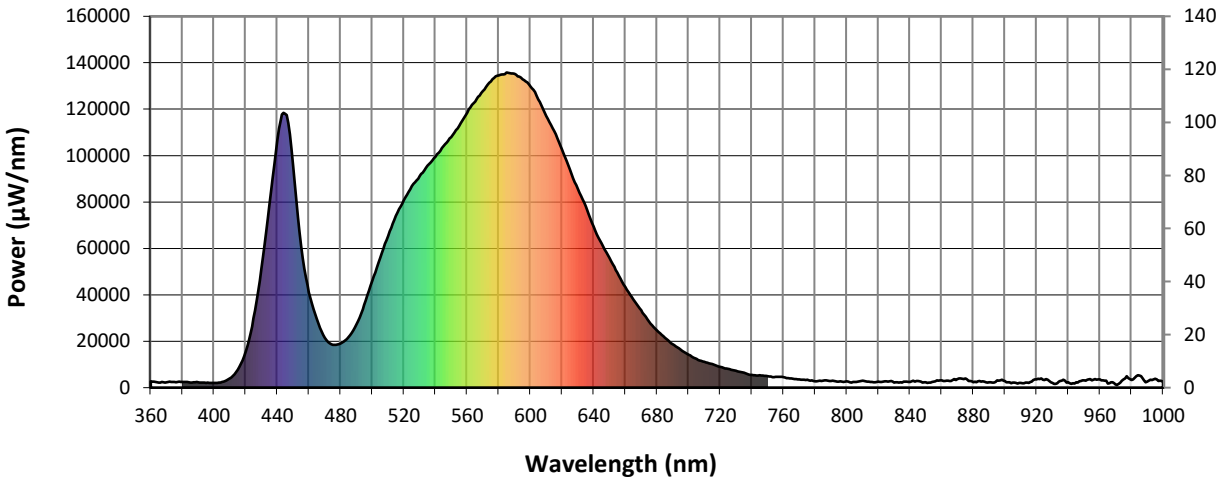

######

| 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



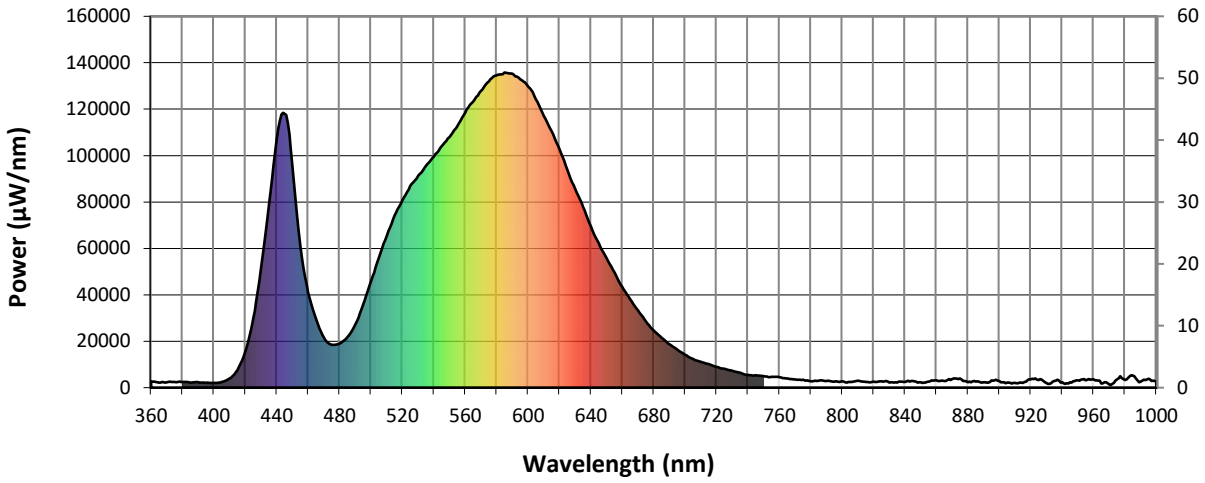

**Scotopic Lumens: 10930.8** **S/P: 1.47**

| 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

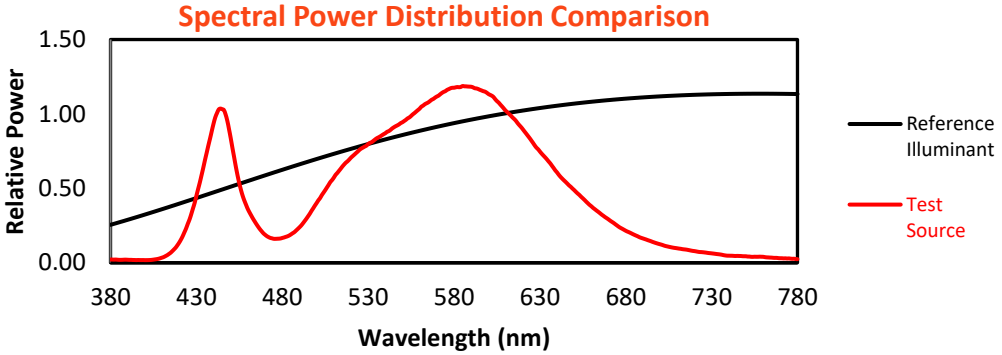
REPORT NUMBER: SP1-1908-441-3-R4

# TM-30-18

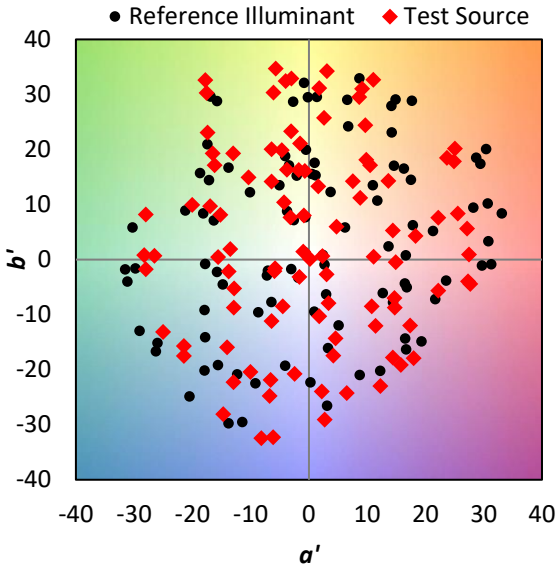
## Summary

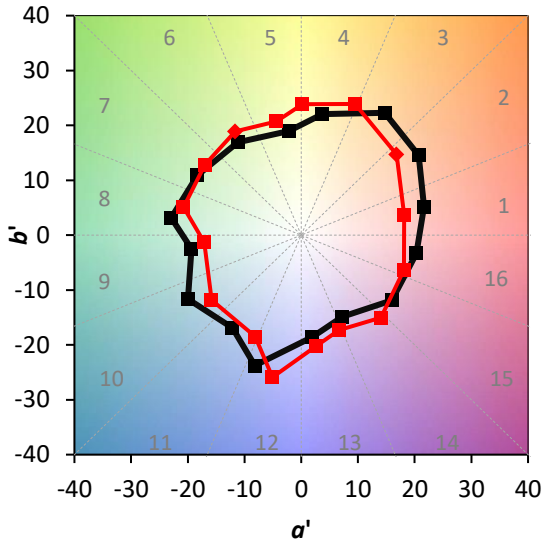
$R_f$ = 75.5
$R_g$ = 94.8
CIE $R_a$ = 72.3
$R_9$ = -33.5

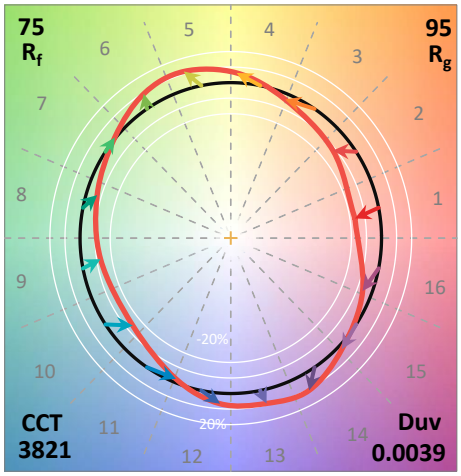
## Spectral Power Distribution Comparison

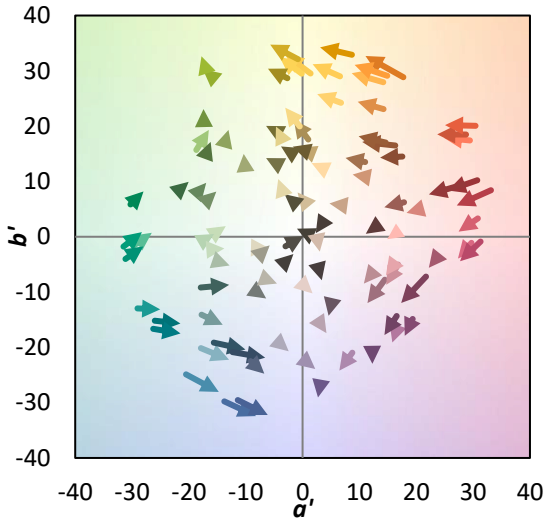



## Color Vector Graphics



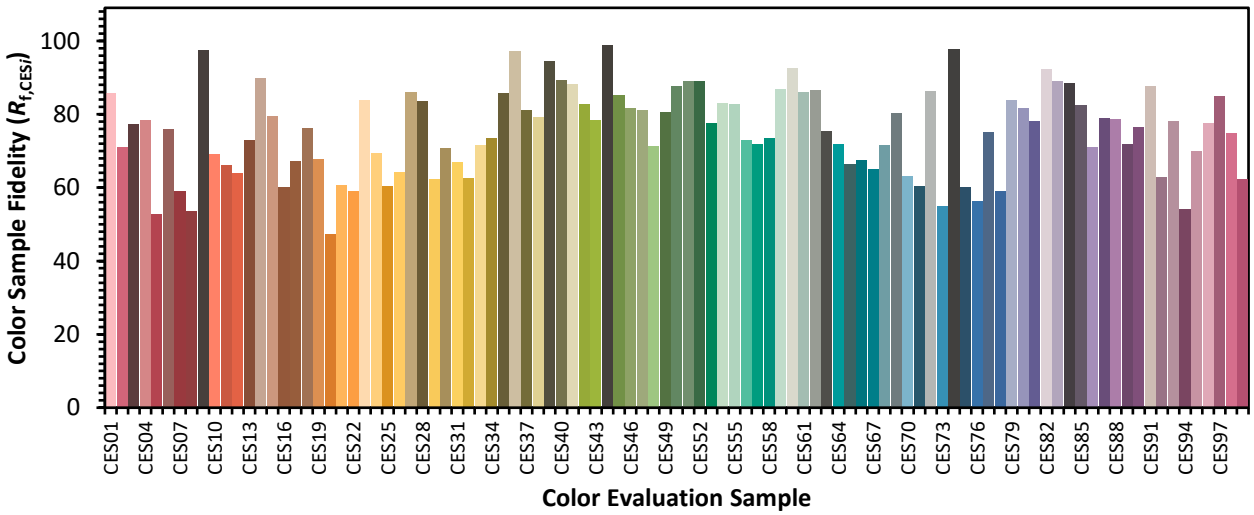
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Peachtree City, GA 30269

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## TM-30-18

### 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 | |

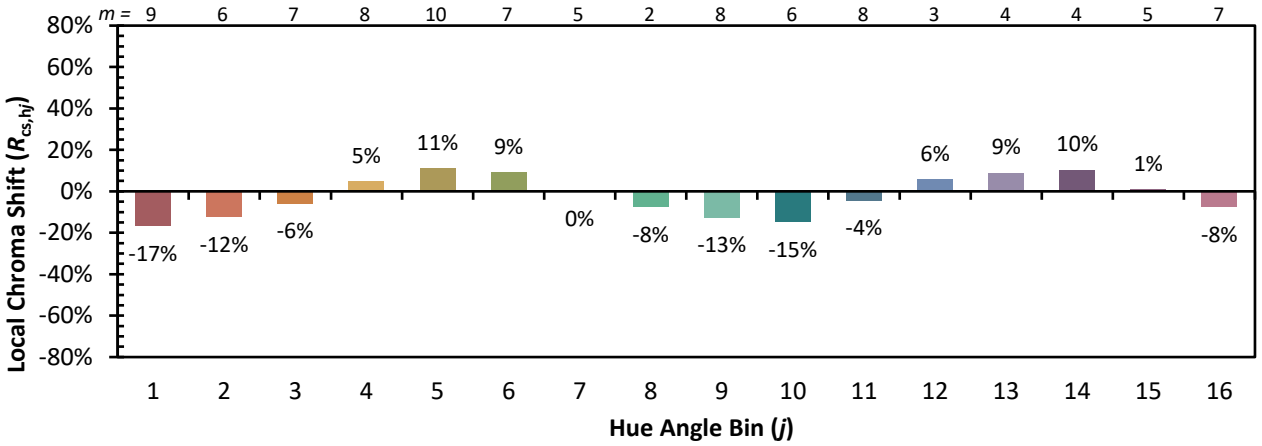


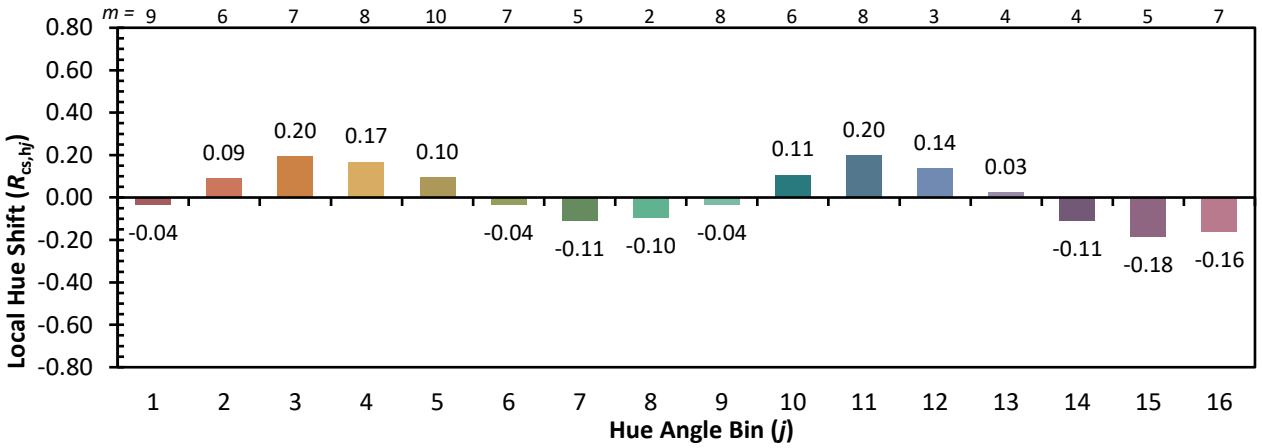
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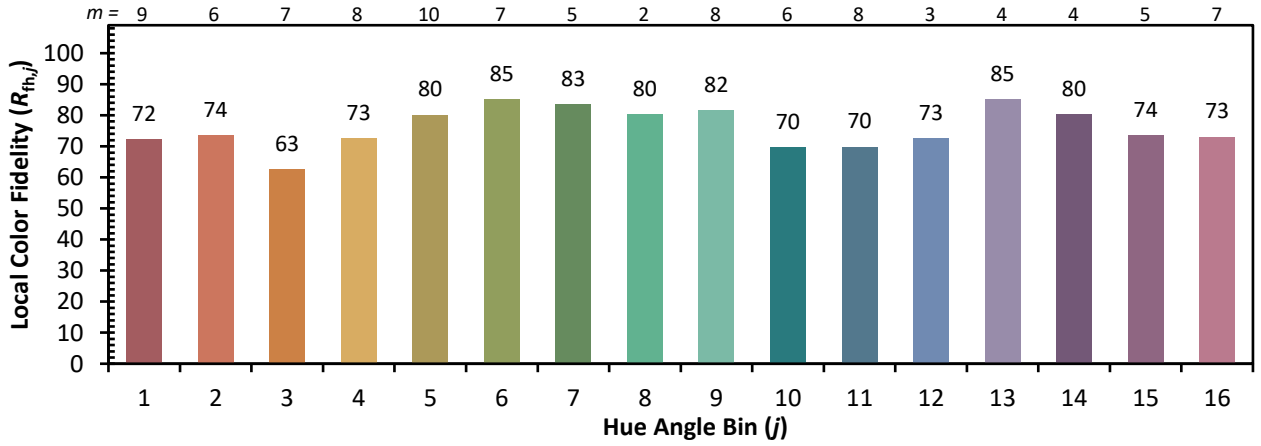
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### Color Rendition by Hue-Angle Bin



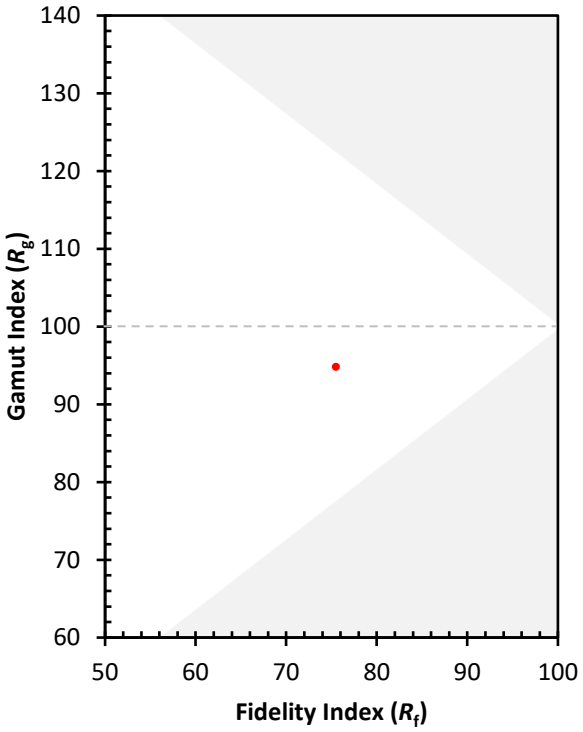



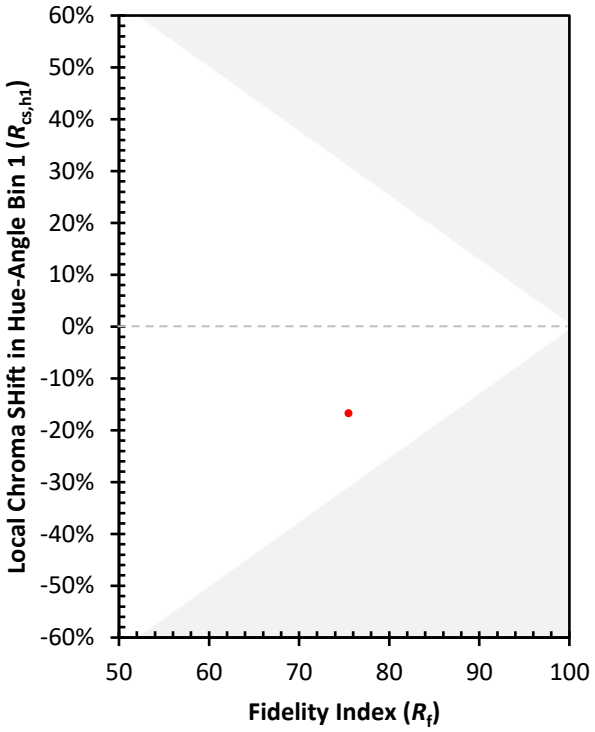
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### Measure Comparisons




(END OF REPORT)