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: P1202304

Luminaire Tested: GWC-SB1D-750-U-T2-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: | P1202304 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB1D-750-U-T2-HSS |
| Description: | GALLEON WALL LUMINAIRE |
| | (1) 70 CRI, 5000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 7903 lumens |
| Efficiency: | N/A |
| Efficacy: | 99.3 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 79.6 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.638 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.997 |
| Total Harmonic Distortion (THDi): | 6.673 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

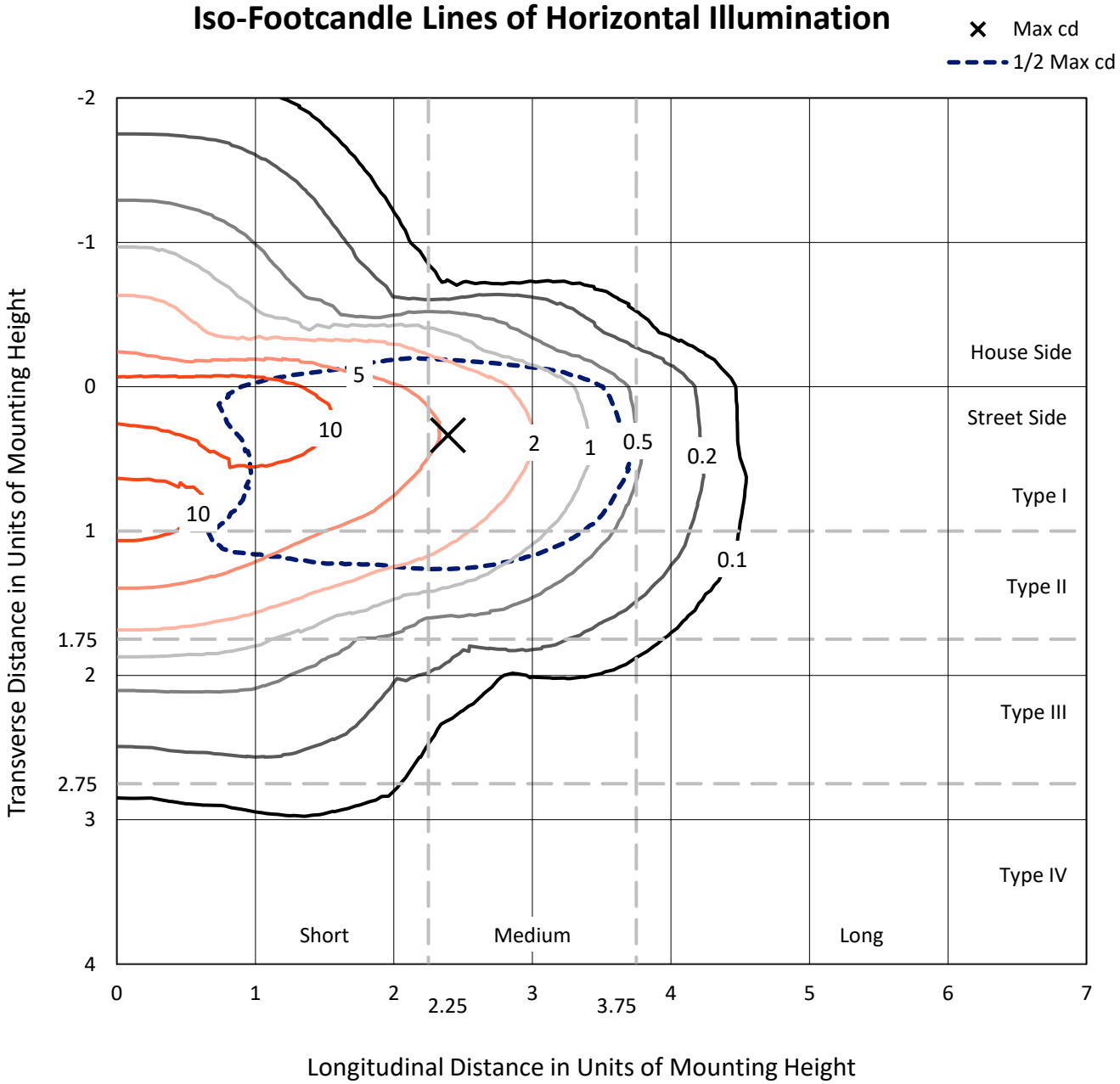


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Scaled Data Report

REPORT NUMBER: P1202304
CATALOG NUMBER: GWC-SB1D-750-U-T2-HSS

## Iso-Footcandle Lines of Horizontal Illumination



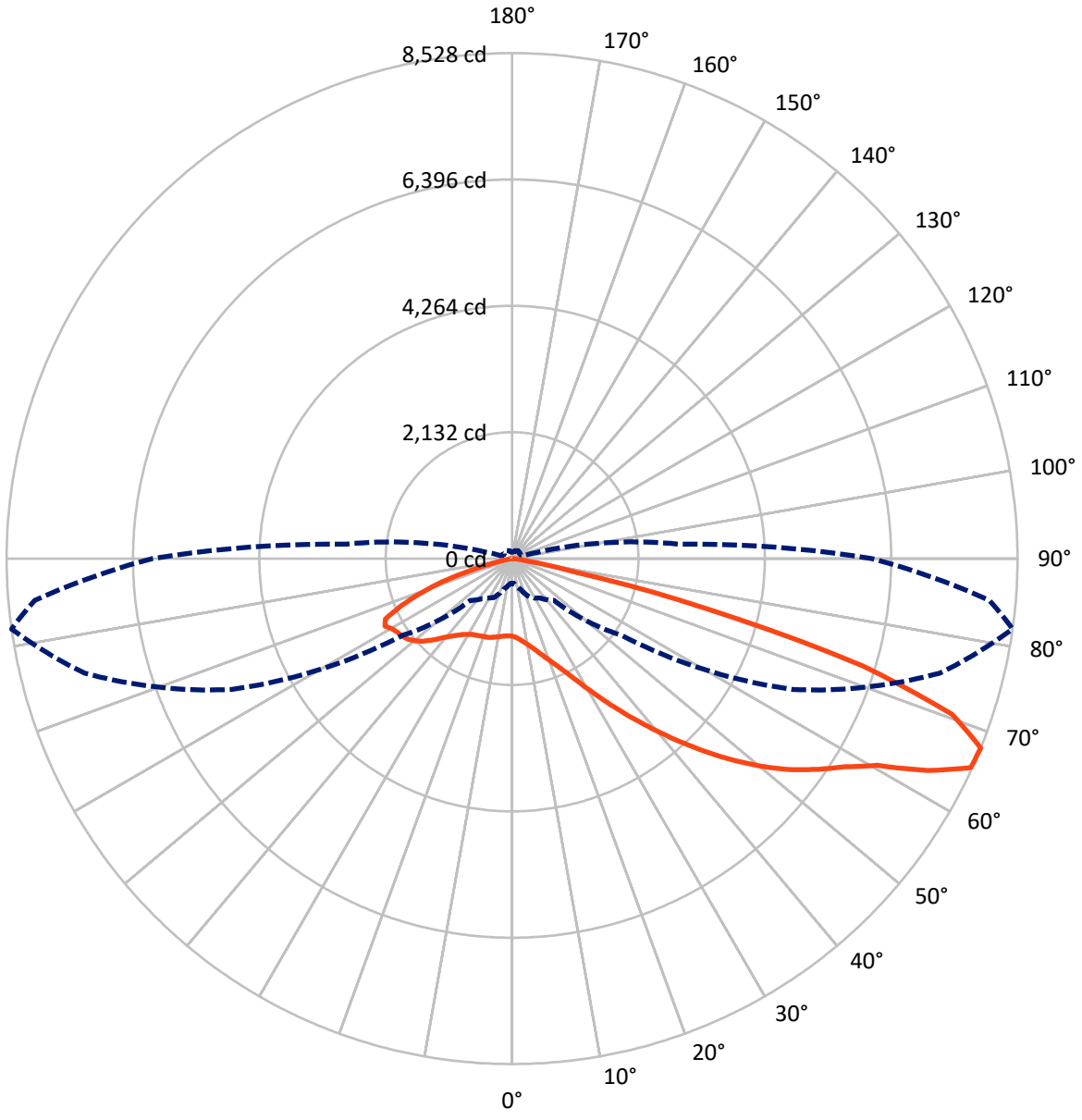

Based on 10 foot mounting height. Maximum calculated value = 18.3 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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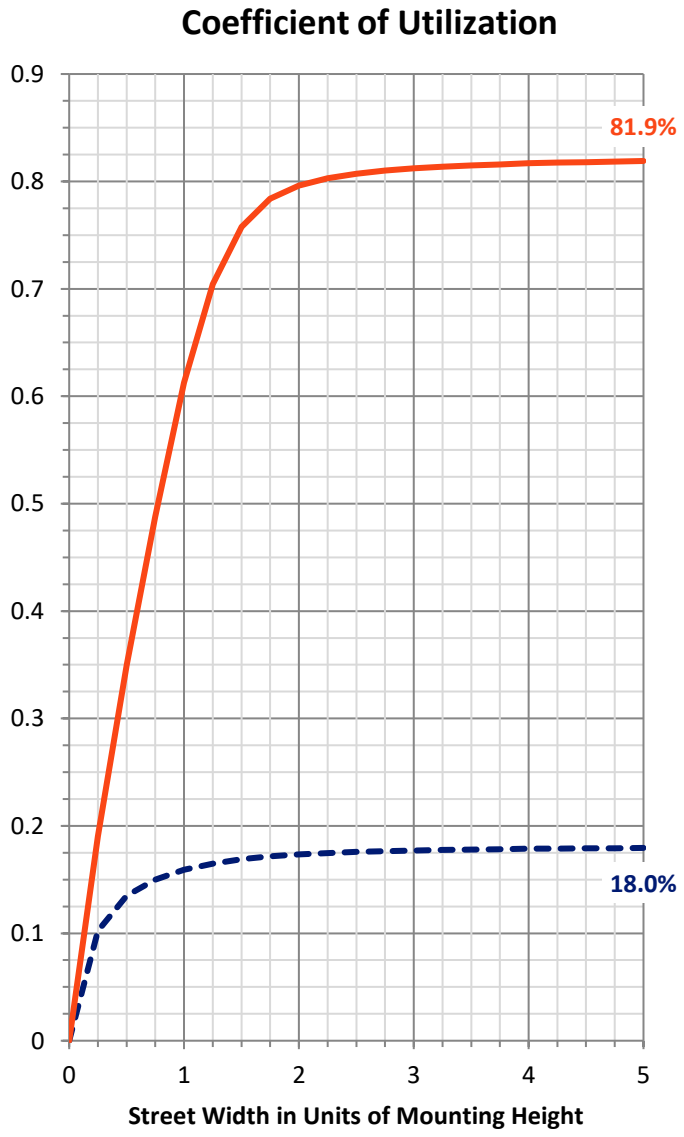
REPORT NUMBER: P1202304
CATALOG NUMBER: GWC-SB1D-750-U-T2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1431.6 | 0.0 | 1431.6 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| **Street Side** | Lumens | 6471.4 | 0.0 | 6471.4 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| **Total** | Lumens | 7903.0 | 0.0 | 7903.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 116.6 | 1.5 |
| 10°-20° | 303.1 | 3.8 |
| 20°-30° | 485.5 | 6.1 |
| 30°-40° | 858.5 | 10.9 |
| 40°-50° | 1504.2 | 19.0 |
| 50°-60° | 2006.1 | 25.4 |
| 60°-70° | 1867.6 | 23.6 |
| 70°-80° | 716.8 | 9.1 |
| 80°-90° | 44.5 | 0.6 |
| 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° | 7903.0 | 100.0 |
| 0°-180° | 7903.0 | 100.0 |



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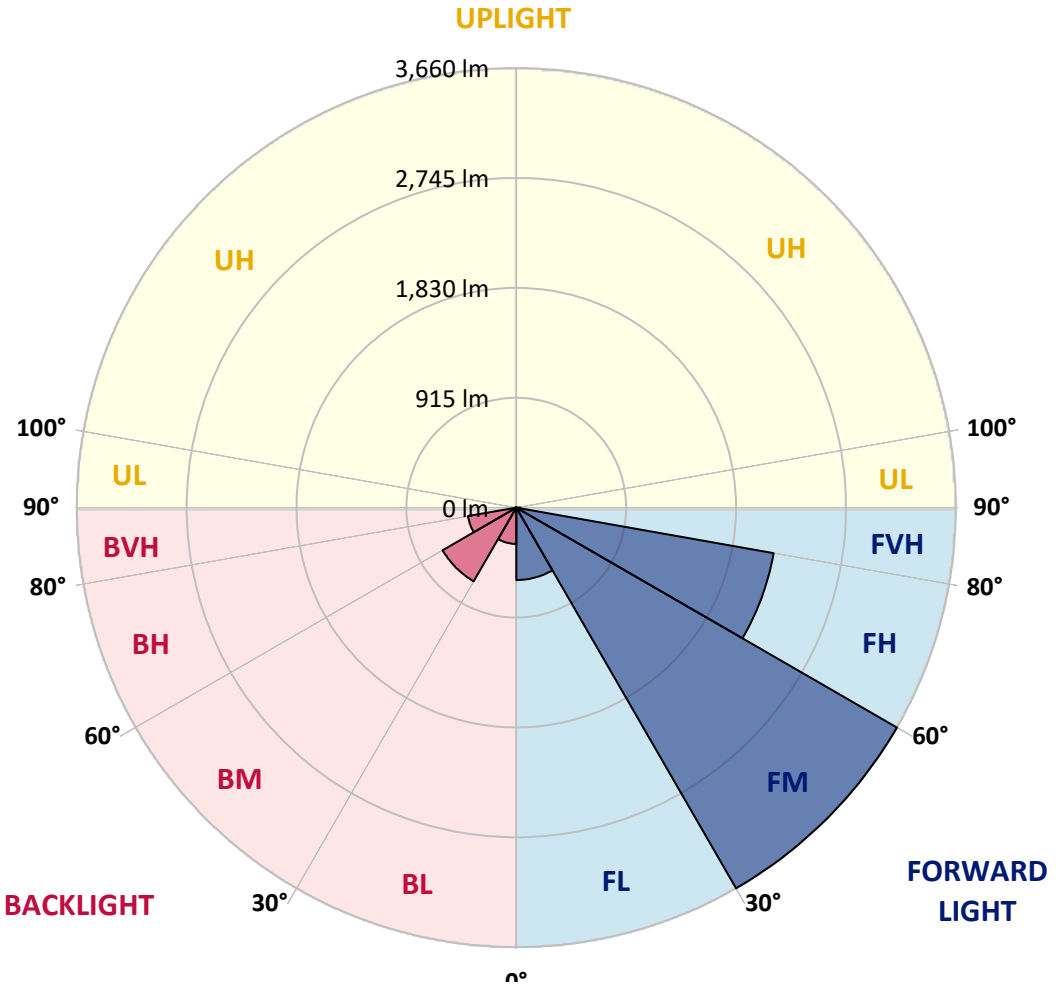
Scaled Data Report

REPORT NUMBER: P1202304
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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°) | 602.9 | 7.6 | | | |
| FM | (30°-60°) | 3660.3 | 46.3 | | | |
| FH | (60°-80°) | 2175.8 | 27.5 | | | G2/5000 |
| FVH | (80°-90°) | 32.4 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 302.3 | 3.8 | B1/500 | | |
| BM | (30°-60°) | 708.5 | 9.0 | B1/1000 | | |
| BH | (60°-80°) | 408.6 | 5.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 12.2 | 0.2 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

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



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | *1309.3* | 1309.3 |
| 2.5° | 1383.8 | 1391.8 | 1387.2 | 1384.9 | 1381.0 | 1375.3 | 1370.7 | 1356.5 | 1341.7 | *1332.0* | 1328.6 |
| 5° | 1411.7 | 1419.6 | 1419.1 | 1421.4 | 1424.2 | 1425.9 | 1424.8 | 1408.8 | 1387.8 | *1371.3* | 1361.6 |
| 7.5° | 1387.8 | 1396.9 | 1404.3 | 1415.7 | 1435.6 | 1456.6 | 1466.9 | 1463.5 | 1441.8 | *1419.1* | 1407.1 |
| 10° | 1320.1 | 1329.7 | 1347.4 | 1374.1 | 1416.2 | 1461.8 | 1499.9 | 1517.5 | 1503.9 | *1478.8* | 1462.3 |
| 12.5° | 1196.0 | 1205.7 | 1240.4 | 1298.4 | 1369.0 | 1448.1 | 1520.9 | 1568.2 | 1571.6 | *1546.5* | 1527.2 |
| 15° | 1056.6 | 1066.3 | 1103.3 | 1176.1 | 1283.7 | 1410.5 | 1532.3 | 1621.6 | 1651.8 | *1630.2* | 1606.8 |
| 17.5° | 970.1 | 978.7 | 1006.6 | 1065.2 | 1177.3 | 1335.4 | 1528.3 | 1678.5 | 1747.4 | *1730.3* | 1702.4 |
| 20° | 944.0 | 951.4 | 964.4 | 1005.4 | 1098.7 | 1257.5 | 1502.1 | 1732.0 | 1850.4 | *1840.7* | 1809.4 |
| 22.5° | 971.8 | 978.7 | 982.7 | 1000.9 | 1059.5 | 1206.3 | 1469.1 | 1786.6 | 1969.9 | *1971.0* | 1932.9 |
| 25° | 1036.1 | 1043.0 | 1038.4 | 1049.8 | 1075.4 | 1190.3 | 1456.6 | 1850.9 | 2120.1 | *2132.6* | 2089.4 |
| 27.5° | 1142.0 | 1142.5 | 1131.7 | 1131.2 | 1135.1 | 1214.2 | 1469.7 | 1919.8 | 2309.6 | *2332.9* | 2279.4 |
| 30° | 1354.2 | 1345.7 | 1304.1 | 1259.2 | 1238.7 | 1285.9 | 1506.1 | 2001.2 | 2533.2 | *2574.7* | 2507.6 |
| 32.5° | 1681.4 | 1668.9 | 1592.6 | 1485.1 | 1377.0 | 1401.4 | 1571.6 | 2093.9 | 2776.7 | *2851.8* | 2769.9 |
| 35° | 2036.4 | 2033.0 | 1953.4 | 1793.5 | 1604.6 | 1565.9 | 1678.0 | 2215.7 | 3042.4 | *3161.9* | 3064.6 |
| 37.5° | 2366.5 | 2364.7 | 2319.2 | 2130.9 | 1901.0 | 1795.2 | 1848.7 | 2375.0 | 3326.9 | *3499.9* | 3385.0 |
| 40° | 2668.0 | 2673.1 | 2627.6 | 2459.2 | 2227.6 | 2089.4 | 2080.8 | 2571.9 | 3643.3 | *3868.0* | 3731.5 |
| 42.5° | 2928.6 | 2934.3 | 2888.2 | 2763.6 | 2550.2 | 2414.8 | 2365.9 | 2813.1 | 3952.2 | *4263.5* | 4101.9 |
| 45° | 3105.6 | 3140.9 | 3134.0 | 3034.5 | 2881.4 | 2740.9 | 2708.4 | 3115.8 | 4304.5 | *4682.8* | 4493.4 |
| 47.5° | 3155.7 | 3188.1 | 3239.3 | 3252.9 | 3159.6 | 3021.4 | 3060.1 | 3480.5 | 4660.6 | *5102.8* | 4887.1 |
| 50° | 3032.2 | 3062.3 | 3168.7 | 3310.4 | 3375.3 | 3332.6 | 3402.0 | 3871.4 | 5025.4 | *5521.5* | 5273.5 |
| 52.5° | 2788.6 | 2819.4 | 2953.7 | 3177.8 | 3442.4 | 3576.7 | 3745.1 | 4256.7 | 5378.7 | *5918.1* | 5639.3 |
| 55° | 2436.4 | 2468.9 | 2641.3 | 2895.1 | 3314.4 | 3677.4 | 4031.3 | 4641.3 | 5702.5 | *6274.9* | 5969.3 |
| 57.5° | 1957.3 | 1981.2 | 2160.5 | 2515.5 | 2992.3 | 3577.3 | 4242.4 | 5061.2 | 6007.5 | *6625.4* | 6296.5 |
| 60° | 1275.7 | 1296.7 | 1505.0 | 1901.0 | 2458.6 | 3242.7 | 4284.5 | 5529.5 | 6412.6 | *7081.2* | 6737.5 |
| 62.5° | 848.4 | 862.6 | 986.1 | 1276.8 | 1731.5 | 2600.3 | 4038.2 | 5903.3 | 7006.6 | *7874.3* | 7493.7 |
| 65° | 582.1 | 596.3 | 719.8 | 922.3 | 1118.6 | 1720.1 | 3329.8 | 5853.8 | 7544.9 | *8504.2* | 8054.1 |
| 67.5° | *415.4* | *427.3* | *532.0* | *723.2* | *809.7* | *999.2* | *2257.2* | *5221.1* | *7467.5* | *8528.1* | *8084.3* |
| 70° | 297.6 | 304.4 | 390.9 | 563.3 | 643.5 | 600.3 | 1255.2 | 3993.2 | 6538.3 | *7874.9* | 7468.6 |
| 72.5° | 208.3 | 210.5 | 271.4 | 429.0 | 518.4 | 438.1 | 597.4 | 2662.3 | 4945.1 | *6181.0* | 5790.1 |
| 75° | 141.1 | 144.0 | 182.6 | 314.7 | 415.9 | 334.6 | 316.4 | 1427.6 | 2903.0 | *3421.4* | 3066.9 |
| 77.5° | 86.5 | 87.6 | 117.8 | 215.1 | 311.2 | 254.9 | 203.7 | 604.8 | 1123.2 | *1102.7* | 940.0 |
| 80° | 48.9 | 48.9 | 75.1 | 133.7 | 212.2 | 164.4 | 142.8 | 257.2 | 355.6 | *312.4* | 275.4 |
| 82.5° | 27.3 | 27.9 | 54.6 | 83.1 | 140.5 | 97.3 | 78.5 | 118.9 | 153.6 | *136.0* | 118.4 |
| 85° | 11.4 | 12.5 | 33.6 | 39.3 | 67.1 | 48.4 | 31.9 | 50.1 | 56.9 | *50.6* | 37.0 |
| 87.5° | 1.1 | 1.7 | 10.2 | 7.4 | 8.0 | 9.7 | 4.6 | 9.7 | 8.0 | *8.0* | 5.7 |
| 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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Scaled Data Report

REPORT NUMBER: P1202304
CATALOG NUMBER: GWC-SB1D-750-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 | 1309.3 |
| 2.5° | 1317.8 | 1309.3 | 1287.6 | 1262.6 | 1229.6 | 1213.7 | 1192.0 | 1177.3 | 1164.7 | 1165.9 | 1154.5 |
| 5° | 1343.4 | 1321.8 | 1273.4 | 1213.1 | 1138.0 | 1084.5 | 1027.6 | 988.3 | 956.5 | 949.7 | 934.3 |
| 7.5° | 1378.7 | 1344.5 | 1259.8 | 1151.1 | 1024.2 | 928.0 | 842.1 | 786.9 | 747.7 | 735.1 | 722.6 |
| 10° | 1424.2 | 1374.7 | 1242.1 | 1073.1 | 890.5 | 768.1 | 676.0 | 632.7 | 606.0 | 596.9 | 590.0 |
| 12.5° | 1477.1 | 1409.4 | 1218.8 | 978.1 | 752.8 | 635.0 | 576.4 | 554.8 | 546.2 | 543.4 | 541.7 |
| 15° | 1543.7 | 1452.6 | 1183.5 | 865.4 | 636.1 | 553.6 | 528.6 | 525.8 | 526.9 | 525.8 | 525.2 |
| 17.5° | 1622.8 | 1499.9 | 1126.0 | 749.4 | 557.6 | 512.1 | 503.0 | 505.3 | 508.1 | 507.5 | 506.4 |
| 20° | 1709.3 | 1546.5 | 1052.6 | 646.4 | 504.1 | 482.5 | 477.4 | 479.7 | 481.9 | 480.8 | 480.2 |
| 22.5° | 1807.7 | 1596.6 | 971.3 | 566.2 | 468.3 | 455.2 | 449.5 | 450.1 | 450.1 | 447.8 | 446.7 |
| 25° | 1925.5 | 1651.8 | 885.9 | 509.3 | 441.0 | 430.7 | 423.9 | 421.6 | 418.2 | 411.4 | 410.2 |
| 27.5° | 2066.0 | 1710.4 | 804.0 | 469.4 | 419.4 | 409.7 | 401.7 | 396.0 | 387.5 | 376.1 | 375.0 |
| 30° | 2224.2 | 1781.5 | 734.6 | 444.4 | 402.3 | 392.6 | 383.5 | 375.0 | 362.5 | 348.2 | 347.1 |
| 32.5° | 2410.3 | 1857.8 | 683.9 | 427.9 | 386.9 | 376.7 | 365.9 | 355.6 | 342.0 | 327.7 | 328.3 |
| 35° | 2632.2 | 1949.9 | 654.3 | 416.5 | 375.0 | 361.3 | 349.4 | 338.0 | 327.7 | 315.2 | 314.1 |
| 37.5° | 2872.9 | 2047.8 | 645.2 | 410.8 | 367.0 | 345.9 | 332.3 | 324.3 | 323.2 | 315.8 | 315.2 |
| 40° | 3136.3 | 2163.9 | 652.1 | 407.4 | 358.5 | 331.2 | 316.4 | 314.7 | 317.5 | 304.4 | 305.0 |
| 42.5° | 3415.1 | 2301.6 | 663.4 | 403.4 | 346.5 | 316.4 | 302.1 | 302.1 | 299.9 | 281.7 | 281.7 |
| 45° | 3716.7 | 2460.3 | 674.8 | 393.7 | 332.3 | 301.6 | 290.8 | 286.8 | 277.1 | 259.5 | 258.9 |
| 47.5° | 4020.5 | 2621.9 | 683.4 | 376.1 | 315.2 | 289.0 | 279.4 | 270.3 | 256.0 | 240.1 | 239.5 |
| 50° | 4309.0 | 2767.0 | 674.3 | 349.9 | 295.9 | 277.1 | 266.9 | 254.3 | 239.0 | 228.2 | 226.5 |
| 52.5° | 4566.8 | 2892.8 | 635.6 | 319.2 | 275.4 | 264.6 | 255.5 | 242.4 | 229.9 | 218.5 | 217.4 |
| 55° | 4790.9 | 2994.6 | 567.3 | 290.2 | 257.2 | 253.8 | 244.7 | 228.2 | 211.1 | 201.4 | 200.3 |
| 57.5° | 5006.0 | 3072.0 | 481.9 | 266.3 | 240.7 | 241.8 | 228.2 | 213.4 | 197.4 | 187.2 | 186.1 |
| 60° | 5292.2 | 3175.6 | 395.5 | 244.1 | 223.0 | 226.5 | 211.7 | 200.9 | 180.9 | 167.9 | 166.1 |
| 62.5° | 5749.7 | 3336.6 | 314.1 | 216.8 | 202.6 | 203.7 | 197.4 | 184.4 | 160.5 | 145.1 | 144.0 |
| 65° | 6112.7 | 3277.4 | 247.5 | 187.2 | 179.2 | 180.9 | 180.9 | 166.7 | 141.1 | 123.5 | 121.8 |
| 67.5° | *6071.8* | *2806.3* | *197.4* | *158.2* | *157.0* | *158.2* | *162.2* | *150.2* | *125.2* | *111.0* | *108.7* |
| 70° | 5593.2 | 2232.2 | 158.2 | 131.4 | 136.6 | 133.7 | 145.1 | 137.1 | 112.7 | 98.4 | 96.7 |
| 72.5° | 4563.9 | 1608.0 | 120.6 | 108.7 | 104.7 | 109.2 | 130.9 | 123.5 | 93.9 | 78.0 | 76.2 |
| 75° | 2666.9 | 858.0 | 89.9 | 85.9 | 75.7 | 91.0 | 116.1 | 105.3 | 71.7 | 57.5 | 55.8 |
| 77.5° | 868.3 | 299.3 | 66.0 | 63.2 | 56.3 | 73.4 | 99.0 | 88.8 | 58.6 | 45.5 | 43.8 |
| 80° | 232.7 | 90.5 | 45.0 | 41.5 | 36.4 | 54.6 | 78.5 | 70.6 | 42.1 | 29.6 | 29.0 |
| 82.5° | 93.3 | 38.1 | 26.2 | 23.3 | 19.9 | 37.6 | 62.0 | 56.9 | 31.3 | 18.8 | 18.8 |
| 85° | 30.2 | 12.5 | 9.7 | 7.4 | 9.1 | 23.3 | 37.0 | 38.7 | 22.2 | 9.7 | 7.4 |
| 87.5° | 4.0 | 1.7 | 1.7 | 2.3 | 1.7 | 4.0 | 11.4 | 10.8 | 6.3 | 1.1 | 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 |


HS
SS

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: SP1-1908-441-4-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-750-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

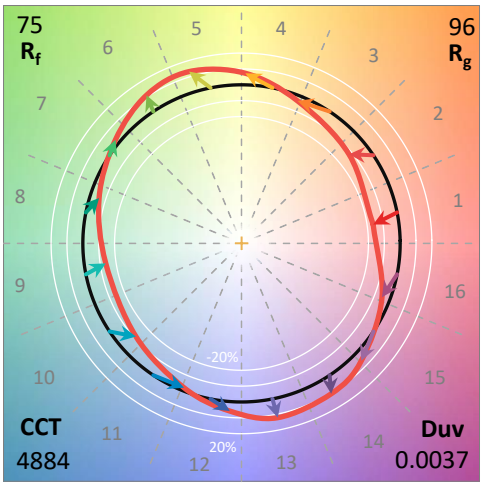
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-4-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-750-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 4884 | CRI (Ra): | 73.5 | | |
| CIE u': | 0.2101 | R1: | 70.5 | R9: | -28.4 |
| CIE v': | 0.4904 | R2: | 77.7 | R10: | 48.6 |
| Duv: | 0.0037 | R3: | 84.6 | R11: | 73.2 |
| CIE x: | 0.3493 | R4: | 74.7 | R12: | 50.7 |
| CIE y: | 0.3624 | R5: | 71.9 | R13: | 71.2 |
| CIE z: | 0.2884 | R6: | 70.7 | R14: | 91.4 |
| Peak Wavelength (nm): | 444 | R7: | 81.2 | | |
| Dominant Wavelength (nm): | 571 | R8: | 56.9 | | |
| Purity: | 13.7 | | | | |

| | |
|---|---|
| Rf: | 74.9 |
| Rg: | 96.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 240M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.0./44% |
| Sphere Temperature (°C): | 25.7 |

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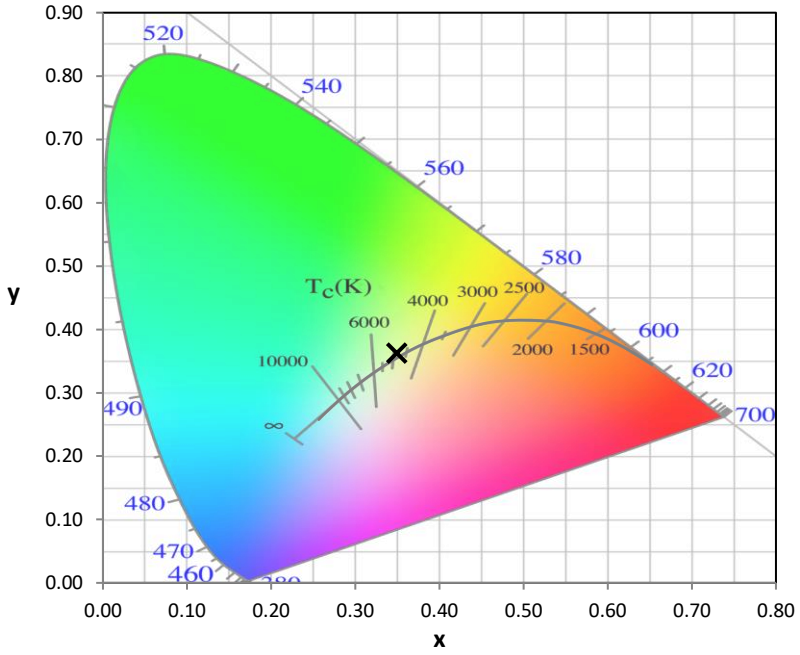
REPORT NUMBER: SP1-1908-441-4-R4

| 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 |

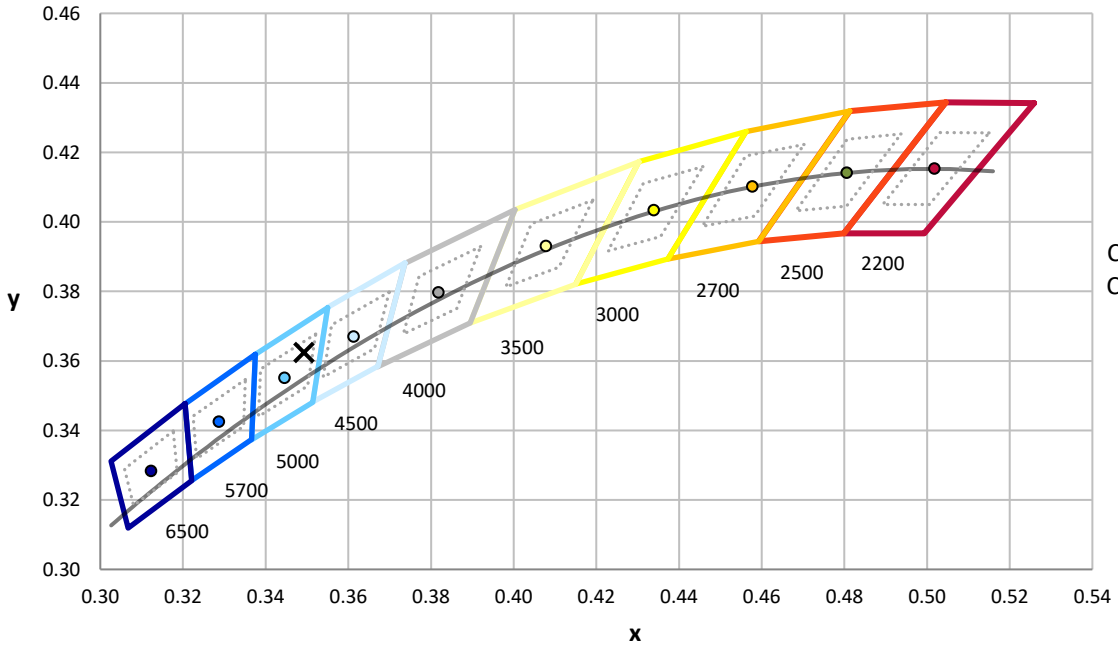
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-4-R4

## CIE 1931 Chromaticity Diagram




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



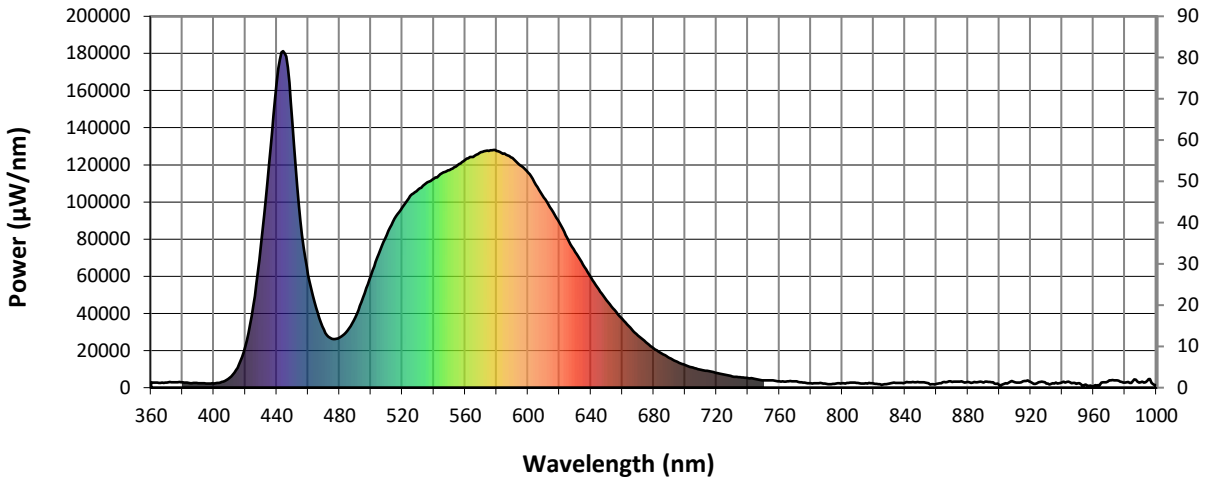

CCT = 4884K
CIE x = 0.3493
CIE y = 0.3624
Duv = 0.0037

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



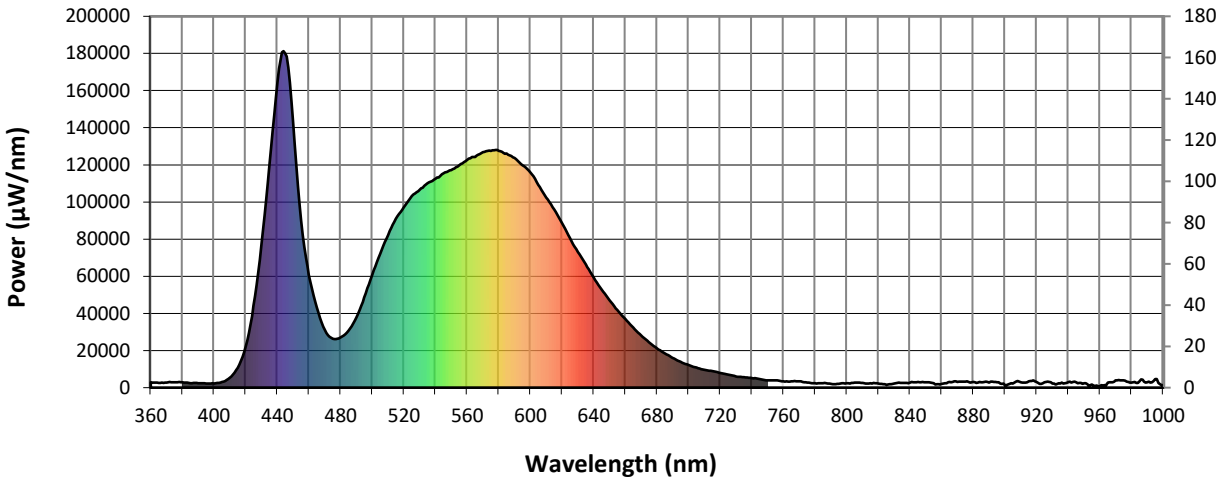

######

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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## Scotopic Flux vs. Wavelength



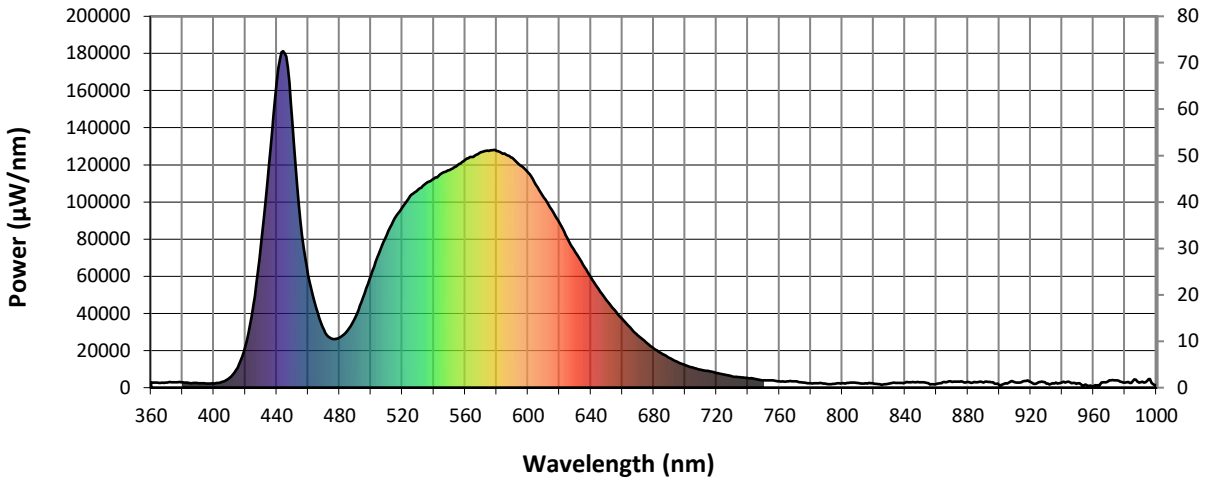

**Scotopic Lumens: 13493.5** **S/P: 1.77**

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 5378.9** **M/P: 0.71**

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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Peachtree City, GA 30269

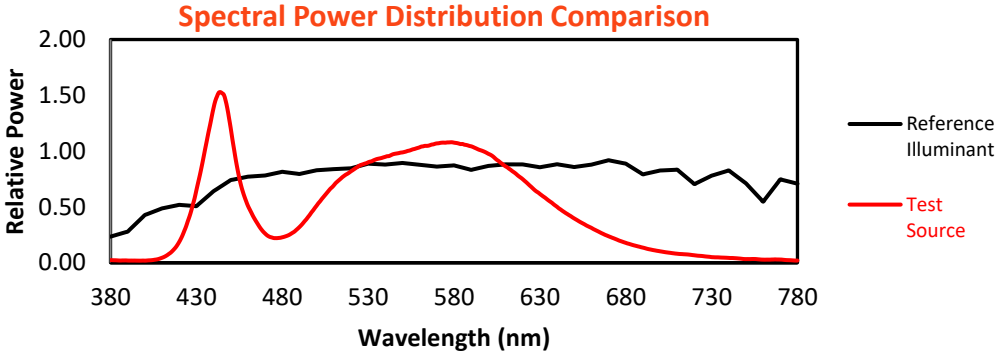
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# TM-30-18

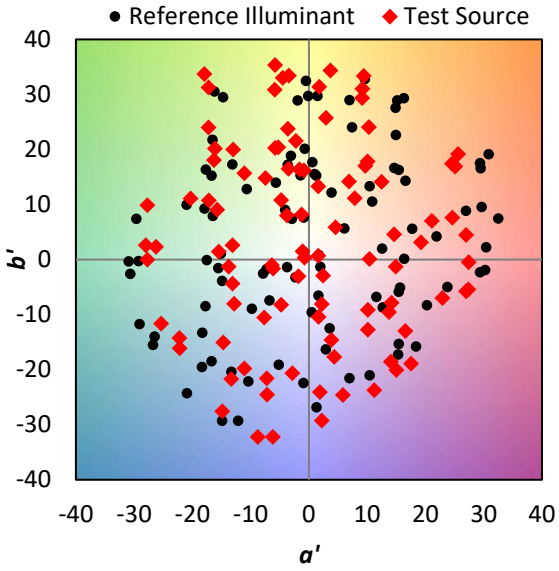
## Summary

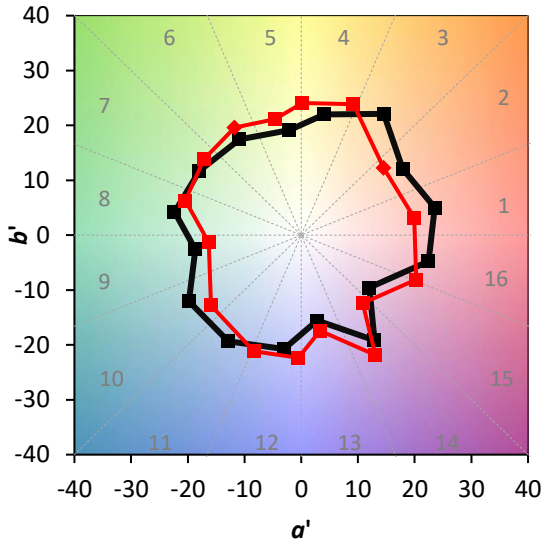
$R_f$ = 74.9
$R_g$ = 96.3
CIE $R_a$ = 73.5
$R_9$ = -28.4

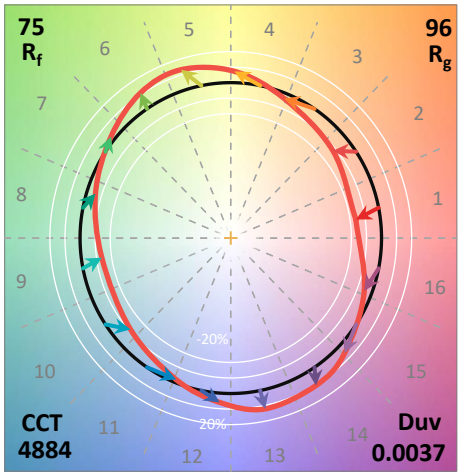
## Spectral Power Distribution Comparison

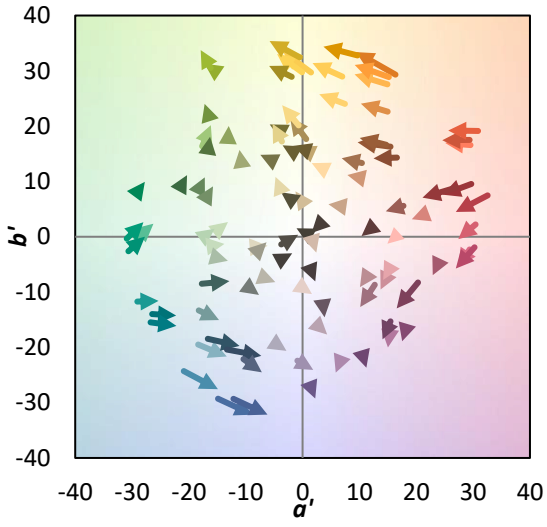



## Color Vector Graphics



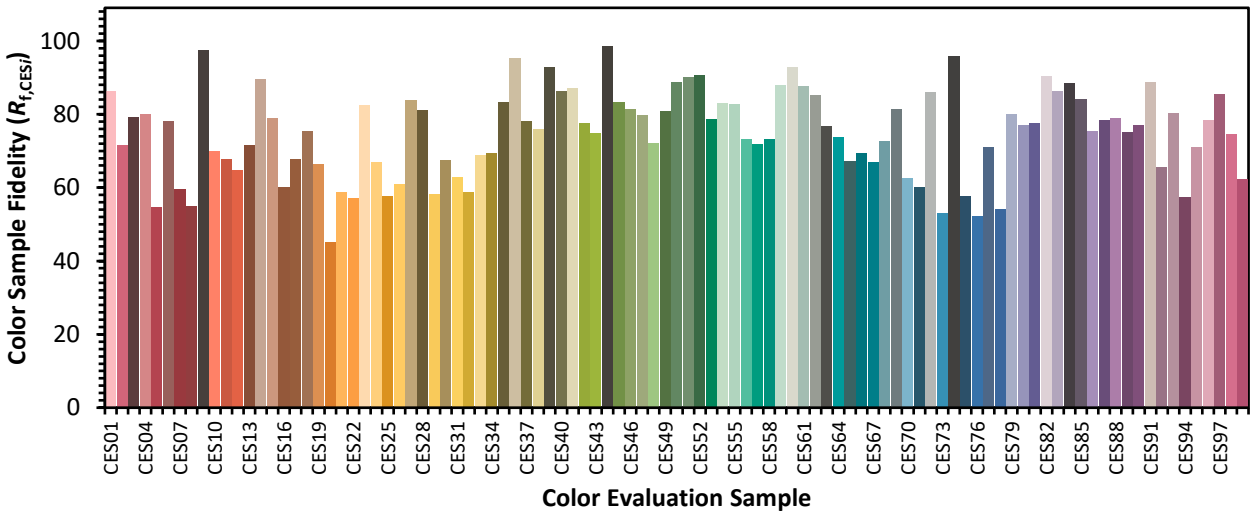
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 61 | CES51 = 90 | CES76 = 52 |
| CES02 = 60 | CES27 = 84 | CES52 = 91 | CES77 = 71 |
| CES03 = 30 | CES28 = 81 | CES53 = 79 | CES78 = 54 |
| CES04 = 69 | CES29 = 58 | CES54 = 83 | CES79 = 80 |
| CES05 = 46 | CES30 = 67 | CES55 = 83 | CES80 = 77 |
| CES06 = 50 | CES31 = 63 | CES56 = 73 | CES81 = 77 |
| CES07 = 39 | CES32 = 59 | CES57 = 72 | CES82 = 90 |
| CES08 = 38 | CES33 = 69 | CES58 = 73 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 88 | CES84 = 88 |
| CES10 = 73 | CES35 = 83 | CES60 = 93 | CES85 = 84 |
| CES11 = 56 | CES36 = 95 | CES61 = 88 | CES86 = 75 |
| CES12 = 61 | CES37 = 78 | CES62 = 85 | CES87 = 78 |
| CES13 = 41 | CES38 = 76 | CES63 = 77 | CES88 = 79 |
| CES14 = 74 | CES39 = 93 | CES64 = 74 | CES89 = 75 |
| CES15 = 70 | CES40 = 86 | CES65 = 67 | CES90 = 77 |
| CES16 = 46 | CES41 = 87 | CES66 = 69 | CES91 = 89 |
| CES17 = 49 | CES42 = 78 | CES67 = 67 | CES92 = 66 |
| CES18 = 55 | CES43 = 75 | CES68 = 73 | CES93 = 80 |
| CES19 = 71 | CES44 = 99 | CES69 = 81 | CES94 = 57 |
| CES20 = 64 | CES45 = 83 | CES70 = 63 | CES95 = 71 |
| CES21 = 85 | CES46 = 81 | CES71 = 60 | CES96 = 78 |
| CES22 = 77 | CES47 = 80 | CES72 = 86 | CES97 = 85 |
| CES23 = 91 | CES48 = 72 | CES73 = 53 | CES98 = 75 |
| CES24 = 90 | CES49 = 81 | CES74 = 96 | CES99 = 62 |
| CES25 = 71 | CES50 = 89 | CES75 = 58 | |

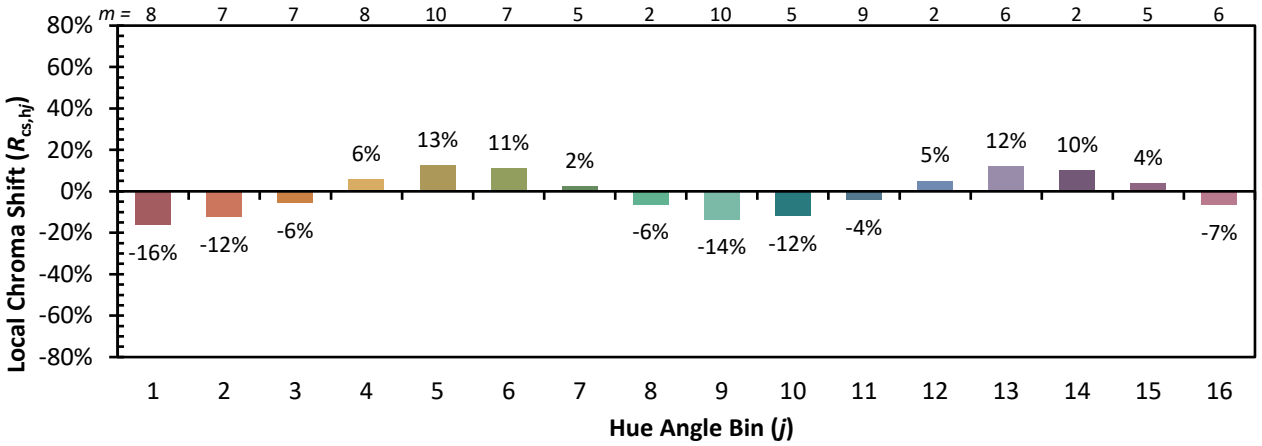


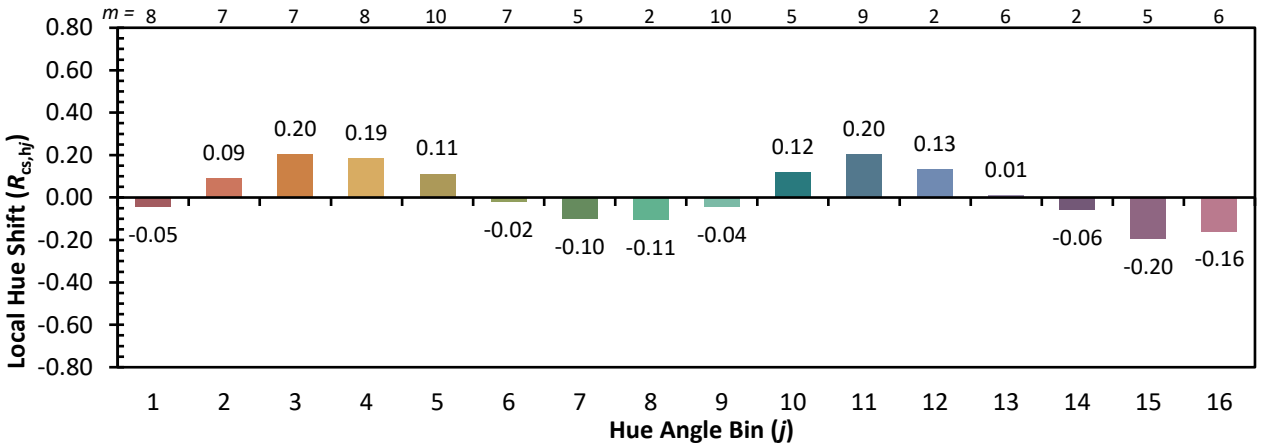
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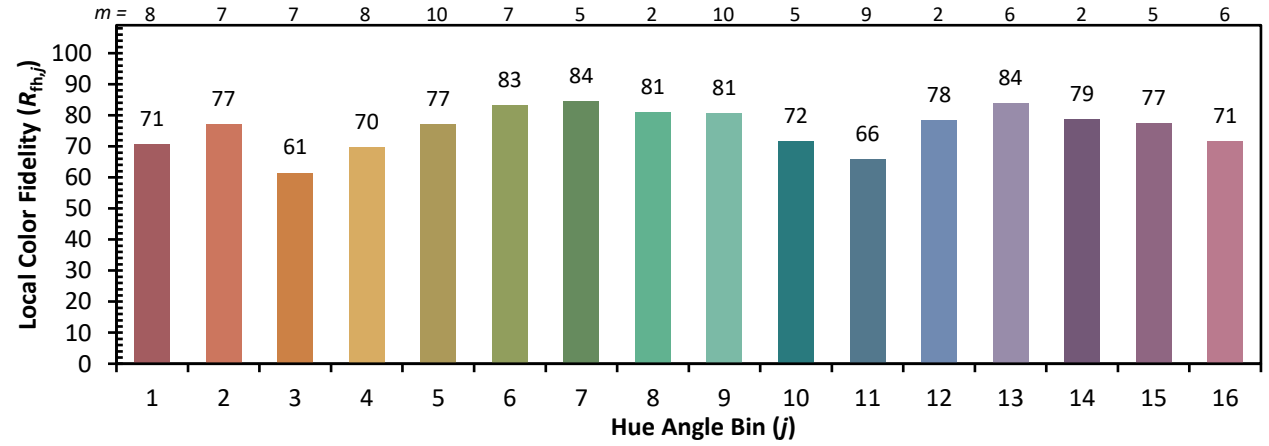
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### Color Rendition by Hue-Angle Bin



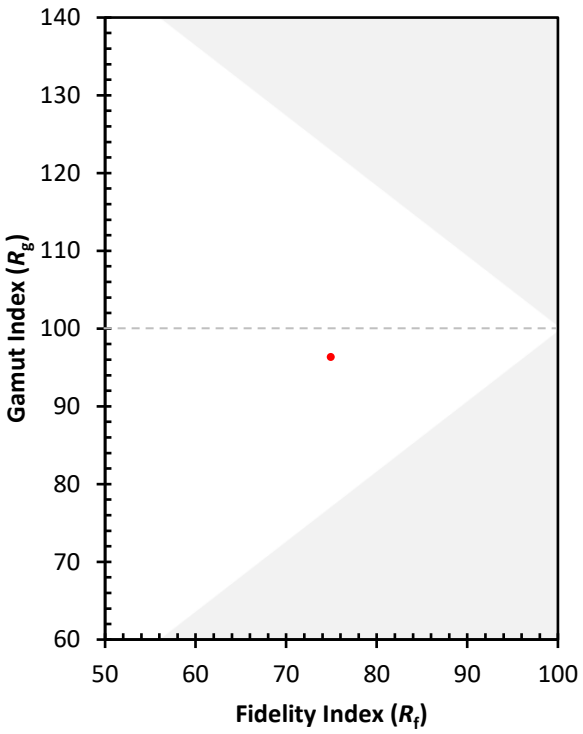



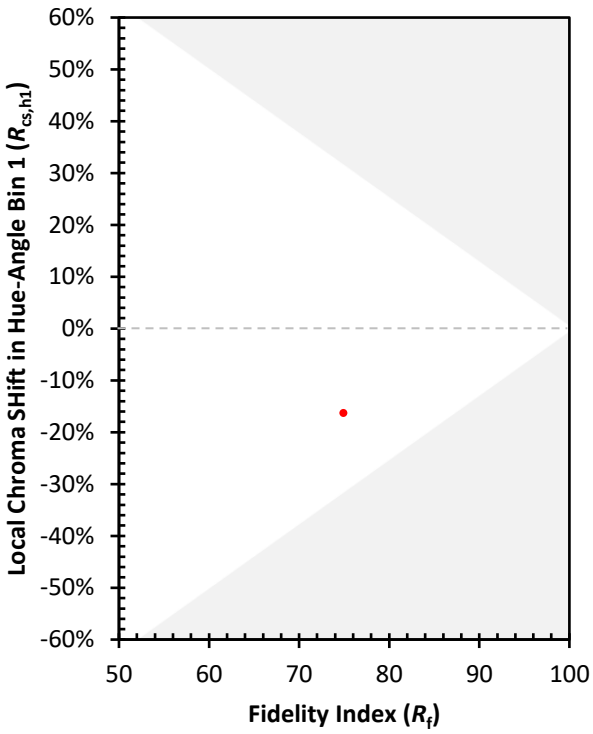
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### Measure Comparisons




(END OF REPORT)