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

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1367314

Luminaire Tested: **GSS-SB1D-750-U-T4W**

Issue Date: 02/18/2026

Report Generated By 670245763

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P1367314 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB1D-750-U-T4W |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 1SQUARE 76W 70CRI 5000K FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC |
| Light Source: | (26) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9411.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 123.8 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G2 |

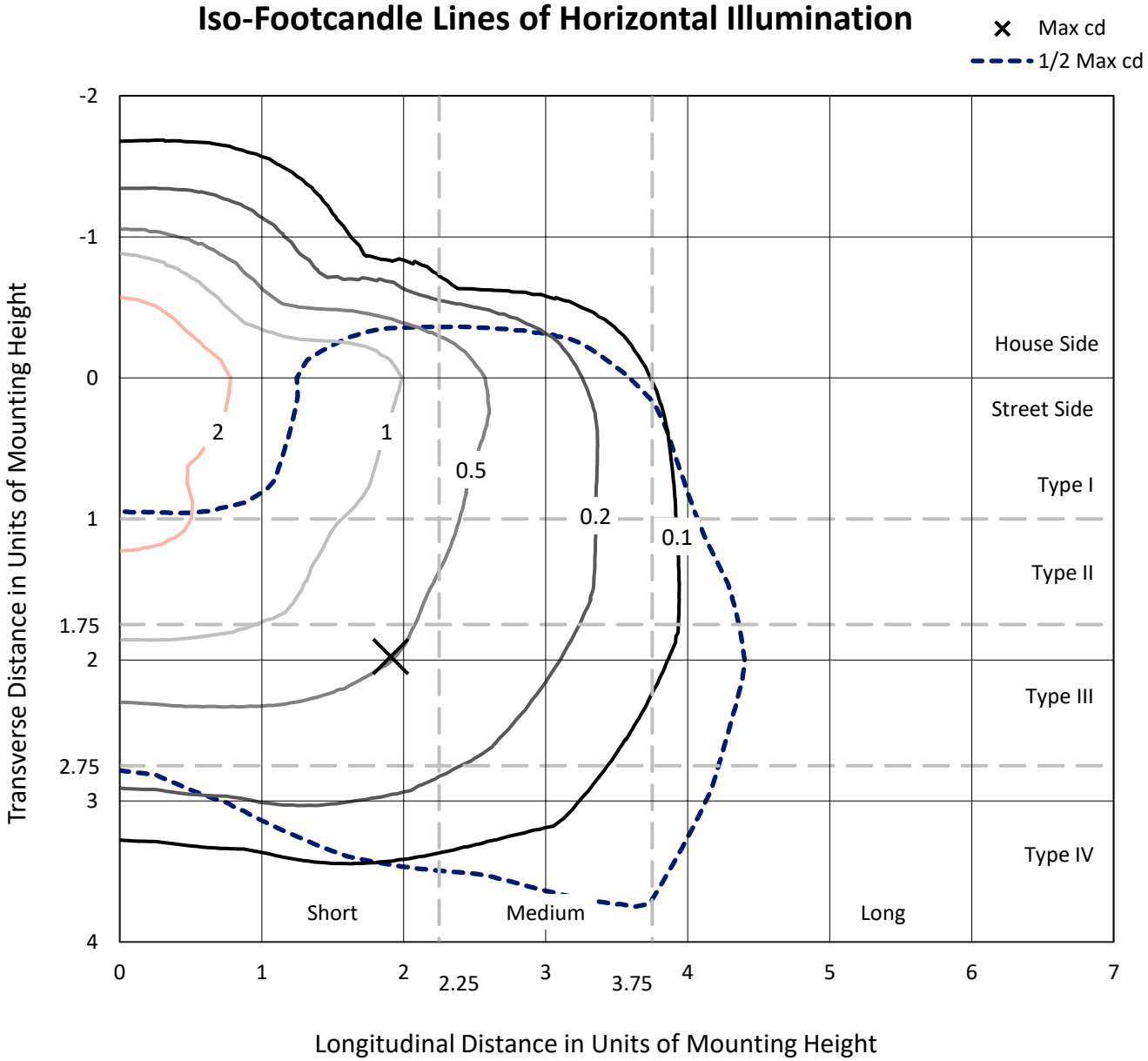
| | |
|---|---|
| Input Watts (W): | 76 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.7% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1367314
CATALOG NUMBER: GSS-SB1D-750-U-T4W

## Iso-Footcandle Lines of Horizontal Illumination



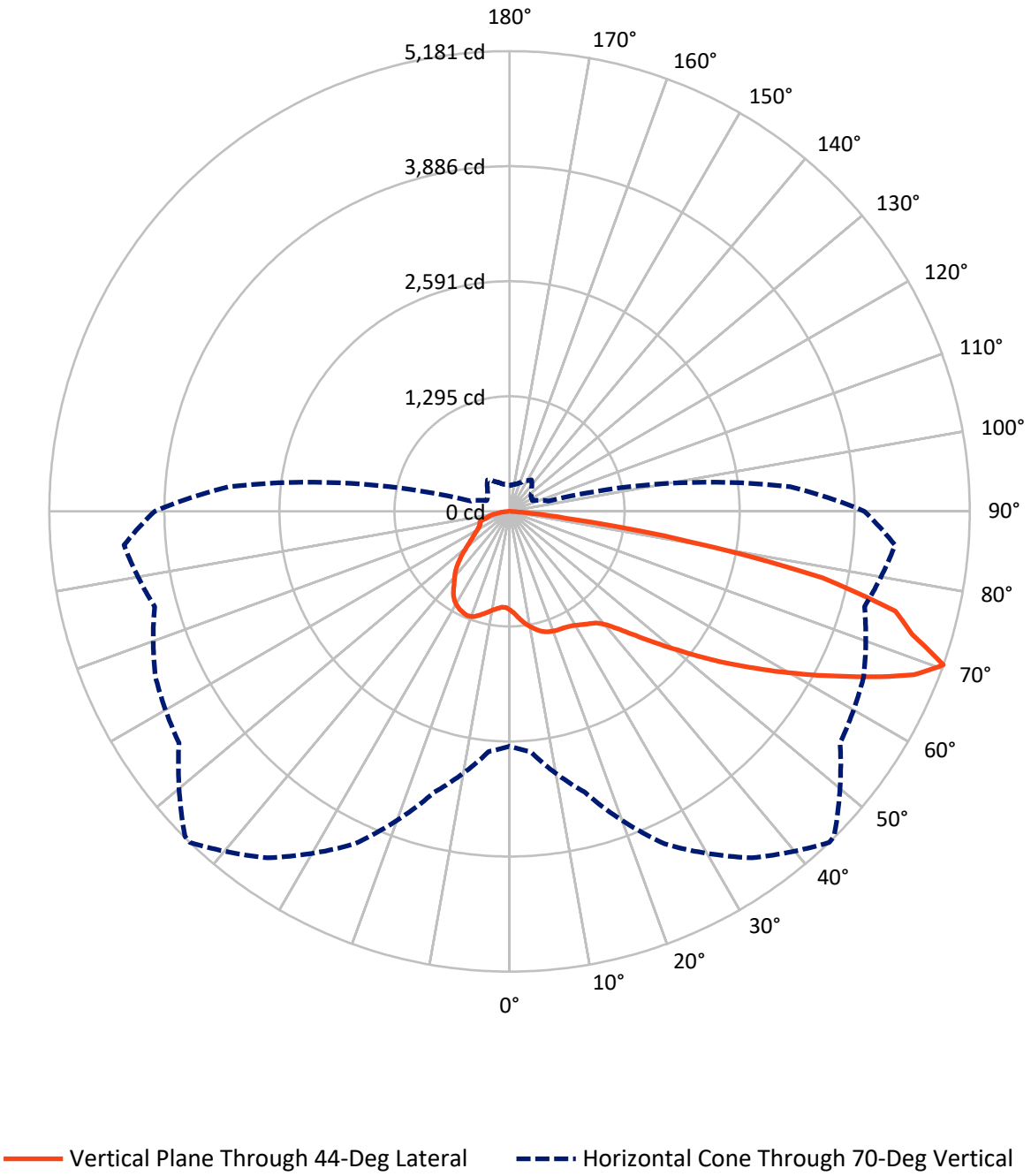

Based on 20 foot mounting height. Maximum calculated value = 3.4 fc
Type IV - Short - N/A

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REPORT NUMBER: P1367314
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## Luminous Intensity Polar Plot



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Scaled Data Report

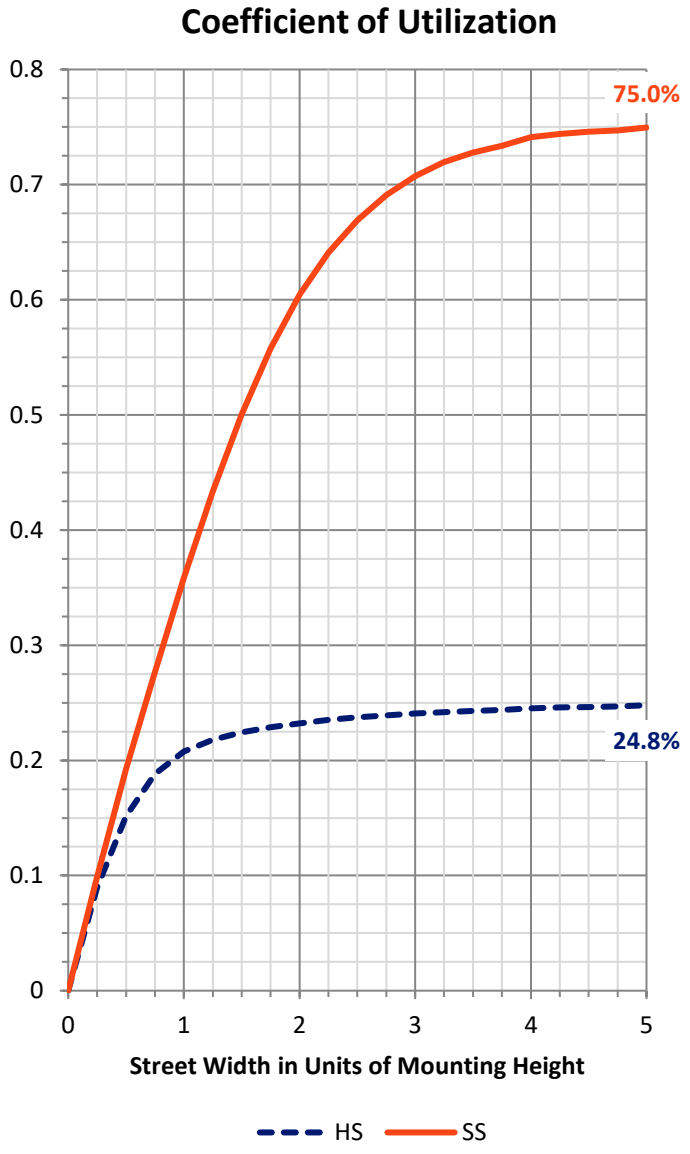
REPORT NUMBER: P1367314
CATALOG NUMBER: GSS-SB1D-750-U-T4W

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2358.2 | 0.0 | 2358.2 |
| | % Fixture | 25.1 | 0.0 | 25.1 |
| **Street Side** | Lumens | 7053.0 | 0.0 | 7053.0 |
| | % Fixture | 74.9 | 0.0 | 74.9 |
| **Total** | Lumens | 9411.2 | 0.0 | 9411.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 112.2 | 1.2 |
| 10°-20° | 368.4 | 3.9 |
| 20°-30° | 634.0 | 6.7 |
| 30°-40° | 893.7 | 9.5 |
| 40°-50° | 1236.7 | 13.1 |
| 50°-60° | 1836.6 | 19.5 |
| 60°-70° | 2454.6 | 26.1 |
| 70°-80° | 1731.5 | 18.4 |
| 80°-90° | 143.4 | 1.5 |
| 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° | 9411.2 | 100.0 |
| 0°-180° | 9411.2 | 100.0 |



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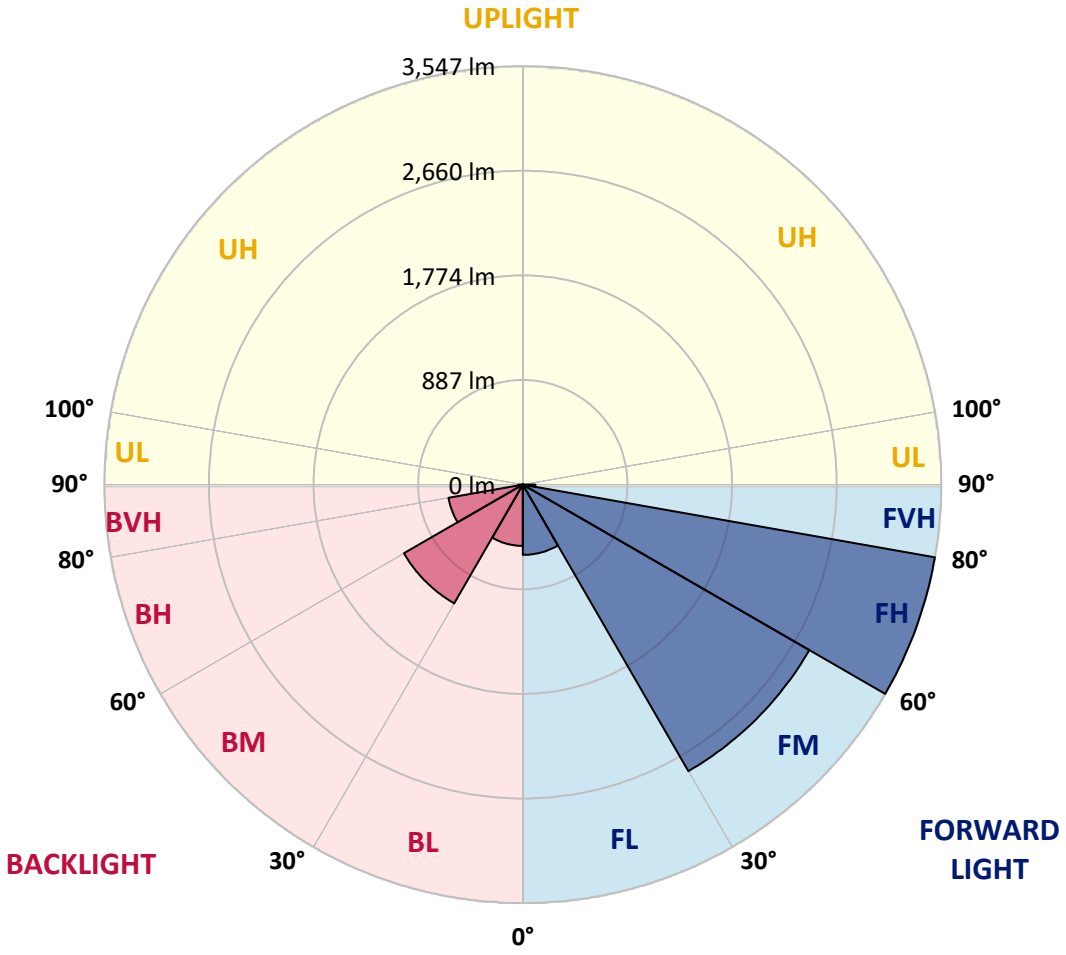
Scaled Data Report

REPORT NUMBER: P1367314
CATALOG NUMBER: GSS-SB1D-750-U-T4W

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 595.6 | 6.3 | | | |
| FM | (30°-60°) | 2804.3 | 29.8 | | | |
| FH | (60°-80°) | 3547.0 | 37.7 | | | G2/5000 |
| FVH | (80°-90°) | 106.1 | 1.1 | | | G2/225 |
| BL | (0°-30°) | 519.1 | 5.5 | B2/1000 | | |
| BM | (30°-60°) | 1162.7 | 12.4 | B2/2500 | | |
| BH | (60°-80°) | 639.1 | 6.8 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 37.3 | 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 IV Short



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Scaled Data Report

REPORT NUMBER: P1367314
CATALOG NUMBER: GSS-SB1D-750-U-T4W

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 |
| 2.5° | 1194.3 | 1187.5 | 1180.6 | 1178.3 | 1169.2 | 1155.5 | 1155.5 | 1150.9 | 1139.5 | 1130.4 | 1123.5 |
| 5° | 1272.0 | 1274.2 | 1262.8 | 1253.7 | 1240.0 | 1217.1 | 1219.4 | 1198.9 | 1176.0 | 1150.9 | 1132.7 |
| 7.5° | 1347.3 | 1347.3 | 1333.6 | 1322.2 | 1303.9 | 1276.5 | 1276.5 | 1244.6 | 1217.1 | 1182.9 | 1157.8 |
| 10° | 1415.8 | 1411.3 | 1393.0 | 1379.3 | 1354.2 | 1324.5 | 1322.2 | 1290.2 | 1256.0 | 1217.1 | 1182.9 |
| 12.5° | 1468.3 | 1468.3 | 1450.1 | 1427.2 | 1399.8 | 1367.9 | 1365.6 | 1331.3 | 1297.1 | 1256.0 | 1214.9 |
| 15° | 1518.6 | 1507.2 | 1491.2 | 1461.5 | 1429.5 | 1404.4 | 1399.8 | 1370.1 | 1335.9 | 1299.4 | 1253.7 |
| 17.5° | 1536.8 | 1532.3 | 1511.7 | 1482.0 | 1452.4 | 1425.0 | 1425.0 | 1397.5 | 1372.4 | 1335.9 | 1290.2 |
| 20° | 1532.3 | 1525.4 | 1507.2 | 1482.0 | 1459.2 | 1436.4 | 1436.4 | 1415.8 | 1402.1 | 1367.9 | 1326.8 |
| 22.5° | 1509.4 | 1502.6 | 1491.2 | 1468.3 | 1456.9 | 1443.2 | 1443.2 | 1431.8 | 1427.2 | 1406.7 | 1367.9 |
| 25° | 1502.6 | 1498.0 | 1482.0 | 1461.5 | 1450.1 | 1447.8 | 1450.1 | 1452.4 | 1456.9 | 1440.9 | 1409.0 |
| 27.5° | 1507.2 | 1507.2 | 1493.5 | 1472.9 | 1459.2 | 1461.5 | 1463.8 | 1477.5 | 1491.2 | 1482.0 | 1454.6 |
| 30° | 1536.8 | 1530.0 | 1520.9 | 1500.3 | 1484.3 | 1486.6 | 1486.6 | 1514.0 | 1527.7 | 1516.3 | 1495.7 |
| 32.5° | 1587.1 | 1580.2 | 1566.5 | 1523.1 | 1507.2 | 1518.6 | 1523.1 | 1546.0 | 1555.1 | 1543.7 | 1534.6 |
| 35° | 1703.5 | 1710.4 | 1664.7 | 1587.1 | 1543.7 | 1552.8 | 1557.4 | 1573.4 | 1584.8 | 1580.2 | 1571.1 |
| 37.5° | 1915.9 | 1918.2 | 1861.1 | 1721.8 | 1621.3 | 1593.9 | 1596.2 | 1619.1 | 1632.8 | 1616.8 | 1609.9 |
| 40° | 2180.8 | 2183.1 | 2103.2 | 1913.6 | 1744.7 | 1676.1 | 1673.9 | 1678.4 | 1699.0 | 1671.6 | 1667.0 |
| 42.5° | 2468.5 | 2436.6 | 2368.1 | 2151.1 | 1927.3 | 1813.2 | 1792.6 | 1778.9 | 1804.0 | 1769.8 | 1746.9 |
| 45° | 2742.6 | 2719.7 | 2626.1 | 2402.3 | 2146.6 | 1993.6 | 1973.0 | 1904.5 | 1945.6 | 1918.2 | 1877.1 |
| 47.5° | 2970.9 | 2952.7 | 2881.9 | 2674.1 | 2395.5 | 2210.5 | 2178.5 | 2071.2 | 2144.3 | 2130.6 | 2080.3 |
| 50° | 3139.9 | 3121.7 | 3073.7 | 2945.8 | 2710.6 | 2452.6 | 2422.9 | 2292.7 | 2368.1 | 2393.2 | 2354.4 |
| 52.5° | 3263.2 | 3258.7 | 3240.4 | 3219.8 | 3030.3 | 2733.4 | 2699.2 | 2537.1 | 2660.4 | 2708.3 | 2696.9 |
| 55° | 3450.5 | 3441.4 | 3448.2 | 3482.5 | 3372.8 | 3032.6 | 2982.4 | 2792.8 | 2961.8 | 3050.9 | 3069.1 |
| 57.5° | 3628.6 | 3628.6 | 3688.0 | 3777.0 | 3763.3 | 3354.6 | 3295.2 | 3092.0 | 3327.2 | 3370.6 | 3457.3 |
| 60° | 3795.3 | 3811.3 | 3893.5 | 4089.9 | 4128.7 | 3704.0 | 3633.2 | 3436.8 | 3674.3 | 3722.2 | 3879.8 |
| 62.5° | 3724.5 | 3763.3 | 4025.9 | 4343.4 | 4471.2 | 4078.5 | 4007.7 | 3815.9 | 4064.8 | 4007.7 | 4149.3 |
| 65° | 3363.7 | 3423.1 | 3829.6 | 4359.4 | 4804.6 | 4489.5 | 4430.1 | 4242.9 | 4279.4 | 4051.1 | 4300.0 |
| 67.5° | 2984.6 | 3071.4 | 3544.1 | 4165.2 | 4891.4 | 4909.7 | 4857.2 | 4505.5 | 4277.1 | 4096.7 | 4453.0 |
| 70° | 2644.4 | 2715.2 | 3272.4 | 4131.0 | 4761.3 | 5181.4 | 5170.0 | 4544.3 | 4400.5 | 4137.8 | 4357.1 |
| 72.5° | 1854.3 | 1952.5 | 2523.4 | 3813.6 | 4800.1 | 4738.4 | 4713.3 | 4816.1 | 4491.8 | 3987.1 | 3861.5 |
| 75° | 666.8 | 705.6 | 1308.5 | 2580.4 | 3815.9 | 4487.2 | 4507.8 | 4462.1 | 4402.7 | 3571.5 | 2902.4 |
| 77.5° | 198.7 | 212.4 | 372.2 | 1023.0 | 2139.7 | 3601.2 | 3635.5 | 3514.4 | 3308.9 | 2153.4 | 1098.4 |
| 80° | 107.3 | 116.5 | 175.8 | 299.1 | 801.5 | 2032.4 | 2126.0 | 1799.5 | 1192.0 | 568.6 | 246.6 |
| 82.5° | 52.5 | 57.1 | 91.3 | 146.1 | 344.8 | 646.3 | 648.5 | 575.5 | 388.2 | 171.3 | 91.3 |
| 85° | 18.3 | 20.6 | 29.7 | 54.8 | 118.7 | 132.4 | 132.4 | 123.3 | 114.2 | 84.5 | 41.1 |
| 87.5° | 4.6 | 4.6 | 6.9 | 9.1 | 11.4 | 13.7 | 13.7 | 16.0 | 18.3 | 20.6 | 20.6 |
| 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: P1367314
CATALOG NUMBER: GSS-SB1D-750-U-T4W

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 | 1112.1 |
| 2.5° | 1119.0 | 1109.8 | 1103.0 | 1096.1 | 1091.6 | 1082.4 | 1080.1 | 1080.1 | 1077.8 | 1080.1 | 1077.8 |
| 5° | 1125.8 | 1112.1 | 1100.7 | 1091.6 | 1087.0 | 1082.4 | 1082.4 | 1084.7 | 1082.4 | 1084.7 | 1082.4 |
| 7.5° | 1139.5 | 1130.4 | 1119.0 | 1105.3 | 1103.0 | 1100.7 | 1103.0 | 1107.5 | 1109.8 | 1112.1 | 1107.5 |
| 10° | 1166.9 | 1153.2 | 1137.2 | 1130.4 | 1125.8 | 1123.5 | 1130.4 | 1139.5 | 1141.8 | 1146.4 | 1141.8 |
| 12.5° | 1198.9 | 1182.9 | 1171.5 | 1155.5 | 1155.5 | 1157.8 | 1164.6 | 1176.0 | 1182.9 | 1189.7 | 1182.9 |
| 15° | 1235.4 | 1219.4 | 1203.4 | 1189.7 | 1187.5 | 1192.0 | 1203.4 | 1214.9 | 1217.1 | 1219.4 | 1214.9 |
| 17.5° | 1272.0 | 1256.0 | 1235.4 | 1219.4 | 1217.1 | 1228.6 | 1233.1 | 1233.1 | 1228.6 | 1228.6 | 1221.7 |
| 20° | 1308.5 | 1297.1 | 1276.5 | 1246.8 | 1256.0 | 1260.5 | 1246.8 | 1235.4 | 1228.6 | 1226.3 | 1219.4 |
| 22.5° | 1351.9 | 1333.6 | 1310.8 | 1278.8 | 1285.7 | 1267.4 | 1242.3 | 1237.7 | 1230.8 | 1233.1 | 1226.3 |
| 25° | 1393.0 | 1381.6 | 1345.0 | 1303.9 | 1285.7 | 1256.0 | 1240.0 | 1240.0 | 1233.1 | 1237.7 | 1235.4 |
| 27.5° | 1440.9 | 1427.2 | 1377.0 | 1317.6 | 1269.7 | 1237.7 | 1235.4 | 1235.4 | 1224.0 | 1226.3 | 1224.0 |
| 30° | 1488.9 | 1468.3 | 1402.1 | 1306.2 | 1230.8 | 1210.3 | 1217.1 | 1214.9 | 1210.3 | 1217.1 | 1221.7 |
| 32.5° | 1530.0 | 1514.0 | 1415.8 | 1278.8 | 1182.9 | 1173.8 | 1178.3 | 1189.7 | 1201.2 | 1208.0 | 1217.1 |
| 35° | 1573.4 | 1555.1 | 1427.2 | 1230.8 | 1130.4 | 1116.7 | 1114.4 | 1148.6 | 1169.2 | 1180.6 | 1187.5 |
| 37.5° | 1619.1 | 1596.2 | 1434.1 | 1178.3 | 1080.1 | 1039.0 | 1045.9 | 1073.3 | 1096.1 | 1116.7 | 1132.7 |
| 40° | 1680.7 | 1657.9 | 1443.2 | 1121.2 | 1027.6 | 972.8 | 963.7 | 970.5 | 986.5 | 1016.2 | 1032.2 |
| 42.5° | 1772.1 | 1735.5 | 1443.2 | 1048.2 | 952.3 | 913.4 | 881.5 | 856.3 | 847.2 | 865.5 | 874.6 |
| 45° | 1897.7 | 1842.8 | 1434.1 | 972.8 | 865.5 | 838.1 | 785.6 | 744.4 | 707.9 | 689.6 | 685.1 |
| 47.5° | 2105.5 | 2009.5 | 1425.0 | 899.7 | 783.3 | 749.0 | 685.1 | 637.1 | 584.6 | 536.6 | 525.2 |
| 50° | 2384.1 | 2231.1 | 1427.2 | 826.7 | 701.1 | 655.4 | 598.3 | 548.1 | 486.4 | 440.7 | 433.9 |
| 52.5° | 2751.7 | 2541.6 | 1440.9 | 746.7 | 621.1 | 580.0 | 532.1 | 481.8 | 420.2 | 385.9 | 383.6 |
| 55° | 3178.7 | 2916.1 | 1488.9 | 657.7 | 548.1 | 516.1 | 481.8 | 433.9 | 381.4 | 351.7 | 347.1 |
| 57.5° | 3676.6 | 3350.0 | 1584.8 | 564.0 | 481.8 | 470.4 | 443.0 | 397.3 | 354.0 | 324.3 | 319.7 |
| 60° | 4167.5 | 3770.2 | 1657.9 | 481.8 | 429.3 | 429.3 | 404.2 | 369.9 | 310.6 | 285.4 | 280.9 |
| 62.5° | 4395.9 | 3900.4 | 1518.6 | 415.6 | 388.2 | 395.1 | 379.1 | 331.1 | 312.9 | 301.4 | 294.6 |
| 65° | 4450.7 | 3827.3 | 1141.8 | 365.4 | 354.0 | 376.8 | 351.7 | 354.0 | 338.0 | 326.6 | 319.7 |
| 67.5° | 4384.5 | 3619.5 | 730.7 | 322.0 | 328.8 | 354.0 | 388.2 | 390.5 | 338.0 | 312.9 | 308.3 |
| 70° | *3996.3* | *3174.2* | *449.9* | *285.4* | *294.6* | *349.4* | *431.6* | *367.7* | *319.7* | *299.1* | *290.0* |
| 72.5° | 3334.0 | 2619.3 | 315.1 | 251.2 | 251.2 | 331.1 | 388.2 | 344.8 | 294.6 | 283.2 | 271.7 |
| 75° | 2340.7 | 1772.1 | 230.6 | 210.1 | 210.1 | 258.0 | 358.5 | 315.1 | 276.3 | 280.9 | 276.3 |
| 77.5° | 797.0 | 575.5 | 166.7 | 162.1 | 155.3 | 221.5 | 319.7 | 301.4 | 255.8 | 242.1 | 223.8 |
| 80° | 235.2 | 185.0 | 123.3 | 114.2 | 111.9 | 178.1 | 269.5 | 221.5 | 182.7 | 166.7 | 155.3 |
| 82.5° | 91.3 | 82.2 | 79.9 | 73.1 | 70.8 | 118.7 | 178.1 | 153.0 | 137.0 | 114.2 | 111.9 |
| 85° | 36.5 | 36.5 | 41.1 | 41.1 | 36.5 | 63.9 | 107.3 | 84.5 | 79.9 | 70.8 | 68.5 |
| 87.5° | 18.3 | 18.3 | 16.0 | 11.4 | 11.4 | 13.7 | 11.4 | 11.4 | 11.4 | 11.4 | 11.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-6

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-750-U-5WQ

Data in this report applies to families of products including GSS-SB1A-750-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

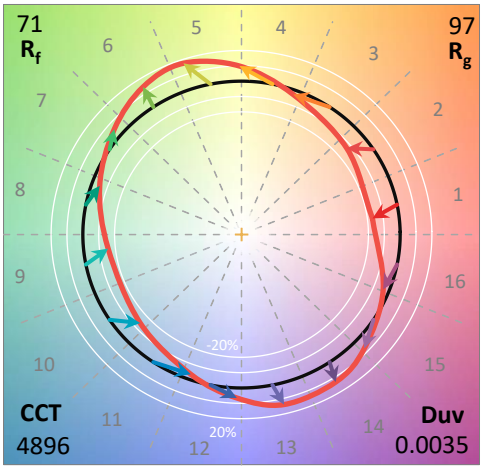
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-6 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/15/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GSS-SB1A-750-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 5000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 4896 |
| CIE u': | 0.2101 |
| CIE v': | 0.4901 |
| Duv: | 0.0035 |
| CIE x: | 0.3489 |
| CIE y: | 0.3618 |
| CIE z: | 0.2893 |
| Peak Wavelength (nm): | 443 |
| Dominant Wavelength (nm): | 570 |
| Purity: | 13.25435 |
| Rf: | 70.7 |
| Rg: | 96.8 |

| | |
|---|---|
| CRI (Ra): | 70.2 |
| R1: | 68.1 |
| R2: | 73.9 |
| R3: | 79.4 |
| R4: | 72.1 |
| R5: | 69.2 |
| R6: | 65.7 |
| R7: | 78.1 |
| R8: | 55.3 |
| R9: | -35.1 |
| R10: | 39.3 |
| R11: | 71.1 |
| R12: | 43.8 |
| R13: | 68.1 |
| R14: | 88.4 |
| R15: | 59.7 |




## Test Conditions

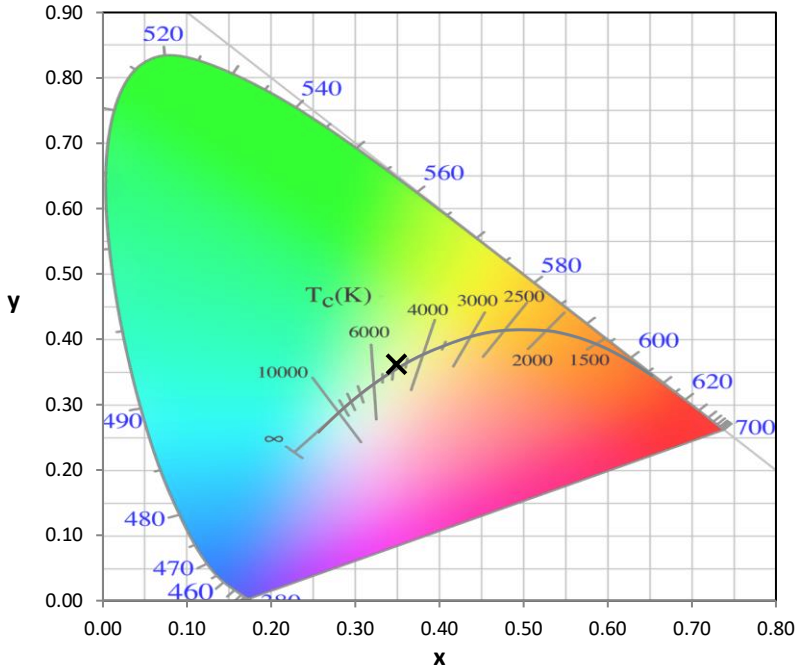
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-6

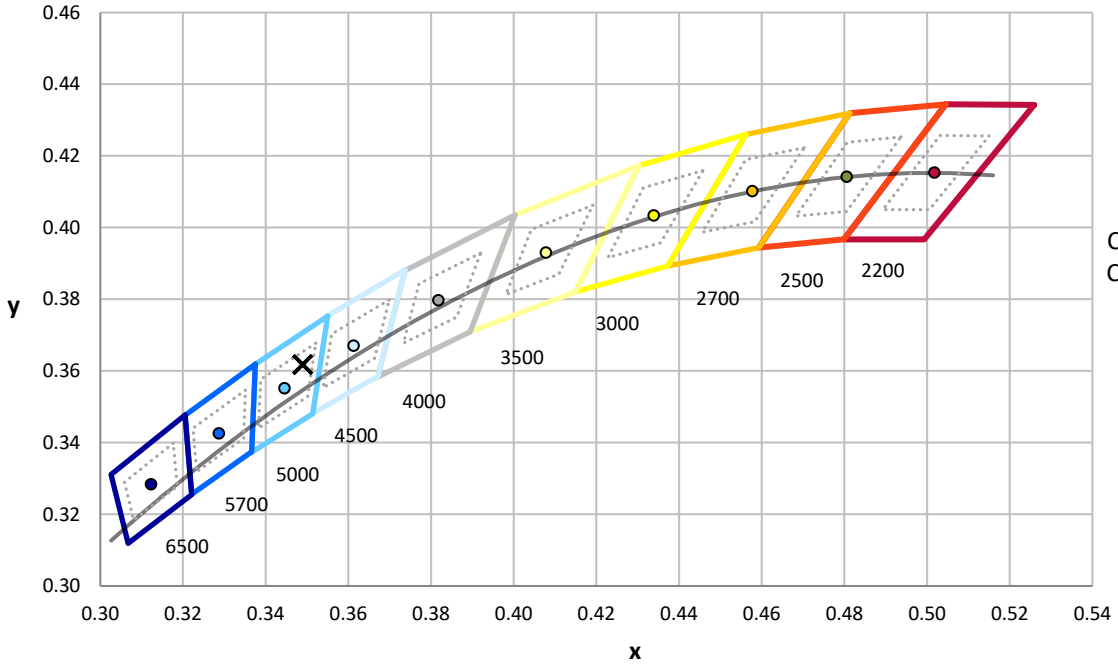
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

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## CIE 1931 Chromaticity Diagram




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

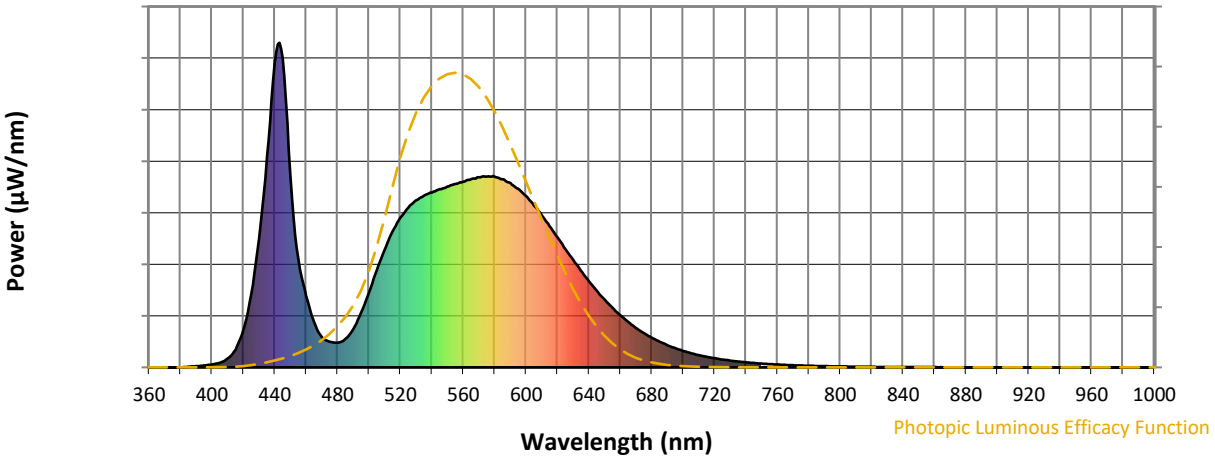



CCT = 4896K
CIE x = 0.3489
CIE y = 0.3618
Duv = 0.0035

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

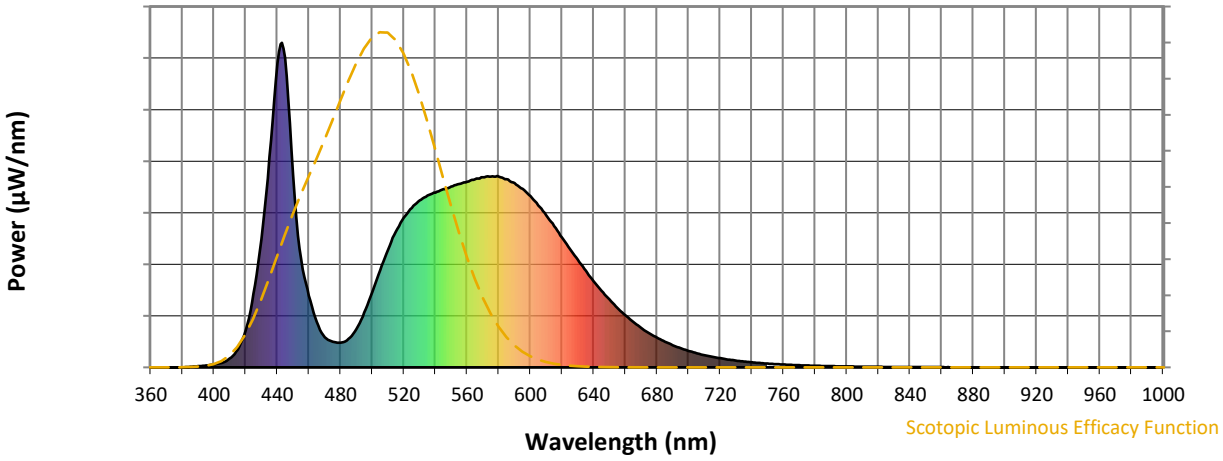



## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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## Scotopic Flux vs. Wavelength

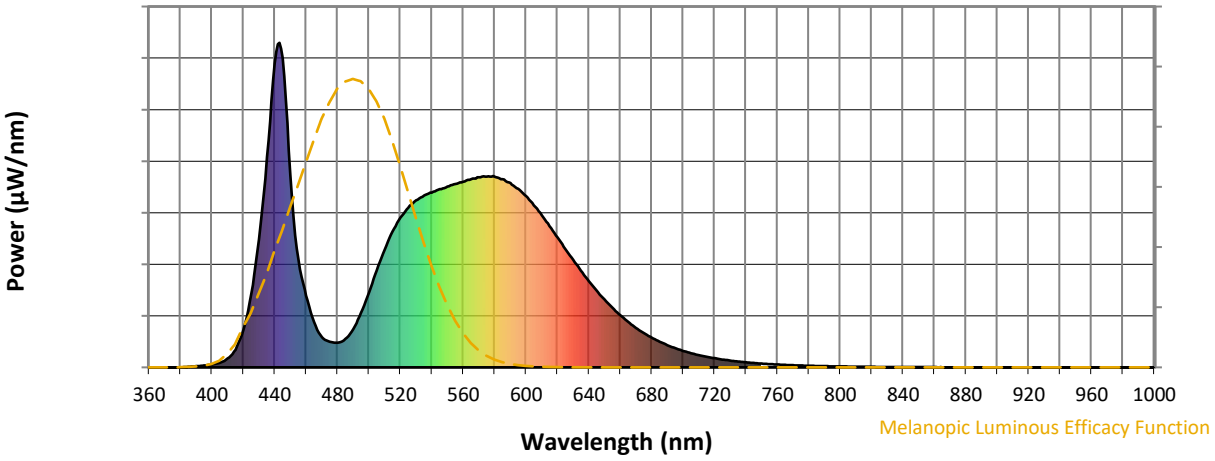



**Scotopic Lumens: NR** **S/P: 1.7**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.37**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

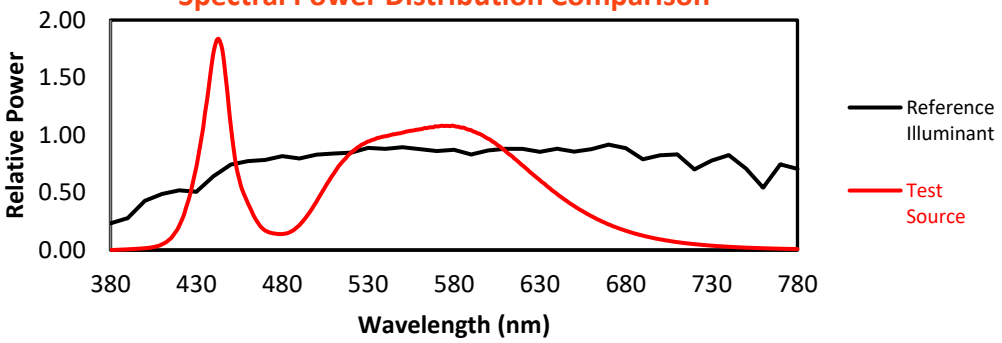
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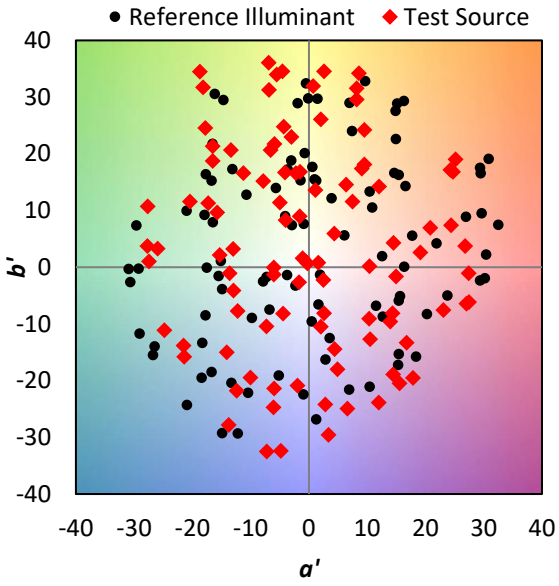
## Summary

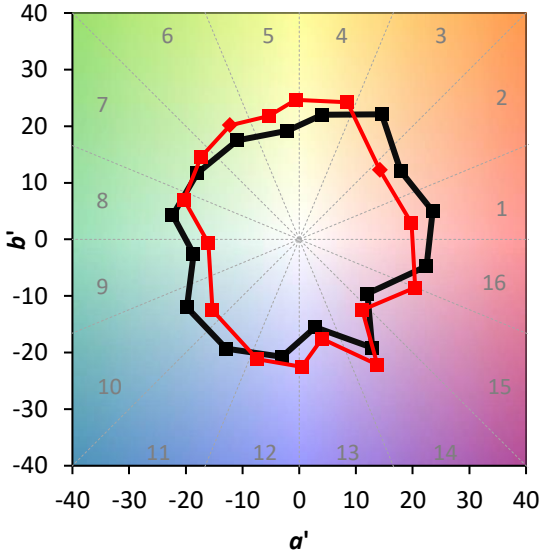
$R_f$ = 70.7
$R_g$ = 96.8
CIE $R_a$ = 70.2
$R_9$ = -35.1

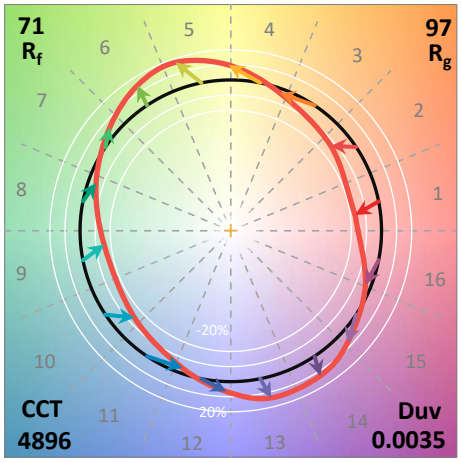
## Spectral Power Distribution Comparison

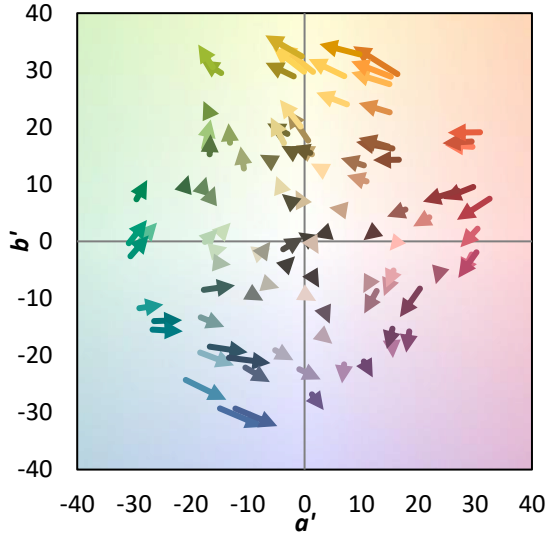



## Color Vector Graphics



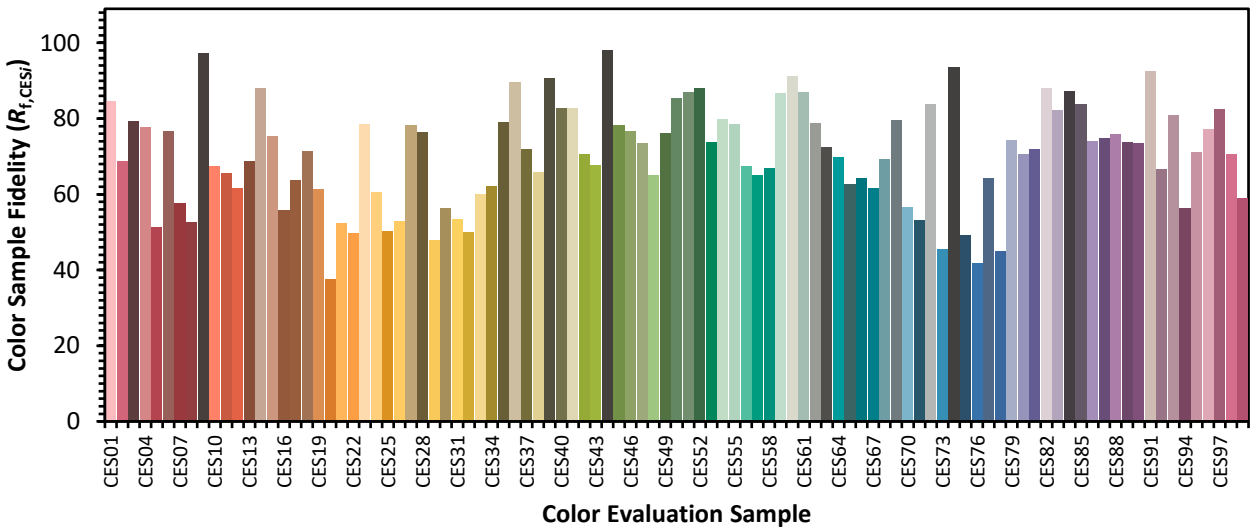



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## Individual Sample Fidelity Index ($R_{f,i}$)

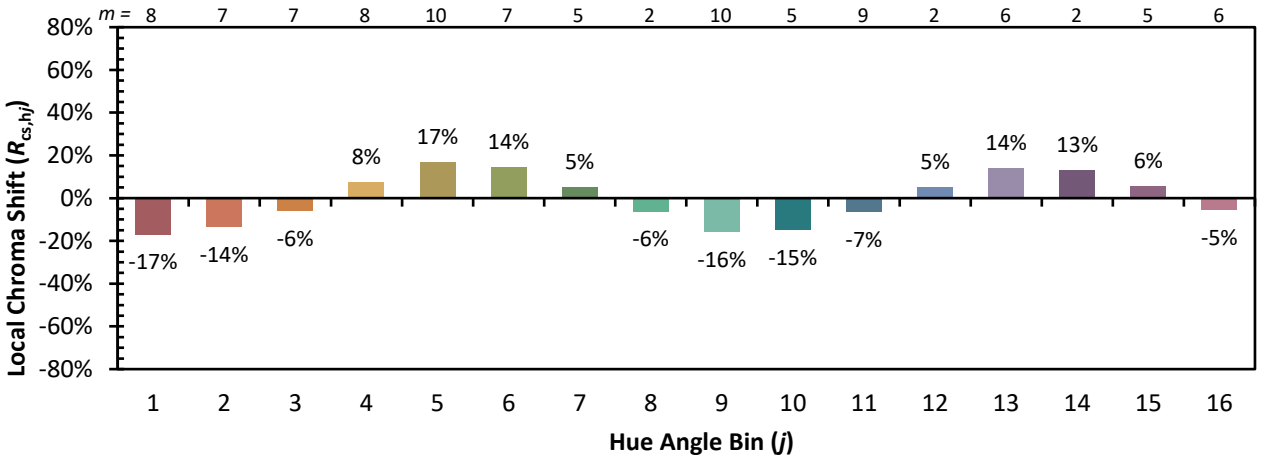
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 53 | CES51 = 87 | CES76 = 42 |
| CES02 = 59 | CES27 = 78 | CES52 = 88 | CES77 = 64 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 45 |
| CES04 = 69 | CES29 = 48 | CES54 = 80 | CES79 = 74 |
| CES05 = 46 | CES30 = 56 | CES55 = 79 | CES80 = 71 |
| CES06 = 50 | CES31 = 54 | CES56 = 68 | CES81 = 72 |
| CES07 = 39 | CES32 = 50 | CES57 = 65 | CES82 = 88 |
| CES08 = 38 | CES33 = 60 | CES58 = 67 | CES83 = 82 |
| CES09 = 29 | CES34 = 62 | CES59 = 87 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 91 | CES85 = 84 |
| CES11 = 56 | CES36 = 90 | CES61 = 87 | CES86 = 74 |
| CES12 = 61 | CES37 = 72 | CES62 = 79 | CES87 = 75 |
| CES13 = 41 | CES38 = 66 | CES63 = 72 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 70 | CES89 = 74 |
| CES15 = 70 | CES40 = 83 | CES65 = 63 | CES90 = 73 |
| CES16 = 46 | CES41 = 83 | CES66 = 64 | CES91 = 92 |
| CES17 = 49 | CES42 = 70 | CES67 = 62 | CES92 = 67 |
| CES18 = 55 | CES43 = 68 | CES68 = 69 | CES93 = 81 |
| CES19 = 71 | CES44 = 98 | CES69 = 80 | CES94 = 56 |
| CES20 = 64 | CES45 = 78 | CES70 = 56 | CES95 = 71 |
| CES21 = 85 | CES46 = 77 | CES71 = 53 | CES96 = 77 |
| CES22 = 77 | CES47 = 73 | CES72 = 84 | CES97 = 82 |
| CES23 = 91 | CES48 = 65 | CES73 = 46 | CES98 = 71 |
| CES24 = 90 | CES49 = 76 | CES74 = 94 | CES99 = 59 |
| CES25 = 71 | CES50 = 85 | CES75 = 49 | |

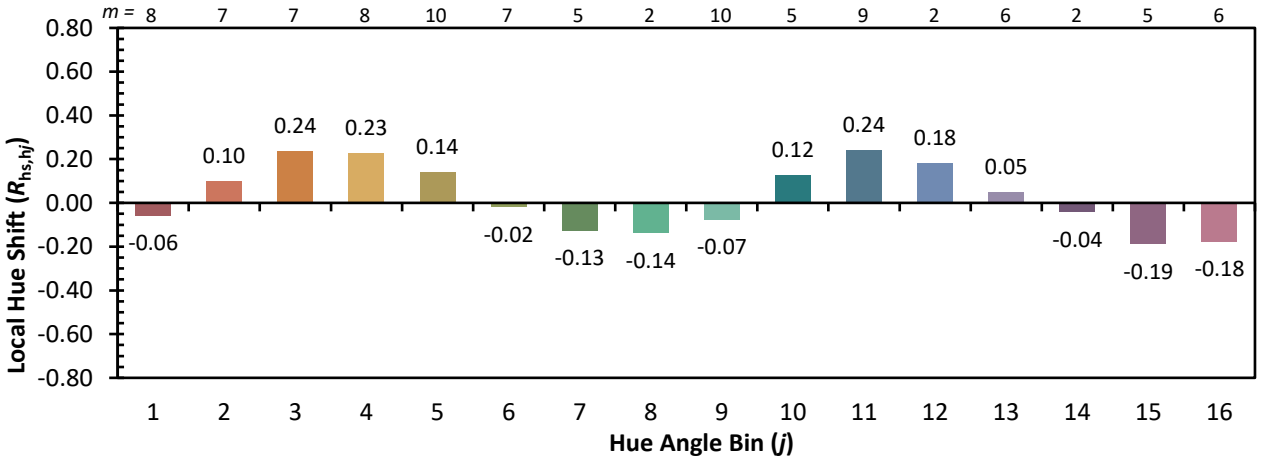


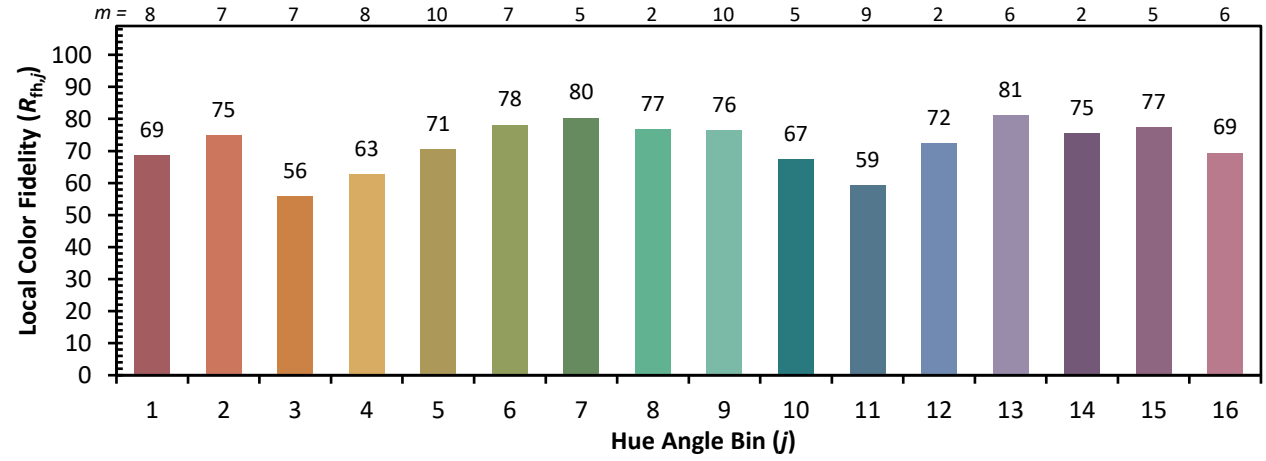
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## Color Rendition by Hue-Angle Bin



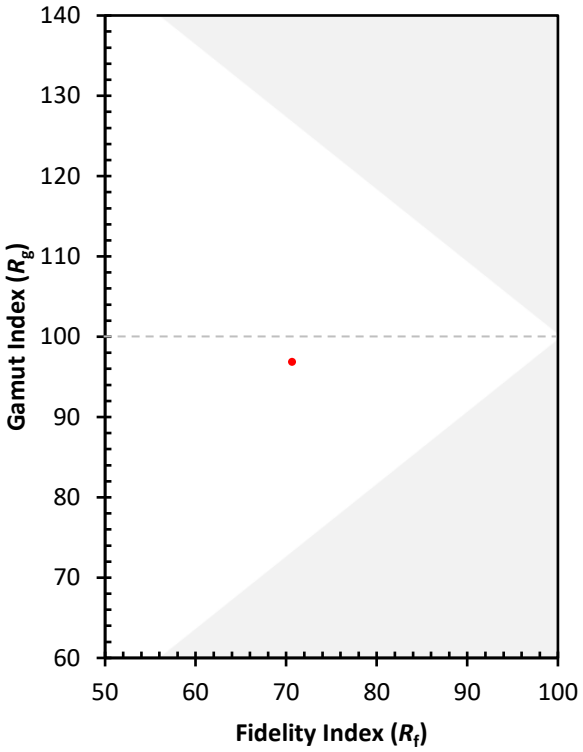



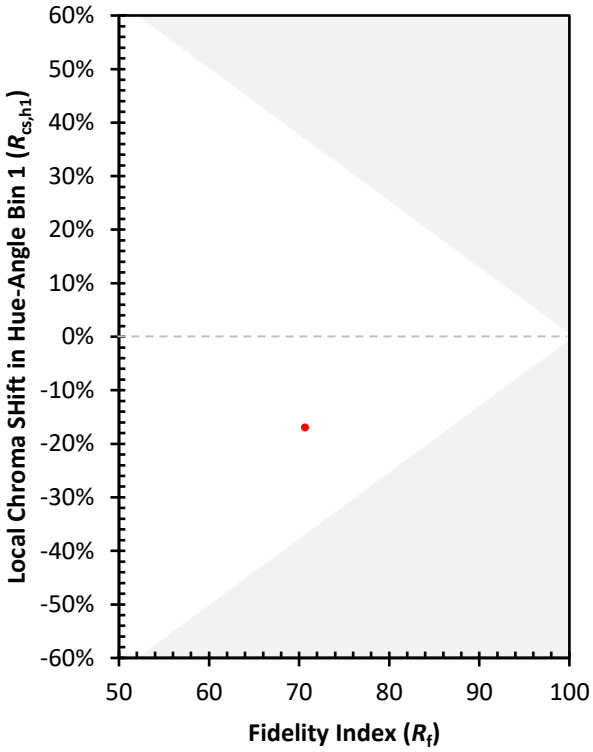



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## Measure Comparisons




(END OF REPORT)