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: STREETWORKS

Report Number: P1455975

Luminaire Tested: GLAN-SB2A-760-U-T2LG

Issue Date: 05/20/2026

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: | P1455975 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB2A-760-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 350mA 2xLight Square PACKAGE 70CRI 5700K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (52) 5700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9181.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 160.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 1' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 57.3 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | NR |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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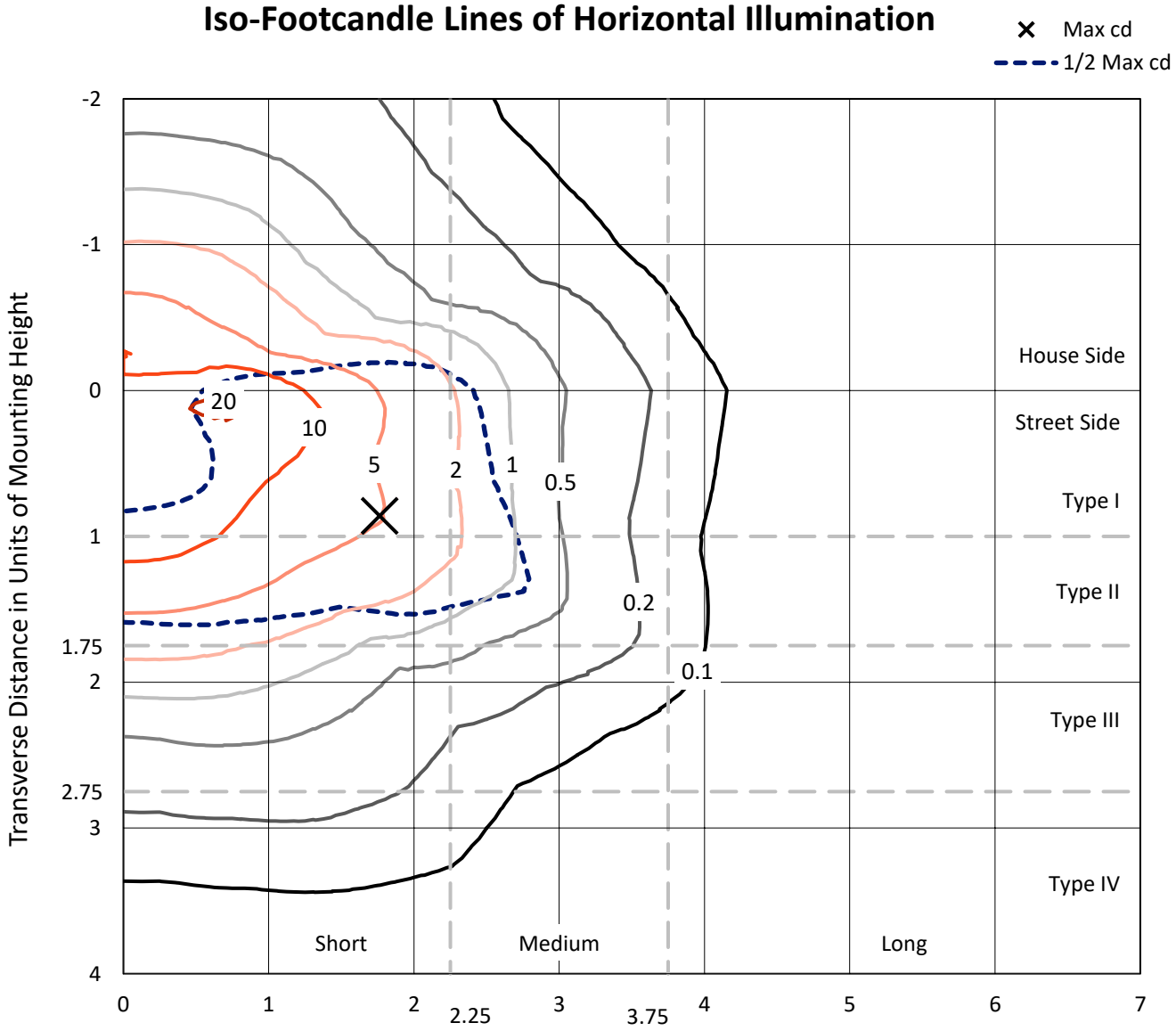
Scaled Data Report

REPORT NUMBER: P1455975
CATALOG NUMBER: GLAN-SB2A-760-U-T2LG

## Iso-Footcandle Lines of Horizontal Illumination




Based on 10 foot mounting height. Maximum calculated value = 21.6 fc
Type II - Short - N/A

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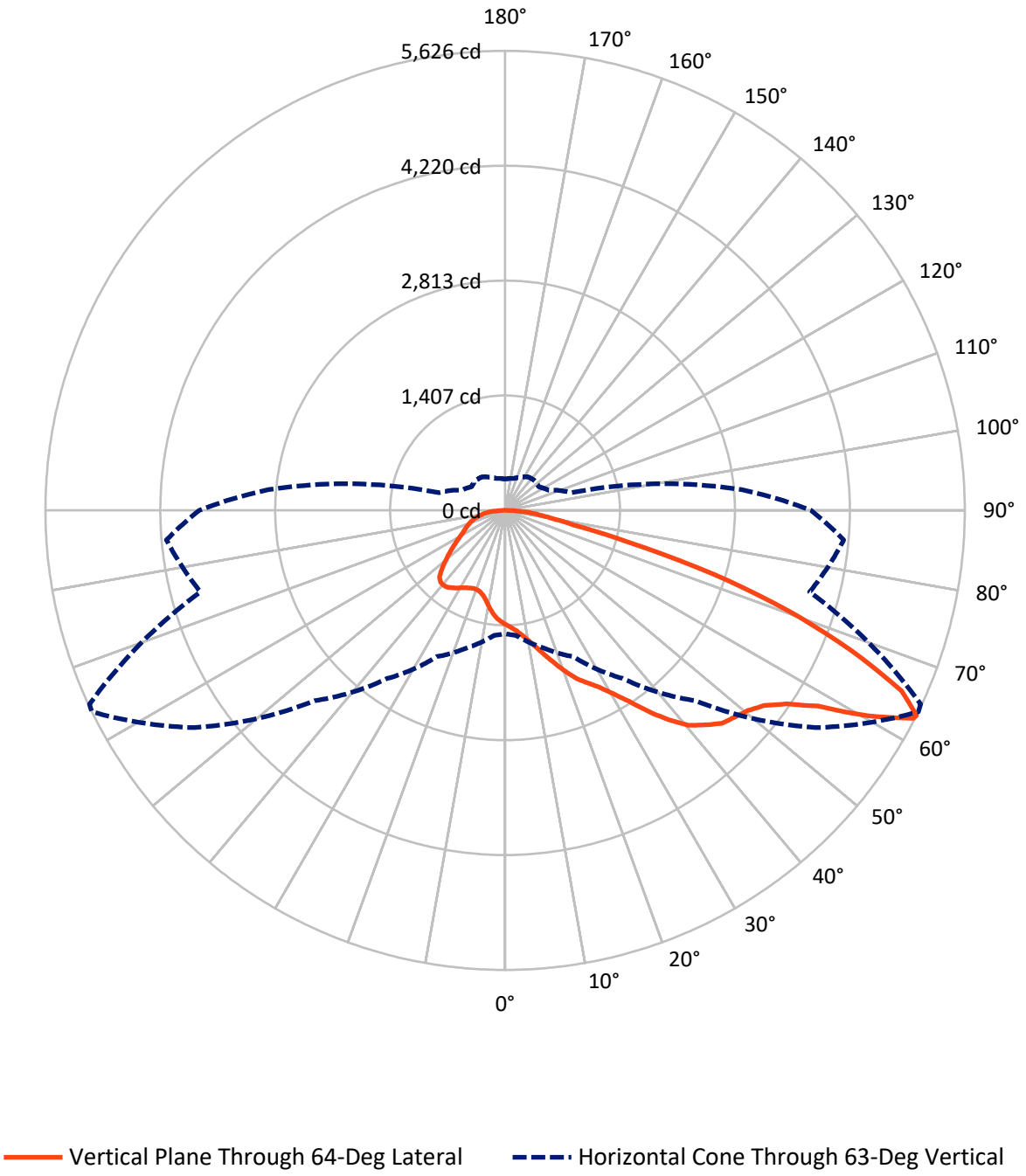
## Luminous Intensity Polar Plot



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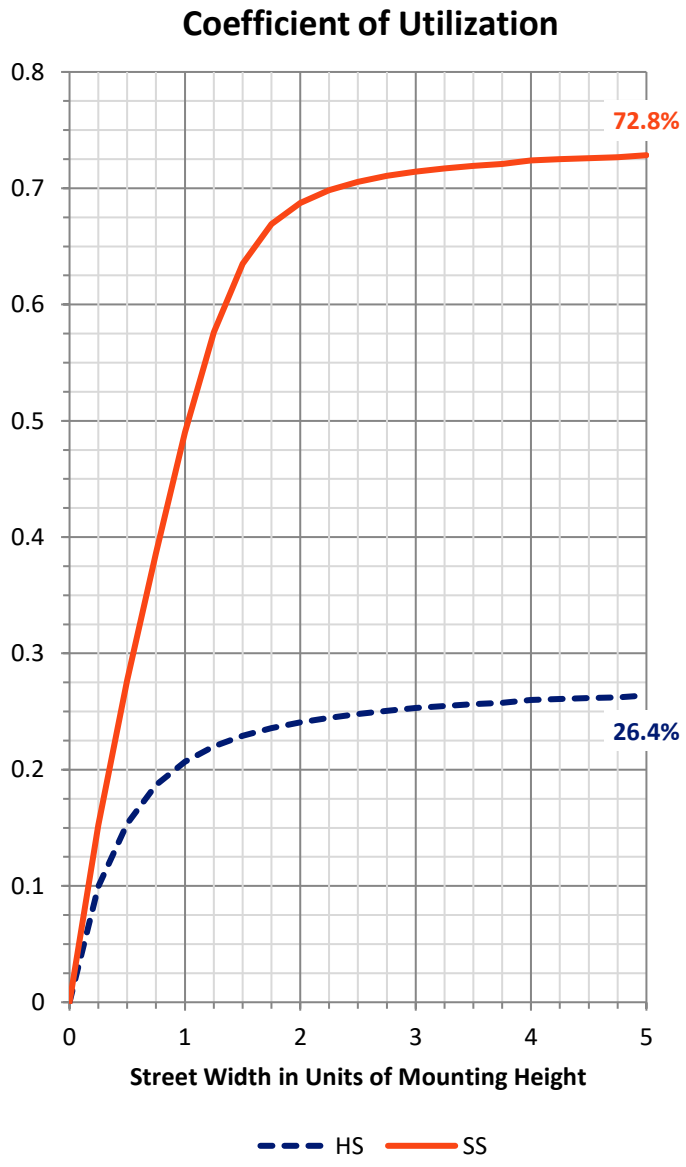
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2466.8 | 0.0 | 2466.8 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 6714.8 | 0.0 | 6714.8 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 9181.6 | 0.0 | 9181.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 128.4 | 1.4 |
| 10°-20° | 395.2 | 4.3 |
| 20°-30° | 722.7 | 7.9 |
| 30°-40° | 1243.2 | 13.5 |
| 40°-50° | 1833.4 | 20.0 |
| 50°-60° | 2197.4 | 23.9 |
| 60°-70° | 1763.6 | 19.2 |
| 70°-80° | 708.7 | 7.7 |
| 80°-90° | 189.0 | 2.1 |
| 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° | 9181.6 | 100.0 |
| 0°-180° | 9181.6 | 100.0 |



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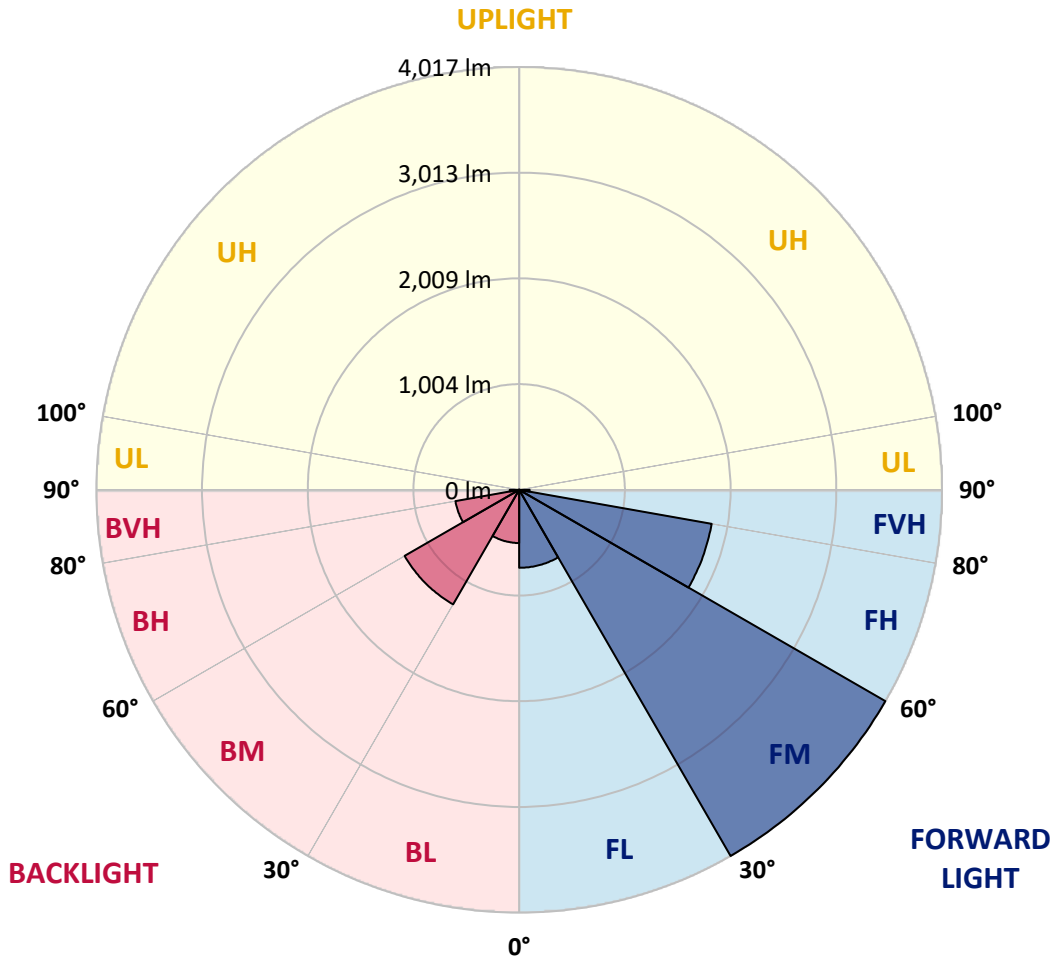
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 740.8 | 8.1 | | | |
| FM | (30°-60°) | 4017.4 | 43.8 | | | |
| FH | (60°-80°) | 1857.3 | 20.2 | | | G2/5000 |
| FVH | (80°-90°) | 99.3 | 1.1 | | | G1/100 |
| BL | (0°-30°) | 505.5 | 5.5 | B2/1000 | | |
| BM | (30°-60°) | 1256.6 | 13.7 | B2/2500 | | |
| BH | (60°-80°) | 615.1 | 6.7 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 89.7 | 1.0 | | | 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 II Short



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REPORT NUMBER: P1455975
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | *1398.3* | 1398.3 | 1398.3 | 1398.3 |
| 2.5° | 1456.0 | 1458.1 | 1451.9 | 1449.8 | 1453.9 | 1445.7 | 1443.6 | *1435.4* | 1431.2 | 1423.0 | 1412.7 |
| 5° | 1497.2 | 1499.3 | 1495.2 | 1495.2 | 1499.3 | 1493.1 | 1491.1 | *1482.8* | 1478.7 | 1470.4 | 1449.8 |
| 7.5° | 1495.2 | 1497.2 | 1501.4 | 1517.9 | 1538.5 | 1546.7 | 1552.9 | *1546.7* | 1544.7 | 1532.3 | 1511.7 |
| 10° | 1462.2 | 1464.2 | 1474.6 | 1499.3 | 1550.9 | 1588.0 | 1627.2 | *1627.2* | 1631.3 | 1621.0 | 1583.9 |
| 12.5° | 1416.8 | 1418.9 | 1443.6 | 1482.8 | 1550.9 | 1614.8 | 1695.2 | *1728.2* | 1726.2 | 1720.0 | 1676.7 |
| 15° | 1307.5 | 1307.5 | 1344.6 | 1418.9 | 1528.2 | 1633.4 | 1753.0 | *1841.7* | 1843.7 | 1849.9 | 1798.3 |
| 17.5° | 1214.7 | 1216.8 | 1247.7 | 1313.7 | 1456.0 | 1623.0 | 1814.8 | *1967.5* | 1973.6 | 2008.7 | 1934.5 |
| 20° | 1223.0 | 1223.0 | 1233.3 | 1262.1 | 1377.6 | 1581.8 | 1849.9 | *2101.5* | 2122.1 | 2204.6 | 2111.8 |
| 22.5° | 1286.9 | 1286.9 | 1295.1 | 1293.1 | 1363.2 | 1555.0 | 1872.6 | *2235.6* | 2272.7 | 2443.8 | 2324.2 |
| 25° | 1404.4 | 1402.4 | 1394.1 | 1381.8 | 1423.0 | 1583.9 | 1924.1 | *2338.7* | 2410.8 | 2707.8 | 2569.6 |
| 27.5° | 1548.8 | 1544.7 | 1532.3 | 1511.7 | 1540.6 | 1670.5 | 2012.8 | *2448.0* | 2526.3 | 2996.5 | 2829.5 |
| 30° | 1728.2 | 1715.8 | 1703.5 | 1676.7 | 1707.6 | 1812.8 | 2144.8 | *2602.6* | 2676.9 | 3324.5 | 3143.0 |
| 32.5° | 1940.6 | 1955.1 | 1913.8 | 1876.7 | 1909.7 | 2006.6 | 2340.7 | *2786.2* | 2866.6 | 3666.8 | 3468.8 |
| 35° | 2258.2 | 2301.5 | 2289.2 | 2101.5 | 2132.4 | 2239.7 | 2569.6 | *3023.4* | 3095.5 | 3978.2 | 3802.9 |
| 37.5° | 2571.7 | 2561.4 | 2571.7 | 2415.0 | 2365.5 | 2495.4 | 2815.1 | *3250.2* | 3320.3 | 4231.9 | 4097.8 |
| 40° | 2823.3 | 2854.2 | 2854.2 | 2726.4 | 2662.5 | 2749.1 | 3037.8 | *3458.5* | 3526.6 | 4372.1 | 4310.2 |
| 42.5° | 3097.6 | 3101.7 | 3093.5 | 2982.1 | 2957.4 | 2980.0 | 3233.7 | *3590.5* | 3646.2 | 4444.3 | 4454.6 |
| 45° | 3406.9 | 3404.9 | 3369.8 | 3277.0 | 3239.9 | 3219.3 | 3355.4 | *3718.4* | 3774.0 | 4477.3 | 4533.0 |
| 47.5° | 3662.7 | 3673.0 | 3675.1 | 3576.1 | 3514.2 | 3425.5 | 3460.6 | *3782.3* | 3846.2 | 4440.2 | 4549.5 |
| 50° | 3677.1 | 3693.6 | 3772.0 | 3800.9 | 3788.5 | 3646.2 | 3557.5 | *3850.3* | 3914.3 | 4448.4 | 4609.3 |
| 52.5° | 3586.4 | 3602.9 | 3703.9 | 3823.5 | 3967.9 | 3899.8 | 3710.1 | *3967.9* | 4033.9 | 4528.9 | 4745.4 |
| 55° | 3343.0 | 3369.8 | 3520.4 | 3687.4 | 3945.2 | 4042.1 | 3980.3 | *4180.3* | 4242.2 | 4592.8 | 4904.2 |
| 57.5° | 2909.9 | 2942.9 | 3151.2 | 3417.3 | 3769.9 | 4009.1 | 4372.1 | *4520.6* | 4572.2 | 4638.2 | 4906.3 |
| 60° | 2175.7 | 2202.6 | 2528.4 | 2887.2 | 3417.3 | 3802.9 | 4605.2 | *5104.2* | 5133.1 | 4392.7 | 4627.8 |
| 62.5° | 1602.4 | 1629.2 | 1847.8 | 2105.6 | 2685.1 | 3423.4 | 4650.5 | *5609.5* | 5613.6 | 3949.3 | 4244.3 |
| 63° | *1509.6* | *1536.4* | *1734.4* | *1975.7* | *2511.9* | *3295.6* | *4636.1* | *5626.0* | *5611.6* | *3858.6* | *4159.7* |
| 65° | 1175.5 | 1223.0 | 1429.2 | 1612.7 | 1882.9 | 2623.3 | 4450.5 | *5333.2* | 5353.8 | 3590.5 | 3734.9 |
| 67.5° | 800.2 | 835.2 | 1097.2 | 1309.6 | 1423.0 | 1670.5 | 3650.3 | *4563.9* | 4596.9 | 3312.1 | 2980.0 |
| 70° | 618.7 | 635.2 | 787.8 | 1037.3 | 1150.8 | 1062.1 | 2379.9 | *3675.1* | 3675.1 | 2586.1 | 2111.8 |
| 72.5° | 484.6 | 490.8 | 593.9 | 810.5 | 926.0 | 816.7 | 1326.1 | *2672.8* | 2573.8 | 1534.4 | 1408.6 |
| 75° | 346.5 | 354.7 | 447.5 | 604.3 | 738.3 | 643.4 | 847.6 | *1557.1* | 1497.2 | 882.7 | 940.4 |
| 77.5° | 274.3 | 278.4 | 334.1 | 445.5 | 598.1 | 490.8 | 645.5 | *849.7* | 841.4 | 620.8 | 604.3 |
| 80° | 216.5 | 224.8 | 261.9 | 319.7 | 462.0 | 383.6 | 480.5 | *561.0* | 544.5 | 426.9 | 387.7 |
| 82.5° | 154.7 | 169.1 | 202.1 | 243.4 | 342.3 | 274.3 | 315.5 | *396.0* | 396.0 | 321.7 | 255.7 |
| 85° | 94.9 | 107.2 | 119.6 | 150.5 | 243.4 | 177.4 | 167.0 | *255.7* | 261.9 | 241.3 | 165.0 |
| 87.5° | 45.4 | 49.5 | 57.7 | 63.9 | 88.7 | 80.4 | 66.0 | *96.9* | 99.0 | 107.2 | 68.1 |
| 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: P1455975
CATALOG NUMBER: GLAN-SB2A-760-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 | 1398.3 |
| 2.5° | 1410.6 | 1406.5 | 1385.9 | 1365.3 | 1342.6 | 1321.9 | 1301.3 | 1284.8 | 1266.3 | 1270.4 | 1272.5 |
| 5° | 1437.4 | 1427.1 | 1381.8 | 1328.1 | 1258.0 | 1192.0 | 1128.1 | 1082.7 | 1053.8 | 1045.6 | 1029.1 |
| 7.5° | 1495.2 | 1470.4 | 1387.9 | 1274.5 | 1144.6 | 1041.5 | 981.7 | 954.9 | 946.6 | 948.7 | 944.5 |
| 10° | 1561.2 | 1524.1 | 1396.2 | 1210.6 | 1045.6 | 975.5 | 967.2 | 983.7 | 992.0 | 1000.2 | 1002.3 |
| 12.5° | 1647.8 | 1588.0 | 1392.1 | 1140.5 | 998.2 | 985.8 | 1016.7 | 1047.7 | 1066.2 | 1078.6 | 1076.5 |
| 15° | 1748.8 | 1668.4 | 1379.7 | 1082.7 | 992.0 | 1025.0 | 1064.2 | 1099.2 | 1121.9 | 1134.3 | 1128.1 |
| 17.5° | 1870.5 | 1763.3 | 1365.3 | 1045.6 | 1010.5 | 1049.7 | 1091.0 | 1126.0 | 1150.8 | 1159.0 | 1152.8 |
| 20° | 2021.1 | 1870.5 | 1340.5 | 1029.1 | 1025.0 | 1060.0 | 1097.2 | 1130.2 | 1150.8 | 1159.0 | 1150.8 |
| 22.5° | 2198.4 | 1998.4 | 1319.9 | 1029.1 | 1031.2 | 1060.0 | 1086.8 | 1111.6 | 1130.2 | 1136.3 | 1126.0 |
| 25° | 2425.3 | 2146.9 | 1311.6 | 1045.6 | 1033.2 | 1049.7 | 1064.2 | 1078.6 | 1088.9 | 1093.0 | 1088.9 |
| 27.5° | 2656.3 | 2318.0 | 1315.8 | 1066.2 | 1031.2 | 1035.3 | 1035.3 | 1037.3 | 1039.4 | 1041.5 | 1039.4 |
| 30° | 2922.3 | 2491.3 | 1332.3 | 1093.0 | 1035.3 | 1014.7 | 1008.5 | 996.1 | 985.8 | 977.5 | 969.3 |
| 32.5° | 3180.1 | 2656.3 | 1361.1 | 1132.2 | 1031.2 | 992.0 | 979.6 | 948.7 | 919.8 | 895.0 | 895.0 |
| 35° | 3458.5 | 2827.4 | 1412.7 | 1161.1 | 1027.0 | 971.4 | 936.3 | 901.2 | 870.3 | 835.2 | 835.2 |
| 37.5° | 3697.7 | 2973.9 | 1453.9 | 1194.1 | 1022.9 | 946.6 | 890.9 | 851.7 | 818.7 | 783.7 | 779.6 |
| 40° | 3864.8 | 3058.4 | 1478.7 | 1206.5 | 1008.5 | 913.6 | 847.6 | 798.1 | 750.7 | 703.3 | 701.2 |
| 42.5° | 3945.2 | 3054.3 | 1464.2 | 1202.3 | 981.7 | 872.4 | 810.5 | 744.5 | 680.6 | 637.3 | 633.1 |
| 45° | 3988.5 | 3027.5 | 1408.6 | 1167.3 | 938.4 | 829.1 | 763.1 | 692.9 | 629.0 | 589.8 | 581.6 |
| 47.5° | 3980.3 | 2961.5 | 1332.3 | 1080.7 | 880.6 | 781.6 | 715.6 | 643.4 | 591.9 | 569.2 | 569.2 |
| 50° | 4003.0 | 2909.9 | 1245.6 | 981.7 | 802.2 | 725.9 | 672.3 | 606.3 | 575.4 | 546.5 | 536.2 |
| 52.5° | 4104.0 | 2953.2 | 1171.4 | 888.9 | 728.0 | 672.3 | 635.2 | 579.5 | 540.3 | 521.8 | 515.6 |
| 55° | 4238.1 | 3046.0 | 1101.3 | 806.4 | 655.8 | 624.9 | 606.3 | 554.8 | 509.4 | 490.8 | 480.5 |
| 57.5° | 4262.8 | 3110.0 | 1033.2 | 725.9 | 596.0 | 587.8 | 581.6 | 511.5 | 474.3 | 459.9 | 451.6 |
| 60° | 4091.6 | 3062.5 | 944.5 | 653.8 | 548.6 | 552.7 | 536.2 | 484.6 | 441.3 | 426.9 | 418.7 |
| 62.5° | 3800.9 | 2938.8 | 855.9 | 591.9 | 511.5 | 519.7 | 503.2 | 451.6 | 408.3 | 393.9 | 389.8 |
| 63° | *3743.1* | *2905.8* | *835.2* | *585.7* | *503.2* | *513.5* | *499.1* | *447.5* | *404.2* | *389.8* | *383.6* |
| 65° | 3398.7 | 2707.8 | 763.1 | 552.7 | 476.4 | 476.4 | 478.5 | 426.9 | 389.8 | 383.6 | 379.5 |
| 67.5° | 2771.8 | 2260.3 | 684.7 | 513.5 | 447.5 | 453.7 | 464.0 | 435.1 | 420.7 | 416.6 | 412.5 |
| 70° | 2095.3 | 1701.4 | 616.6 | 476.4 | 416.6 | 437.2 | 507.3 | 495.0 | 441.3 | 404.2 | 396.0 |
| 72.5° | 1484.9 | 1159.0 | 556.8 | 439.3 | 379.5 | 431.0 | 525.9 | 472.3 | 398.0 | 354.7 | 346.5 |
| 75° | 994.0 | 746.6 | 497.0 | 400.1 | 338.2 | 398.0 | 497.0 | 431.0 | 346.5 | 336.2 | 323.8 |
| 77.5° | 624.9 | 532.1 | 437.2 | 354.7 | 292.8 | 354.7 | 451.6 | 383.6 | 299.0 | 303.2 | 284.6 |
| 80° | 381.5 | 379.5 | 367.1 | 301.1 | 235.1 | 282.5 | 379.5 | 323.8 | 239.2 | 239.2 | 212.4 |
| 82.5° | 226.9 | 274.3 | 311.4 | 249.5 | 171.2 | 202.1 | 274.3 | 243.4 | 200.0 | 193.9 | 181.5 |
| 85° | 152.6 | 185.6 | 247.5 | 191.8 | 109.3 | 123.7 | 189.7 | 204.2 | 183.5 | 160.9 | 150.5 |
| 87.5° | 55.7 | 74.2 | 113.4 | 78.4 | 47.4 | 74.2 | 142.3 | 148.5 | 111.4 | 86.6 | 78.4 |
| 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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# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-7

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-757-U-5WQ

Data in this report applies to families of products including GSS-SB1A-757-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

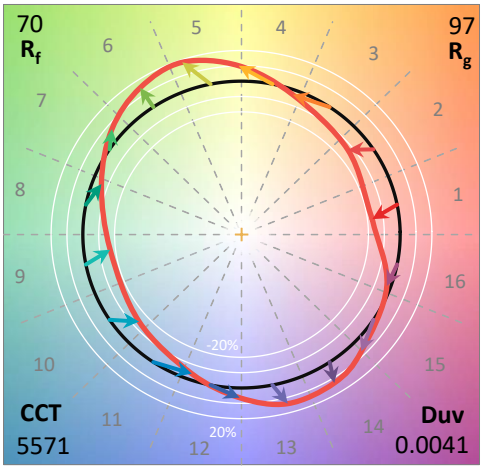
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-7 |
| 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-757-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 5700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 5571 |
| CIE u': | 0.2033 |
| CIE v': | 0.4806 |
| Duv: | 0.0041 |
| CIE x: | 0.3308 |
| CIE y: | 0.3476 |
| CIE z: | 0.3216 |
| Peak Wavelength (nm): | 442 |
| Dominant Wavelength (nm): | 544 |
| Purity: | 3.635698 |
| Rf: | 70.4 |
| Rg: | 97.1 |

| | |
|---|---|
| CRI (Ra): | 69.9 |
| R1: | 68.8 |
| R2: | 72.5 |
| R3: | 76.8 |
| R4: | 72.0 |
| R5: | 70.9 |
| R6: | 65.6 |
| R7: | 75.5 |
| R8: | 56.8 |
| R9: | -35.4 |
| R10: | 36.7 |
| R11: | 73.9 |
| R12: | 47.8 |
| R13: | 68.0 |
| R14: | 87.0 |
| R15: | 59.8 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 20M |
| Operation Time: | 1H 20M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-7

| 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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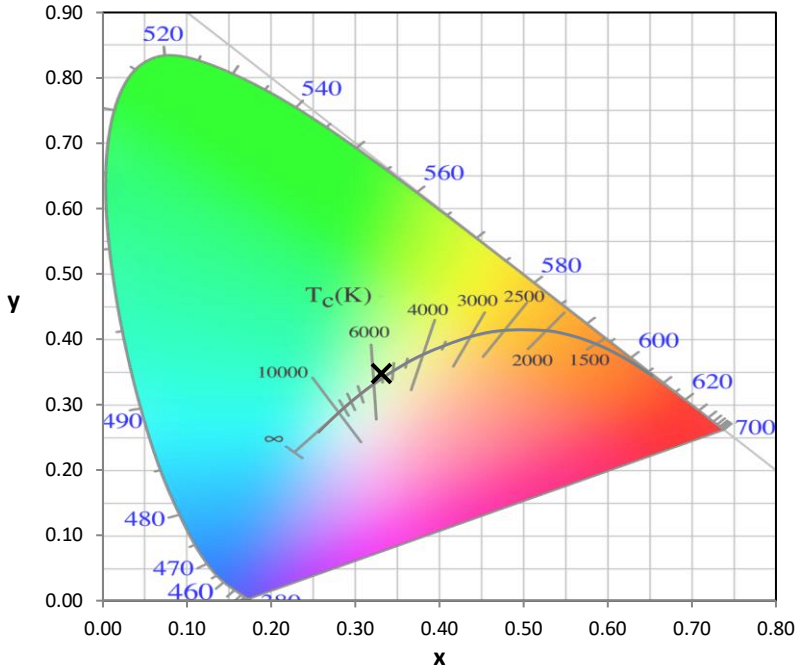
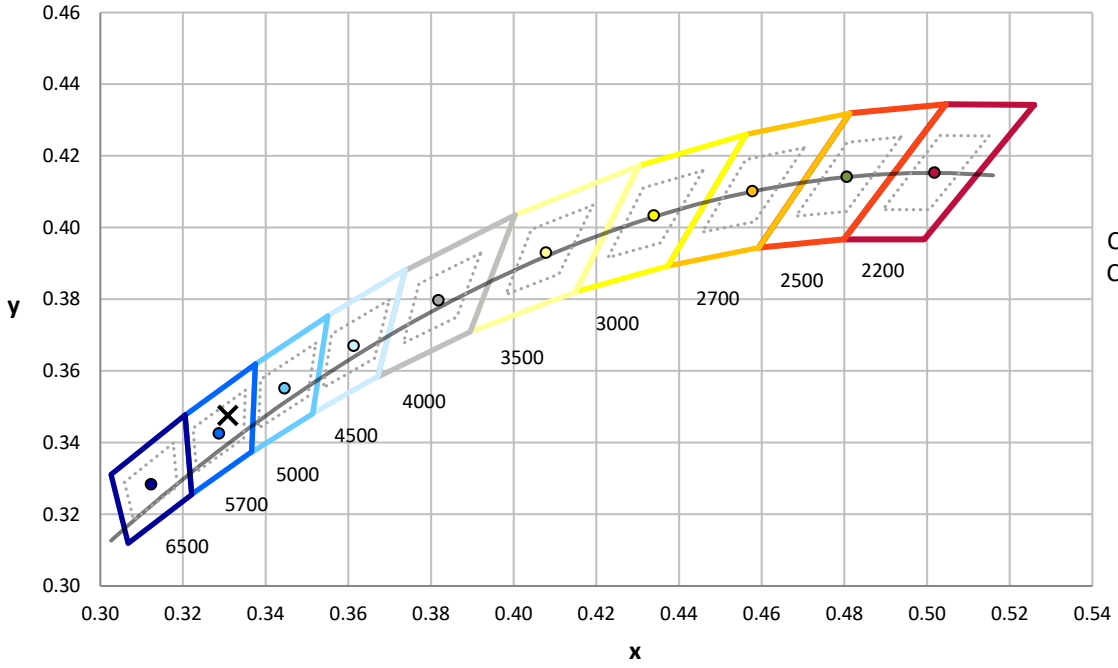
## CIE 1931 Chromaticity Diagram




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




CCT = 5571K
CIE x = 0.3308
CIE y = 0.3476
Duv = 0.0041

Point lies inside the ANSI 5700K 4-step quadrangle

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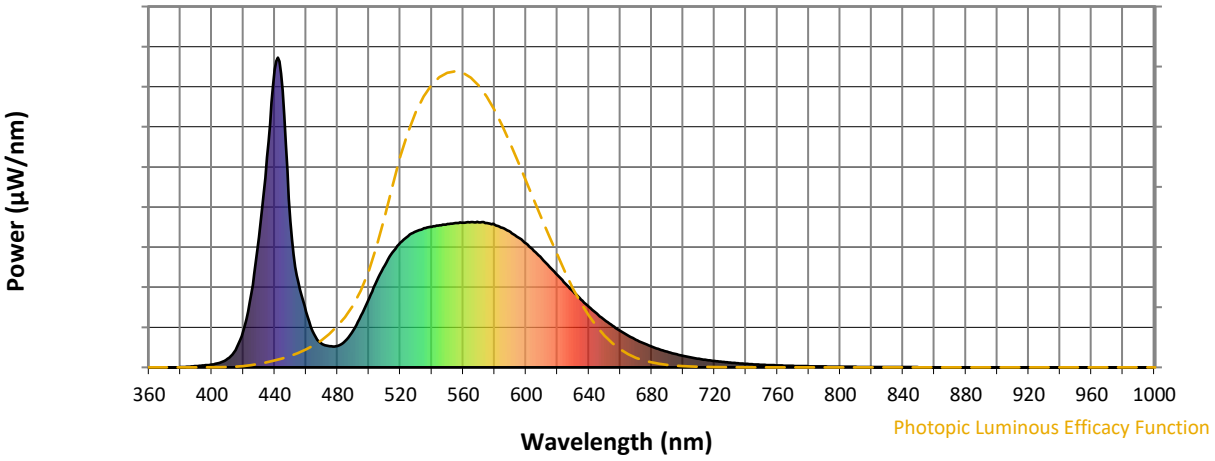
## Photopic Flux vs. Wavelength




## 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 | 120 | NR | 620 | 298 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 270 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 222 | NR | 630 | 245 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 279 | NR | 635 | 219 | NR | 765 | 6 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 329 | NR | 640 | 196 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 371 | NR | 645 | 173 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 403 | NR | 650 | 153 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 424 | NR | 655 | 135 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 439 | NR | 660 | 117 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 449 | NR | 665 | 103 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 28 | NR | 540 | 454 | NR | 670 | 89 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 459 | NR | 675 | 77 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 118 | NR | 550 | 463 | NR | 680 | 67 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 237 | NR | 555 | 466 | NR | 685 | 58 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 420 | NR | 560 | 467 | NR | 690 | 50 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 677 | NR | 565 | 469 | NR | 695 | 43 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 962 | NR | 570 | 469 | NR | 700 | 37 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 894 | NR | 575 | 466 | NR | 705 | 32 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 472 | NR | 580 | 461 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 275 | NR | 585 | 450 | NR | 715 | 24 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 180 | NR | 590 | 437 | NR | 720 | 21 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 420 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 76 | NR | 600 | 400 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 68 | NR | 605 | 376 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 69 | NR | 610 | 352 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 86 | NR | 615 | 325 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

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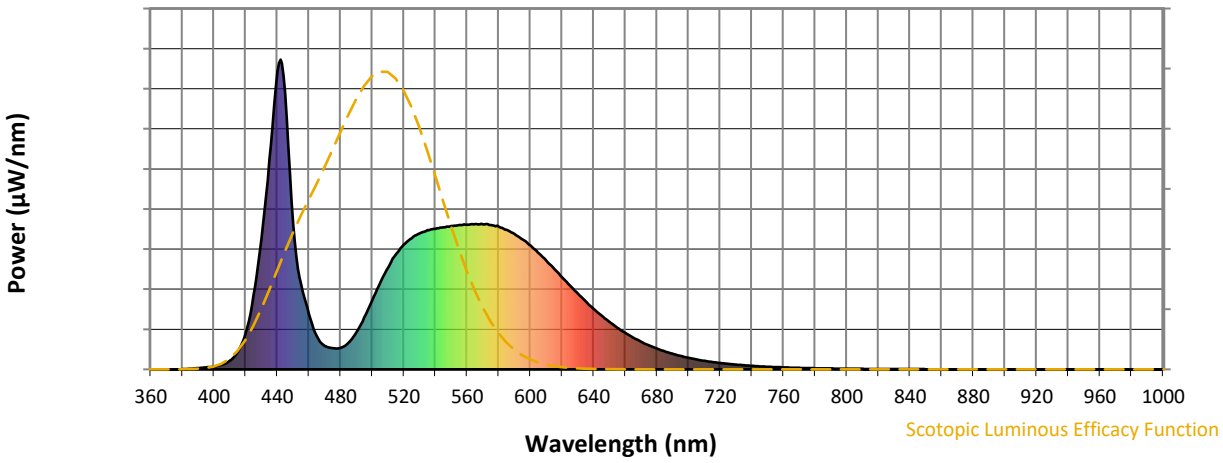
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.84**

| 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 | 120 | NR | 620 | 298 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 270 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 222 | NR | 630 | 245 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 279 | NR | 635 | 219 | NR | 765 | 6 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 329 | NR | 640 | 196 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 371 | NR | 645 | 173 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 403 | NR | 650 | 153 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 424 | NR | 655 | 135 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 439 | NR | 660 | 117 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 449 | NR | 665 | 103 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 28 | NR | 540 | 454 | NR | 670 | 89 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 459 | NR | 675 | 77 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 118 | NR | 550 | 463 | NR | 680 | 67 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 237 | NR | 555 | 466 | NR | 685 | 58 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 420 | NR | 560 | 467 | NR | 690 | 50 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 677 | NR | 565 | 469 | NR | 695 | 43 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 962 | NR | 570 | 469 | NR | 700 | 37 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 894 | NR | 575 | 466 | NR | 705 | 32 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 472 | NR | 580 | 461 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 275 | NR | 585 | 450 | NR | 715 | 24 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 180 | NR | 590 | 437 | NR | 720 | 21 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 420 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 76 | NR | 600 | 400 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 68 | NR | 605 | 376 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 69 | NR | 610 | 352 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 86 | NR | 615 | 325 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

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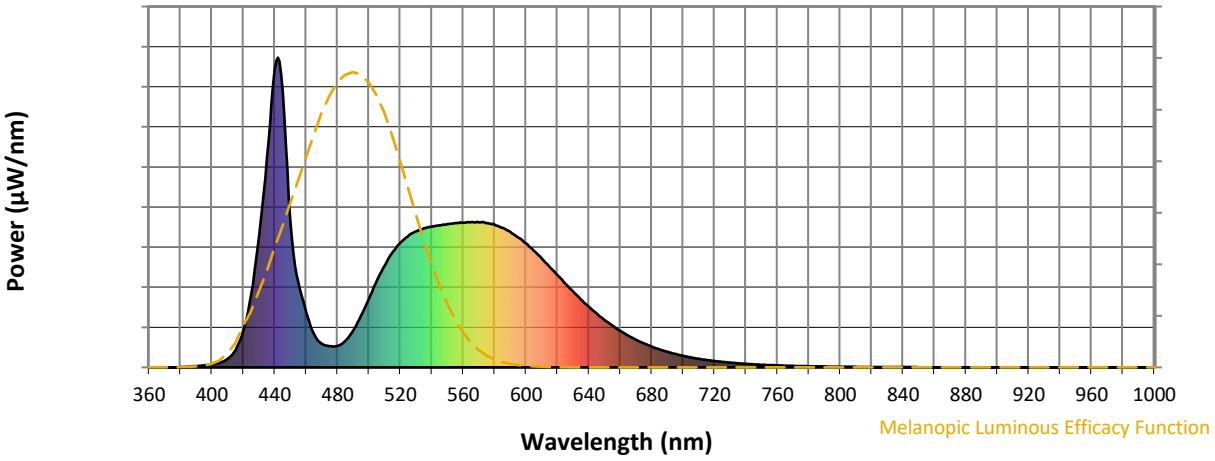
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.71**

| 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 | 120 | NR | 620 | 298 | NR | 750 | 9 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 167 | NR | 625 | 270 | NR | 755 | 7 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 222 | NR | 630 | 245 | NR | 760 | 6 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 279 | NR | 635 | 219 | NR | 765 | 6 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 329 | NR | 640 | 196 | NR | 770 | 5 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 371 | NR | 645 | 173 | NR | 775 | 4 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 403 | NR | 650 | 153 | NR | 780 | 4 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 424 | NR | 655 | 135 | NR | 785 | 3 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 439 | NR | 660 | 117 | NR | 790 | 3 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 449 | NR | 665 | 103 | NR | 795 | 2 | NR | 925 | 0 | NR |
| 410 | 28 | NR | 540 | 454 | NR | 670 | 89 | NR | 800 | 2 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 459 | NR | 675 | 77 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 118 | NR | 550 | 463 | NR | 680 | 67 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 237 | NR | 555 | 466 | NR | 685 | 58 | NR | 815 | 1 | NR | 945 | 0 | NR |
| 430 | 420 | NR | 560 | 467 | NR | 690 | 50 | NR | 820 | 1 | NR | 950 | 0 | NR |
| 435 | 677 | NR | 565 | 469 | NR | 695 | 43 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 962 | NR | 570 | 469 | NR | 700 | 37 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 894 | NR | 575 | 466 | NR | 705 | 32 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 472 | NR | 580 | 461 | NR | 710 | 28 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 275 | NR | 585 | 450 | NR | 715 | 24 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 180 | NR | 590 | 437 | NR | 720 | 21 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 420 | NR | 725 | 18 | NR | 855 | 0 | NR | 985 | 0 | NR |
| 470 | 76 | NR | 600 | 400 | NR | 730 | 15 | NR | 860 | 0 | NR | 990 | 0 | NR |
| 475 | 68 | NR | 605 | 376 | NR | 735 | 13 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 69 | NR | 610 | 352 | NR | 740 | 11 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 86 | NR | 615 | 325 | NR | 745 | 10 | NR | 875 | 0 | NR | | | |

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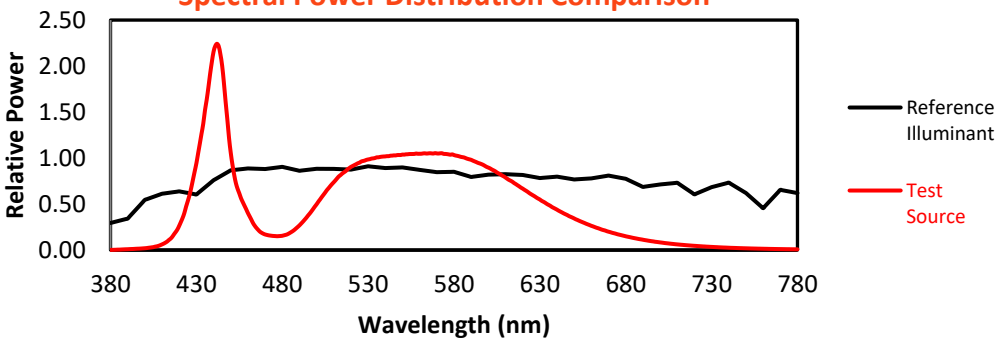
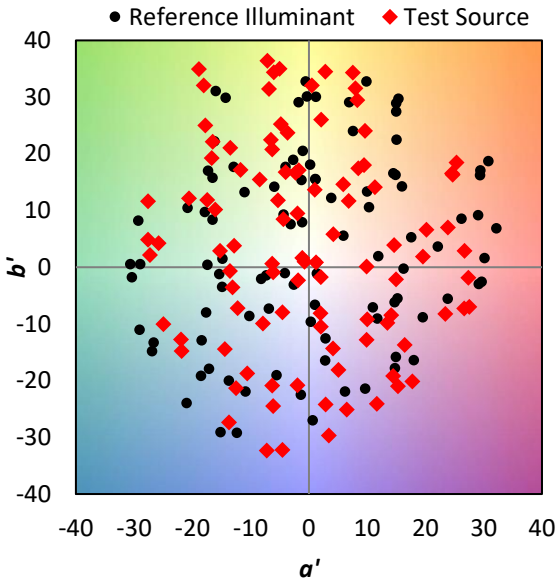
## Summary

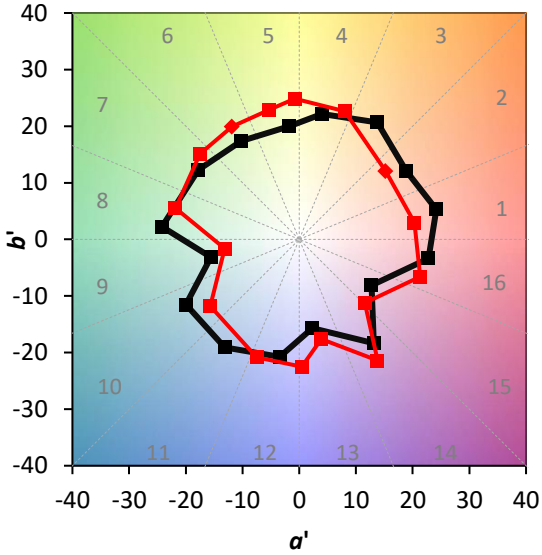
$R_f$ = 70.4
$R_g$ = 97.1
CIE $R_a$ = 69.9
$R_9$ = -35.4

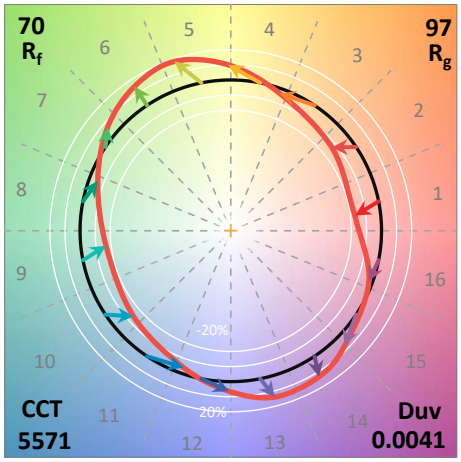
## Spectral Power Distribution Comparison

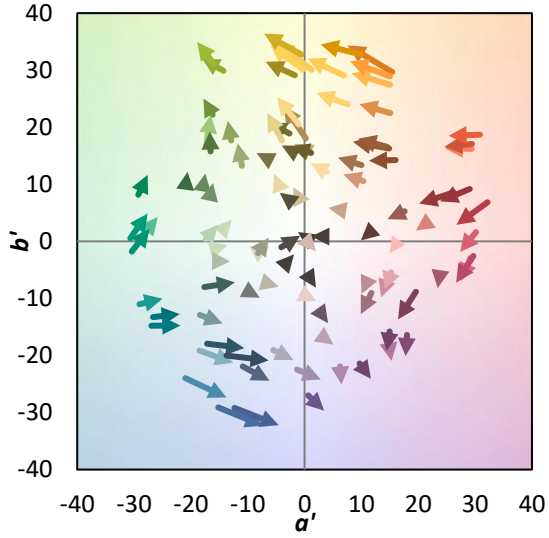



## Color Vector Graphics



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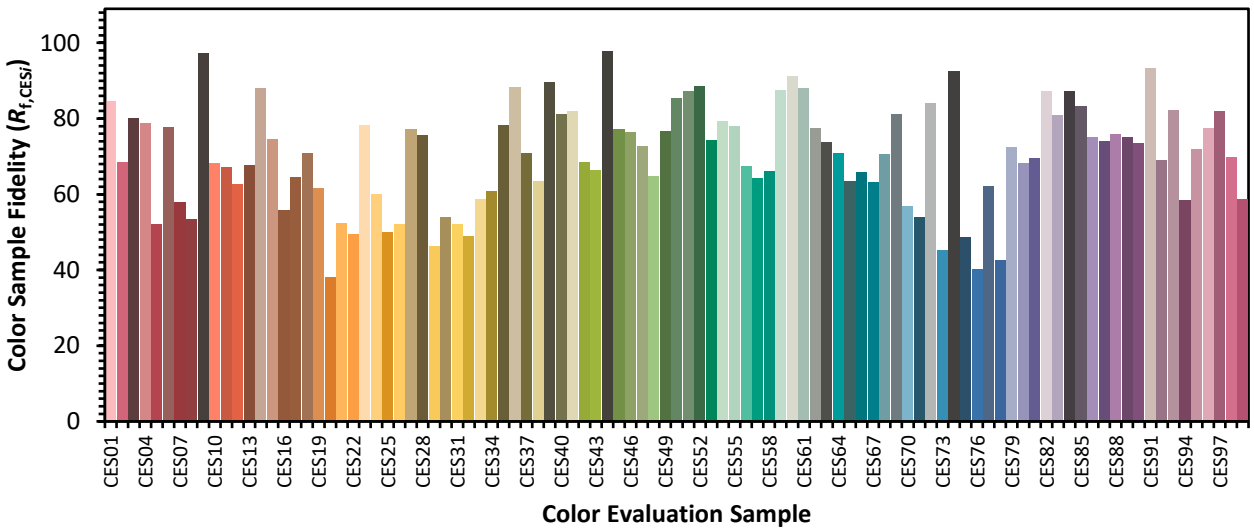
**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 52 | CES51 = 87 | CES76 = 40 |
| CES02 = 59 | CES27 = 77 | CES52 = 88 | CES77 = 62 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 43 |
| CES04 = 68 | CES29 = 46 | CES54 = 79 | CES79 = 72 |
| CES05 = 45 | CES30 = 54 | CES55 = 78 | CES80 = 68 |
| CES06 = 49 | CES31 = 52 | CES56 = 67 | CES81 = 70 |
| CES07 = 38 | CES32 = 49 | CES57 = 64 | CES82 = 87 |
| CES08 = 37 | CES33 = 59 | CES58 = 66 | CES83 = 81 |
| CES09 = 29 | CES34 = 61 | CES59 = 87 | CES84 = 87 |
| CES10 = 72 | CES35 = 78 | CES60 = 91 | CES85 = 83 |
| CES11 = 55 | CES36 = 88 | CES61 = 88 | CES86 = 75 |
| CES12 = 61 | CES37 = 71 | CES62 = 77 | CES87 = 74 |
| CES13 = 41 | CES38 = 64 | CES63 = 74 | CES88 = 76 |
| CES14 = 74 | CES39 = 90 | CES64 = 71 | CES89 = 75 |
| CES15 = 70 | CES40 = 81 | CES65 = 63 | CES90 = 73 |
| CES16 = 46 | CES41 = 82 | CES66 = 66 | CES91 = 93 |
| CES17 = 48 | CES42 = 69 | CES67 = 63 | CES92 = 69 |
| CES18 = 55 | CES43 = 67 | CES68 = 71 | CES93 = 82 |
| CES19 = 70 | CES44 = 98 | CES69 = 81 | CES94 = 58 |
| CES20 = 63 | CES45 = 77 | CES70 = 57 | CES95 = 72 |
| CES21 = 85 | CES46 = 76 | CES71 = 54 | CES96 = 78 |
| CES22 = 77 | CES47 = 73 | CES72 = 84 | CES97 = 82 |
| CES23 = 91 | CES48 = 65 | CES73 = 45 | CES98 = 70 |
| CES24 = 90 | CES49 = 77 | CES74 = 92 | CES99 = 59 |
| CES25 = 71 | CES50 = 85 | CES75 = 49 | |



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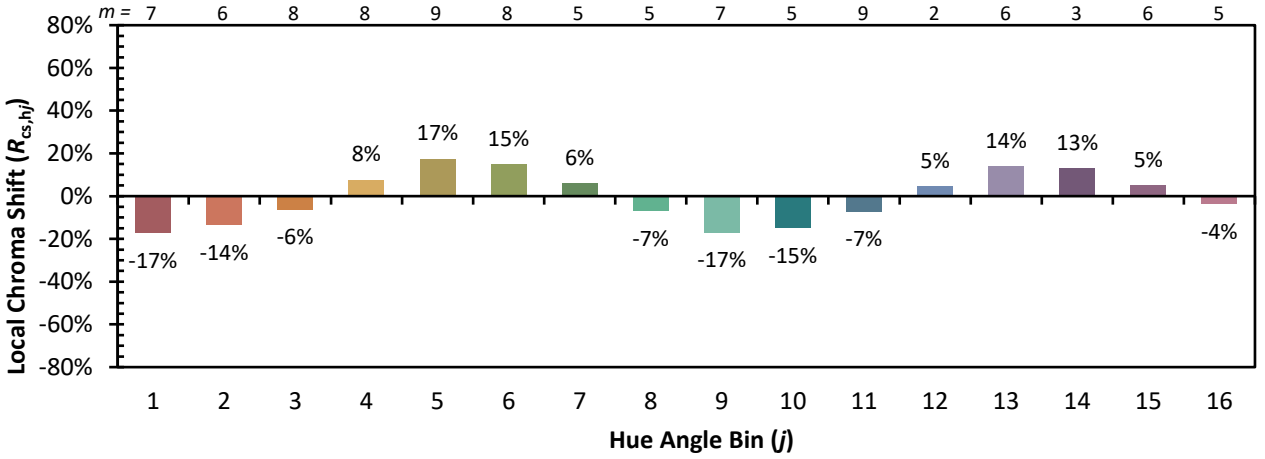
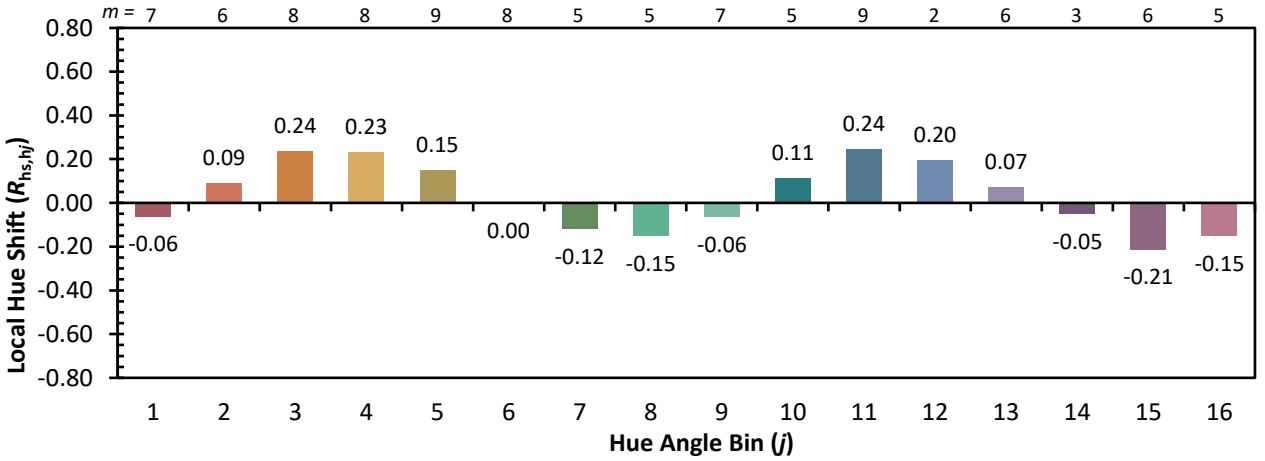
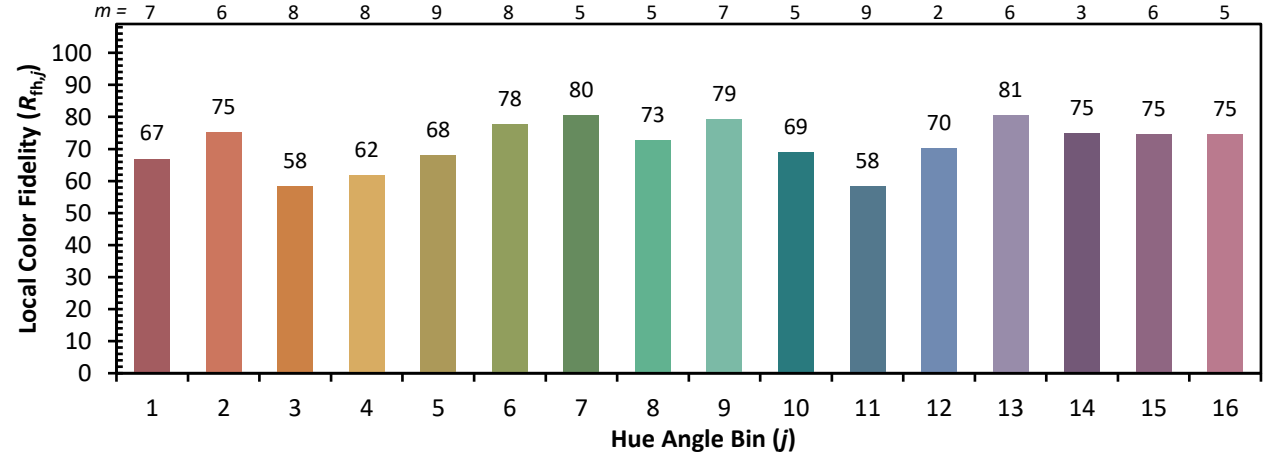
## Color Rendition by Hue-Angle Bin



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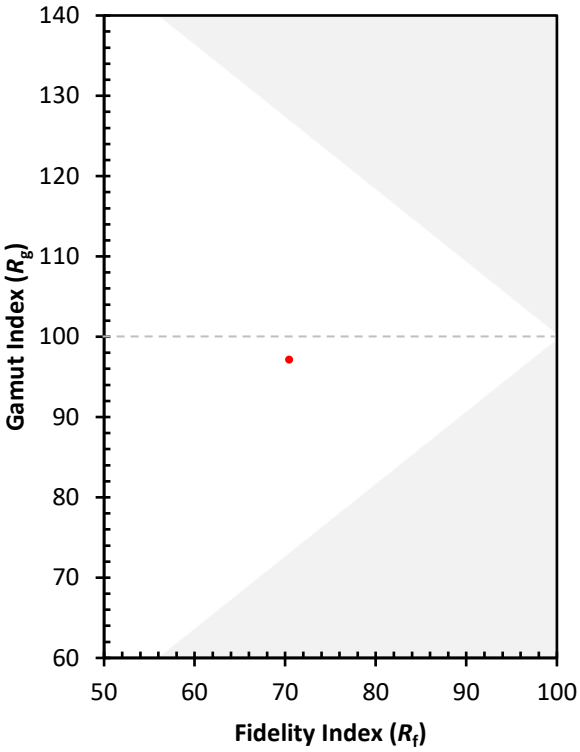
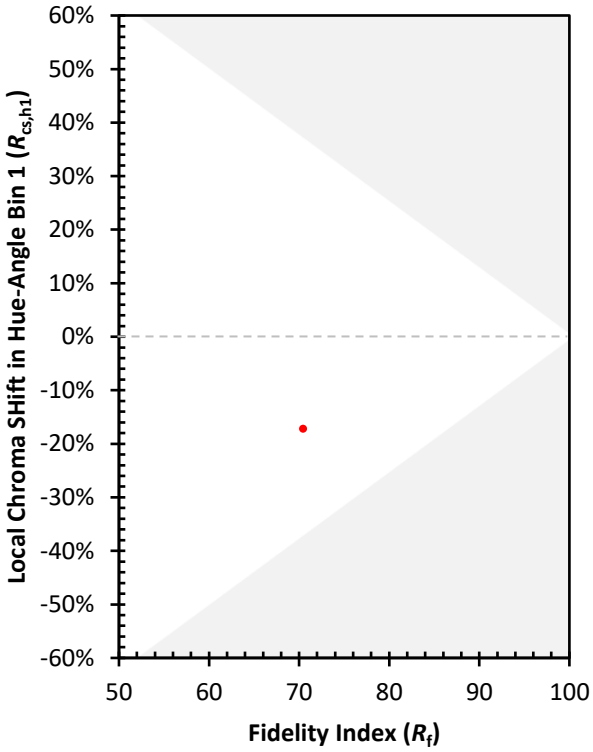
## Measure Comparisons




(END OF REPORT)