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: P1363479

Luminaire Tested: **GSS-SB3A-750-U-SL3**

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: | P1363479 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB3A-750-U-SL3 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 3SQUARE 85W 70CRI 5000K FIXTURE w/ TYPE III SPILL CONTROL DISTRIBUTION OPTIC |
| Light Source: | (78) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 12355.7 lumens |
| Efficiency: | N/A |
| Efficacy: | 145.4 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B2 - U0 - G2 |

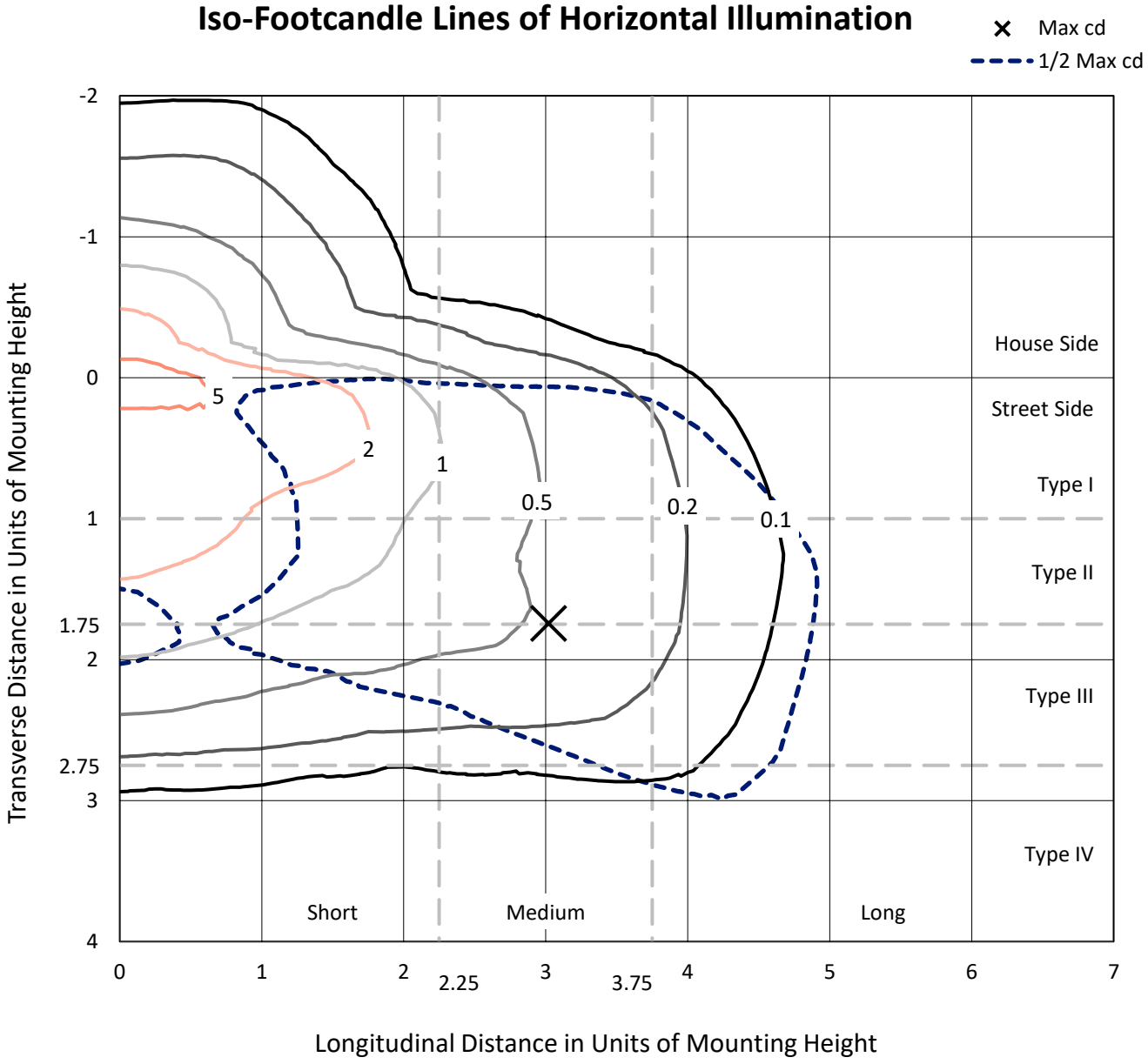
| | |
|---|---|
| Input Watts (W): | 85 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 11.0% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1363479
CATALOG NUMBER: GSS-SB3A-750-U-SL3

## Iso-Footcandle Lines of Horizontal Illumination



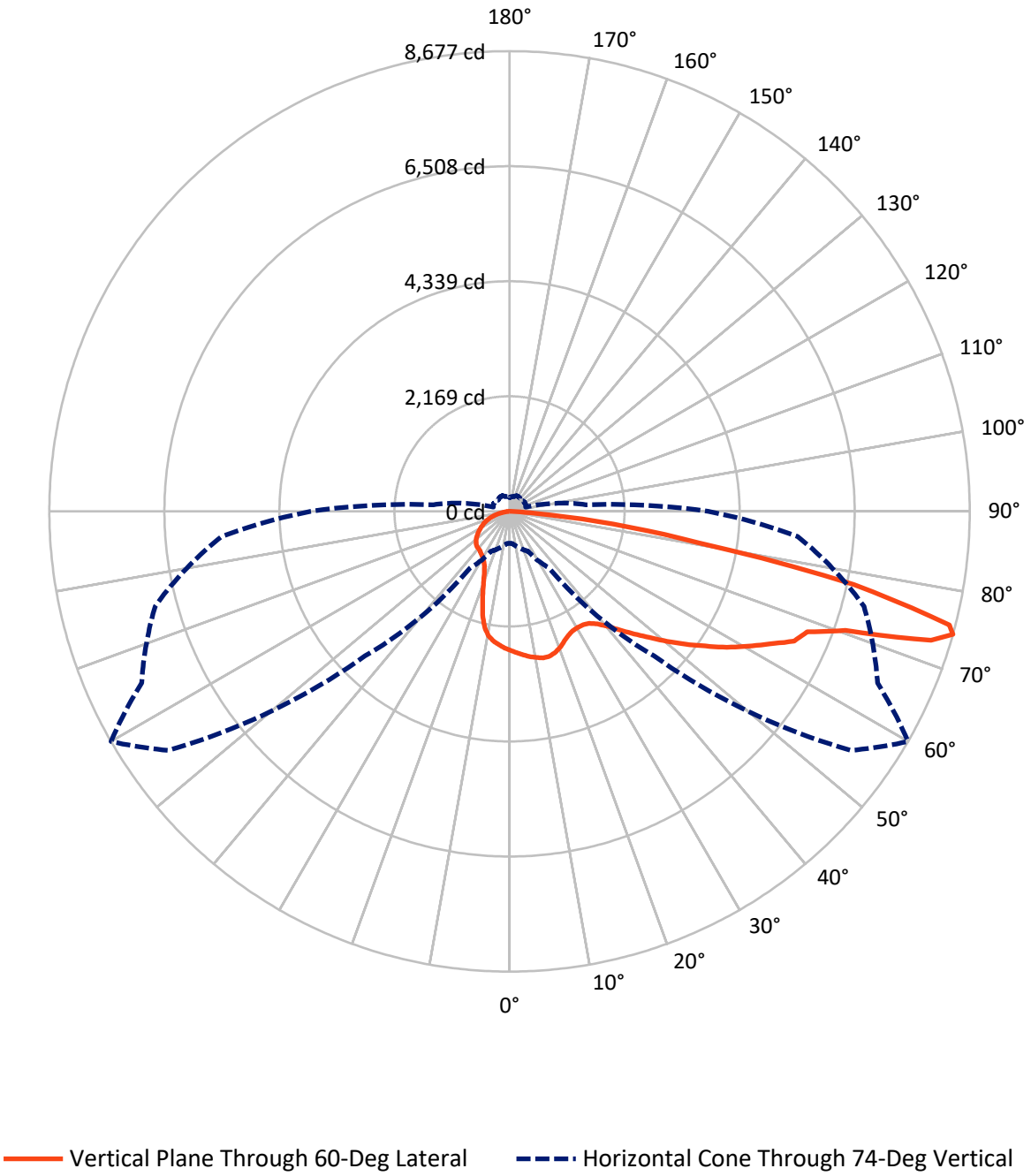

Based on 20 foot mounting height. Maximum calculated value = 6.6 fc
Type III - Medium - N/A

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REPORT NUMBER: P1363479
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## Luminous Intensity Polar Plot



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Scaled Data Report

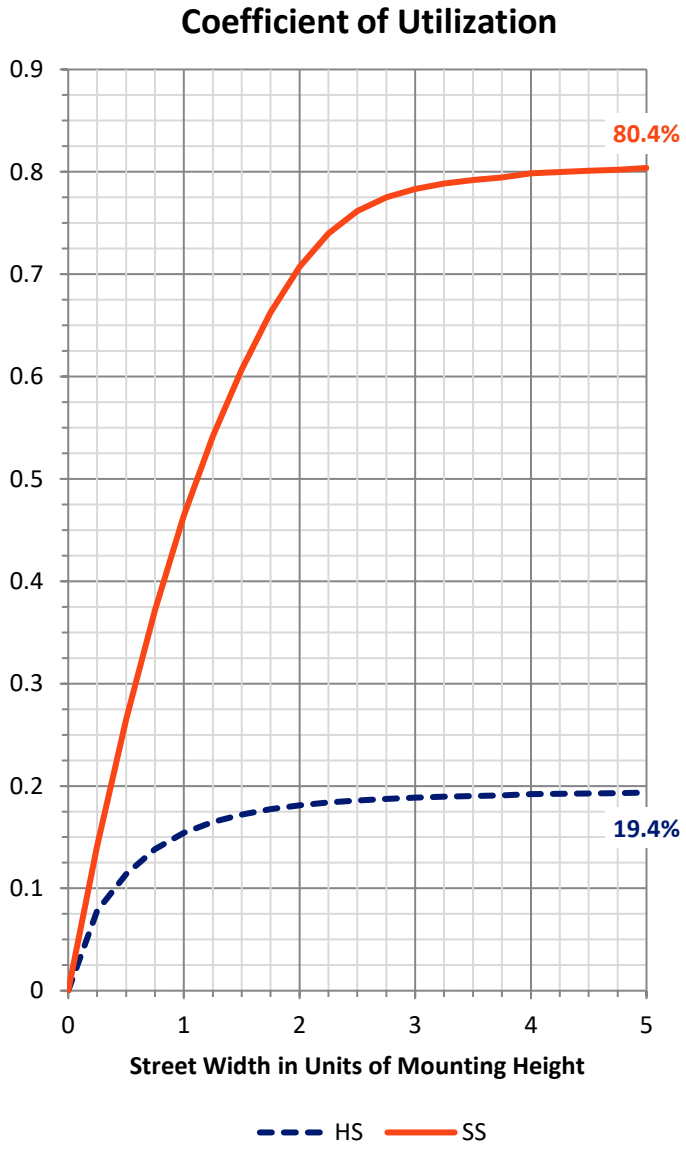
REPORT NUMBER: P1363479
CATALOG NUMBER: GSS-SB3A-750-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2411.8 | 0.0 | 2411.8 |
| | % Fixture | 19.5 | 0.0 | 19.5 |
| **Street Side** | Lumens | 9943.9 | 0.0 | 9943.9 |
| | % Fixture | 80.5 | 0.0 | 80.5 |
| **Total** | Lumens | 12355.7 | 0.0 | 12355.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 241.1 | 2.0 |
| 10°-20° | 591.7 | 4.8 |
| 20°-30° | 884.7 | 7.2 |
| 30°-40° | 1261.1 | 10.2 |
| 40°-50° | 1813.4 | 14.7 |
| 50°-60° | 2428.0 | 19.7 |
| 60°-70° | 2851.1 | 23.1 |
| 70°-80° | 2033.6 | 16.5 |
| 80°-90° | 251.0 | 2.0 |
| 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° | 12355.7 | 100.0 |
| 0°-180° | 12355.7 | 100.0 |



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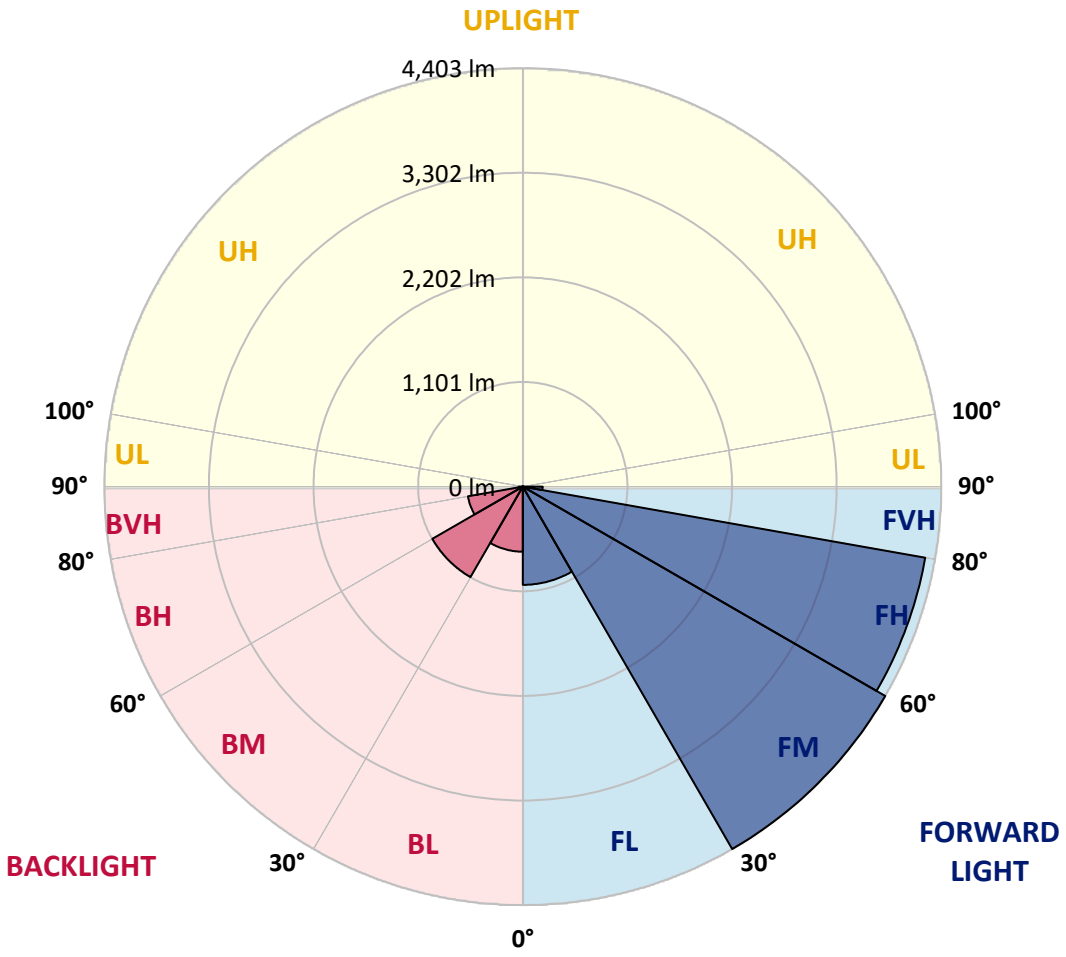
Scaled Data Report

REPORT NUMBER: P1363479
CATALOG NUMBER: GSS-SB3A-750-U-SL3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1033.1 | 8.4 | | | |
| FM | (30°-60°) | 4403.3 | 35.6 | | | |
| FH | (60°-80°) | 4298.9 | 34.8 | | | G2/5000 |
| FVH | (80°-90°) | 208.6 | 1.7 | | | G2/225 |
| BL | (0°-30°) | 684.4 | 5.5 | B2/1000 | | |
| BM | (30°-60°) | 1099.2 | 8.9 | B2/2500 | | |
| BH | (60°-80°) | 585.8 | 4.7 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 42.4 | 0.3 | | | 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 III Medium



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REPORT NUMBER: P1363479
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 |
| 2.5° | 2703.8 | 2706.8 | 2694.5 | 2685.3 | 2685.3 | 2669.9 | 2669.9 | 2669.9 | 2654.5 | 2651.5 | 2629.9 |
| 5° | 2734.5 | 2731.4 | 2725.3 | 2728.4 | 2731.4 | 2725.3 | 2728.4 | 2719.1 | 2697.6 | 2691.5 | 2657.6 |
| 7.5° | 2648.4 | 2648.4 | 2663.8 | 2694.5 | 2737.6 | 2759.1 | 2771.4 | 2765.3 | 2756.1 | 2737.6 | 2688.4 |
| 10° | 2337.7 | 2359.3 | 2405.4 | 2506.9 | 2633.0 | 2737.6 | 2805.3 | 2802.2 | 2805.3 | 2780.7 | 2725.3 |
| 12.5° | 2064.0 | 2073.2 | 2116.3 | 2205.5 | 2386.9 | 2611.5 | 2799.1 | 2836.0 | 2845.3 | 2829.9 | 2762.2 |
| 15° | 1916.3 | 1913.2 | 1947.1 | 2017.8 | 2156.2 | 2402.3 | 2731.4 | 2833.0 | 2888.3 | 2885.2 | 2814.5 |
| 17.5° | 1851.7 | 1854.8 | 1873.3 | 1919.4 | 2020.9 | 2223.9 | 2611.5 | 2796.0 | 2909.9 | 2946.8 | 2863.7 |
| 20° | 1882.5 | 1873.3 | 1882.5 | 1891.7 | 1947.1 | 2107.0 | 2482.3 | 2731.4 | 2928.3 | 3005.2 | 2919.1 |
| 22.5° | 1947.1 | 1937.9 | 1934.8 | 1928.6 | 1940.9 | 2039.4 | 2365.4 | 2651.5 | 2943.7 | 3082.1 | 2983.7 |
| 25° | 2060.9 | 2051.7 | 2024.0 | 1990.1 | 1974.8 | 2017.8 | 2288.5 | 2583.8 | 2959.1 | 3189.8 | 3066.7 |
| 27.5° | 2223.9 | 2211.6 | 2171.6 | 2091.6 | 2042.4 | 2048.6 | 2263.9 | 2546.9 | 2986.8 | 3294.3 | 3146.7 |
| 30° | 2466.9 | 2460.8 | 2371.6 | 2242.4 | 2140.9 | 2104.0 | 2276.2 | 2537.7 | 3017.5 | 3414.3 | 3226.7 |
| 32.5° | 2685.3 | 2679.2 | 2611.5 | 2466.9 | 2297.7 | 2193.2 | 2307.0 | 2550.0 | 3057.5 | 3568.1 | 3343.6 |
| 35° | 2863.7 | 2851.4 | 2796.0 | 2685.3 | 2513.1 | 2328.5 | 2374.6 | 2593.0 | 3143.6 | 3771.1 | 3485.1 |
| 37.5° | 3045.2 | 3036.0 | 2959.1 | 2842.2 | 2734.5 | 2516.1 | 2488.4 | 2691.5 | 3260.5 | 4048.0 | 3691.1 |
| 40° | 3263.6 | 3251.3 | 3159.0 | 3020.6 | 2925.2 | 2771.4 | 2651.5 | 2848.3 | 3438.9 | 4364.8 | 3924.9 |
| 42.5° | 3472.8 | 3460.4 | 3352.8 | 3232.8 | 3112.9 | 3017.5 | 2882.2 | 3057.5 | 3660.4 | 4767.7 | 4201.8 |
| 45° | 3715.8 | 3715.8 | 3565.0 | 3432.8 | 3306.7 | 3189.8 | 3100.6 | 3297.4 | 3918.8 | 5223.0 | 4509.3 |
| 47.5° | 3943.4 | 3921.8 | 3774.2 | 3629.6 | 3506.6 | 3285.1 | 3309.7 | 3549.7 | 4207.9 | 5684.4 | 4841.6 |
| 50° | 4017.2 | 4011.0 | 3912.6 | 3783.4 | 3678.8 | 3402.0 | 3525.0 | 3851.1 | 4534.0 | 6124.2 | 5155.3 |
| 52.5° | 4103.3 | 4075.6 | 3934.1 | 3915.7 | 3795.7 | 3549.7 | 3789.6 | 4161.8 | 4832.3 | 6524.1 | 5407.5 |
| 55° | 4211.0 | 4180.2 | 3986.4 | 3949.5 | 3884.9 | 3715.8 | 4091.0 | 4481.7 | 5115.3 | 6834.8 | 5644.4 |
| 57.5° | 4407.8 | 4370.9 | 4097.2 | 4017.2 | 3964.9 | 3924.9 | 4432.5 | 4835.4 | 5401.4 | 7077.8 | 5847.4 |
| 60° | 4521.7 | 4490.9 | 4257.1 | 4198.7 | 4121.8 | 4214.1 | 4798.5 | 5161.5 | 5672.1 | 7265.4 | 6004.3 |
| 62.5° | 4463.2 | 4441.7 | 4278.7 | 4389.4 | 4450.9 | 4595.5 | 5216.8 | 5499.8 | 5887.4 | 7406.9 | 6010.4 |
| 65° | 4161.8 | 4118.7 | 4008.0 | 4343.2 | 4829.2 | 5238.4 | 5749.0 | 5896.6 | 6028.9 | 7025.5 | 5647.5 |
| 67.5° | 3438.9 | 3395.9 | 3460.4 | 3805.0 | 4613.9 | 6228.8 | 6481.0 | 6056.6 | 5773.6 | 6677.9 | 5595.2 |
| 70° | 1562.6 | 1491.8 | 1882.5 | 2691.5 | 3817.3 | 6013.5 | 7499.2 | 6721.0 | 6031.9 | 6647.1 | 5490.6 |
| 72.5° | 765.9 | 796.7 | 919.7 | 1208.9 | 2334.6 | 4617.0 | 8268.2 | 8311.2 | 6908.6 | 6727.1 | 5564.4 |
| 74° | 599.8 | 609.0 | 710.5 | 830.5 | 1304.2 | 3854.2 | 7856.0 | 8677.3 | 7656.1 | 6917.8 | 5450.6 |
| 75° | 516.8 | 529.1 | 630.6 | 692.1 | 839.7 | 3245.1 | 7333.1 | 8566.5 | 7997.5 | 6880.9 | 5198.4 |
| 77.5° | 378.3 | 375.3 | 449.1 | 550.6 | 393.7 | 1445.7 | 5939.7 | 6637.9 | 6819.4 | 5604.4 | 3466.6 |
| 80° | 233.8 | 243.0 | 310.7 | 384.5 | 261.5 | 550.6 | 3491.2 | 3626.6 | 3226.7 | 3245.1 | 1682.5 |
| 82.5° | 141.5 | 147.6 | 166.1 | 199.9 | 144.6 | 193.8 | 1581.0 | 1971.7 | 1633.3 | 1061.2 | 283.0 |
| 85° | 43.1 | 46.1 | 55.4 | 70.7 | 52.3 | 70.7 | 532.1 | 479.8 | 341.4 | 141.5 | 83.1 |
| 87.5° | 3.1 | 3.1 | 6.2 | 6.2 | 9.2 | 15.4 | 21.5 | 24.6 | 27.7 | 30.8 | 30.8 |
| 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: P1363479
CATALOG NUMBER: GSS-SB3A-750-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 | 2620.7 |
| 2.5° | 2629.9 | 2620.7 | 2608.4 | 2586.9 | 2571.5 | 2556.1 | 2537.7 | 2510.0 | 2500.8 | 2503.8 | 2510.0 |
| 5° | 2651.5 | 2626.9 | 2590.0 | 2540.7 | 2503.8 | 2473.1 | 2423.9 | 2383.9 | 2359.3 | 2359.3 | 2347.0 |
| 7.5° | 2673.0 | 2639.2 | 2580.7 | 2497.7 | 2433.1 | 2347.0 | 2254.7 | 2162.4 | 2097.8 | 2070.1 | 2045.5 |
| 10° | 2709.9 | 2657.6 | 2562.3 | 2451.5 | 2313.1 | 2140.9 | 1953.2 | 1762.5 | 1642.6 | 1581.0 | 1578.0 |
| 12.5° | 2734.5 | 2682.2 | 2553.0 | 2374.6 | 2113.2 | 1787.1 | 1501.1 | 1344.2 | 1295.0 | 1273.4 | 1267.3 |
| 15° | 2774.5 | 2703.8 | 2531.5 | 2233.1 | 1805.6 | 1414.9 | 1258.1 | 1211.9 | 1208.9 | 1211.9 | 1215.0 |
| 17.5° | 2808.3 | 2722.2 | 2476.1 | 2008.6 | 1448.8 | 1230.4 | 1190.4 | 1187.3 | 1208.9 | 1218.1 | 1227.3 |
| 20° | 2845.3 | 2737.6 | 2377.7 | 1694.9 | 1248.8 | 1175.0 | 1168.9 | 1187.3 | 1218.1 | 1242.7 | 1245.8 |
| 22.5° | 2897.5 | 2749.9 | 2205.5 | 1384.2 | 1153.5 | 1144.3 | 1159.6 | 1178.1 | 1196.5 | 1218.1 | 1224.2 |
| 25° | 2952.9 | 2749.9 | 1968.6 | 1171.9 | 1104.3 | 1128.9 | 1144.3 | 1128.9 | 1122.7 | 1141.2 | 1141.2 |
| 27.5° | 2996.0 | 2728.4 | 1633.3 | 1058.1 | 1070.4 | 1110.4 | 1101.2 | 1067.4 | 1061.2 | 1073.5 | 1070.4 |
| 30° | 3026.7 | 2648.4 | 1295.0 | 996.6 | 1036.6 | 1070.4 | 1045.8 | 1027.4 | 1015.1 | 1018.1 | 1021.2 |
| 32.5° | 3072.9 | 2525.4 | 1061.2 | 953.5 | 1008.9 | 1005.8 | 1002.8 | 984.3 | 968.9 | 972.0 | 975.1 |
| 35° | 3128.2 | 2322.3 | 928.9 | 922.8 | 984.3 | 959.7 | 962.8 | 941.2 | 922.8 | 922.8 | 925.9 |
| 37.5° | 3199.0 | 2079.3 | 873.6 | 910.5 | 944.3 | 941.2 | 932.0 | 904.3 | 876.6 | 870.5 | 870.5 |
| 40° | 3275.9 | 1781.0 | 845.9 | 904.3 | 925.9 | 935.1 | 916.6 | 882.8 | 809.0 | 762.8 | 759.8 |
| 42.5° | 3325.1 | 1534.9 | 836.7 | 895.1 | 922.8 | 932.0 | 907.4 | 802.8 | 732.1 | 701.3 | 698.2 |
| 45° | 3395.9 | 1399.6 | 836.7 | 870.5 | 910.5 | 919.7 | 833.6 | 762.8 | 722.8 | 707.5 | 710.5 |
| 47.5° | 3466.6 | 1399.6 | 836.7 | 852.0 | 876.6 | 889.0 | 775.1 | 744.4 | 707.5 | 707.5 | 719.8 |
| 50° | 3565.0 | 1476.5 | 830.5 | 824.4 | 833.6 | 787.4 | 738.2 | 713.6 | 664.4 | 646.0 | 649.0 |
| 52.5° | 3712.7 | 1593.3 | 805.9 | 784.4 | 787.4 | 729.0 | 713.6 | 676.7 | 627.5 | 590.6 | 581.4 |
| 55° | 3872.6 | 1719.5 | 756.7 | 738.2 | 735.2 | 692.1 | 685.9 | 646.0 | 599.8 | 550.6 | 541.4 |
| 57.5° | 4048.0 | 1821.0 | 695.2 | 692.1 | 682.9 | 655.2 | 664.4 | 636.7 | 572.1 | 507.5 | 498.3 |
| 60° | 4214.1 | 1934.8 | 636.7 | 642.9 | 627.5 | 621.3 | 633.6 | 615.2 | 535.2 | 464.5 | 458.3 |
| 62.5° | 4214.1 | 1931.7 | 584.4 | 590.6 | 587.5 | 572.1 | 593.7 | 581.4 | 486.0 | 427.6 | 421.4 |
| 65° | 3983.4 | 1845.6 | 522.9 | 538.3 | 550.6 | 519.8 | 547.5 | 526.0 | 442.9 | 396.8 | 387.6 |
| 67.5° | 3952.6 | 1811.7 | 461.4 | 476.8 | 498.3 | 464.5 | 482.9 | 461.4 | 403.0 | 363.0 | 356.8 |
| 70° | 3891.1 | 1734.8 | 406.0 | 424.5 | 433.7 | 396.8 | 421.4 | 406.0 | 363.0 | 332.2 | 326.1 |
| 72.5° | 3921.8 | 1667.2 | 347.6 | 369.1 | 372.2 | 338.4 | 363.0 | 356.8 | 319.9 | 298.4 | 286.1 |
| 74° | *3749.6* | *1442.6* | *313.7* | *332.2* | *326.1* | *301.4* | *323.0* | *323.0* | *289.1* | *273.8* | *258.4* |
| 75° | 3522.0 | 1279.6 | 289.1 | 307.6 | 292.2 | 276.8 | 298.4 | 301.4 | 267.6 | 267.6 | 243.0 |
| 77.5° | 2313.1 | 858.2 | 227.6 | 239.9 | 233.8 | 224.5 | 236.8 | 233.8 | 209.2 | 203.0 | 187.6 |
| 80° | 1132.0 | 470.6 | 172.3 | 166.1 | 169.2 | 166.1 | 175.3 | 172.3 | 159.9 | 153.8 | 150.7 |
| 82.5° | 212.2 | 156.9 | 113.8 | 110.7 | 104.6 | 98.4 | 110.7 | 110.7 | 147.6 | 166.1 | 166.1 |
| 85° | 64.6 | 61.5 | 55.4 | 55.4 | 52.3 | 46.1 | 49.2 | 70.7 | 86.1 | 58.4 | 55.4 |
| 87.5° | 27.7 | 27.7 | 24.6 | 21.5 | 15.4 | 15.4 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 |
| 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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# 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

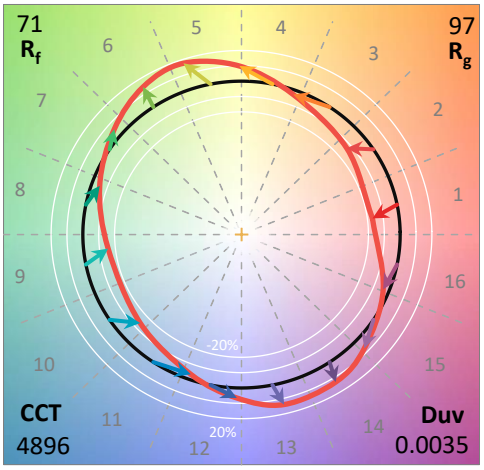
## Test Information

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

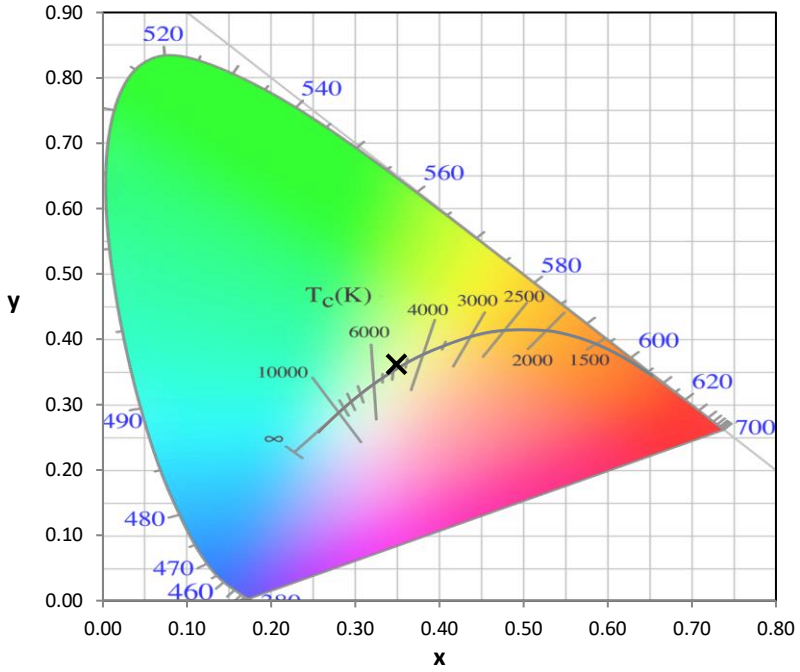
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

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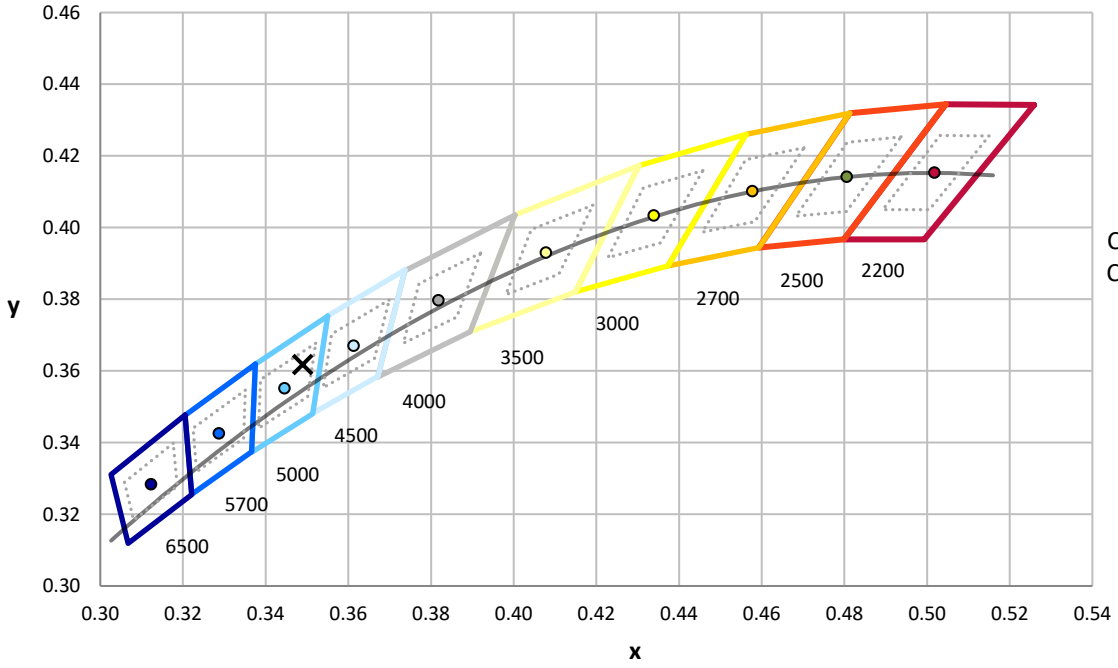
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

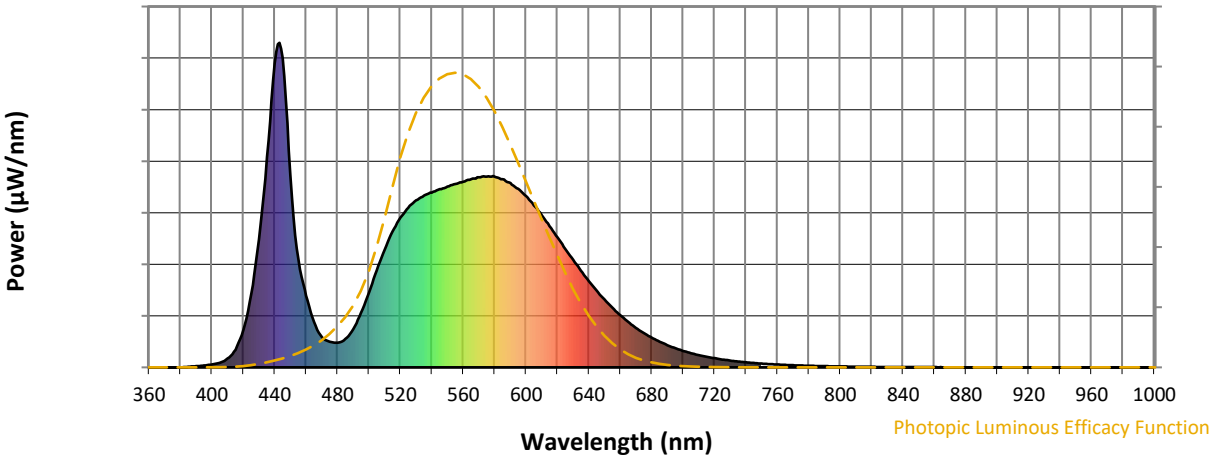



CCT = 4896K
CIE x = 0.3489
CIE y = 0.3618
Duv = 0.0035

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

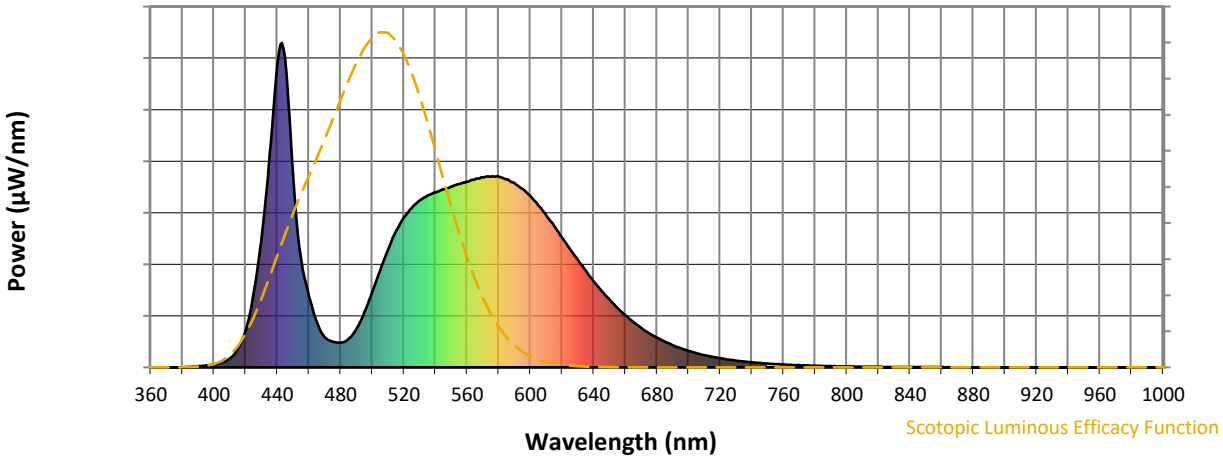



## Photopic Lumens: NR

| 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

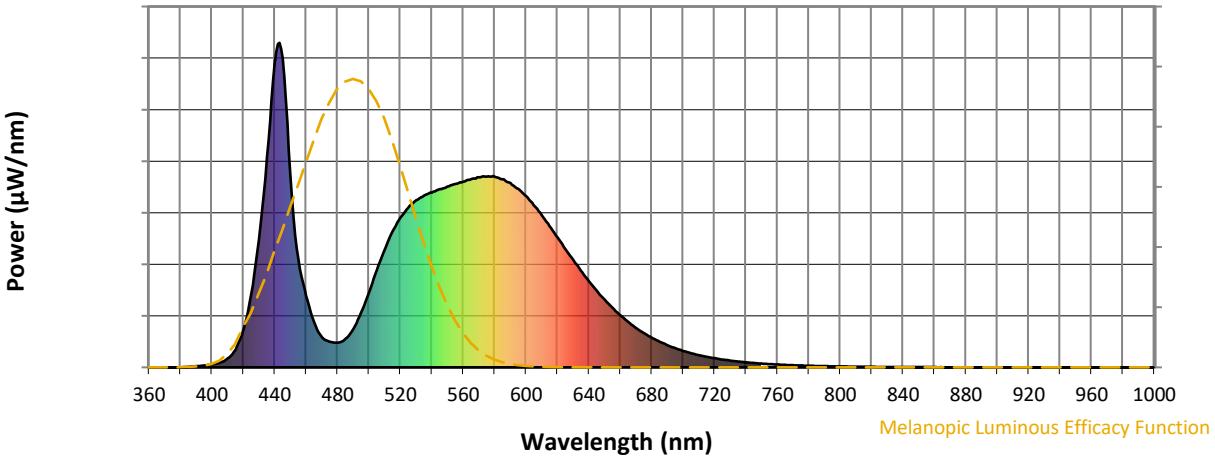



**Scotopic Lumens: NR** **S/P: 1.7**

| 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 | | | |

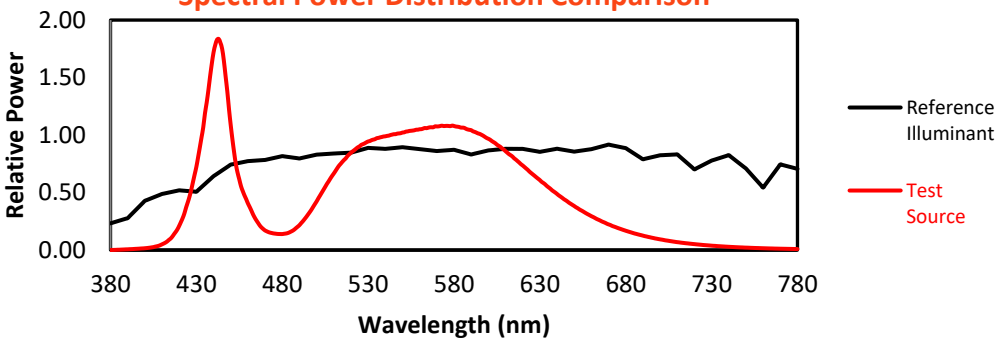
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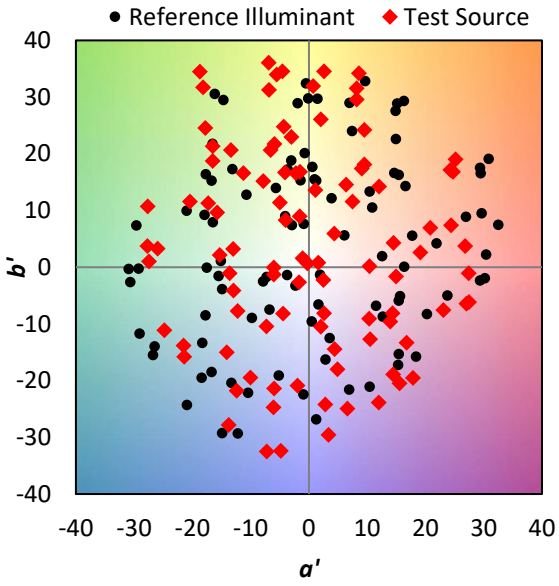
## Summary

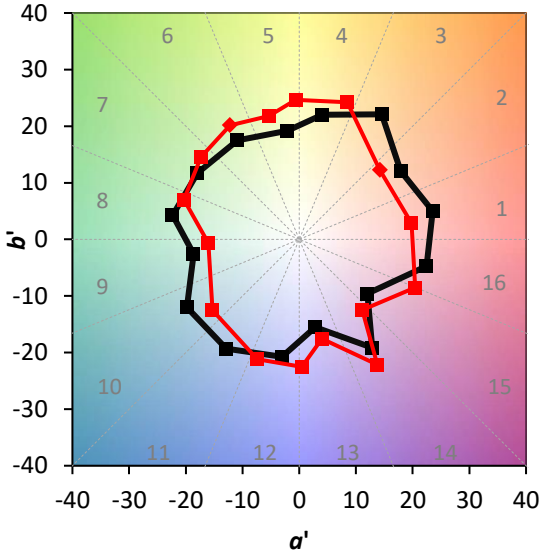
$R_f$ = 70.7
$R_g$ = 96.8
CIE $R_a$ = 70.2
$R_9$ = -35.1

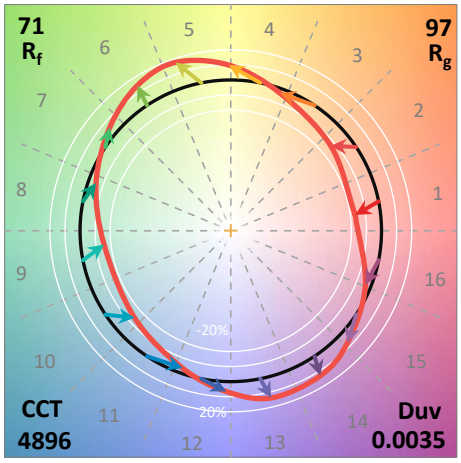
## Spectral Power Distribution Comparison

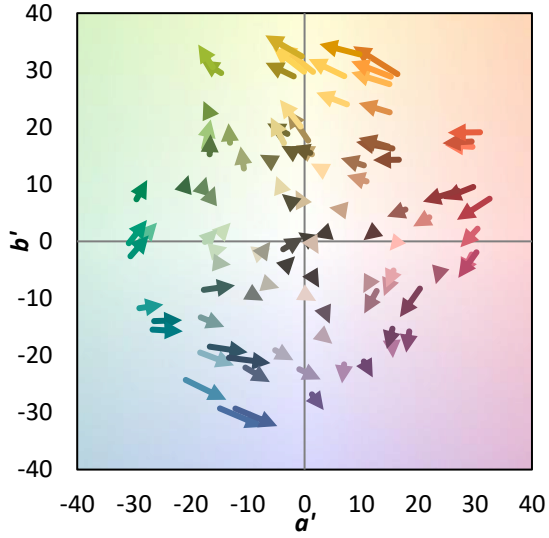



## Color Vector Graphics



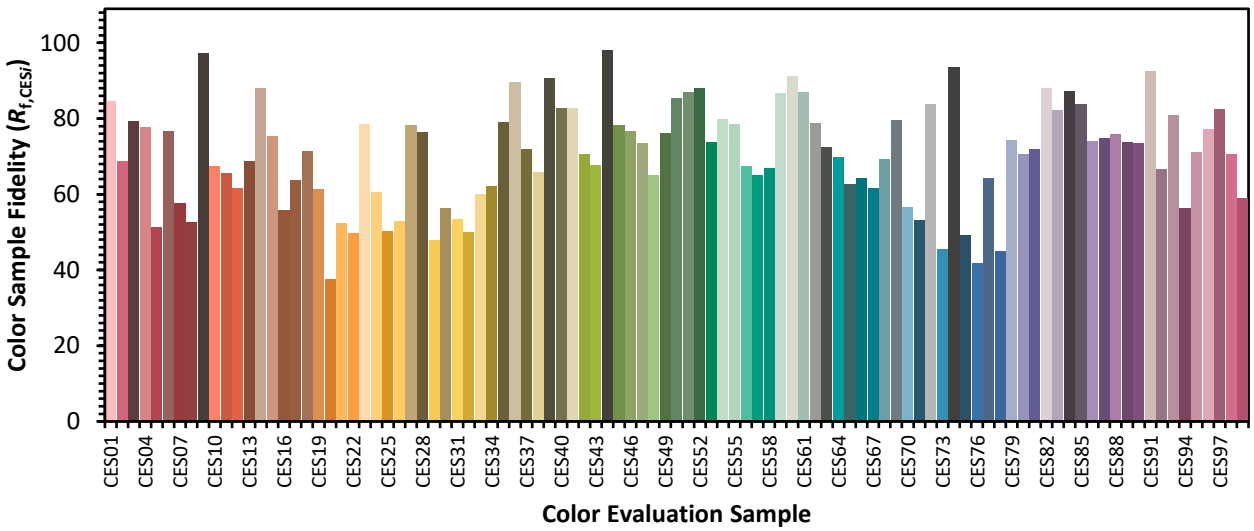



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## Individual Sample Fidelity Index ($R_{f,i}$)

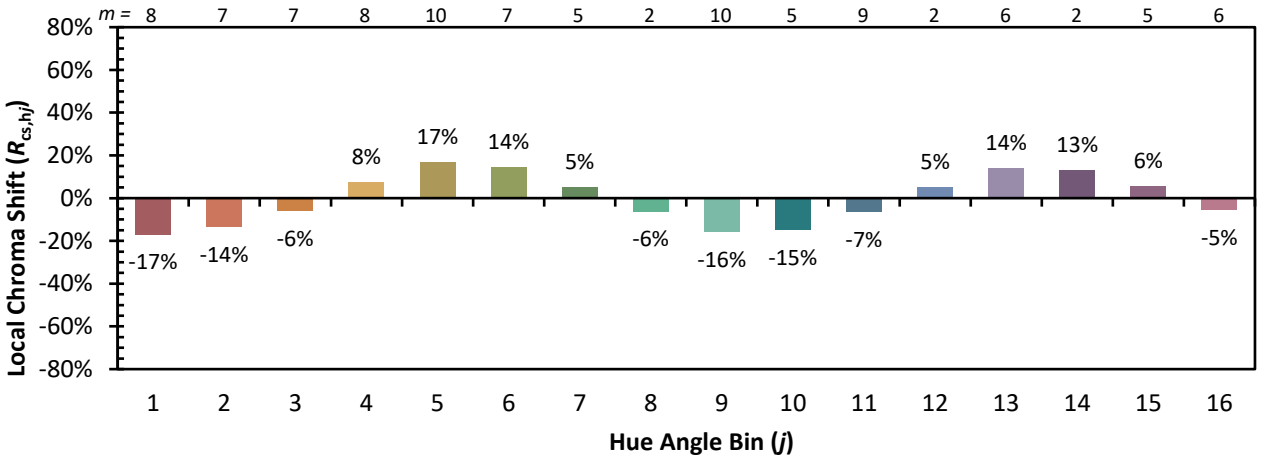
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 53 | CES51 = 87 | CES76 = 42 |
| CES02 = 59 | CES27 = 78 | CES52 = 88 | CES77 = 64 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 45 |
| CES04 = 69 | CES29 = 48 | CES54 = 80 | CES79 = 74 |
| CES05 = 46 | CES30 = 56 | CES55 = 79 | CES80 = 71 |
| CES06 = 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 | |

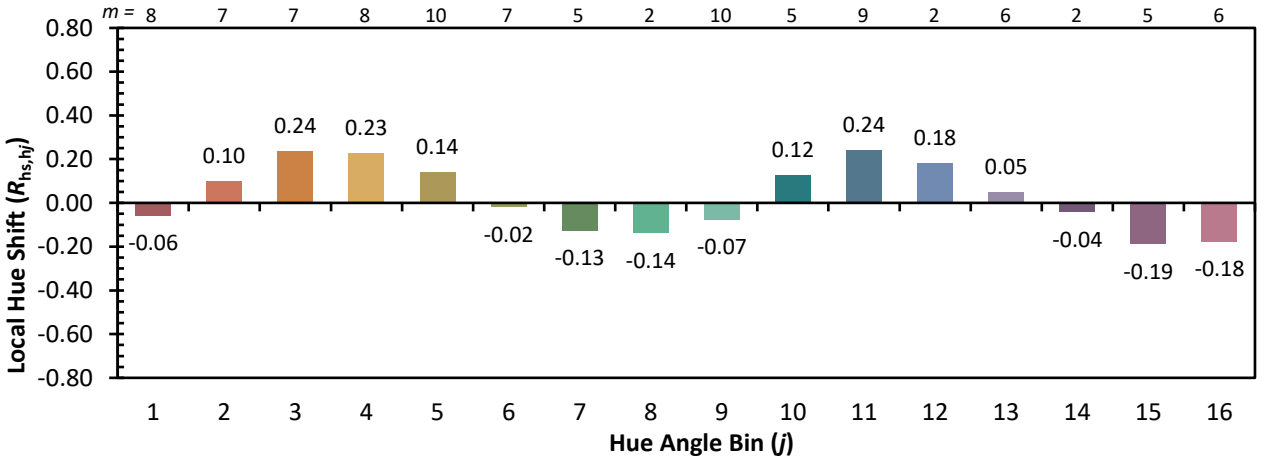


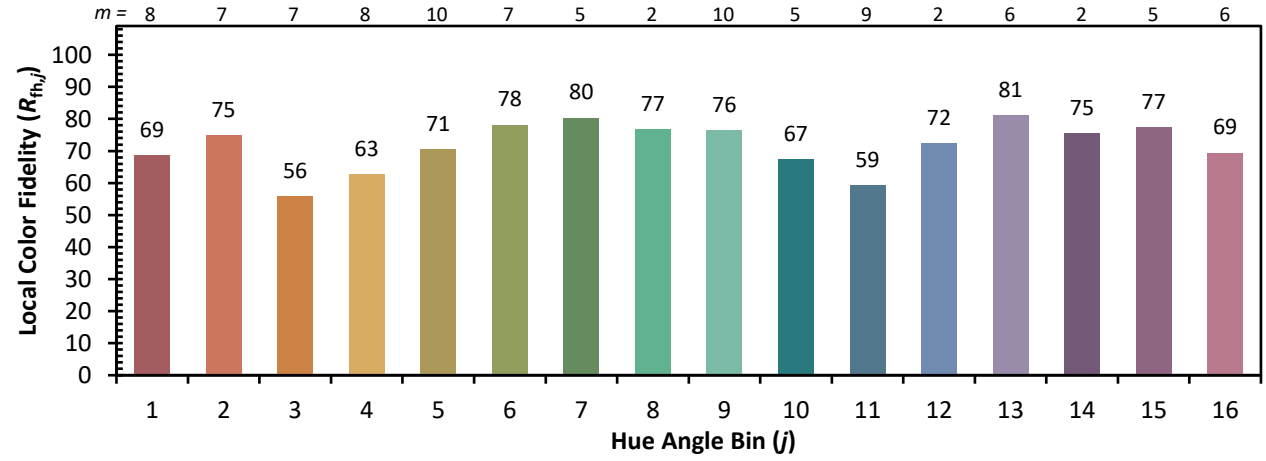
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## Color Rendition by Hue-Angle Bin



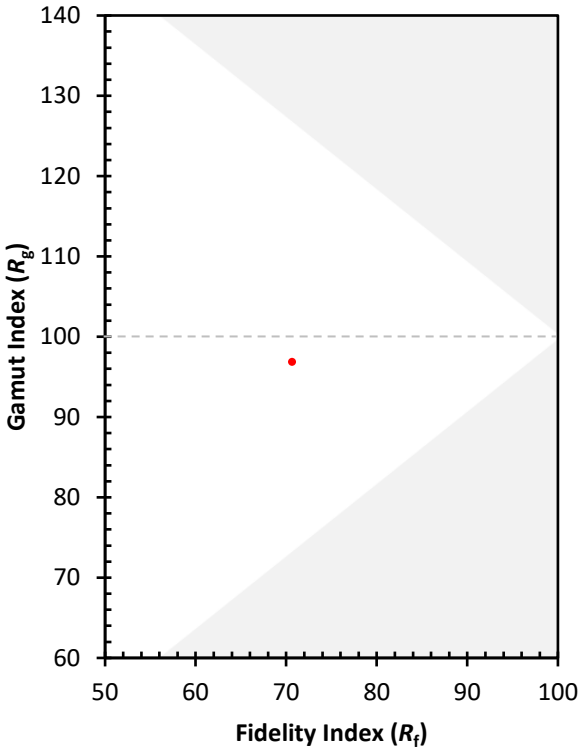



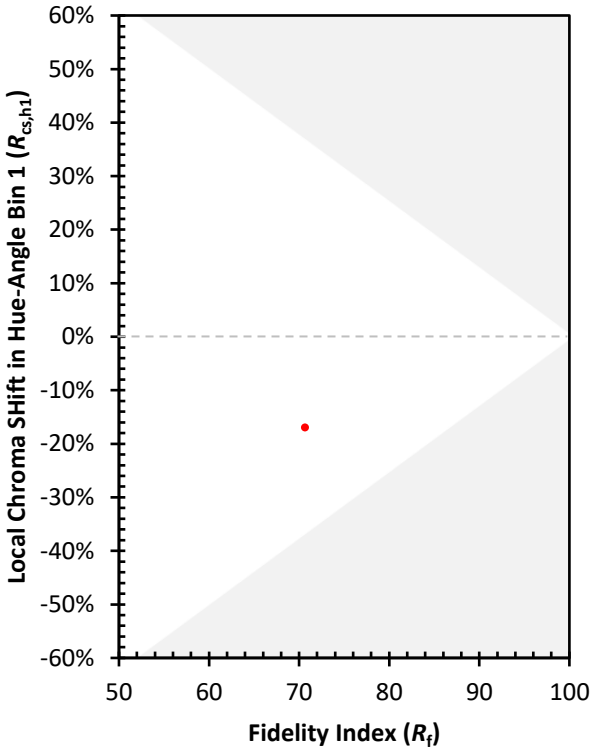



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## Measure Comparisons




(END OF REPORT)