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: P1362971

Luminaire Tested: **GSS-SB2A-740-U-SL2-HSS**

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: | P1362971 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB2A-740-U-SL2-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 2SQUARE 58W 70CRI 4000K FIXTURE w/ TYPE II SPILL CONTROL DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (52) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 7288.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 125.7 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B1 - U0 - G2 |

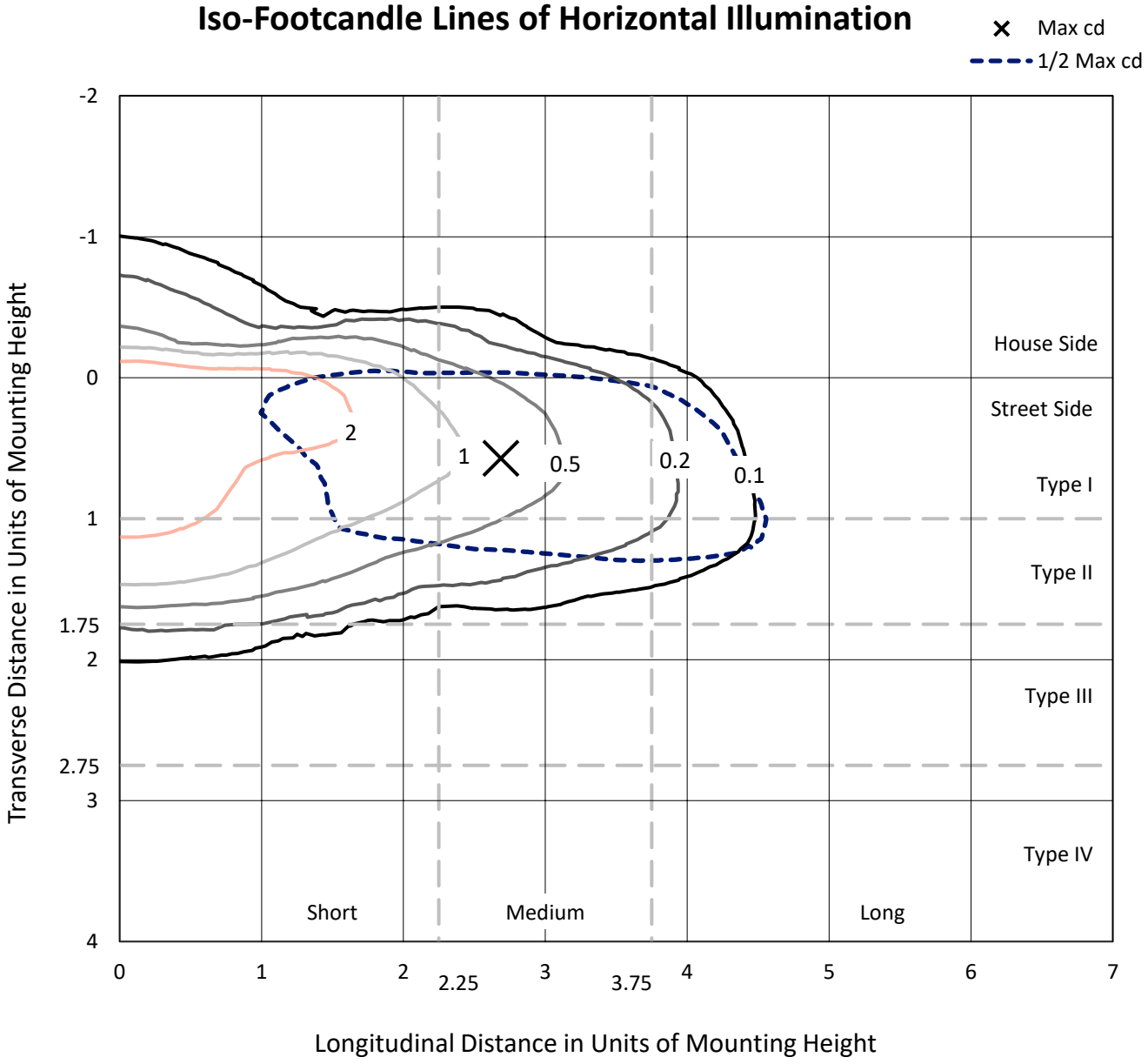
| | |
|---|---|
| Input Watts (W): | 58 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 9.0% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1362971
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## Iso-Footcandle Lines of Horizontal Illumination



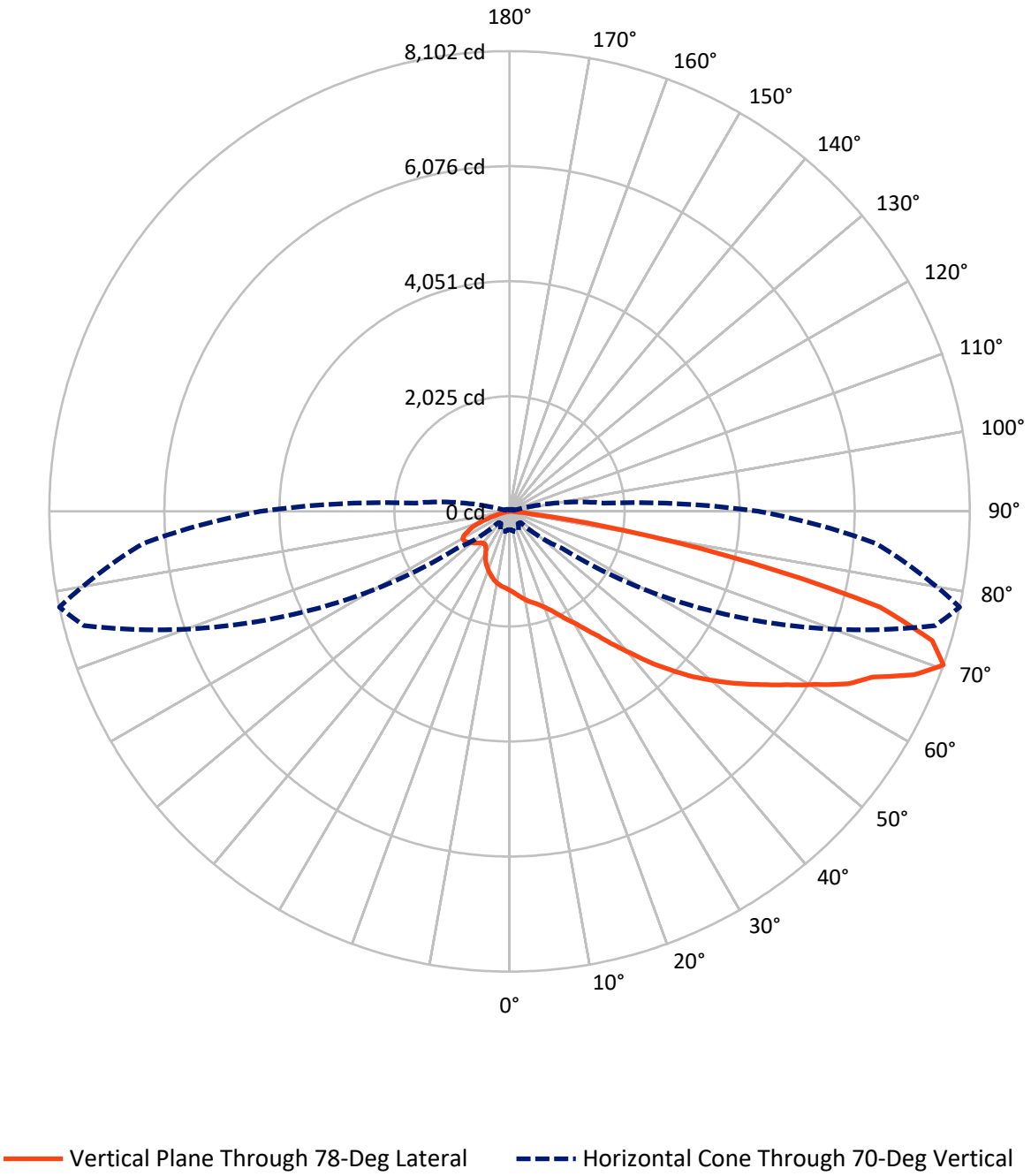

Based on 20 foot mounting height. Maximum calculated value = 4.2 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

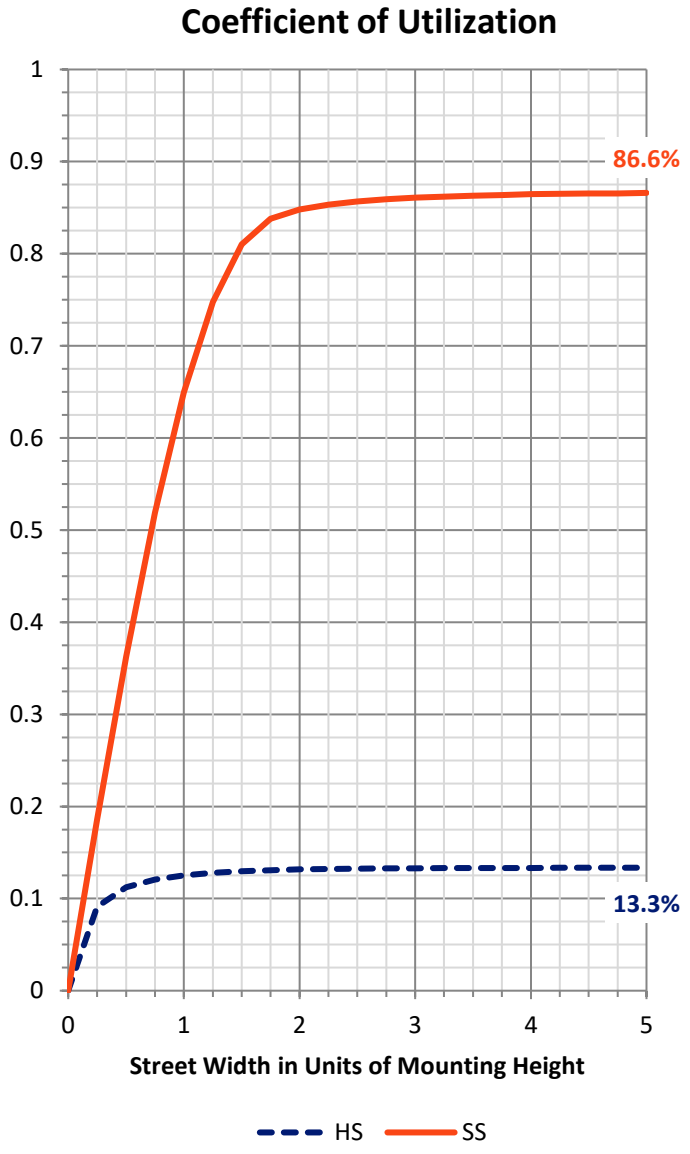
REPORT NUMBER: P1362971
CATALOG NUMBER: GSS-SB2A-740-U-SL2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 980.3 | 0.0 | 980.3 |
| | % Fixture | 13.5 | 0.0 | 13.5 |
| **Street Side** | Lumens | 6307.9 | 0.0 | 6307.9 |
| | % Fixture | 86.5 | 0.0 | 86.5 |
| **Total** | Lumens | 7288.2 | 0.0 | 7288.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 127.0 | 1.7 |
| 10°-20° | 314.7 | 4.3 |
| 20°-30° | 522.1 | 7.2 |
| 30°-40° | 832.2 | 11.4 |
| 40°-50° | 1270.0 | 17.4 |
| 50°-60° | 1691.1 | 23.2 |
| 60°-70° | 1578.6 | 21.7 |
| 70°-80° | 892.7 | 12.2 |
| 80°-90° | 59.9 | 0.8 |
| 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° | 7288.2 | 100.0 |
| 0°-180° | 7288.2 | 100.0 |



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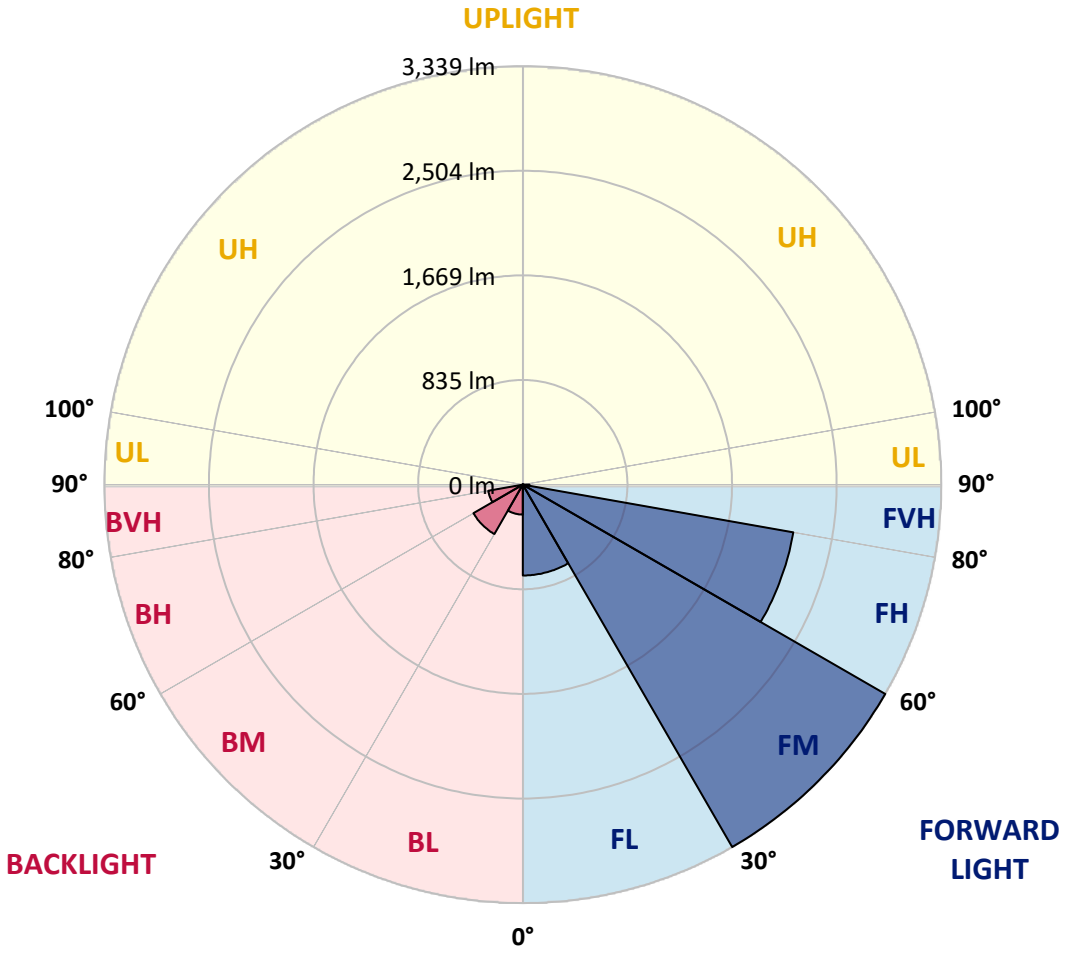
Scaled Data Report

REPORT NUMBER: P1362971
CATALOG NUMBER: GSS-SB2A-740-U-SL2-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 724.7 | 9.9 | | | |
| FM | (30°-60°) | 3338.6 | 45.8 | | | |
| FH | (60°-80°) | 2191.4 | 30.1 | | | G2/5000 |
| FVH | (80°-90°) | 53.2 | 0.7 | | | G1/100 |
| BL | (0°-30°) | 239.1 | 3.3 | B1/500 | | |
| BM | (30°-60°) | 454.7 | 6.2 | B1/1000 | | |
| BH | (60°-80°) | 279.8 | 3.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 6.7 | 0.1 | | | G0/10 |
| 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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REPORT NUMBER: P1362971
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 78° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | *1392.5* | 1392.5 |
| 2.5° | 1568.1 | 1545.6 | 1545.6 | 1535.4 | 1525.2 | 1506.8 | 1484.4 | 1459.9 | 1439.5 | *1429.3* | 1412.9 |
| 5° | 1680.4 | 1674.3 | 1672.2 | 1655.9 | 1639.6 | 1613.0 | 1584.4 | 1537.5 | 1494.6 | *1480.3* | 1443.5 |
| 7.5° | 1676.3 | 1672.2 | 1680.4 | 1700.8 | 1715.1 | 1704.9 | 1680.4 | 1623.2 | 1555.8 | *1531.3* | 1476.2 |
| 10° | 1549.7 | 1537.5 | 1566.1 | 1611.0 | 1676.3 | 1743.7 | 1753.9 | 1698.8 | 1613.0 | *1584.4* | 1506.8 |
| 12.5° | 1435.4 | 1435.4 | 1449.7 | 1490.5 | 1572.2 | 1692.6 | 1786.6 | 1768.2 | 1670.2 | *1635.5* | 1533.4 |
| 15° | 1421.1 | 1410.9 | 1415.0 | 1433.3 | 1490.5 | 1608.9 | 1766.2 | 1821.3 | 1723.3 | *1676.3* | 1557.9 |
| 17.5° | 1486.4 | 1474.2 | 1464.0 | 1455.8 | 1464.0 | 1541.6 | 1702.9 | 1866.2 | 1786.6 | *1735.5* | 1590.6 |
| 20° | 1588.5 | 1588.5 | 1562.0 | 1529.3 | 1502.8 | 1517.1 | 1651.8 | 1894.8 | 1862.1 | *1807.0* | 1639.6 |
| 22.5° | 1735.5 | 1717.1 | 1700.8 | 1649.8 | 1584.4 | 1553.8 | 1629.4 | 1925.4 | 1966.2 | *1898.9* | 1706.9 |
| 25° | 1858.0 | 1864.2 | 1845.8 | 1782.5 | 1690.6 | 1623.2 | 1647.7 | 1937.7 | 2084.7 | *2017.3* | 1790.7 |
| 27.5° | 1996.9 | 1990.7 | 1974.4 | 1911.1 | 1804.9 | 1709.0 | 1698.8 | 1962.2 | 2221.5 | *2150.0* | 1888.7 |
| 30° | 2125.5 | 2125.5 | 2105.1 | 2033.6 | 1925.4 | 1821.3 | 1774.3 | 2003.0 | 2358.3 | *2292.9* | 1998.9 |
| 32.5° | 2268.4 | 2270.5 | 2229.6 | 2154.1 | 2043.8 | 1925.4 | 1870.3 | 2064.3 | 2527.7 | *2478.7* | 2148.0 |
| 35° | 2384.8 | 2388.9 | 2378.7 | 2297.0 | 2152.0 | 2033.6 | 1970.3 | 2160.2 | 2725.8 | *2697.2* | 2346.0 |
| 37.5° | 2474.7 | 2480.8 | 2460.4 | 2423.6 | 2288.8 | 2137.8 | 2076.5 | 2278.6 | 2964.7 | *2983.1* | 2603.3 |
| 40° | 2578.8 | 2578.8 | 2578.8 | 2523.7 | 2423.6 | 2252.1 | 2184.7 | 2425.6 | 3221.9 | *3279.1* | 2889.1 |
| 42.5° | 2670.7 | 2676.8 | 2687.0 | 2644.1 | 2552.2 | 2415.4 | 2317.4 | 2591.0 | 3509.8 | *3638.5* | 3242.4 |
| 45° | 2717.6 | 2729.9 | 2766.6 | 2748.3 | 2678.8 | 2546.1 | 2458.3 | 2752.3 | 3826.3 | *3985.6* | 3622.1 |
| 47.5° | 2746.2 | 2760.5 | 2809.5 | 2832.0 | 2803.4 | 2646.2 | 2591.0 | 2944.3 | 4128.5 | *4349.0* | 4012.1 |
| 50° | 2768.7 | 2789.1 | 2844.2 | 2887.1 | 2913.6 | 2729.9 | 2721.7 | 3140.3 | 4430.7 | *4690.0* | 4367.4 |
| 52.5° | 2703.3 | 2723.8 | 2827.9 | 2964.7 | 2987.1 | 2856.5 | 2858.5 | 3352.6 | 4737.0 | *5037.1* | 4696.1 |
| 55° | 2470.6 | 2484.9 | 2629.8 | 2905.5 | 3074.9 | 3003.5 | 3044.3 | 3628.3 | 5071.8 | *5382.2* | 5010.6 |
| 57.5° | 1758.0 | 1845.8 | 2103.0 | 2540.0 | 2966.7 | 3213.8 | 3342.4 | 3932.5 | 5461.8 | *5759.9* | 5329.1 |
| 60° | 731.0 | 794.3 | 1043.4 | 1813.1 | 2566.5 | 3242.4 | 3752.8 | 4432.7 | 5904.9 | *6188.7* | 5690.5 |
| 62.5° | 475.7 | 481.9 | 506.4 | 777.9 | 1629.4 | 2844.2 | 3910.0 | 5141.2 | 6529.7 | *6686.9* | 5888.5 |
| 65° | 424.7 | 432.9 | 445.1 | 483.9 | 600.3 | 1919.3 | 3379.2 | 5380.1 | 7038.1 | *7027.8* | 5776.2 |
| 67.5° | 377.7 | 387.9 | 410.4 | 414.5 | 334.9 | 706.5 | 2270.5 | 5028.9 | 7566.9 | *7677.1* | 6082.5 |
| 70° | *322.6* | *326.7* | *367.5* | *371.6* | *263.4* | *277.7* | *1143.4* | *4365.4* | *7762.9* | *8101.8* | *6474.5* |
| 72.5° | 224.6 | 236.8 | 310.4 | 326.7 | 210.3 | 179.7 | 416.5 | 3177.0 | 7215.7 | *7779.2* | 6450.0 |
| 75° | 132.7 | 138.8 | 177.6 | 222.6 | 163.3 | 126.6 | 187.8 | 1954.0 | 6209.1 | *6737.9* | 5739.5 |
| 77.5° | 96.0 | 102.1 | 128.6 | 173.6 | 104.1 | 85.8 | 116.4 | 1020.9 | 4312.3 | *4334.7* | 3240.3 |
| 80° | 30.6 | 34.7 | 79.6 | 116.4 | 75.5 | 55.1 | 71.5 | 345.1 | 2178.6 | *2056.1* | 990.3 |
| 82.5° | 16.3 | 16.3 | 49.0 | 61.3 | 47.0 | 34.7 | 40.8 | 142.9 | 698.3 | *447.2* | 157.2 |
| 85° | 8.2 | 8.2 | 20.4 | 24.5 | 18.4 | 16.3 | 20.4 | 51.0 | 73.5 | *67.4* | 44.9 |
| 87.5° | 0.0 | 0.0 | 2.0 | 2.0 | 2.0 | 4.1 | 8.2 | 14.3 | 18.4 | *18.4* | 20.4 |
| 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: P1362971
CATALOG NUMBER: GSS-SB2A-740-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 | 1392.5 |
| 2.5° | 1394.5 | 1378.2 | 1353.7 | 1325.1 | 1304.7 | 1276.1 | 1251.6 | 1241.4 | 1223.0 | 1219.0 | 1214.9 |
| 5° | 1408.8 | 1376.2 | 1321.0 | 1257.7 | 1202.6 | 1137.3 | 1084.2 | 1043.4 | 1014.8 | 1002.5 | 996.4 |
| 7.5° | 1431.3 | 1378.2 | 1288.4 | 1184.2 | 1084.2 | 986.2 | 888.2 | 812.6 | 769.8 | 728.9 | 731.0 |
| 10° | 1443.5 | 1380.3 | 1245.5 | 1100.5 | 951.5 | 800.4 | 653.4 | 541.1 | 481.9 | 447.2 | 439.0 |
| 12.5° | 1453.8 | 1370.0 | 1196.5 | 996.4 | 784.0 | 567.6 | 420.6 | 347.1 | 316.5 | 312.4 | 310.4 |
| 15° | 1459.9 | 1357.8 | 1135.2 | 875.9 | 594.2 | 383.9 | 312.4 | 292.0 | 283.8 | 281.8 | 281.8 |
| 17.5° | 1474.2 | 1343.5 | 1071.9 | 726.9 | 412.4 | 306.3 | 279.7 | 269.5 | 263.4 | 261.3 | 261.3 |
| 20° | 1498.7 | 1345.5 | 1006.6 | 563.5 | 320.6 | 279.7 | 259.3 | 249.1 | 240.9 | 240.9 | 240.9 |
| 22.5° | 1539.5 | 1353.7 | 922.9 | 422.7 | 281.8 | 255.2 | 236.8 | 224.6 | 220.5 | 222.6 | 222.6 |
| 25° | 1594.6 | 1374.1 | 837.1 | 326.7 | 259.3 | 230.7 | 212.3 | 202.1 | 200.1 | 202.1 | 202.1 |
| 27.5° | 1664.1 | 1396.6 | 731.0 | 281.8 | 238.9 | 210.3 | 191.9 | 185.8 | 183.8 | 187.8 | 187.8 |
| 30° | 1739.6 | 1423.1 | 604.4 | 259.3 | 220.5 | 194.0 | 177.6 | 171.5 | 171.5 | 177.6 | 177.6 |
| 32.5° | 1845.8 | 1466.0 | 490.0 | 240.9 | 206.2 | 181.7 | 165.4 | 159.3 | 161.3 | 167.4 | 167.4 |
| 35° | 1988.7 | 1521.1 | 402.2 | 228.7 | 196.0 | 171.5 | 157.2 | 149.1 | 151.1 | 153.1 | 155.2 |
| 37.5° | 2174.5 | 1596.7 | 347.1 | 220.5 | 185.8 | 165.4 | 147.0 | 140.9 | 140.9 | 142.9 | 142.9 |
| 40° | 2382.8 | 1686.5 | 320.6 | 214.4 | 177.6 | 155.2 | 138.8 | 130.7 | 130.7 | 134.8 | 134.8 |
| 42.5° | 2648.2 | 1782.5 | 300.1 | 206.2 | 167.4 | 147.0 | 128.6 | 122.5 | 120.5 | 124.5 | 124.5 |
| 45° | 2954.5 | 1921.3 | 287.9 | 198.1 | 157.2 | 136.8 | 120.5 | 112.3 | 110.3 | 112.3 | 114.3 |
| 47.5° | 3264.8 | 2068.3 | 275.6 | 187.8 | 151.1 | 128.6 | 114.3 | 104.1 | 102.1 | 102.1 | 102.1 |
| 50° | 3556.8 | 2215.3 | 267.5 | 175.6 | 145.0 | 120.5 | 106.2 | 98.0 | 93.9 | 93.9 | 93.9 |
| 52.5° | 3818.2 | 2352.1 | 263.4 | 165.4 | 138.8 | 114.3 | 102.1 | 91.9 | 85.8 | 85.8 | 85.8 |
| 55° | 4067.3 | 2484.9 | 257.3 | 153.1 | 132.7 | 106.2 | 96.0 | 85.8 | 79.6 | 77.6 | 77.6 |
| 57.5° | 4318.4 | 2607.4 | 240.9 | 140.9 | 120.5 | 100.0 | 89.8 | 79.6 | 73.5 | 69.4 | 69.4 |
| 60° | 4524.6 | 2682.9 | 216.4 | 126.6 | 106.2 | 91.9 | 83.7 | 73.5 | 65.3 | 59.2 | 59.2 |
| 62.5° | 4538.9 | 2605.3 | 179.7 | 112.3 | 93.9 | 83.7 | 75.5 | 65.3 | 55.1 | 47.0 | 47.0 |
| 65° | 4295.9 | 2335.8 | 142.9 | 93.9 | 83.7 | 73.5 | 63.3 | 55.1 | 44.9 | 36.8 | 34.7 |
| 67.5° | 4351.1 | 2119.4 | 110.3 | 79.6 | 73.5 | 59.2 | 51.0 | 44.9 | 36.8 | 30.6 | 30.6 |
| 70° | *4383.7* | *1668.1* | *87.8* | *65.3* | *61.3* | *47.0* | *40.8* | *38.8* | *30.6* | *24.5* | *24.5* |
| 72.5° | 4097.9 | 1033.1 | 71.5 | 55.1 | 47.0 | 32.7 | 32.7 | 30.6 | 24.5 | 18.4 | 16.3 |
| 75° | 3614.0 | 616.6 | 55.1 | 42.9 | 32.7 | 24.5 | 24.5 | 22.5 | 16.3 | 12.3 | 12.3 |
| 77.5° | 2184.7 | 324.6 | 42.9 | 32.7 | 22.5 | 18.4 | 16.3 | 14.3 | 10.2 | 8.2 | 6.1 |
| 80° | 675.8 | 114.3 | 32.7 | 22.5 | 16.3 | 14.3 | 10.2 | 6.1 | 4.1 | 4.1 | 2.0 |
| 82.5° | 93.9 | 40.8 | 24.5 | 18.4 | 12.3 | 8.2 | 6.1 | 4.1 | 2.0 | 2.0 | 2.0 |
| 85° | 32.7 | 22.5 | 16.3 | 12.3 | 8.2 | 6.1 | 4.1 | 2.0 | 2.0 | 0.0 | 0.0 |
| 87.5° | 18.4 | 16.3 | 12.3 | 8.2 | 6.1 | 4.1 | 4.1 | 2.0 | 0.0 | 0.0 | 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 |

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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: SP1-2407-184-1

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-740-U-5WQ

Data in this report applies to families of products including GSS-SB1A-740-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

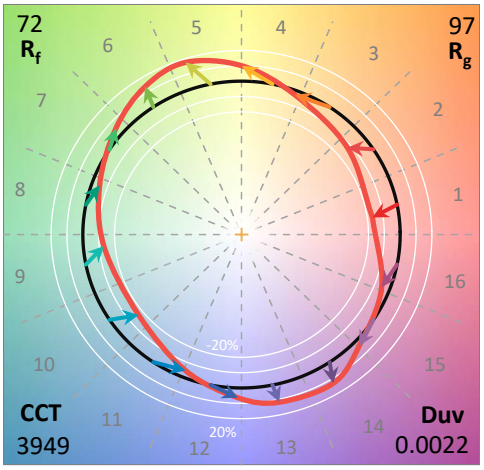
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-1 |
| 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-740-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 4000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3949 |
| CIE u': | 0.2248 |
| CIE v': | 0.5053 |
| Duv: | 0.0022 |
| CIE x: | 0.3844 |
| CIE y: | 0.3840 |
| CIE z: | 0.2316 |
| Peak Wavelength (nm): | 440 |
| Dominant Wavelength (nm): | 578 |
| Purity: | 30.60026 |
| Rf: | 71.8 |
| Rg: | 96.5 |

| | |
|---|---|
| CRI (Ra): | 70.7 |
| R1: | 68.0 |
| R2: | 76.0 |
| R3: | 84.3 |
| R4: | 72.0 |
| R5: | 68.6 |
| R6: | 68.3 |
| R7: | 77.9 |
| R8: | 50.3 |
| R9: | -36.7 |
| R10: | 45.1 |
| R11: | 70.7 |
| R12: | 47.1 |
| R13: | 68.5 |
| R14: | 91.1 |
| R15: | 58.7 |




## Test Conditions

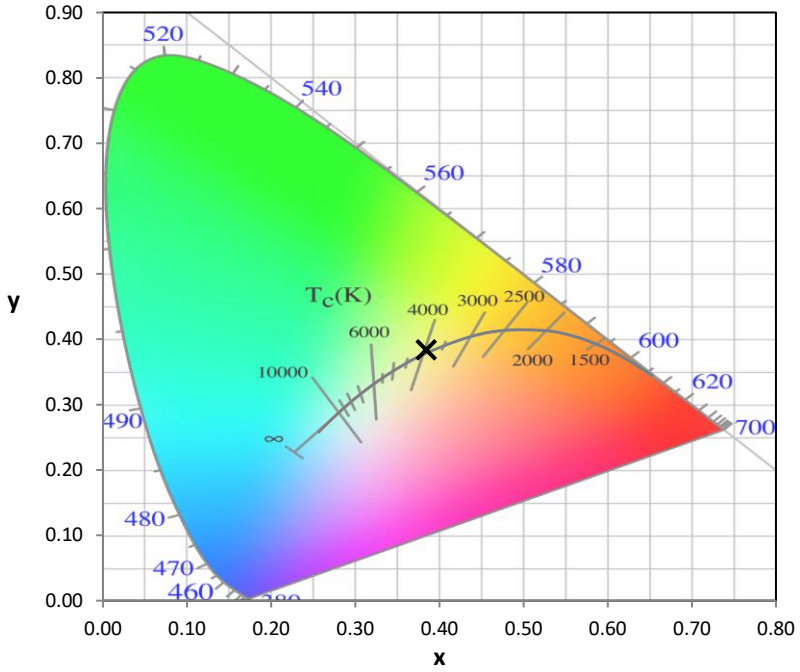
| | |
|---|---|
| Stabilization Time: | 34M |
| Operation Time: | 1H 34M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-1

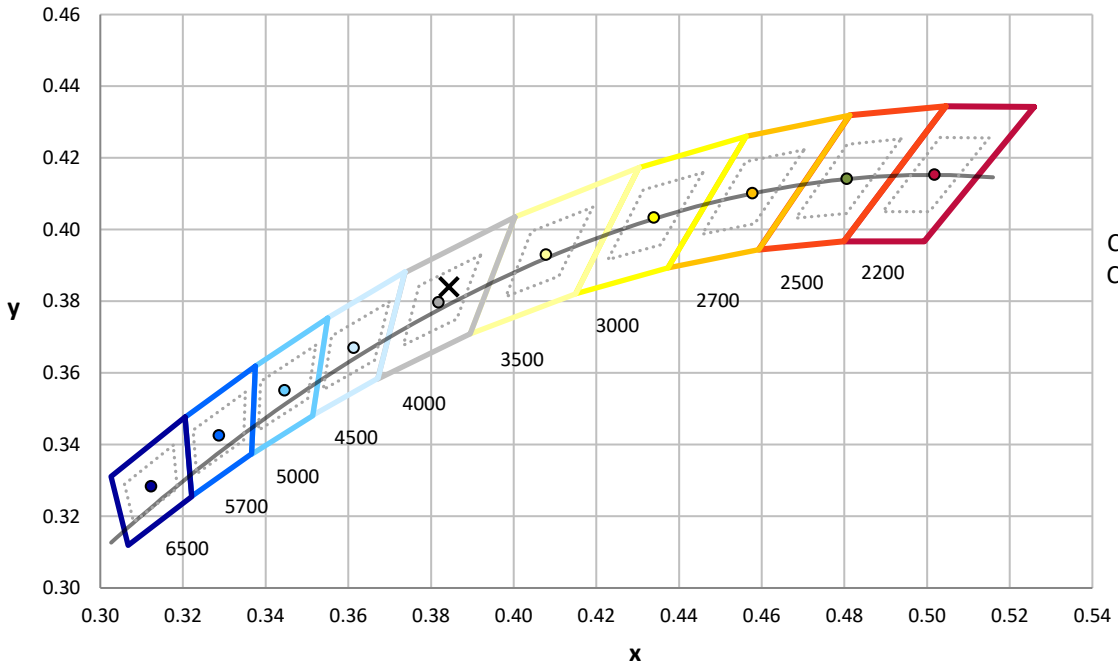
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

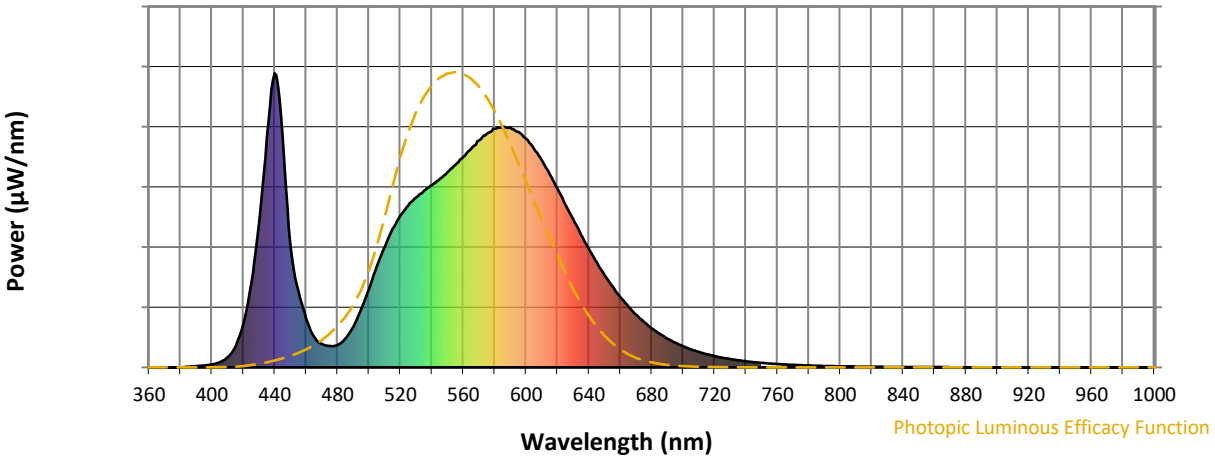



CCT = 3949K
CIE x = 0.3844
CIE y = 0.3840
Duv = 0.0022

Point lies inside the ANSI 4000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

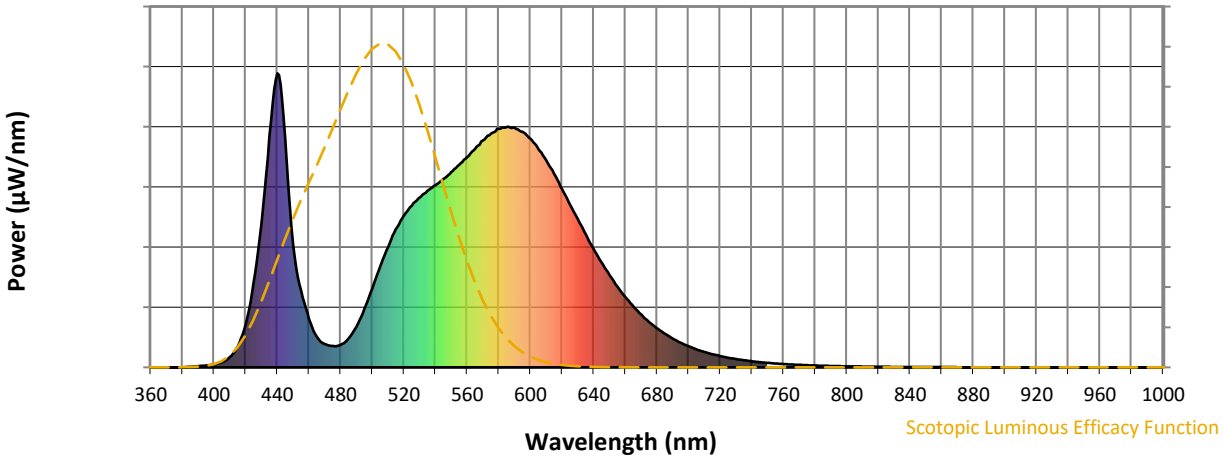



## Photopic Lumens: NR

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

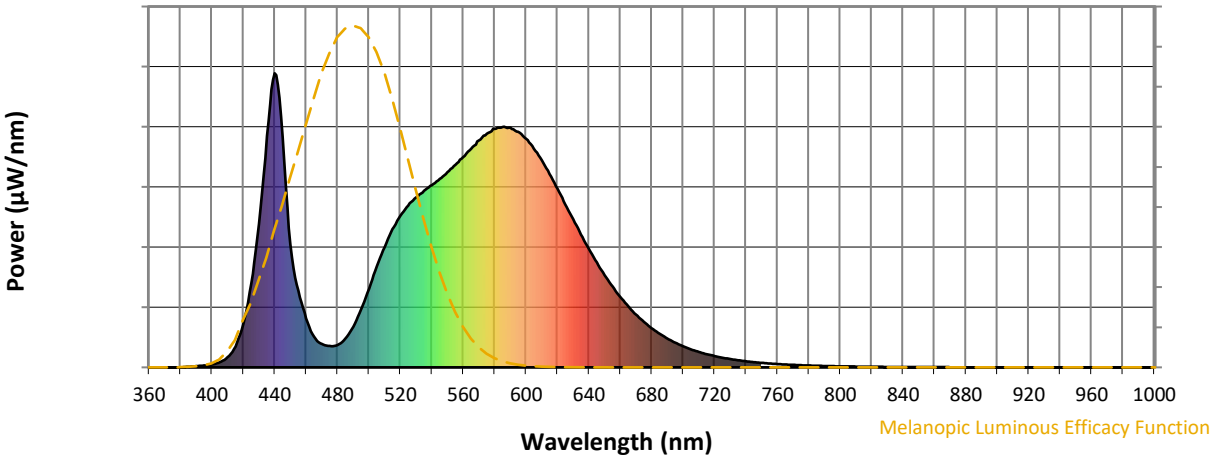



**Scotopic Lumens: NR** **S/P: 1.47**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.78**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

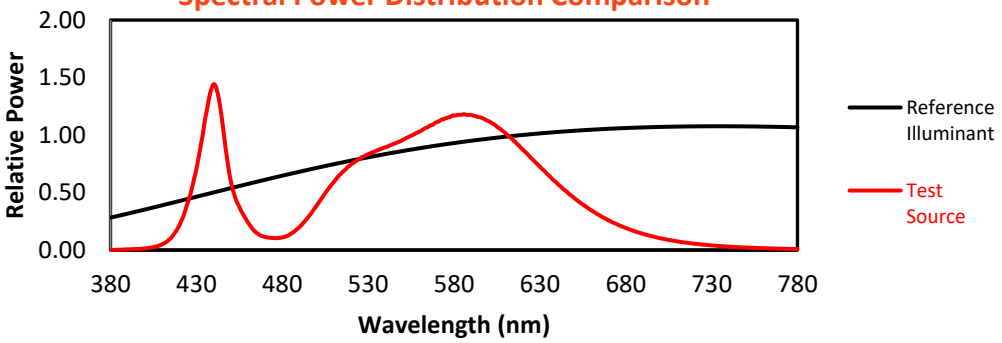
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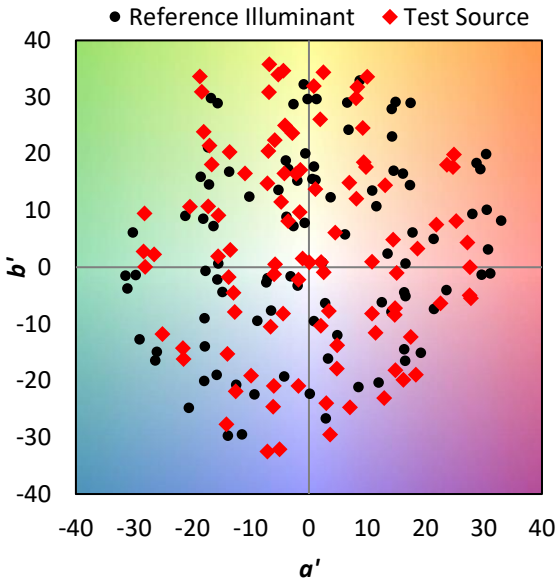
## Summary

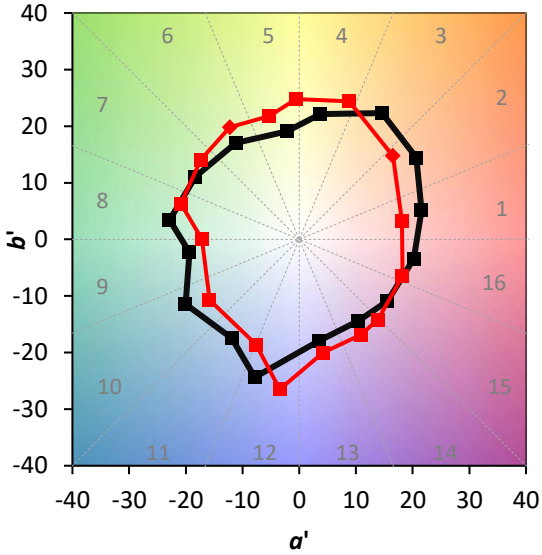
$R_f$ = 71.8
$R_g$ = 96.5
CIE $R_a$ = 70.7
$R_9$ = -36.7

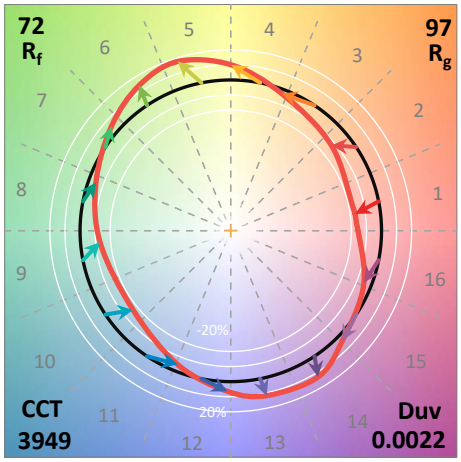
## Spectral Power Distribution Comparison

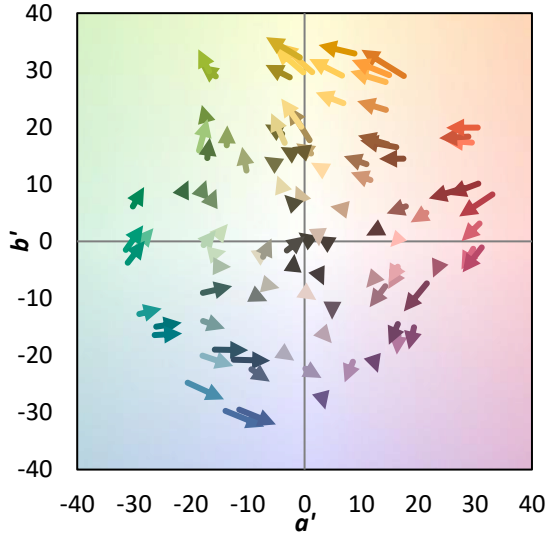



## Color Vector Graphics



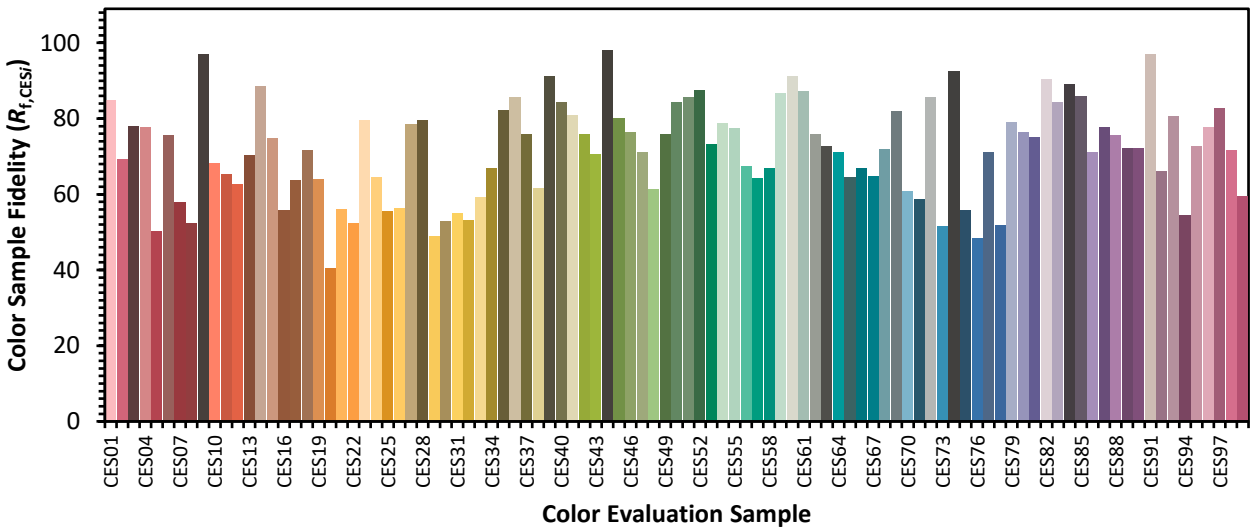



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**Individual Sample Fidelity Index ($R_{f,i}$)**

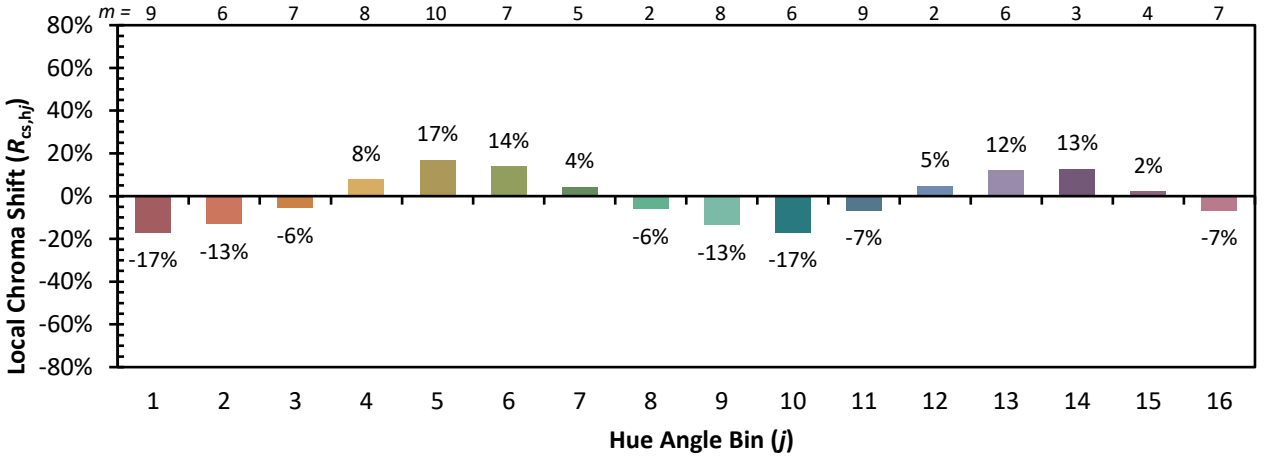
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 56 | CES51 = 86 | CES76 = 48 |
| CES02 = 61 | CES27 = 79 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 80 | CES53 = 73 | CES78 = 52 |
| CES04 = 70 | CES29 = 49 | CES54 = 79 | CES79 = 79 |
| CES05 = 47 | CES30 = 53 | CES55 = 77 | CES80 = 77 |
| CES06 = 50 | CES31 = 55 | CES56 = 67 | CES81 = 75 |
| CES07 = 40 | CES32 = 53 | CES57 = 64 | CES82 = 90 |
| CES08 = 39 | CES33 = 59 | CES58 = 67 | CES83 = 84 |
| CES09 = 29 | CES34 = 67 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 82 | CES60 = 91 | CES85 = 86 |
| CES11 = 57 | CES36 = 86 | CES61 = 87 | CES86 = 71 |
| CES12 = 63 | CES37 = 76 | CES62 = 76 | CES87 = 78 |
| CES13 = 42 | CES38 = 62 | CES63 = 73 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 71 | CES89 = 72 |
| CES15 = 71 | CES40 = 84 | CES65 = 64 | CES90 = 72 |
| CES16 = 46 | CES41 = 81 | CES66 = 67 | CES91 = 97 |
| CES17 = 49 | CES42 = 76 | CES67 = 65 | CES92 = 66 |
| CES18 = 56 | CES43 = 71 | CES68 = 72 | CES93 = 81 |
| CES19 = 72 | CES44 = 98 | CES69 = 82 | CES94 = 55 |
| CES20 = 65 | CES45 = 80 | CES70 = 61 | CES95 = 73 |
| CES21 = 86 | CES46 = 76 | CES71 = 59 | CES96 = 78 |
| CES22 = 78 | CES47 = 71 | CES72 = 86 | CES97 = 83 |
| CES23 = 92 | CES48 = 61 | CES73 = 52 | CES98 = 72 |
| CES24 = 91 | CES49 = 76 | CES74 = 93 | CES99 = 60 |
| CES25 = 72 | CES50 = 84 | CES75 = 56 | |

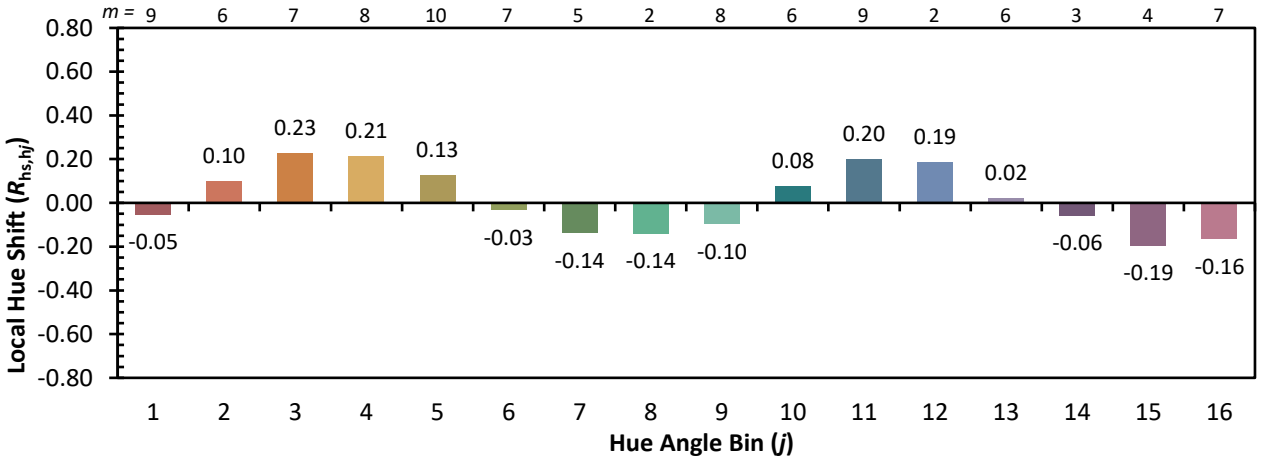


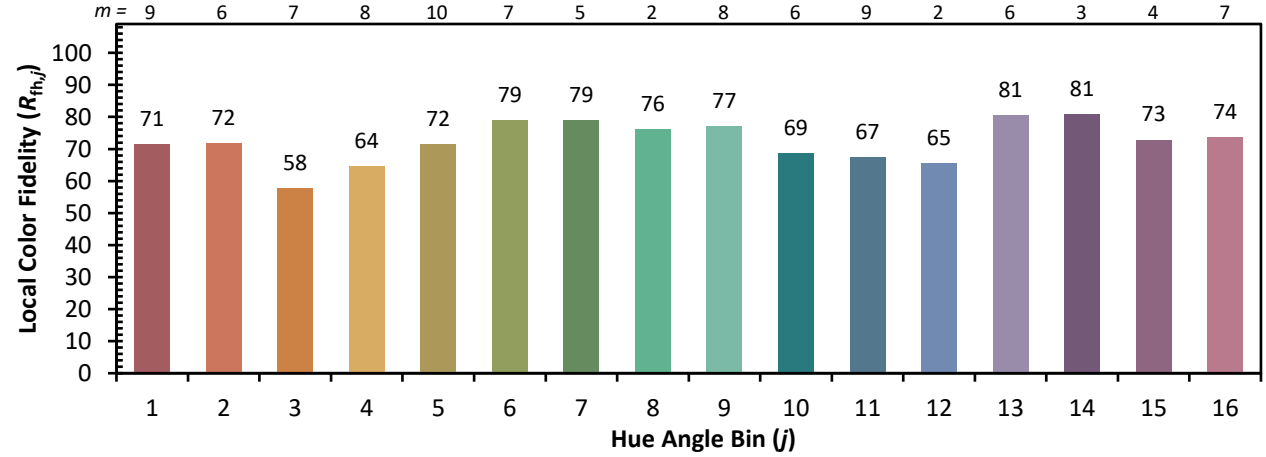
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## Color Rendition by Hue-Angle Bin



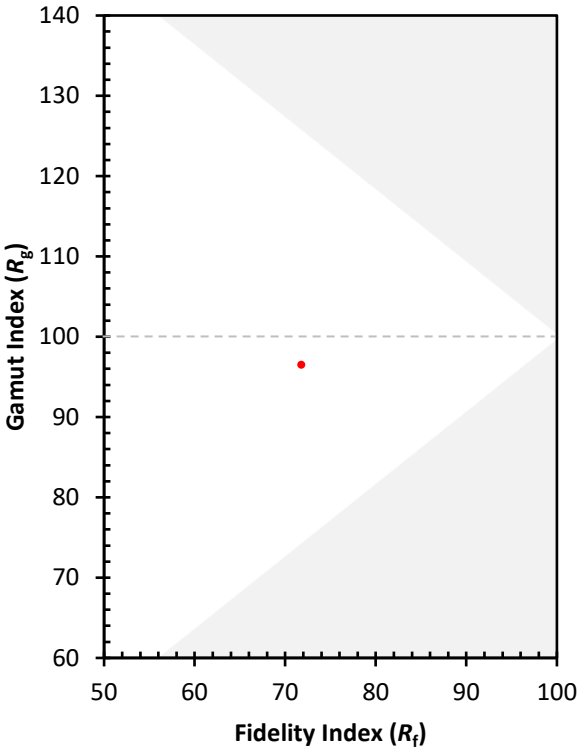



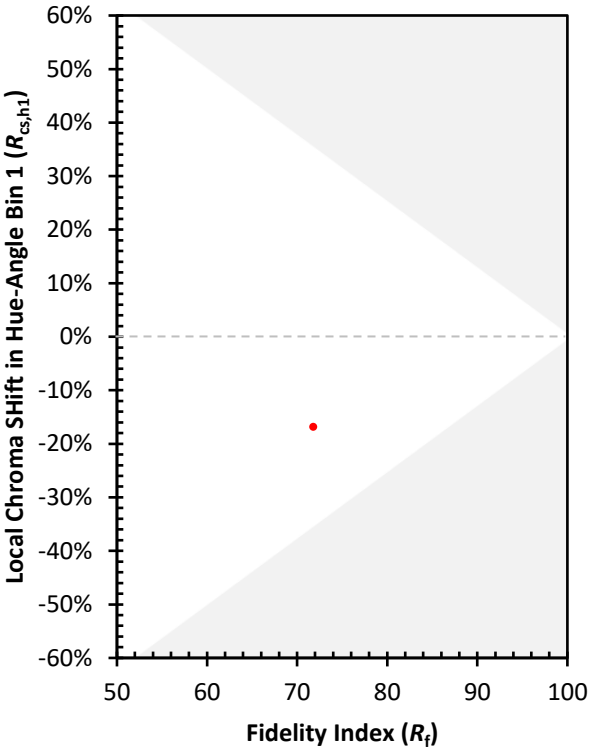



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## Measure Comparisons




(END OF REPORT)