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: P1359996

Luminaire Tested: **GSS-SB2B-735-U-T3**

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: | P1359996 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB2B-735-U-T3 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 2SQUARE 74W 70CRI 3500K FIXTURE w/ TYPE III DISTRIBUTION OPTIC |
| Light Source: | (52) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 10229.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 138.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B2 - U0 - G2 |

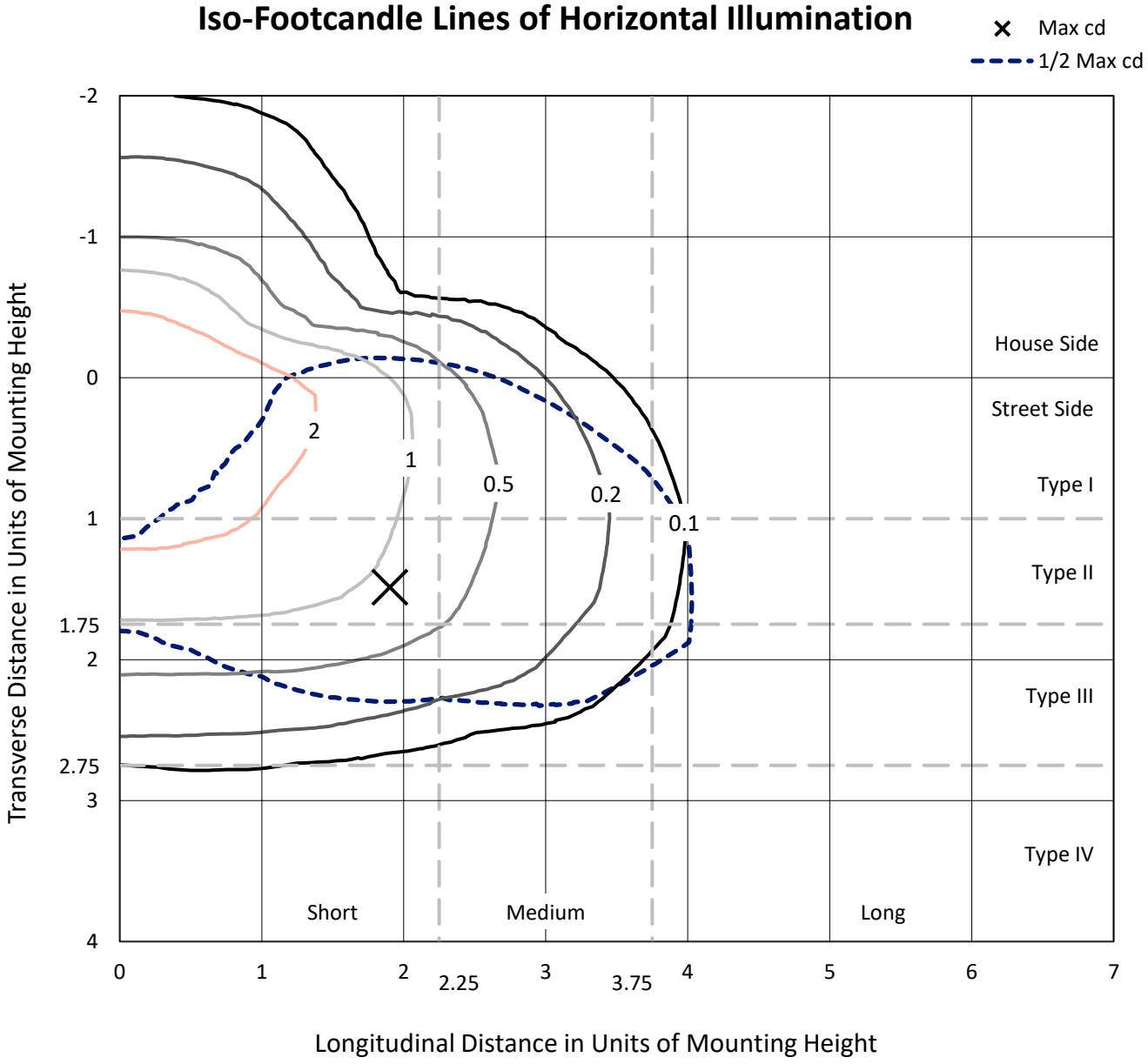
| | |
|---|---|
| Input Watts (W): | 74 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 13.6% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1359996
CATALOG NUMBER: GSS-SB2B-735-U-T3

## Iso-Footcandle Lines of Horizontal Illumination



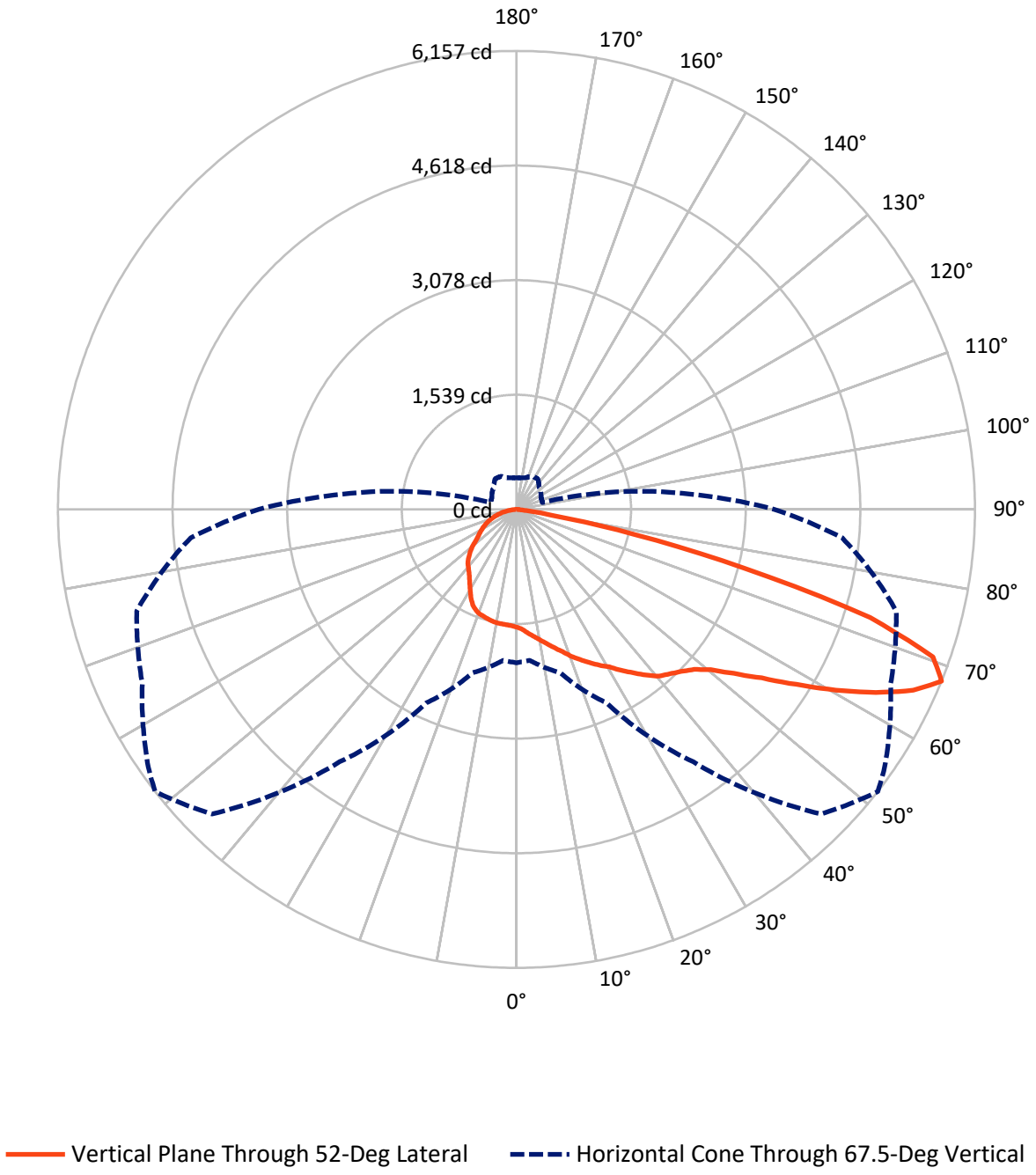

Based on 20 foot mounting height. Maximum calculated value = 4.5 fc
Type III - Short - N/A

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Scaled Data Report

REPORT NUMBER: P1359996
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## Luminous Intensity Polar Plot



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Scaled Data Report

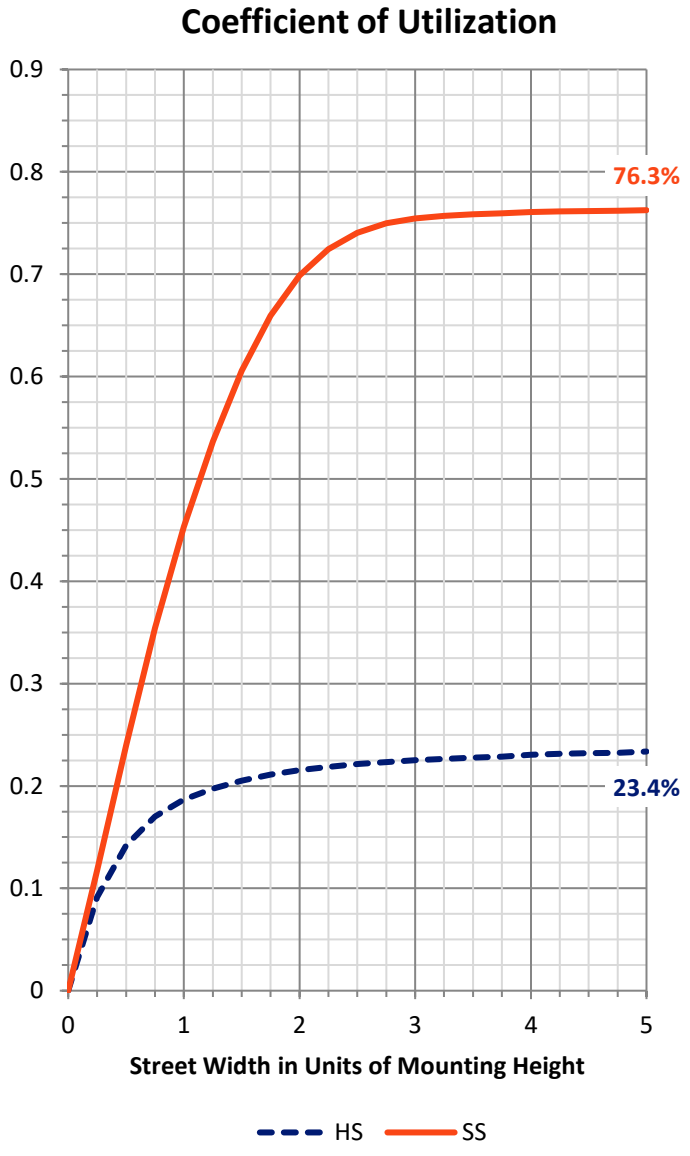
REPORT NUMBER: P1359996
CATALOG NUMBER: GSS-SB2B-735-U-T3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2420.2 | 0.0 | 2420.2 |
| | % Fixture | 23.7 | 0.0 | 23.7 |
| **Street Side** | Lumens | 7809.7 | 0.0 | 7809.7 |
| | % Fixture | 76.3 | 0.0 | 76.3 |
| **Total** | Lumens | 10229.9 | 0.0 | 10229.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 155.2 | 1.5 |
| 10°-20° | 489.6 | 4.8 |
| 20°-30° | 837.1 | 8.2 |
| 30°-40° | 1214.4 | 11.9 |
| 40°-50° | 1577.4 | 15.4 |
| 50°-60° | 2137.3 | 20.9 |
| 60°-70° | 2493.1 | 24.4 |
| 70°-80° | 1229.2 | 12.0 |
| 80°-90° | 96.5 | 0.9 |
| 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° | 10229.9 | 100.0 |
| 0°-180° | 10229.9 | 100.0 |



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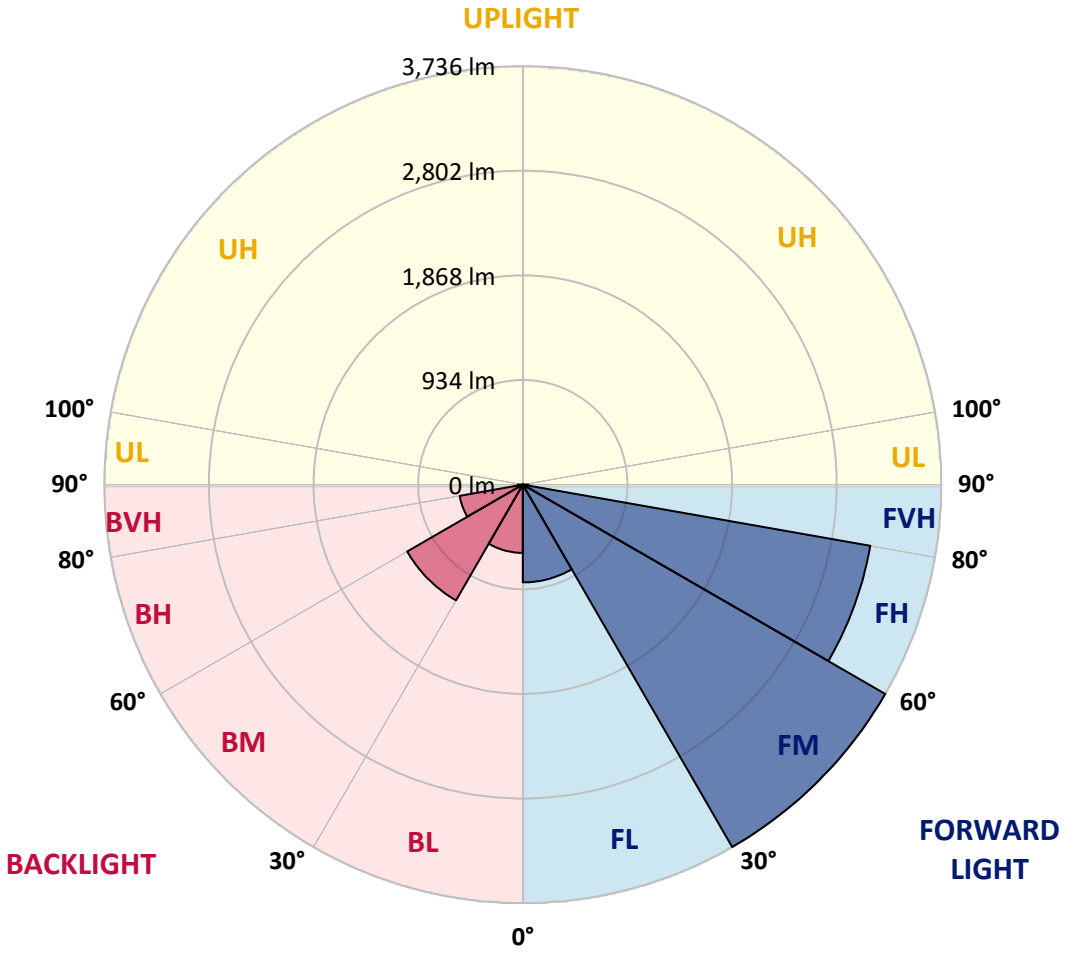
Scaled Data Report

REPORT NUMBER: P1359996
CATALOG NUMBER: GSS-SB2B-735-U-T3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 872.7 | 8.5 | | | |
| FM | (30°-60°) | 3736.3 | 36.5 | | | |
| FH | (60°-80°) | 3150.0 | 30.8 | | | G2/5000 |
| FVH | (80°-90°) | 50.6 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 609.2 | 6.0 | B2/1000 | | |
| BM | (30°-60°) | 1192.8 | 11.7 | B2/2500 | | |
| BH | (60°-80°) | 572.3 | 5.6 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 45.8 | 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 III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 52° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | *1583.1* | 1583.1 | 1583.1 | 1583.1 | 1583.1 |
| 2.5° | 1630.9 | 1628.6 | 1626.4 | 1617.2 | 1617.2 | 1619.5 | *1615.0* | 1617.2 | 1615.0 | 1603.6 | 1594.5 |
| 5° | 1722.0 | 1701.5 | 1697.0 | 1692.4 | 1697.0 | 1683.3 | *1671.9* | 1665.1 | 1640.0 | 1633.2 | 1605.9 |
| 7.5° | 1760.7 | 1763.0 | 1760.7 | 1751.6 | 1744.8 | 1744.8 | *1726.6* | 1717.5 | 1701.5 | 1674.2 | 1628.6 |
| 10° | 1815.4 | 1813.1 | 1806.3 | 1810.9 | 1824.5 | 1801.8 | *1788.1* | 1781.2 | 1753.9 | 1715.2 | 1671.9 |
| 12.5° | 1913.4 | 1897.4 | 1892.9 | 1886.0 | 1883.8 | 1870.1 | *1854.1* | 1856.4 | 1824.5 | 1765.3 | 1719.7 |
| 15° | 1997.6 | 1979.4 | 1999.9 | 1986.3 | 1968.0 | 1947.5 | *1931.6* | 1917.9 | 1881.5 | 1826.8 | 1769.9 |
| 17.5° | 2077.4 | 2068.3 | 2077.4 | 2077.4 | 2075.1 | 2040.9 | *2009.0* | 1997.6 | 1954.4 | 1892.9 | 1817.7 |
| 20° | 2138.9 | 2138.9 | 2154.8 | 2154.8 | 2148.0 | 2127.5 | *2107.0* | 2093.3 | 2031.8 | 1952.1 | 1865.5 |
| 22.5° | 2218.6 | 2182.1 | 2216.3 | 2218.6 | 2220.9 | 2204.9 | *2191.3* | 2173.0 | 2109.3 | 2013.6 | 1904.3 |
| 25° | 2293.8 | 2264.1 | 2284.6 | 2271.0 | 2280.1 | 2286.9 | *2280.1* | 2273.3 | 2202.6 | 2093.3 | 1961.2 |
| 27.5° | 2412.2 | 2382.6 | 2396.3 | 2364.4 | 2364.4 | 2357.5 | *2368.9* | 2378.0 | 2300.6 | 2170.8 | 2011.3 |
| 30° | 2589.9 | 2555.7 | 2544.3 | 2505.6 | 2466.9 | 2450.9 | *2455.5* | 2471.4 | 2419.0 | 2245.9 | 2061.4 |
| 32.5° | 2742.5 | 2724.3 | 2715.2 | 2683.3 | 2635.4 | 2562.5 | *2573.9* | 2573.9 | 2519.3 | 2300.6 | 2086.5 |
| 35° | 2867.8 | 2863.2 | 2865.5 | 2822.2 | 2813.1 | 2694.7 | *2694.7* | 2690.1 | 2589.9 | 2373.5 | 2152.5 |
| 37.5° | 2949.8 | 2924.7 | 2936.1 | 2952.0 | 2922.4 | 2842.7 | *2822.2* | 2810.8 | 2687.8 | 2450.9 | 2239.1 |
| 40° | 2931.5 | 2913.3 | 2956.6 | 2986.2 | 2963.4 | 2947.5 | *2945.2* | 2922.4 | 2785.8 | 2548.9 | 2366.6 |
| 42.5° | 2929.3 | 2913.3 | 2965.7 | 2997.6 | 2986.2 | 3011.3 | *3018.1* | 3034.0 | 2911.0 | 2703.8 | 2548.9 |
| 45° | 2938.4 | 2931.5 | 3018.1 | 3059.1 | 3031.8 | 3065.9 | *3104.7* | 3118.3 | 3070.5 | 2892.8 | 2776.7 |
| 47.5° | 3013.5 | 3004.4 | 3104.7 | 3152.5 | 3175.3 | 3234.5 | *3209.4* | 3232.2 | 3259.6 | 3161.6 | 3038.6 |
| 50° | 3086.4 | 3095.5 | 3229.9 | 3275.5 | 3387.1 | 3469.1 | *3382.6* | 3419.0 | 3510.1 | 3473.7 | 3389.4 |
| 52.5° | 3202.6 | 3204.9 | 3337.0 | 3450.9 | 3665.0 | 3742.4 | *3658.2* | 3662.7 | 3785.7 | 3854.1 | 3742.4 |
| 55° | 3232.2 | 3257.3 | 3434.9 | 3671.8 | 3979.3 | 4034.0 | *3995.3* | 3979.3 | 4125.1 | 4218.5 | 4097.8 |
| 57.5° | 3229.9 | 3216.3 | 3437.2 | 3765.2 | 4218.5 | 4412.1 | *4434.9* | 4391.6 | 4514.6 | 4553.3 | 4487.3 |
| 60° | 3145.7 | 3173.0 | 3414.4 | 3831.3 | 4441.7 | 4872.2 | *4926.9* | 4870.0 | 4929.2 | 4940.6 | 4756.1 |
| 62.5° | 2888.3 | 2897.4 | 3227.7 | 3833.6 | 4617.1 | 5254.9 | *5416.6* | 5352.9 | 5298.2 | 5157.0 | 4815.3 |
| 65° | 2469.1 | 2453.2 | 2769.8 | 3516.9 | 4649.0 | 5623.9 | *5856.3* | 5856.3 | 5500.9 | 5229.9 | 4690.0 |
| 67.5° | *2059.1* | *2034.1* | *2271.0* | *2867.8* | *4138.8* | *5785.6* | *6156.9* | *6036.2* | *5544.2* | *5280.0* | *4391.6* |
| 70° | 993.1 | 1063.7 | 1425.9 | 2029.5 | 3163.9 | 4885.9 | *5933.7* | 5979.3 | 5510.0 | 5122.8 | 3813.1 |
| 72.5° | 355.3 | 339.4 | 512.5 | 870.1 | 1751.6 | 3188.9 | *4967.9* | 5368.8 | 5270.9 | 4671.8 | 3122.9 |
| 75° | 164.0 | 166.3 | 214.1 | 302.9 | 567.2 | 1555.7 | *3159.3* | 3696.9 | 4514.6 | 3883.7 | 2337.0 |
| 77.5° | 127.6 | 127.6 | 145.8 | 173.1 | 234.6 | 503.4 | *1615.0* | 2075.1 | 2917.9 | 2405.4 | 1113.9 |
| 80° | 93.4 | 95.7 | 97.9 | 113.9 | 143.5 | 189.1 | *480.6* | 719.8 | 1063.7 | 772.2 | 362.2 |
| 82.5° | 66.1 | 66.1 | 63.8 | 63.8 | 77.4 | 84.3 | *129.8* | 182.2 | 312.1 | 211.8 | 95.7 |
| 85° | 27.3 | 31.9 | 27.3 | 27.3 | 27.3 | 34.2 | *41.0* | 47.8 | 68.3 | 59.2 | 41.0 |
| 87.5° | 4.6 | 4.6 | 4.6 | 6.8 | 9.1 | 11.4 | *13.7* | 15.9 | 18.2 | 18.2 | 18.2 |
| 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: P1359996
CATALOG NUMBER: GSS-SB2B-735-U-T3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 | 1583.1 |
| 2.5° | 1589.9 | 1589.9 | 1583.1 | 1571.7 | 1567.1 | 1560.3 | 1558.0 | 1555.7 | 1551.2 | 1560.3 | 1555.7 |
| 5° | 1599.0 | 1589.9 | 1580.8 | 1562.6 | 1560.3 | 1548.9 | 1537.5 | 1535.2 | 1528.4 | 1535.2 | 1535.2 |
| 7.5° | 1619.5 | 1605.9 | 1585.4 | 1567.1 | 1551.2 | 1548.9 | 1528.4 | 1510.2 | 1510.2 | 1512.5 | 1510.2 |
| 10° | 1656.0 | 1640.0 | 1619.5 | 1585.4 | 1555.7 | 1528.4 | 1494.2 | 1471.5 | 1473.7 | 1473.7 | 1469.2 |
| 12.5° | 1703.8 | 1681.0 | 1644.6 | 1594.5 | 1548.9 | 1505.6 | 1464.6 | 1457.8 | 1455.5 | 1460.1 | 1446.4 |
| 15° | 1740.2 | 1719.7 | 1660.5 | 1603.6 | 1533.0 | 1489.7 | 1446.4 | 1430.5 | 1432.7 | 1428.2 | 1416.8 |
| 17.5° | 1785.8 | 1753.9 | 1681.0 | 1596.7 | 1514.7 | 1473.7 | 1423.6 | 1389.5 | 1371.2 | 1373.5 | 1371.2 |
| 20° | 1829.1 | 1783.5 | 1697.0 | 1596.7 | 1510.2 | 1437.3 | 1373.5 | 1328.0 | 1289.2 | 1282.4 | 1280.1 |
| 22.5° | 1861.0 | 1815.4 | 1715.2 | 1599.0 | 1482.9 | 1396.3 | 1302.9 | 1243.7 | 1186.7 | 1177.6 | 1175.4 |
| 25° | 1906.5 | 1847.3 | 1735.7 | 1583.1 | 1446.4 | 1328.0 | 1211.8 | 1145.7 | 1095.6 | 1086.5 | 1086.5 |
| 27.5° | 1945.3 | 1881.5 | 1763.0 | 1567.1 | 1387.2 | 1234.6 | 1125.2 | 1059.2 | 1027.3 | 1011.3 | 1011.3 |
| 30° | 1986.3 | 1915.6 | 1785.8 | 1519.3 | 1307.5 | 1141.2 | 1056.9 | 1013.6 | 977.2 | 961.2 | 954.4 |
| 32.5° | 2031.8 | 1972.6 | 1790.4 | 1471.5 | 1227.7 | 1079.7 | 1009.1 | 972.6 | 933.9 | 911.1 | 908.8 |
| 35° | 2088.8 | 2045.5 | 1774.4 | 1400.9 | 1148.0 | 1031.8 | 963.5 | 922.5 | 883.8 | 861.0 | 865.6 |
| 37.5° | 2179.9 | 2129.8 | 1726.6 | 1300.6 | 1082.0 | 1002.2 | 927.1 | 867.8 | 822.3 | 785.8 | 788.1 |
| 40° | 2314.3 | 2232.3 | 1656.0 | 1179.9 | 1034.1 | 968.1 | 883.8 | 815.5 | 749.4 | 694.7 | 694.7 |
| 42.5° | 2466.9 | 2323.4 | 1569.4 | 1068.3 | 997.7 | 924.8 | 838.2 | 751.7 | 658.3 | 601.3 | 599.1 |
| 45° | 2637.7 | 2403.1 | 1469.2 | 977.2 | 938.5 | 872.4 | 779.0 | 656.0 | 594.5 | 564.9 | 562.6 |
| 47.5° | 2865.5 | 2489.6 | 1350.7 | 897.5 | 870.1 | 820.0 | 690.2 | 601.3 | 564.9 | 542.1 | 539.8 |
| 50° | 3079.6 | 2583.0 | 1252.8 | 820.0 | 797.2 | 758.5 | 628.7 | 578.6 | 549.0 | 530.7 | 526.2 |
| 52.5° | 3327.9 | 2678.7 | 1143.5 | 744.8 | 715.2 | 662.8 | 615.0 | 567.2 | 539.8 | 526.2 | 521.6 |
| 55° | 3573.9 | 2813.1 | 1022.7 | 676.5 | 642.3 | 619.6 | 601.3 | 560.3 | 533.0 | 523.9 | 517.1 |
| 57.5° | 3854.1 | 2942.9 | 874.7 | 603.6 | 590.0 | 587.7 | 599.1 | 558.1 | 535.3 | 519.3 | 510.2 |
| 60° | 3999.8 | 2999.9 | 719.8 | 537.6 | 539.8 | 553.5 | 590.0 | 558.1 | 521.6 | 494.3 | 482.9 |
| 62.5° | 3949.7 | 2883.7 | 569.5 | 471.5 | 492.0 | 517.1 | 574.0 | 537.6 | 492.0 | 471.5 | 457.8 |
| 65° | 3749.3 | 2685.5 | 444.2 | 414.6 | 448.7 | 471.5 | 535.3 | 508.0 | 462.4 | 441.9 | 439.6 |
| 67.5° | *3460.0* | *2341.6* | *359.9* | *364.5* | *398.6* | *428.2* | *501.1* | *489.7* | *437.3* | *423.7* | *423.7* |
| 70° | 2908.8 | 1881.5 | 296.1 | 318.9 | 348.5 | 380.4 | 476.1 | 460.1 | 405.5 | 398.6 | 398.6 |
| 72.5° | 2273.3 | 1328.0 | 252.8 | 280.2 | 289.3 | 334.8 | 441.9 | 426.0 | 394.1 | 410.0 | 412.3 |
| 75° | 1603.6 | 808.6 | 216.4 | 236.9 | 246.0 | 275.6 | 410.0 | 416.8 | 387.2 | 439.6 | 448.7 |
| 77.5° | 728.9 | 355.3 | 168.6 | 186.8 | 198.2 | 234.6 | 353.1 | 387.2 | 334.8 | 334.8 | 316.6 |
| 80° | 255.1 | 150.3 | 134.4 | 134.4 | 143.5 | 182.2 | 293.8 | 318.9 | 268.8 | 236.9 | 227.8 |
| 82.5° | 93.4 | 82.0 | 100.2 | 100.2 | 91.1 | 111.6 | 195.9 | 211.8 | 193.6 | 168.6 | 166.3 |
| 85° | 36.4 | 38.7 | 61.5 | 61.5 | 45.6 | 54.7 | 109.3 | 113.9 | 109.3 | 95.7 | 95.7 |
| 87.5° | 15.9 | 15.9 | 18.2 | 18.2 | 15.9 | 13.7 | 20.5 | 20.5 | 13.7 | 9.1 | 4.6 |
| 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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# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-5

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-735-U-5WQ

Data in this report applies to families of products including GSS-SB1A-735-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

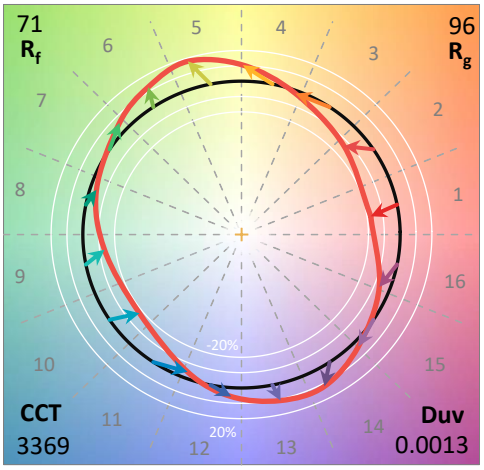
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-5 |
| 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-735-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3500K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3369 |
| CIE u': | 0.2386 |
| CIE v': | 0.5156 |
| Duv: | 0.0013 |
| CIE x: | 0.4143 |
| CIE y: | 0.3980 |
| CIE z: | 0.1877 |
| Peak Wavelength (nm): | 590 |
| Dominant Wavelength (nm): | 580 |
| Purity: | 43.80166 |
| Rf: | 71.4 |
| Rg: | 96 |

| | |
|---|---|
| CRI (Ra): | 70.1 |
| R1: | 66.6 |
| R2: | 77.6 |
| R3: | 88.5 |
| R4: | 69.5 |
| R5: | 66.4 |
| R6: | 69.6 |
| R7: | 77.5 |
| R8: | 44.9 |
| R9: | -40.2 |
| R10: | 49.1 |
| R11: | 66.3 |
| R12: | 45.7 |
| R13: | 68.0 |
| R14: | 93.4 |
| R15: | 57.6 |




## Test Conditions

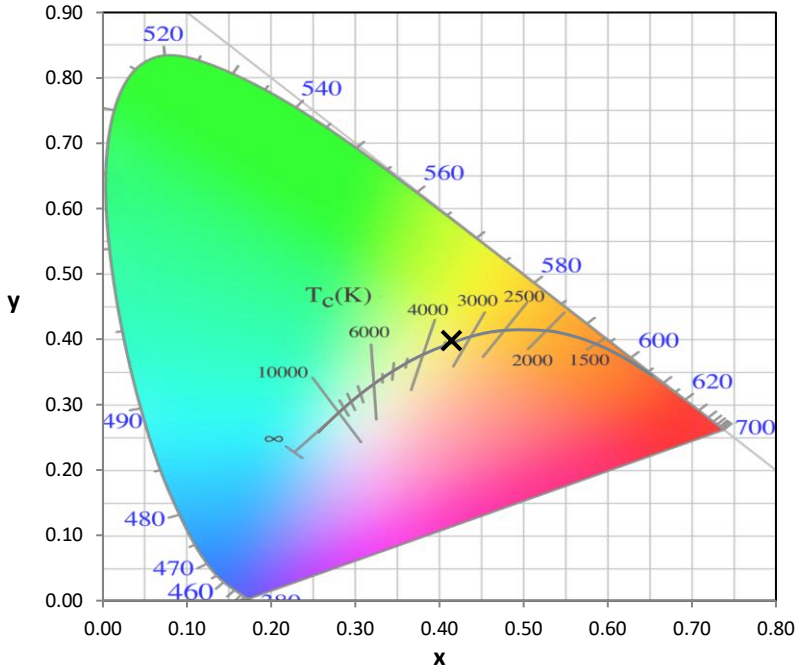
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-5

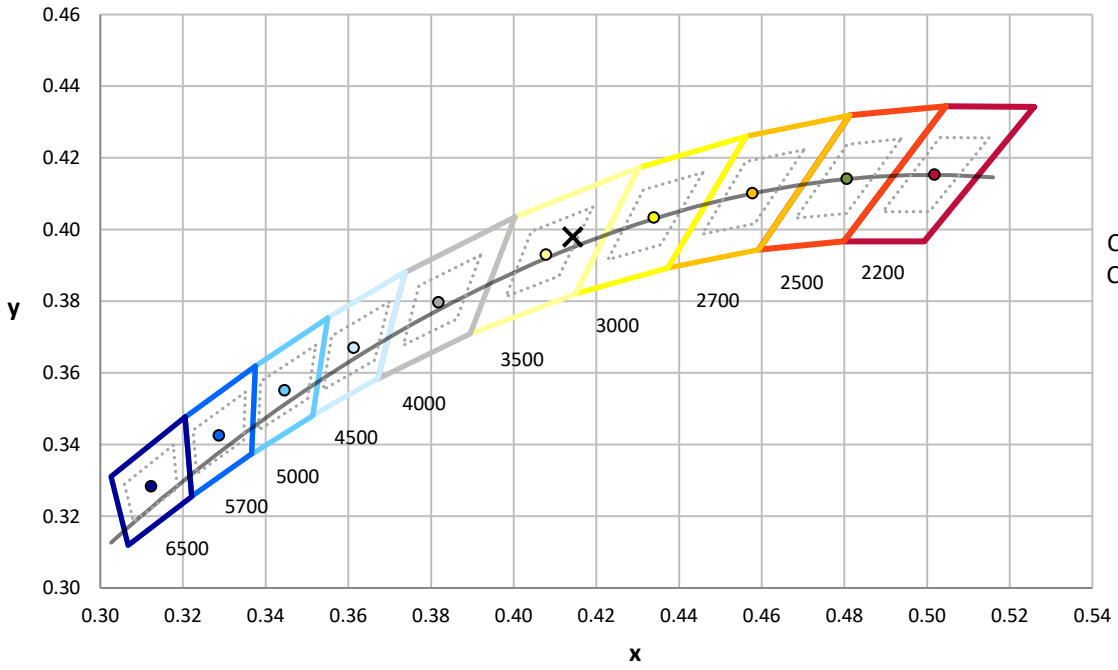
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

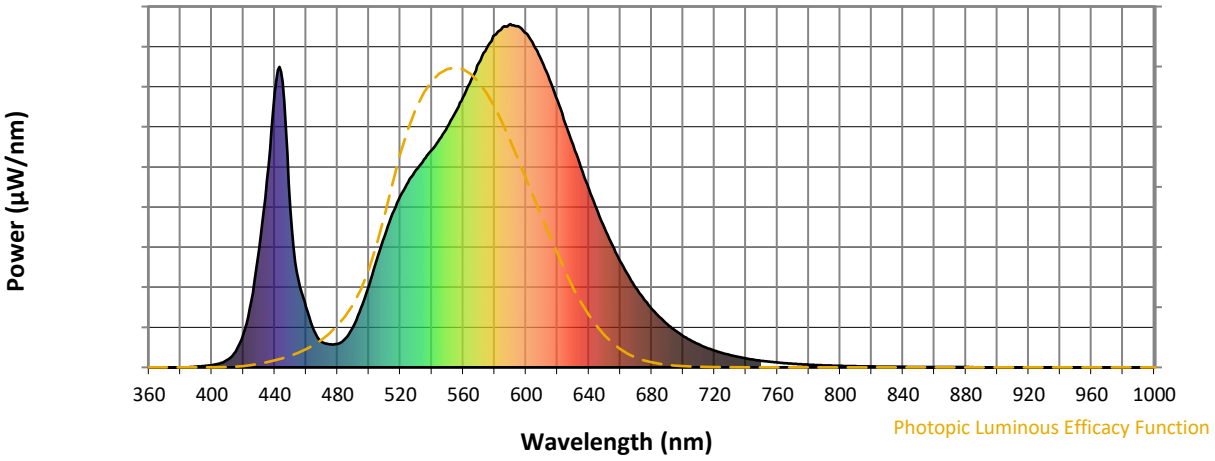



CCT = 3369K
CIE x = 0.4143
CIE y = 0.3980
Duv = 0.0013

Point lies inside the ANSI 3500K 4-step quadrangle

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## Photopic Flux vs. Wavelength

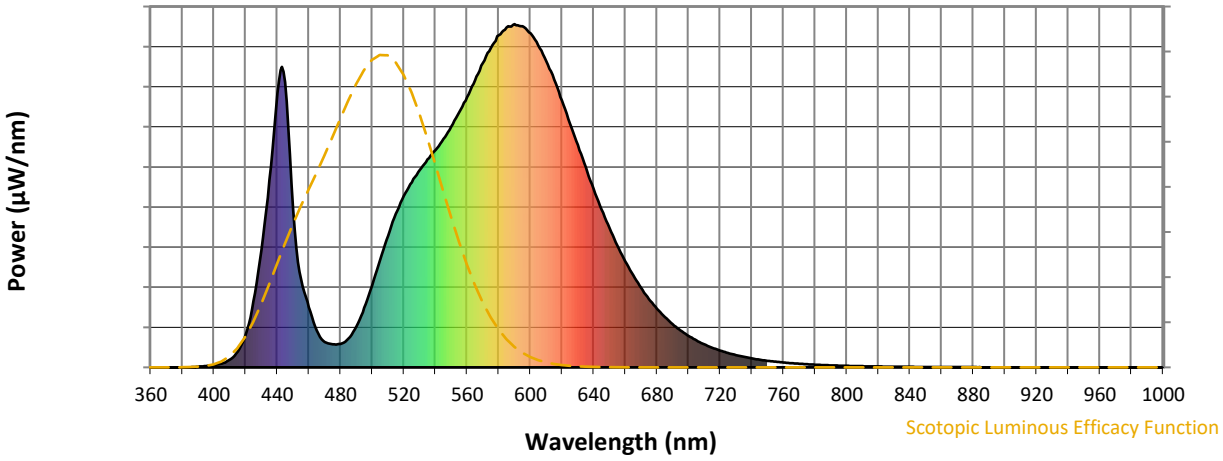



## Photopic Lumens: NR

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

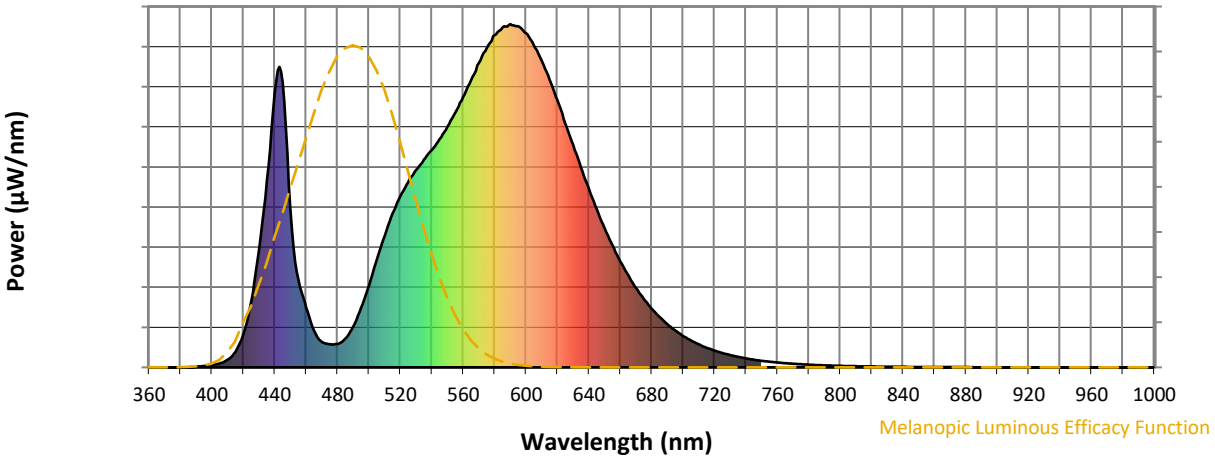



**Scotopic Lumens: NR** **S/P: 1.29**

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.36**

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

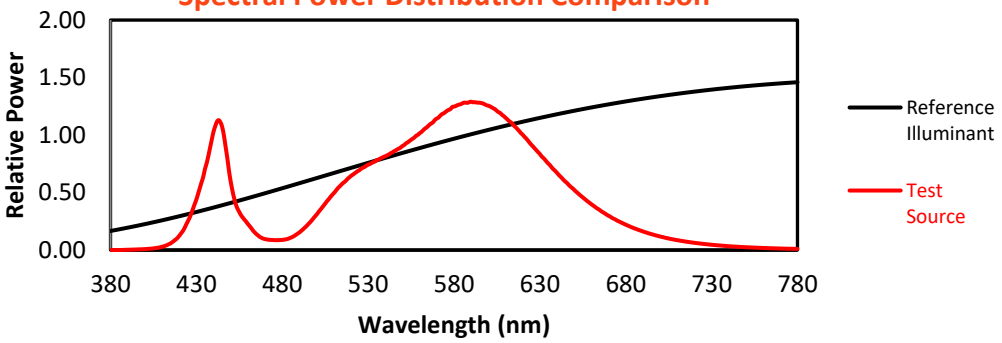
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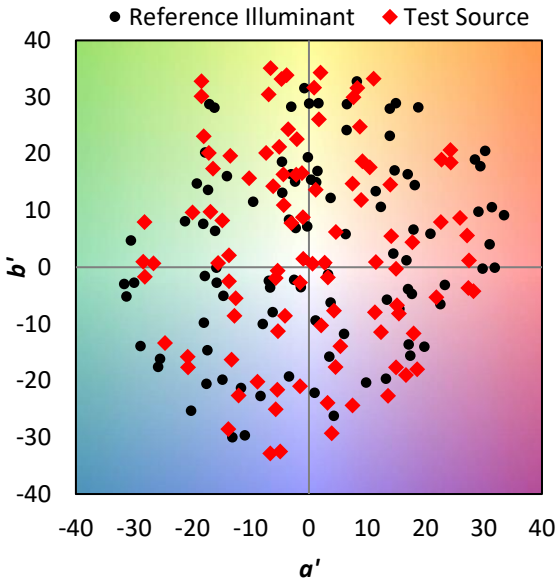
## Summary

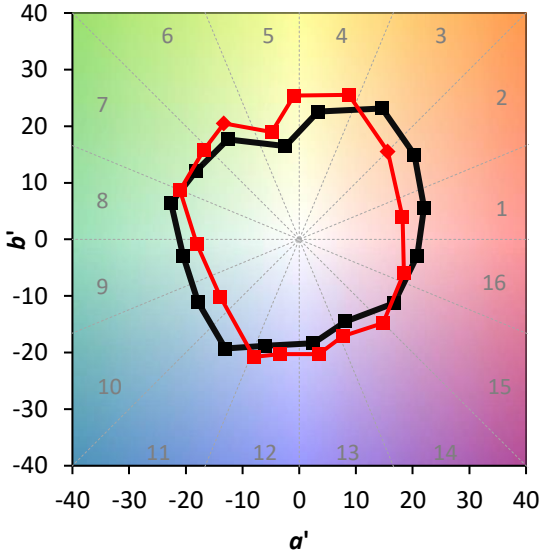
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

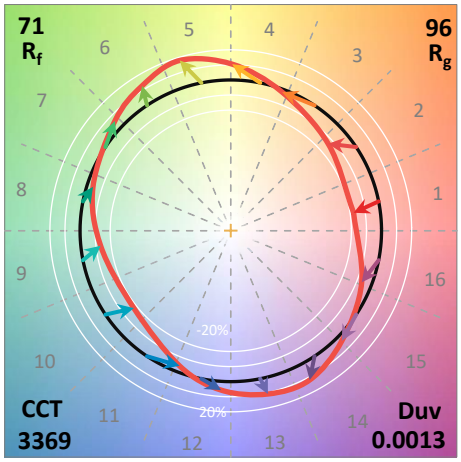
## Spectral Power Distribution Comparison

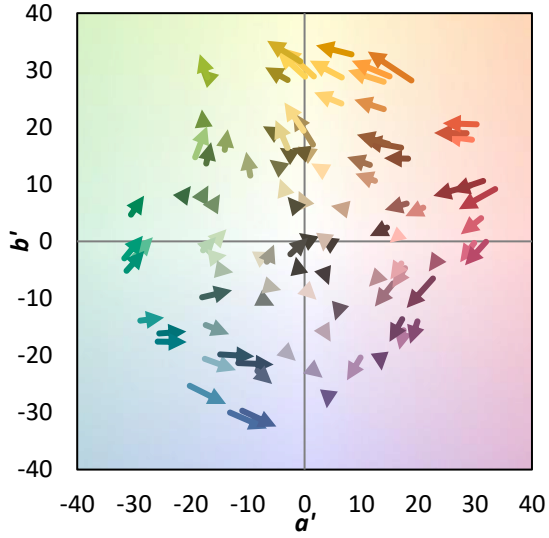



## Color Vector Graphics



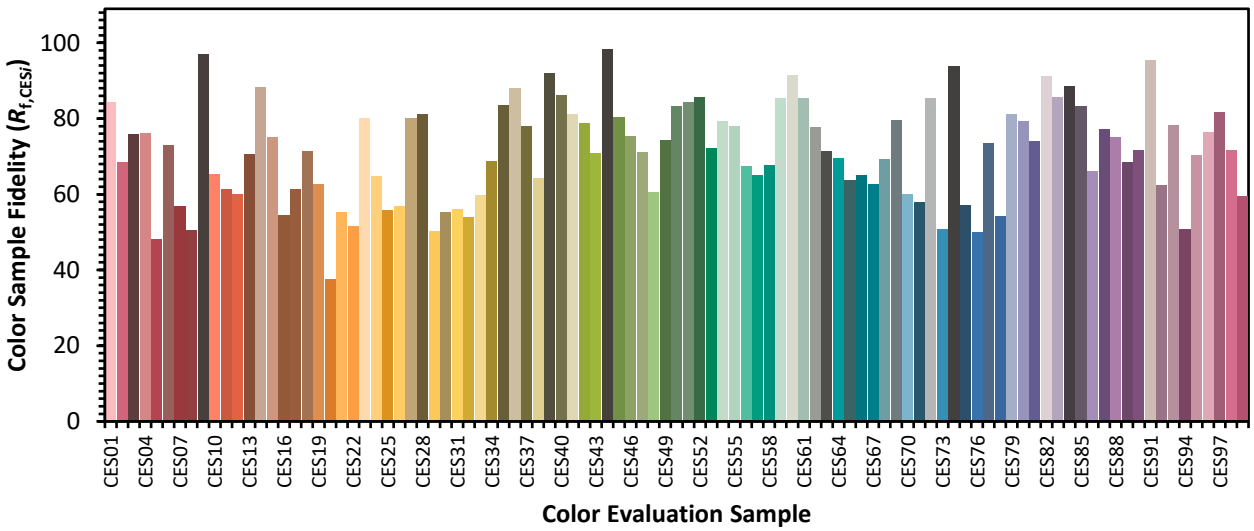



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## Individual Sample Fidelity Index ($R_{f,i}$)

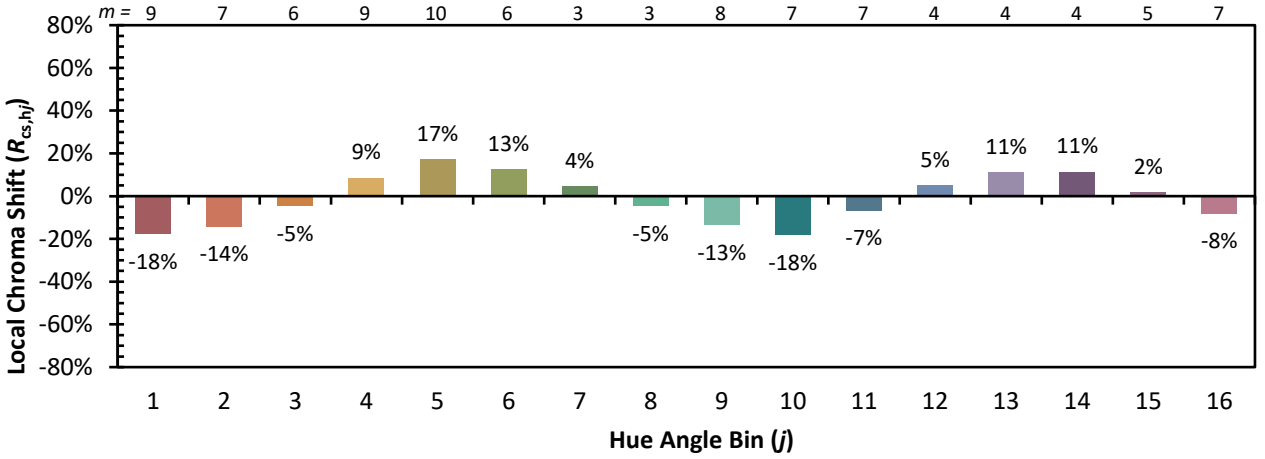
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 57 | CES51 = 84 | CES76 = 50 |
| CES02 = 62 | CES27 = 80 | CES52 = 86 | CES77 = 74 |
| CES03 = 31 | CES28 = 81 | CES53 = 72 | CES78 = 54 |
| CES04 = 70 | CES29 = 50 | CES54 = 79 | CES79 = 81 |
| CES05 = 48 | CES30 = 55 | CES55 = 78 | CES80 = 79 |
| CES06 = 51 | CES31 = 56 | CES56 = 67 | CES81 = 74 |
| CES07 = 40 | CES32 = 54 | CES57 = 65 | CES82 = 91 |
| CES08 = 39 | CES33 = 60 | CES58 = 68 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 85 | CES84 = 89 |
| CES10 = 75 | CES35 = 83 | CES60 = 91 | CES85 = 83 |
| CES11 = 58 | CES36 = 88 | CES61 = 85 | CES86 = 66 |
| CES12 = 64 | CES37 = 78 | CES62 = 78 | CES87 = 77 |
| CES13 = 43 | CES38 = 64 | CES63 = 71 | CES88 = 75 |
| CES14 = 74 | CES39 = 92 | CES64 = 70 | CES89 = 68 |
| CES15 = 71 | CES40 = 86 | CES65 = 64 | CES90 = 72 |
| CES16 = 47 | CES41 = 81 | CES66 = 65 | CES91 = 95 |
| CES17 = 50 | CES42 = 79 | CES67 = 63 | CES92 = 62 |
| CES18 = 56 | CES43 = 71 | CES68 = 69 | CES93 = 78 |
| CES19 = 72 | CES44 = 98 | CES69 = 80 | CES94 = 51 |
| CES20 = 65 | CES45 = 80 | CES70 = 60 | CES95 = 70 |
| CES21 = 87 | CES46 = 75 | CES71 = 58 | CES96 = 76 |
| CES22 = 79 | CES47 = 71 | CES72 = 85 | CES97 = 82 |
| CES23 = 92 | CES48 = 61 | CES73 = 51 | CES98 = 72 |
| CES24 = 91 | CES49 = 74 | CES74 = 94 | CES99 = 60 |
| CES25 = 72 | CES50 = 83 | CES75 = 57 | |

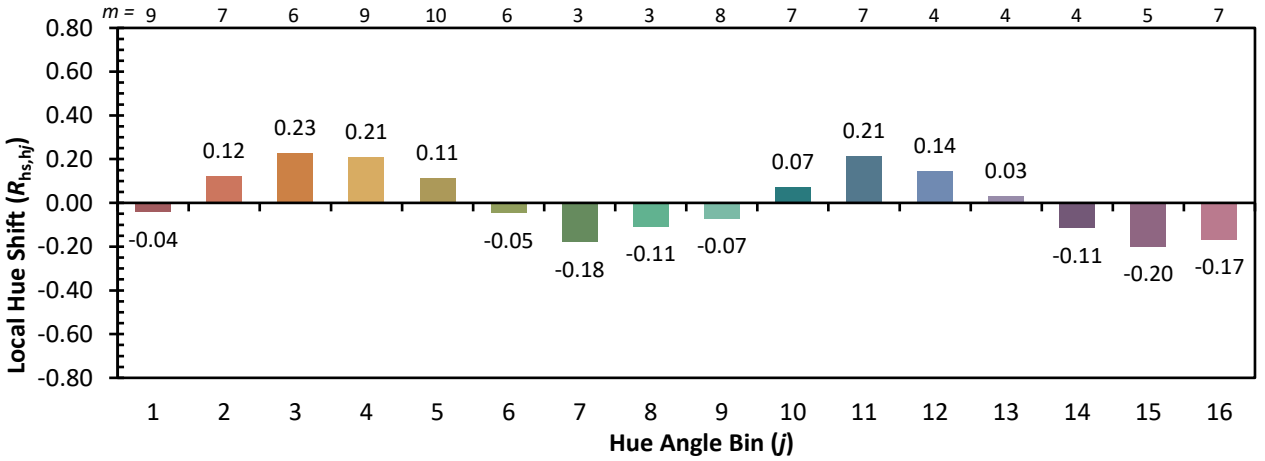


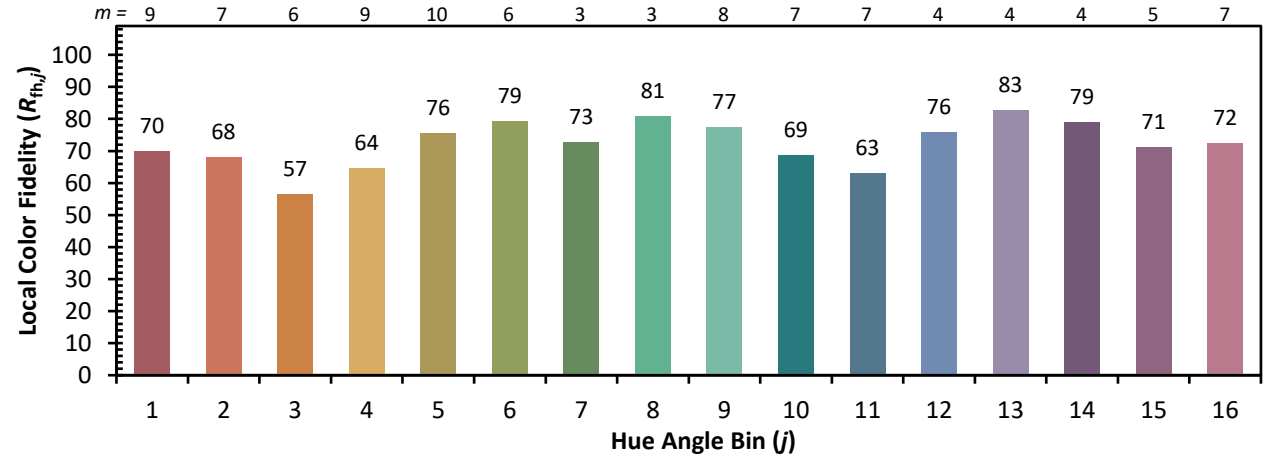
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## Color Rendition by Hue-Angle Bin



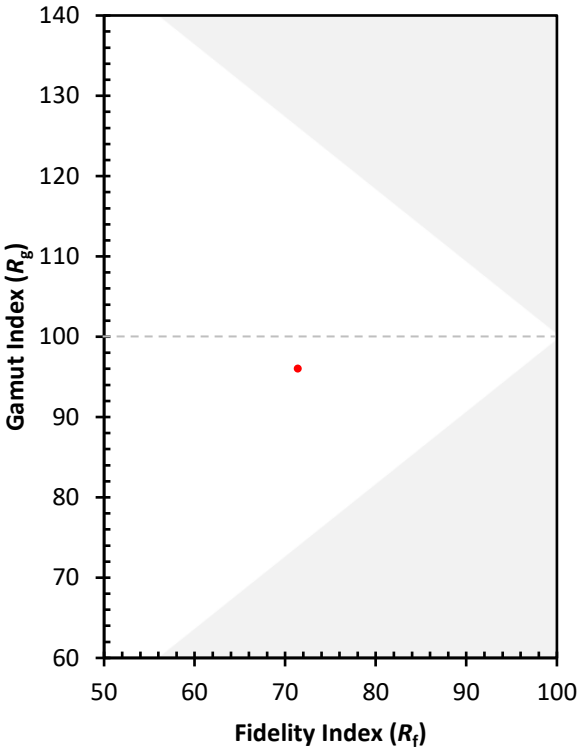



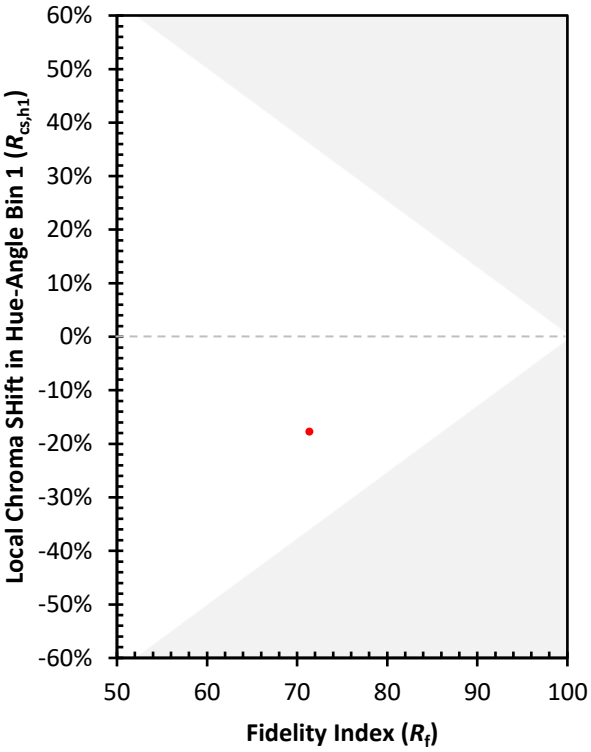



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## Measure Comparisons




(END OF REPORT)