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: P1363765

Luminaire Tested: **GSS-SB2C-722-U-SL3-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: | P1363765 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB2C-722-U-SL3-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 2SQUARE 102W 70CRI 2200K FIXTURE w/ TYPE III SPILL CONTROL DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (52) 2200K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 8135.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 79.8 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B1 - U0 - G2 |

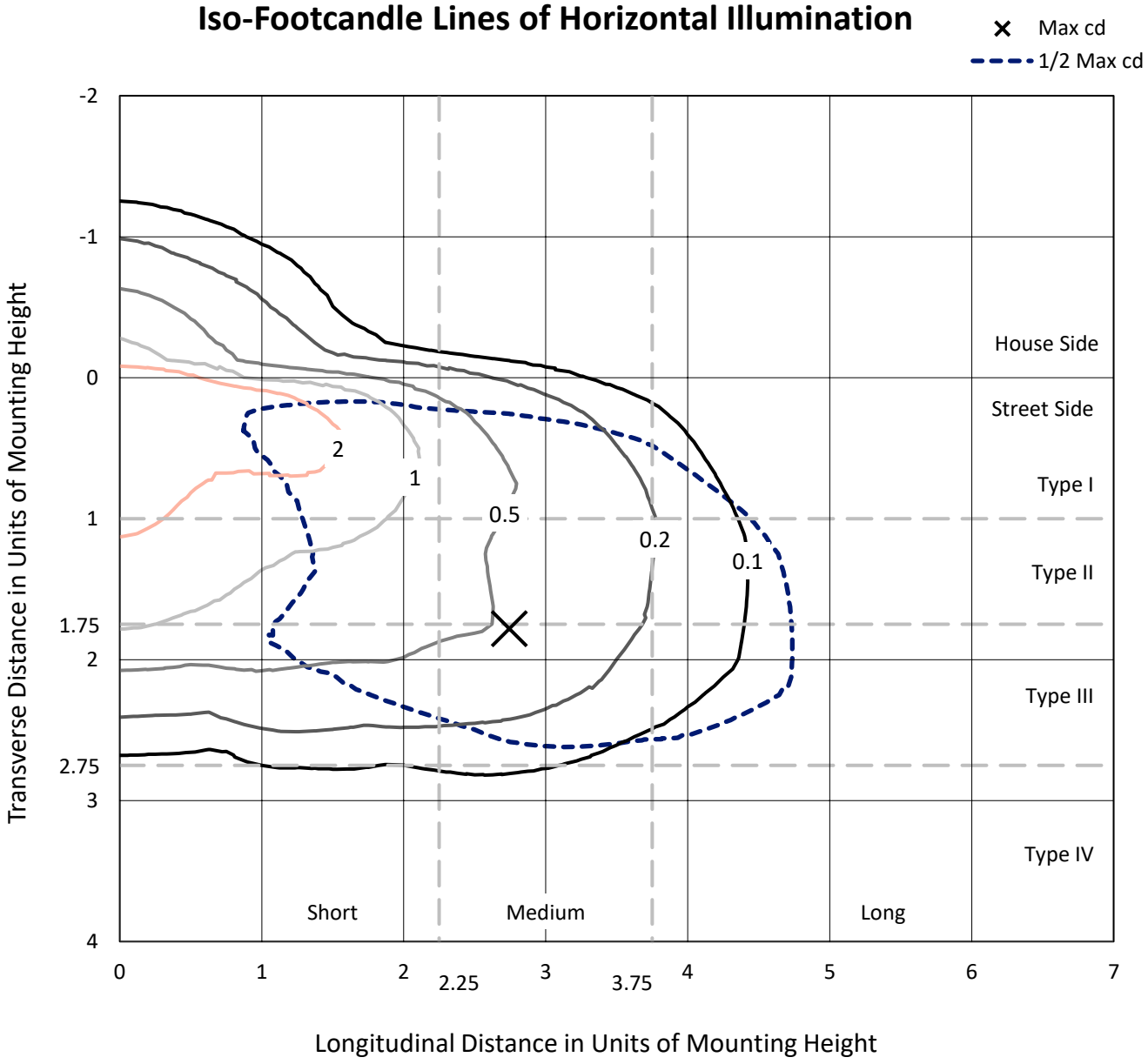
| | |
|---|---|
| Input Watts (W): | 102 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 9.5% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1363765
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## Iso-Footcandle Lines of Horizontal Illumination



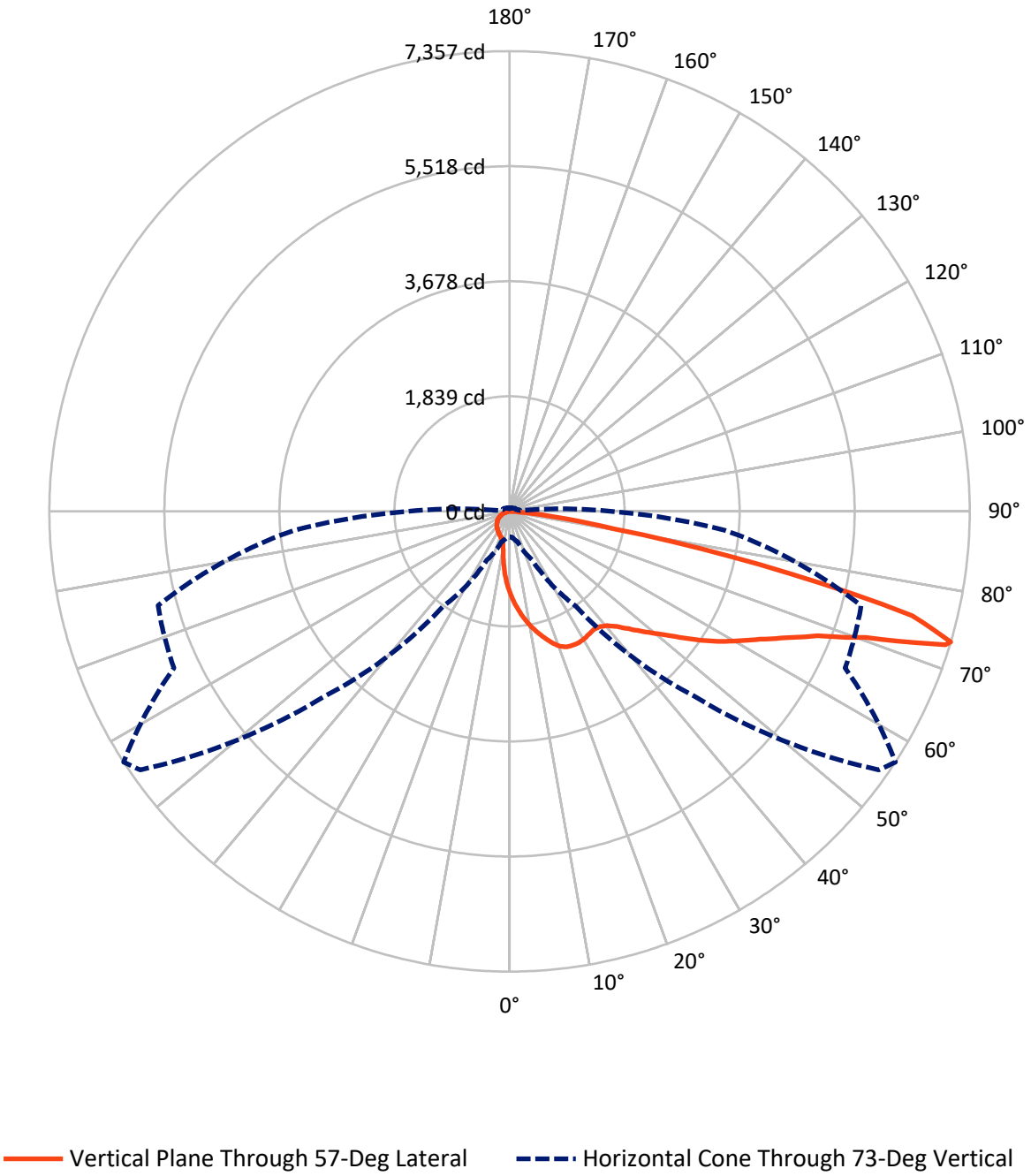

Based on 20 foot mounting height. Maximum calculated value = 4.8 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

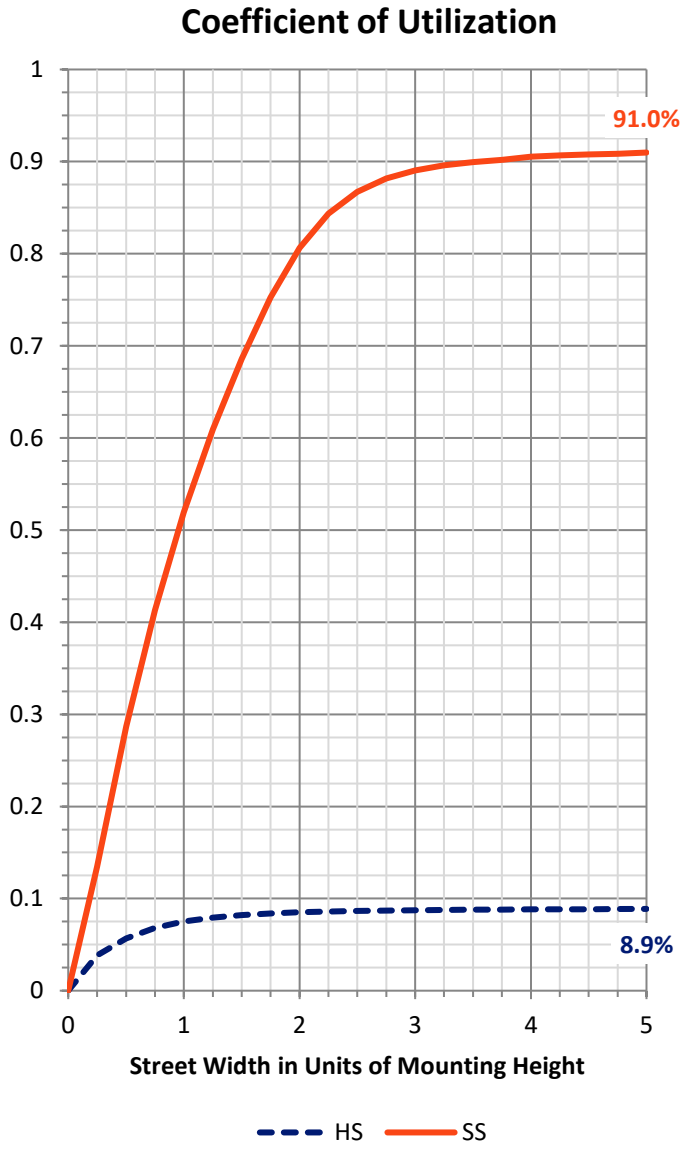
REPORT NUMBER: P1363765
CATALOG NUMBER: GSS-SB2C-722-U-SL3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 728.7 | 0.0 | 728.7 |
| | % Fixture | 9.0 | 0.0 | 9.0 |
| **Street Side** | Lumens | 7406.5 | 0.0 | 7406.5 |
| | % Fixture | 91.0 | 0.0 | 91.0 |
| **Total** | Lumens | 8135.2 | 0.0 | 8135.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 121.3 | 1.5 |
| 10°-20° | 347.9 | 4.3 |
| 20°-30° | 528.1 | 6.5 |
| 30°-40° | 764.8 | 9.4 |
| 40°-50° | 1142.1 | 14.0 |
| 50°-60° | 1653.7 | 20.3 |
| 60°-70° | 2003.4 | 24.6 |
| 70°-80° | 1446.9 | 17.8 |
| 80°-90° | 126.9 | 1.6 |
| 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° | 8135.2 | 100.0 |
| 0°-180° | 8135.2 | 100.0 |



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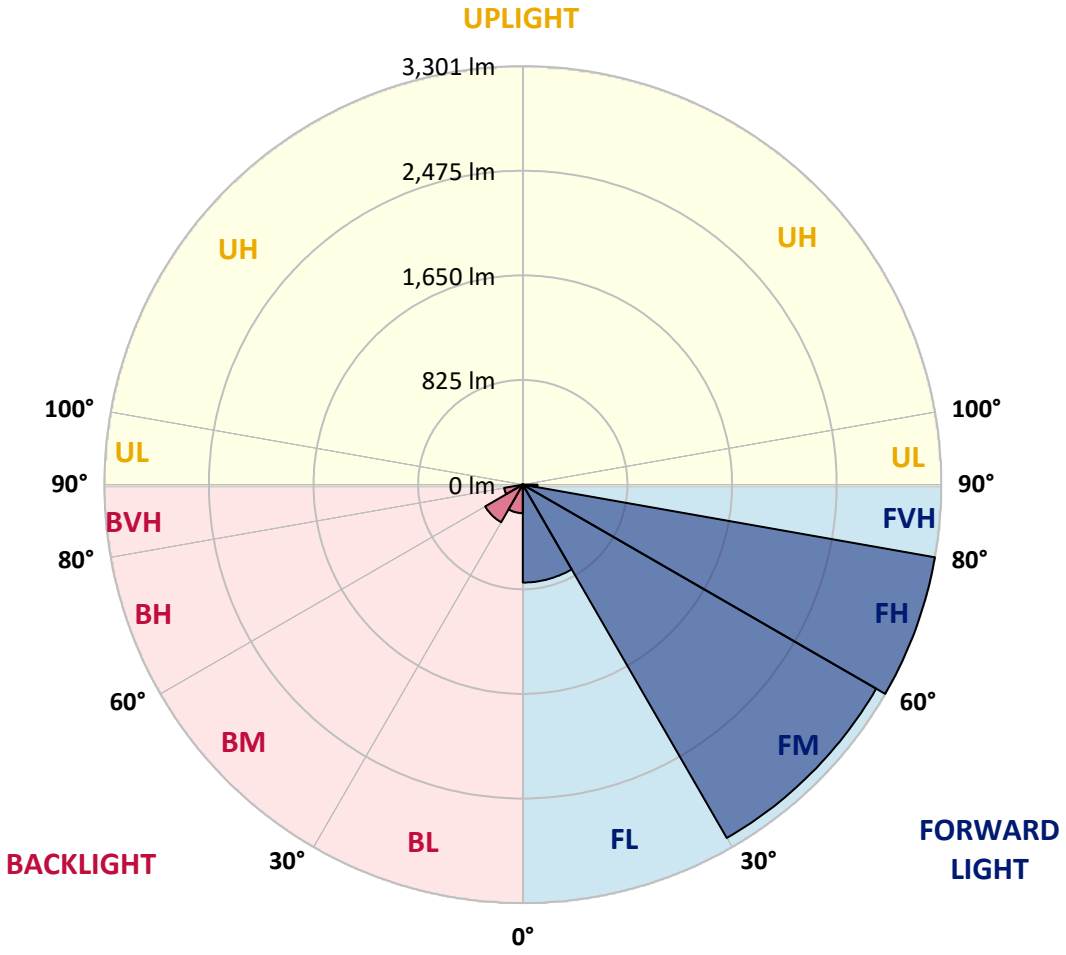
Scaled Data Report

REPORT NUMBER: P1363765
CATALOG NUMBER: GSS-SB2C-722-U-SL3-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 772.1 | 9.5 | | | |
| FM | (30°-60°) | 3217.9 | 39.6 | | | |
| FH | (60°-80°) | 3300.7 | 40.6 | | | G2/5000 |
| FVH | (80°-90°) | 115.9 | 1.4 | | | G2/225 |
| BL | (0°-30°) | 225.3 | 2.8 | B1/500 | | |
| BM | (30°-60°) | 342.7 | 4.2 | B1/1000 | | |
| BH | (60°-80°) | 149.7 | 1.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 11.0 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G2**
Type III Medium



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REPORT NUMBER: P1363765
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | *1308.7* | 1308.7 | 1308.7 | 1308.7 |
| 2.5° | 1573.6 | 1578.9 | 1560.4 | 1549.8 | 1528.6 | 1494.1 | 1459.7 | *1459.7* | 1419.9 | 1382.9 | 1335.2 |
| 5° | 1806.7 | 1790.8 | 1782.9 | 1756.4 | 1716.7 | 1674.3 | 1613.3 | *1597.4* | 1533.9 | 1454.4 | 1359.0 |
| 7.5° | 1984.2 | 1965.7 | 1957.7 | 1933.9 | 1888.8 | 1833.2 | 1751.1 | *1737.8* | 1645.1 | 1528.6 | 1390.8 |
| 10° | 2092.8 | 2079.6 | 2079.6 | 2061.0 | 2026.6 | 1968.3 | 1886.2 | *1867.7* | 1756.4 | 1597.4 | 1412.0 |
| 12.5° | 2045.1 | 2039.8 | 2071.6 | 2114.0 | 2129.9 | 2095.5 | 2008.1 | *1984.2* | 1857.1 | 1674.3 | 1438.5 |
| 15° | 1827.9 | 1822.6 | 1880.9 | 1992.2 | 2127.3 | 2185.6 | 2119.3 | *2098.1* | 1965.7 | 1753.7 | 1465.0 |
| 17.5° | 1618.6 | 1610.7 | 1666.3 | 1777.6 | 1978.9 | 2196.1 | 2235.9 | *2209.4* | 2074.3 | 1833.2 | 1494.1 |
| 20° | 1499.4 | 1491.5 | 1528.6 | 1618.6 | 1801.4 | 2111.4 | 2296.8 | *2302.1* | 2193.5 | 1920.6 | 1523.3 |
| 22.5° | 1457.0 | 1454.4 | 1472.9 | 1533.9 | 1663.7 | 1965.7 | 2320.7 | *2352.4* | 2323.3 | 2021.3 | 1565.6 |
| 25° | 1475.6 | 1465.0 | 1470.3 | 1494.1 | 1586.8 | 1849.1 | 2307.4 | *2368.3* | 2431.9 | 2143.2 | 1621.3 |
| 27.5° | 1523.3 | 1515.3 | 1507.4 | 1507.4 | 1555.1 | 1764.3 | 2273.0 | *2373.6* | 2543.2 | 2275.6 | 1669.0 |
| 30° | 1602.7 | 1592.1 | 1568.3 | 1539.2 | 1555.1 | 1711.4 | 2233.2 | *2360.4* | 2638.6 | 2418.7 | 1735.2 |
| 32.5° | 1782.9 | 1774.9 | 1706.1 | 1613.3 | 1592.1 | 1698.1 | 2188.2 | *2336.6* | 2741.9 | 2588.2 | 1812.0 |
| 35° | 1960.4 | 1952.4 | 1904.7 | 1772.3 | 1655.7 | 1708.7 | 2159.1 | *2320.7* | 2869.0 | 2794.9 | 1902.1 |
| 37.5° | 2039.8 | 2026.6 | 1989.5 | 1918.0 | 1804.1 | 1769.6 | 2167.0 | *2339.2* | 3051.8 | 3022.7 | 2013.4 |
| 40° | 2140.5 | 2119.3 | 2063.7 | 1997.5 | 1947.1 | 1910.0 | 2230.6 | *2402.8* | 3255.8 | 3285.0 | 2135.2 |
| 42.5° | 2288.9 | 2265.0 | 2182.9 | 2090.2 | 2031.9 | 2106.1 | 2352.4 | *2516.7* | 3507.5 | 3576.4 | 2283.6 |
| 45° | 2492.9 | 2461.1 | 2355.1 | 2233.2 | 2161.7 | 2204.1 | 2516.7 | *2678.3* | 3788.3 | 3907.5 | 2455.8 |
| 47.5° | 2678.3 | 2670.3 | 2551.1 | 2410.7 | 2326.0 | 2270.3 | 2694.2 | *2866.4* | 4085.0 | 4278.4 | 2633.3 |
| 50° | 2853.1 | 2824.0 | 2707.4 | 2569.7 | 2498.2 | 2405.4 | 2890.2 | *3075.7* | 4381.7 | 4617.5 | 2824.0 |
| 52.5° | 3043.9 | 3012.1 | 2853.1 | 2696.8 | 2625.3 | 2604.1 | 3144.5 | *3324.7* | 4641.3 | 4975.1 | 3017.4 |
| 55° | 3192.2 | 3147.2 | 2972.4 | 2842.5 | 2728.6 | 2800.2 | 3417.4 | *3624.0* | 4871.8 | 5298.3 | 3213.4 |
| 57.5° | 3377.7 | 3319.4 | 3070.4 | 2975.0 | 2887.6 | 2998.8 | 3724.7 | *3923.4* | 5112.9 | 5571.2 | 3409.5 |
| 60° | 3539.3 | 3494.2 | 3253.2 | 3133.9 | 3051.8 | 3224.0 | 4024.1 | *4198.9* | 5301.0 | 5804.3 | 3589.6 |
| 62.5° | 3046.5 | 3041.2 | 3104.8 | 3462.4 | 3340.6 | 3565.8 | 4344.6 | *4498.3* | 5414.9 | 5960.6 | 3663.8 |
| 65° | 2161.7 | 2177.6 | 2355.1 | 3467.7 | 3902.2 | 4138.0 | 4765.8 | *4866.5* | 5420.2 | 5783.1 | 3518.1 |
| 67.5° | 1374.9 | 1359.0 | 1578.9 | 2903.5 | 3923.4 | 5266.5 | 5406.9 | *5306.3* | 5176.4 | 5592.4 | 3536.6 |
| 70° | 823.9 | 829.2 | 903.4 | 2106.1 | 3234.6 | 5523.5 | 6302.3 | *6042.7* | 5322.1 | 5732.8 | 3552.5 |
| 72.5° | 447.7 | 458.3 | 564.3 | 1033.2 | 2143.2 | 4394.9 | 7250.7 | *7287.8* | 5820.2 | 5799.0 | 3491.6 |
| 73° | *408.0* | *410.6* | *506.0* | *863.6* | *1854.4* | *4177.7* | *7205.7* | *7356.7* | *5920.9* | *5817.5* | *3451.8* |
| 75° | 270.2 | 270.2 | 344.4 | 490.1 | 813.3 | 3247.9 | 5981.8 | *6649.4* | 6262.6 | 5626.8 | 3141.9 |
| 77.5° | 166.9 | 177.5 | 238.4 | 339.1 | 296.7 | 1634.5 | 3518.1 | *4069.1* | 5584.4 | 4233.3 | 1973.6 |
| 80° | 60.9 | 66.2 | 148.4 | 222.5 | 172.2 | 619.9 | 1475.6 | *1692.8* | 2588.2 | 2148.5 | 712.6 |
| 82.5° | 31.8 | 34.4 | 92.7 | 113.9 | 92.7 | 161.6 | 659.6 | *704.7* | 1043.8 | 559.0 | 132.5 |
| 85° | 15.9 | 18.5 | 39.7 | 47.7 | 37.1 | 53.0 | 164.2 | *153.7* | 235.8 | 74.2 | 37.1 |
| 87.5° | 0.0 | 0.0 | 2.6 | 5.3 | 7.9 | 10.6 | 15.9 | *15.9* | 18.5 | 21.2 | 21.2 |
| 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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Scaled Data Report

REPORT NUMBER: P1363765
CATALOG NUMBER: GSS-SB2C-722-U-SL3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 | 1308.7 |
| 2.5° | 1306.0 | 1284.8 | 1234.5 | 1184.2 | 1147.1 | 1107.3 | 1070.3 | 1038.5 | 1019.9 | 1012.0 | 1019.9 |
| 5° | 1308.7 | 1263.6 | 1160.3 | 1057.0 | 956.3 | 874.2 | 797.4 | 741.8 | 702.0 | 688.8 | 683.5 |
| 7.5° | 1308.7 | 1234.5 | 1072.9 | 903.4 | 755.0 | 646.4 | 569.6 | 535.1 | 516.6 | 513.9 | 513.9 |
| 10° | 1306.0 | 1200.1 | 974.9 | 752.4 | 582.8 | 508.6 | 484.8 | 479.5 | 479.5 | 479.5 | 482.1 |
| 12.5° | 1303.4 | 1168.3 | 863.6 | 606.7 | 490.1 | 466.3 | 458.3 | 458.3 | 461.0 | 463.6 | 466.3 |
| 15° | 1298.1 | 1120.6 | 747.1 | 506.0 | 455.7 | 447.7 | 442.4 | 442.4 | 445.1 | 450.4 | 450.4 |
| 17.5° | 1292.8 | 1072.9 | 633.1 | 461.0 | 439.8 | 431.8 | 429.2 | 426.5 | 431.8 | 437.1 | 437.1 |
| 20° | 1282.2 | 1012.0 | 537.8 | 437.1 | 423.9 | 418.6 | 415.9 | 413.3 | 415.9 | 421.2 | 423.9 |
| 22.5° | 1268.9 | 935.2 | 474.2 | 421.2 | 410.6 | 402.7 | 400.0 | 397.4 | 397.4 | 408.0 | 408.0 |
| 25° | 1255.7 | 850.4 | 437.1 | 405.3 | 394.7 | 386.8 | 381.5 | 378.8 | 381.5 | 389.4 | 389.4 |
| 27.5° | 1229.2 | 757.7 | 413.3 | 392.1 | 381.5 | 370.9 | 365.6 | 360.3 | 362.9 | 370.9 | 370.9 |
| 30° | 1189.5 | 659.6 | 400.0 | 378.8 | 365.6 | 352.3 | 344.4 | 339.1 | 341.7 | 349.7 | 352.3 |
| 32.5° | 1131.2 | 574.9 | 394.7 | 368.2 | 352.3 | 333.8 | 323.2 | 315.2 | 317.9 | 328.5 | 328.5 |
| 35° | 1070.3 | 513.9 | 392.1 | 357.6 | 336.4 | 317.9 | 299.4 | 288.8 | 294.1 | 304.7 | 307.3 |
| 37.5° | 1006.7 | 479.5 | 392.1 | 352.3 | 325.8 | 302.0 | 275.5 | 264.9 | 267.6 | 278.2 | 280.8 |
| 40° | 951.0 | 463.6 | 394.7 | 347.0 | 312.6 | 283.5 | 254.3 | 241.1 | 246.4 | 259.6 | 257.0 |
| 42.5° | 929.9 | 461.0 | 394.7 | 333.8 | 299.4 | 264.9 | 233.1 | 219.9 | 225.2 | 233.1 | 235.8 |
| 45° | 953.7 | 471.5 | 389.4 | 320.5 | 280.8 | 243.7 | 217.2 | 204.0 | 206.6 | 211.9 | 217.2 |
| 47.5° | 1035.8 | 484.8 | 381.5 | 304.7 | 264.9 | 227.8 | 201.3 | 190.7 | 185.4 | 193.4 | 196.0 |
| 50° | 1149.7 | 492.7 | 368.2 | 288.8 | 251.7 | 211.9 | 188.1 | 174.8 | 169.5 | 172.2 | 174.8 |
| 52.5° | 1279.5 | 492.7 | 355.0 | 272.9 | 238.4 | 196.0 | 177.5 | 164.2 | 153.7 | 156.3 | 156.3 |
| 55° | 1409.3 | 487.4 | 320.5 | 259.6 | 225.2 | 185.4 | 166.9 | 148.4 | 140.4 | 140.4 | 137.8 |
| 57.5° | 1544.5 | 479.5 | 278.2 | 241.1 | 209.3 | 172.2 | 153.7 | 137.8 | 127.2 | 121.9 | 121.9 |
| 60° | 1676.9 | 468.9 | 254.3 | 222.5 | 190.7 | 161.6 | 140.4 | 127.2 | 113.9 | 106.0 | 103.3 |
| 62.5° | 1745.8 | 439.8 | 227.8 | 198.7 | 172.2 | 145.7 | 127.2 | 113.9 | 98.0 | 87.4 | 84.8 |
| 65° | 1708.7 | 378.8 | 196.0 | 177.5 | 156.3 | 129.8 | 113.9 | 100.7 | 82.1 | 68.9 | 68.9 |
| 67.5° | 1748.4 | 317.9 | 166.9 | 151.0 | 135.1 | 111.3 | 95.4 | 87.4 | 71.5 | 60.9 | 60.9 |
| 70° | 1761.7 | 249.0 | 140.4 | 129.8 | 116.6 | 92.7 | 82.1 | 76.8 | 63.6 | 53.0 | 50.3 |
| 72.5° | 1663.7 | 185.4 | 113.9 | 108.6 | 95.4 | 71.5 | 68.9 | 63.6 | 53.0 | 42.4 | 42.4 |
| 73° | *1623.9* | *172.2* | *108.6* | *103.3* | *90.1* | *68.9* | *66.2* | *60.9* | *50.3* | *42.4* | *39.7* |
| 75° | 1430.5 | 132.5 | 90.1 | 84.8 | 71.5 | 58.3 | 55.6 | 50.3 | 42.4 | 34.4 | 34.4 |
| 77.5° | 948.4 | 95.4 | 68.9 | 63.6 | 53.0 | 45.0 | 42.4 | 37.1 | 31.8 | 26.5 | 26.5 |
| 80° | 349.7 | 63.6 | 50.3 | 45.0 | 39.7 | 37.1 | 31.8 | 26.5 | 21.2 | 21.2 | 18.5 |
| 82.5° | 71.5 | 42.4 | 37.1 | 31.8 | 29.1 | 26.5 | 21.2 | 18.5 | 15.9 | 15.9 | 15.9 |
| 85° | 29.1 | 26.5 | 21.2 | 21.2 | 21.2 | 18.5 | 15.9 | 15.9 | 13.2 | 13.2 | 10.6 |
| 87.5° | 18.5 | 15.9 | 15.9 | 13.2 | 13.2 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 |
| 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: SP1-2407-184-2

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-722-U-5WQ

Data in this report applies to families of products including GSS-SB1A-722-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

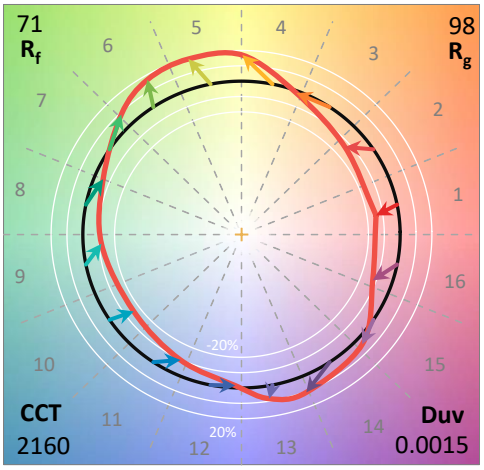
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-2 |
| 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-722-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 2200K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2160 |
| CIE u': | 0.2927 |
| CIE v': | 0.5388 |
| Duv: | 0.0015 |
| CIE x: | 0.5130 |
| CIE y: | 0.4197 |
| CIE z: | 0.0674 |
| Peak Wavelength (nm): | 609 |
| Dominant Wavelength (nm): | 587 |
| Purity: | 79.96089 |
| Rf: | 70.6 |
| Rg: | 97.6 |

| | |
|---|---|
| CRI (Ra): | 71.9 |
| R1: | 68.7 |
| R2: | 82.6 |
| R3: | 95.5 |
| R4: | 66.4 |
| R5: | 65.4 |
| R6: | 75.9 |
| R7: | 77.2 |
| R8: | 43.5 |
| R9: | -17.8 |
| R10: | 60.5 |
| R11: | 60.2 |
| R12: | 48.2 |
| R13: | 70.7 |
| R14: | 96.8 |
| R15: | 61.8 |




## Test Conditions

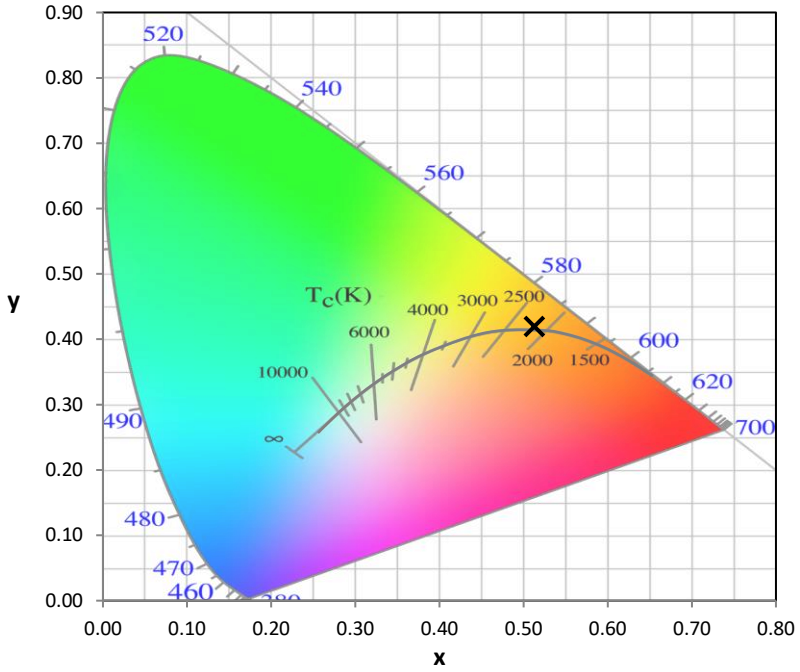
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-2

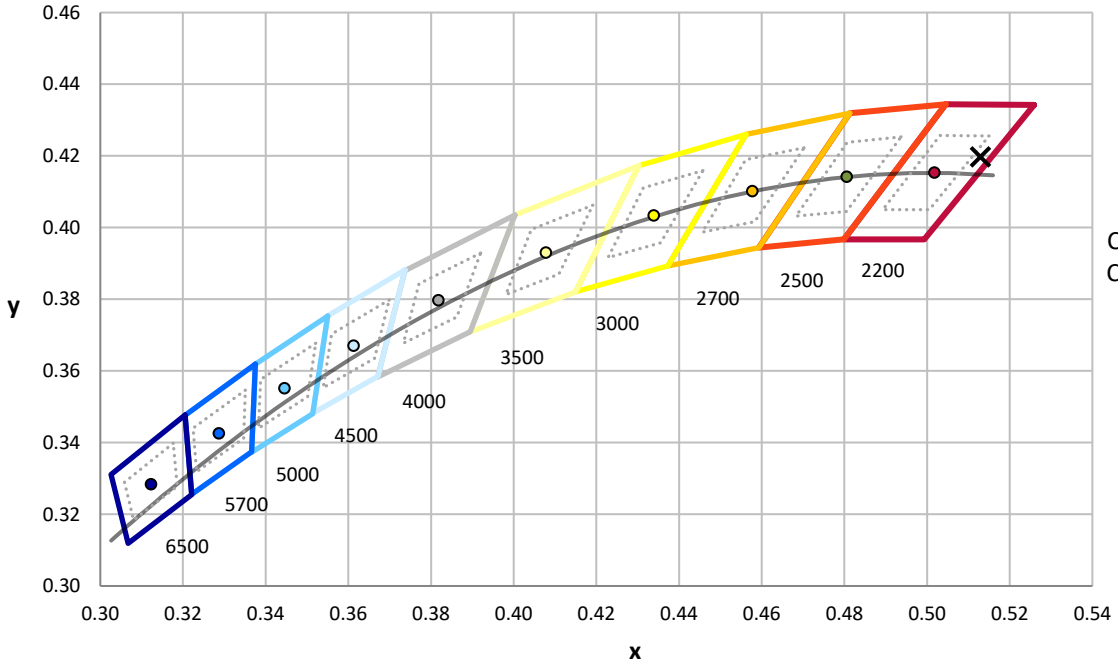
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

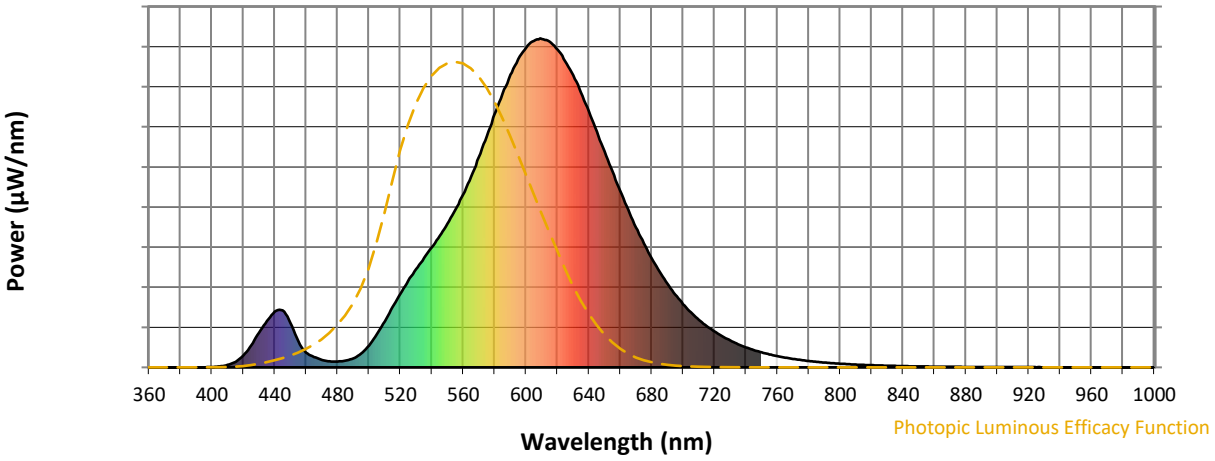



CCT = 2160K
CIE x = 0.5130
CIE y = 0.4197
Duv = 0.0015

Point lies inside the ANSI 2200K 7-step quadrangle

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## Photopic Flux vs. Wavelength

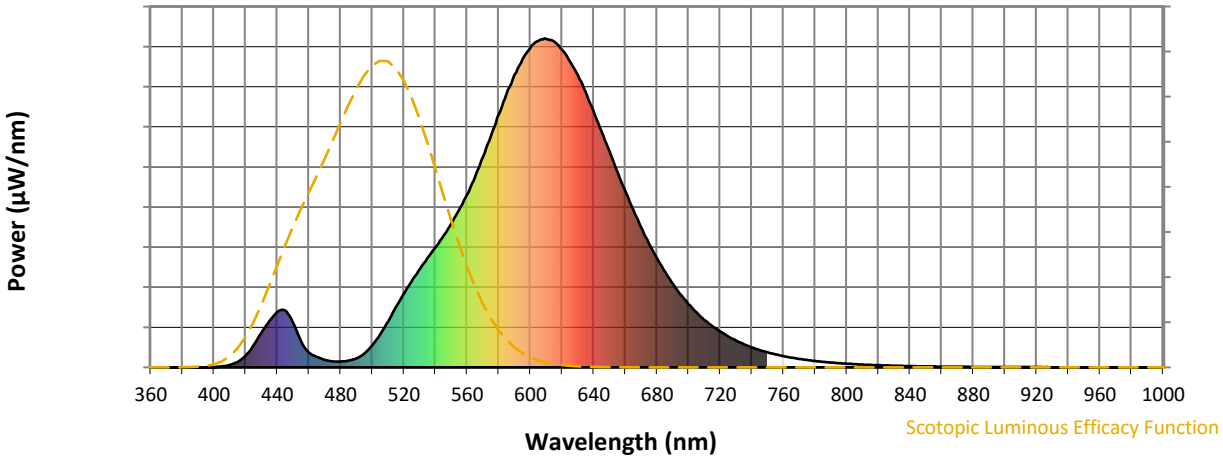



## Photopic Lumens: NR

| 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 | 27 | NR | 620 | 966 | NR | 750 | 46 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 42 | NR | 625 | 930 | NR | 755 | 39 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 67 | NR | 630 | 888 | NR | 760 | 34 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 101 | NR | 635 | 835 | NR | 765 | 30 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 139 | NR | 640 | 778 | NR | 770 | 26 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 183 | NR | 645 | 717 | NR | 775 | 22 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 224 | NR | 650 | 656 | NR | 780 | 19 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 262 | NR | 655 | 595 | NR | 785 | 17 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 299 | NR | 660 | 536 | NR | 790 | 15 | NR | 920 | 1 | NR |
| 405 | 3 | NR | 535 | 332 | NR | 665 | 480 | NR | 795 | 13 | NR | 925 | 1 | NR |
| 410 | 7 | NR | 540 | 365 | NR | 670 | 425 | NR | 800 | 11 | NR | 930 | 1 | NR |
| 415 | 17 | NR | 545 | 400 | NR | 675 | 376 | NR | 805 | 10 | NR | 935 | 0 | NR |
| 420 | 36 | NR | 550 | 437 | NR | 680 | 332 | NR | 810 | 8 | NR | 940 | 0 | NR |
| 425 | 67 | NR | 555 | 479 | NR | 685 | 291 | NR | 815 | 8 | NR | 945 | 0 | NR |
| 430 | 105 | NR | 560 | 525 | NR | 690 | 255 | NR | 820 | 7 | NR | 950 | 0 | NR |
| 435 | 141 | NR | 565 | 579 | NR | 695 | 221 | NR | 825 | 6 | NR | 955 | 0 | NR |
| 440 | 169 | NR | 570 | 639 | NR | 700 | 192 | NR | 830 | 5 | NR | 960 | 0 | NR |
| 445 | 173 | NR | 575 | 703 | NR | 705 | 167 | NR | 835 | 4 | NR | 965 | 0 | NR |
| 450 | 136 | NR | 580 | 769 | NR | 710 | 144 | NR | 840 | 4 | NR | 970 | 0 | NR |
| 455 | 80 | NR | 585 | 832 | NR | 715 | 125 | NR | 845 | 3 | NR | 975 | 0 | NR |
| 460 | 45 | NR | 590 | 890 | NR | 720 | 109 | NR | 850 | 3 | NR | 980 | 0 | NR |
| 465 | 32 | NR | 595 | 937 | NR | 725 | 94 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 972 | NR | 730 | 81 | NR | 860 | 2 | NR | 990 | 0 | NR |
| 475 | 18 | NR | 605 | 992 | NR | 735 | 70 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 18 | NR | 610 | 998 | NR | 740 | 61 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 20 | NR | 615 | 990 | NR | 745 | 53 | NR | 875 | 2 | NR | | | |

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## Scotopic Flux vs. Wavelength

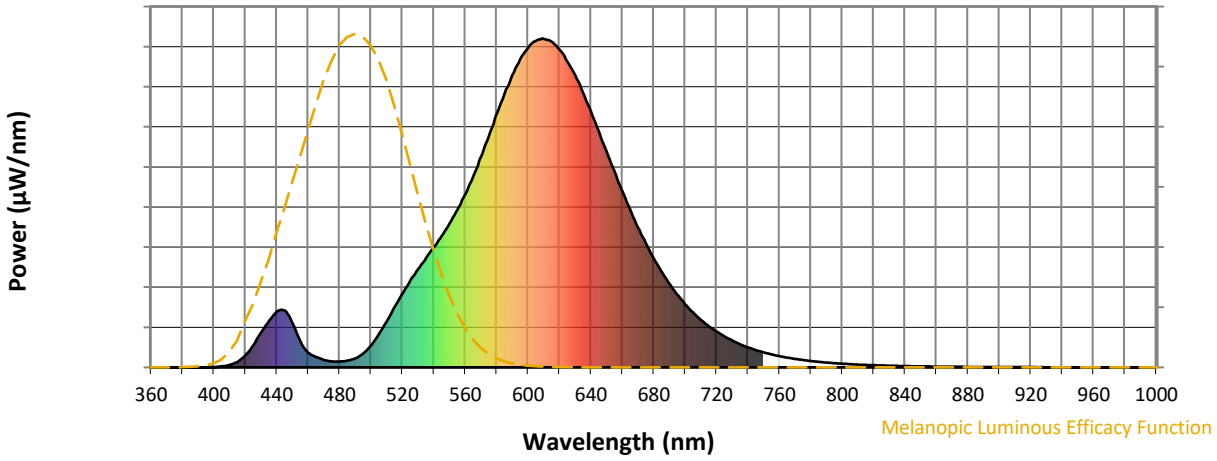



**Scotopic Lumens: NR** **S/P: 0.8**

| 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 | 27 | NR | 620 | 966 | NR | 750 | 46 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 42 | NR | 625 | 930 | NR | 755 | 39 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 67 | NR | 630 | 888 | NR | 760 | 34 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 101 | NR | 635 | 835 | NR | 765 | 30 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 139 | NR | 640 | 778 | NR | 770 | 26 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 183 | NR | 645 | 717 | NR | 775 | 22 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 224 | NR | 650 | 656 | NR | 780 | 19 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 262 | NR | 655 | 595 | NR | 785 | 17 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 299 | NR | 660 | 536 | NR | 790 | 15 | NR | 920 | 1 | NR |
| 405 | 3 | NR | 535 | 332 | NR | 665 | 480 | NR | 795 | 13 | NR | 925 | 1 | NR |
| 410 | 7 | NR | 540 | 365 | NR | 670 | 425 | NR | 800 | 11 | NR | 930 | 1 | NR |
| 415 | 17 | NR | 545 | 400 | NR | 675 | 376 | NR | 805 | 10 | NR | 935 | 0 | NR |
| 420 | 36 | NR | 550 | 437 | NR | 680 | 332 | NR | 810 | 8 | NR | 940 | 0 | NR |
| 425 | 67 | NR | 555 | 479 | NR | 685 | 291 | NR | 815 | 8 | NR | 945 | 0 | NR |
| 430 | 105 | NR | 560 | 525 | NR | 690 | 255 | NR | 820 | 7 | NR | 950 | 0 | NR |
| 435 | 141 | NR | 565 | 579 | NR | 695 | 221 | NR | 825 | 6 | NR | 955 | 0 | NR |
| 440 | 169 | NR | 570 | 639 | NR | 700 | 192 | NR | 830 | 5 | NR | 960 | 0 | NR |
| 445 | 173 | NR | 575 | 703 | NR | 705 | 167 | NR | 835 | 4 | NR | 965 | 0 | NR |
| 450 | 136 | NR | 580 | 769 | NR | 710 | 144 | NR | 840 | 4 | NR | 970 | 0 | NR |
| 455 | 80 | NR | 585 | 832 | NR | 715 | 125 | NR | 845 | 3 | NR | 975 | 0 | NR |
| 460 | 45 | NR | 590 | 890 | NR | 720 | 109 | NR | 850 | 3 | NR | 980 | 0 | NR |
| 465 | 32 | NR | 595 | 937 | NR | 725 | 94 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 972 | NR | 730 | 81 | NR | 860 | 2 | NR | 990 | 0 | NR |
| 475 | 18 | NR | 605 | 992 | NR | 735 | 70 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 18 | NR | 610 | 998 | NR | 740 | 61 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 20 | NR | 615 | 990 | NR | 745 | 53 | NR | 875 | 2 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 1.21**

| 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 | 27 | NR | 620 | 966 | NR | 750 | 46 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 42 | NR | 625 | 930 | NR | 755 | 39 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 67 | NR | 630 | 888 | NR | 760 | 34 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 101 | NR | 635 | 835 | NR | 765 | 30 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 139 | NR | 640 | 778 | NR | 770 | 26 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 183 | NR | 645 | 717 | NR | 775 | 22 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 224 | NR | 650 | 656 | NR | 780 | 19 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 262 | NR | 655 | 595 | NR | 785 | 17 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 299 | NR | 660 | 536 | NR | 790 | 15 | NR | 920 | 1 | NR |
| 405 | 3 | NR | 535 | 332 | NR | 665 | 480 | NR | 795 | 13 | NR | 925 | 1 | NR |
| 410 | 7 | NR | 540 | 365 | NR | 670 | 425 | NR | 800 | 11 | NR | 930 | 1 | NR |
| 415 | 17 | NR | 545 | 400 | NR | 675 | 376 | NR | 805 | 10 | NR | 935 | 0 | NR |
| 420 | 36 | NR | 550 | 437 | NR | 680 | 332 | NR | 810 | 8 | NR | 940 | 0 | NR |
| 425 | 67 | NR | 555 | 479 | NR | 685 | 291 | NR | 815 | 8 | NR | 945 | 0 | NR |
| 430 | 105 | NR | 560 | 525 | NR | 690 | 255 | NR | 820 | 7 | NR | 950 | 0 | NR |
| 435 | 141 | NR | 565 | 579 | NR | 695 | 221 | NR | 825 | 6 | NR | 955 | 0 | NR |
| 440 | 169 | NR | 570 | 639 | NR | 700 | 192 | NR | 830 | 5 | NR | 960 | 0 | NR |
| 445 | 173 | NR | 575 | 703 | NR | 705 | 167 | NR | 835 | 4 | NR | 965 | 0 | NR |
| 450 | 136 | NR | 580 | 769 | NR | 710 | 144 | NR | 840 | 4 | NR | 970 | 0 | NR |
| 455 | 80 | NR | 585 | 832 | NR | 715 | 125 | NR | 845 | 3 | NR | 975 | 0 | NR |
| 460 | 45 | NR | 590 | 890 | NR | 720 | 109 | NR | 850 | 3 | NR | 980 | 0 | NR |
| 465 | 32 | NR | 595 | 937 | NR | 725 | 94 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 972 | NR | 730 | 81 | NR | 860 | 2 | NR | 990 | 0 | NR |
| 475 | 18 | NR | 605 | 992 | NR | 735 | 70 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 18 | NR | 610 | 998 | NR | 740 | 61 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 20 | NR | 615 | 990 | NR | 745 | 53 | NR | 875 | 2 | NR | | | |

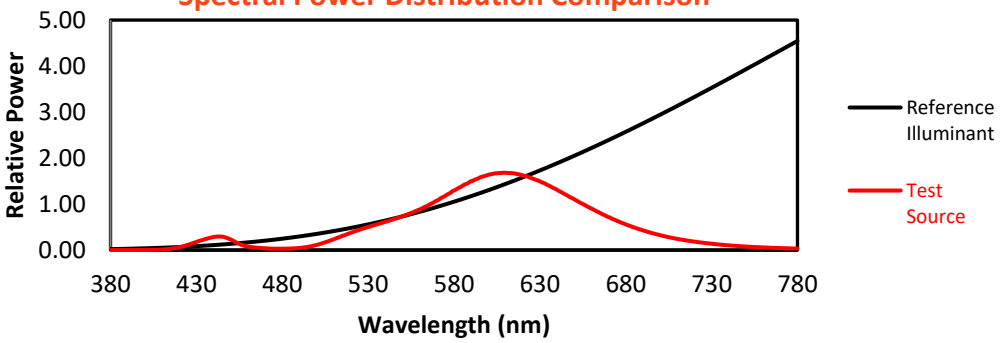
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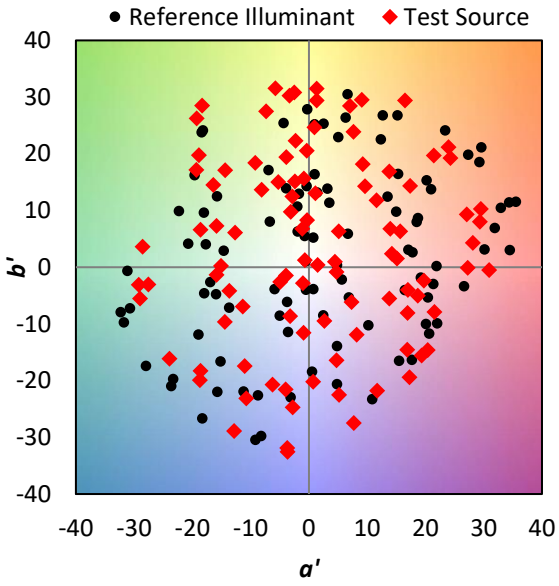
## Summary

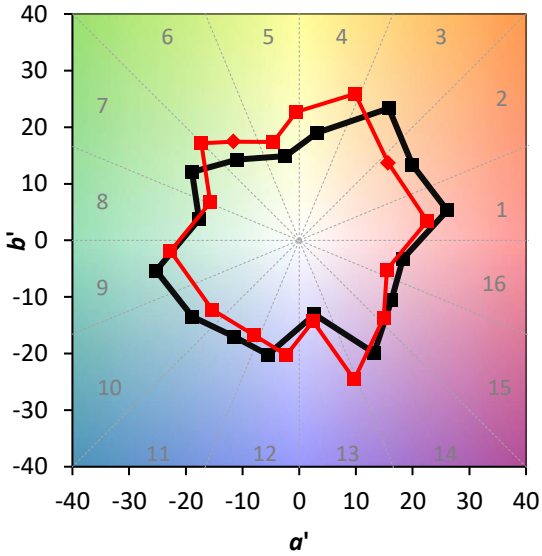
$R_f$ = 70.6
$R_g$ = 97.6
CIE $R_a$ = 71.9
$R_9$ = -17.8

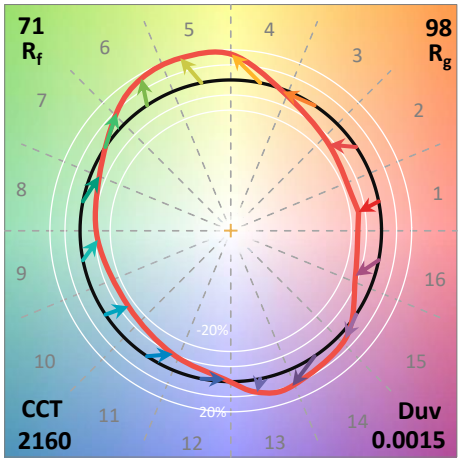
## Spectral Power Distribution Comparison

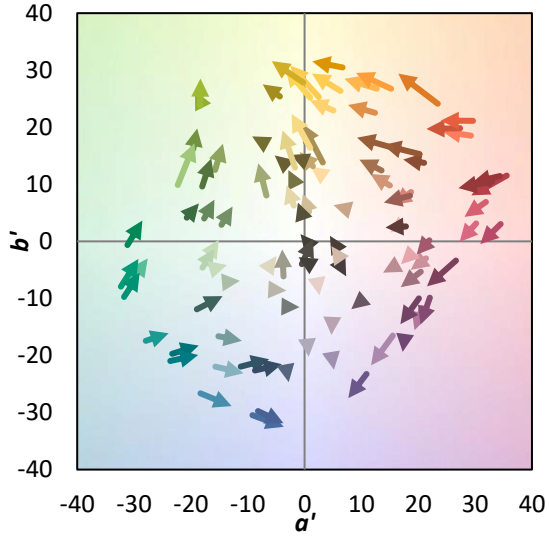



## Color Vector Graphics



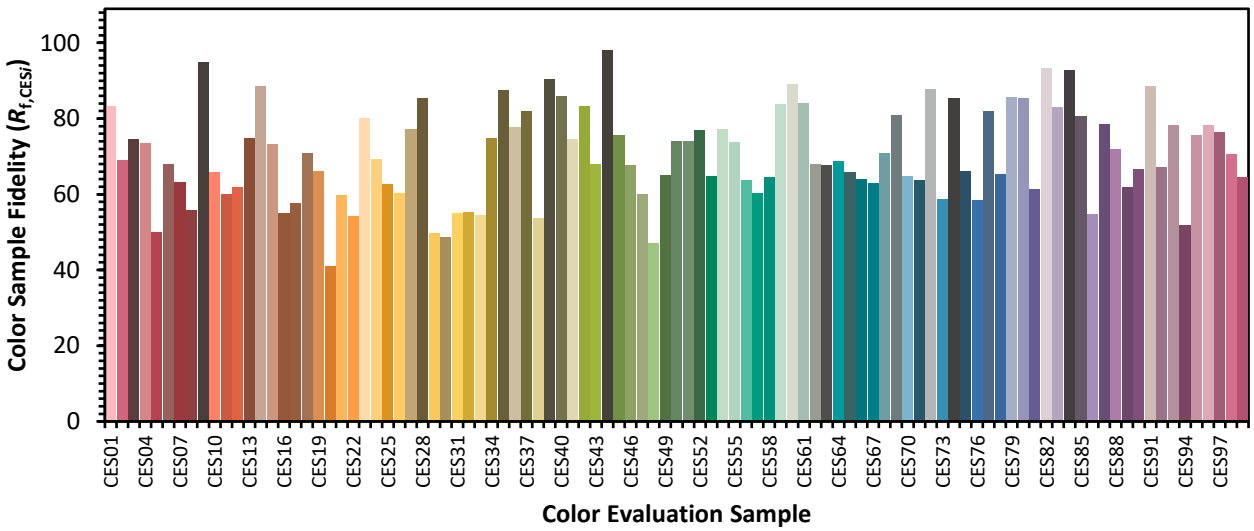



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**Individual Sample Fidelity Index ($R_{f,i}$)**

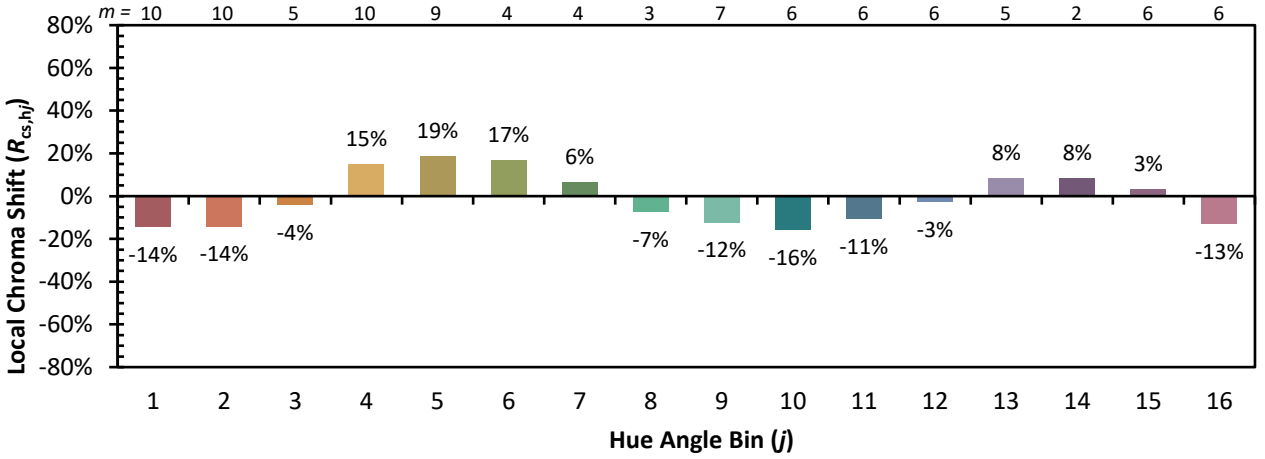
| | | | |
|---|---|---|---|
| CES01 = 87 | CES26 = 60 | CES51 = 74 | CES76 = 58 |
| CES02 = 65 | CES27 = 77 | CES52 = 77 | CES77 = 82 |
| CES03 = 32 | CES28 = 85 | CES53 = 65 | CES78 = 65 |
| CES04 = 72 | CES29 = 50 | CES54 = 77 | CES79 = 86 |
| CES05 = 52 | CES30 = 49 | CES55 = 74 | CES80 = 85 |
| CES06 = 53 | CES31 = 55 | CES56 = 64 | CES81 = 61 |
| CES07 = 44 | CES32 = 55 | CES57 = 60 | CES82 = 93 |
| CES08 = 43 | CES33 = 55 | CES58 = 64 | CES83 = 83 |
| CES09 = 29 | CES34 = 75 | CES59 = 84 | CES84 = 93 |
| CES10 = 79 | CES35 = 88 | CES60 = 89 | CES85 = 81 |
| CES11 = 62 | CES36 = 78 | CES61 = 84 | CES86 = 55 |
| CES12 = 68 | CES37 = 82 | CES62 = 68 | CES87 = 79 |
| CES13 = 45 | CES38 = 54 | CES63 = 68 | CES88 = 72 |
| CES14 = 75 | CES39 = 90 | CES64 = 69 | CES89 = 62 |
| CES15 = 72 | CES40 = 86 | CES65 = 66 | CES90 = 67 |
| CES16 = 49 | CES41 = 75 | CES66 = 64 | CES91 = 89 |
| CES17 = 51 | CES42 = 83 | CES67 = 63 | CES92 = 67 |
| CES18 = 57 | CES43 = 68 | CES68 = 71 | CES93 = 78 |
| CES19 = 74 | CES44 = 98 | CES69 = 81 | CES94 = 52 |
| CES20 = 68 | CES45 = 76 | CES70 = 65 | CES95 = 76 |
| CES21 = 89 | CES46 = 68 | CES71 = 64 | CES96 = 78 |
| CES22 = 81 | CES47 = 60 | CES72 = 88 | CES97 = 76 |
| CES23 = 92 | CES48 = 47 | CES73 = 59 | CES98 = 71 |
| CES24 = 92 | CES49 = 65 | CES74 = 85 | CES99 = 65 |
| CES25 = 74 | CES50 = 74 | CES75 = 66 | |

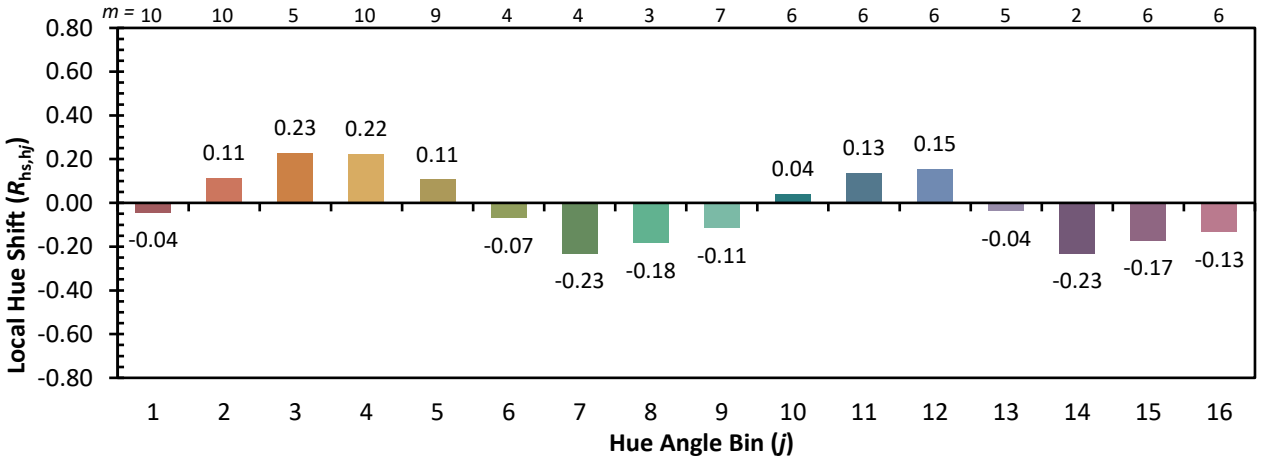


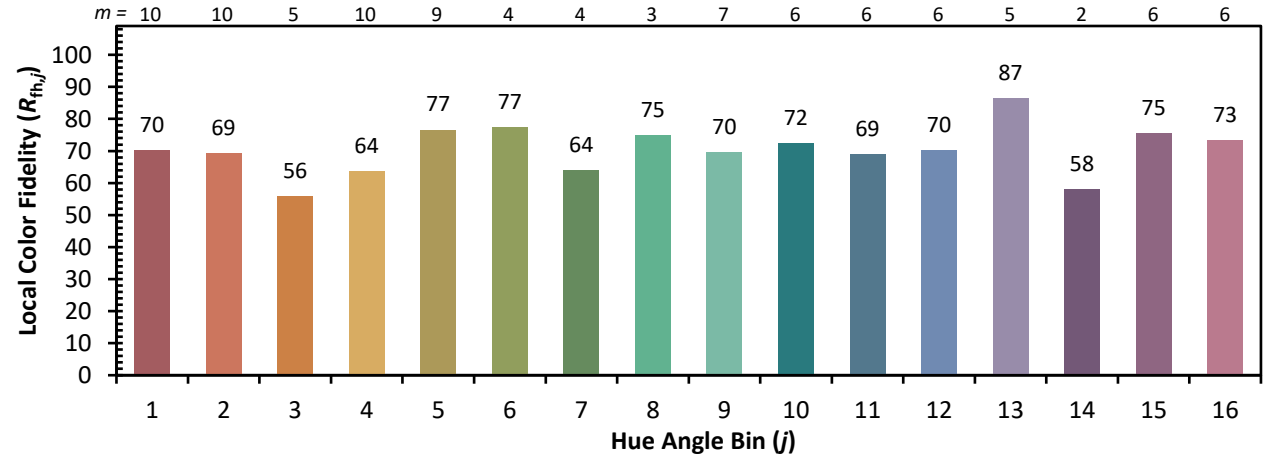
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## Color Rendition by Hue-Angle Bin



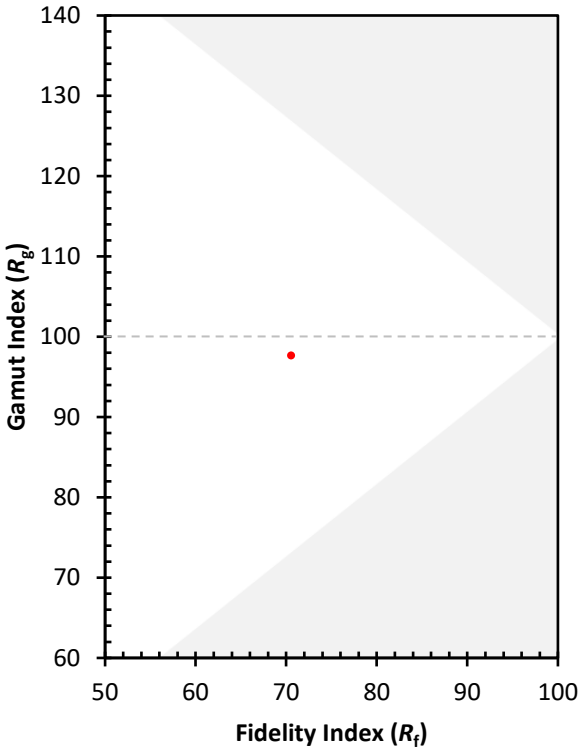



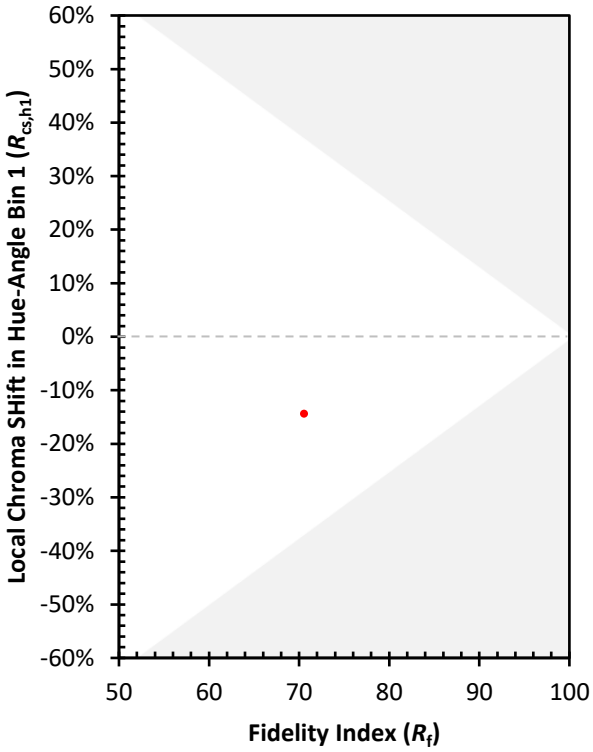



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## Measure Comparisons




(END OF REPORT)