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: P1360357

Luminaire Tested: **GSS-SB2C-730-U-T3-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: | P1360357 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB2C-730-U-T3-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 2SQUARE 102W 70CRI 3000K FIXTURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (52) 3000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 10026.3 lumens |
| Efficiency: | N/A |
| Efficacy: | 98.3 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B1 - U0 - G2 |

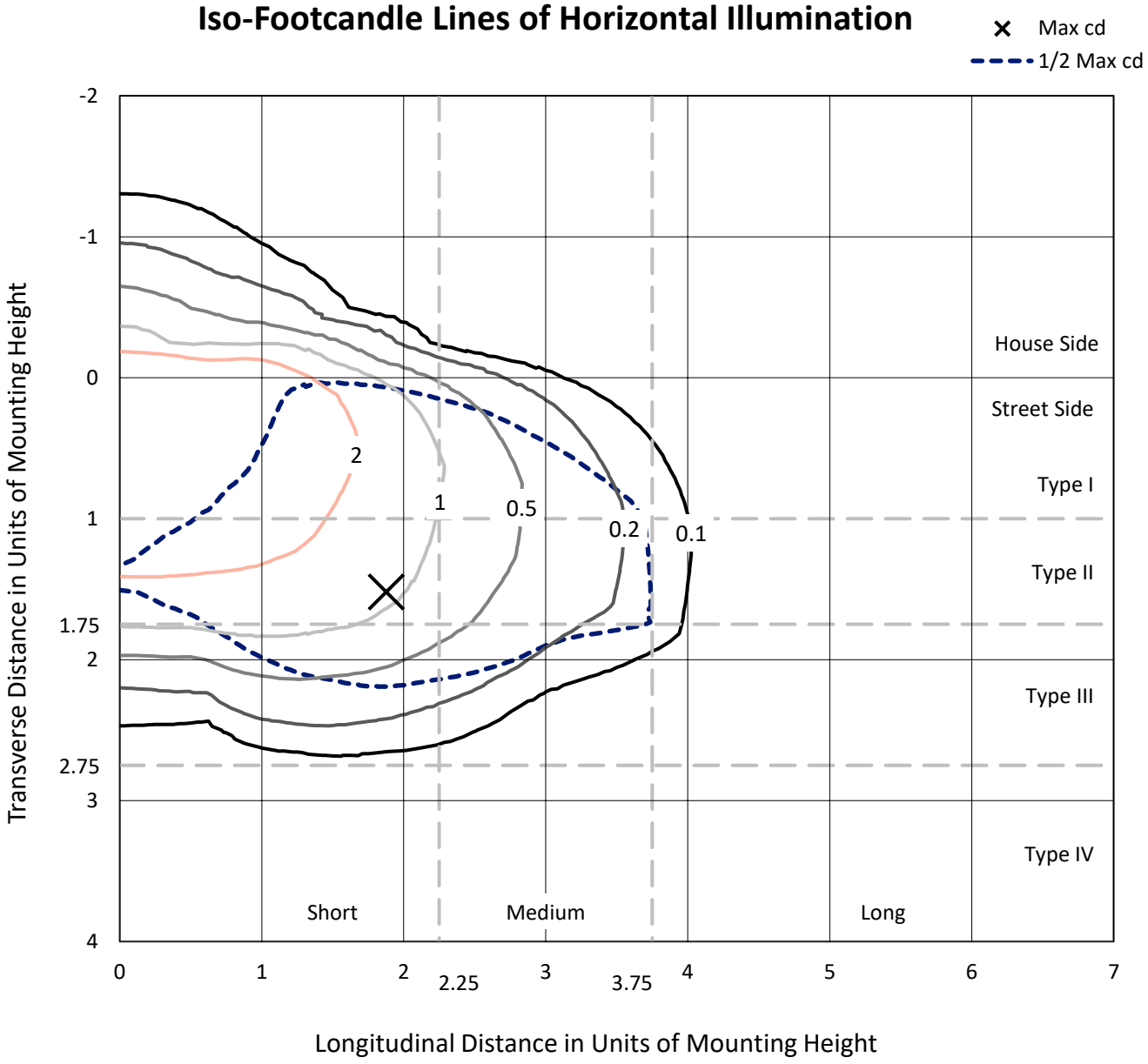
| | |
|---|---|
| Input Watts (W): | 102 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 9.5% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature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

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Scaled Data Report

REPORT NUMBER: P1360357
CATALOG NUMBER: GSS-SB2C-730-U-T3-HSS

## Iso-Footcandle Lines of Horizontal Illumination



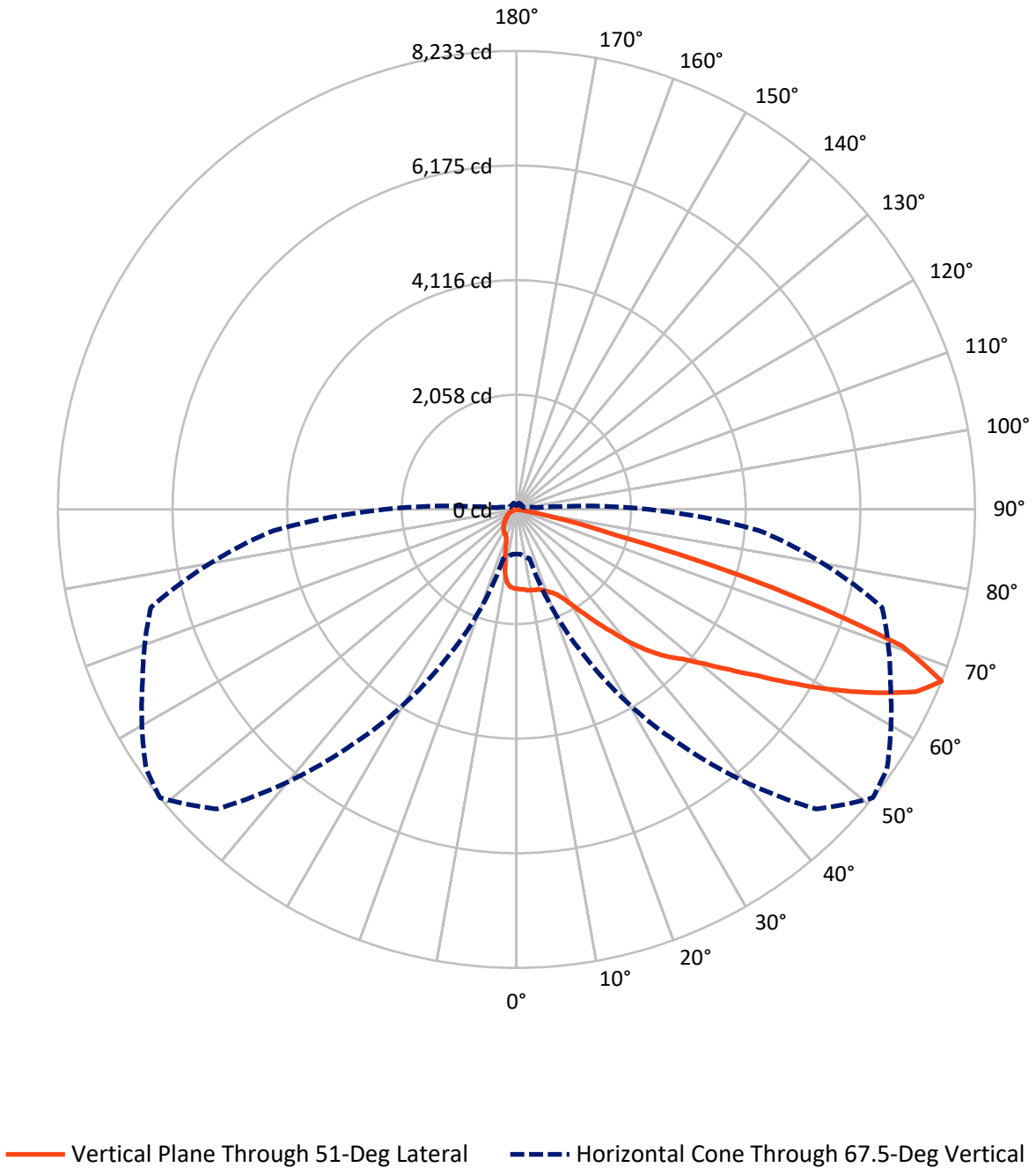

Based on 20 foot mounting height. Maximum calculated value = 4.6 fc
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

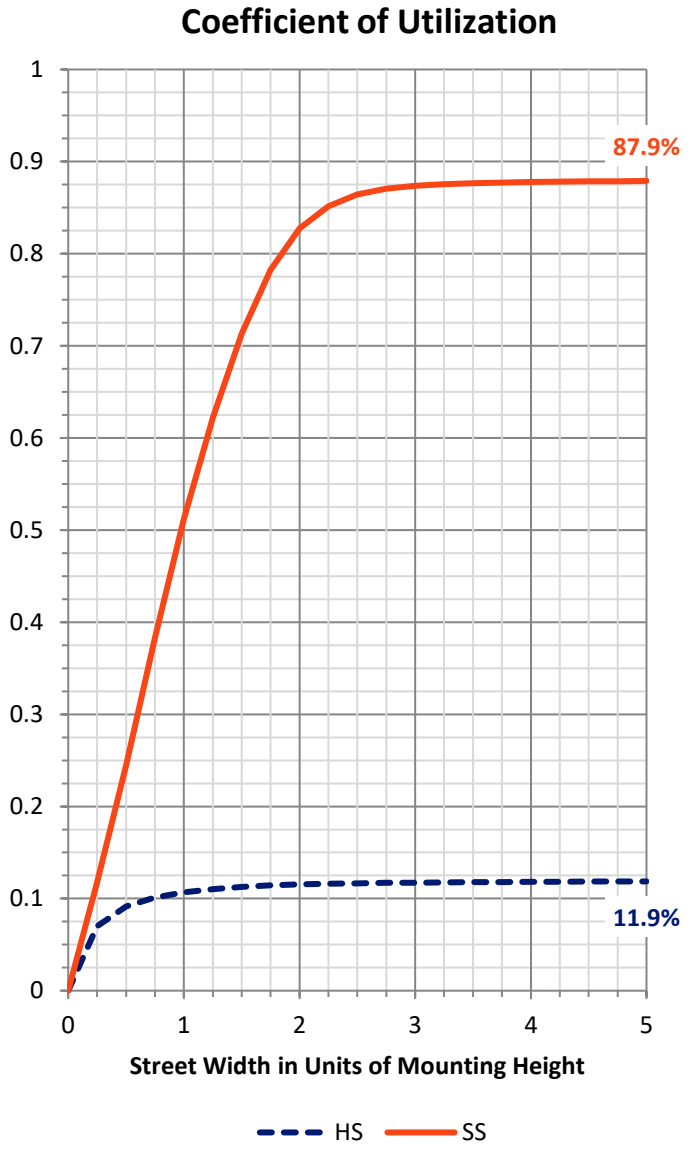
REPORT NUMBER: P1360357
CATALOG NUMBER: GSS-SB2C-730-U-T3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1198.8 | 0.0 | 1198.8 |
| | % Fixture | 12.0 | 0.0 | 12.0 |
| **Street Side** | Lumens | 8827.5 | 0.0 | 8827.5 |
| | % Fixture | 88.0 | 0.0 | 88.0 |
| **Total** | Lumens | 10026.3 | 0.0 | 10026.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 130.0 | 1.3 |
| 10°-20° | 334.2 | 3.3 |
| 20°-30° | 595.8 | 5.9 |
| 30°-40° | 1066.3 | 10.6 |
| 40°-50° | 1679.7 | 16.8 |
| 50°-60° | 2443.1 | 24.4 |
| 60°-70° | 2658.2 | 26.5 |
| 70°-80° | 1073.8 | 10.7 |
| 80°-90° | 45.1 | 0.4 |
| 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° | 10026.3 | 100.0 |
| 0°-180° | 10026.3 | 100.0 |



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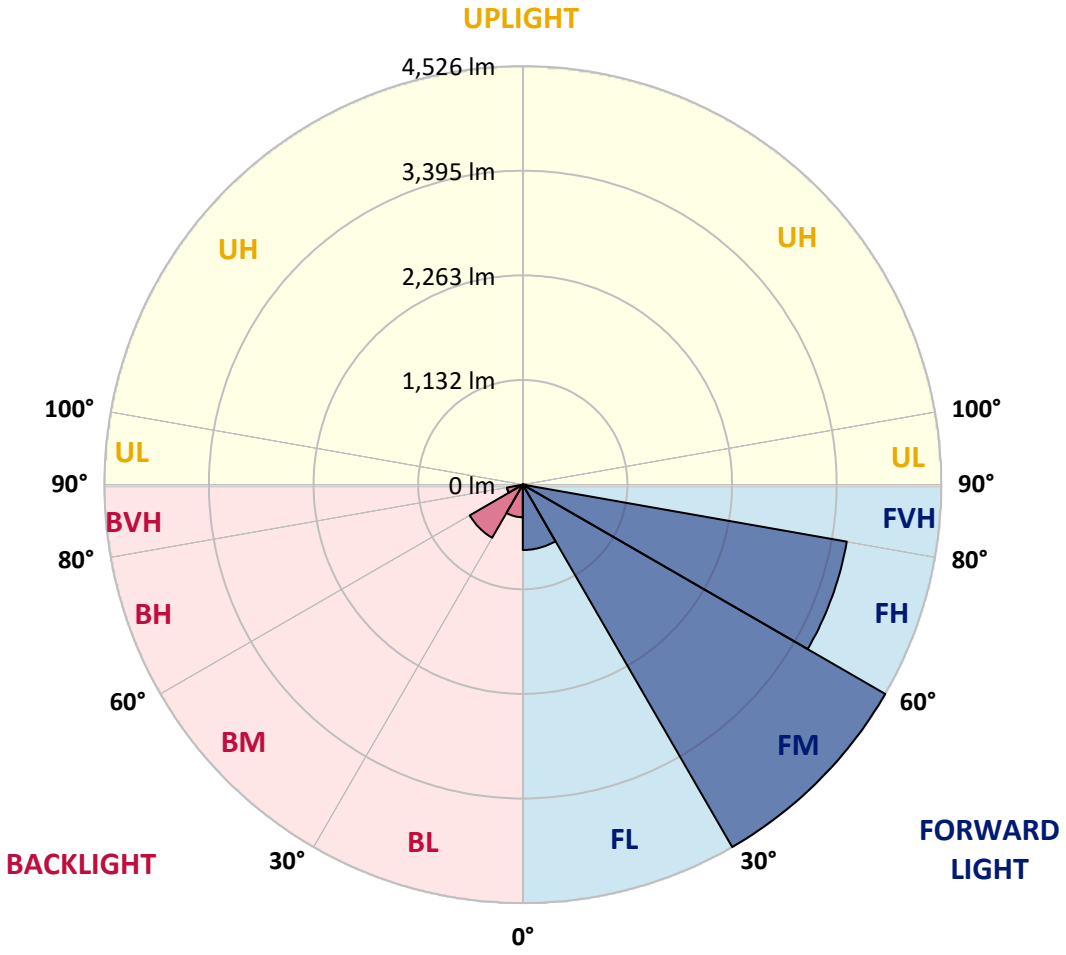
Scaled Data Report

REPORT NUMBER: P1360357
CATALOG NUMBER: GSS-SB2C-730-U-T3-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 707.0 | 7.1 | | | |
| FM | (30°-60°) | 4526.1 | 45.1 | | | |
| FH | (60°-80°) | 3557.7 | 35.5 | | | G2/5000 |
| FVH | (80°-90°) | 36.6 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 353.0 | 3.5 | B1/500 | | |
| BM | (30°-60°) | 663.0 | 6.6 | B1/1000 | | |
| BH | (60°-80°) | 174.3 | 1.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 8.5 | 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 III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 51° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | *1423.7* | 1423.7 | 1423.7 | 1423.7 | 1423.7 |
| 2.5° | 1435.7 | 1432.7 | 1435.7 | 1423.7 | 1429.7 | 1432.7 | *1438.7* | 1429.7 | 1426.7 | 1429.7 | 1426.7 |
| 5° | 1429.7 | 1426.7 | 1429.7 | 1432.7 | 1438.7 | 1447.7 | *1444.7* | 1444.7 | 1450.7 | 1438.7 | 1438.7 |
| 7.5° | 1378.7 | 1375.7 | 1393.7 | 1399.7 | 1423.7 | 1444.7 | *1468.8* | 1459.8 | 1471.8 | 1468.8 | 1459.8 |
| 10° | 1315.6 | 1306.6 | 1324.6 | 1357.6 | 1393.7 | 1447.7 | *1471.8* | 1477.8 | 1504.8 | 1516.8 | 1510.8 |
| 12.5° | 1279.5 | 1270.5 | 1294.6 | 1318.6 | 1375.7 | 1441.7 | *1483.8* | 1498.8 | 1528.8 | 1552.9 | 1558.9 |
| 15° | 1252.5 | 1261.5 | 1285.5 | 1330.6 | 1384.7 | 1453.8 | *1489.8* | 1519.8 | 1582.9 | 1606.9 | 1606.9 |
| 17.5° | 1270.5 | 1267.5 | 1288.6 | 1333.6 | 1399.7 | 1468.8 | *1522.8* | 1552.9 | 1628.0 | 1661.0 | 1658.0 |
| 20° | 1447.7 | 1429.7 | 1426.7 | 1402.7 | 1423.7 | 1504.8 | *1570.9* | 1600.9 | 1673.0 | 1718.1 | 1715.1 |
| 22.5° | 1676.0 | 1694.0 | 1646.0 | 1591.9 | 1525.8 | 1552.9 | *1622.0* | 1664.0 | 1736.1 | 1784.1 | 1766.1 |
| 25° | 1985.4 | 1976.4 | 1943.3 | 1835.2 | 1715.1 | 1658.0 | *1694.0* | 1736.1 | 1826.2 | 1865.2 | 1835.2 |
| 27.5° | 2312.8 | 2273.7 | 2231.7 | 2081.5 | 1922.3 | 1817.2 | *1823.2* | 1850.2 | 1955.4 | 1979.4 | 1910.3 |
| 30° | 2664.2 | 2670.2 | 2601.1 | 2396.9 | 2177.6 | 2018.4 | *2006.4* | 2018.4 | 2102.5 | 2099.5 | 2003.4 |
| 32.5° | 3066.7 | 3051.7 | 2985.6 | 2766.3 | 2523.0 | 2261.7 | *2231.7* | 2210.7 | 2246.7 | 2213.7 | 2102.5 |
| 35° | 3349.0 | 3364.1 | 3292.0 | 3147.8 | 2904.5 | 2580.1 | *2508.0* | 2457.0 | 2420.9 | 2384.9 | 2264.7 |
| 37.5° | 3601.3 | 3583.3 | 3541.3 | 3460.2 | 3222.9 | 2925.5 | *2787.4* | 2742.3 | 2664.2 | 2565.1 | 2454.0 |
| 40° | 3658.4 | 3649.4 | 3628.4 | 3631.4 | 3478.2 | 3246.9 | *3147.8* | 3066.7 | 2931.5 | 2850.4 | 2706.3 |
| 42.5° | 3649.4 | 3679.4 | 3685.4 | 3709.5 | 3622.4 | 3565.3 | *3463.2* | 3385.1 | 3258.9 | 3159.8 | 3009.6 |
| 45° | 3697.5 | 3748.5 | 3790.6 | 3811.6 | 3754.5 | 3748.5 | *3760.5* | 3724.5 | 3637.4 | 3535.3 | 3364.1 |
| 47.5° | 3793.6 | 3880.7 | 3946.8 | 3991.8 | 3979.8 | 4078.9 | *4015.8* | 4006.8 | 4042.9 | 3943.8 | 3772.5 |
| 50° | 3973.8 | 3997.8 | 4154.0 | 4220.1 | 4331.2 | 4475.4 | *4352.2* | 4382.3 | 4454.4 | 4463.4 | 4148.0 |
| 52.5° | 4109.0 | 4130.0 | 4286.2 | 4481.4 | 4727.7 | 4886.9 | *4775.8* | 4772.8 | 4901.9 | 4937.9 | 4511.4 |
| 55° | 4145.0 | 4193.1 | 4394.3 | 4733.7 | 5196.3 | 5358.5 | *5280.4* | 5253.3 | 5424.5 | 5487.6 | 4832.8 |
| 57.5° | 4093.9 | 4112.0 | 4400.3 | 4889.9 | 5535.7 | 5887.1 | *5911.1* | 5827.0 | 5983.2 | 5998.2 | 5070.1 |
| 60° | 3541.3 | 3619.4 | 4124.0 | 4989.0 | 5824.0 | 6460.8 | *6586.9* | 6538.9 | 6550.9 | 6523.9 | 5247.3 |
| 62.5° | 2447.9 | 2463.0 | 3204.9 | 4883.9 | 6061.3 | 7040.5 | *7250.7* | 7214.7 | 7112.6 | 6857.3 | 5157.2 |
| 65° | 1165.4 | 1246.5 | 1721.1 | 4133.0 | 6094.3 | 7482.0 | *7890.5* | 7914.5 | 7440.0 | 6860.3 | 4808.8 |
| 67.5° | *802.0* | *805.0* | *916.1* | *2916.5* | *5169.2* | *7608.2* | *8232.9* | *8121.8* | *7409.9* | *6797.2* | *4382.3* |
| 70° | 507.6 | 471.6 | 528.6 | 1664.0 | 3493.2 | 5974.2 | *7343.8* | 7734.3 | 7283.8 | 6385.7 | 3703.5 |
| 72.5° | 201.2 | 216.3 | 249.3 | 546.7 | 1712.1 | 3403.1 | *4796.8* | 5887.1 | 6568.9 | 5523.7 | 2892.5 |
| 75° | 90.1 | 96.1 | 126.2 | 228.3 | 441.5 | 1387.7 | *1856.2* | 2601.1 | 5256.3 | 4361.3 | 2048.5 |
| 77.5° | 60.1 | 63.1 | 81.1 | 132.2 | 201.2 | 387.5 | *678.8* | 796.0 | 3150.8 | 2384.9 | 961.2 |
| 80° | 36.0 | 39.0 | 54.1 | 81.1 | 111.1 | 138.2 | *207.2* | 240.3 | 832.0 | 790.0 | 264.3 |
| 82.5° | 24.0 | 21.0 | 36.0 | 45.1 | 66.1 | 57.1 | *66.1* | 78.1 | 228.3 | 201.2 | 72.1 |
| 85° | 9.0 | 9.0 | 15.0 | 18.0 | 24.0 | 30.0 | *27.0* | 33.0 | 54.1 | 54.1 | 33.0 |
| 87.5° | 0.0 | 0.0 | 3.0 | 3.0 | 9.0 | 12.0 | *15.0* | 15.0 | 21.0 | 21.0 | 18.0 |
| 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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Scaled Data Report

REPORT NUMBER: P1360357
CATALOG NUMBER: GSS-SB2C-730-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 | 1423.7 |
| 2.5° | 1429.7 | 1420.7 | 1423.7 | 1417.7 | 1420.7 | 1414.7 | 1402.7 | 1414.7 | 1405.7 | 1405.7 | 1414.7 |
| 5° | 1438.7 | 1435.7 | 1426.7 | 1411.7 | 1402.7 | 1381.7 | 1348.6 | 1333.6 | 1318.6 | 1309.6 | 1315.6 |
| 7.5° | 1468.8 | 1456.8 | 1441.7 | 1405.7 | 1357.6 | 1294.6 | 1228.5 | 1153.4 | 1096.3 | 1090.3 | 1069.3 |
| 10° | 1507.8 | 1495.8 | 1462.8 | 1381.7 | 1282.5 | 1102.3 | 958.2 | 859.0 | 799.0 | 759.9 | 744.9 |
| 12.5° | 1558.9 | 1543.9 | 1483.8 | 1345.6 | 1102.3 | 850.0 | 678.8 | 606.7 | 585.7 | 576.7 | 573.7 |
| 15° | 1606.9 | 1588.9 | 1483.8 | 1228.5 | 892.1 | 639.8 | 552.7 | 534.6 | 531.6 | 534.6 | 531.6 |
| 17.5° | 1652.0 | 1628.0 | 1468.8 | 1069.3 | 684.8 | 540.7 | 519.6 | 510.6 | 507.6 | 504.6 | 504.6 |
| 20° | 1706.1 | 1667.0 | 1426.7 | 895.1 | 564.7 | 513.6 | 504.6 | 492.6 | 492.6 | 480.6 | 483.6 |
| 22.5° | 1757.1 | 1703.1 | 1345.6 | 720.9 | 519.6 | 498.6 | 489.6 | 477.6 | 471.6 | 462.6 | 462.6 |
| 25° | 1808.2 | 1739.1 | 1249.5 | 597.7 | 492.6 | 483.6 | 474.6 | 462.6 | 447.5 | 435.5 | 435.5 |
| 27.5° | 1883.3 | 1787.2 | 1135.4 | 546.7 | 477.6 | 462.6 | 453.5 | 438.5 | 420.5 | 405.5 | 405.5 |
| 30° | 1967.4 | 1853.2 | 1042.3 | 537.6 | 471.6 | 435.5 | 420.5 | 396.5 | 384.5 | 372.4 | 372.4 |
| 32.5° | 2069.5 | 1943.3 | 973.2 | 552.7 | 456.6 | 399.5 | 375.5 | 351.4 | 342.4 | 342.4 | 342.4 |
| 35° | 2219.7 | 2075.5 | 898.1 | 555.7 | 438.5 | 363.4 | 324.4 | 300.4 | 300.4 | 312.4 | 312.4 |
| 37.5° | 2420.9 | 2219.7 | 859.0 | 549.7 | 423.5 | 327.4 | 282.3 | 264.3 | 261.3 | 273.3 | 273.3 |
| 40° | 2652.2 | 2378.9 | 874.1 | 528.6 | 402.5 | 291.4 | 249.3 | 234.3 | 231.3 | 234.3 | 237.3 |
| 42.5° | 2904.5 | 2550.1 | 910.1 | 498.6 | 366.4 | 261.3 | 225.3 | 216.3 | 213.3 | 213.3 | 213.3 |
| 45° | 3171.8 | 2667.2 | 946.1 | 468.6 | 330.4 | 237.3 | 210.3 | 204.2 | 201.2 | 201.2 | 201.2 |
| 47.5° | 3427.1 | 2760.3 | 922.1 | 441.5 | 300.4 | 222.3 | 198.2 | 198.2 | 195.2 | 195.2 | 195.2 |
| 50° | 3646.4 | 2751.3 | 820.0 | 414.5 | 267.3 | 210.3 | 192.2 | 189.2 | 189.2 | 186.2 | 186.2 |
| 52.5° | 3769.5 | 2568.1 | 660.8 | 384.5 | 237.3 | 198.2 | 186.2 | 183.2 | 180.2 | 177.2 | 177.2 |
| 55° | 3817.6 | 2324.8 | 513.6 | 339.4 | 216.3 | 189.2 | 180.2 | 177.2 | 171.2 | 168.2 | 165.2 |
| 57.5° | 3733.5 | 1967.4 | 396.5 | 270.3 | 198.2 | 177.2 | 171.2 | 168.2 | 162.2 | 153.2 | 150.2 |
| 60° | 3562.3 | 1576.9 | 297.4 | 207.2 | 177.2 | 162.2 | 162.2 | 159.2 | 147.2 | 132.2 | 129.2 |
| 62.5° | 3261.9 | 1132.4 | 225.3 | 168.2 | 153.2 | 147.2 | 153.2 | 147.2 | 129.2 | 108.1 | 105.1 |
| 65° | 2838.4 | 699.8 | 174.2 | 144.2 | 135.2 | 129.2 | 138.2 | 132.2 | 111.1 | 87.1 | 81.1 |
| 67.5° | *2372.9* | *357.4* | *135.2* | *123.1* | *114.1* | *108.1* | *117.1* | *117.1* | *96.1* | *72.1* | *69.1* |
| 70° | 1832.2 | 198.2 | 108.1 | 102.1 | 93.1 | 84.1 | 99.1 | 102.1 | 84.1 | 63.1 | 60.1 |
| 72.5° | 1360.6 | 126.2 | 87.1 | 84.1 | 72.1 | 60.1 | 81.1 | 87.1 | 72.1 | 48.1 | 45.1 |
| 75° | 889.1 | 99.1 | 66.1 | 66.1 | 51.1 | 48.1 | 69.1 | 75.1 | 63.1 | 36.0 | 36.0 |
| 77.5° | 426.5 | 75.1 | 51.1 | 45.1 | 36.0 | 36.0 | 60.1 | 63.1 | 45.1 | 27.0 | 27.0 |
| 80° | 141.2 | 51.1 | 36.0 | 30.0 | 24.0 | 24.0 | 48.1 | 36.0 | 24.0 | 21.0 | 21.0 |
| 82.5° | 48.1 | 33.0 | 24.0 | 21.0 | 18.0 | 15.0 | 15.0 | 18.0 | 18.0 | 15.0 | 15.0 |
| 85° | 24.0 | 21.0 | 18.0 | 15.0 | 12.0 | 12.0 | 12.0 | 12.0 | 15.0 | 15.0 | 15.0 |
| 87.5° | 15.0 | 15.0 | 12.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 12.0 | 6.0 | 6.0 |
| 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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Peachtree City, GA 30269

# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-4

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-730-U-5WQ

Data in this report applies to families of products including GSS-SB1A-730-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

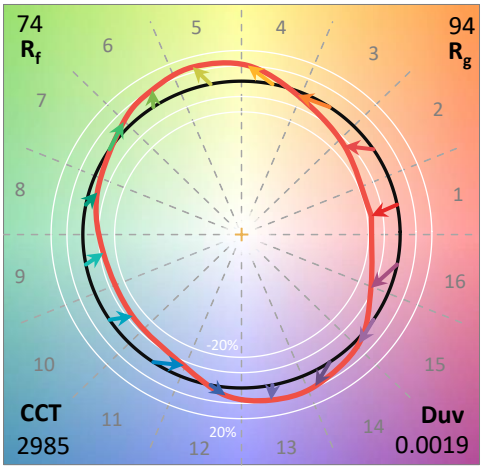
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-4 |
| 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-730-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2985 |
| CIE u': | 0.2504 |
| CIE v': | 0.5243 |
| Duv: | 0.0019 |
| CIE x: | 0.4408 |
| CIE y: | 0.4101 |
| CIE z: | 0.1491 |
| Peak Wavelength (nm): | 595 |
| Dominant Wavelength (nm): | 582 |
| Purity: | 55.41818 |
| Rf: | 73.8 |
| Rg: | 94.4 |

| | |
|---|---|
| CRI (Ra): | 70.8 |
| R1: | 66.3 |
| R2: | 80.6 |
| R3: | 94.5 |
| R4: | 68.2 |
| R5: | 66.5 |
| R6: | 74.7 |
| R7: | 76.2 |
| R8: | 39.6 |
| R9: | -43.2 |
| R10: | 57.6 |
| R11: | 64.8 |
| R12: | 53.5 |
| R13: | 68.7 |
| R14: | 97.0 |
| R15: | 56.4 |




## Test Conditions

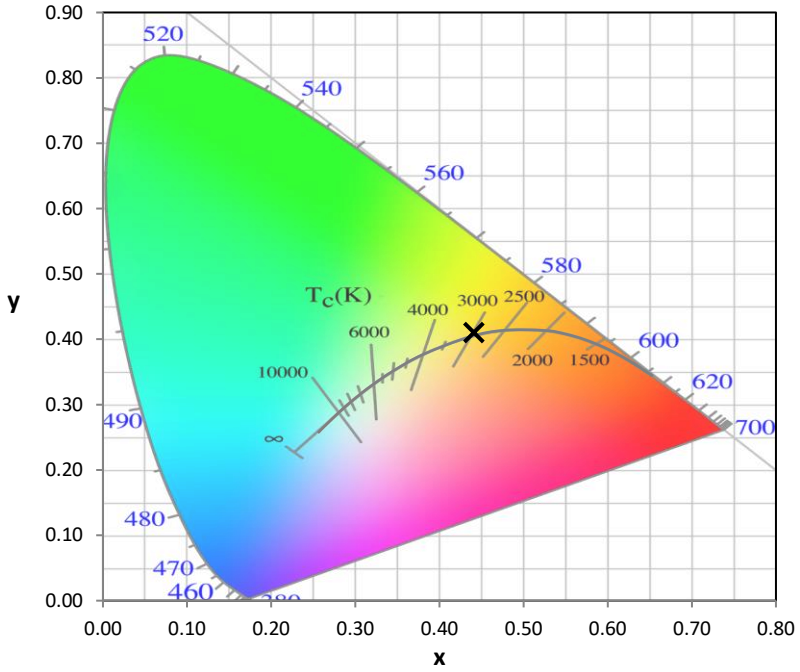
| | |
|---|---|
| Stabilization Time: | 36M |
| Operation Time: | 1H 36M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-4

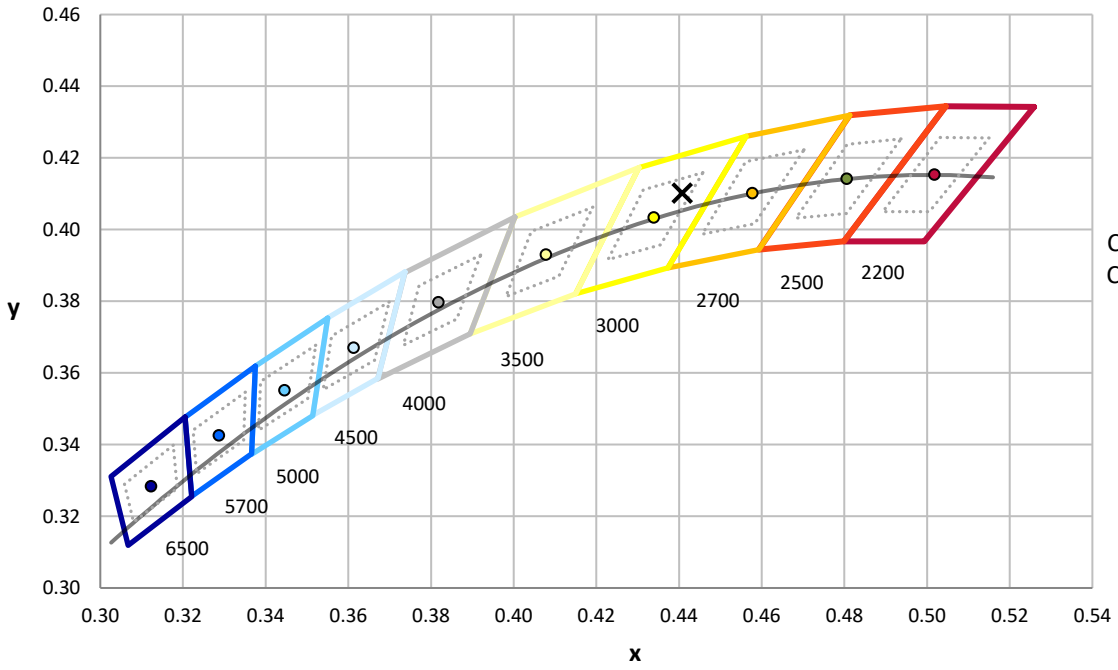
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

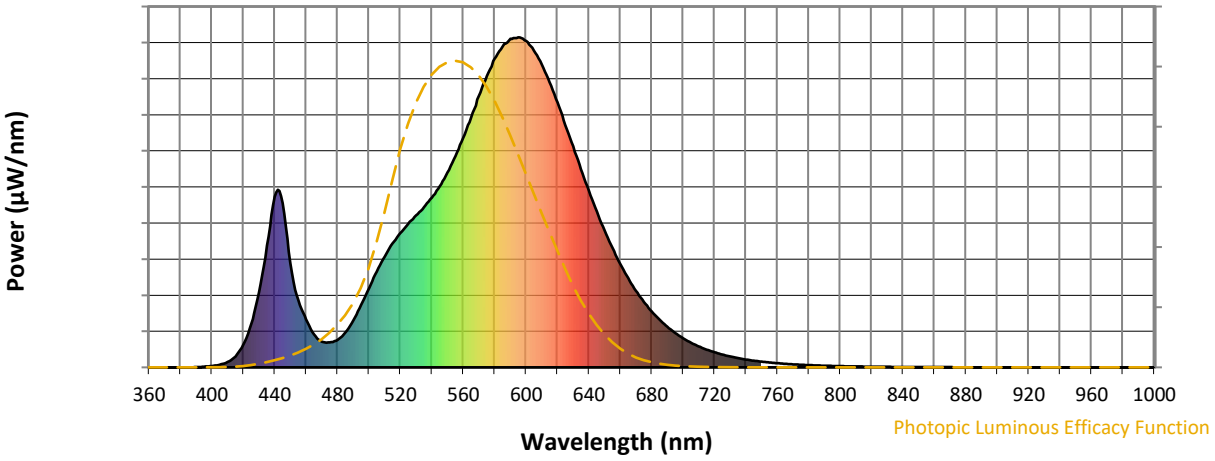



CCT = 2985K
CIE x = 0.4408
CIE y = 0.4101
Duv = 0.0019

Point lies inside the ANSI 3000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

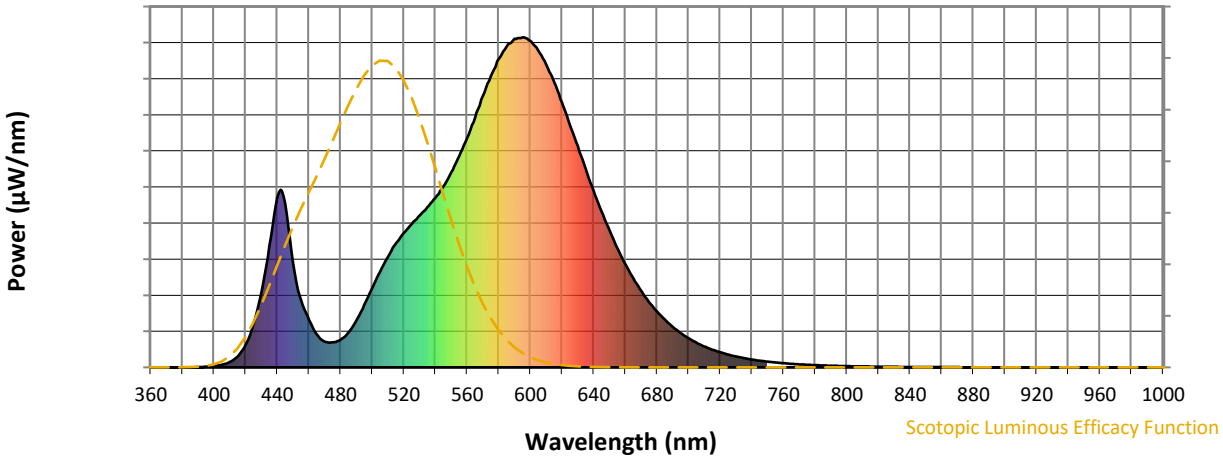



## Photopic Lumens: NR

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

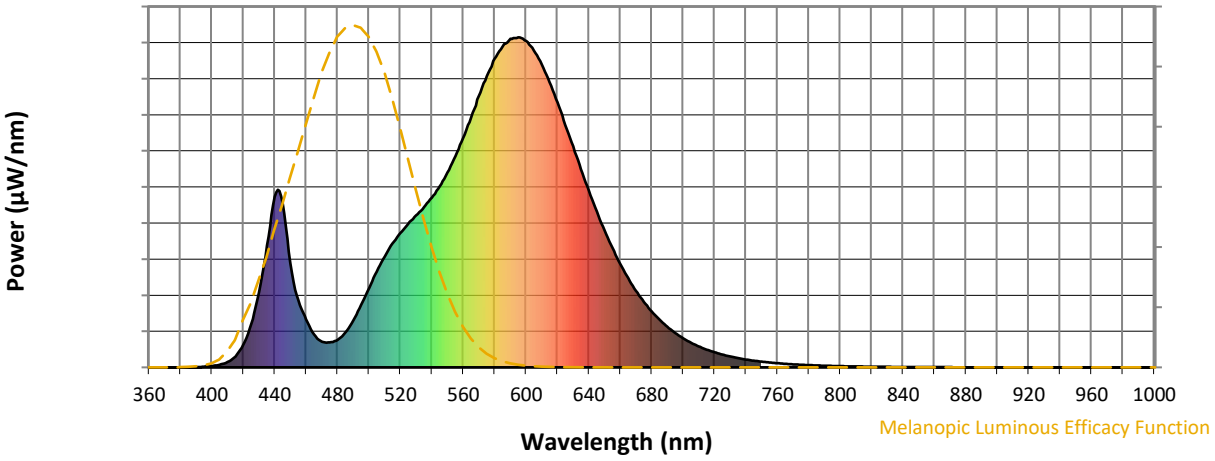



**Scotopic Lumens: NR** **S/P: 1.19**

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.13**

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

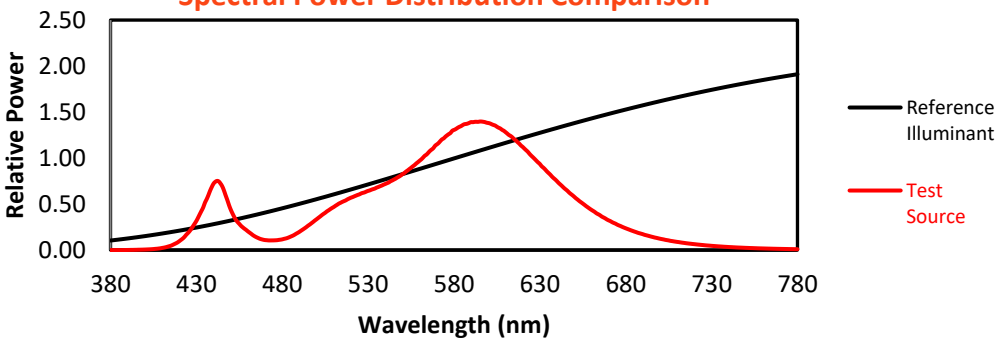
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# TM-30-18

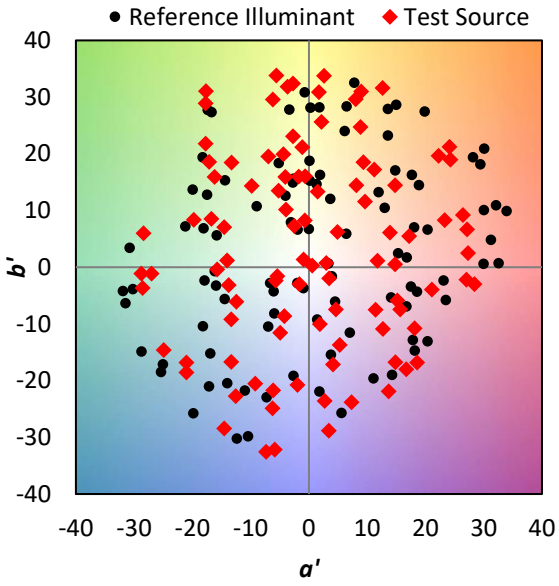
## Summary

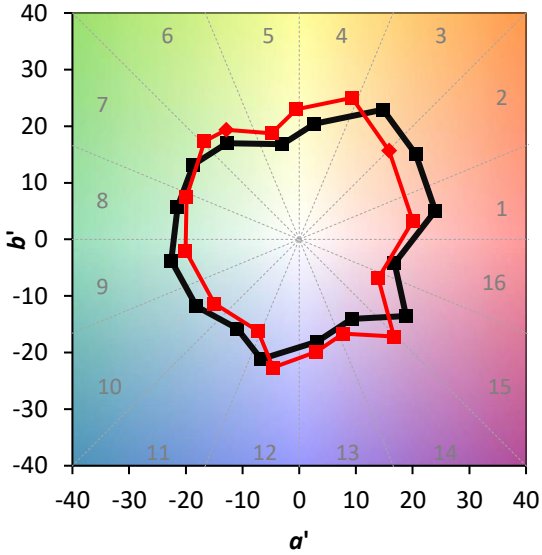
$R_f$ = 73.8
$R_g$ = 94.4
CIE $R_a$ = 70.8
$R_9$ = -43.2

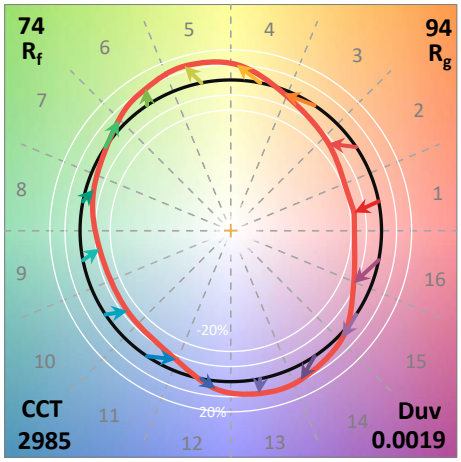
## Spectral Power Distribution Comparison

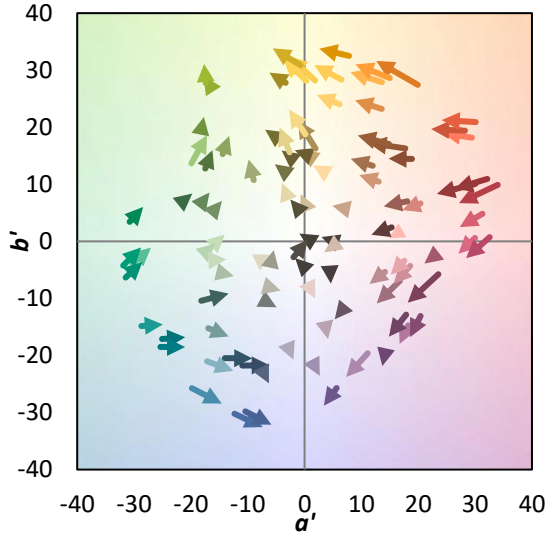



## Color Vector Graphics



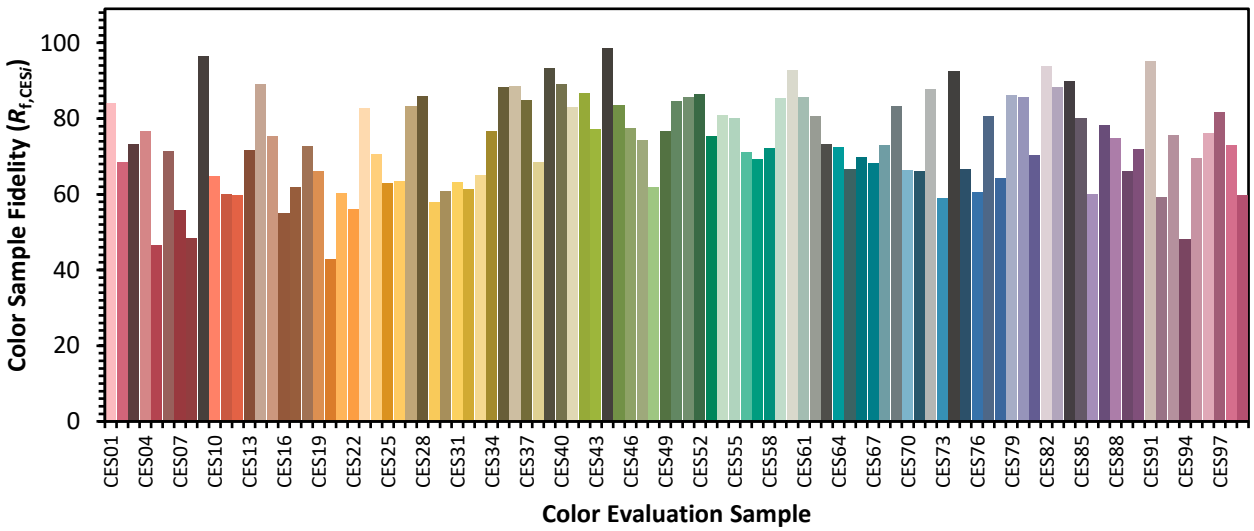



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**Individual Sample Fidelity Index ($R_{f,i}$)**

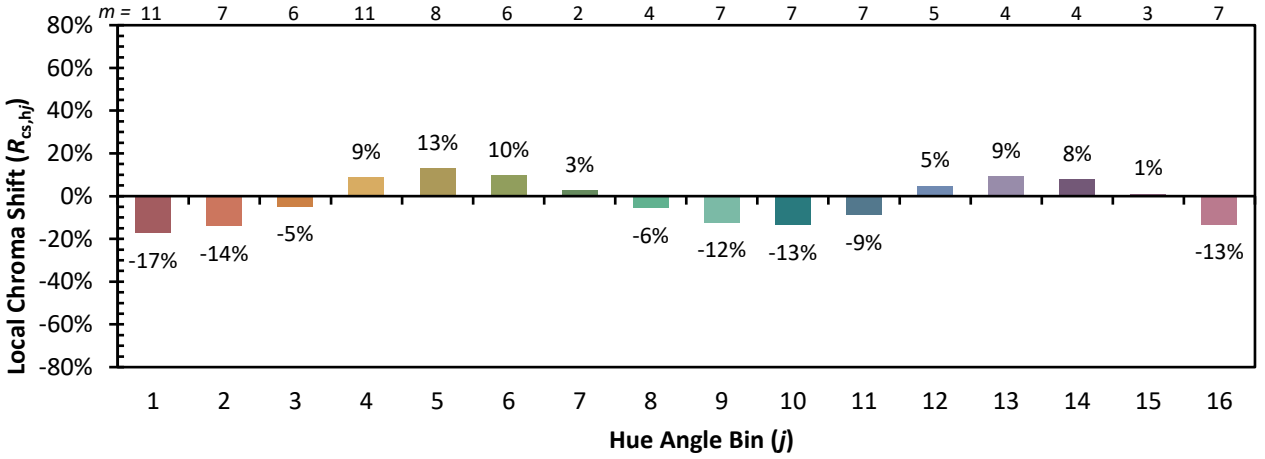
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 63 | CES51 = 86 | CES76 = 61 |
| CES02 = 62 | CES27 = 83 | CES52 = 86 | CES77 = 81 |
| CES03 = 31 | CES28 = 86 | CES53 = 75 | CES78 = 64 |
| CES04 = 71 | CES29 = 58 | CES54 = 81 | CES79 = 86 |
| CES05 = 49 | CES30 = 61 | CES55 = 80 | CES80 = 86 |
| CES06 = 51 | CES31 = 63 | CES56 = 71 | CES81 = 70 |
| CES07 = 41 | CES32 = 61 | CES57 = 69 | CES82 = 94 |
| CES08 = 40 | CES33 = 65 | CES58 = 72 | CES83 = 88 |
| CES09 = 29 | CES34 = 77 | CES59 = 85 | CES84 = 90 |
| CES10 = 76 | CES35 = 88 | CES60 = 93 | CES85 = 80 |
| CES11 = 59 | CES36 = 89 | CES61 = 86 | CES86 = 60 |
| CES12 = 65 | CES37 = 85 | CES62 = 81 | CES87 = 78 |
| CES13 = 43 | CES38 = 69 | CES63 = 73 | CES88 = 75 |
| CES14 = 74 | CES39 = 93 | CES64 = 72 | CES89 = 66 |
| CES15 = 71 | CES40 = 89 | CES65 = 67 | CES90 = 72 |
| CES16 = 47 | CES41 = 83 | CES66 = 70 | CES91 = 95 |
| CES17 = 50 | CES42 = 87 | CES67 = 68 | CES92 = 59 |
| CES18 = 56 | CES43 = 77 | CES68 = 73 | CES93 = 76 |
| CES19 = 73 | CES44 = 99 | CES69 = 83 | CES94 = 48 |
| CES20 = 66 | CES45 = 83 | CES70 = 66 | CES95 = 70 |
| CES21 = 87 | CES46 = 77 | CES71 = 66 | CES96 = 76 |
| CES22 = 79 | CES47 = 74 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 62 | CES73 = 59 | CES98 = 73 |
| CES24 = 91 | CES49 = 77 | CES74 = 93 | CES99 = 60 |
| CES25 = 73 | CES50 = 85 | CES75 = 67 | |

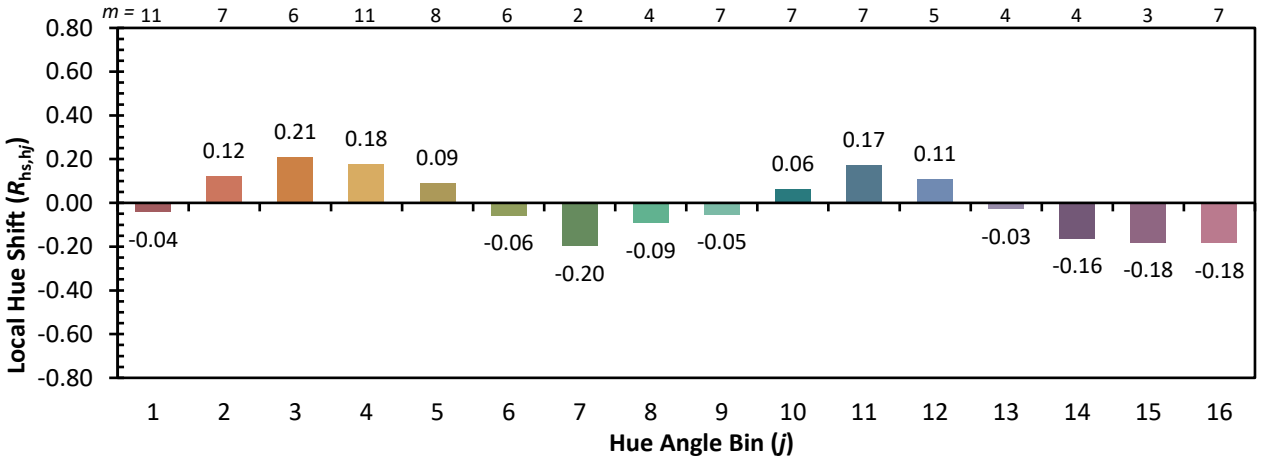


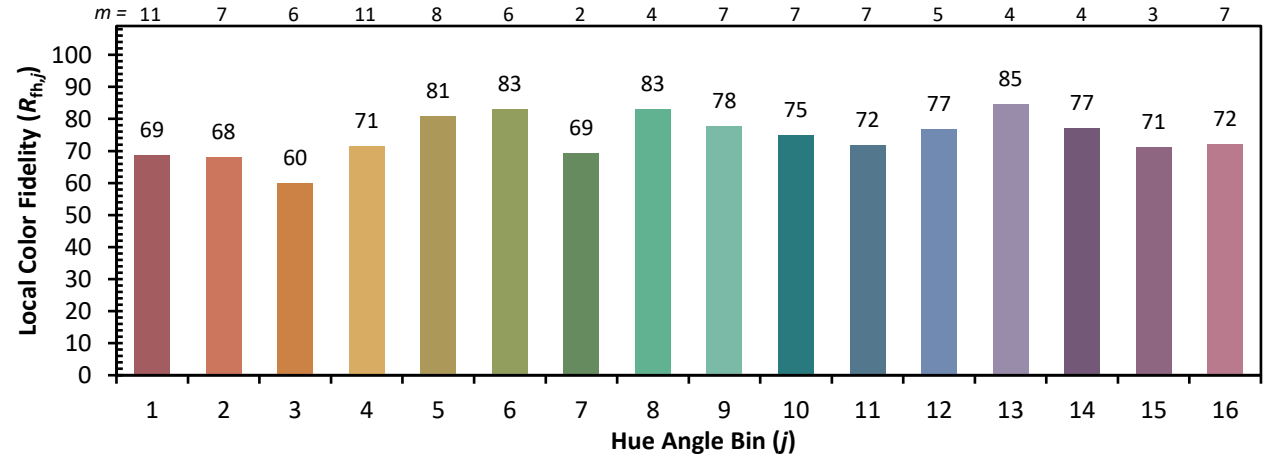
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## Color Rendition by Hue-Angle Bin



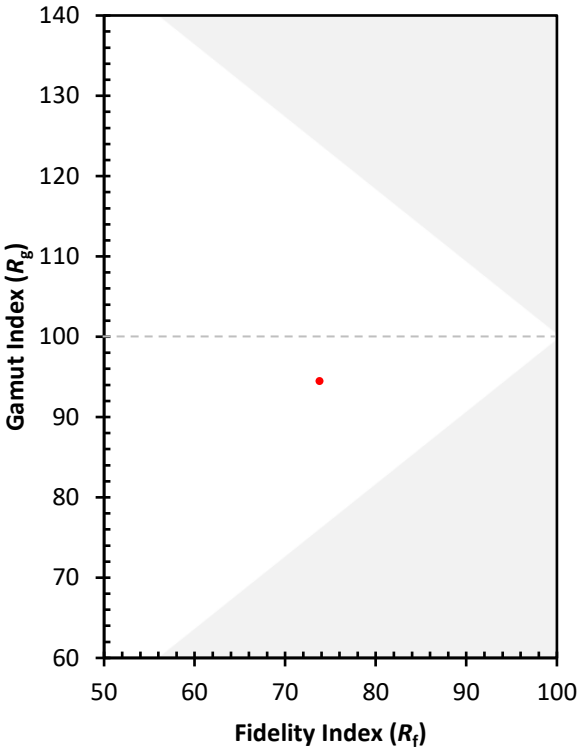



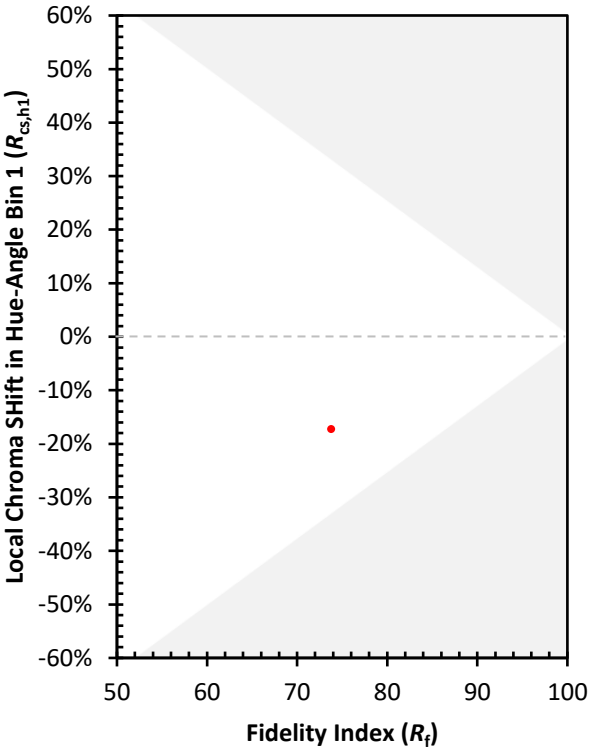



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## Measure Comparisons




(END OF REPORT)