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: P1360399

Luminaire Tested: **GSS-SB1A-750-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: | P1360399 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB1A-750-U-T3-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 1SQUARE 31W 70CRI 5000K FIXTURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (26) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 3127.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 100.9 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B1 - U0 - G1 |

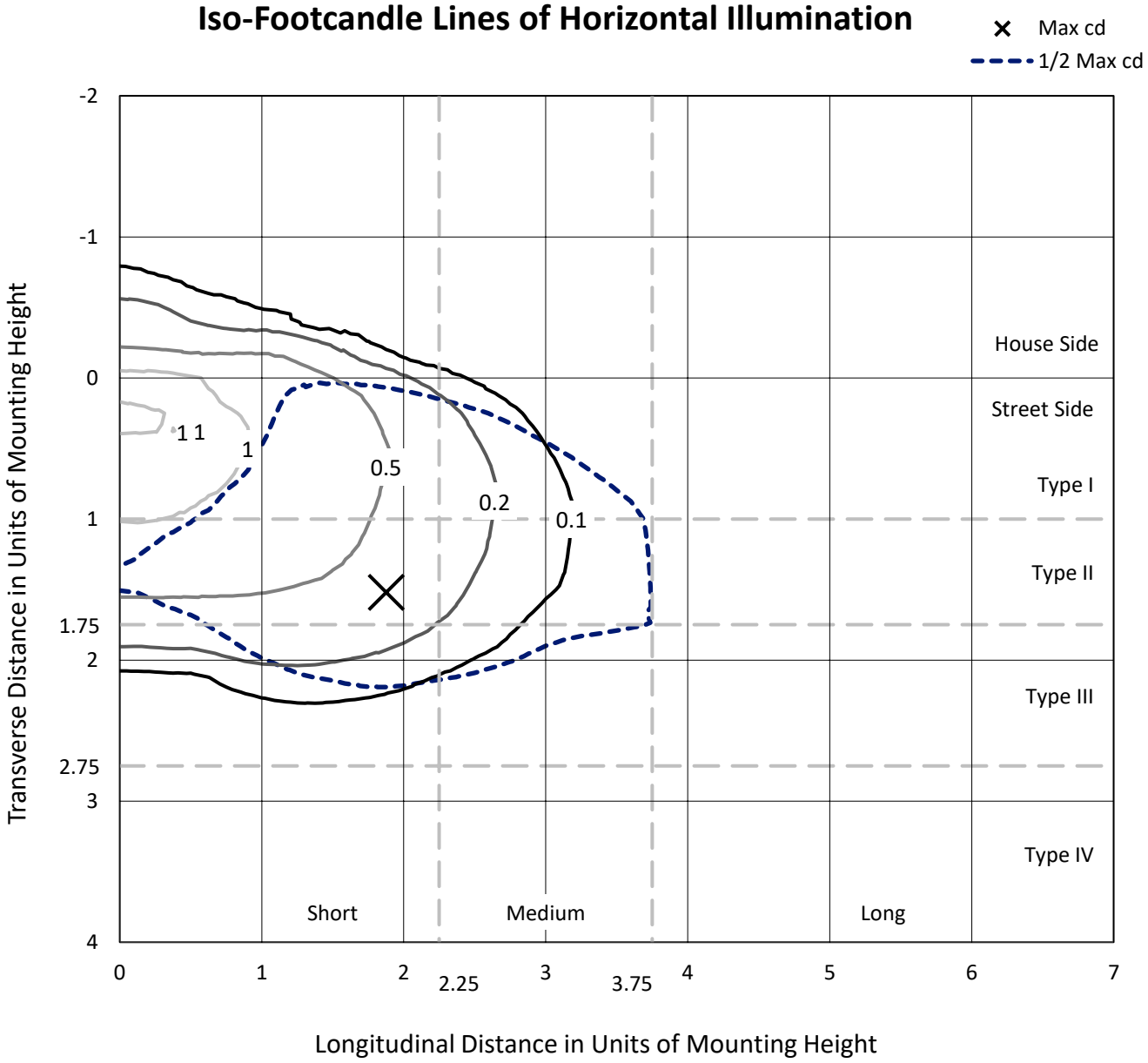
| | |
|---|---|
| Input Watts (W): | 31 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.4% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1360399
CATALOG NUMBER: GSS-SB1A-750-U-T3-HSS

## Iso-Footcandle Lines of Horizontal Illumination



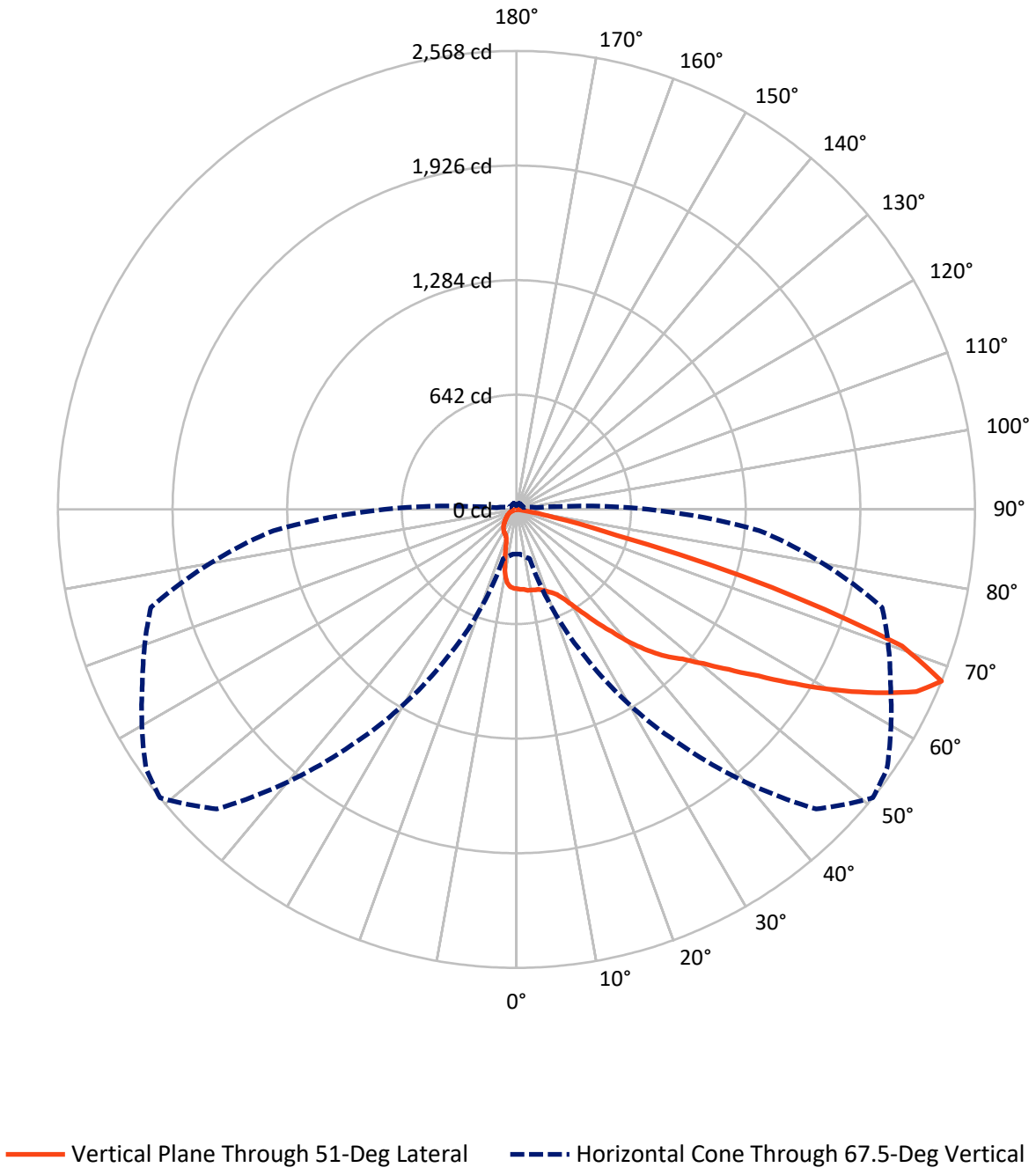

Based on 20 foot mounting height. Maximum calculated value = 1.4 fc
Type III - Short - N/A

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Scaled Data Report

REPORT NUMBER: P1360399
CATALOG NUMBER: GSS-SB1A-750-U-T3-HSS

## Luminous Intensity Polar Plot



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Scaled Data Report

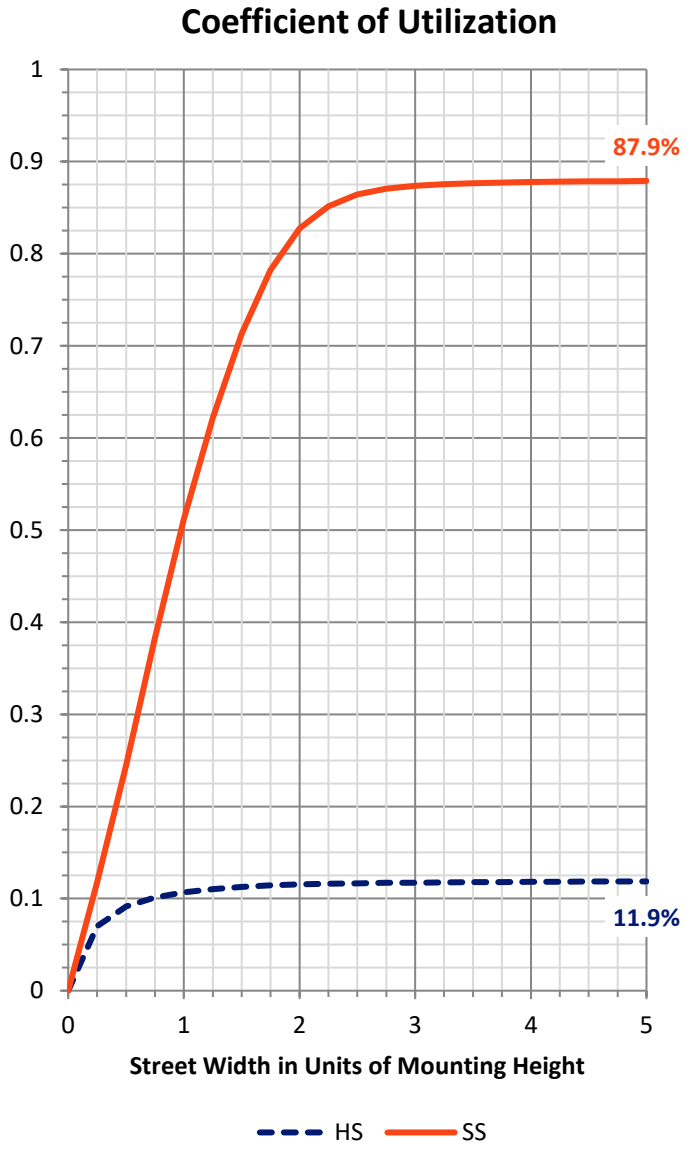
REPORT NUMBER: P1360399
CATALOG NUMBER: GSS-SB1A-750-U-T3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 374.0 | 0.0 | 374.0 |
| | % Fixture | 12.0 | 0.0 | 12.0 |
| **Street Side** | Lumens | 2753.9 | 0.0 | 2753.9 |
| | % Fixture | 88.0 | 0.0 | 88.0 |
| **Total** | Lumens | 3127.9 | 0.0 | 3127.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 40.6 | 1.3 |
| 10°-20° | 104.3 | 3.3 |
| 20°-30° | 185.9 | 5.9 |
| 30°-40° | 332.7 | 10.6 |
| 40°-50° | 524.0 | 16.8 |
| 50°-60° | 762.2 | 24.4 |
| 60°-70° | 829.3 | 26.5 |
| 70°-80° | 335.0 | 10.7 |
| 80°-90° | 14.1 | 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° | 3127.9 | 100.0 |
| 0°-180° | 3127.9 | 100.0 |



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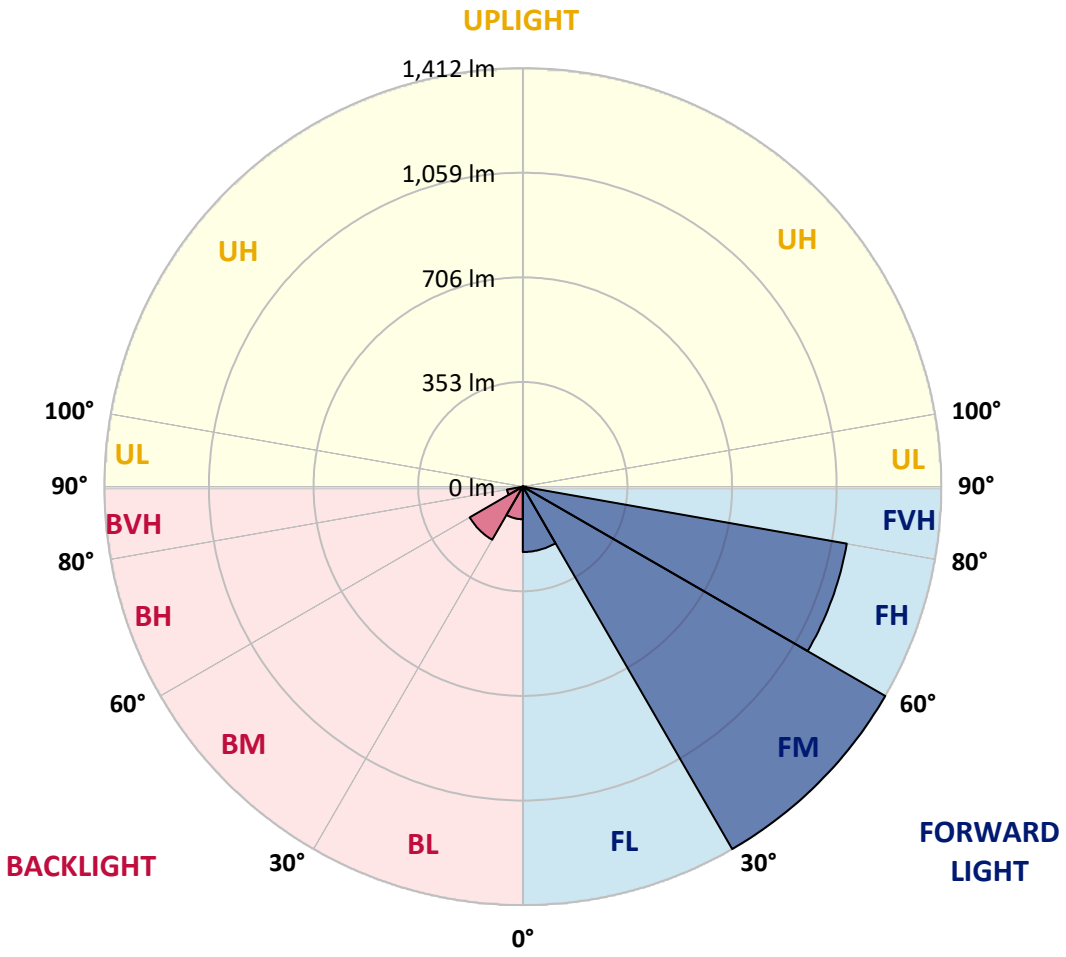
Scaled Data Report

REPORT NUMBER: P1360399
CATALOG NUMBER: GSS-SB1A-750-U-T3-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 220.6 | 7.1 | | | |
| FM | (30°-60°) | 1412.0 | 45.1 | | | |
| FH | (60°-80°) | 1109.9 | 35.5 | | | G1/1800 |
| FVH | (80°-90°) | 11.4 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 110.1 | 3.5 | B1/500 | | |
| BM | (30°-60°) | 206.8 | 6.6 | B0/220 | | |
| BH | (60°-80°) | 54.4 | 1.7 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 2.6 | 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-G1**
Type III Short



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REPORT NUMBER: P1360399
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 51° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | *444.2* | 444.2 | 444.2 | 444.2 | 444.2 |
| 2.5° | 447.9 | 447.0 | 447.9 | 444.2 | 446.0 | 447.0 | *448.8* | 446.0 | 445.1 | 446.0 | 445.1 |
| 5° | 446.0 | 445.1 | 446.0 | 447.0 | 448.8 | 451.7 | *450.7* | 450.7 | 452.6 | 448.8 | 448.8 |
| 7.5° | 430.1 | 429.2 | 434.8 | 436.7 | 444.2 | 450.7 | *458.2* | 455.4 | 459.1 | 458.2 | 455.4 |
| 10° | 410.4 | 407.6 | 413.2 | 423.5 | 434.8 | 451.7 | *459.1* | 461.0 | 469.5 | 473.2 | 471.3 |
| 12.5° | 399.2 | 396.4 | 403.9 | 411.4 | 429.2 | 449.8 | *462.9* | 467.6 | 477.0 | 484.4 | 486.3 |
| 15° | 390.7 | 393.6 | 401.1 | 415.1 | 432.0 | 453.5 | *464.8* | 474.1 | 493.8 | 501.3 | 501.3 |
| 17.5° | 396.4 | 395.4 | 402.0 | 416.0 | 436.7 | 458.2 | *475.1* | 484.4 | 507.9 | 518.2 | 517.2 |
| 20° | 451.7 | 446.0 | 445.1 | 437.6 | 444.2 | 469.5 | *490.1* | 499.4 | 521.9 | 536.0 | 535.0 |
| 22.5° | 522.9 | 528.5 | 513.5 | 496.6 | 476.0 | 484.4 | *506.0* | 519.1 | 541.6 | 556.6 | 551.0 |
| 25° | 619.4 | 616.6 | 606.3 | 572.5 | 535.0 | 517.2 | *528.5* | 541.6 | 569.7 | 581.9 | 572.5 |
| 27.5° | 721.5 | 709.3 | 696.2 | 649.4 | 599.7 | 566.9 | *568.8* | 577.2 | 610.0 | 617.5 | 596.0 |
| 30° | 831.2 | 833.0 | 811.5 | 747.8 | 679.4 | 629.7 | *625.9* | 629.7 | 655.9 | 655.0 | 625.0 |
| 32.5° | 956.7 | 952.0 | 931.4 | 863.0 | 787.1 | 705.6 | *696.2* | 689.7 | 700.9 | 690.6 | 655.9 |
| 35° | 1044.8 | 1049.5 | 1027.0 | 982.0 | 906.1 | 804.9 | *782.4* | 766.5 | 755.3 | 744.0 | 706.5 |
| 37.5° | 1123.5 | 1117.9 | 1104.8 | 1079.5 | 1005.4 | 912.7 | *869.6* | 855.5 | 831.2 | 800.2 | 765.6 |
| 40° | 1141.3 | 1138.5 | 1131.9 | 1132.9 | 1085.1 | 1012.9 | *982.0* | 956.7 | 914.6 | 889.2 | 844.3 |
| 42.5° | 1138.5 | 1147.9 | 1149.7 | 1157.2 | 1130.1 | 1112.3 | *1080.4* | 1056.0 | 1016.7 | 985.8 | 938.9 |
| 45° | 1153.5 | 1169.4 | 1182.5 | 1189.1 | 1171.3 | 1169.4 | *1173.2* | 1161.9 | 1134.8 | 1102.9 | 1049.5 |
| 47.5° | 1183.5 | 1210.7 | 1231.3 | 1245.3 | 1241.6 | 1272.5 | *1252.8* | 1250.0 | 1261.3 | 1230.3 | 1176.9 |
| 50° | 1239.7 | 1247.2 | 1295.9 | 1316.5 | 1351.2 | 1396.2 | *1357.8* | 1367.1 | 1389.6 | 1392.4 | 1294.1 |
| 52.5° | 1281.9 | 1288.4 | 1337.2 | 1398.1 | 1474.9 | 1524.6 | *1489.9* | 1489.0 | 1529.2 | 1540.5 | 1407.4 |
| 55° | 1293.1 | 1308.1 | 1370.9 | 1476.8 | 1621.1 | 1671.7 | *1647.3* | 1638.9 | 1692.3 | 1712.0 | 1507.7 |
| 57.5° | 1277.2 | 1282.8 | 1372.8 | 1525.5 | 1727.0 | 1836.6 | *1844.1* | 1817.9 | 1866.6 | 1871.3 | 1581.7 |
| 60° | 1104.8 | 1129.1 | 1286.6 | 1556.4 | 1816.9 | 2015.6 | *2054.9* | 2039.9 | 2043.7 | 2035.2 | 1637.0 |
| 62.5° | 763.7 | 768.4 | 999.8 | 1523.6 | 1890.9 | 2196.4 | *2262.0* | 2250.8 | 2218.9 | 2139.3 | 1608.9 |
| 65° | 363.6 | 388.9 | 536.9 | 1289.4 | 1901.3 | 2334.2 | *2461.6* | 2469.1 | 2321.0 | 2140.2 | 1500.2 |
| 67.5° | *250.2* | *251.1* | *285.8* | *909.9* | *1612.6* | *2373.5* | *2568.4* | *2533.8* | *2311.7* | *2120.5* | *1367.1* |
| 70° | 158.4 | 147.1 | 164.9 | 519.1 | 1089.8 | 1863.8 | *2291.1* | 2412.9 | 2272.3 | 1992.1 | 1155.4 |
| 72.5° | 62.8 | 67.5 | 77.8 | 170.5 | 534.1 | 1061.7 | *1496.5* | 1836.6 | 2049.3 | 1723.2 | 902.4 |
| 75° | 28.1 | 30.0 | 39.4 | 71.2 | 137.7 | 432.9 | *579.1* | 811.5 | 1639.8 | 1360.6 | 639.1 |
| 77.5° | 18.7 | 19.7 | 25.3 | 41.2 | 62.8 | 120.9 | *211.8* | 248.3 | 983.0 | 744.0 | 299.9 |
| 80° | 11.2 | 12.2 | 16.9 | 25.3 | 34.7 | 43.1 | *64.7* | 75.0 | 259.6 | 246.4 | 82.5 |
| 82.5° | 7.5 | 6.6 | 11.2 | 14.1 | 20.6 | 17.8 | *20.6* | 24.4 | 71.2 | 62.8 | 22.5 |
| 85° | 2.8 | 2.8 | 4.7 | 5.6 | 7.5 | 9.4 | *8.4* | 10.3 | 16.9 | 16.9 | 10.3 |
| 87.5° | 0.0 | 0.0 | 0.9 | 0.9 | 2.8 | 3.7 | *4.7* | 4.7 | 6.6 | 6.6 | 5.6 |
| 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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Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1360399
CATALOG NUMBER: GSS-SB1A-750-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 | 444.2 |
| 2.5° | 446.0 | 443.2 | 444.2 | 442.3 | 443.2 | 441.3 | 437.6 | 441.3 | 438.5 | 438.5 | 441.3 |
| 5° | 448.8 | 447.9 | 445.1 | 440.4 | 437.6 | 431.0 | 420.7 | 416.0 | 411.4 | 408.5 | 410.4 |
| 7.5° | 458.2 | 454.5 | 449.8 | 438.5 | 423.5 | 403.9 | 383.2 | 359.8 | 342.0 | 340.1 | 333.6 |
| 10° | 470.4 | 466.6 | 456.3 | 431.0 | 400.1 | 343.9 | 298.9 | 268.0 | 249.3 | 237.1 | 232.4 |
| 12.5° | 486.3 | 481.6 | 462.9 | 419.8 | 343.9 | 265.2 | 211.8 | 189.3 | 182.7 | 179.9 | 179.0 |
| 15° | 501.3 | 495.7 | 462.9 | 383.2 | 278.3 | 199.6 | 172.4 | 166.8 | 165.9 | 166.8 | 165.9 |
| 17.5° | 515.4 | 507.9 | 458.2 | 333.6 | 213.6 | 168.7 | 162.1 | 159.3 | 158.4 | 157.4 | 157.4 |
| 20° | 532.2 | 520.1 | 445.1 | 279.2 | 176.2 | 160.2 | 157.4 | 153.7 | 153.7 | 149.9 | 150.9 |
| 22.5° | 548.2 | 531.3 | 419.8 | 224.9 | 162.1 | 155.5 | 152.7 | 149.0 | 147.1 | 144.3 | 144.3 |
| 25° | 564.1 | 542.5 | 389.8 | 186.5 | 153.7 | 150.9 | 148.1 | 144.3 | 139.6 | 135.9 | 135.9 |
| 27.5° | 587.5 | 557.5 | 354.2 | 170.5 | 149.0 | 144.3 | 141.5 | 136.8 | 131.2 | 126.5 | 126.5 |
| 30° | 613.8 | 578.2 | 325.2 | 167.7 | 147.1 | 135.9 | 131.2 | 123.7 | 119.9 | 116.2 | 116.2 |
| 32.5° | 645.6 | 606.3 | 303.6 | 172.4 | 142.4 | 124.6 | 117.1 | 109.6 | 106.8 | 106.8 | 106.8 |
| 35° | 692.5 | 647.5 | 280.2 | 173.4 | 136.8 | 113.4 | 101.2 | 93.7 | 93.7 | 97.5 | 97.5 |
| 37.5° | 755.3 | 692.5 | 268.0 | 171.5 | 132.1 | 102.1 | 88.1 | 82.5 | 81.5 | 85.3 | 85.3 |
| 40° | 827.4 | 742.1 | 272.7 | 164.9 | 125.6 | 90.9 | 77.8 | 73.1 | 72.2 | 73.1 | 74.0 |
| 42.5° | 906.1 | 795.5 | 283.9 | 155.5 | 114.3 | 81.5 | 70.3 | 67.5 | 66.5 | 66.5 | 66.5 |
| 45° | 989.5 | 832.1 | 295.2 | 146.2 | 103.1 | 74.0 | 65.6 | 63.7 | 62.8 | 62.8 | 62.8 |
| 47.5° | 1069.2 | 861.1 | 287.7 | 137.7 | 93.7 | 69.3 | 61.8 | 61.8 | 60.9 | 60.9 | 60.9 |
| 50° | 1137.6 | 858.3 | 255.8 | 129.3 | 83.4 | 65.6 | 60.0 | 59.0 | 59.0 | 58.1 | 58.1 |
| 52.5° | 1176.0 | 801.2 | 206.1 | 119.9 | 74.0 | 61.8 | 58.1 | 57.2 | 56.2 | 55.3 | 55.3 |
| 55° | 1191.0 | 725.3 | 160.2 | 105.9 | 67.5 | 59.0 | 56.2 | 55.3 | 53.4 | 52.5 | 51.5 |
| 57.5° | 1164.7 | 613.8 | 123.7 | 84.3 | 61.8 | 55.3 | 53.4 | 52.5 | 50.6 | 47.8 | 46.9 |
| 60° | 1111.3 | 491.9 | 92.8 | 64.7 | 55.3 | 50.6 | 50.6 | 49.7 | 45.9 | 41.2 | 40.3 |
| 62.5° | 1017.6 | 353.3 | 70.3 | 52.5 | 47.8 | 45.9 | 47.8 | 45.9 | 40.3 | 33.7 | 32.8 |
| 65° | 885.5 | 218.3 | 54.3 | 45.0 | 42.2 | 40.3 | 43.1 | 41.2 | 34.7 | 27.2 | 25.3 |
| 67.5° | *740.3* | *111.5* | *42.2* | *38.4* | *35.6* | *33.7* | *36.5* | *36.5* | *30.0* | *22.5* | *21.6* |
| 70° | 571.6 | 61.8 | 33.7 | 31.9 | 29.0 | 26.2 | 30.9 | 31.9 | 26.2 | 19.7 | 18.7 |
| 72.5° | 424.5 | 39.4 | 27.2 | 26.2 | 22.5 | 18.7 | 25.3 | 27.2 | 22.5 | 15.0 | 14.1 |
| 75° | 277.4 | 30.9 | 20.6 | 20.6 | 15.9 | 15.0 | 21.6 | 23.4 | 19.7 | 11.2 | 11.2 |
| 77.5° | 133.1 | 23.4 | 15.9 | 14.1 | 11.2 | 11.2 | 18.7 | 19.7 | 14.1 | 8.4 | 8.4 |
| 80° | 44.0 | 15.9 | 11.2 | 9.4 | 7.5 | 7.5 | 15.0 | 11.2 | 7.5 | 6.6 | 6.6 |
| 82.5° | 15.0 | 10.3 | 7.5 | 6.6 | 5.6 | 4.7 | 4.7 | 5.6 | 5.6 | 4.7 | 4.7 |
| 85° | 7.5 | 6.6 | 5.6 | 4.7 | 3.7 | 3.7 | 3.7 | 3.7 | 4.7 | 4.7 | 4.7 |
| 87.5° | 4.7 | 4.7 | 3.7 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 3.7 | 1.9 | 1.9 |
| 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
1121 Highway 74 South
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: SP1-2407-184-6

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-750-U-5WQ

Data in this report applies to families of products including GSS-SB1A-750-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

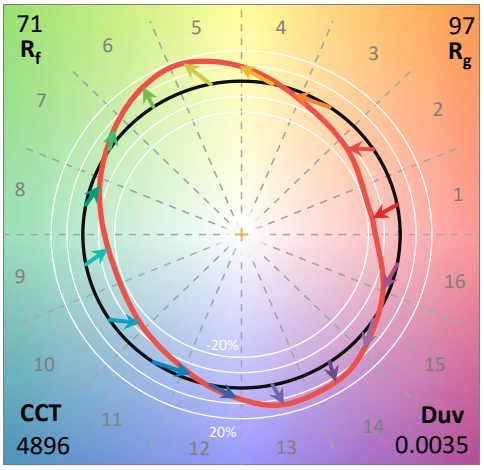
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-6 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/15/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GSS-SB1A-750-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 5000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 4896 |
| CIE u': | 0.2101 |
| CIE v': | 0.4901 |
| Duv: | 0.0035 |
| CIE x: | 0.3489 |
| CIE y: | 0.3618 |
| CIE z: | 0.2893 |
| Peak Wavelength (nm): | 443 |
| Dominant Wavelength (nm): | 570 |
| Purity: | 13.25435 |
| Rf: | 70.7 |
| Rg: | 96.8 |

| | |
|---|---|
| CRI (Ra): | 70.2 |
| R1: | 68.1 |
| R2: | 73.9 |
| R3: | 79.4 |
| R4: | 72.1 |
| R5: | 69.2 |
| R6: | 65.7 |
| R7: | 78.1 |
| R8: | 55.3 |
| R9: | -35.1 |
| R10: | 39.3 |
| R11: | 71.1 |
| R12: | 43.8 |
| R13: | 68.1 |
| R14: | 88.4 |
| R15: | 59.7 |




## Test Conditions

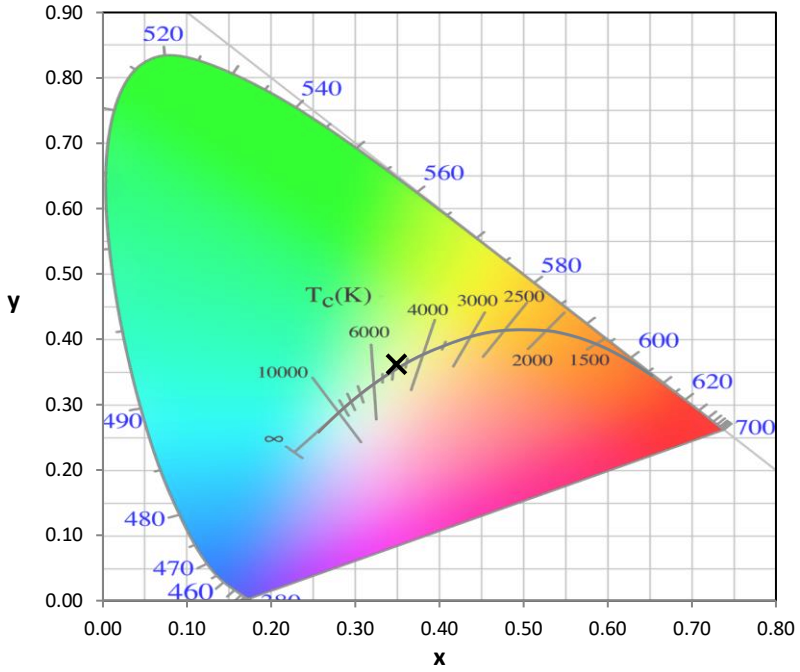
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-6

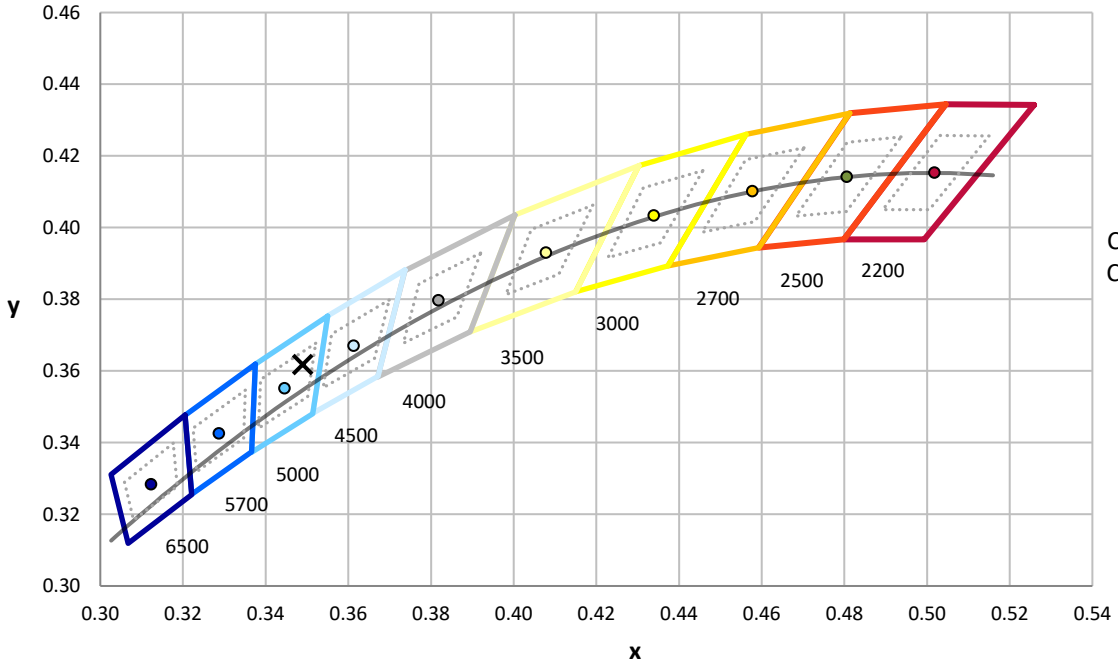
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

REPORT NUMBER: SP1-2407-184-6

## CIE 1931 Chromaticity Diagram




## CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

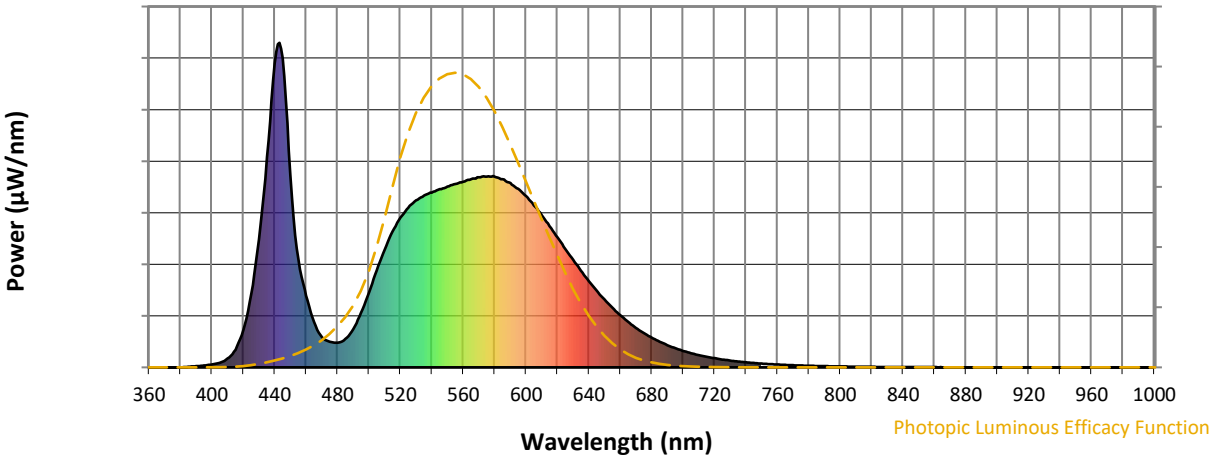



CCT = 4896K
CIE x = 0.3489
CIE y = 0.3618
Duv = 0.0035

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

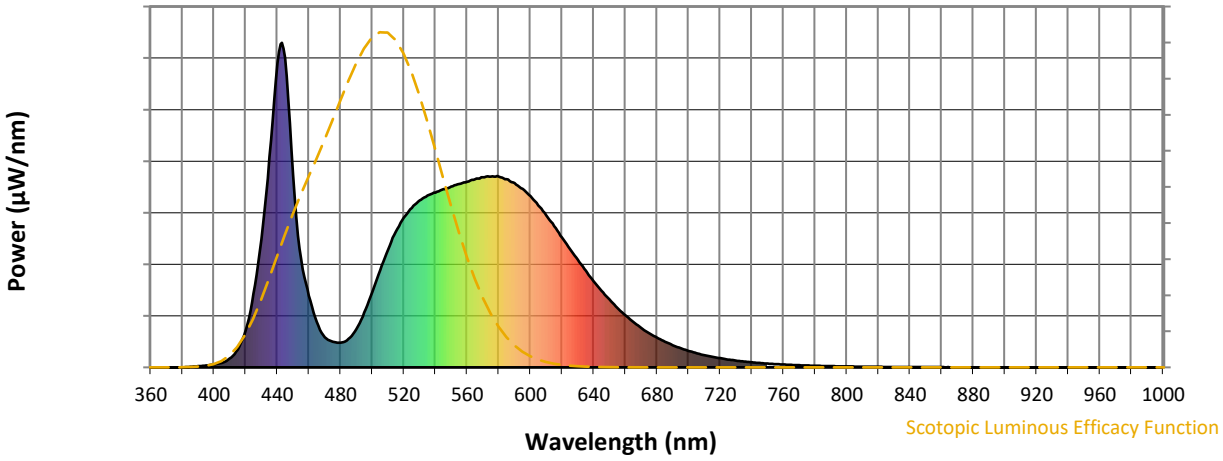



## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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## Scotopic Flux vs. Wavelength

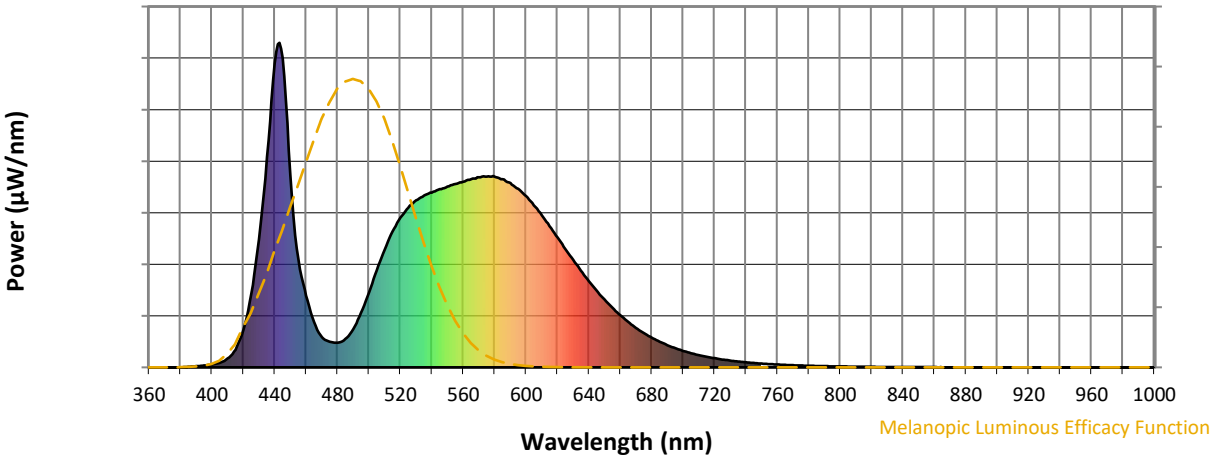



**Scotopic Lumens: NR** **S/P: 1.7**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.37**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

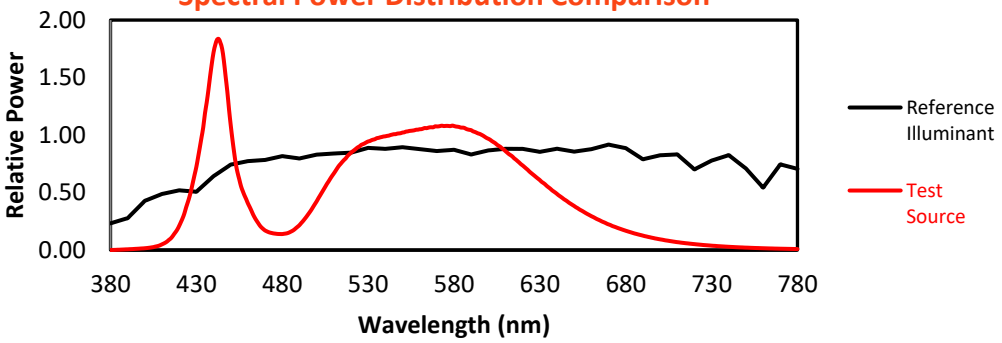
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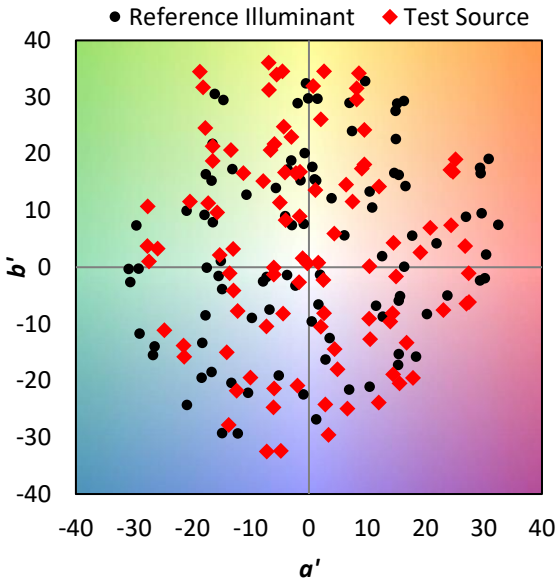
## Summary

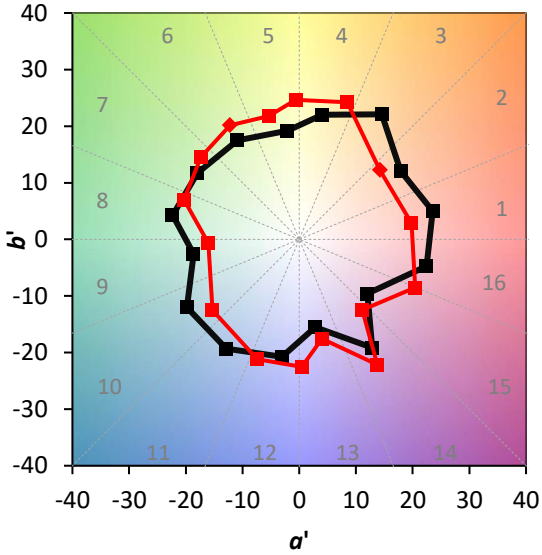
$R_f$ = 70.7
$R_g$ = 96.8
CIE $R_a$ = 70.2
$R_9$ = -35.1

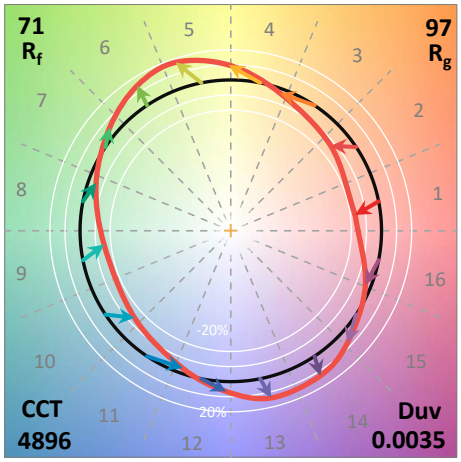
## Spectral Power Distribution Comparison

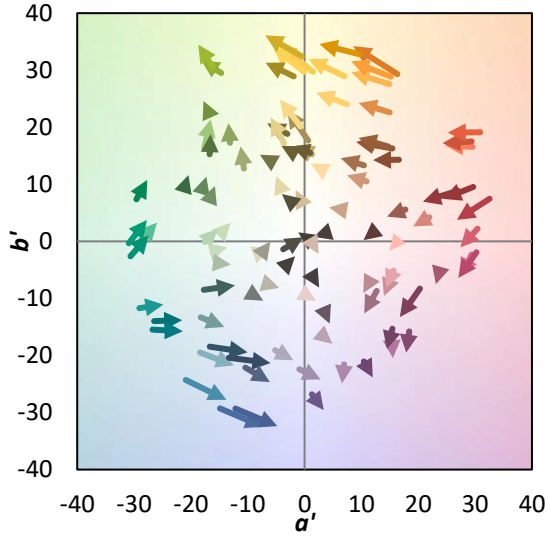



## Color Vector Graphics



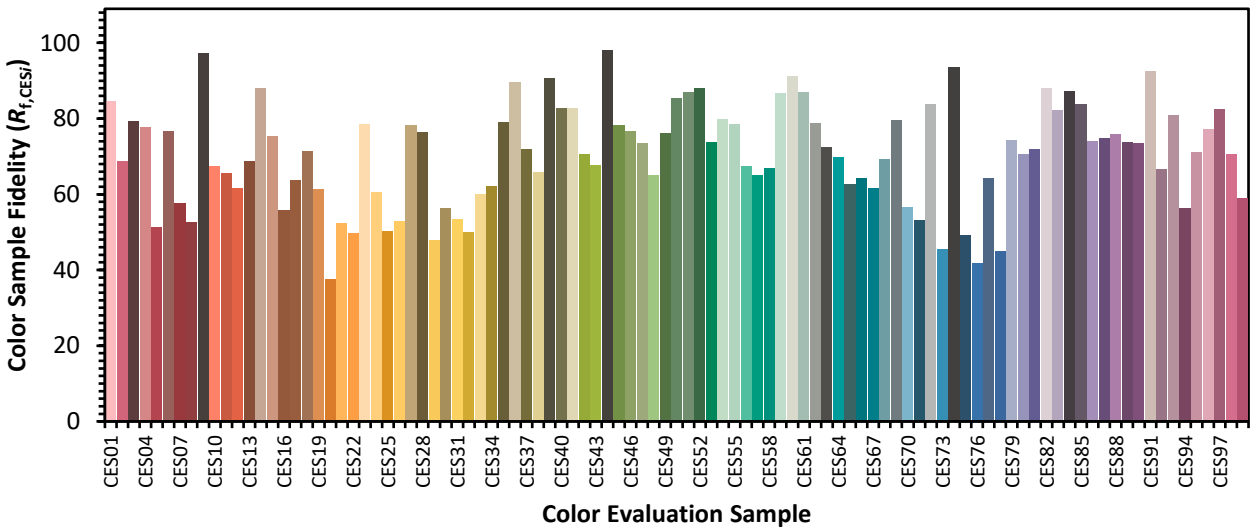



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## Individual Sample Fidelity Index ($R_{f,i}$)

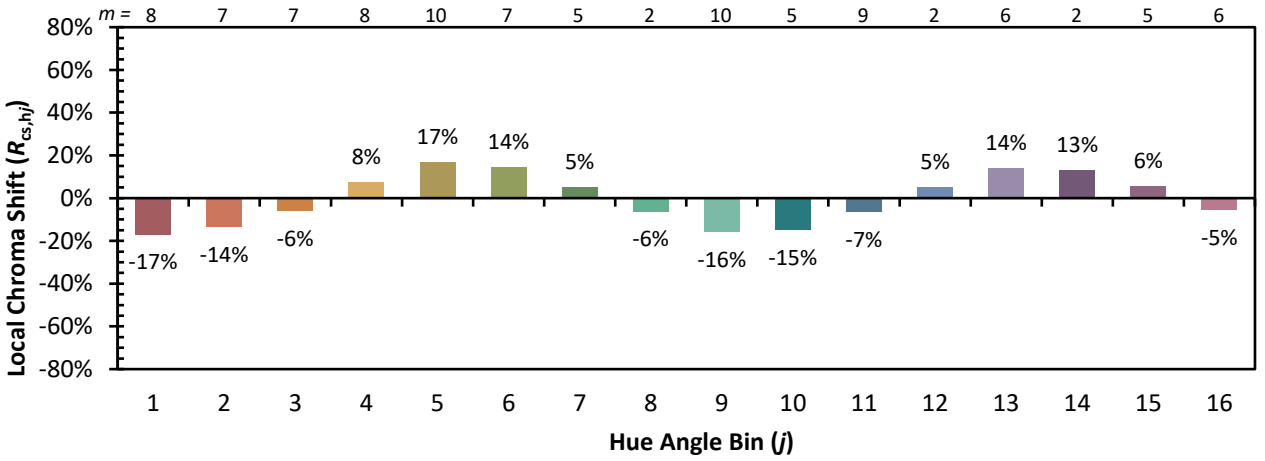
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 53 | CES51 = 87 | CES76 = 42 |
| CES02 = 59 | CES27 = 78 | CES52 = 88 | CES77 = 64 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 45 |
| CES04 = 69 | CES29 = 48 | CES54 = 80 | CES79 = 74 |
| CES05 = 46 | CES30 = 56 | CES55 = 79 | CES80 = 71 |
| CES06 = 50 | CES31 = 54 | CES56 = 68 | CES81 = 72 |
| CES07 = 39 | CES32 = 50 | CES57 = 65 | CES82 = 88 |
| CES08 = 38 | CES33 = 60 | CES58 = 67 | CES83 = 82 |
| CES09 = 29 | CES34 = 62 | CES59 = 87 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 91 | CES85 = 84 |
| CES11 = 56 | CES36 = 90 | CES61 = 87 | CES86 = 74 |
| CES12 = 61 | CES37 = 72 | CES62 = 79 | CES87 = 75 |
| CES13 = 41 | CES38 = 66 | CES63 = 72 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 70 | CES89 = 74 |
| CES15 = 70 | CES40 = 83 | CES65 = 63 | CES90 = 73 |
| CES16 = 46 | CES41 = 83 | CES66 = 64 | CES91 = 92 |
| CES17 = 49 | CES42 = 70 | CES67 = 62 | CES92 = 67 |
| CES18 = 55 | CES43 = 68 | CES68 = 69 | CES93 = 81 |
| CES19 = 71 | CES44 = 98 | CES69 = 80 | CES94 = 56 |
| CES20 = 64 | CES45 = 78 | CES70 = 56 | CES95 = 71 |
| CES21 = 85 | CES46 = 77 | CES71 = 53 | CES96 = 77 |
| CES22 = 77 | CES47 = 73 | CES72 = 84 | CES97 = 82 |
| CES23 = 91 | CES48 = 65 | CES73 = 46 | CES98 = 71 |
| CES24 = 90 | CES49 = 76 | CES74 = 94 | CES99 = 59 |
| CES25 = 71 | CES50 = 85 | CES75 = 49 | |

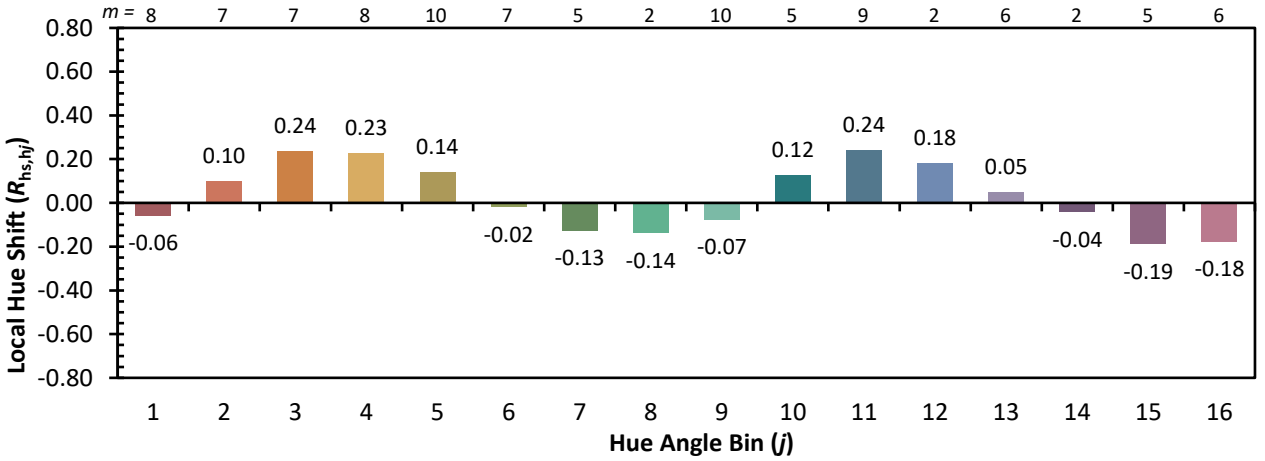


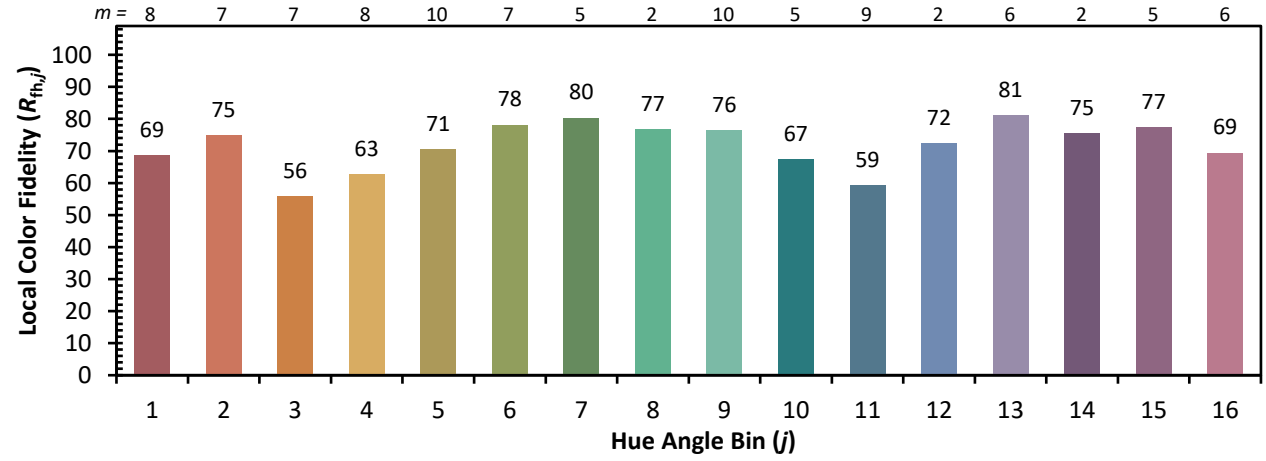
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## Color Rendition by Hue-Angle Bin



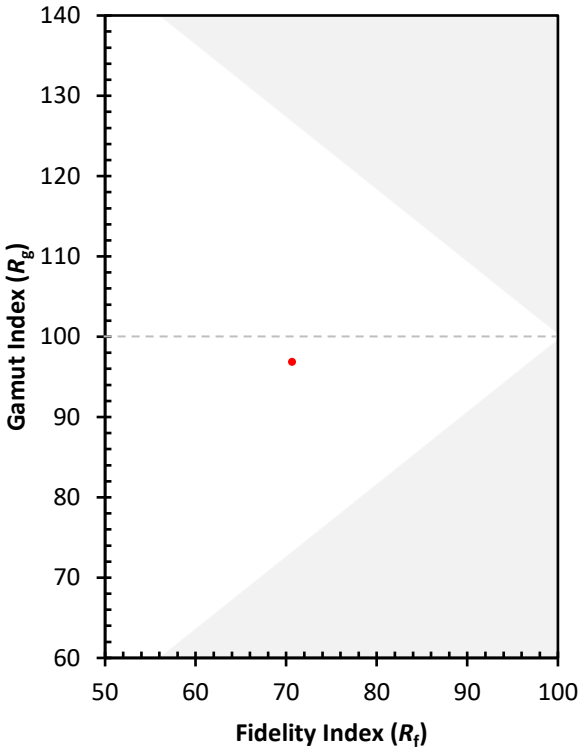



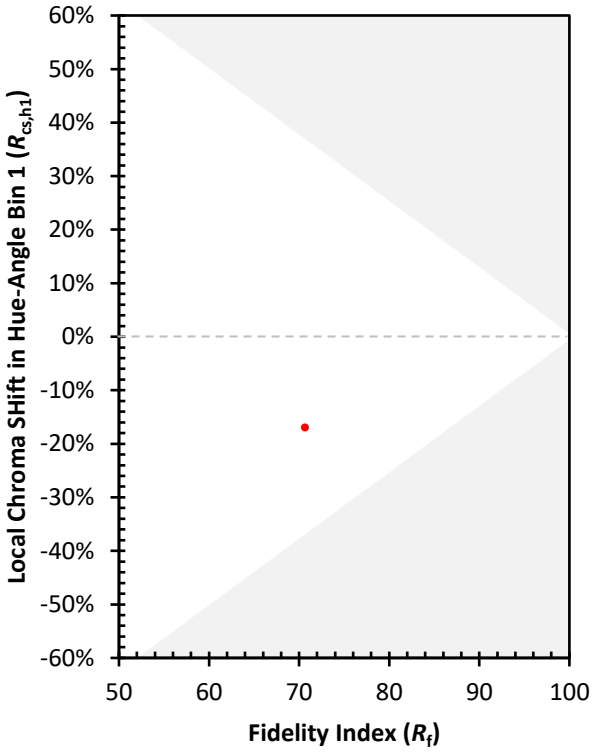



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## Measure Comparisons




(END OF REPORT)