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: P1359223

Luminaire Tested: **GSS-SB1A-735-U-T2**

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: | P1359223 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB1A-735-U-T2 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 1SQUARE 31W 70CRI 3500K FIXTURE w/ TYPE II DISTRIBUTION OPTIC |
| Light Source: | (26) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 3965.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 127.9 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B1 - U0 - G1 |

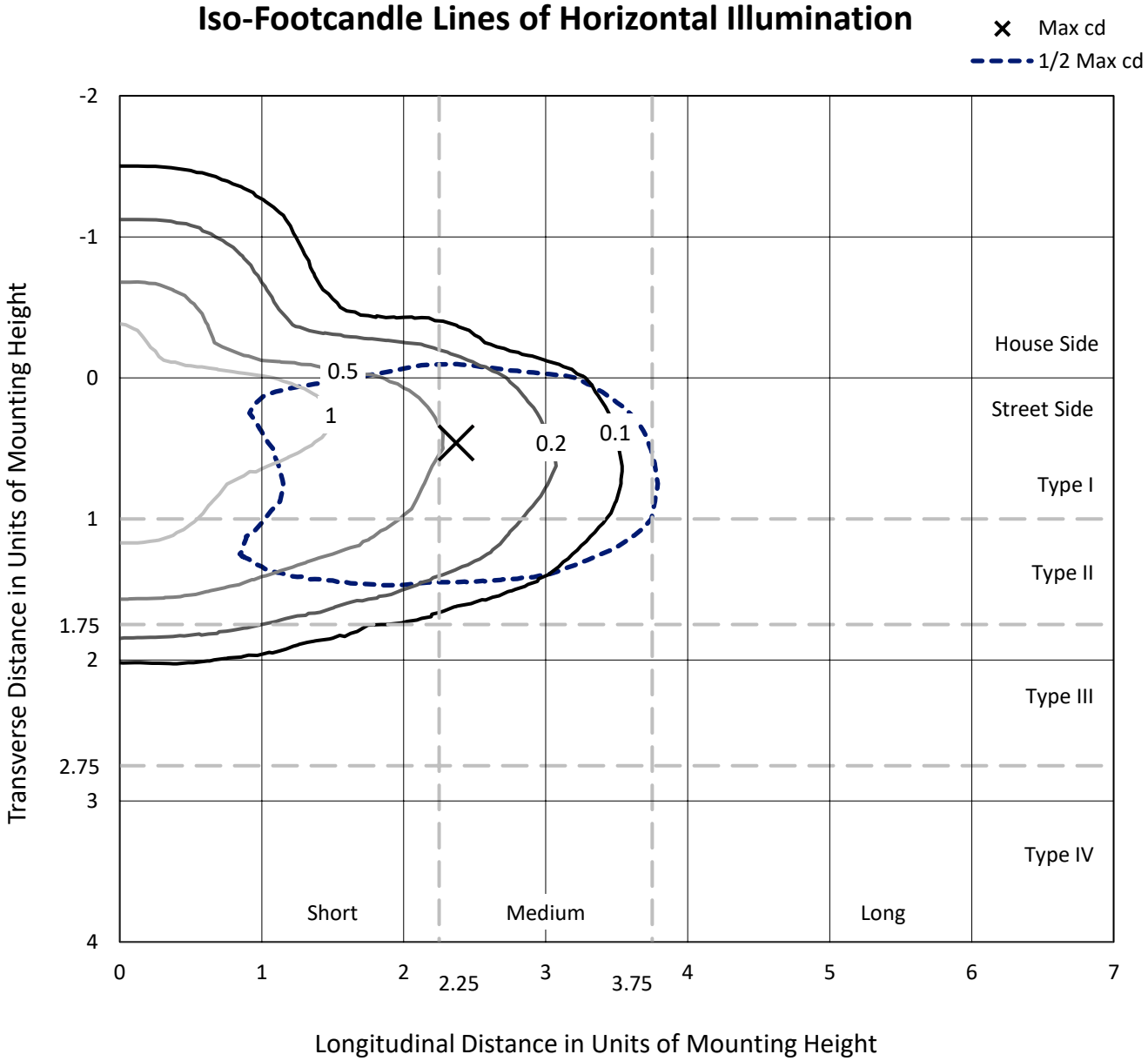
| | |
|---|---|
| Input Watts (W): | 31 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.4% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature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

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Scaled Data Report

REPORT NUMBER: P1359223
CATALOG NUMBER: GSS-SB1A-735-U-T2

## Iso-Footcandle Lines of Horizontal Illumination



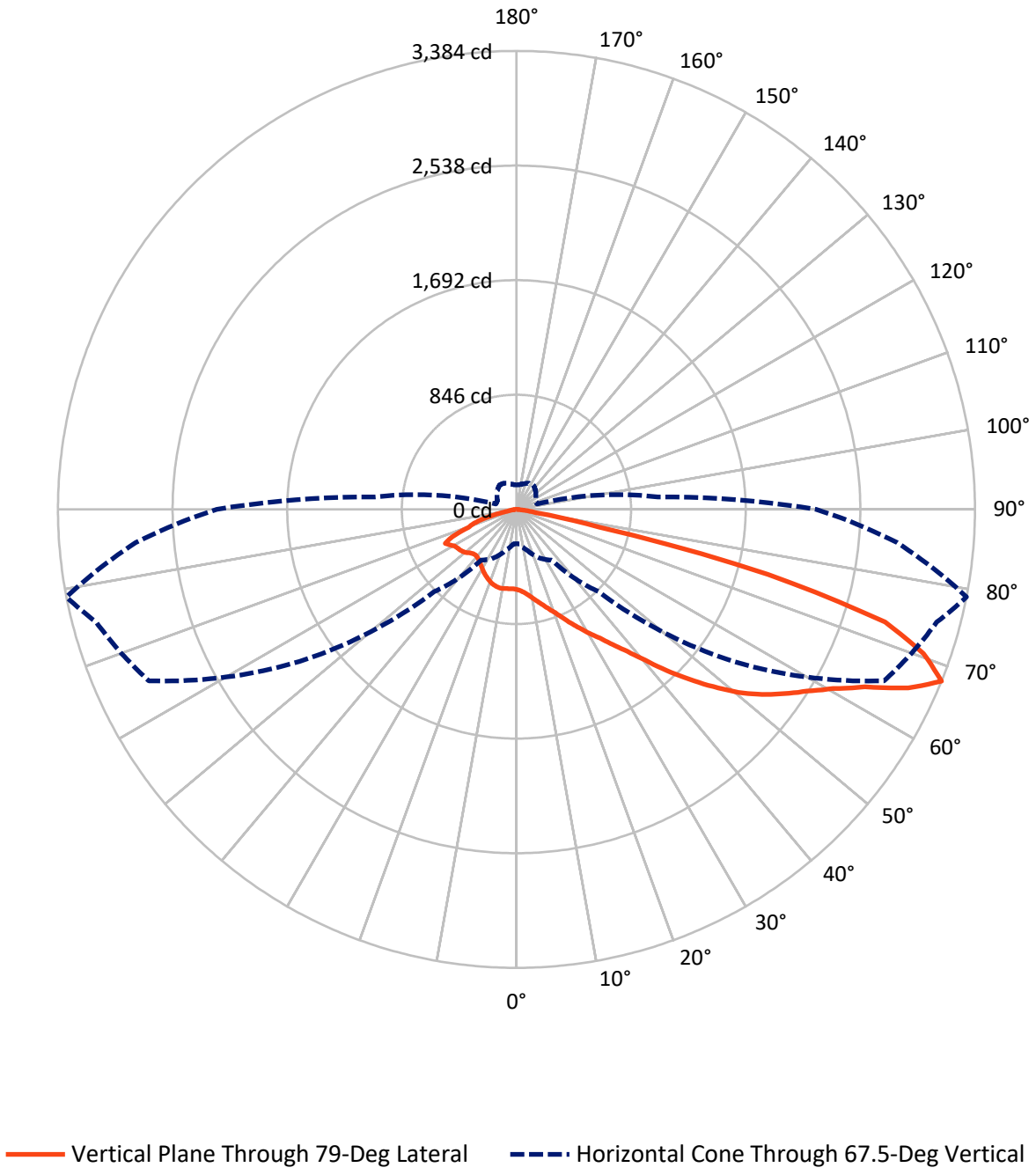

Based on 20 foot mounting height. Maximum calculated value = 1.8 fc
Type II - Medium - N/A

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Scaled Data Report

REPORT NUMBER: P1359223
CATALOG NUMBER: GSS-SB1A-735-U-T2

## Luminous Intensity Polar Plot



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Scaled Data Report

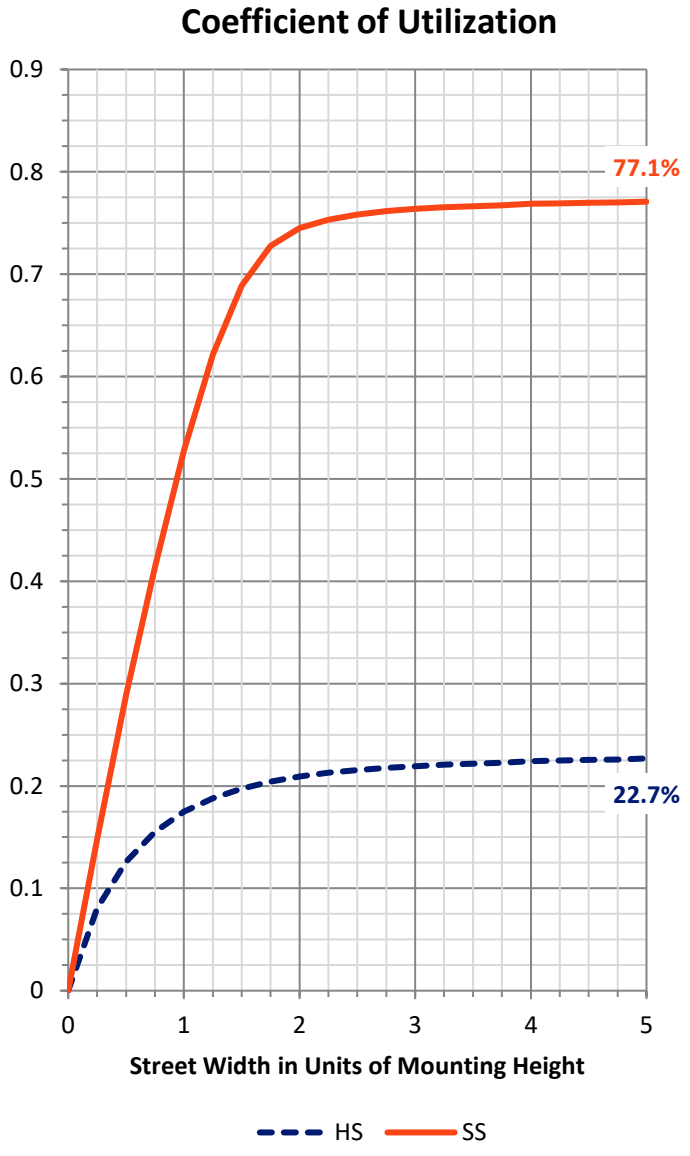
REPORT NUMBER: P1359223
CATALOG NUMBER: GSS-SB1A-735-U-T2

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 908.7 | 0.0 | 908.7 |
| | % Fixture | 22.9 | 0.0 | 22.9 |
| **Street Side** | Lumens | 3057.1 | 0.0 | 3057.1 |
| | % Fixture | 77.1 | 0.0 | 77.1 |
| **Total** | Lumens | 3965.8 | 0.0 | 3965.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 56.5 | 1.4 |
| 10°-20° | 170.2 | 4.3 |
| 20°-30° | 287.5 | 7.2 |
| 30°-40° | 443.5 | 11.2 |
| 40°-50° | 677.3 | 17.1 |
| 50°-60° | 936.5 | 23.6 |
| 60°-70° | 946.4 | 23.9 |
| 70°-80° | 416.4 | 10.5 |
| 80°-90° | 31.4 | 0.8 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 3965.8 | 100.0 |
| 0°-180° | 3965.8 | 100.0 |



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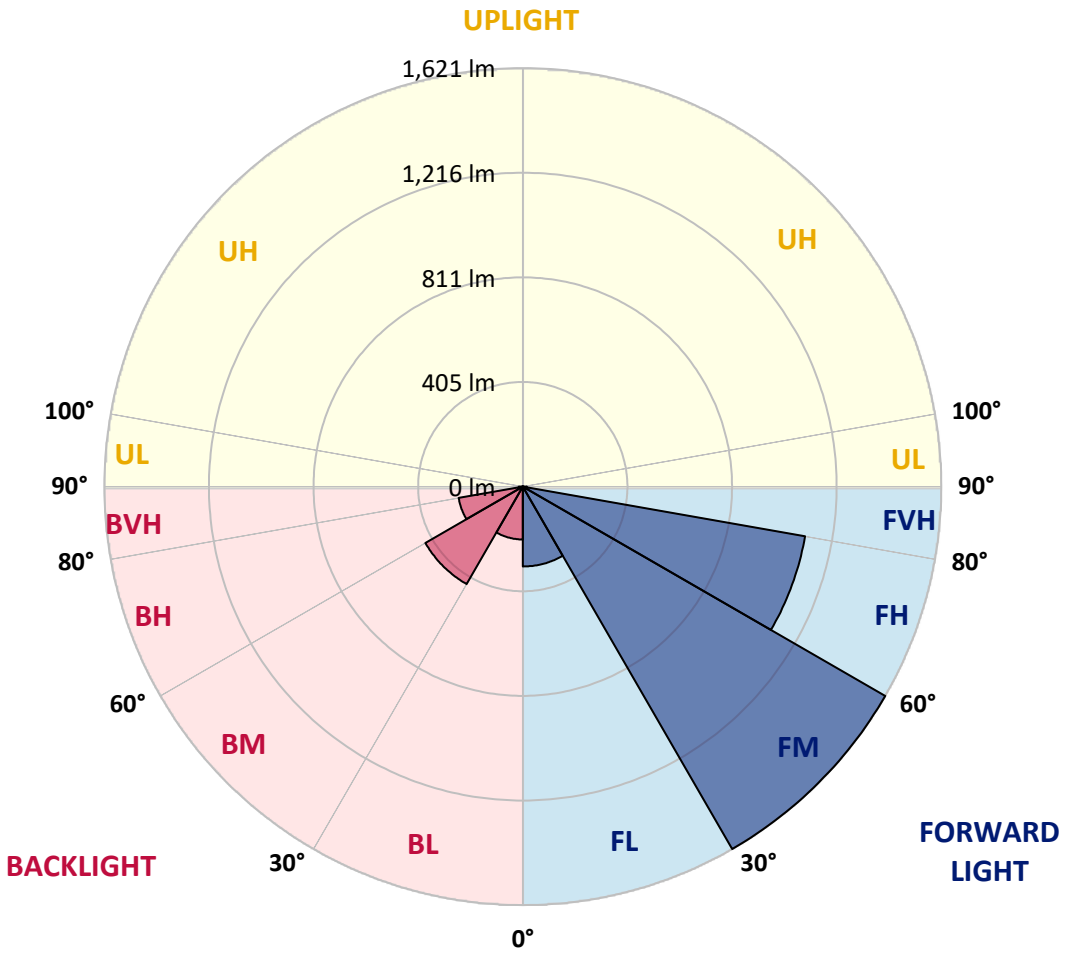
Scaled Data Report

REPORT NUMBER: P1359223
CATALOG NUMBER: GSS-SB1A-735-U-T2

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 309.4 | 7.8 | | | |
| FM | (30°-60°) | 1621.4 | 40.9 | | | |
| FH | (60°-80°) | 1110.4 | 28.0 | | | G1/1800 |
| FVH | (80°-90°) | 15.9 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 204.8 | 5.2 | B1/500 | | |
| BM | (30°-60°) | 436.0 | 11.0 | B1/1000 | | |
| BH | (60°-80°) | 252.4 | 6.4 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 15.5 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G1**
Type II Medium



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Scaled Data Report

REPORT NUMBER: P1359223
CATALOG NUMBER: GSS-SB1A-735-U-T2

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | *591.5* | 591.5 |
| 2.5° | 619.0 | 628.7 | 628.7 | 624.3 | 622.5 | 621.6 | 615.4 | 608.3 | 605.7 | *601.2* | 598.6 |
| 5° | 657.0 | 657.0 | 658.8 | 654.4 | 657.0 | 653.5 | 644.6 | 635.8 | 625.2 | *617.2* | 613.6 |
| 7.5° | 660.6 | 667.7 | 672.1 | 672.1 | 677.4 | 678.3 | 673.9 | 664.1 | 650.8 | *638.4* | 632.2 |
| 10° | 664.1 | 670.3 | 670.3 | 677.4 | 688.9 | 697.8 | 700.4 | 696.9 | 675.6 | *666.8* | 654.4 |
| 12.5° | 656.1 | 663.2 | 665.9 | 680.1 | 696.0 | 712.8 | 725.2 | 727.0 | 713.7 | *697.8* | 679.2 |
| 15° | 628.7 | 634.9 | 645.5 | 666.8 | 695.1 | 720.8 | 744.7 | 758.0 | 742.9 | *731.4* | 705.7 |
| 17.5° | 591.5 | 595.0 | 612.8 | 640.2 | 679.2 | 722.6 | 764.2 | 789.9 | 786.3 | *771.3* | 741.2 |
| 20° | 588.0 | 591.5 | 596.8 | 617.2 | 662.3 | 716.4 | 776.6 | 826.2 | 835.9 | *812.9* | 775.7 |
| 22.5° | 618.1 | 621.6 | 621.6 | 624.3 | 652.6 | 711.0 | 789.0 | 865.1 | 887.3 | *867.8* | 820.0 |
| 25° | 659.7 | 666.8 | 658.8 | 652.6 | 662.3 | 714.6 | 796.1 | 909.4 | 952.8 | *928.9* | 869.6 |
| 27.5° | 719.0 | 718.1 | 711.0 | 692.5 | 689.8 | 725.2 | 815.5 | 943.9 | 1015.7 | *990.9* | 920.9 |
| 30° | 801.4 | 805.8 | 789.9 | 750.9 | 733.2 | 749.1 | 842.1 | 972.3 | 1082.1 | *1061.7* | 969.6 |
| 32.5° | 894.3 | 892.6 | 873.1 | 835.9 | 792.5 | 788.1 | 866.9 | 1002.4 | 1158.2 | *1132.5* | 1030.7 |
| 35° | 994.4 | 992.6 | 986.4 | 922.7 | 866.0 | 842.1 | 906.7 | 1036.9 | 1246.8 | *1225.5* | 1102.4 |
| 37.5° | 1084.7 | 1092.7 | 1111.3 | 1008.6 | 948.4 | 912.9 | 958.1 | 1094.5 | 1360.1 | *1329.1* | 1189.2 |
| 40° | 1161.8 | 1175.9 | 1193.6 | 1100.7 | 1025.4 | 995.3 | 1026.3 | 1188.3 | 1481.4 | *1462.8* | 1293.7 |
| 42.5° | 1232.6 | 1242.3 | 1240.6 | 1183.9 | 1119.3 | 1085.6 | 1112.2 | 1285.7 | 1638.2 | *1624.9* | 1422.1 |
| 45° | 1319.4 | 1330.0 | 1325.6 | 1271.6 | 1206.9 | 1176.8 | 1224.6 | 1400.0 | 1786.9 | *1788.7* | 1543.4 |
| 47.5° | 1404.4 | 1415.0 | 1412.4 | 1362.8 | 1300.8 | 1276.0 | 1341.5 | 1534.6 | 1930.4 | *1954.3* | 1675.3 |
| 50° | 1484.1 | 1493.8 | 1499.1 | 1468.1 | 1414.1 | 1387.6 | 1455.7 | 1661.2 | 2069.4 | *2123.4* | 1801.1 |
| 52.5° | 1506.2 | 1518.6 | 1554.9 | 1566.4 | 1542.5 | 1510.6 | 1560.2 | 1782.5 | 2188.9 | *2269.5* | 1922.4 |
| 55° | 1433.6 | 1454.9 | 1532.8 | 1591.2 | 1662.1 | 1665.6 | 1669.1 | 1900.3 | 2293.4 | *2401.4* | 2033.1 |
| 57.5° | 1307.0 | 1310.5 | 1401.7 | 1520.4 | 1688.6 | 1839.2 | 1856.9 | 2037.5 | 2395.2 | *2529.8* | 2142.9 |
| 60° | 1026.3 | 1007.7 | 1155.6 | 1356.6 | 1593.0 | 1908.2 | 2156.2 | 2250.0 | 2521.9 | *2684.8* | 2274.8 |
| 62.5° | 549.9 | 551.7 | 673.9 | 923.6 | 1319.4 | 1840.9 | 2413.0 | 2567.0 | 2706.9 | *2885.8* | 2470.5 |
| 65° | 345.3 | 358.6 | 427.7 | 538.4 | 798.7 | 1462.8 | 2428.9 | 2988.5 | 3000.0 | *3178.0* | 2715.8 |
| 67.5° | *252.4* | *255.9* | *314.3* | *394.9* | *457.8* | *858.0* | *1955.2* | *2993.8* | *3211.7* | *3383.5* | *2820.3* |
| 70° | 187.7 | 189.5 | 231.1 | 297.5 | 333.8 | 402.0 | 1245.9 | 2590.9 | 3101.9 | *3186.9* | 2559.1 |
| 72.5° | 137.3 | 138.1 | 160.3 | 218.7 | 263.0 | 239.1 | 585.3 | 1866.6 | 2693.7 | *2845.1* | 2302.3 |
| 75° | 96.5 | 98.3 | 114.2 | 151.4 | 177.1 | 166.5 | 223.1 | 1167.1 | 1933.9 | *1917.1* | 1608.0 |
| 77.5° | 72.6 | 73.5 | 84.1 | 107.1 | 120.4 | 108.9 | 125.7 | 545.5 | 690.7 | *623.4* | 507.4 |
| 80° | 53.1 | 55.8 | 61.1 | 67.3 | 80.6 | 70.0 | 70.8 | 153.2 | 166.5 | *146.1* | 131.1 |
| 82.5° | 28.3 | 31.9 | 40.7 | 40.7 | 46.9 | 41.6 | 37.2 | 68.2 | 71.7 | *67.3* | 58.4 |
| 85° | 8.9 | 8.9 | 9.7 | 12.4 | 18.6 | 18.6 | 18.6 | 23.0 | 23.9 | *23.9* | 20.4 |
| 87.5° | 1.8 | 1.8 | 1.8 | 1.8 | 2.7 | 3.5 | 5.3 | 7.1 | 8.0 | *8.9* | 8.9 |
| 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: P1359223
CATALOG NUMBER: GSS-SB1A-735-U-T2

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 | 591.5 |
| 2.5° | 596.8 | 590.6 | 584.4 | 573.8 | 568.5 | 560.5 | 553.4 | 549.9 | 547.2 | 546.3 | 546.3 |
| 5° | 608.3 | 598.6 | 579.1 | 560.5 | 543.7 | 528.6 | 517.1 | 508.3 | 503.0 | 498.5 | 498.5 |
| 7.5° | 619.8 | 606.6 | 577.3 | 544.6 | 520.7 | 502.1 | 486.1 | 480.8 | 479.0 | 474.6 | 472.0 |
| 10° | 639.3 | 618.1 | 574.7 | 527.8 | 494.1 | 478.2 | 471.1 | 469.3 | 470.2 | 471.1 | 471.1 |
| 12.5° | 654.4 | 631.4 | 567.6 | 506.5 | 473.7 | 464.9 | 465.8 | 470.2 | 477.3 | 476.4 | 474.6 |
| 15° | 675.6 | 641.1 | 553.4 | 481.7 | 457.8 | 457.8 | 466.7 | 476.4 | 483.5 | 487.9 | 485.2 |
| 17.5° | 700.4 | 652.6 | 532.2 | 458.7 | 444.5 | 452.5 | 471.1 | 480.8 | 493.2 | 495.9 | 494.1 |
| 20° | 731.4 | 662.3 | 508.3 | 436.5 | 435.7 | 452.5 | 468.4 | 482.6 | 492.3 | 495.0 | 496.8 |
| 22.5° | 761.5 | 671.2 | 477.3 | 420.6 | 425.9 | 447.2 | 462.2 | 477.3 | 481.7 | 484.4 | 485.2 |
| 25° | 792.5 | 680.1 | 448.9 | 408.2 | 418.8 | 440.1 | 452.5 | 458.7 | 459.6 | 457.8 | 457.8 |
| 27.5° | 826.2 | 680.9 | 420.6 | 398.5 | 410.9 | 429.5 | 436.5 | 438.3 | 434.8 | 422.4 | 418.8 |
| 30° | 861.6 | 672.1 | 397.6 | 389.6 | 402.0 | 417.1 | 422.4 | 417.1 | 404.7 | 387.0 | 385.2 |
| 32.5° | 890.8 | 658.8 | 380.8 | 379.0 | 392.3 | 405.6 | 405.6 | 395.8 | 377.2 | 359.5 | 358.6 |
| 35° | 935.1 | 640.2 | 363.9 | 371.9 | 383.4 | 389.6 | 391.4 | 377.2 | 356.9 | 340.0 | 338.3 |
| 37.5° | 978.5 | 624.3 | 356.9 | 363.1 | 373.7 | 379.0 | 373.7 | 359.5 | 346.2 | 332.1 | 332.1 |
| 40° | 1045.8 | 614.5 | 348.0 | 356.9 | 365.7 | 366.6 | 356.9 | 346.2 | 348.0 | 340.0 | 339.1 |
| 42.5° | 1119.3 | 613.6 | 344.5 | 350.7 | 356.9 | 355.1 | 340.9 | 340.9 | 343.6 | 328.5 | 325.0 |
| 45° | 1203.4 | 626.0 | 344.5 | 341.8 | 345.3 | 340.0 | 332.1 | 330.3 | 324.1 | 302.0 | 301.1 |
| 47.5° | 1291.0 | 656.1 | 346.2 | 329.4 | 328.5 | 326.7 | 323.2 | 317.0 | 298.4 | 279.8 | 277.2 |
| 50° | 1360.1 | 697.8 | 351.5 | 313.5 | 309.9 | 316.1 | 309.9 | 299.3 | 278.0 | 260.3 | 257.7 |
| 52.5° | 1442.5 | 739.4 | 348.0 | 294.0 | 289.6 | 305.5 | 299.3 | 284.2 | 268.3 | 257.7 | 255.0 |
| 55° | 1529.2 | 782.8 | 333.8 | 267.4 | 271.0 | 292.2 | 290.4 | 273.6 | 254.1 | 240.0 | 238.2 |
| 57.5° | 1616.0 | 837.7 | 309.9 | 244.4 | 257.7 | 284.2 | 277.2 | 256.8 | 243.5 | 233.8 | 232.0 |
| 60° | 1748.8 | 916.5 | 275.4 | 220.5 | 244.4 | 267.4 | 255.9 | 249.7 | 235.5 | 227.6 | 223.1 |
| 62.5° | 1920.6 | 1047.5 | 230.2 | 198.3 | 225.8 | 247.1 | 246.2 | 239.1 | 226.7 | 217.8 | 215.2 |
| 65° | 2165.0 | 1172.4 | 188.6 | 177.1 | 201.9 | 222.3 | 232.9 | 226.7 | 214.3 | 204.5 | 203.7 |
| 67.5° | *2212.0* | *1047.5* | *156.7* | *155.0* | *175.3* | *198.3* | *218.7* | *214.3* | *194.8* | *182.4* | *180.6* |
| 70° | 1925.1 | 748.2 | 131.9 | 133.7 | 153.2 | 173.6 | 195.7 | 185.1 | 169.1 | 162.0 | 161.2 |
| 72.5° | 1709.0 | 642.9 | 110.7 | 114.2 | 128.4 | 147.0 | 160.3 | 163.8 | 152.3 | 146.1 | 143.4 |
| 75° | 1231.7 | 481.7 | 89.4 | 93.9 | 103.6 | 114.2 | 139.0 | 145.2 | 134.6 | 128.4 | 124.0 |
| 77.5° | 456.9 | 201.0 | 66.4 | 70.8 | 77.9 | 93.0 | 112.5 | 125.7 | 117.8 | 122.2 | 109.8 |
| 80° | 109.8 | 70.8 | 48.7 | 47.8 | 54.9 | 70.0 | 89.4 | 99.2 | 91.2 | 86.8 | 75.3 |
| 82.5° | 47.8 | 34.5 | 31.9 | 31.9 | 33.6 | 46.0 | 59.3 | 70.0 | 68.2 | 56.7 | 54.0 |
| 85° | 17.7 | 15.1 | 15.1 | 15.9 | 15.9 | 21.3 | 31.9 | 37.2 | 33.6 | 29.2 | 28.3 |
| 87.5° | 8.0 | 8.0 | 6.2 | 5.3 | 4.4 | 4.4 | 5.3 | 3.5 | 2.7 | 1.8 | 1.8 |
| 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: SP1-2407-184-5

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

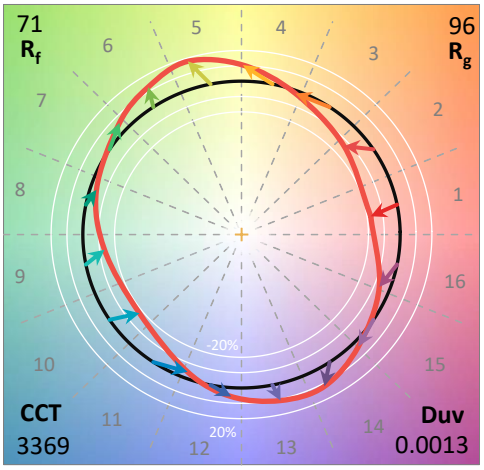
## Test Information

| | |
|---|---|
| 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

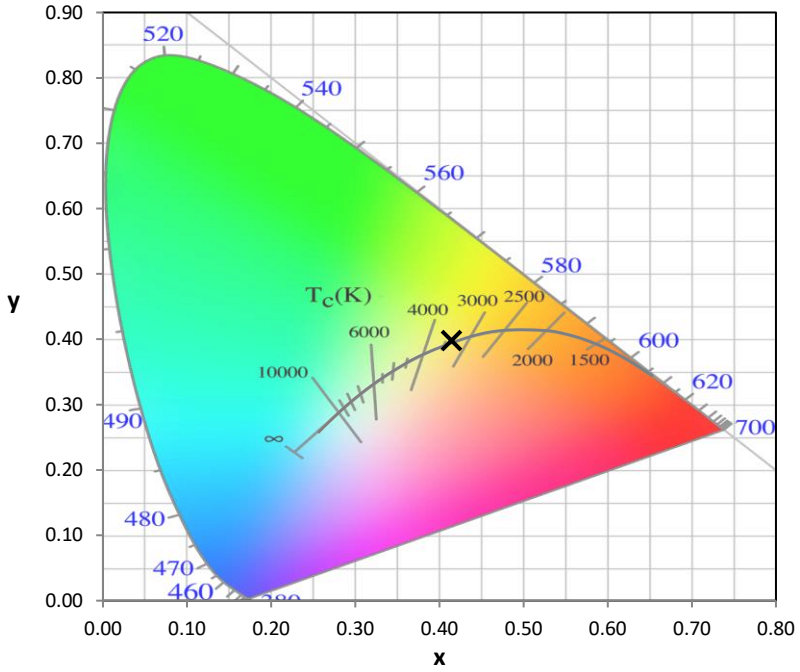
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-5

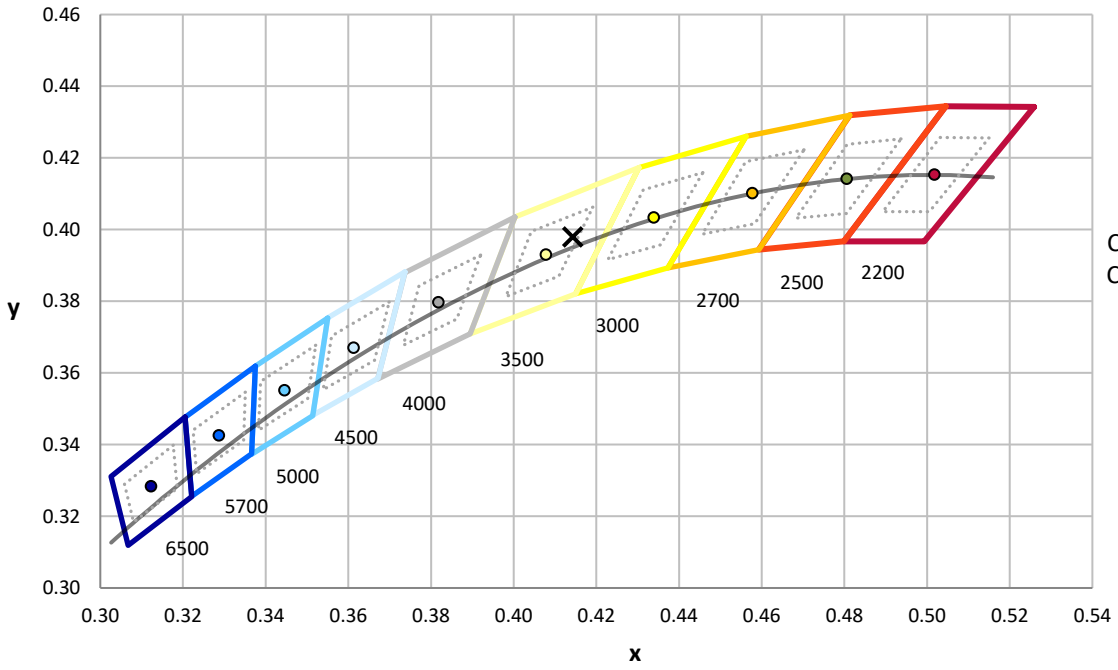
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

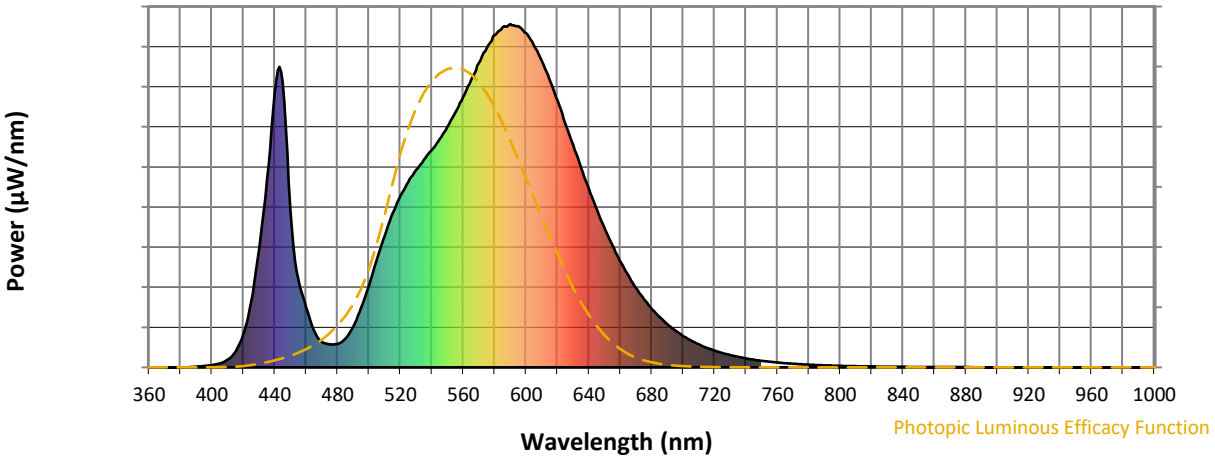



CCT = 3369K
CIE x = 0.4143
CIE y = 0.3980
Duv = 0.0013

Point lies inside the ANSI 3500K 4-step quadrangle

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## Photopic Flux vs. Wavelength

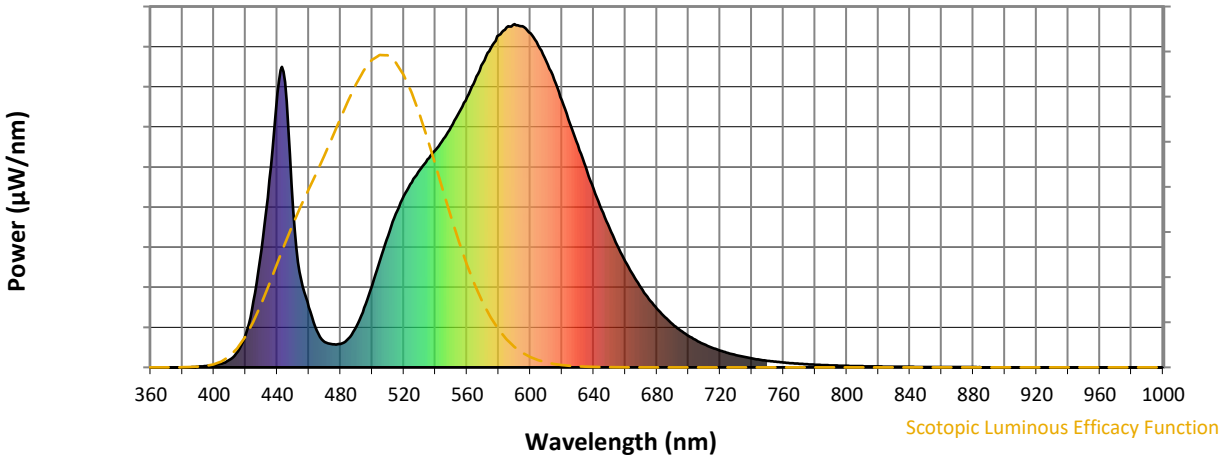



## Photopic Lumens: NR

| 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

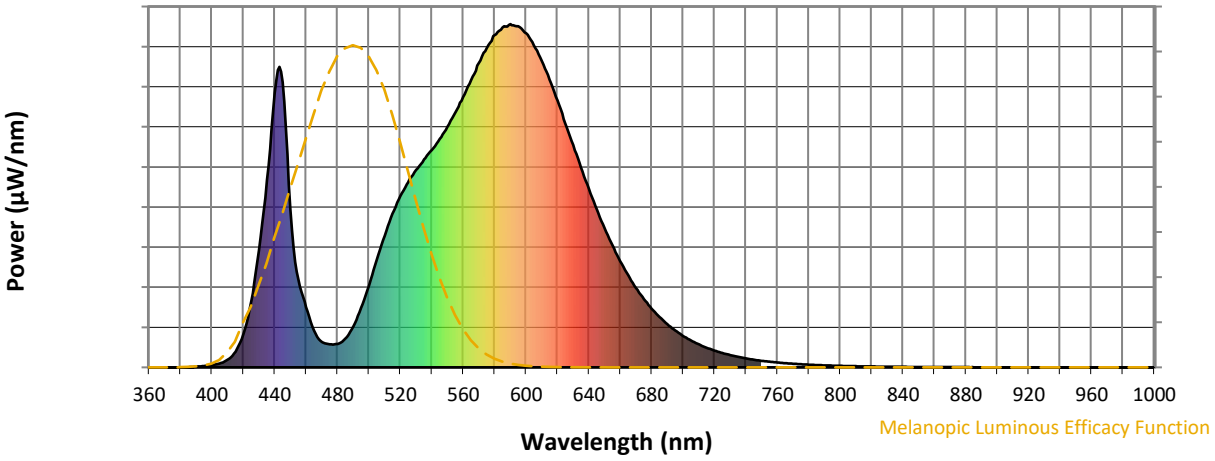



**Scotopic Lumens: NR** **S/P: 1.29**

| 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 | | | |

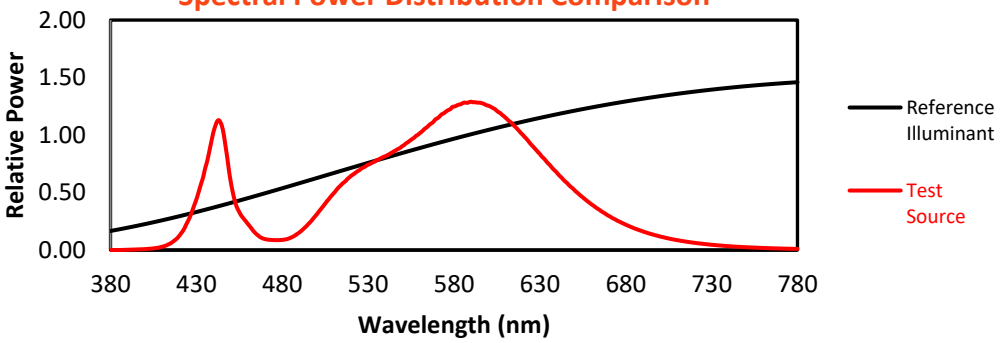
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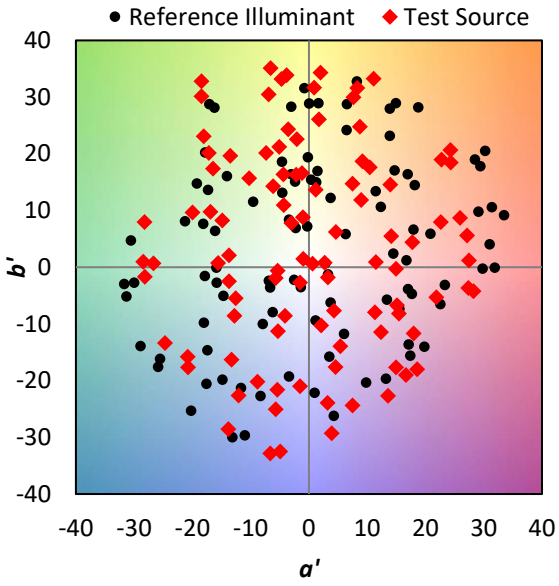
## Summary

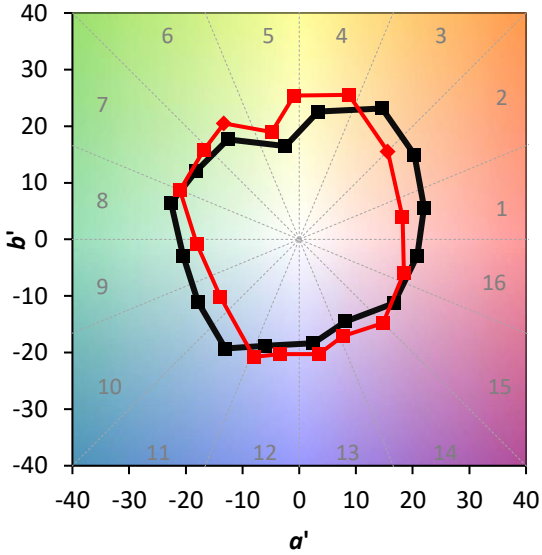
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

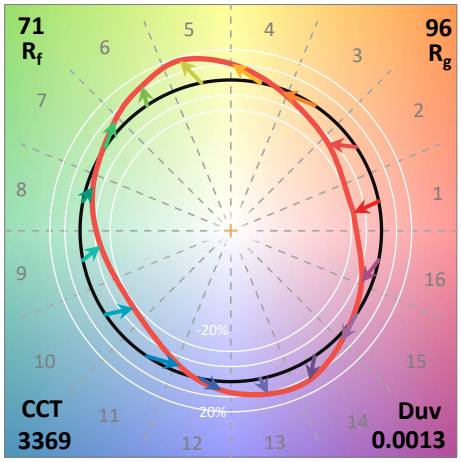
## Spectral Power Distribution Comparison

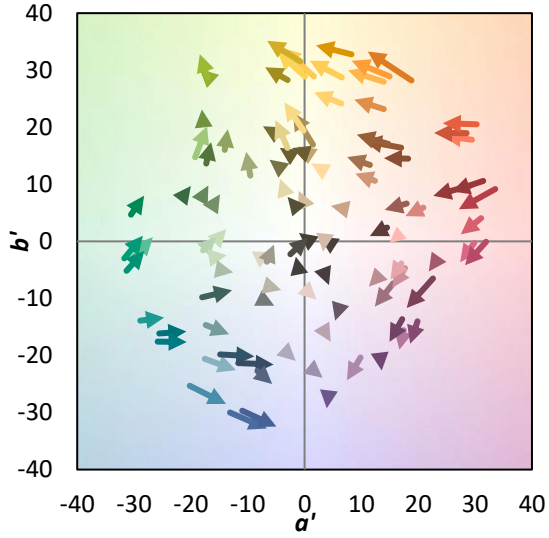



## Color Vector Graphics



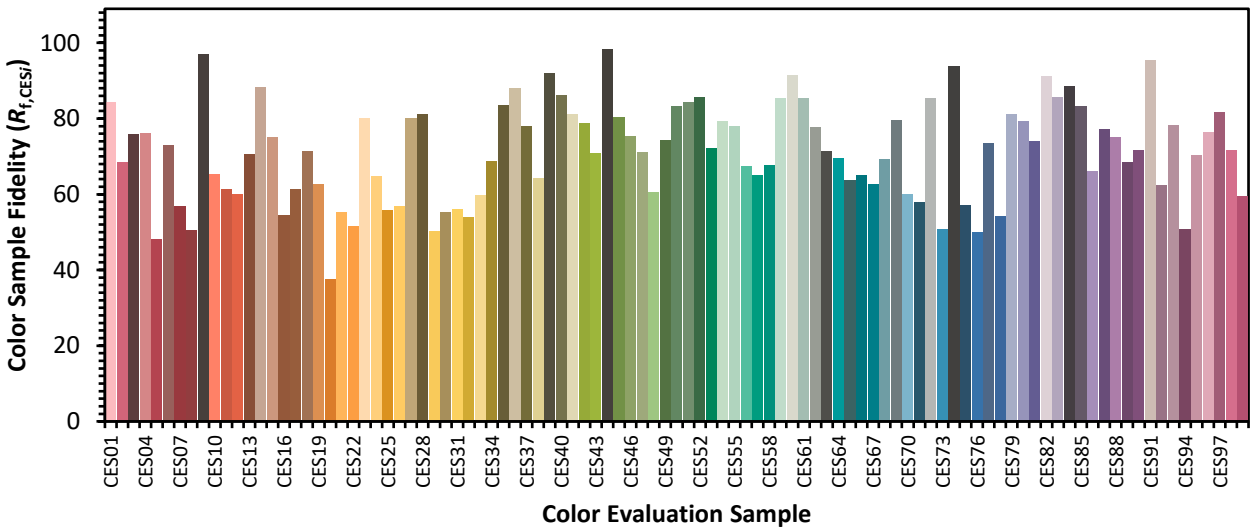



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## Individual Sample Fidelity Index ($R_{f,i}$)

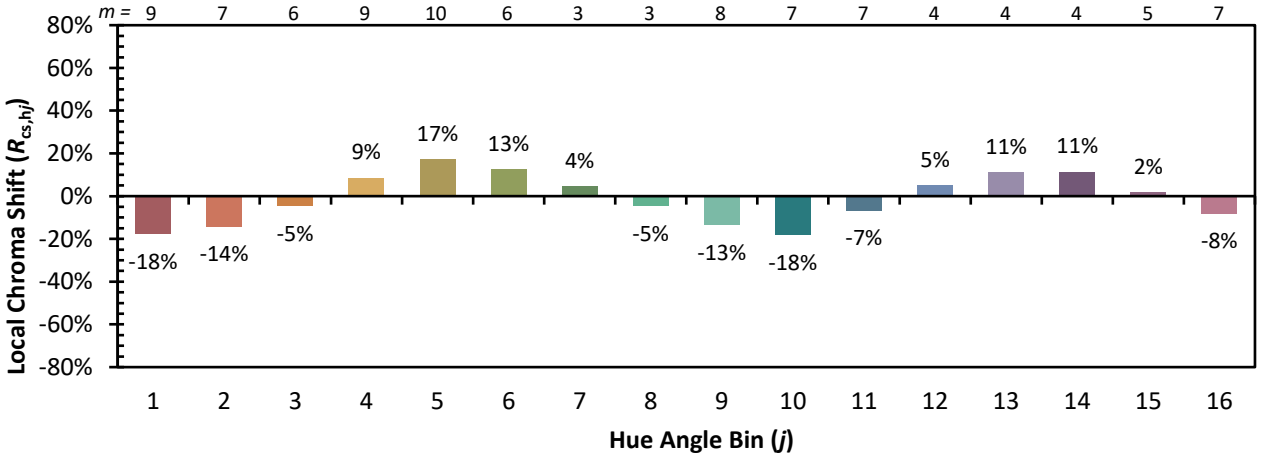
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 57 | CES51 = 84 | CES76 = 50 |
| CES02 = 62 | CES27 = 80 | CES52 = 86 | CES77 = 74 |
| CES03 = 31 | CES28 = 81 | CES53 = 72 | CES78 = 54 |
| CES04 = 70 | CES29 = 50 | CES54 = 79 | CES79 = 81 |
| CES05 = 48 | CES30 = 55 | CES55 = 78 | CES80 = 79 |
| CES06 = 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 | |

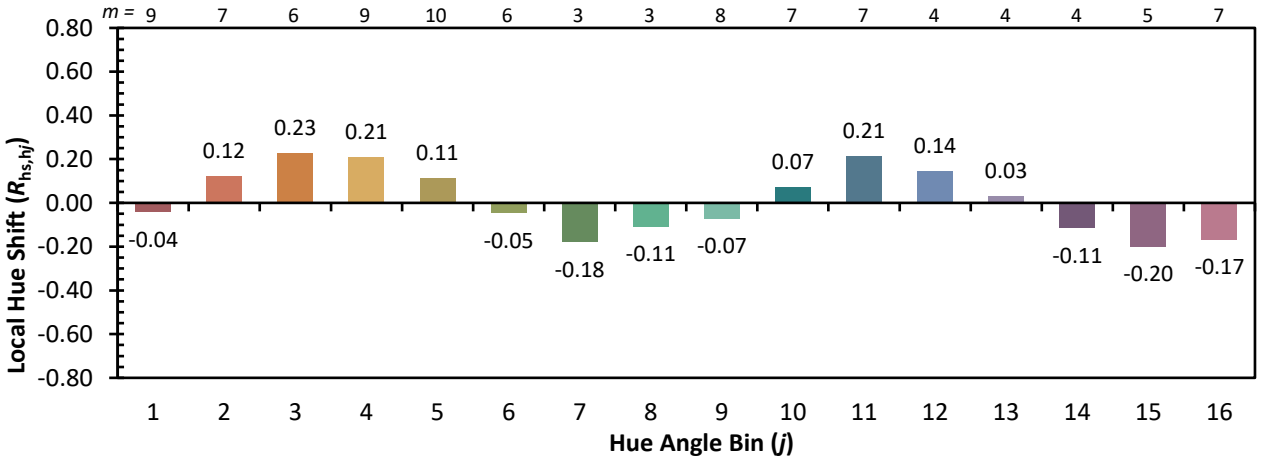


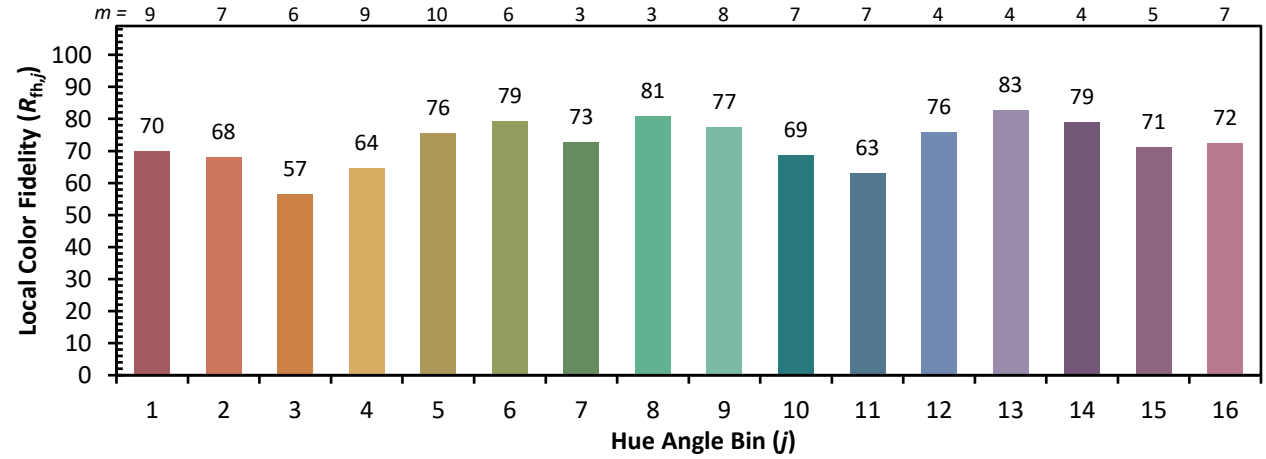
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## Color Rendition by Hue-Angle Bin



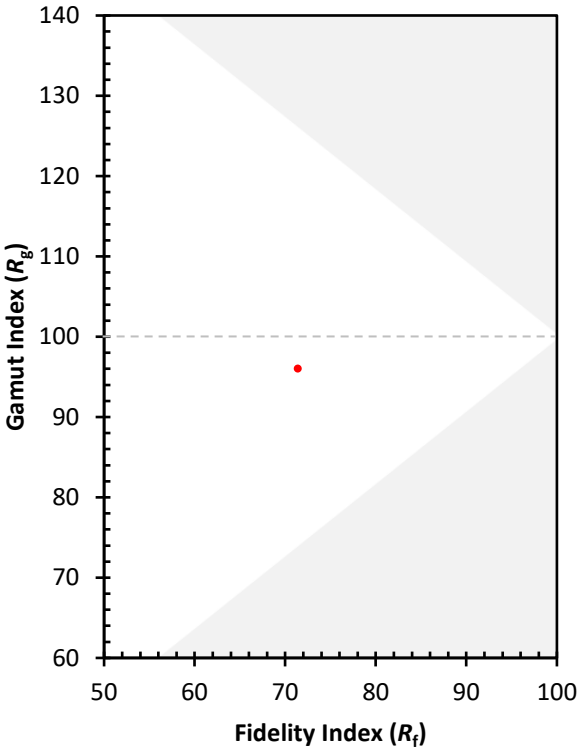



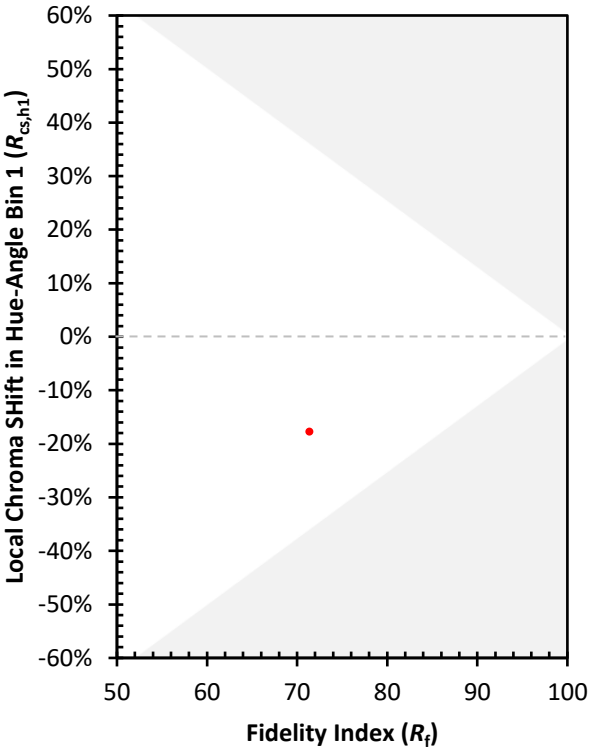



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## Measure Comparisons




(END OF REPORT)