Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: STREETWORKS

Report Number: P1457881

Luminaire Tested: GLAN-SB1C-850-U-T2LG-HSS

Issue Date: 05/20/2026

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1457881 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB1C-850-U-T2LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 1xLight Square PACKAGE 80CRI 5000K FIXTURE w/ TYPE II LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (26) 5000K CCT, 80 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 5189.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 95.4 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 54.4 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | NR |
| 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: P1457881
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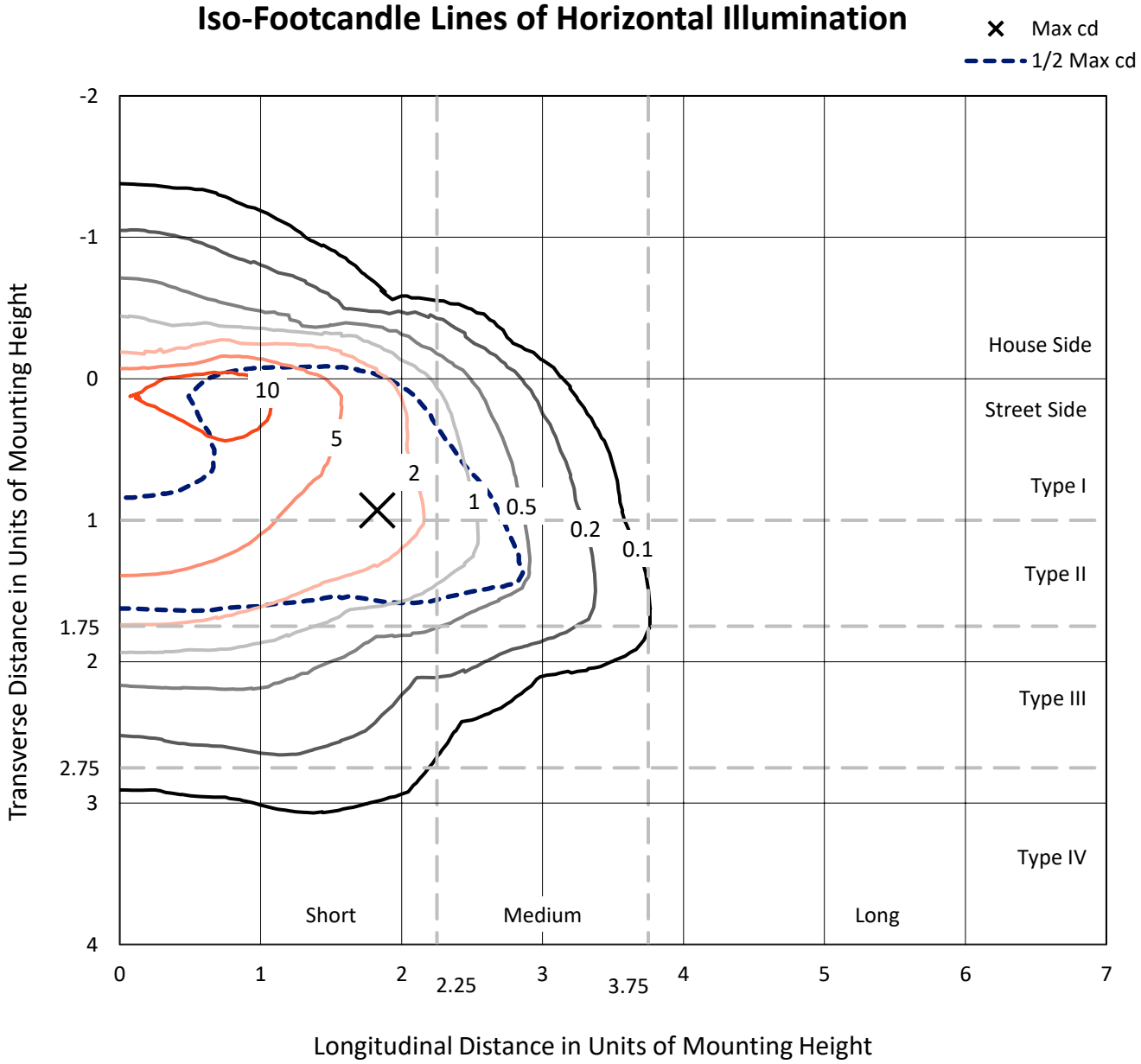
## Iso-Footcandle Lines of Horizontal Illumination




Based on 10 foot mounting height. Maximum calculated value = 14.9 fc
Type II - Short - N/A

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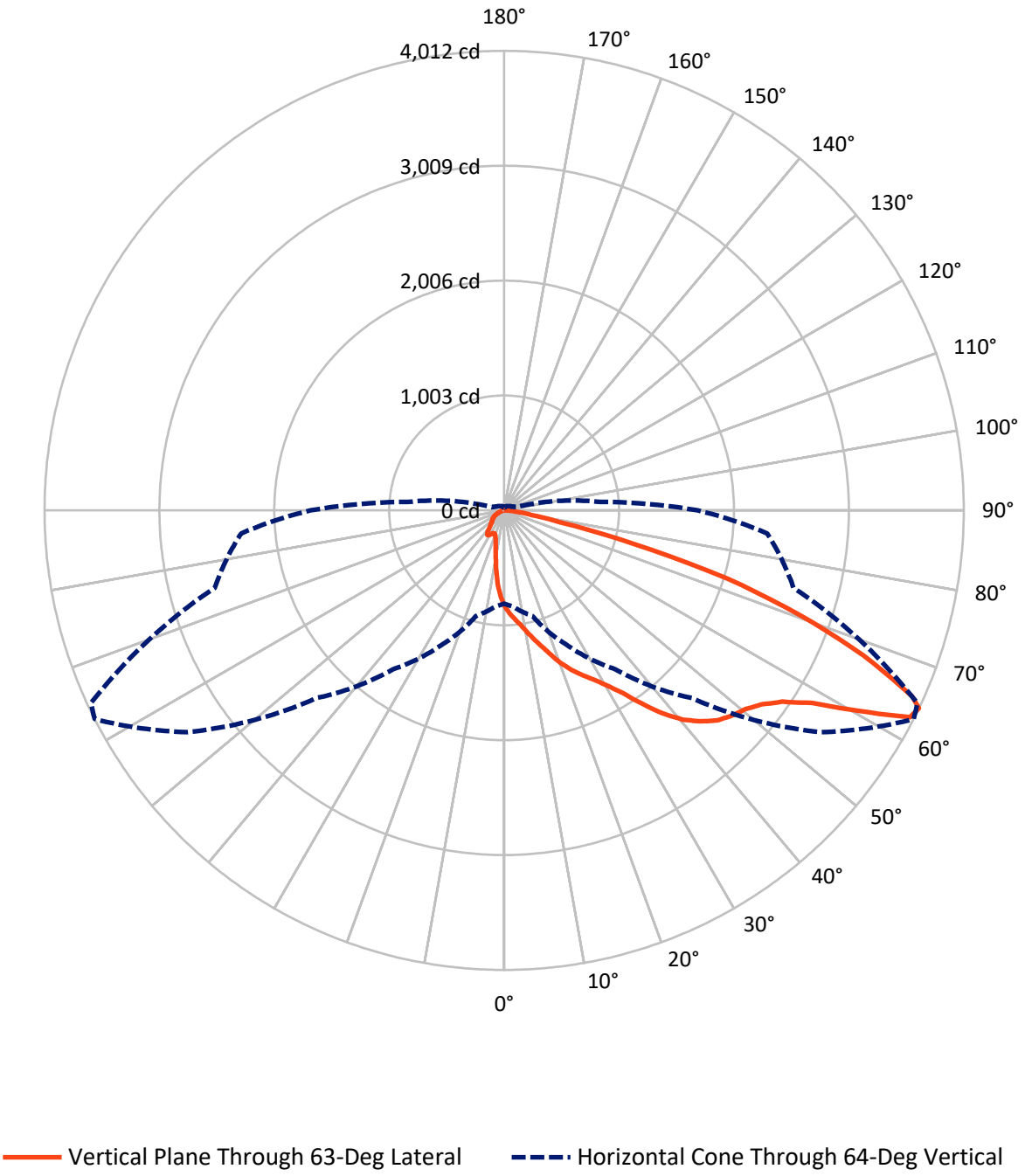
## Luminous Intensity Polar Plot



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REPORT NUMBER: P1457881
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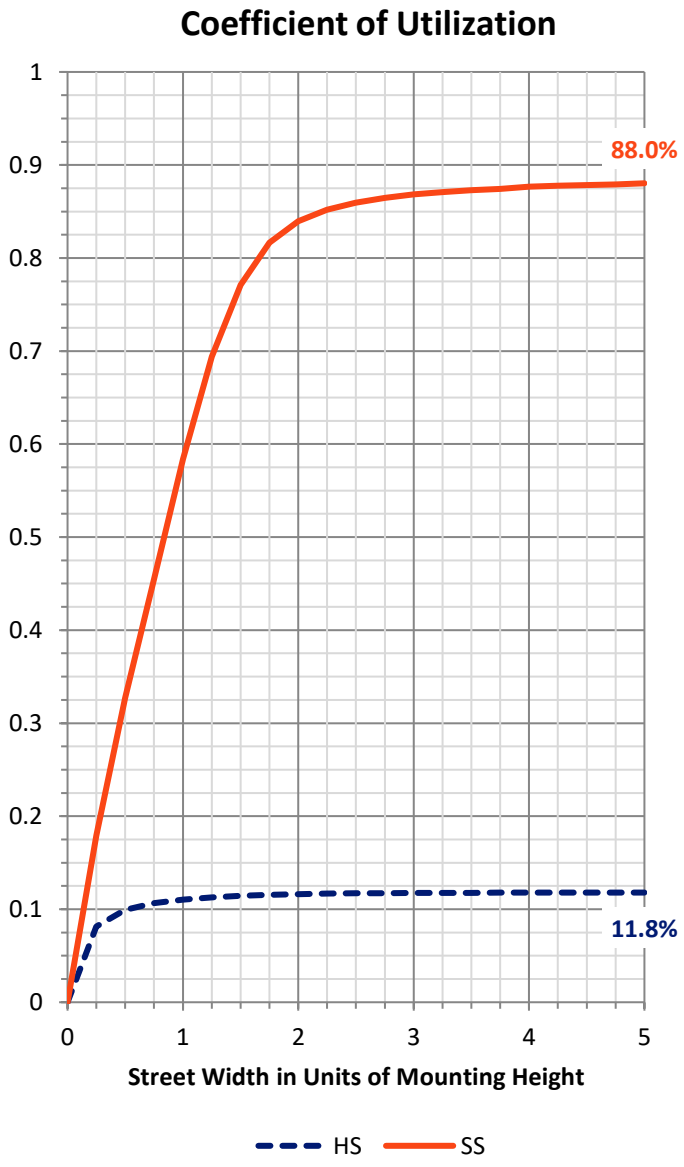
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 615.9 | 0.0 | 615.9 |
| | % Fixture | 11.9 | 0.0 | 11.9 |
| **Street Side** | Lumens | 4574.0 | 0.0 | 4574.0 |
| | % Fixture | 88.1 | 0.0 | 88.1 |
| **Total** | Lumens | 5189.9 | 0.0 | 5189.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 70.7 | 1.4 |
| 10°-20° | 198.6 | 3.8 |
| 20°-30° | 353.7 | 6.8 |
| 30°-40° | 675.5 | 13.0 |
| 40°-50° | 1119.7 | 21.6 |
| 50°-60° | 1395.7 | 26.9 |
| 60°-70° | 1040.7 | 20.1 |
| 70°-80° | 298.5 | 5.8 |
| 80°-90° | 36.9 | 0.7 |
| 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° | 5189.9 | 100.0 |
| 0°-180° | 5189.9 | 100.0 |



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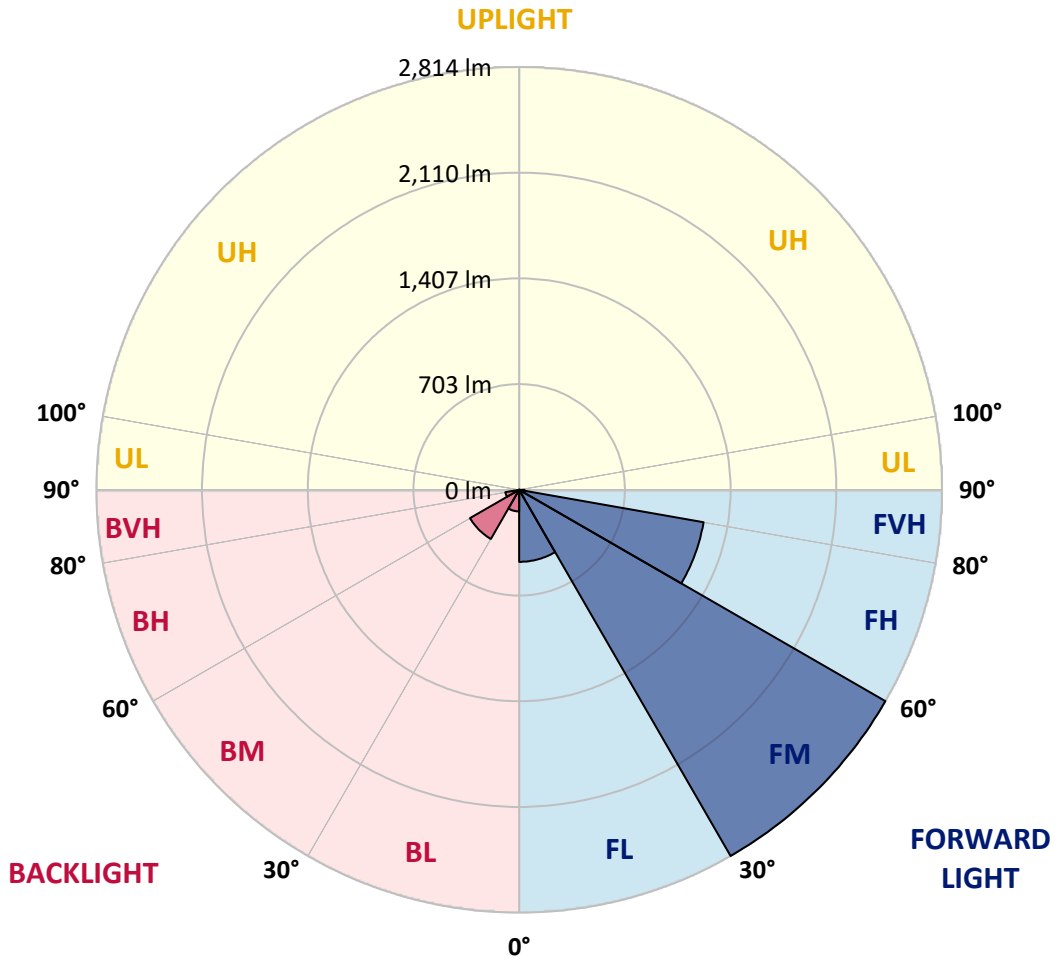
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 479.2 | 9.2 | | | |
| FM | (30°-60°) | 2813.7 | 54.2 | | | |
| FH | (60°-80°) | 1246.1 | 24.0 | | | G1/1800 |
| FVH | (80°-90°) | 35.1 | 0.7 | | | G1/100 |
| BL | (0°-30°) | 143.7 | 2.8 | B1/500 | | |
| BM | (30°-60°) | 377.2 | 7.3 | B1/1000 | | |
| BH | (60°-80°) | 93.1 | 1.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.8 | 0.0 | | | 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 II Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 63° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | *839.1* | 839.1 | 839.1 | 839.1 |
| 2.5° | 940.3 | 937.2 | 934.1 | 929.4 | 923.2 | 917.0 | 909.2 | *898.3* | 893.6 | 878.1 | 859.4 |
| 5° | 988.6 | 988.6 | 987.0 | 983.9 | 980.8 | 974.6 | 965.3 | *951.2* | 945.0 | 923.2 | 890.5 |
| 7.5° | 1001.1 | 1002.6 | 1007.3 | 1013.5 | 1022.9 | 1021.3 | 1021.3 | *1005.7* | 1002.6 | 979.3 | 935.7 |
| 10° | 979.3 | 980.8 | 993.3 | 1010.4 | 1038.4 | 1064.9 | 1083.6 | *1074.2* | 1069.6 | 1046.2 | 991.7 |
| 12.5° | 948.1 | 948.1 | 968.4 | 994.8 | 1038.4 | 1088.2 | 1142.7 | *1152.1* | 1153.6 | 1127.2 | 1061.8 |
| 15° | 867.2 | 870.3 | 903.0 | 955.9 | 1027.5 | 1105.4 | 1197.2 | *1233.0* | 1242.4 | 1225.2 | 1147.4 |
| 17.5° | 759.7 | 762.9 | 795.6 | 867.2 | 974.6 | 1105.4 | 1243.9 | *1326.4* | 1338.9 | 1342.0 | 1256.4 |
| 20° | 714.6 | 714.6 | 733.3 | 787.8 | 899.9 | 1075.8 | 1272.0 | *1426.1* | 1454.1 | 1488.4 | 1376.3 |
| 22.5° | 720.8 | 720.8 | 731.7 | 762.9 | 853.2 | 1035.3 | 1289.1 | *1514.8* | 1572.4 | 1659.6 | 1530.4 |
| 25° | 755.1 | 755.1 | 764.4 | 784.7 | 857.8 | 1029.1 | 1321.8 | *1594.2* | 1686.1 | 1851.1 | 1706.3 |
| 27.5° | 809.6 | 808.0 | 815.8 | 836.0 | 903.0 | 1058.7 | 1376.3 | *1673.6* | 1776.4 | 2066.0 | 1908.7 |
| 30° | 889.0 | 884.3 | 887.4 | 910.8 | 976.2 | 1127.2 | 1455.7 | *1774.8* | 1879.1 | 2301.0 | 2132.9 |
| 32.5° | 1072.7 | 1071.1 | 1026.0 | 1013.5 | 1083.6 | 1237.7 | 1564.6 | *1900.9* | 2017.7 | 2550.1 | 2363.3 |
| 35° | 1404.3 | 1426.1 | 1362.3 | 1198.8 | 1212.8 | 1385.6 | 1720.3 | *2072.2* | 2179.6 | 2814.8 | 2614.0 |
| 37.5° | 1740.6 | 1740.6 | 1714.1 | 1521.1 | 1423.0 | 1549.1 | 1888.5 | *2248.1* | 2360.2 | 3028.1 | 2855.3 |
| 40° | 2006.8 | 2020.8 | 1989.7 | 1844.9 | 1717.2 | 1735.9 | 2056.6 | *2402.2* | 2505.0 | 3158.9 | 3026.5 |
| 42.5° | 2204.5 | 2201.4 | 2188.9 | 2094.0 | 2022.4 | 1980.3 | 2209.2 | *2517.4* | 2615.5 | 3225.8 | 3134.0 |
| 45° | 2417.8 | 2417.8 | 2400.7 | 2322.8 | 2263.7 | 2227.9 | 2322.8 | *2614.0* | 2716.7 | 3266.3 | 3200.9 |
| 47.5° | 2640.4 | 2637.3 | 2620.2 | 2534.6 | 2470.7 | 2417.8 | 2438.0 | *2676.2* | 2779.0 | 3239.8 | 3211.8 |
| 50° | 2694.9 | 2691.8 | 2730.7 | 2733.8 | 2676.2 | 2575.0 | 2529.9 | *2729.2* | 2819.5 | 3241.4 | 3246.0 |
| 52.5° | 2631.1 | 2649.8 | 2707.4 | 2777.4 | 2842.8 | 2737.0 | 2628.0 | *2813.2* | 2906.7 | 3285.0 | 3331.7 |
| 55° | 2472.3 | 2480.1 | 2590.6 | 2702.7 | 2855.3 | 2892.6 | 2785.2 | *2947.1* | 3029.6 | 3327.0 | 3408.0 |
| 57.5° | 2176.5 | 2206.1 | 2324.4 | 2519.0 | 2751.0 | 2906.7 | 3059.2 | *3171.3* | 3233.6 | 3344.1 | 3365.9 |
| 60° | 1642.5 | 1658.1 | 1914.9 | 2167.1 | 2534.6 | 2794.6 | 3314.6 | *3551.2* | 3543.4 | 3151.1 | 3071.7 |
| 62.5° | 999.5 | 1013.5 | 1197.2 | 1597.3 | 2059.7 | 2561.0 | 3400.2 | *3976.2* | 3934.2 | 2825.7 | 2585.9 |
| 64° | *814.2* | *840.7* | *954.4* | *1296.9* | *1693.9* | *2316.6* | *3375.3* | *4012.0* | *3979.3* | *2615.5* | *2304.2* |
| 65° | 695.9 | 731.7 | 848.5 | 1125.6 | 1440.1 | 2053.5 | 3306.8 | *3912.4* | 3890.6 | 2487.9 | 2070.6 |
| 67.5° | 437.5 | 454.6 | 627.4 | 875.0 | 991.7 | 1314.0 | 2842.8 | *3383.1* | 3422.0 | 2217.0 | 1527.3 |
| 70° | 325.4 | 333.2 | 431.2 | 677.2 | 773.8 | 764.4 | 1952.3 | *2740.1* | 2749.4 | 1773.3 | 921.7 |
| 72.5° | 236.6 | 238.2 | 302.0 | 501.3 | 605.6 | 521.5 | 1029.1 | *2036.4* | 1969.4 | 1038.4 | 502.9 |
| 75° | 157.2 | 163.5 | 211.7 | 353.4 | 471.7 | 383.0 | 468.6 | *1159.9* | 1139.6 | 507.5 | 288.0 |
| 77.5° | 115.2 | 116.8 | 143.2 | 236.6 | 370.5 | 281.8 | 283.3 | *499.8* | 515.3 | 302.0 | 182.2 |
| 80° | 65.4 | 68.5 | 93.4 | 144.8 | 241.3 | 193.1 | 158.8 | *241.3* | 277.1 | 205.5 | 121.4 |
| 82.5° | 38.9 | 42.0 | 66.9 | 95.0 | 165.0 | 79.4 | 81.0 | *132.3* | 165.0 | 147.9 | 65.4 |
| 85° | 23.4 | 24.9 | 42.0 | 51.4 | 98.1 | 52.9 | 29.6 | *65.4* | 85.6 | 87.2 | 35.8 |
| 87.5° | 15.6 | 15.6 | 23.4 | 21.8 | 28.0 | 24.9 | 12.5 | *17.1* | 21.8 | 29.6 | 14.0 |
| 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: P1457881
CATALOG NUMBER: GLAN-SB1C-850-U-T2LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 | 839.1 |
| 2.5° | 843.8 | 834.5 | 806.5 | 769.1 | 734.8 | 708.4 | 675.7 | 653.9 | 633.6 | 633.6 | 616.5 |
| 5° | 864.1 | 839.1 | 770.6 | 685.0 | 593.2 | 506.0 | 449.9 | 387.7 | 367.4 | 350.3 | 353.4 |
| 7.5° | 898.3 | 853.2 | 731.7 | 577.6 | 431.2 | 337.8 | 275.6 | 247.5 | 235.1 | 227.3 | 228.9 |
| 10° | 940.3 | 878.1 | 685.0 | 468.6 | 317.6 | 247.5 | 218.0 | 207.1 | 202.4 | 200.8 | 200.8 |
| 12.5° | 997.9 | 907.6 | 638.3 | 376.8 | 250.7 | 213.3 | 197.7 | 191.5 | 186.8 | 183.7 | 183.7 |
| 15° | 1066.4 | 945.0 | 583.8 | 309.8 | 219.5 | 196.2 | 183.7 | 177.5 | 171.3 | 169.7 | 169.7 |
| 17.5° | 1153.6 | 983.9 | 535.6 | 266.2 | 203.9 | 183.7 | 171.3 | 163.5 | 158.8 | 157.2 | 157.2 |
| 20° | 1250.2 | 1032.2 | 487.3 | 241.3 | 193.1 | 171.3 | 158.8 | 152.6 | 147.9 | 144.8 | 146.3 |
| 22.5° | 1373.1 | 1092.9 | 456.2 | 228.9 | 183.7 | 160.4 | 147.9 | 141.7 | 137.0 | 133.9 | 135.4 |
| 25° | 1508.6 | 1169.2 | 439.0 | 228.9 | 177.5 | 152.6 | 138.6 | 132.3 | 127.7 | 124.5 | 124.5 |
| 27.5° | 1673.6 | 1254.8 | 440.6 | 238.2 | 175.9 | 146.3 | 130.8 | 124.5 | 119.9 | 115.2 | 115.2 |
| 30° | 1855.8 | 1356.0 | 457.7 | 255.3 | 179.0 | 140.1 | 124.5 | 115.2 | 112.1 | 107.4 | 107.4 |
| 32.5° | 2048.8 | 1472.8 | 501.3 | 277.1 | 175.9 | 132.3 | 115.2 | 107.4 | 102.8 | 99.6 | 99.6 |
| 35° | 2252.8 | 1605.1 | 555.8 | 286.5 | 160.4 | 121.4 | 107.4 | 99.6 | 96.5 | 95.0 | 93.4 |
| 37.5° | 2447.4 | 1720.3 | 585.4 | 267.8 | 140.1 | 112.1 | 98.1 | 90.3 | 88.7 | 85.6 | 85.6 |
| 40° | 2598.4 | 1815.3 | 568.3 | 228.9 | 129.2 | 102.8 | 90.3 | 82.5 | 79.4 | 76.3 | 76.3 |
| 42.5° | 2687.1 | 1849.5 | 506.0 | 194.6 | 121.4 | 93.4 | 82.5 | 74.7 | 71.6 | 70.1 | 70.1 |
| 45° | 2738.5 | 1844.9 | 432.8 | 174.4 | 113.7 | 85.6 | 74.7 | 70.1 | 65.4 | 63.8 | 62.3 |
| 47.5° | 2737.0 | 1796.6 | 379.9 | 157.2 | 105.9 | 79.4 | 70.1 | 65.4 | 60.7 | 59.2 | 59.2 |
| 50° | 2726.1 | 1725.0 | 320.7 | 144.8 | 99.6 | 74.7 | 65.4 | 62.3 | 57.6 | 56.0 | 54.5 |
| 52.5° | 2752.5 | 1684.5 | 267.8 | 137.0 | 91.9 | 71.6 | 63.8 | 59.2 | 52.9 | 51.4 | 51.4 |
| 55° | 2785.2 | 1661.2 | 214.8 | 129.2 | 85.6 | 70.1 | 60.7 | 56.0 | 49.8 | 48.3 | 48.3 |
| 57.5° | 2690.3 | 1572.4 | 177.5 | 116.8 | 77.8 | 66.9 | 57.6 | 54.5 | 48.3 | 43.6 | 43.6 |
| 60° | 2391.3 | 1300.0 | 146.3 | 102.8 | 71.6 | 62.3 | 54.5 | 49.8 | 43.6 | 37.4 | 37.4 |
| 62.5° | 1944.5 | 991.7 | 121.4 | 87.2 | 66.9 | 57.6 | 49.8 | 45.1 | 37.4 | 29.6 | 29.6 |
| 64° | *1689.2* | *842.3* | *109.0* | *76.3* | *63.8* | *52.9* | *45.1* | *40.5* | *32.7* | *24.9* | *23.4* |
| 65° | 1514.8 | 744.2 | 101.2 | 71.6 | 62.3 | 49.8 | 43.6 | 38.9 | 29.6 | 23.4 | 21.8 |
| 67.5° | 1066.4 | 499.8 | 81.0 | 59.2 | 54.5 | 42.0 | 37.4 | 32.7 | 26.5 | 20.2 | 18.7 |
| 70° | 621.2 | 283.3 | 63.8 | 49.8 | 42.0 | 32.7 | 31.1 | 29.6 | 23.4 | 15.6 | 15.6 |
| 72.5° | 337.8 | 141.7 | 48.3 | 40.5 | 32.7 | 23.4 | 26.5 | 23.4 | 18.7 | 12.5 | 10.9 |
| 75° | 207.1 | 87.2 | 35.8 | 29.6 | 21.8 | 17.1 | 20.2 | 17.1 | 10.9 | 7.8 | 6.2 |
| 77.5° | 138.6 | 56.0 | 26.5 | 20.2 | 14.0 | 10.9 | 14.0 | 9.3 | 4.7 | 1.6 | 1.6 |
| 80° | 85.6 | 38.9 | 17.1 | 12.5 | 7.8 | 4.7 | 3.1 | 1.6 | 1.6 | 0.0 | 0.0 |
| 82.5° | 37.4 | 24.9 | 9.3 | 6.2 | 3.1 | 1.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 20.2 | 7.8 | 3.1 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.2 | 3.1 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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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# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-12

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-850-U-5WQ

Data in this report applies to families of products including GSS-SB1A-850-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

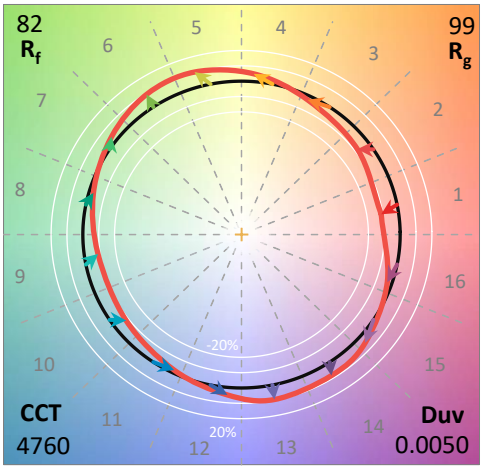
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-12 |
| 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-850-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 5000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 4760 |
| CIE u': | 0.2107 |
| CIE v': | 0.4939 |
| Duv: | 0.0050 |
| CIE x: | 0.3537 |
| CIE y: | 0.3685 |
| CIE z: | 0.2779 |
| Peak Wavelength (nm): | 443 |
| Dominant Wavelength (nm): | 571 |
| Purity: | 16.69598 |
| Rf: | 82 |
| Rg: | 99.4 |

| | | | | | |
|---|---|---|---|---|---|
| CRI (Ra): | 81.1 | | | | |
| R1: | 79.8 | R9: | 8.7 | | |
| R2: | 83.5 | R10: | 62.4 | | |
| R3: | 87.9 | R11: | 83.8 | | |
| R4: | 83.1 | R12: | 63.0 | | |
| R5: | 80.5 | R13: | 79.9 | | |
| R6: | 79.1 | R14: | 93.3 | | |
| R7: | 86.1 | R15: | 72.7 | | |
| R8: | 69.0 | | | | |




## Test Conditions

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

REPORT NUMBER: SP1-2407-184-12

| 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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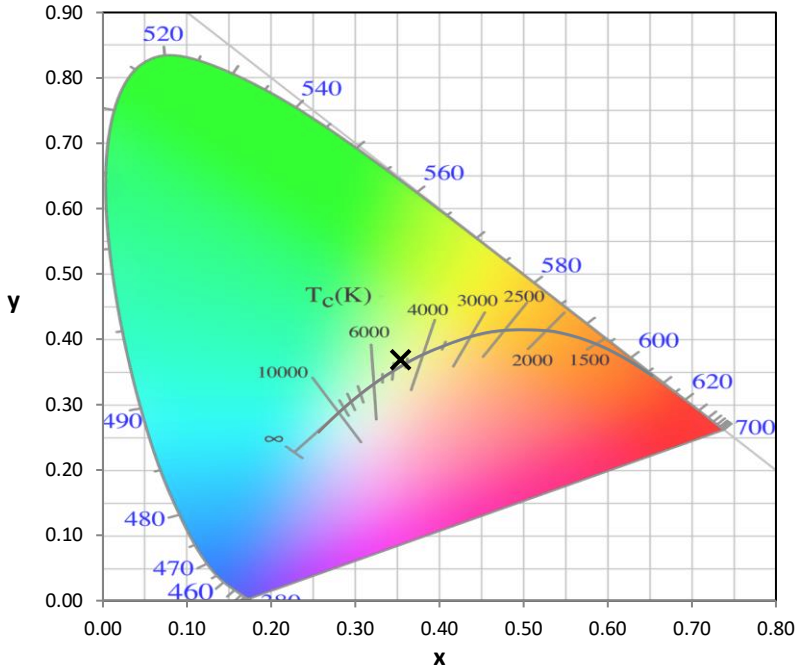
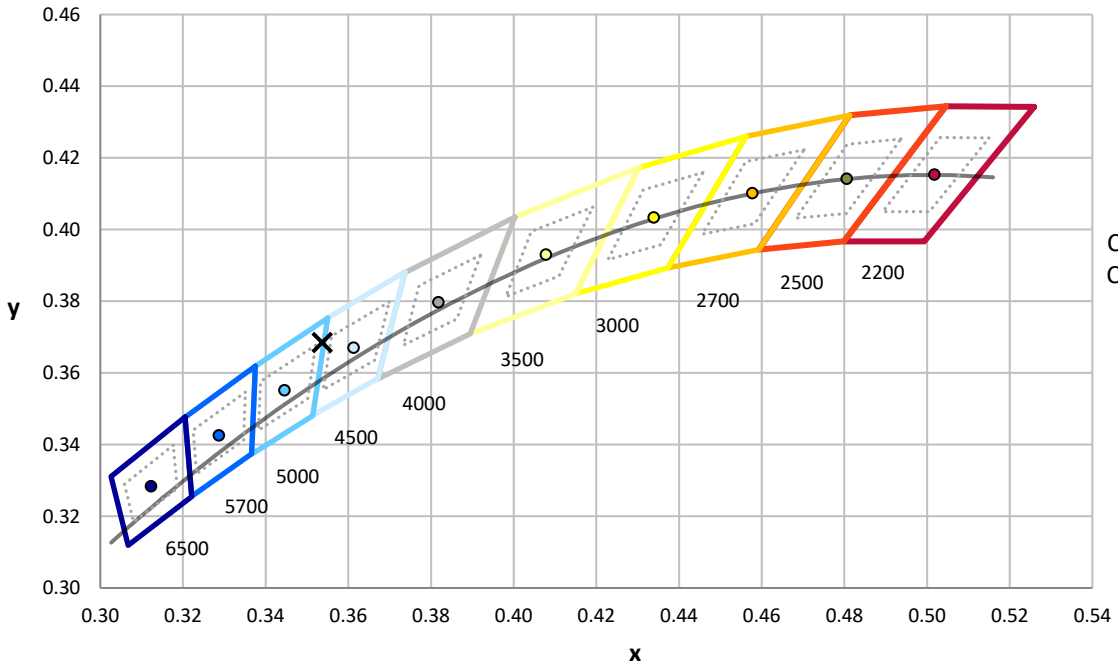
## CIE 1931 Chromaticity Diagram




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




CCT = 4760K
CIE x = 0.3537
CIE y = 0.3685
Duv = 0.0050

Point lies inside the ANSI 5000K 7-step quadrangle

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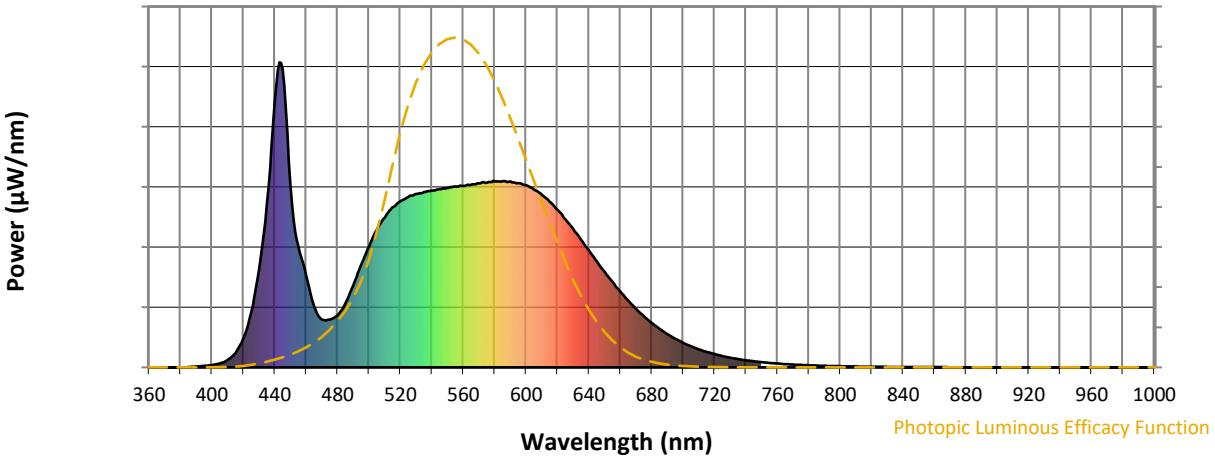
## Photopic Flux vs. Wavelength




## 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 | 270 | NR | 620 | 517 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 335 | NR | 625 | 486 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 397 | NR | 630 | 454 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 451 | NR | 635 | 419 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 492 | NR | 640 | 384 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 524 | NR | 645 | 347 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 545 | NR | 650 | 313 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 558 | NR | 655 | 280 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 568 | NR | 660 | 248 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 13 | NR | 535 | 575 | NR | 665 | 219 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 24 | NR | 540 | 579 | NR | 670 | 192 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 47 | NR | 545 | 585 | NR | 675 | 167 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 95 | NR | 550 | 588 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 181 | NR | 555 | 593 | NR | 685 | 126 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 319 | NR | 560 | 595 | NR | 690 | 109 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 539 | NR | 565 | 600 | NR | 695 | 94 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 868 | NR | 570 | 603 | NR | 700 | 80 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 977 | NR | 575 | 606 | NR | 705 | 69 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 601 | NR | 580 | 609 | NR | 710 | 59 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 397 | NR | 585 | 611 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 302 | NR | 590 | 610 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 201 | NR | 595 | 604 | NR | 725 | 37 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 157 | NR | 600 | 596 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 157 | NR | 605 | 583 | NR | 735 | 27 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 171 | NR | 610 | 566 | NR | 740 | 23 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 210 | NR | 615 | 543 | NR | 745 | 20 | NR | 875 | 0 | NR | | | |

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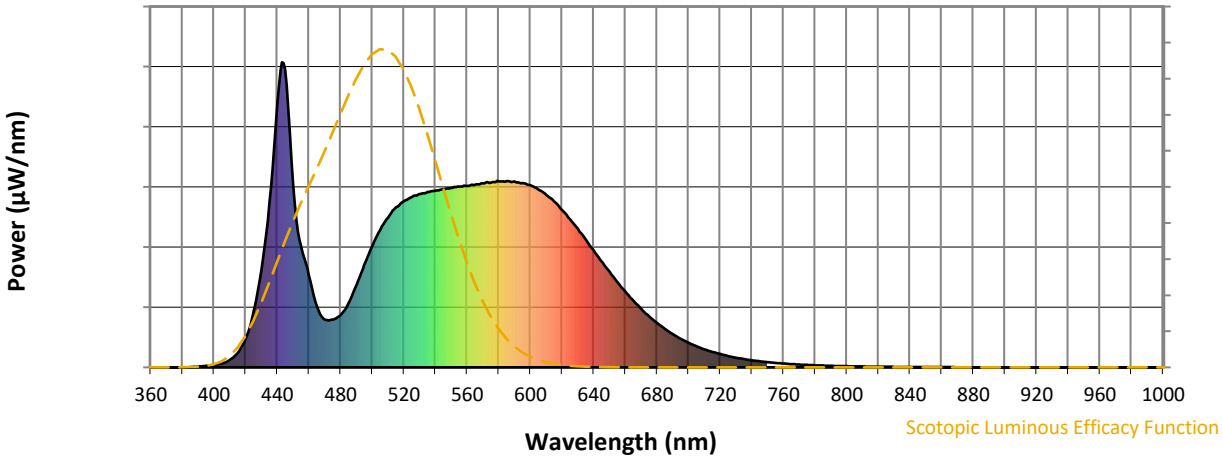
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.83**

| 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 | 270 | NR | 620 | 517 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 335 | NR | 625 | 486 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 397 | NR | 630 | 454 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 451 | NR | 635 | 419 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 492 | NR | 640 | 384 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 524 | NR | 645 | 347 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 545 | NR | 650 | 313 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 558 | NR | 655 | 280 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 568 | NR | 660 | 248 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 13 | NR | 535 | 575 | NR | 665 | 219 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 24 | NR | 540 | 579 | NR | 670 | 192 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 47 | NR | 545 | 585 | NR | 675 | 167 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 95 | NR | 550 | 588 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 181 | NR | 555 | 593 | NR | 685 | 126 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 319 | NR | 560 | 595 | NR | 690 | 109 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 539 | NR | 565 | 600 | NR | 695 | 94 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 868 | NR | 570 | 603 | NR | 700 | 80 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 977 | NR | 575 | 606 | NR | 705 | 69 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 601 | NR | 580 | 609 | NR | 710 | 59 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 397 | NR | 585 | 611 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 302 | NR | 590 | 610 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 201 | NR | 595 | 604 | NR | 725 | 37 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 157 | NR | 600 | 596 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 157 | NR | 605 | 583 | NR | 735 | 27 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 171 | NR | 610 | 566 | NR | 740 | 23 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 210 | NR | 615 | 543 | NR | 745 | 20 | NR | 875 | 0 | NR | | | |

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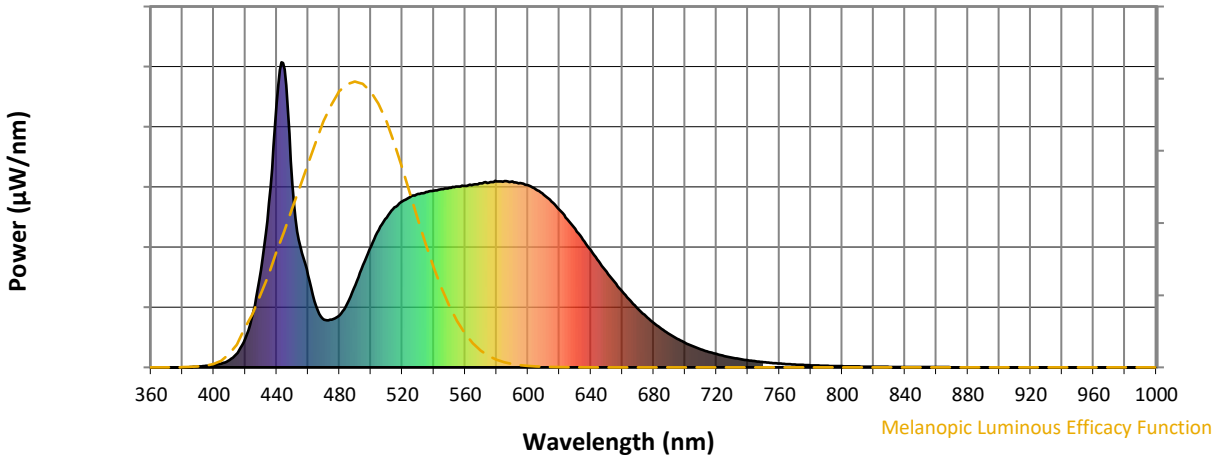
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.74**

| 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 | 270 | NR | 620 | 517 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 335 | NR | 625 | 486 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 397 | NR | 630 | 454 | NR | 760 | 12 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 451 | NR | 635 | 419 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 492 | NR | 640 | 384 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 524 | NR | 645 | 347 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 545 | NR | 650 | 313 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 5 | NR | 525 | 558 | NR | 655 | 280 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 7 | NR | 530 | 568 | NR | 660 | 248 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 13 | NR | 535 | 575 | NR | 665 | 219 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 24 | NR | 540 | 579 | NR | 670 | 192 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 47 | NR | 545 | 585 | NR | 675 | 167 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 95 | NR | 550 | 588 | NR | 680 | 146 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 181 | NR | 555 | 593 | NR | 685 | 126 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 319 | NR | 560 | 595 | NR | 690 | 109 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 539 | NR | 565 | 600 | NR | 695 | 94 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 868 | NR | 570 | 603 | NR | 700 | 80 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 977 | NR | 575 | 606 | NR | 705 | 69 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 601 | NR | 580 | 609 | NR | 710 | 59 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 397 | NR | 585 | 611 | NR | 715 | 51 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 302 | NR | 590 | 610 | NR | 720 | 44 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 201 | NR | 595 | 604 | NR | 725 | 37 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 157 | NR | 600 | 596 | NR | 730 | 32 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 157 | NR | 605 | 583 | NR | 735 | 27 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 171 | NR | 610 | 566 | NR | 740 | 23 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 210 | NR | 615 | 543 | NR | 745 | 20 | NR | 875 | 0 | NR | | | |

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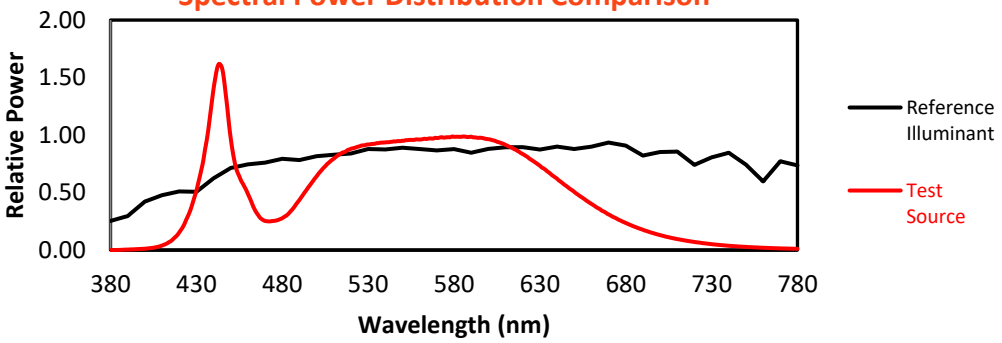
# TM-30-18

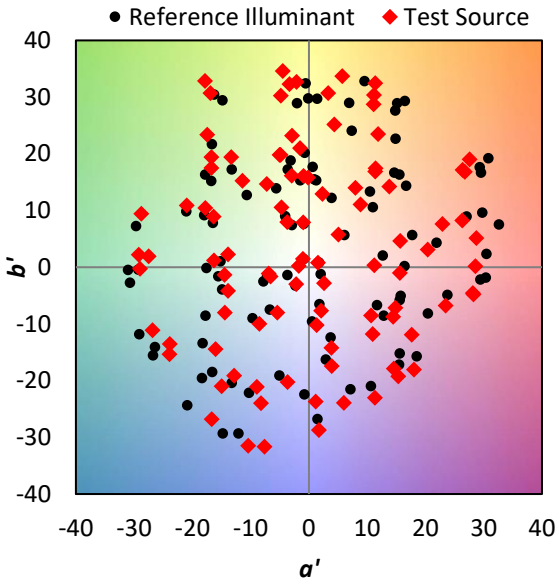
## Summary

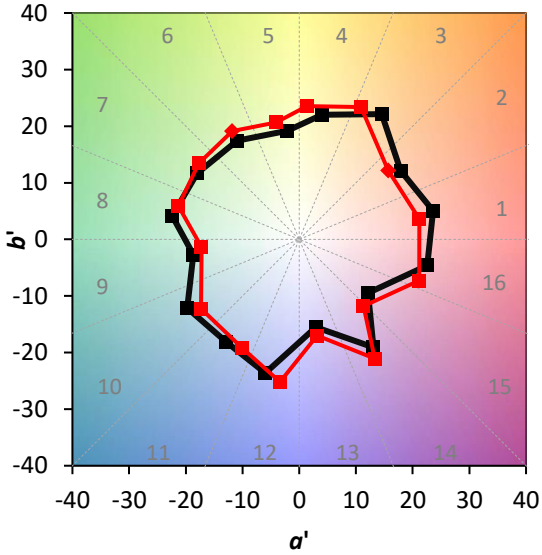
$R_f$ = 82
$R_g$ = 99.4
CIE $R_a$ = 81.1
$R_9$ = 8.7

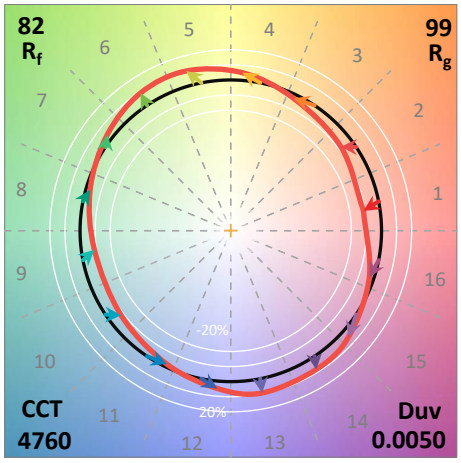
## Spectral Power Distribution Comparison

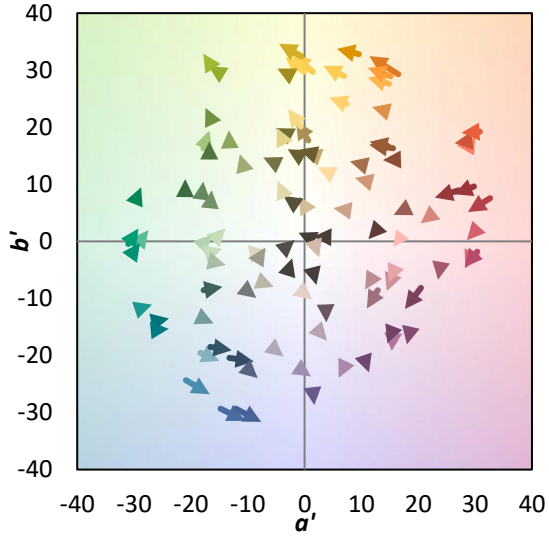



## Color Vector Graphics



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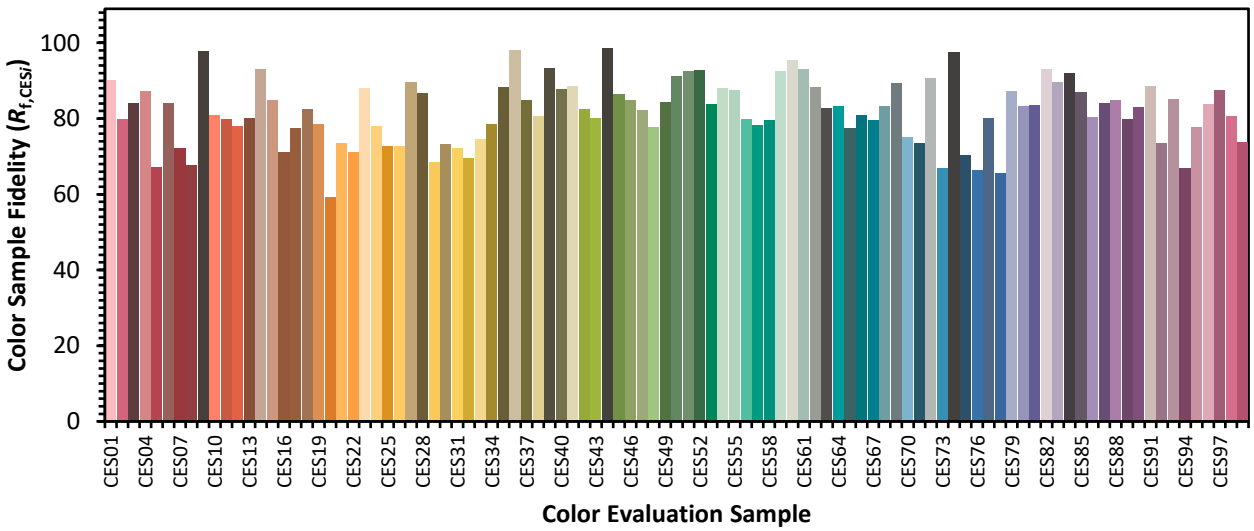
**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 73 | CES51 = 92 | CES76 = 66 |
| CES02 = 60 | CES27 = 90 | CES52 = 93 | CES77 = 80 |
| CES03 = 30 | CES28 = 87 | CES53 = 84 | CES78 = 65 |
| CES04 = 69 | CES29 = 69 | CES54 = 88 | CES79 = 87 |
| CES05 = 47 | CES30 = 73 | CES55 = 88 | CES80 = 83 |
| CES06 = 50 | CES31 = 72 | CES56 = 80 | CES81 = 84 |
| CES07 = 40 | CES32 = 69 | CES57 = 78 | CES82 = 93 |
| CES08 = 39 | CES33 = 75 | CES58 = 80 | CES83 = 90 |
| CES09 = 29 | CES34 = 78 | CES59 = 93 | CES84 = 92 |
| CES10 = 73 | CES35 = 88 | CES60 = 95 | CES85 = 87 |
| CES11 = 56 | CES36 = 98 | CES61 = 93 | CES86 = 80 |
| CES12 = 62 | CES37 = 85 | CES62 = 88 | CES87 = 84 |
| CES13 = 42 | CES38 = 81 | CES63 = 83 | CES88 = 85 |
| CES14 = 74 | CES39 = 93 | CES64 = 83 | CES89 = 80 |
| CES15 = 71 | CES40 = 88 | CES65 = 77 | CES90 = 83 |
| CES16 = 46 | CES41 = 89 | CES66 = 81 | CES91 = 89 |
| CES17 = 48 | CES42 = 82 | CES67 = 80 | CES92 = 73 |
| CES18 = 55 | CES43 = 80 | CES68 = 83 | CES93 = 85 |
| CES19 = 70 | CES44 = 99 | CES69 = 89 | CES94 = 67 |
| CES20 = 64 | CES45 = 87 | CES70 = 75 | CES95 = 78 |
| CES21 = 85 | CES46 = 85 | CES71 = 73 | CES96 = 84 |
| CES22 = 77 | CES47 = 82 | CES72 = 91 | CES97 = 87 |
| CES23 = 91 | CES48 = 78 | CES73 = 67 | CES98 = 81 |
| CES24 = 90 | CES49 = 84 | CES74 = 98 | CES99 = 74 |
| CES25 = 71 | CES50 = 91 | CES75 = 70 | |



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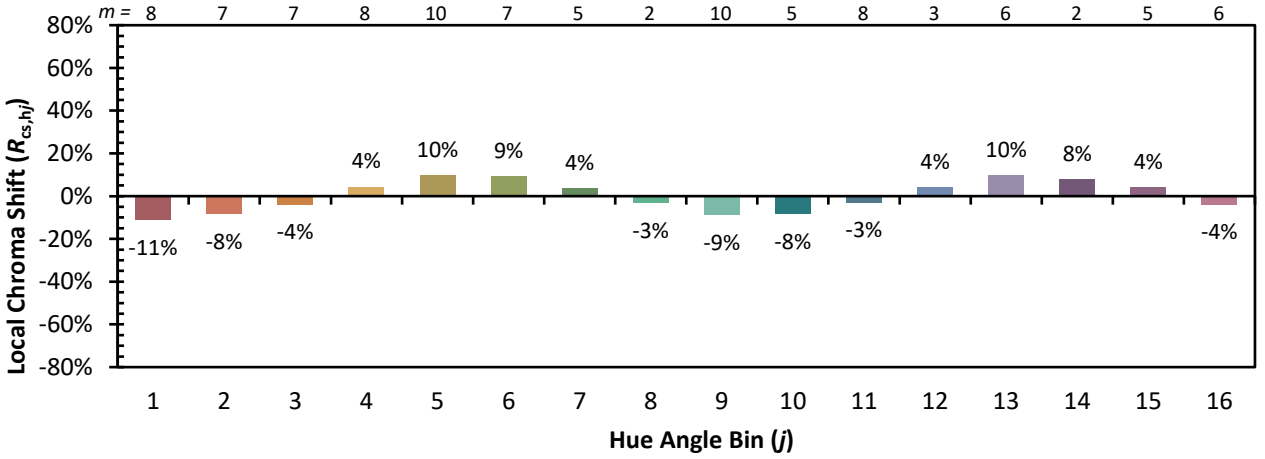
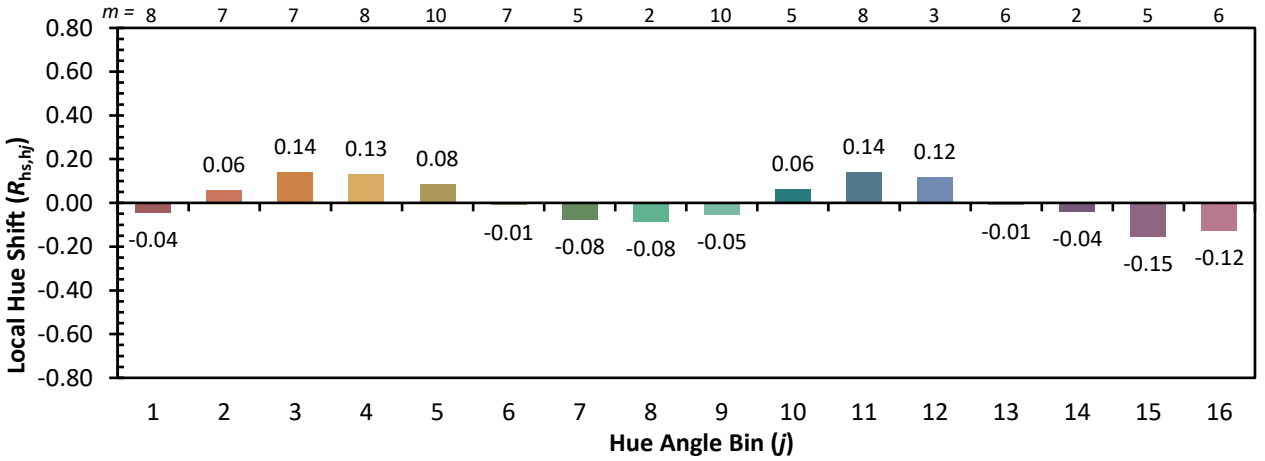
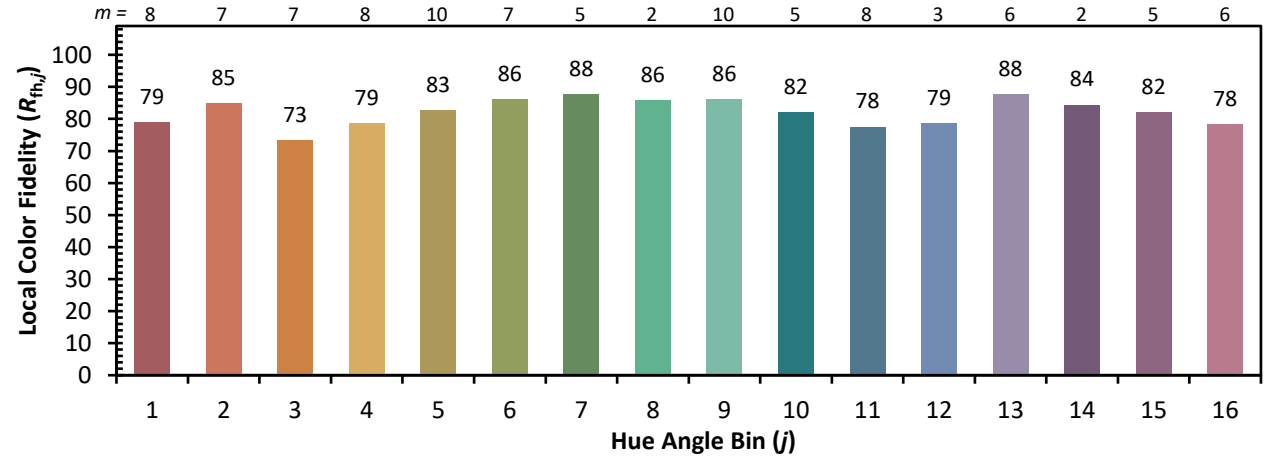
## Color Rendition by Hue-Angle Bin



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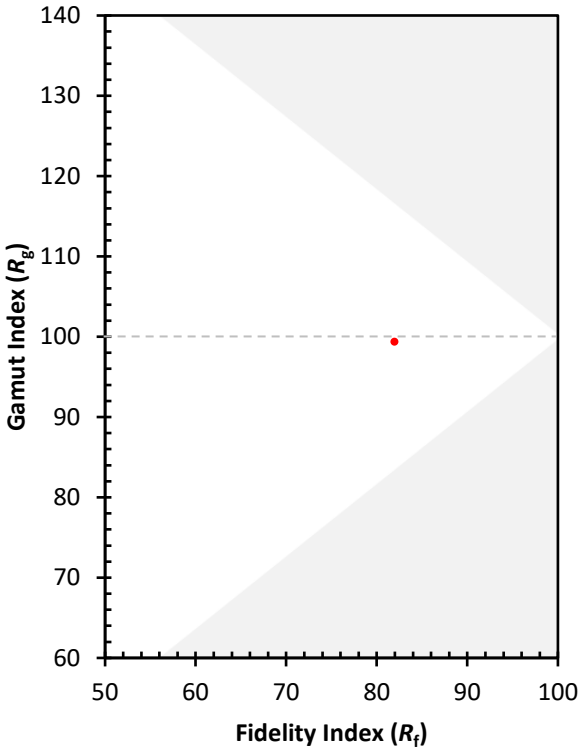
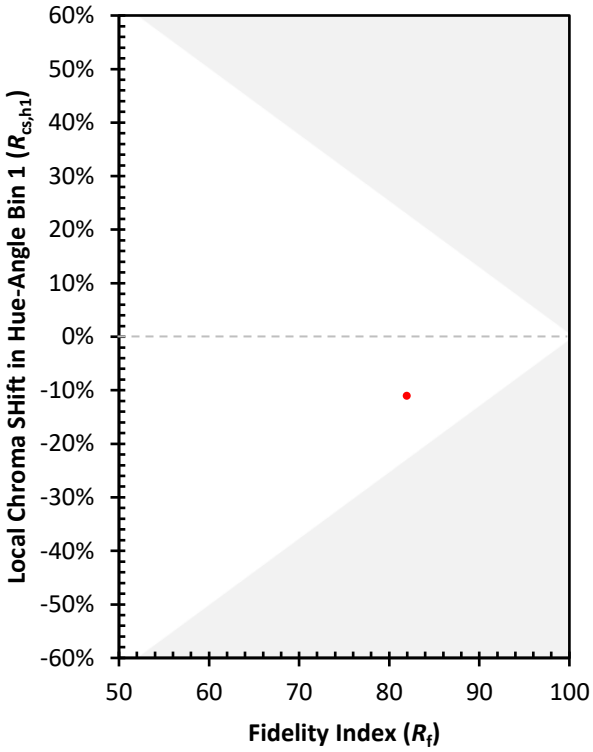
## Measure Comparisons




(END OF REPORT)