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: P1360289

Luminaire Tested: **GSS-SB3C-740-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: | P1360289 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB3C-740-U-T3-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 3SQUARE 150W 70CRI 4000K FIXTURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (78) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 15982.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 106.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B2 - U0 - G3 |

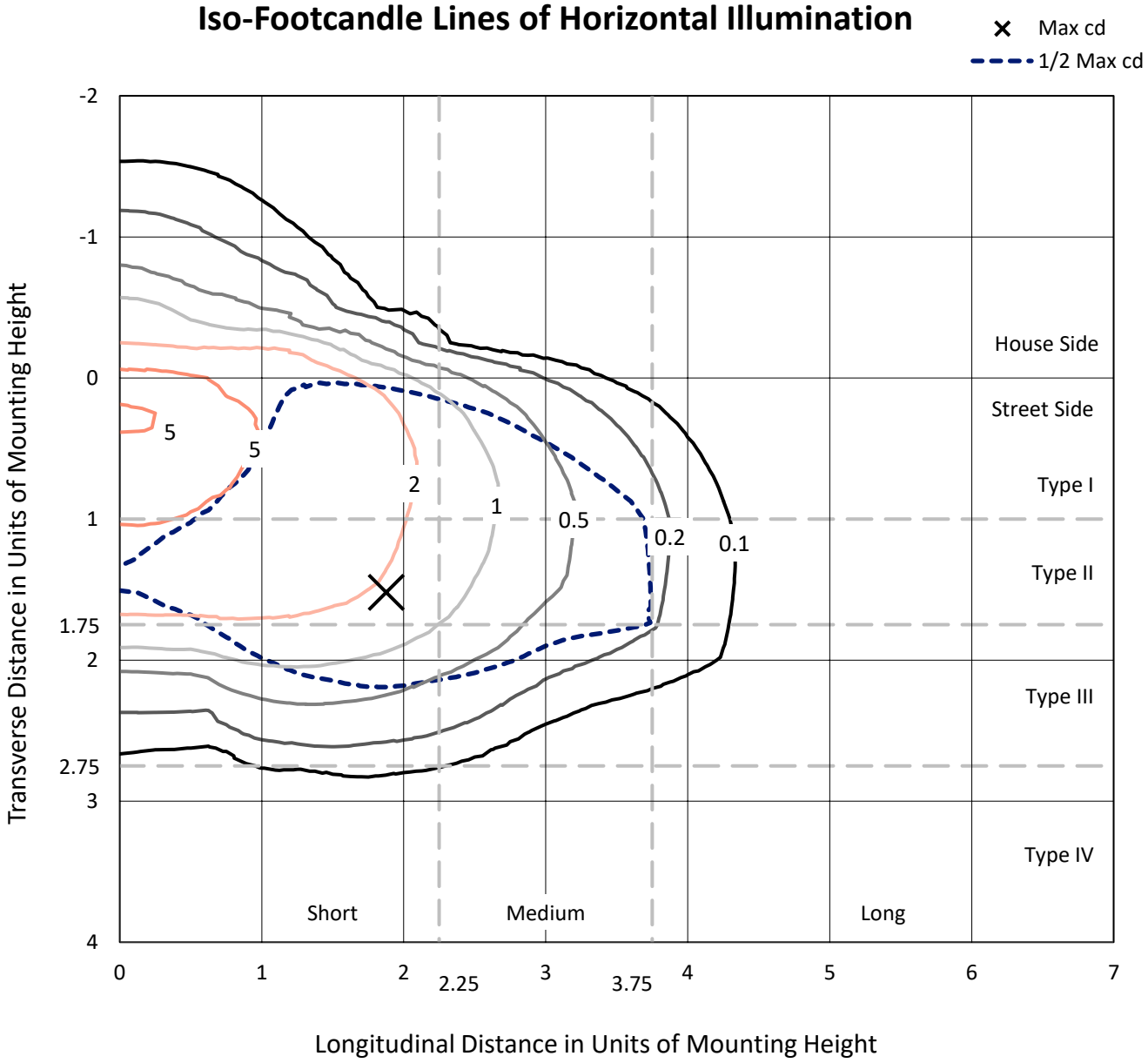
| | |
|---|---|
| Input Watts (W): | 150 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.3% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1360289
CATALOG NUMBER: GSS-SB3C-740-U-T3-HSS

## Iso-Footcandle Lines of Horizontal Illumination



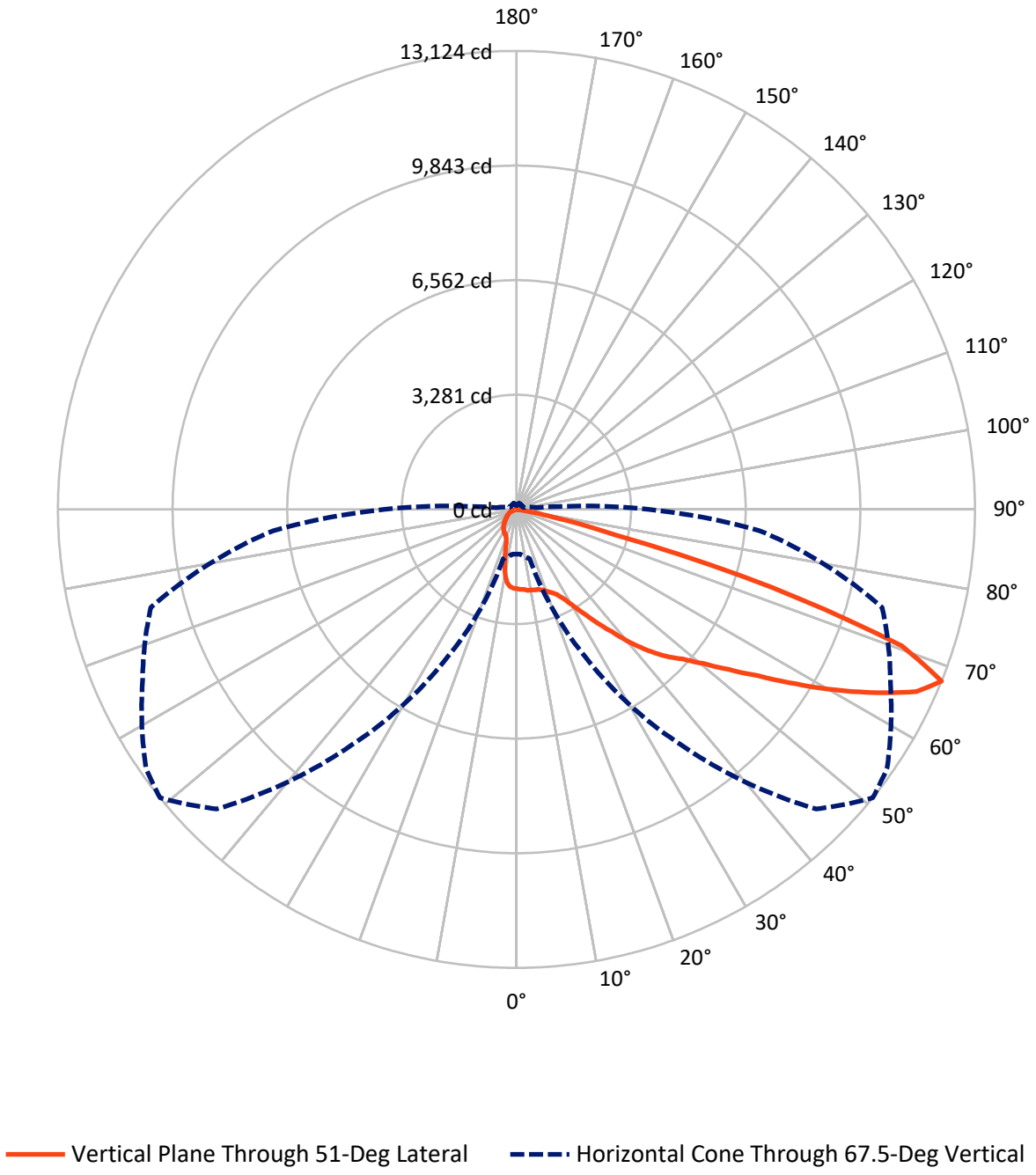

Based on 20 foot mounting height. Maximum calculated value = 7.3 fc
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

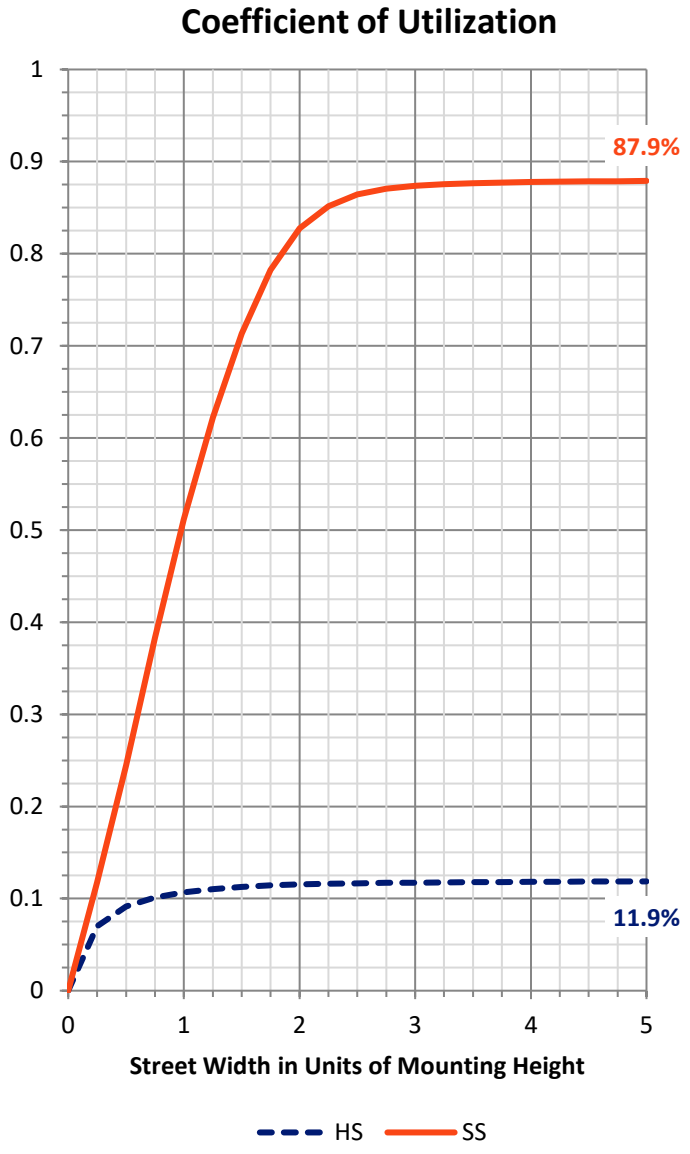
REPORT NUMBER: P1360289
CATALOG NUMBER: GSS-SB3C-740-U-T3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1911.0 | 0.0 | 1911.0 |
| | % Fixture | 12.0 | 0.0 | 12.0 |
| **Street Side** | Lumens | 14071.8 | 0.0 | 14071.8 |
| | % Fixture | 88.0 | 0.0 | 88.0 |
| **Total** | Lumens | 15982.8 | 0.0 | 15982.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 207.2 | 1.3 |
| 10°-20° | 532.8 | 3.3 |
| 20°-30° | 949.8 | 5.9 |
| 30°-40° | 1699.8 | 10.6 |
| 40°-50° | 2677.7 | 16.8 |
| 50°-60° | 3894.5 | 24.4 |
| 60°-70° | 4237.4 | 26.5 |
| 70°-80° | 1711.8 | 10.7 |
| 80°-90° | 71.9 | 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° | 15982.8 | 100.0 |
| 0°-180° | 15982.8 | 100.0 |



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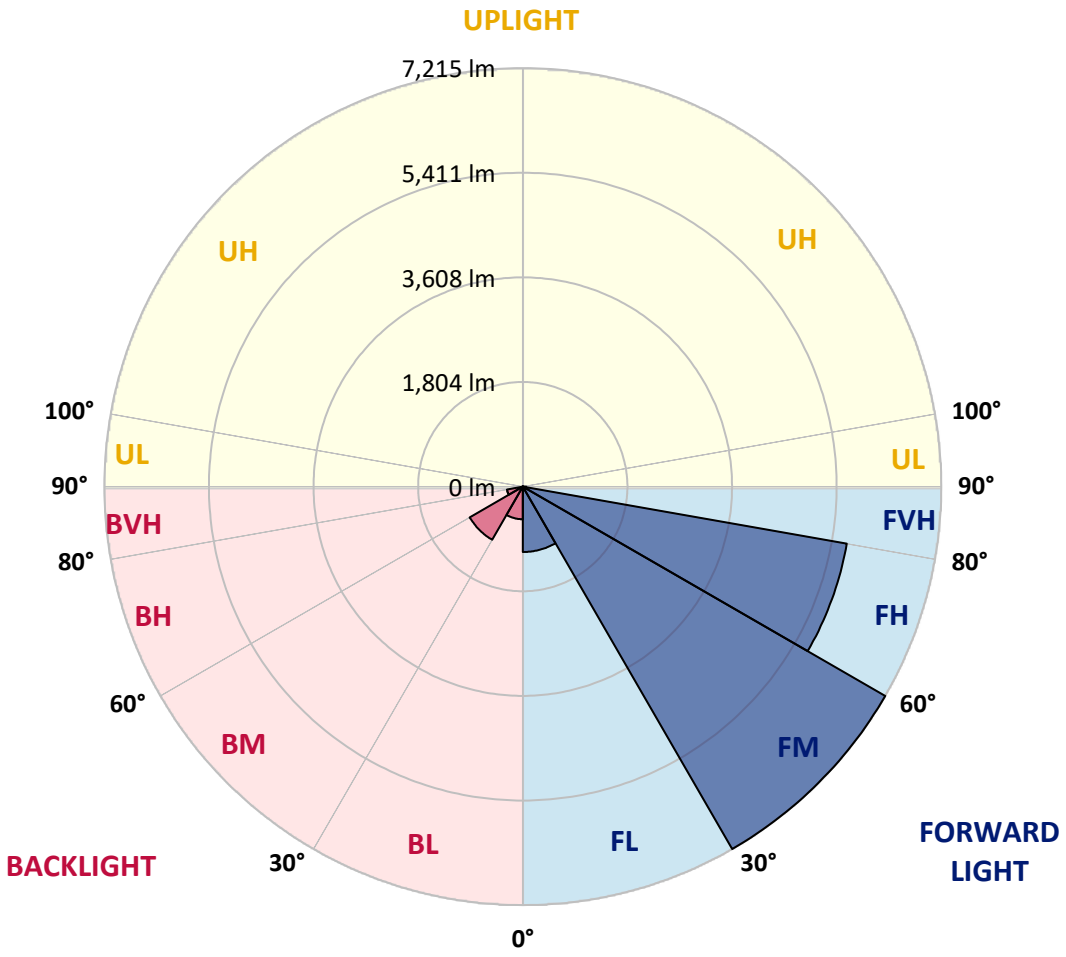
Scaled Data Report

REPORT NUMBER: P1360289
CATALOG NUMBER: GSS-SB3C-740-U-T3-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1127.0 | 7.1 | | | |
| FM | (30°-60°) | 7215.1 | 45.1 | | | |
| FH | (60°-80°) | 5671.3 | 35.5 | | | G3/7500 |
| FVH | (80°-90°) | 58.4 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 562.8 | 3.5 | B2/1000 | | |
| BM | (30°-60°) | 1056.9 | 6.6 | B2/2500 | | |
| BH | (60°-80°) | 277.8 | 1.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 13.6 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G3**
Type III Short



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REPORT NUMBER: P1360289
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 51° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 |
| 2.5° | 2288.7 | 2283.9 | 2288.7 | 2269.5 | 2279.1 | 2283.9 | 2293.5 | 2279.1 | 2274.3 | 2279.1 | 2274.3 |
| 5° | 2279.1 | 2274.3 | 2279.1 | 2283.9 | 2293.5 | 2307.8 | 2303.0 | 2303.0 | 2312.6 | 2293.5 | 2293.5 |
| 7.5° | 2197.7 | 2192.9 | 2221.7 | 2231.2 | 2269.5 | 2303.0 | 2341.4 | 2327.0 | 2346.1 | 2341.4 | 2327.0 |
| 10° | 2097.2 | 2082.8 | 2111.5 | 2164.2 | 2221.7 | 2307.8 | 2346.1 | 2355.7 | 2398.8 | 2418.0 | 2408.4 |
| 12.5° | 2039.7 | 2025.3 | 2063.6 | 2102.0 | 2192.9 | 2298.3 | 2365.3 | 2389.2 | 2437.1 | 2475.4 | 2485.0 |
| 15° | 1996.6 | 2011.0 | 2049.3 | 2121.1 | 2207.3 | 2317.4 | 2374.9 | 2422.7 | 2523.3 | 2561.6 | 2561.6 |
| 17.5° | 2025.3 | 2020.6 | 2054.1 | 2125.9 | 2231.2 | 2341.4 | 2427.5 | 2475.4 | 2595.1 | 2647.8 | 2643.0 |
| 20° | 2307.8 | 2279.1 | 2274.3 | 2236.0 | 2269.5 | 2398.8 | 2504.1 | 2552.0 | 2666.9 | 2738.8 | 2734.0 |
| 22.5° | 2671.7 | 2700.5 | 2623.8 | 2537.7 | 2432.3 | 2475.4 | 2585.5 | 2652.6 | 2767.5 | 2844.1 | 2815.4 |
| 25° | 3164.9 | 3150.5 | 3097.9 | 2925.5 | 2734.0 | 2643.0 | 2700.5 | 2767.5 | 2911.1 | 2973.4 | 2925.5 |
| 27.5° | 3686.8 | 3624.5 | 3557.5 | 3318.1 | 3064.3 | 2896.8 | 2906.3 | 2949.4 | 3117.0 | 3155.3 | 3045.2 |
| 30° | 4247.0 | 4256.6 | 4146.4 | 3820.9 | 3471.3 | 3217.6 | 3198.4 | 3217.6 | 3351.6 | 3346.8 | 3193.6 |
| 32.5° | 4888.6 | 4864.7 | 4759.3 | 4409.8 | 4022.0 | 3605.4 | 3557.5 | 3524.0 | 3581.5 | 3528.8 | 3351.6 |
| 35° | 5338.7 | 5362.6 | 5247.7 | 5017.9 | 4630.0 | 4112.9 | 3998.0 | 3916.6 | 3859.2 | 3801.7 | 3610.2 |
| 37.5° | 5740.9 | 5712.1 | 5645.1 | 5515.8 | 5137.6 | 4663.6 | 4443.3 | 4371.5 | 4247.0 | 4089.0 | 3911.8 |
| 40° | 5831.8 | 5817.5 | 5784.0 | 5788.7 | 5544.6 | 5175.9 | 5017.9 | 4888.6 | 4673.1 | 4543.9 | 4314.0 |
| 42.5° | 5817.5 | 5865.4 | 5874.9 | 5913.2 | 5774.4 | 5683.4 | 5520.6 | 5396.1 | 5195.0 | 5037.0 | 4797.6 |
| 45° | 5894.1 | 5975.5 | 6042.5 | 6076.0 | 5985.1 | 5975.5 | 5994.6 | 5937.2 | 5798.3 | 5635.5 | 5362.6 |
| 47.5° | 6047.3 | 6186.2 | 6291.5 | 6363.3 | 6344.2 | 6502.2 | 6401.6 | 6387.2 | 6444.7 | 6286.7 | 6013.8 |
| 50° | 6334.6 | 6372.9 | 6621.9 | 6727.2 | 6904.4 | 7134.2 | 6937.9 | 6985.8 | 7100.7 | 7115.0 | 6612.3 |
| 52.5° | 6550.0 | 6583.6 | 6832.5 | 7143.8 | 7536.4 | 7790.1 | 7613.0 | 7608.2 | 7814.1 | 7871.5 | 7191.6 |
| 55° | 6607.5 | 6684.1 | 7004.9 | 7546.0 | 8283.3 | 8541.9 | 8417.4 | 8374.3 | 8647.2 | 8747.8 | 7704.0 |
| 57.5° | 6526.1 | 6554.8 | 7014.5 | 7794.9 | 8824.4 | 9384.6 | 9422.9 | 9288.8 | 9537.8 | 9561.7 | 8082.2 |
| 60° | 5645.1 | 5769.6 | 6574.0 | 7952.9 | 9284.0 | 10299.1 | 10500.2 | 10423.6 | 10442.7 | 10399.6 | 8364.7 |
| 62.5° | 3902.3 | 3926.2 | 5108.8 | 7785.4 | 9662.3 | 11223.2 | 11558.3 | 11500.9 | 11338.1 | 10931.1 | 8221.1 |
| 65° | 1857.8 | 1987.0 | 2743.5 | 6588.3 | 9714.9 | 11927.0 | 12578.2 | 12616.5 | 11860.0 | 10935.9 | 7665.7 |
| 67.5° | 1278.4 | 1283.2 | 1460.4 | 4649.2 | 8240.2 | 12128.1 | 13124.0 | 12946.9 | 11812.1 | 10835.3 | 6985.8 |
| 70° | 809.2 | 751.7 | 842.7 | 2652.6 | 5568.5 | 9523.4 | 11706.8 | 12329.2 | 11611.0 | 10179.4 | 5903.7 |
| 72.5° | 320.8 | 344.7 | 397.4 | 871.4 | 2729.2 | 5424.9 | 7646.5 | 9384.6 | 10471.5 | 8805.2 | 4610.9 |
| 75° | 143.6 | 153.2 | 201.1 | 363.9 | 703.8 | 2212.1 | 2959.0 | 4146.4 | 8379.1 | 6952.2 | 3265.4 |
| 77.5° | 95.8 | 100.5 | 129.3 | 210.7 | 320.8 | 617.7 | 1082.1 | 1268.8 | 5022.7 | 3801.7 | 1532.2 |
| 80° | 57.5 | 62.2 | 86.2 | 129.3 | 177.2 | 220.2 | 330.4 | 383.0 | 1326.3 | 1259.3 | 421.3 |
| 82.5° | 38.3 | 33.5 | 57.5 | 71.8 | 105.3 | 91.0 | 105.3 | 124.5 | 363.9 | 320.8 | 114.9 |
| 85° | 14.4 | 14.4 | 23.9 | 28.7 | 38.3 | 47.9 | 43.1 | 52.7 | 86.2 | 86.2 | 52.7 |
| 87.5° | 0.0 | 0.0 | 4.8 | 4.8 | 14.4 | 19.2 | 23.9 | 23.9 | 33.5 | 33.5 | 28.7 |
| 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: P1360289
CATALOG NUMBER: GSS-SB3C-740-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 | 2269.5 |
| 2.5° | 2279.1 | 2264.7 | 2269.5 | 2260.0 | 2264.7 | 2255.2 | 2236.0 | 2255.2 | 2240.8 | 2240.8 | 2255.2 |
| 5° | 2293.5 | 2288.7 | 2274.3 | 2250.4 | 2236.0 | 2202.5 | 2149.8 | 2125.9 | 2102.0 | 2087.6 | 2097.2 |
| 7.5° | 2341.4 | 2322.2 | 2298.3 | 2240.8 | 2164.2 | 2063.6 | 1958.3 | 1838.6 | 1747.6 | 1738.1 | 1704.5 |
| 10° | 2403.6 | 2384.4 | 2331.8 | 2202.5 | 2044.5 | 1757.2 | 1527.4 | 1369.4 | 1273.6 | 1211.4 | 1187.4 |
| 12.5° | 2485.0 | 2461.1 | 2365.3 | 2145.0 | 1757.2 | 1355.0 | 1082.1 | 967.2 | 933.7 | 919.3 | 914.5 |
| 15° | 2561.6 | 2532.9 | 2365.3 | 1958.3 | 1422.0 | 1019.9 | 881.0 | 852.3 | 847.5 | 852.3 | 847.5 |
| 17.5° | 2633.4 | 2595.1 | 2341.4 | 1704.5 | 1091.7 | 861.8 | 828.3 | 814.0 | 809.2 | 804.4 | 804.4 |
| 20° | 2719.6 | 2657.4 | 2274.3 | 1426.8 | 900.2 | 818.8 | 804.4 | 785.2 | 785.2 | 766.1 | 770.9 |
| 22.5° | 2801.0 | 2714.8 | 2145.0 | 1149.1 | 828.3 | 794.8 | 780.5 | 761.3 | 751.7 | 737.4 | 737.4 |
| 25° | 2882.4 | 2772.3 | 1991.8 | 952.8 | 785.2 | 770.9 | 756.5 | 737.4 | 713.4 | 694.3 | 694.3 |
| 27.5° | 3002.1 | 2848.9 | 1809.9 | 871.4 | 761.3 | 737.4 | 723.0 | 699.1 | 670.3 | 646.4 | 646.4 |
| 30° | 3136.2 | 2954.2 | 1661.5 | 857.1 | 751.7 | 694.3 | 670.3 | 632.0 | 612.9 | 593.7 | 593.7 |
| 32.5° | 3299.0 | 3097.9 | 1551.3 | 881.0 | 727.8 | 636.8 | 598.5 | 560.2 | 545.8 | 545.8 | 545.8 |
| 35° | 3538.4 | 3308.5 | 1431.6 | 885.8 | 699.1 | 579.4 | 517.1 | 478.8 | 478.8 | 498.0 | 498.0 |
| 37.5° | 3859.2 | 3538.4 | 1369.4 | 876.2 | 675.1 | 521.9 | 450.1 | 421.3 | 416.6 | 435.7 | 435.7 |
| 40° | 4227.8 | 3792.1 | 1393.3 | 842.7 | 641.6 | 464.4 | 397.4 | 373.5 | 368.7 | 373.5 | 378.3 |
| 42.5° | 4630.0 | 4065.0 | 1450.8 | 794.8 | 584.1 | 416.6 | 359.1 | 344.7 | 340.0 | 340.0 | 340.0 |
| 45° | 5056.2 | 4251.8 | 1508.2 | 746.9 | 526.7 | 378.3 | 335.2 | 325.6 | 320.8 | 320.8 | 320.8 |
| 47.5° | 5463.2 | 4400.2 | 1469.9 | 703.8 | 478.8 | 354.3 | 316.0 | 316.0 | 311.2 | 311.2 | 311.2 |
| 50° | 5812.7 | 4385.8 | 1307.1 | 660.7 | 426.1 | 335.2 | 306.4 | 301.6 | 301.6 | 296.9 | 296.9 |
| 52.5° | 6009.0 | 4093.8 | 1053.4 | 612.9 | 378.3 | 316.0 | 296.9 | 292.1 | 287.3 | 282.5 | 282.5 |
| 55° | 6085.6 | 3705.9 | 818.8 | 541.0 | 344.7 | 301.6 | 287.3 | 282.5 | 272.9 | 268.1 | 263.3 |
| 57.5° | 5951.5 | 3136.2 | 632.0 | 430.9 | 316.0 | 282.5 | 272.9 | 268.1 | 258.6 | 244.2 | 239.4 |
| 60° | 5678.6 | 2513.7 | 474.0 | 330.4 | 282.5 | 258.6 | 258.6 | 253.8 | 234.6 | 210.7 | 205.9 |
| 62.5° | 5199.8 | 1805.1 | 359.1 | 268.1 | 244.2 | 234.6 | 244.2 | 234.6 | 205.9 | 172.4 | 167.6 |
| 65° | 4524.7 | 1115.6 | 277.7 | 229.8 | 215.5 | 205.9 | 220.2 | 210.7 | 177.2 | 138.9 | 129.3 |
| 67.5° | *3782.6* | *569.8* | *215.5* | *196.3* | *181.9* | *172.4* | *186.7* | *186.7* | *153.2* | *114.9* | *110.1* |
| 70° | 2920.7 | 316.0 | 172.4 | 162.8 | 148.4 | 134.1 | 158.0 | 162.8 | 134.1 | 100.5 | 95.8 |
| 72.5° | 2169.0 | 201.1 | 138.9 | 134.1 | 114.9 | 95.8 | 129.3 | 138.9 | 114.9 | 76.6 | 71.8 |
| 75° | 1417.3 | 158.0 | 105.3 | 105.3 | 81.4 | 76.6 | 110.1 | 119.7 | 100.5 | 57.5 | 57.5 |
| 77.5° | 679.9 | 119.7 | 81.4 | 71.8 | 57.5 | 57.5 | 95.8 | 100.5 | 71.8 | 43.1 | 43.1 |
| 80° | 225.0 | 81.4 | 57.5 | 47.9 | 38.3 | 38.3 | 76.6 | 57.5 | 38.3 | 33.5 | 33.5 |
| 82.5° | 76.6 | 52.7 | 38.3 | 33.5 | 28.7 | 23.9 | 23.9 | 28.7 | 28.7 | 23.9 | 23.9 |
| 85° | 38.3 | 33.5 | 28.7 | 23.9 | 19.2 | 19.2 | 19.2 | 19.2 | 23.9 | 23.9 | 23.9 |
| 87.5° | 23.9 | 23.9 | 19.2 | 14.4 | 14.4 | 14.4 | 14.4 | 14.4 | 19.2 | 9.6 | 9.6 |
| 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

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-1

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-740-U-5WQ

Data in this report applies to families of products including GSS-SB1A-740-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

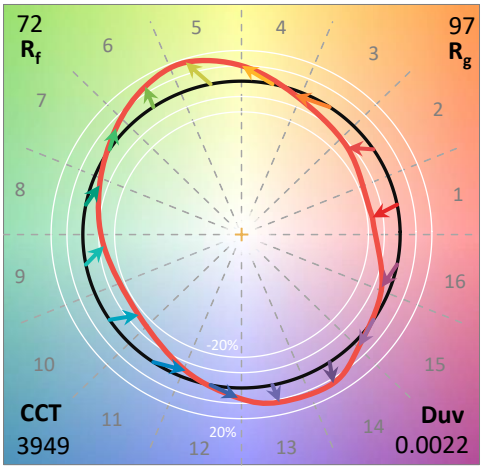
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-1 |
| 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-740-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 4000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3949 |
| CIE u': | 0.2248 |
| CIE v': | 0.5053 |
| Duv: | 0.0022 |
| CIE x: | 0.3844 |
| CIE y: | 0.3840 |
| CIE z: | 0.2316 |
| Peak Wavelength (nm): | 440 |
| Dominant Wavelength (nm): | 578 |
| Purity: | 30.60026 |
| Rf: | 71.8 |
| Rg: | 96.5 |

| | |
|---|---|
| CRI (Ra): | 70.7 |
| R1: | 68.0 |
| R2: | 76.0 |
| R3: | 84.3 |
| R4: | 72.0 |
| R5: | 68.6 |
| R6: | 68.3 |
| R7: | 77.9 |
| R8: | 50.3 |
| R9: | -36.7 |
| R10: | 45.1 |
| R11: | 70.7 |
| R12: | 47.1 |
| R13: | 68.5 |
| R14: | 91.1 |
| R15: | 58.7 |




## Test Conditions

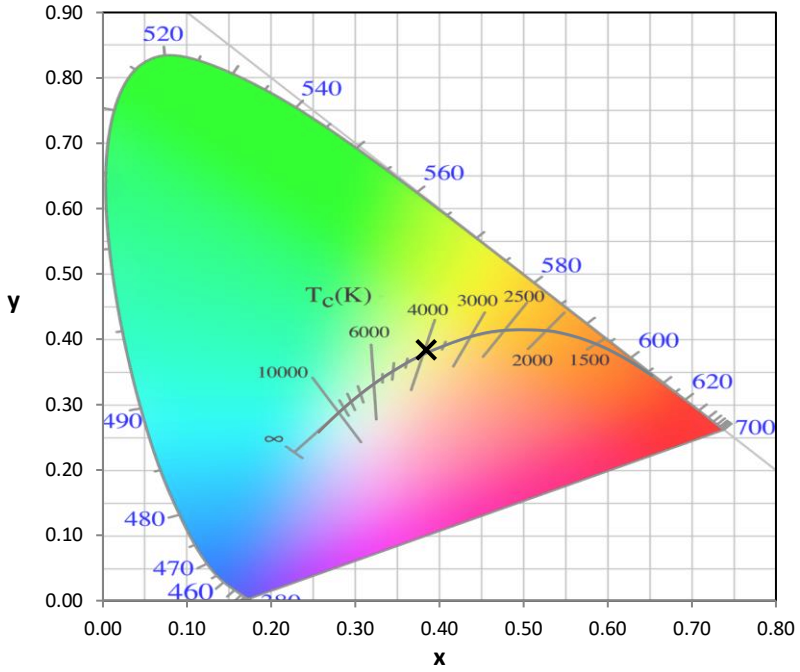
| | |
|---|---|
| Stabilization Time: | 34M |
| Operation Time: | 1H 34M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-1

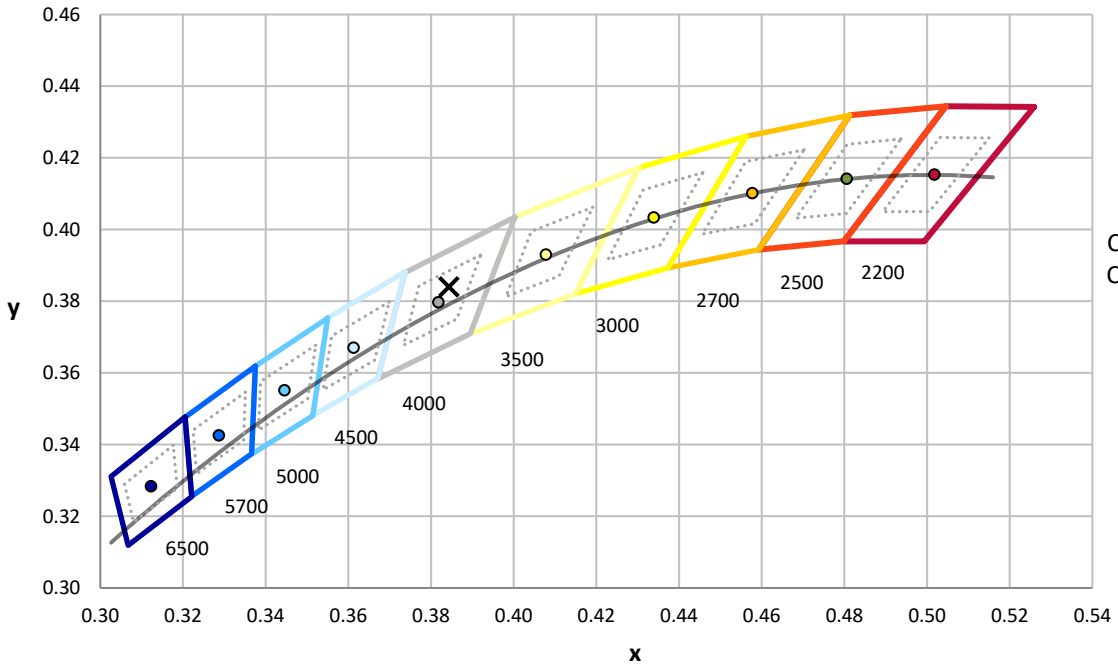
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

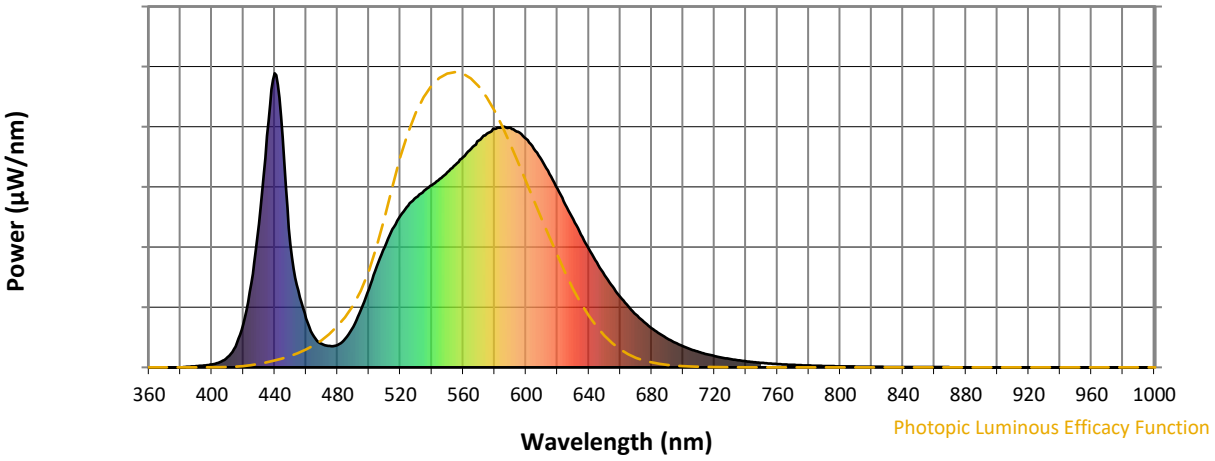



CCT = 3949K
CIE x = 0.3844
CIE y = 0.3840
Duv = 0.0022

Point lies inside the ANSI 4000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

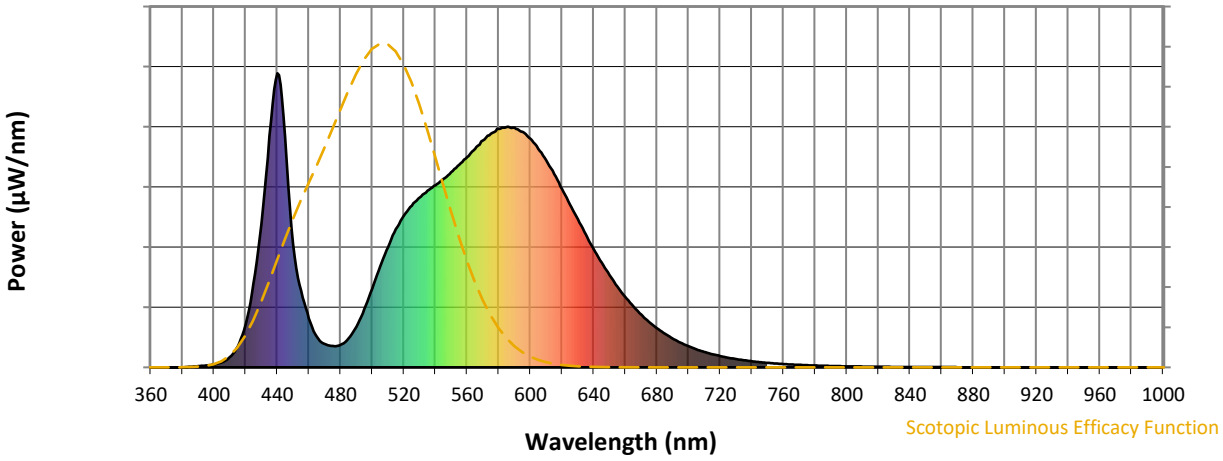



## Photopic Lumens: NR

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

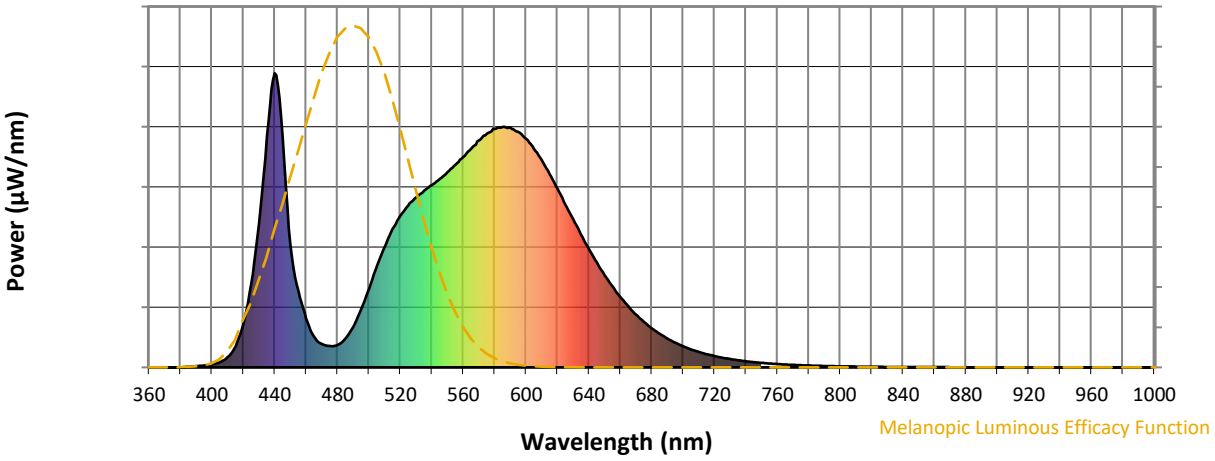



**Scotopic Lumens: NR** **S/P: 1.47**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.78**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

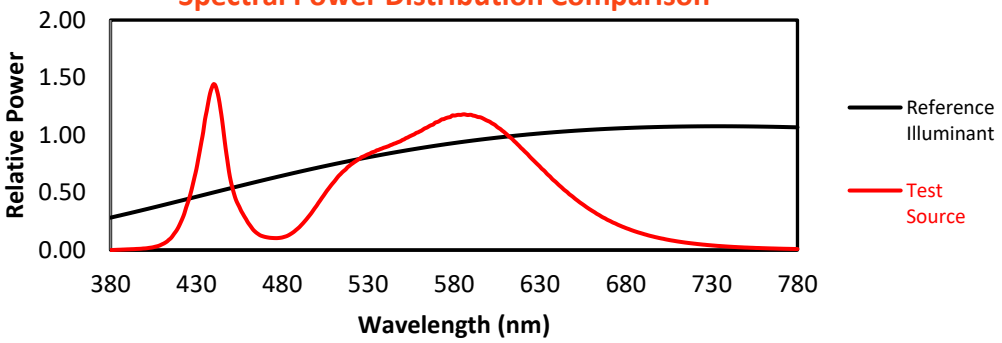
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# TM-30-18

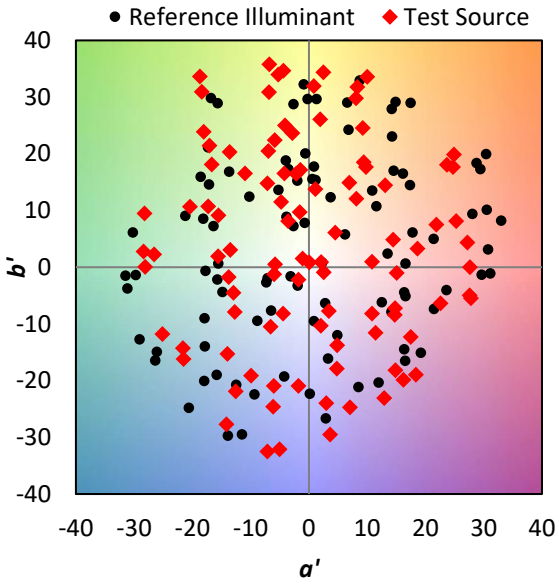
## Summary

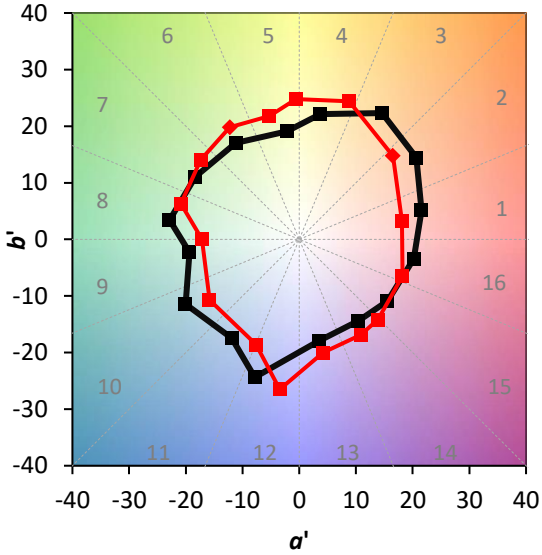
$R_f$ = 71.8
$R_g$ = 96.5
CIE $R_a$ = 70.7
$R_9$ = -36.7

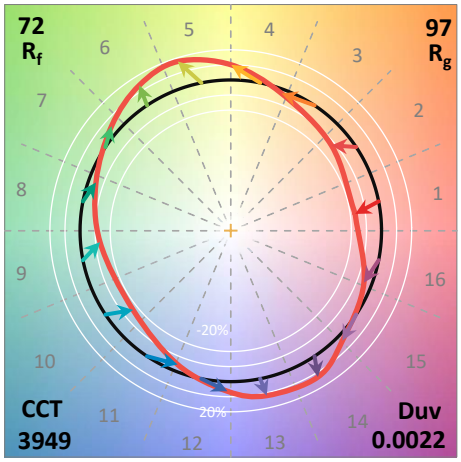
## Spectral Power Distribution Comparison

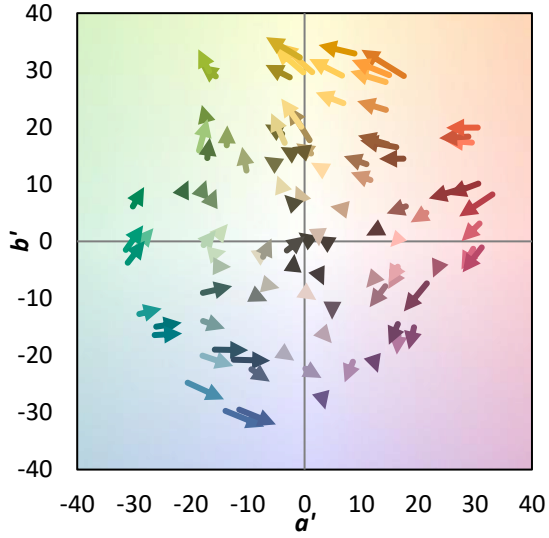



## Color Vector Graphics



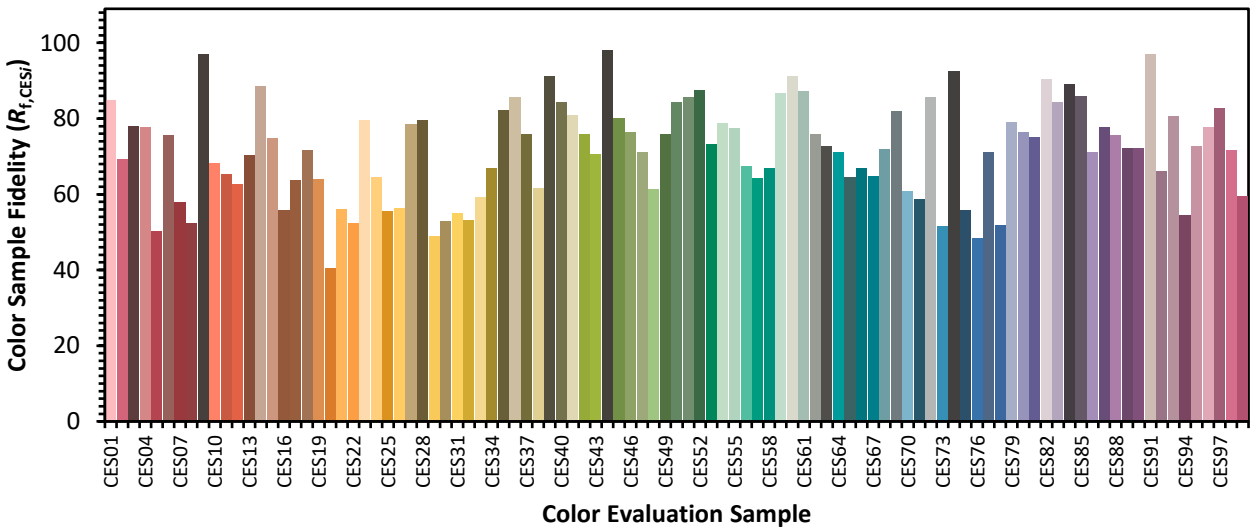



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**Individual Sample Fidelity Index ($R_{f,i}$)**

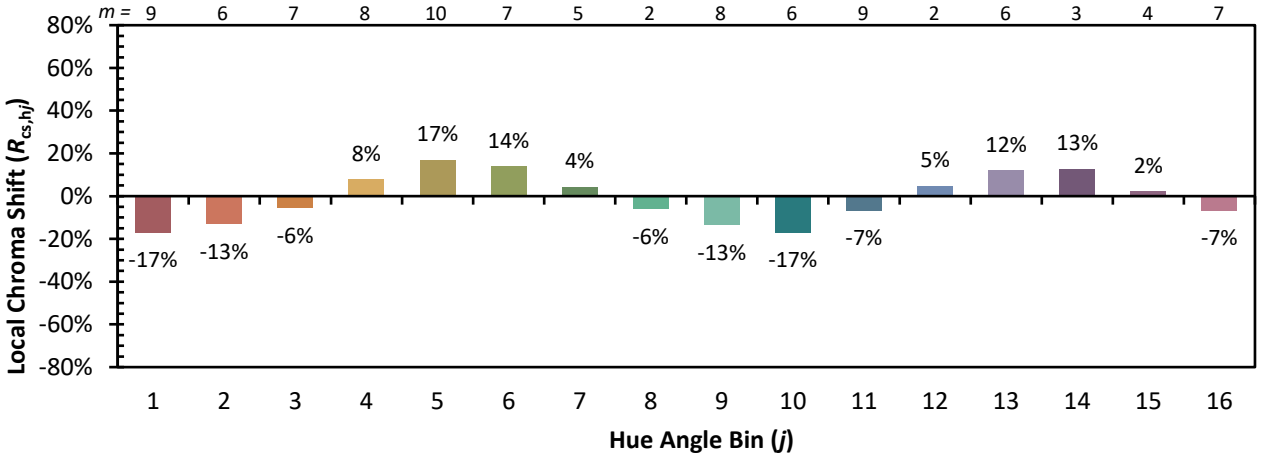
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 56 | CES51 = 86 | CES76 = 48 |
| CES02 = 61 | CES27 = 79 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 80 | CES53 = 73 | CES78 = 52 |
| CES04 = 70 | CES29 = 49 | CES54 = 79 | CES79 = 79 |
| CES05 = 47 | CES30 = 53 | CES55 = 77 | CES80 = 77 |
| CES06 = 50 | CES31 = 55 | CES56 = 67 | CES81 = 75 |
| CES07 = 40 | CES32 = 53 | CES57 = 64 | CES82 = 90 |
| CES08 = 39 | CES33 = 59 | CES58 = 67 | CES83 = 84 |
| CES09 = 29 | CES34 = 67 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 82 | CES60 = 91 | CES85 = 86 |
| CES11 = 57 | CES36 = 86 | CES61 = 87 | CES86 = 71 |
| CES12 = 63 | CES37 = 76 | CES62 = 76 | CES87 = 78 |
| CES13 = 42 | CES38 = 62 | CES63 = 73 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 71 | CES89 = 72 |
| CES15 = 71 | CES40 = 84 | CES65 = 64 | CES90 = 72 |
| CES16 = 46 | CES41 = 81 | CES66 = 67 | CES91 = 97 |
| CES17 = 49 | CES42 = 76 | CES67 = 65 | CES92 = 66 |
| CES18 = 56 | CES43 = 71 | CES68 = 72 | CES93 = 81 |
| CES19 = 72 | CES44 = 98 | CES69 = 82 | CES94 = 55 |
| CES20 = 65 | CES45 = 80 | CES70 = 61 | CES95 = 73 |
| CES21 = 86 | CES46 = 76 | CES71 = 59 | CES96 = 78 |
| CES22 = 78 | CES47 = 71 | CES72 = 86 | CES97 = 83 |
| CES23 = 92 | CES48 = 61 | CES73 = 52 | CES98 = 72 |
| CES24 = 91 | CES49 = 76 | CES74 = 93 | CES99 = 60 |
| CES25 = 72 | CES50 = 84 | CES75 = 56 | |

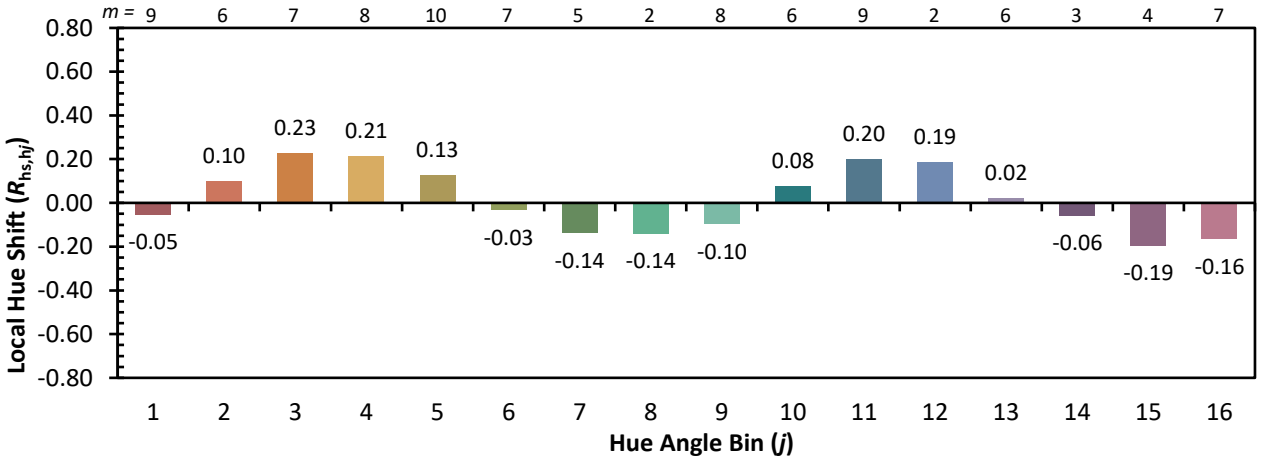


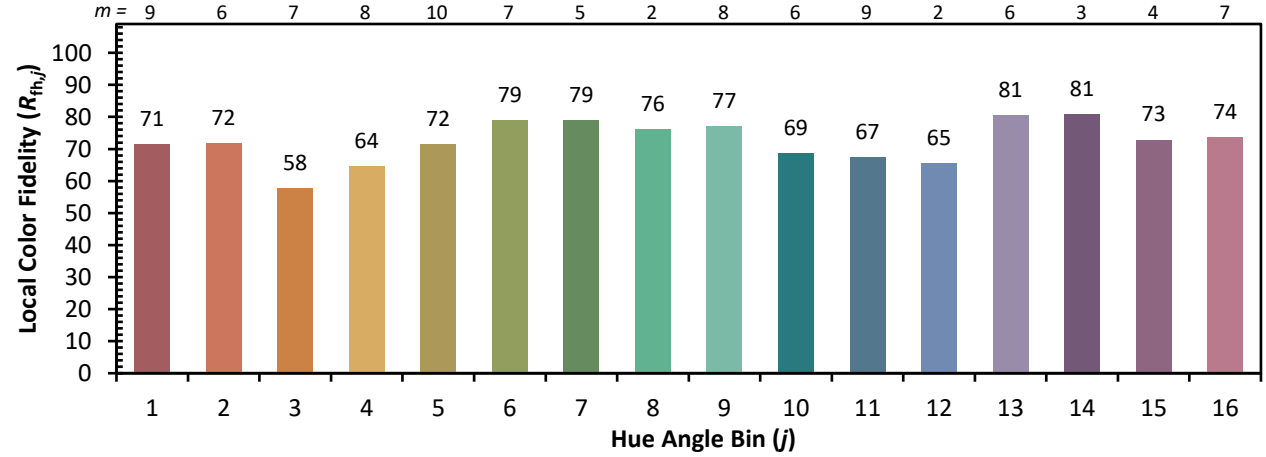
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## Color Rendition by Hue-Angle Bin



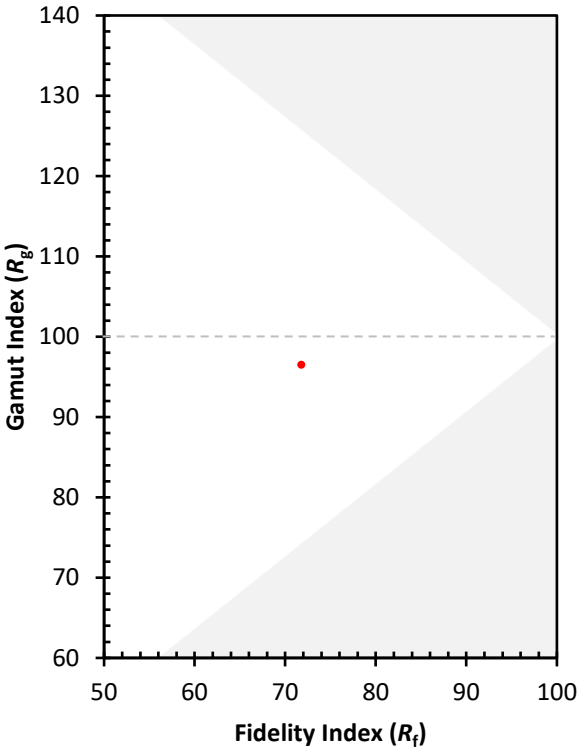



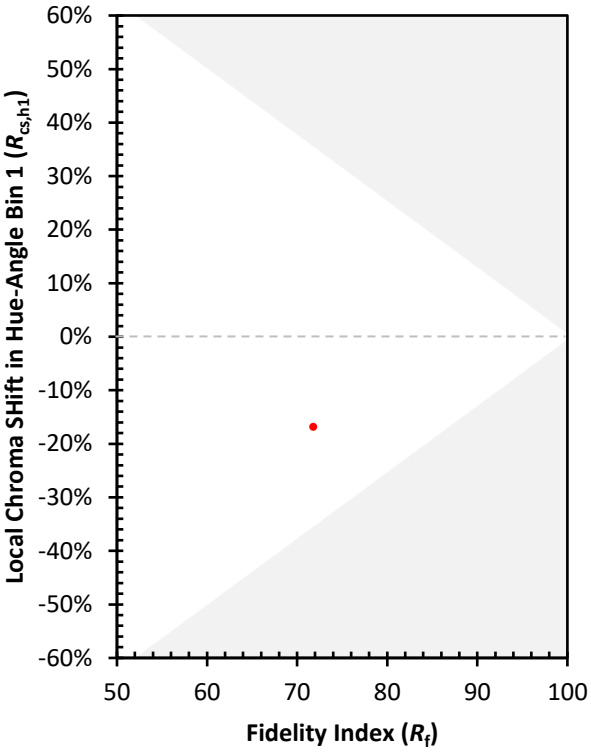



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## Measure Comparisons




(END OF REPORT)