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: P1455906

Luminaire Tested: GLAN-SB2D-735-U-T2LG

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: | P1455906 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB2D-735-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 2xLight Square PACKAGE 70CRI 3500K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (52) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 19683.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 133.4 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 1' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B3 - U0 - G3 |

| | |
|---|---|
| Input Watts (W): | 147.6 |
| 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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REPORT NUMBER: P1455906
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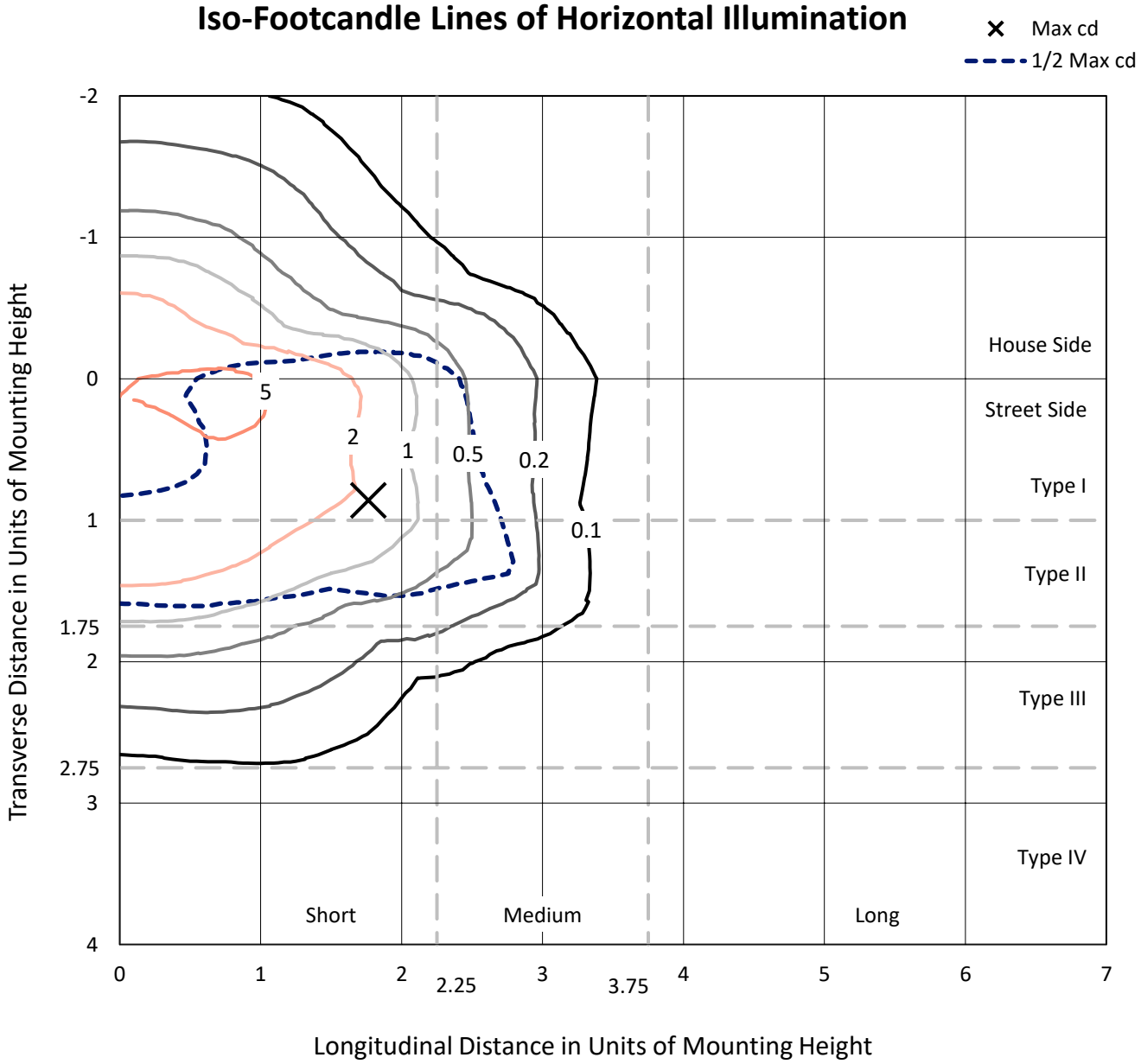
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
Type II - Short - N/A

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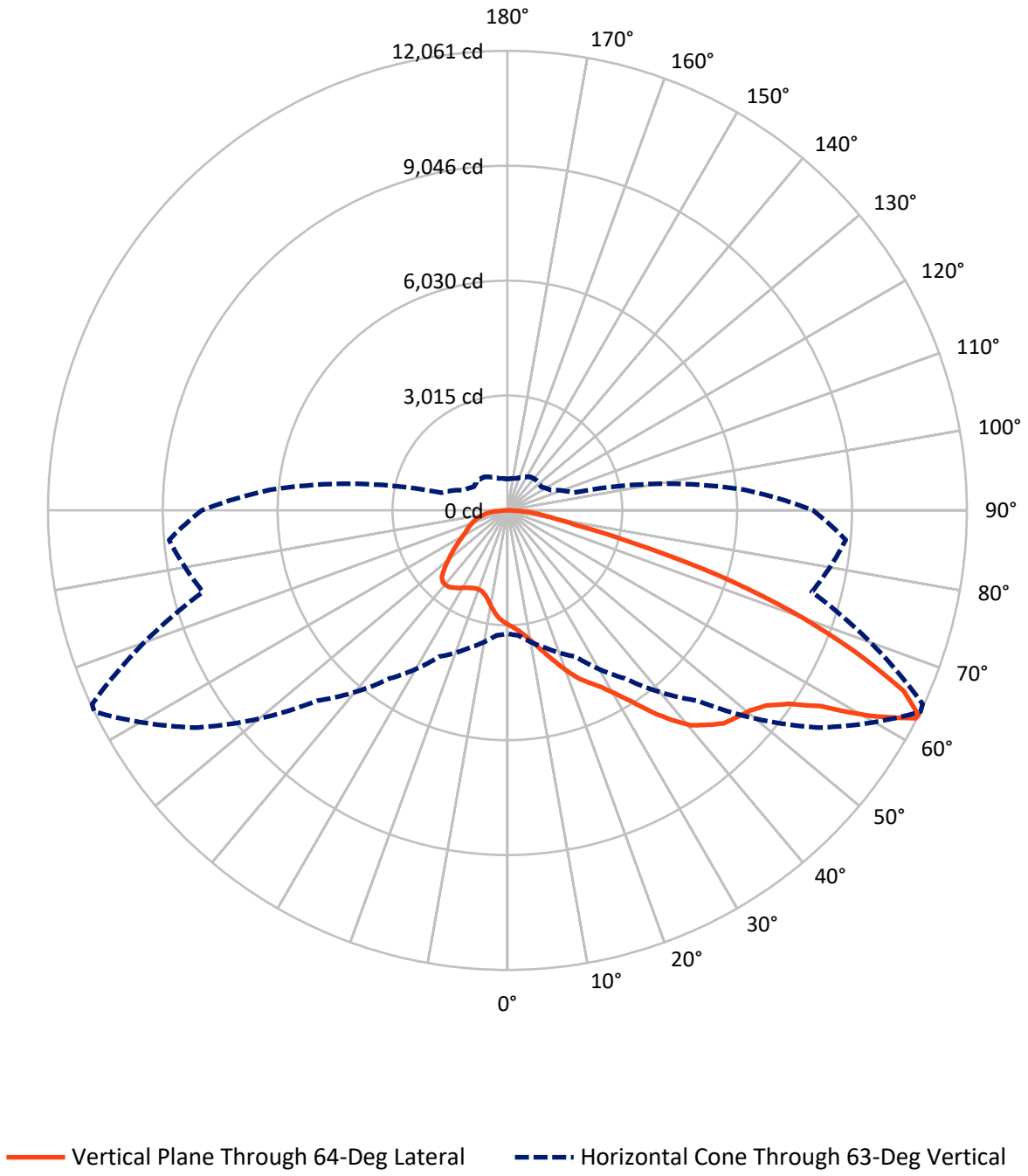
## Luminous Intensity Polar Plot



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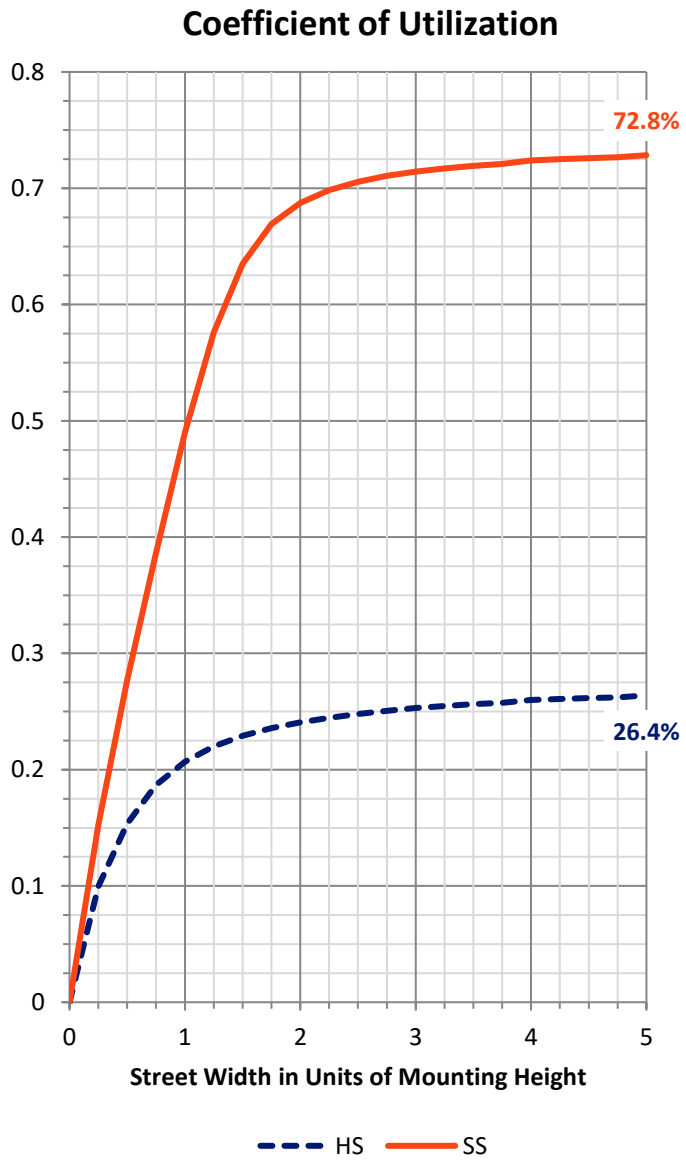
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 5288.3 | 0.0 | 5288.3 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 14394.9 | 0.0 | 14394.9 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 19683.2 | 0.0 | 19683.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 275.2 | 1.4 |
| 10°-20° | 847.3 | 4.3 |
| 20°-30° | 1549.3 | 7.9 |
| 30°-40° | 2665.1 | 13.5 |
| 40°-50° | 3930.3 | 20.0 |
| 50°-60° | 4710.8 | 23.9 |
| 60°-70° | 3780.8 | 19.2 |
| 70°-80° | 1519.2 | 7.7 |
| 80°-90° | 405.1 | 2.1 |
| 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° | 19683.2 | 100.0 |
| 0°-180° | 19683.2 | 100.0 |



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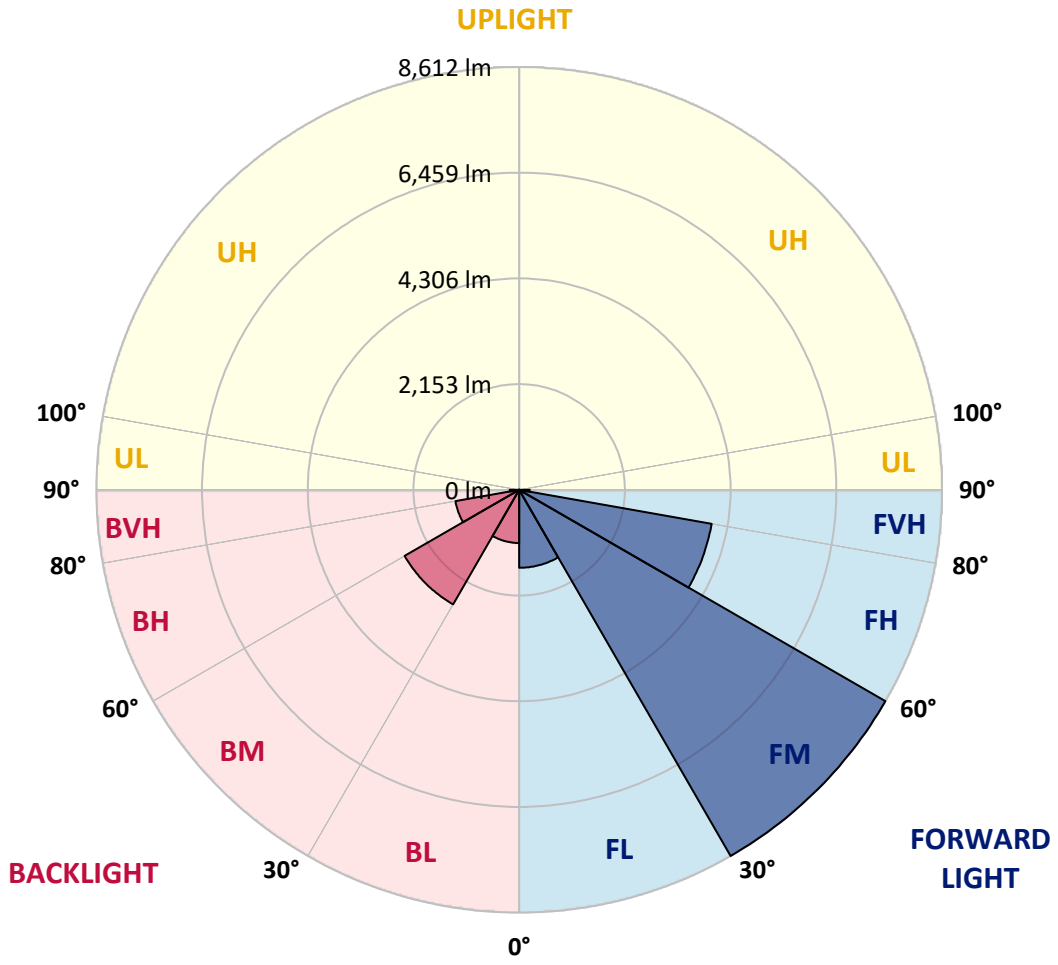
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1588.1 | 8.1 | | | |
| FM | (30°-60°) | 8612.5 | 43.8 | | | |
| FH | (60°-80°) | 3981.5 | 20.2 | | | G2/5000 |
| FVH | (80°-90°) | 212.8 | 1.1 | | | G2/225 |
| BL | (0°-30°) | 1083.8 | 5.5 | B3/2500 | | |
| BM | (30°-60°) | 2693.8 | 13.7 | B3/5000 | | |
| BH | (60°-80°) | 1318.6 | 6.7 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 192.3 | 1.0 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G3**
Type II Short



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REPORT NUMBER: P1455906
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | *2997.5* | 2997.5 | 2997.5 | 2997.5 |
| 2.5° | 3121.3 | 3125.7 | 3112.5 | 3108.1 | 3116.9 | 3099.2 | 3094.8 | *3077.1* | 3068.3 | 3050.6 | 3028.5 |
| 5° | 3209.7 | 3214.2 | 3205.3 | 3205.3 | 3214.2 | 3200.9 | 3196.5 | *3178.8* | 3170.0 | 3152.3 | 3108.1 |
| 7.5° | 3205.3 | 3209.7 | 3218.6 | 3254.0 | 3298.2 | 3315.9 | 3329.1 | *3315.9* | 3311.4 | 3284.9 | 3240.7 |
| 10° | 3134.6 | 3139.0 | 3161.1 | 3214.2 | 3324.7 | 3404.3 | 3488.3 | *3488.3* | 3497.1 | 3475.0 | 3395.4 |
| 12.5° | 3037.3 | 3041.7 | 3094.8 | 3178.8 | 3324.7 | 3461.8 | 3634.2 | *3704.9* | 3700.5 | 3687.2 | 3594.4 |
| 15° | 2803.0 | 2803.0 | 2882.6 | 3041.7 | 3276.1 | 3501.5 | 3758.0 | *3948.1* | 3952.5 | 3965.8 | 3855.2 |
| 17.5° | 2604.1 | 2608.5 | 2674.8 | 2816.3 | 3121.3 | 3479.4 | 3890.6 | *4217.8* | 4231.0 | 4306.2 | 4147.0 |
| 20° | 2621.7 | 2621.7 | 2643.8 | 2705.7 | 2953.3 | 3391.0 | 3965.8 | *4505.1* | 4549.4 | 4726.2 | 4527.2 |
| 22.5° | 2758.8 | 2758.8 | 2776.5 | 2772.1 | 2922.4 | 3333.5 | 4014.4 | *4792.5* | 4872.1 | 5239.1 | 4982.6 |
| 25° | 3010.8 | 3006.4 | 2988.7 | 2962.2 | 3050.6 | 3395.4 | 4124.9 | *5013.6* | 5168.3 | 5805.0 | 5508.7 |
| 27.5° | 3320.3 | 3311.4 | 3284.9 | 3240.7 | 3302.6 | 3581.1 | 4315.0 | *5247.9* | 5415.9 | 6423.9 | 6065.8 |
| 30° | 3704.9 | 3678.4 | 3651.9 | 3594.4 | 3660.7 | 3886.2 | 4598.0 | *5579.5* | 5738.6 | 7126.9 | 6737.8 |
| 32.5° | 4160.3 | 4191.2 | 4102.8 | 4023.2 | 4094.0 | 4301.8 | 5018.0 | *5973.0* | 6145.4 | 7860.8 | 7436.4 |
| 35° | 4841.1 | 4934.0 | 4907.5 | 4505.1 | 4571.5 | 4801.4 | 5508.7 | *6481.4* | 6636.1 | 8528.4 | 8152.6 |
| 37.5° | 5513.2 | 5491.1 | 5513.2 | 5177.2 | 5071.0 | 5349.6 | 6034.9 | *6967.7* | 7118.0 | 9072.2 | 8784.8 |
| 40° | 6052.5 | 6118.9 | 6118.9 | 5844.7 | 5707.7 | 5893.4 | 6512.3 | *7414.3* | 7560.1 | 9372.8 | 9240.2 |
| 42.5° | 6640.6 | 6649.4 | 6631.7 | 6393.0 | 6339.9 | 6388.5 | 6932.3 | *7697.2* | 7816.6 | 9527.6 | 9549.7 |
| 45° | 7303.7 | 7299.3 | 7224.1 | 7025.2 | 6945.6 | 6901.4 | 7193.2 | *7971.3* | 8090.7 | 9598.3 | 9717.7 |
| 47.5° | 7851.9 | 7874.0 | 7878.5 | 7666.3 | 7533.6 | 7343.5 | 7418.7 | *8108.4* | 8245.4 | 9518.7 | 9753.0 |
| 50° | 7882.9 | 7918.3 | 8086.3 | 8148.2 | 8121.6 | 7816.6 | 7626.5 | *8254.3* | 8391.3 | 9536.4 | 9881.2 |
| 52.5° | 7688.4 | 7723.7 | 7940.4 | 8196.8 | 8506.3 | 8360.4 | 7953.6 | *8506.3* | 8647.7 | 9708.8 | 10173.0 |
| 55° | 7166.7 | 7224.1 | 7546.9 | 7905.0 | 8457.6 | 8665.4 | 8532.8 | *8961.6* | 9094.3 | 9845.9 | 10513.5 |
| 57.5° | 6238.2 | 6309.0 | 6755.5 | 7325.8 | 8081.8 | 8594.7 | 9372.8 | *9691.1* | 9801.7 | 9943.1 | 10517.9 |
| 60° | 4664.3 | 4721.8 | 5420.3 | 6189.6 | 7325.8 | 8152.6 | 9872.4 | *10942.3* | 11004.2 | 9417.0 | 9921.0 |
| 62.5° | 3435.2 | 3492.7 | 3961.3 | 4514.0 | 5756.3 | 7339.1 | 9969.7 | *12025.5* | 12034.3 | 8466.5 | 9098.7 |
| 63° | *3236.3* | *3293.7* | *3718.2* | *4235.5* | *5384.9* | *7065.0* | *9938.7* | *12060.9* | *12029.9* | *8272.0* | *8917.4* |
| 65° | 2520.0 | 2621.7 | 3063.8 | 3457.3 | 4036.5 | 5623.7 | 9540.8 | *11433.1* | 11477.3 | 7697.2 | 8006.7 |
| 67.5° | 1715.4 | 1790.6 | 2352.0 | 2807.4 | 3050.6 | 3581.1 | 7825.4 | *9784.0* | 9854.7 | 7100.3 | 6388.5 |
| 70° | 1326.3 | 1361.7 | 1688.9 | 2223.8 | 2467.0 | 2276.9 | 5102.0 | *7878.5* | 7878.5 | 5544.1 | 4527.2 |
| 72.5° | 1039.0 | 1052.2 | 1273.3 | 1737.5 | 1985.1 | 1750.8 | 2842.8 | *5729.8* | 5517.6 | 3289.3 | 3019.6 |
| 75° | 742.8 | 760.4 | 959.4 | 1295.4 | 1582.8 | 1379.4 | 1817.1 | *3338.0* | 3209.7 | 1892.2 | 2016.0 |
| 77.5° | 588.0 | 596.9 | 716.2 | 955.0 | 1282.1 | 1052.2 | 1383.8 | *1821.5* | 1803.8 | 1330.8 | 1295.4 |
| 80° | 464.2 | 481.9 | 561.5 | 685.3 | 990.3 | 822.3 | 1030.1 | *1202.5* | 1167.2 | 915.2 | 831.2 |
| 82.5° | 331.6 | 362.5 | 433.3 | 521.7 | 733.9 | 588.0 | 676.4 | *848.9* | 848.9 | 689.7 | 548.2 |
| 85° | 203.4 | 229.9 | 256.4 | 322.7 | 521.7 | 380.2 | 358.1 | *548.2* | 561.5 | 517.3 | 353.7 |
| 87.5° | 97.3 | 106.1 | 123.8 | 137.1 | 190.1 | 172.4 | 141.5 | *207.8* | 212.2 | 229.9 | 145.9 |
| 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: P1455906
CATALOG NUMBER: GLAN-SB2D-735-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 | 2997.5 |
| 2.5° | 3024.1 | 3015.2 | 2971.0 | 2926.8 | 2878.2 | 2834.0 | 2789.7 | 2754.4 | 2714.6 | 2723.4 | 2727.8 |
| 5° | 3081.5 | 3059.4 | 2962.2 | 2847.2 | 2696.9 | 2555.4 | 2418.4 | 2321.1 | 2259.2 | 2241.5 | 2206.1 |
| 7.5° | 3205.3 | 3152.3 | 2975.4 | 2732.3 | 2453.7 | 2232.7 | 2104.5 | 2047.0 | 2029.3 | 2033.7 | 2024.9 |
| 10° | 3346.8 | 3267.2 | 2993.1 | 2595.2 | 2241.5 | 2091.2 | 2073.5 | 2108.9 | 2126.6 | 2144.3 | 2148.7 |
| 12.5° | 3532.5 | 3404.3 | 2984.3 | 2444.9 | 2139.8 | 2113.3 | 2179.6 | 2245.9 | 2285.7 | 2312.3 | 2307.8 |
| 15° | 3749.1 | 3576.7 | 2957.7 | 2321.1 | 2126.6 | 2197.3 | 2281.3 | 2356.5 | 2405.1 | 2431.6 | 2418.4 |
| 17.5° | 4010.0 | 3780.1 | 2926.8 | 2241.5 | 2166.4 | 2250.4 | 2338.8 | 2413.9 | 2467.0 | 2484.7 | 2471.4 |
| 20° | 4332.7 | 4010.0 | 2873.7 | 2206.1 | 2197.3 | 2272.5 | 2352.0 | 2422.8 | 2467.0 | 2484.7 | 2467.0 |
| 22.5° | 4712.9 | 4284.1 | 2829.5 | 2206.1 | 2210.6 | 2272.5 | 2329.9 | 2383.0 | 2422.8 | 2436.0 | 2413.9 |
| 25° | 5199.3 | 4602.4 | 2811.8 | 2241.5 | 2215.0 | 2250.4 | 2281.3 | 2312.3 | 2334.4 | 2343.2 | 2334.4 |
| 27.5° | 5694.4 | 4969.4 | 2820.7 | 2285.7 | 2210.6 | 2219.4 | 2219.4 | 2223.8 | 2228.3 | 2232.7 | 2228.3 |
| 30° | 6264.8 | 5340.7 | 2856.1 | 2343.2 | 2219.4 | 2175.2 | 2161.9 | 2135.4 | 2113.3 | 2095.6 | 2077.9 |
| 32.5° | 6817.4 | 5694.4 | 2918.0 | 2427.2 | 2210.6 | 2126.6 | 2100.0 | 2033.7 | 1971.8 | 1918.8 | 1918.8 |
| 35° | 7414.3 | 6061.4 | 3028.5 | 2489.1 | 2201.7 | 2082.4 | 2007.2 | 1932.0 | 1865.7 | 1790.6 | 1790.6 |
| 37.5° | 7927.1 | 6375.3 | 3116.9 | 2559.8 | 2192.9 | 2029.3 | 1909.9 | 1825.9 | 1755.2 | 1680.0 | 1671.2 |
| 40° | 8285.2 | 6556.5 | 3170.0 | 2586.4 | 2161.9 | 1958.6 | 1817.1 | 1711.0 | 1609.3 | 1507.6 | 1503.2 |
| 42.5° | 8457.6 | 6547.7 | 3139.0 | 2577.5 | 2104.5 | 1870.1 | 1737.5 | 1596.0 | 1459.0 | 1366.1 | 1357.3 |
| 45° | 8550.5 | 6490.2 | 3019.6 | 2502.4 | 2011.6 | 1777.3 | 1635.8 | 1485.5 | 1348.4 | 1264.4 | 1246.8 |
| 47.5° | 8532.8 | 6348.8 | 2856.1 | 2316.7 | 1887.8 | 1675.6 | 1534.1 | 1379.4 | 1268.9 | 1220.2 | 1220.2 |
| 50° | 8581.4 | 6238.2 | 2670.4 | 2104.5 | 1719.8 | 1556.2 | 1441.3 | 1299.8 | 1233.5 | 1171.6 | 1149.5 |
| 52.5° | 8798.1 | 6331.1 | 2511.2 | 1905.5 | 1560.7 | 1441.3 | 1361.7 | 1242.3 | 1158.3 | 1118.5 | 1105.3 |
| 55° | 9085.4 | 6530.0 | 2360.9 | 1728.7 | 1405.9 | 1339.6 | 1299.8 | 1189.3 | 1092.0 | 1052.2 | 1030.1 |
| 57.5° | 9138.5 | 6667.1 | 2215.0 | 1556.2 | 1277.7 | 1260.0 | 1246.8 | 1096.4 | 1016.9 | 985.9 | 968.2 |
| 60° | 8771.5 | 6565.4 | 2024.9 | 1401.5 | 1176.0 | 1184.9 | 1149.5 | 1039.0 | 946.1 | 915.2 | 897.5 |
| 62.5° | 8148.2 | 6300.1 | 1834.8 | 1268.9 | 1096.4 | 1114.1 | 1078.8 | 968.2 | 875.4 | 844.4 | 835.6 |
| 63° | *8024.4* | *6229.4* | *1790.6* | *1255.6* | *1078.8* | *1100.9* | *1069.9* | *959.4* | *866.5* | *835.6* | *822.3* |
| 65° | 7286.0 | 5805.0 | 1635.8 | 1184.9 | 1021.3 | 1021.3 | 1025.7 | 915.2 | 835.6 | 822.3 | 813.5 |
| 67.5° | 5942.0 | 4845.6 | 1467.8 | 1100.9 | 959.4 | 972.7 | 994.8 | 932.9 | 901.9 | 893.1 | 884.2 |
| 70° | 4491.9 | 3647.4 | 1321.9 | 1021.3 | 893.1 | 937.3 | 1087.6 | 1061.1 | 946.1 | 866.5 | 848.9 |
| 72.5° | 3183.2 | 2484.7 | 1193.7 | 941.7 | 813.5 | 924.0 | 1127.4 | 1012.4 | 853.3 | 760.4 | 742.8 |
| 75° | 2131.0 | 1600.5 | 1065.5 | 857.7 | 725.1 | 853.3 | 1065.5 | 924.0 | 742.8 | 720.6 | 694.1 |
| 77.5° | 1339.6 | 1140.7 | 937.3 | 760.4 | 627.8 | 760.4 | 968.2 | 822.3 | 641.1 | 649.9 | 610.1 |
| 80° | 817.9 | 813.5 | 787.0 | 645.5 | 504.0 | 605.7 | 813.5 | 694.1 | 512.9 | 512.9 | 455.4 |
| 82.5° | 486.3 | 588.0 | 667.6 | 535.0 | 367.0 | 433.3 | 588.0 | 521.7 | 428.9 | 415.6 | 389.1 |
| 85° | 327.2 | 397.9 | 530.5 | 411.2 | 234.3 | 265.3 | 406.7 | 437.7 | 393.5 | 344.8 | 322.7 |
| 87.5° | 119.4 | 159.2 | 243.2 | 168.0 | 101.7 | 159.2 | 305.1 | 318.3 | 238.7 | 185.7 | 168.0 |
| 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: SP1-2407-184-5

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

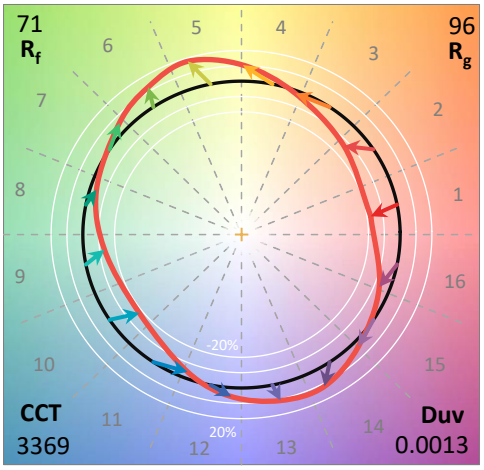
## Test Information

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

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| 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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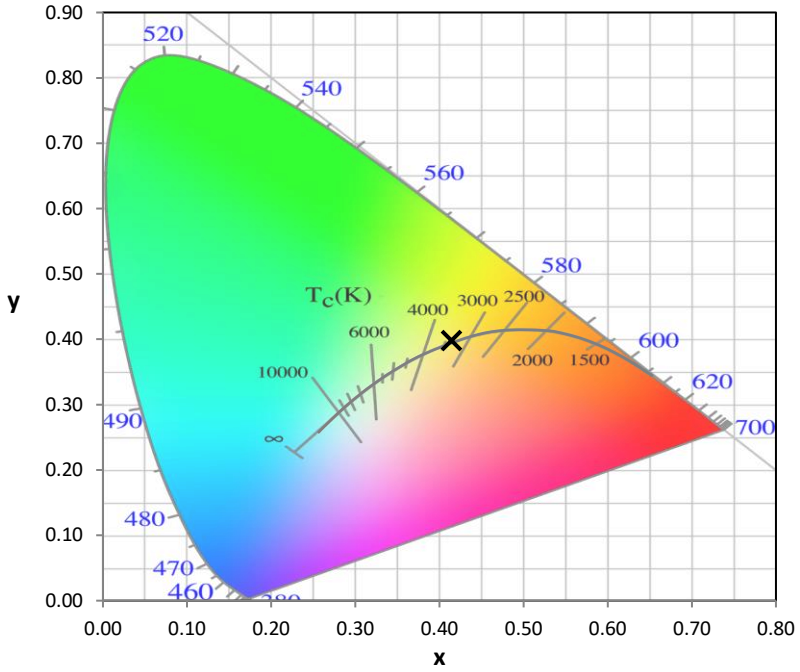
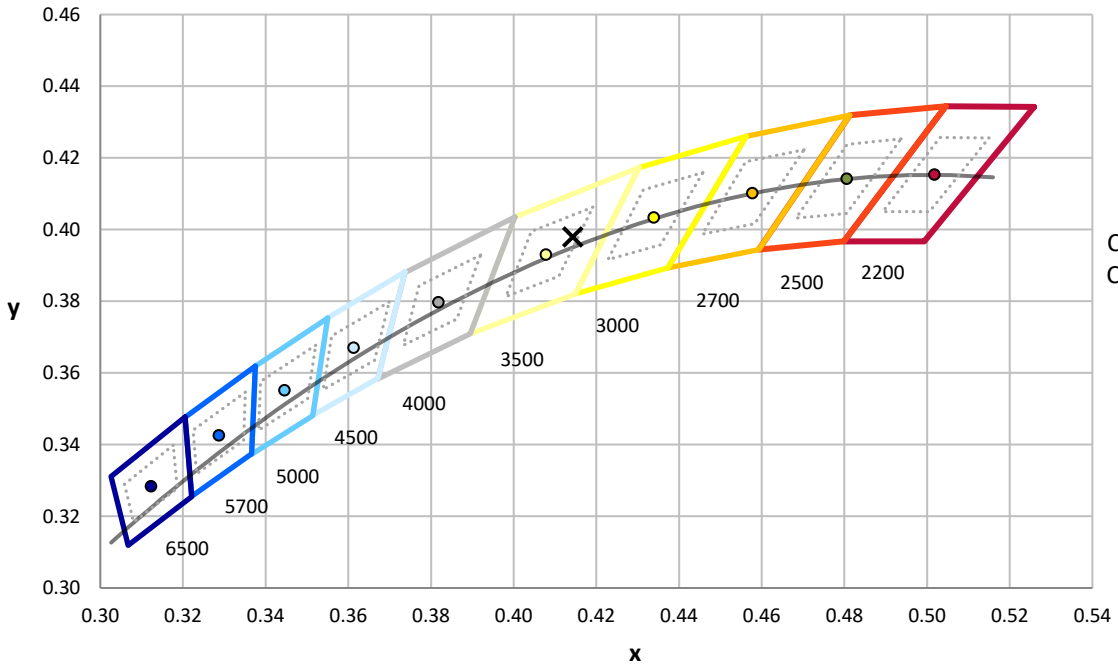
**CIE 1931 Chromaticity Diagram**




**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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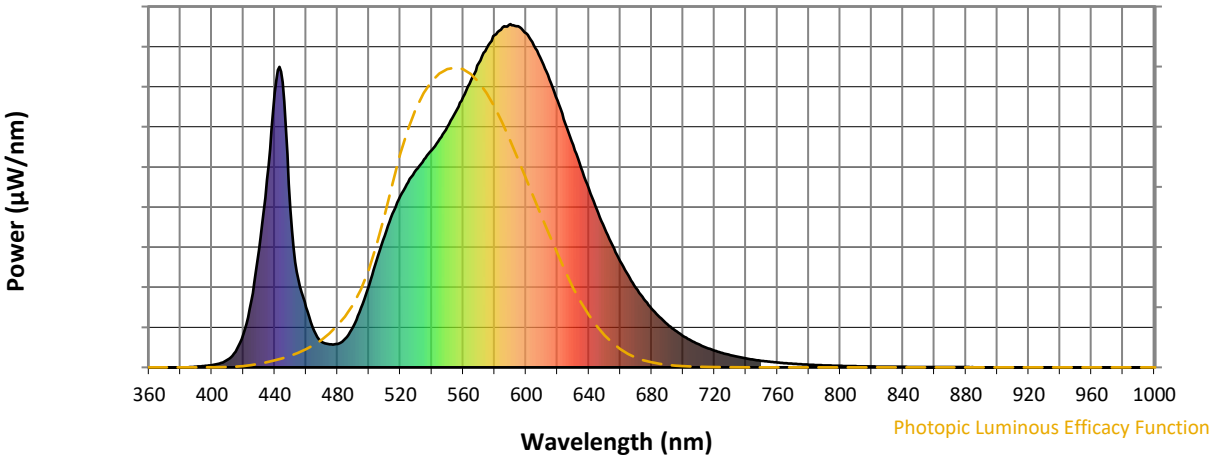
## Photopic Flux vs. Wavelength




## 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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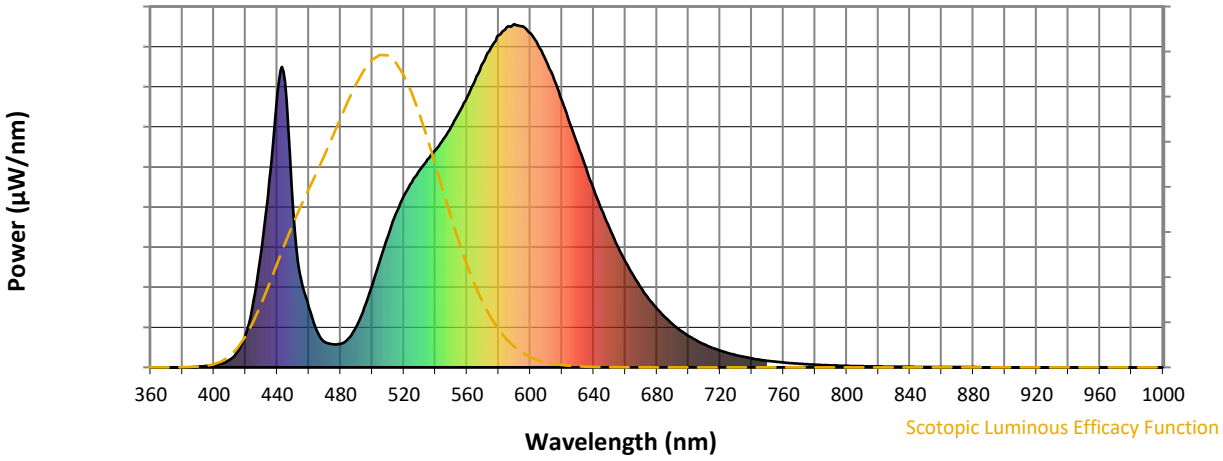
## Scotopic Flux vs. Wavelength




**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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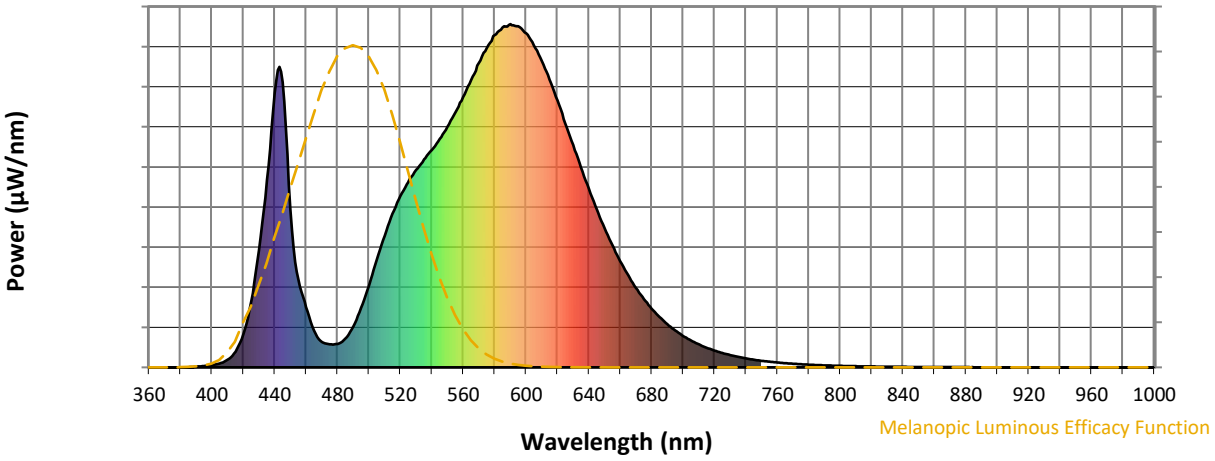
## Melanopic Flux vs. Wavelength




**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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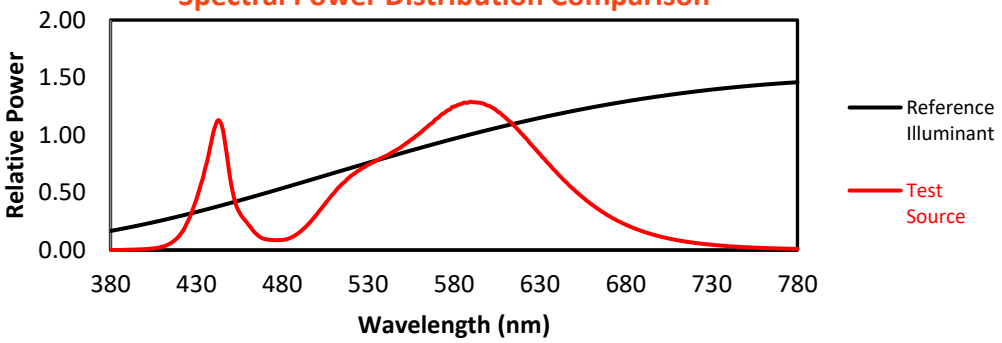
# TM-30-18

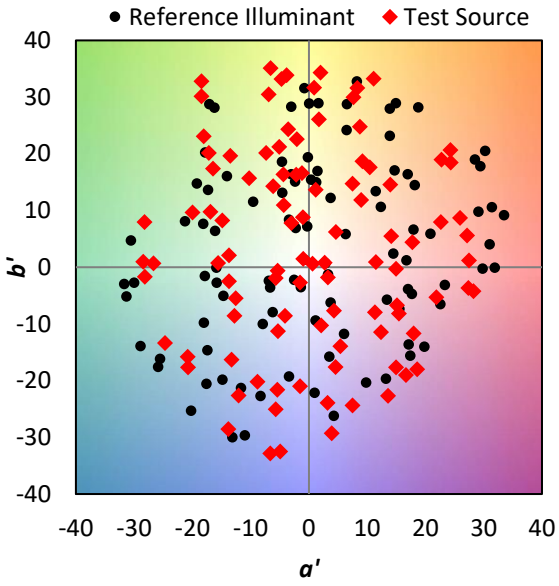
## Summary

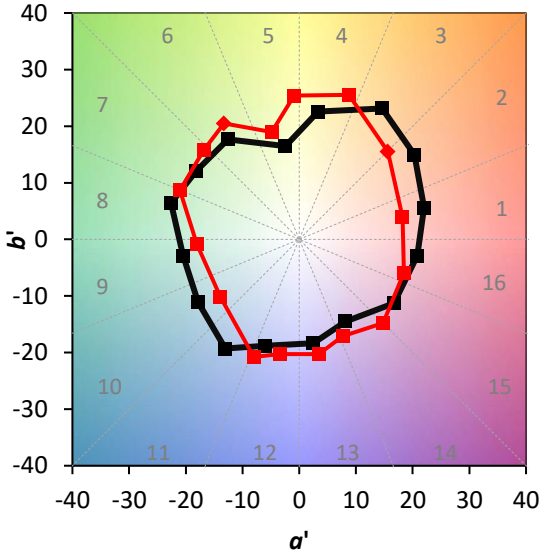
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

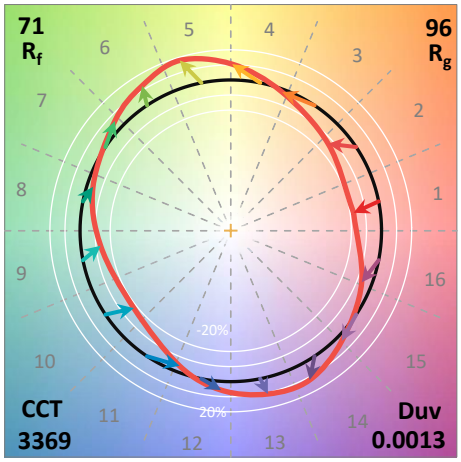
## Spectral Power Distribution Comparison

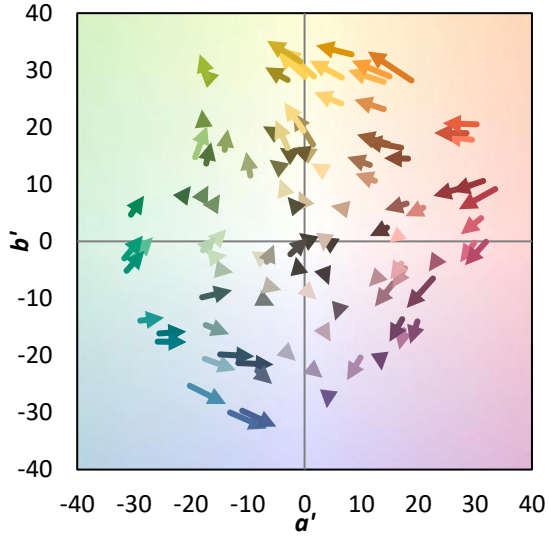



## Color Vector Graphics



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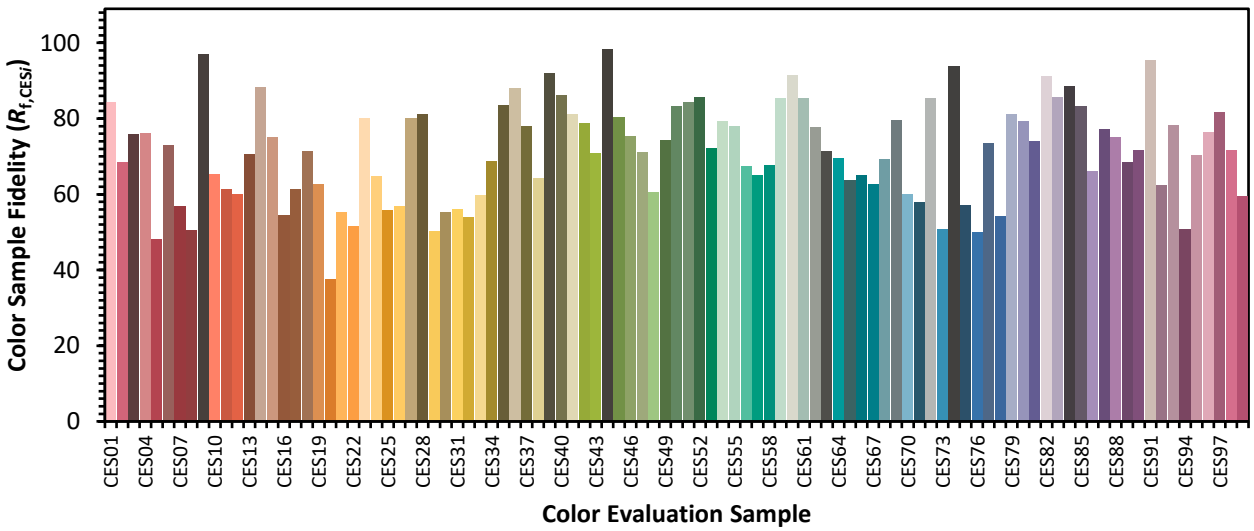
# TM-30-18

## 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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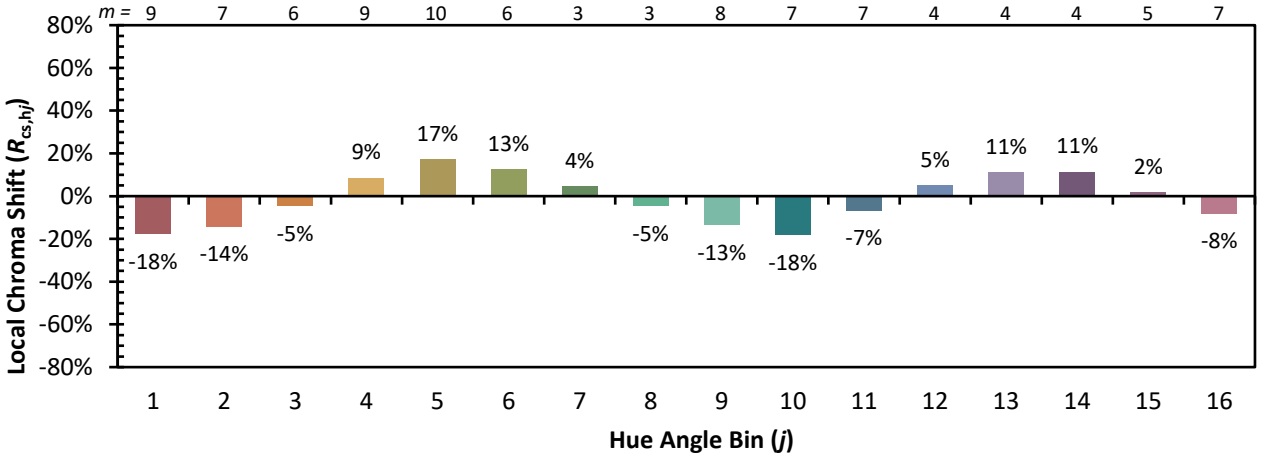
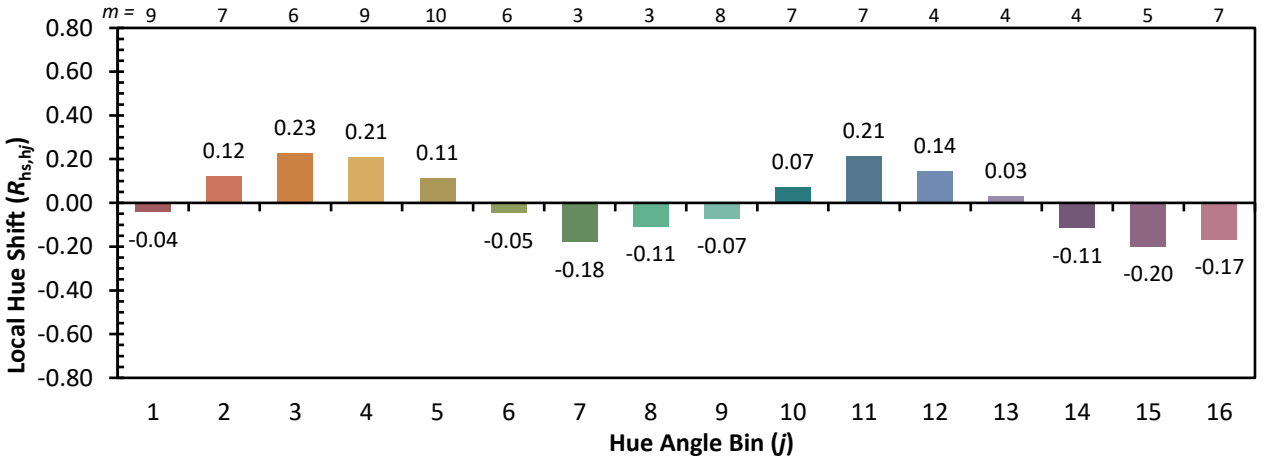
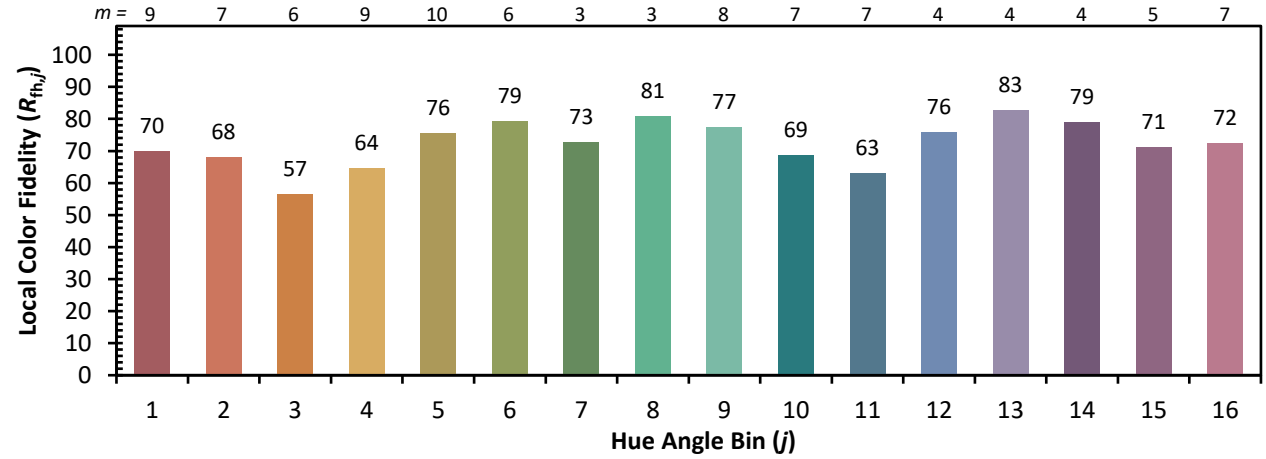
## Color Rendition by Hue-Angle Bin



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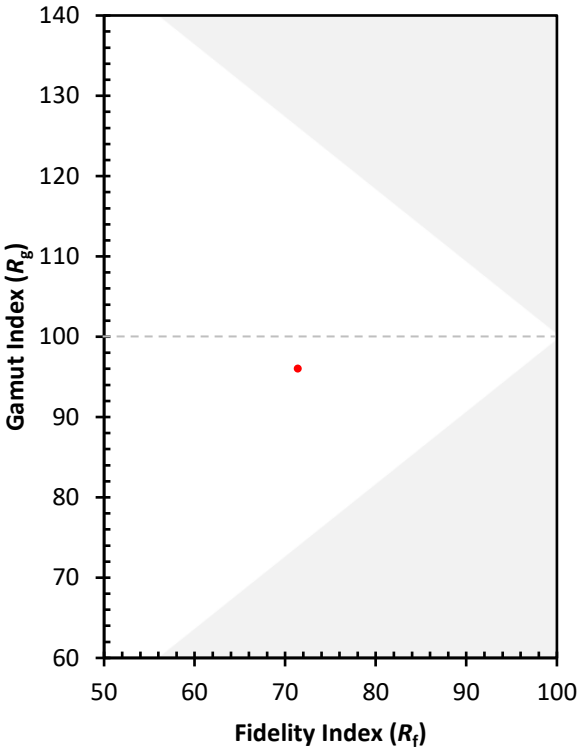
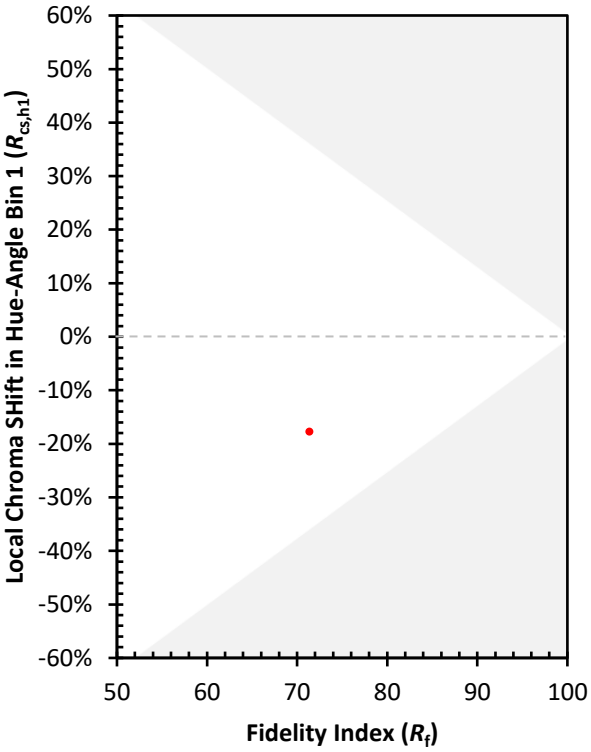
## Measure Comparisons




(END OF REPORT)