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: P1457650

Luminaire Tested: GLAN-SB6D-735-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: | P1457650 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB6D-735-U-T2LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 6xLight Square PACKAGE 70CRI 3500K FIXTURE w/ TYPE II LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (156) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 44688.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 101.5 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B3 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 440.1 |
| 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: P1457650
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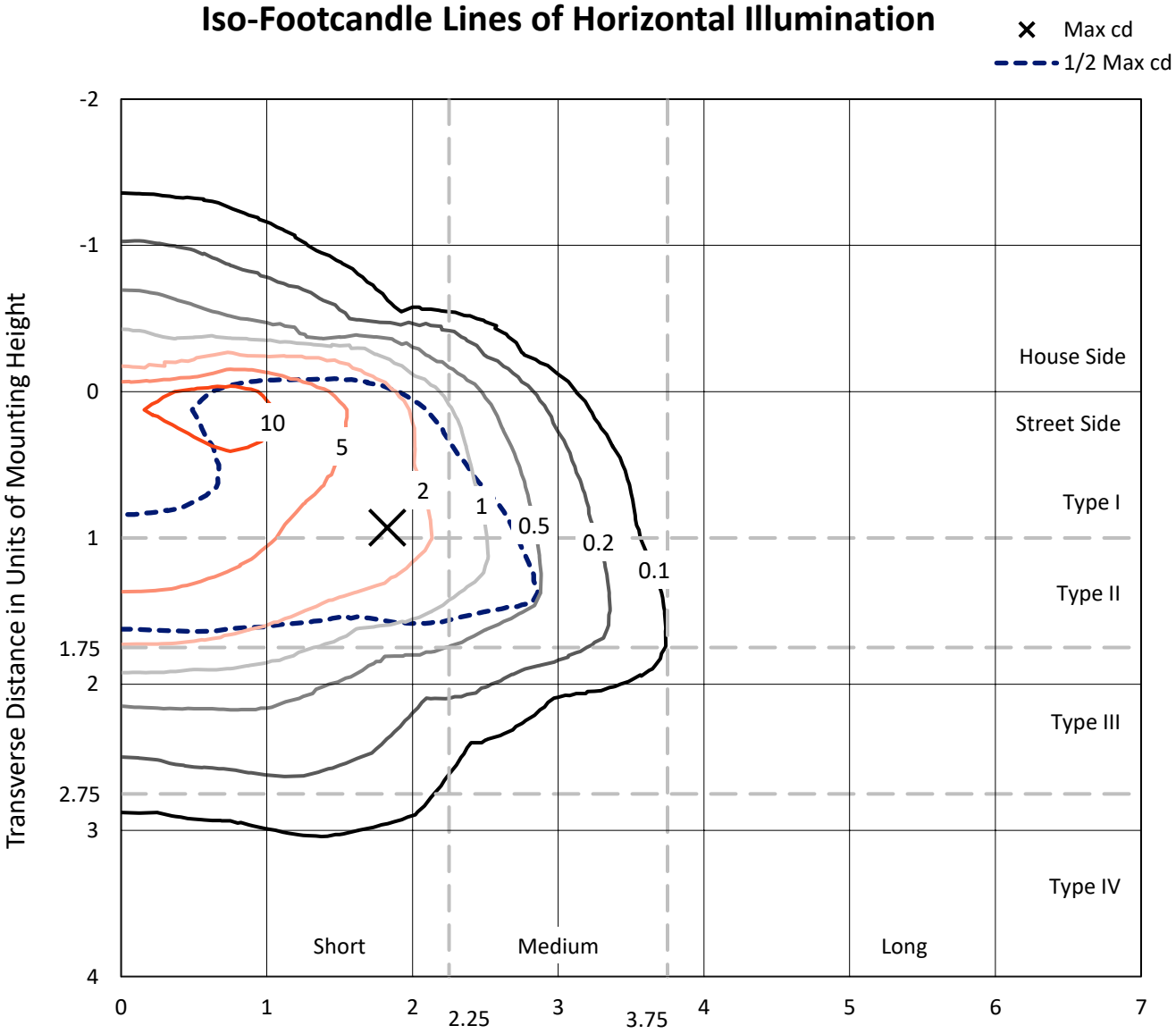
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 14.2 fc
Type II - Short - N/A

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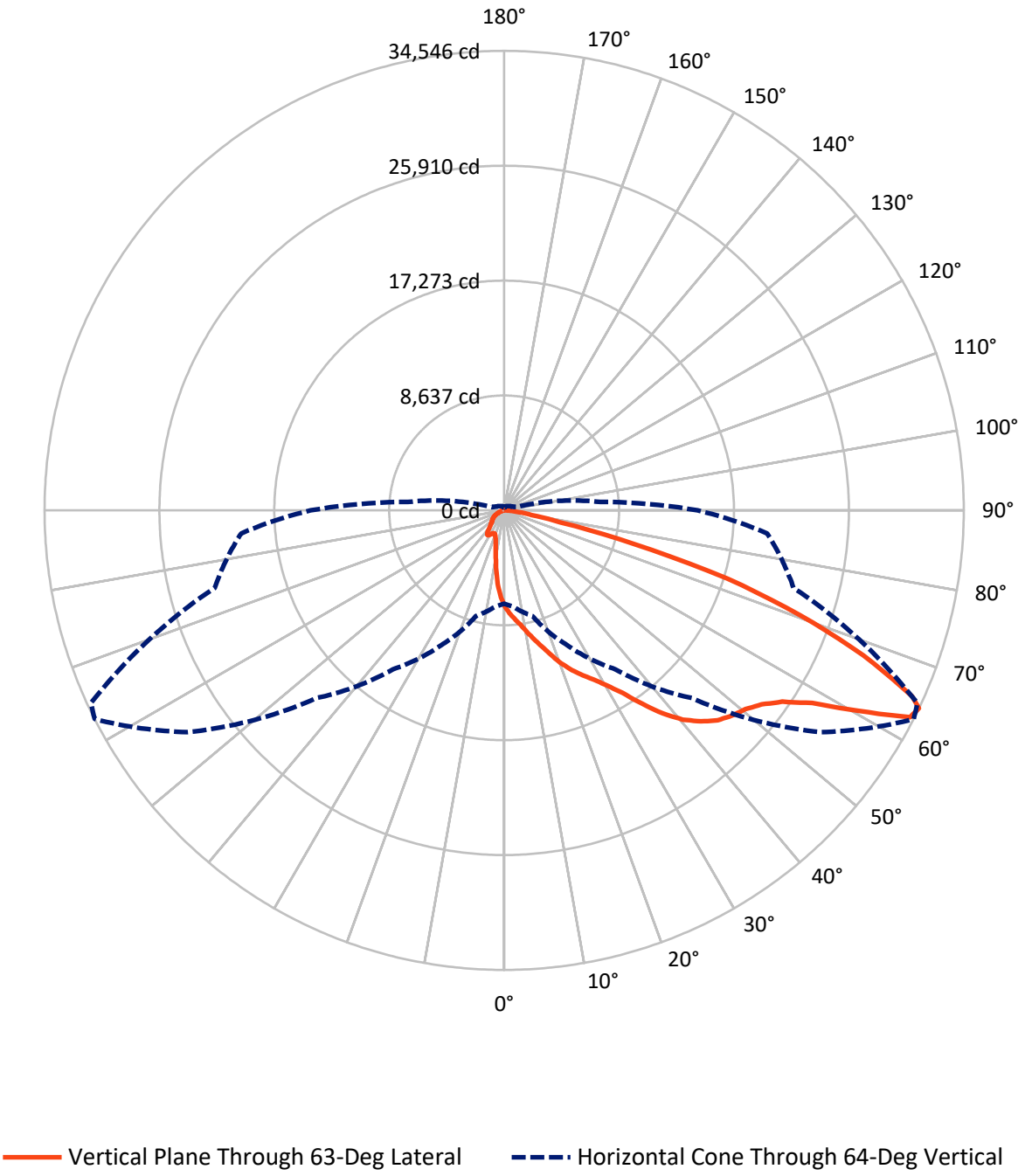
## Luminous Intensity Polar Plot



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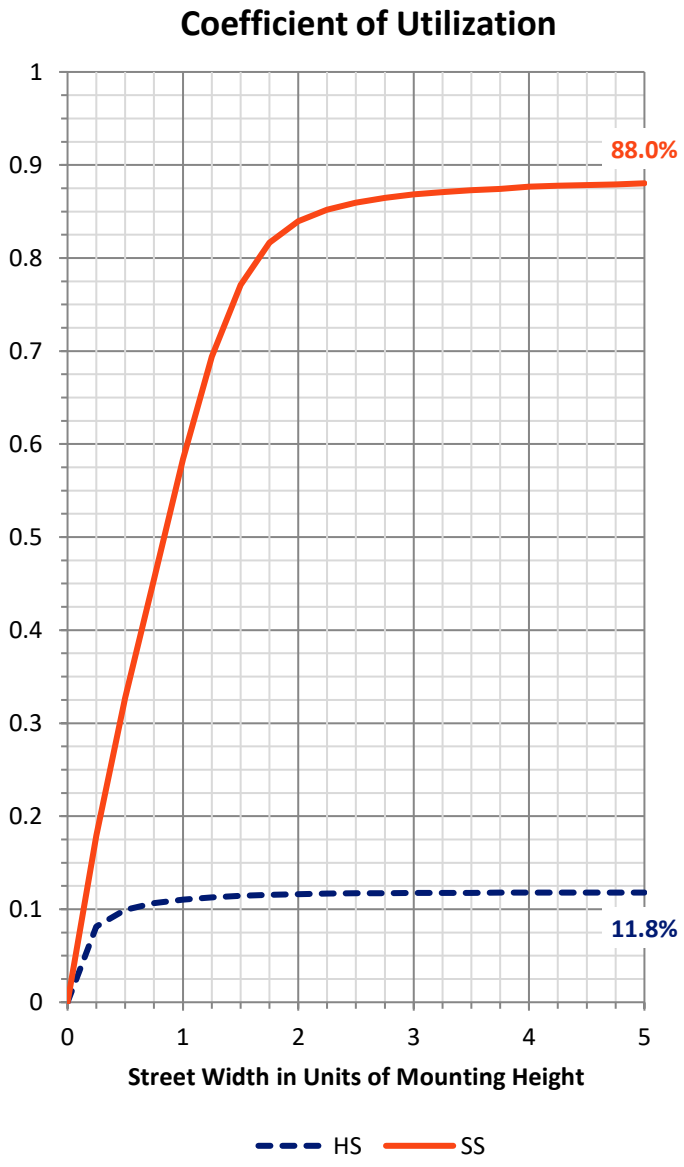
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 5303.1 | 0.0 | 5303.1 |
| | % Fixture | 11.9 | 0.0 | 11.9 |
| **Street Side** | Lumens | 39385.7 | 0.0 | 39385.7 |
| | % Fixture | 88.1 | 0.0 | 88.1 |
| **Total** | Lumens | 44688.8 | 0.0 | 44688.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 608.5 | 1.4 |
| 10°-20° | 1709.9 | 3.8 |
| 20°-30° | 3045.3 | 6.8 |
| 30°-40° | 5816.6 | 13.0 |
| 40°-50° | 9641.4 | 21.6 |
| 50°-60° | 12017.9 | 26.9 |
| 60°-70° | 8961.4 | 20.1 |
| 70°-80° | 2570.1 | 5.8 |
| 80°-90° | 317.8 | 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° | 44688.8 | 100.0 |
| 0°-180° | 44688.8 | 100.0 |



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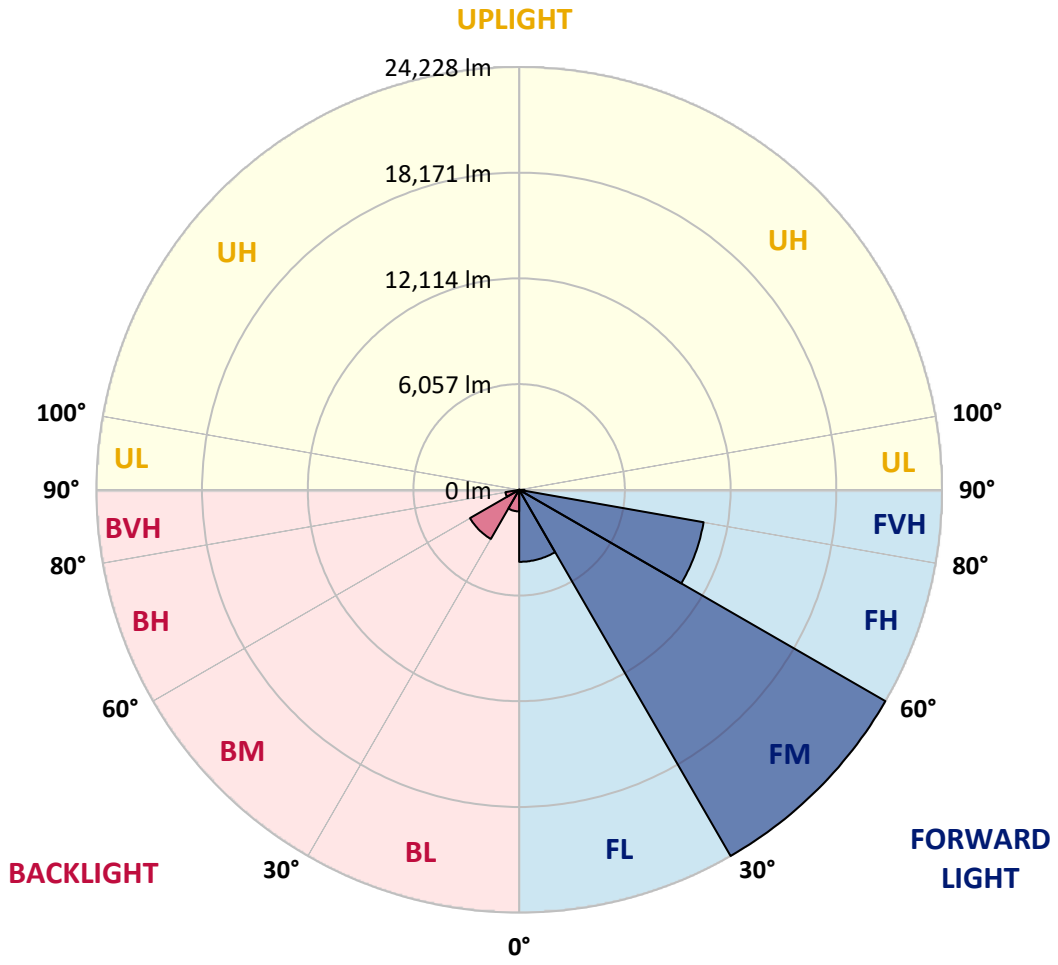
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 4126.5 | 9.2 | | | |
| FM | (30°-60°) | 24227.6 | 54.2 | | | |
| FH | (60°-80°) | 10729.4 | 24.0 | | | G4/12000 |
| FVH | (80°-90°) | 302.2 | 0.7 | | | G3/500 |
| BL | (0°-30°) | 1237.2 | 2.8 | B3/2500 | | |
| BM | (30°-60°) | 3248.2 | 7.3 | B3/5000 | | |
| BH | (60°-80°) | 802.0 | 1.8 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 15.6 | 0.0 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G4**
Type II Short



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REPORT NUMBER: P1457650
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 63° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | *7225.6* | 7225.6 | 7225.6 | 7225.6 |
| 2.5° | 8097.0 | 8070.2 | 8043.4 | 8003.2 | 7949.6 | 7895.9 | 7828.9 | *7735.1* | 7694.8 | 7560.8 | 7399.9 |
| 5° | 8512.6 | 8512.6 | 8499.2 | 8472.4 | 8445.6 | 8391.9 | 8311.5 | *8190.9* | 8137.2 | 7949.6 | 7668.0 |
| 7.5° | 8619.8 | 8633.2 | 8673.5 | 8727.1 | 8807.5 | 8794.1 | 8794.1 | *8660.0* | 8633.2 | 8432.2 | 8056.8 |
| 10° | 8432.2 | 8445.6 | 8552.8 | 8700.3 | 8941.6 | 9169.5 | 9330.3 | *9249.9* | 9209.7 | 9008.6 | 8539.4 |
| 12.5° | 8164.0 | 8164.0 | 8338.3 | 8566.2 | 8941.6 | 9370.5 | 9839.7 | *9920.2* | 9933.6 | 9705.7 | 9142.7 |
| 15° | 7466.9 | 7493.8 | 7775.3 | 8231.1 | 8847.7 | 9518.0 | 10308.9 | *10617.3* | 10697.7 | 10550.2 | 9880.0 |
| 17.5° | 6542.0 | 6568.8 | 6850.3 | 7466.9 | 8391.9 | 9518.0 | 10711.1 | *11421.6* | 11528.9 | 11555.7 | 10818.4 |
| 20° | 6153.2 | 6153.2 | 6314.1 | 6783.3 | 7748.5 | 9263.3 | 10952.4 | *12279.6* | 12520.9 | 12815.8 | 11850.6 |
| 22.5° | 6206.8 | 6206.8 | 6300.7 | 6568.8 | 7346.3 | 8914.8 | 11099.9 | *13043.7* | 13539.7 | 14290.4 | 13177.8 |
| 25° | 6501.7 | 6501.7 | 6582.2 | 6756.4 | 7386.5 | 8861.1 | 11381.4 | *13727.4* | 14518.3 | 15939.3 | 14692.6 |
| 27.5° | 6970.9 | 6957.5 | 7024.6 | 7198.8 | 7775.3 | 9115.8 | 11850.6 | *14411.1* | 15295.8 | 17789.3 | 16435.3 |
| 30° | 7654.6 | 7614.4 | 7641.2 | 7842.3 | 8405.3 | 9705.7 | 12534.3 | *15282.4* | 16180.6 | 19813.6 | 18365.7 |
| 32.5° | 9236.5 | 9223.1 | 8834.3 | 8727.1 | 9330.3 | 10657.5 | 13472.7 | *16368.3* | 17373.7 | 21958.5 | 20349.8 |
| 35° | 12091.9 | 12279.6 | 11729.9 | 10322.4 | 10443.0 | 11931.0 | 14813.2 | *17842.9* | 18767.9 | 24237.4 | 22508.1 |
| 37.5° | 14987.5 | 14987.5 | 14759.6 | 13097.3 | 12252.8 | 13338.6 | 16261.1 | *19357.8* | 20323.0 | 26074.0 | 24586.0 |
| 40° | 17279.9 | 17400.5 | 17132.4 | 15885.7 | 14786.4 | 14947.3 | 17708.9 | *20684.9* | 21569.7 | 27200.1 | 26060.6 |
| 42.5° | 18982.4 | 18955.6 | 18848.3 | 18030.6 | 17413.9 | 17052.0 | 19022.6 | *21676.9* | 22521.5 | 27776.5 | 26985.6 |
| 45° | 20819.0 | 20819.0 | 20671.5 | 20001.2 | 19491.8 | 19183.5 | 20001.2 | *22508.1* | 23392.9 | 28125.1 | 27562.0 |
| 47.5° | 22736.0 | 22709.2 | 22561.7 | 21824.4 | 21274.8 | 20819.0 | 20993.2 | *23044.3* | 23929.1 | 27897.2 | 27655.9 |
| 50° | 23205.2 | 23178.4 | 23513.5 | 23540.3 | 23044.3 | 22172.9 | 21784.2 | *23500.1* | 24277.6 | 27910.6 | 27950.8 |
| 52.5° | 22655.5 | 22816.4 | 23312.4 | 23915.7 | 24478.7 | 23567.1 | 22628.7 | *24224.0* | 25028.3 | 28285.9 | 28688.1 |
| 55° | 21288.2 | 21355.2 | 22307.0 | 23272.2 | 24586.0 | 24907.7 | 23982.7 | *25376.9* | 26087.4 | 28647.9 | 29345.0 |
| 57.5° | 18741.1 | 18995.8 | 20014.6 | 21690.3 | 23687.8 | 25028.3 | 26342.1 | *27307.3* | 27843.5 | 28795.3 | 28983.0 |
| 60° | 14143.0 | 14277.0 | 16488.9 | 18660.7 | 21824.4 | 24063.1 | 28540.6 | *30578.3* | 30511.3 | 27133.0 | 26449.3 |
| 62.5° | 8606.4 | 8727.1 | 10308.9 | 13754.2 | 17735.7 | 22052.3 | 29277.9 | *34238.0* | 33876.1 | 24331.3 | 22266.8 |
| 64° | *7011.2* | *7239.1* | *8217.7* | *11166.9* | *14585.3* | *19947.6* | *29063.4* | *34546.4* | *34264.8* | *22521.5* | *19840.4* |
| 65° | 5992.3 | 6300.7 | 7306.1 | 9692.3 | 12400.2 | 17682.1 | 28473.6 | *33688.4* | 33500.7 | 21422.2 | 17829.5 |
| 67.5° | 3767.0 | 3914.4 | 5402.5 | 7534.0 | 8539.4 | 11314.4 | 24478.7 | *29130.5* | 29465.6 | 19089.6 | 13150.9 |
| 70° | 2801.8 | 2868.8 | 3713.4 | 5831.5 | 6662.6 | 6582.2 | 16810.7 | *23593.9* | 23674.4 | 15269.0 | 7936.1 |
| 72.5° | 2037.7 | 2051.1 | 2600.7 | 4316.6 | 5214.8 | 4490.9 | 8861.1 | *17534.6* | 16958.1 | 8941.6 | 4330.0 |
| 75° | 1354.0 | 1407.6 | 1823.2 | 3043.1 | 4061.9 | 3297.8 | 4035.1 | *9987.2* | 9812.9 | 4370.2 | 2480.0 |
| 77.5° | 992.0 | 1005.4 | 1233.3 | 2037.7 | 3190.5 | 2426.4 | 2439.8 | *4303.2* | 4437.3 | 2600.7 | 1568.5 |
| 80° | 563.0 | 589.8 | 804.3 | 1246.7 | 2077.9 | 1662.3 | 1367.4 | *2077.9* | 2386.2 | 1769.5 | 1045.6 |
| 82.5° | 335.1 | 362.0 | 576.4 | 817.7 | 1421.0 | 683.7 | 697.1 | *1139.5* | 1421.0 | 1273.5 | 563.0 |
| 85° | 201.1 | 214.5 | 362.0 | 442.4 | 844.6 | 455.8 | 254.7 | *563.0* | 737.3 | 750.7 | 308.3 |
| 87.5° | 134.1 | 134.1 | 201.1 | 187.7 | 241.3 | 214.5 | 107.2 | *147.5* | 187.7 | 254.7 | 120.7 |
| 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: P1457650
CATALOG NUMBER: GLAN-SB6D-735-U-T2LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 | 7225.6 |
| 2.5° | 7265.9 | 7185.4 | 6944.1 | 6622.4 | 6327.5 | 6099.6 | 5818.1 | 5630.4 | 5456.1 | 5456.1 | 5308.6 |
| 5° | 7440.1 | 7225.6 | 6635.8 | 5898.5 | 5107.6 | 4356.8 | 3874.2 | 3338.0 | 3163.7 | 3016.3 | 3043.1 |
| 7.5° | 7735.1 | 7346.3 | 6300.7 | 4973.5 | 3713.4 | 2909.0 | 2372.8 | 2131.5 | 2024.3 | 1957.2 | 1970.6 |
| 10° | 8097.0 | 7560.8 | 5898.5 | 4035.1 | 2734.8 | 2131.5 | 1876.8 | 1783.0 | 1742.7 | 1729.3 | 1729.3 |
| 12.5° | 8593.0 | 7815.5 | 5496.3 | 3244.2 | 2158.3 | 1836.6 | 1702.5 | 1648.9 | 1608.7 | 1581.9 | 1581.9 |
| 15° | 9182.9 | 8137.2 | 5027.1 | 2667.7 | 1890.2 | 1689.1 | 1581.9 | 1528.2 | 1474.6 | 1461.2 | 1461.2 |
| 17.5° | 9933.6 | 8472.4 | 4611.5 | 2292.4 | 1756.1 | 1581.9 | 1474.6 | 1407.6 | 1367.4 | 1354.0 | 1354.0 |
| 20° | 10764.7 | 8887.9 | 4196.0 | 2077.9 | 1662.3 | 1474.6 | 1367.4 | 1313.8 | 1273.5 | 1246.7 | 1260.1 |
| 22.5° | 11823.8 | 9410.8 | 3927.9 | 1970.6 | 1581.9 | 1380.8 | 1273.5 | 1219.9 | 1179.7 | 1152.9 | 1166.3 |
| 25° | 12990.1 | 10067.6 | 3780.4 | 1970.6 | 1528.2 | 1313.8 | 1193.1 | 1139.5 | 1099.3 | 1072.5 | 1072.5 |
| 27.5° | 14411.1 | 10805.0 | 3793.8 | 2051.1 | 1514.8 | 1260.1 | 1126.1 | 1072.5 | 1032.2 | 992.0 | 992.0 |
| 30° | 15979.5 | 11676.3 | 3941.3 | 2198.5 | 1541.6 | 1206.5 | 1072.5 | 992.0 | 965.2 | 925.0 | 925.0 |
| 32.5° | 17641.8 | 12681.7 | 4316.6 | 2386.2 | 1514.8 | 1139.5 | 992.0 | 925.0 | 884.8 | 858.0 | 858.0 |
| 35° | 19398.0 | 13821.2 | 4785.8 | 2466.6 | 1380.8 | 1045.6 | 925.0 | 858.0 | 831.2 | 817.7 | 804.3 |
| 37.5° | 21073.7 | 14813.2 | 5040.5 | 2305.8 | 1206.5 | 965.2 | 844.6 | 777.5 | 764.1 | 737.3 | 737.3 |
| 40° | 22374.0 | 15631.0 | 4893.1 | 1970.6 | 1112.7 | 884.8 | 777.5 | 710.5 | 683.7 | 656.9 | 656.9 |
| 42.5° | 23138.2 | 15925.9 | 4356.8 | 1675.7 | 1045.6 | 804.3 | 710.5 | 643.5 | 616.7 | 603.3 | 603.3 |
| 45° | 23580.5 | 15885.7 | 3726.8 | 1501.4 | 978.6 | 737.3 | 643.5 | 603.3 | 563.0 | 549.6 | 536.2 |
| 47.5° | 23567.1 | 15470.1 | 3271.0 | 1354.0 | 911.6 | 683.7 | 603.3 | 563.0 | 522.8 | 509.4 | 509.4 |
| 50° | 23473.3 | 14853.5 | 2761.6 | 1246.7 | 858.0 | 643.5 | 563.0 | 536.2 | 496.0 | 482.6 | 469.2 |
| 52.5° | 23701.2 | 14504.9 | 2305.8 | 1179.7 | 790.9 | 616.7 | 549.6 | 509.4 | 455.8 | 442.4 | 442.4 |
| 55° | 23982.7 | 14303.8 | 1850.0 | 1112.7 | 737.3 | 603.3 | 522.8 | 482.6 | 429.0 | 415.6 | 415.6 |
| 57.5° | 23165.0 | 13539.7 | 1528.2 | 1005.4 | 670.3 | 576.4 | 496.0 | 469.2 | 415.6 | 375.4 | 375.4 |
| 60° | 20591.1 | 11193.7 | 1260.1 | 884.8 | 616.7 | 536.2 | 469.2 | 429.0 | 375.4 | 321.7 | 321.7 |
| 62.5° | 16743.7 | 8539.4 | 1045.6 | 750.7 | 576.4 | 496.0 | 429.0 | 388.8 | 321.7 | 254.7 | 254.7 |
| 64° | *14545.1* | *7252.5* | *938.4* | *656.9* | *549.6* | *455.8* | *388.8* | *348.5* | *281.5* | *214.5* | *201.1* |
| 65° | 13043.7 | 6407.9 | 871.4 | 616.7 | 536.2 | 429.0 | 375.4 | 335.1 | 254.7 | 201.1 | 187.7 |
| 67.5° | 9182.9 | 4303.2 | 697.1 | 509.4 | 469.2 | 362.0 | 321.7 | 281.5 | 227.9 | 174.3 | 160.9 |
| 70° | 5348.9 | 2439.8 | 549.6 | 429.0 | 362.0 | 281.5 | 268.1 | 254.7 | 201.1 | 134.1 | 134.1 |
| 72.5° | 2909.0 | 1219.9 | 415.6 | 348.5 | 281.5 | 201.1 | 227.9 | 201.1 | 160.9 | 107.2 | 93.8 |
| 75° | 1783.0 | 750.7 | 308.3 | 254.7 | 187.7 | 147.5 | 174.3 | 147.5 | 93.8 | 67.0 | 53.6 |
| 77.5° | 1193.1 | 482.6 | 227.9 | 174.3 | 120.7 | 93.8 | 120.7 | 80.4 | 40.2 | 13.4 | 13.4 |
| 80° | 737.3 | 335.1 | 147.5 | 107.2 | 67.0 | 40.2 | 26.8 | 13.4 | 13.4 | 0.0 | 0.0 |
| 82.5° | 321.7 | 214.5 | 80.4 | 53.6 | 26.8 | 13.4 | 13.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 174.3 | 67.0 | 26.8 | 13.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 53.6 | 26.8 | 13.4 | 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: SP1-2407-184-5

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

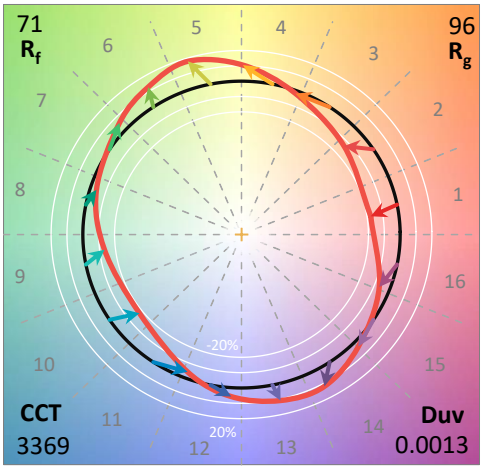
## Test Information

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

| 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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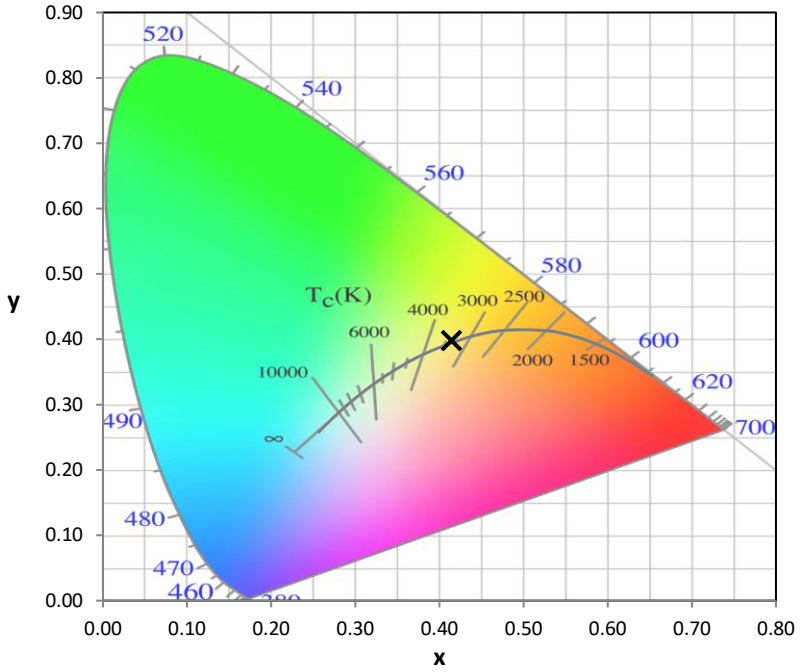
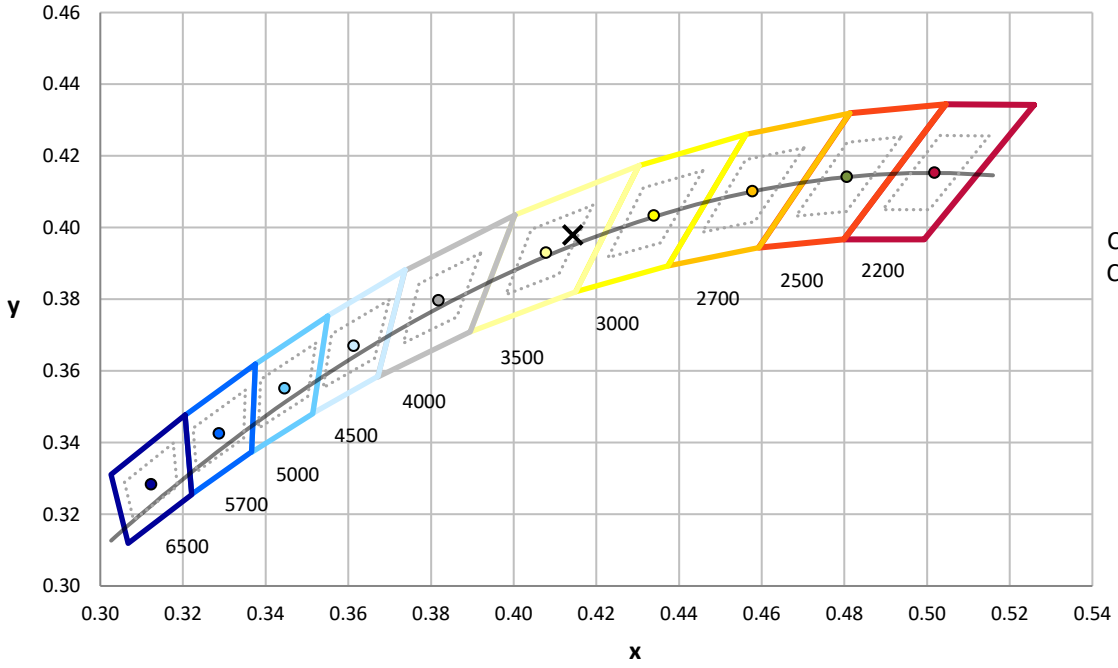
## CIE 1931 Chromaticity Diagram




## 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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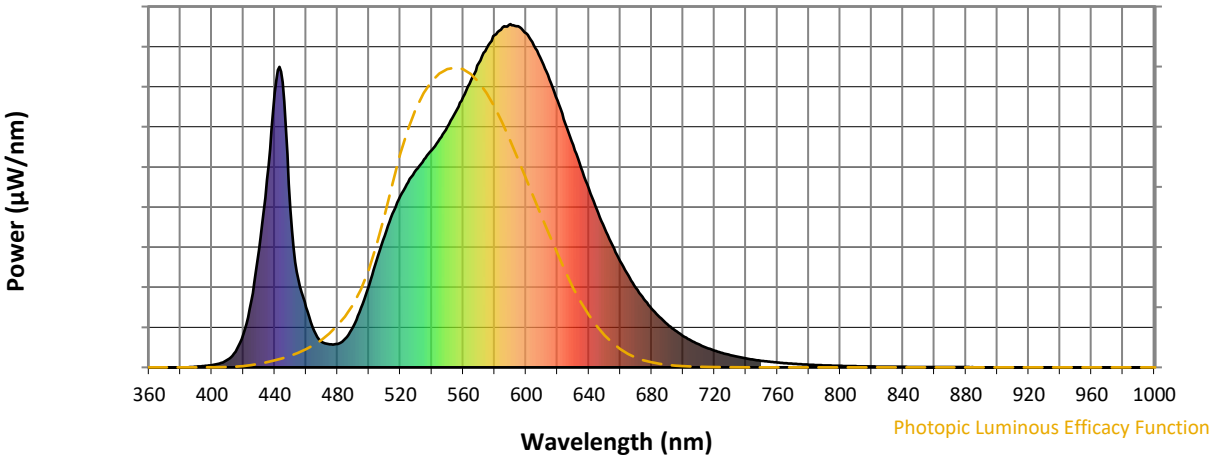
## Photopic Flux vs. Wavelength




## 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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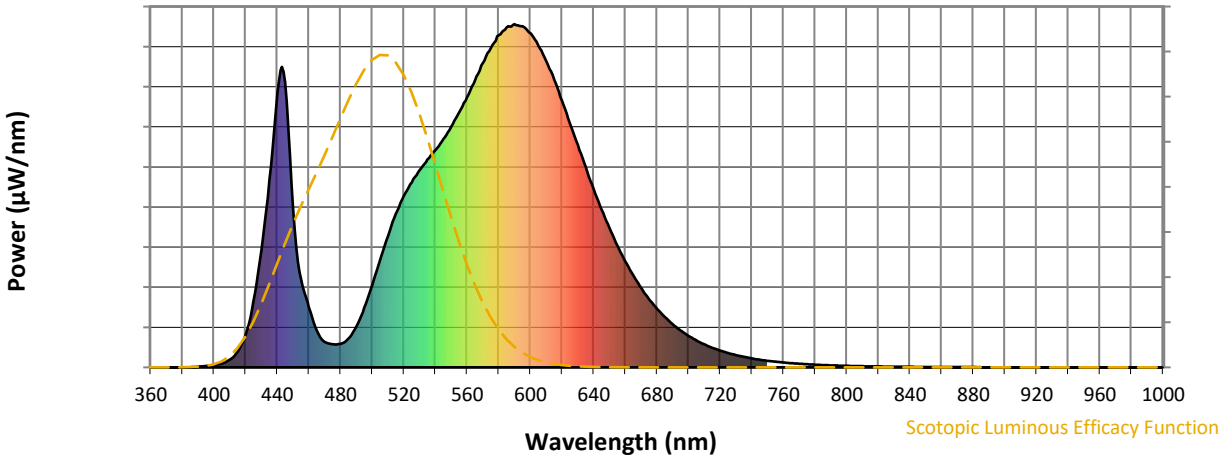
## Scotopic Flux vs. Wavelength




**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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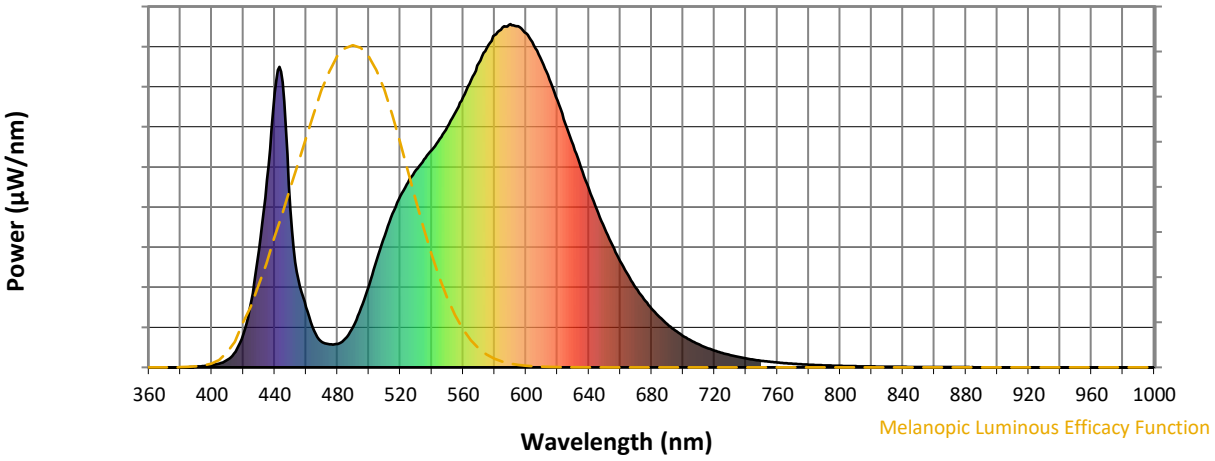
## Melanopic Flux vs. Wavelength




**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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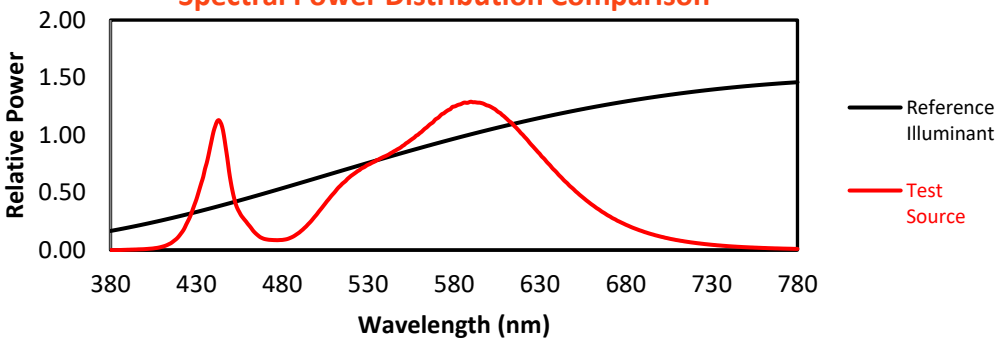
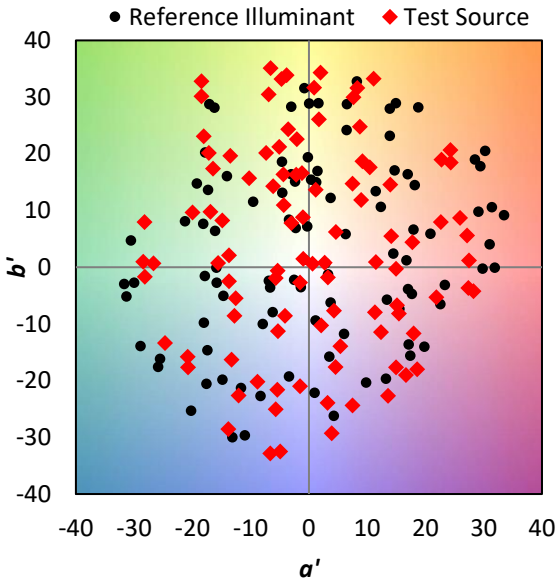
## Summary

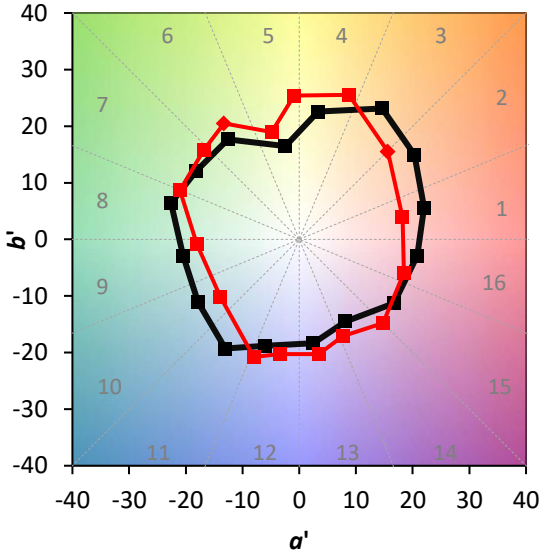
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

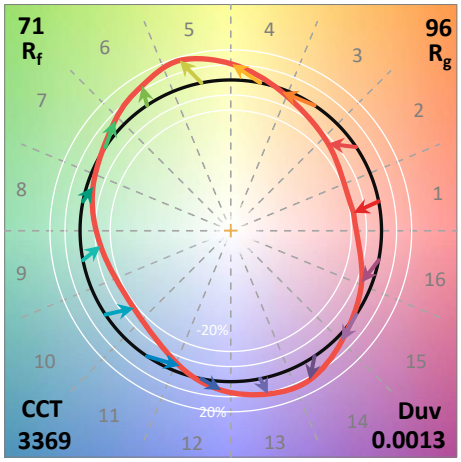
## Spectral Power Distribution Comparison

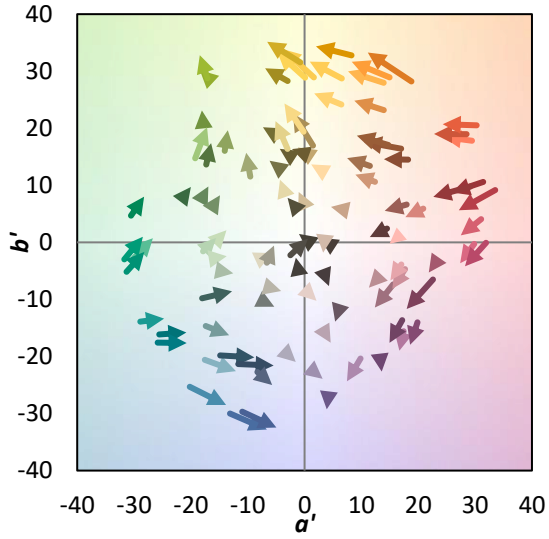



## Color Vector Graphics



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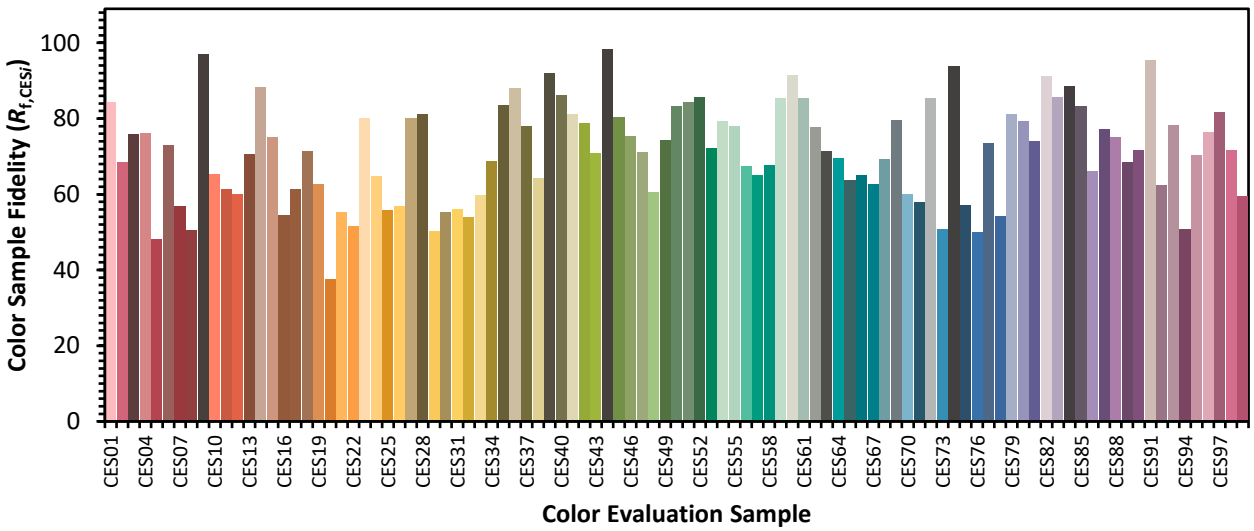
## Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|---|---|---|---|
| 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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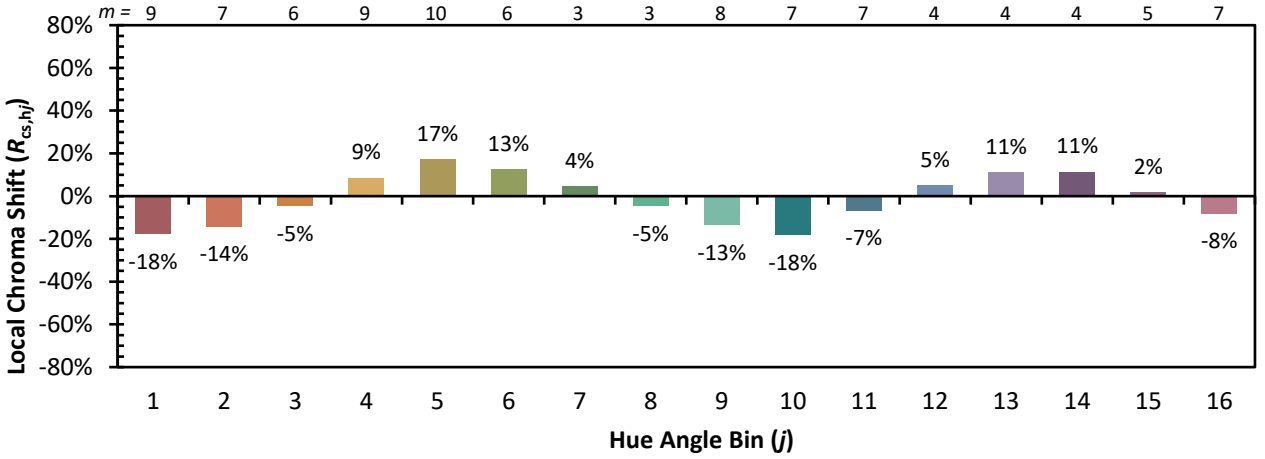
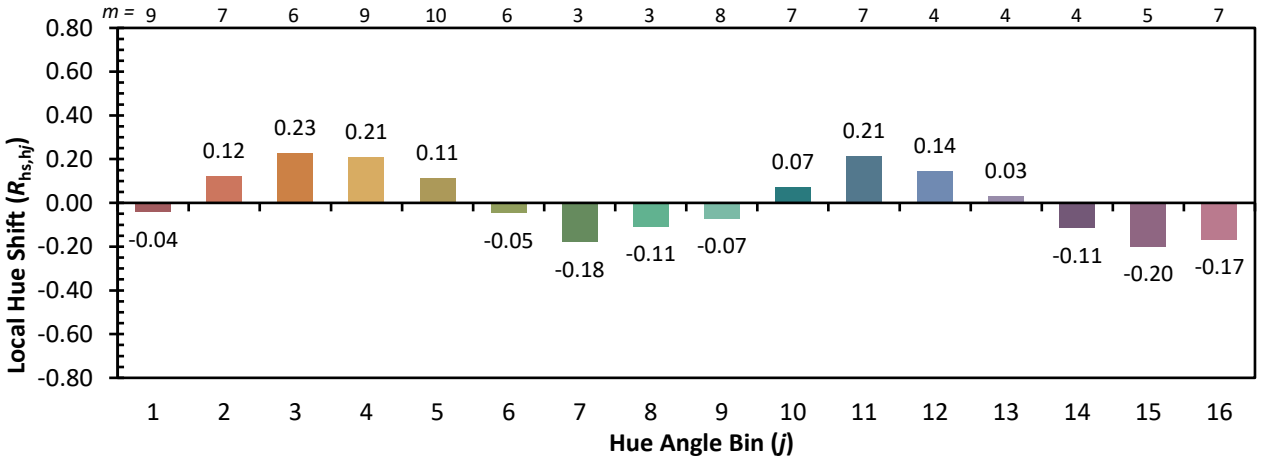
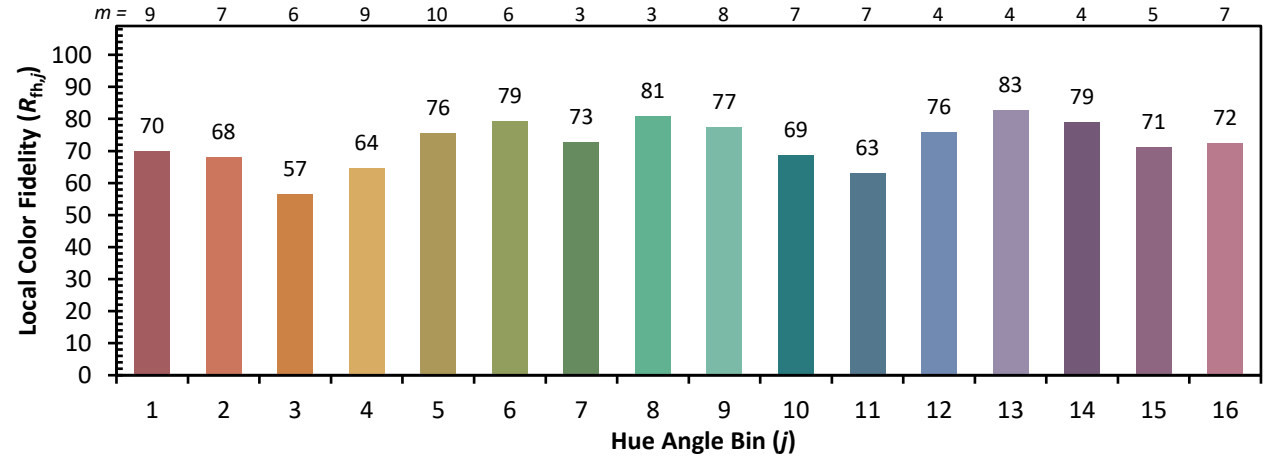
## Color Rendition by Hue-Angle Bin



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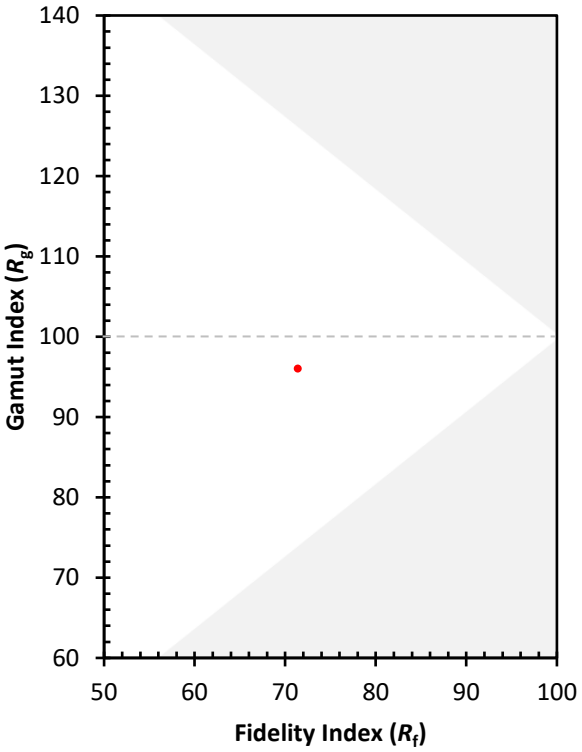
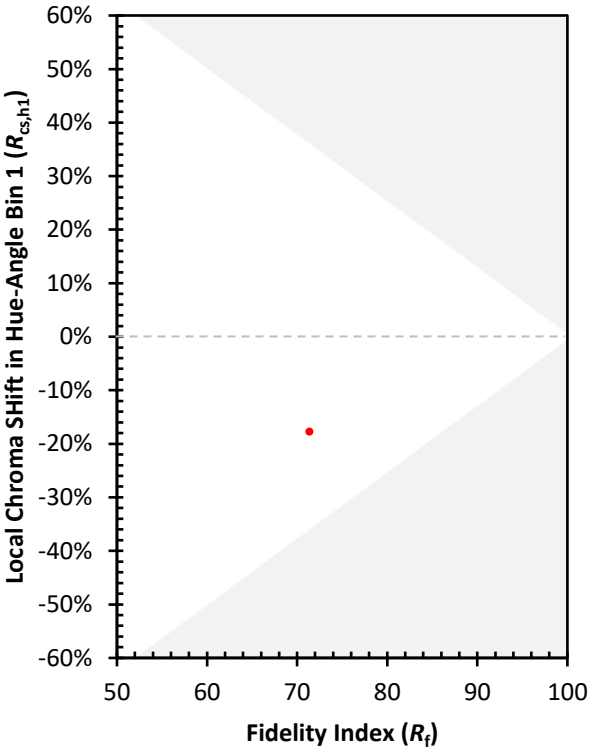
## Measure Comparisons

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