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: P1459017

Luminaire Tested: GLAN-SB6C-840-U-T4LG-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: | P1459017 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB6C-840-U-T4LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 6xLight Square PACKAGE 80CRI 4000K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (156) 4000K CCT, 80 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 31495.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 104.7 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 300.9 |
| 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: P1459017
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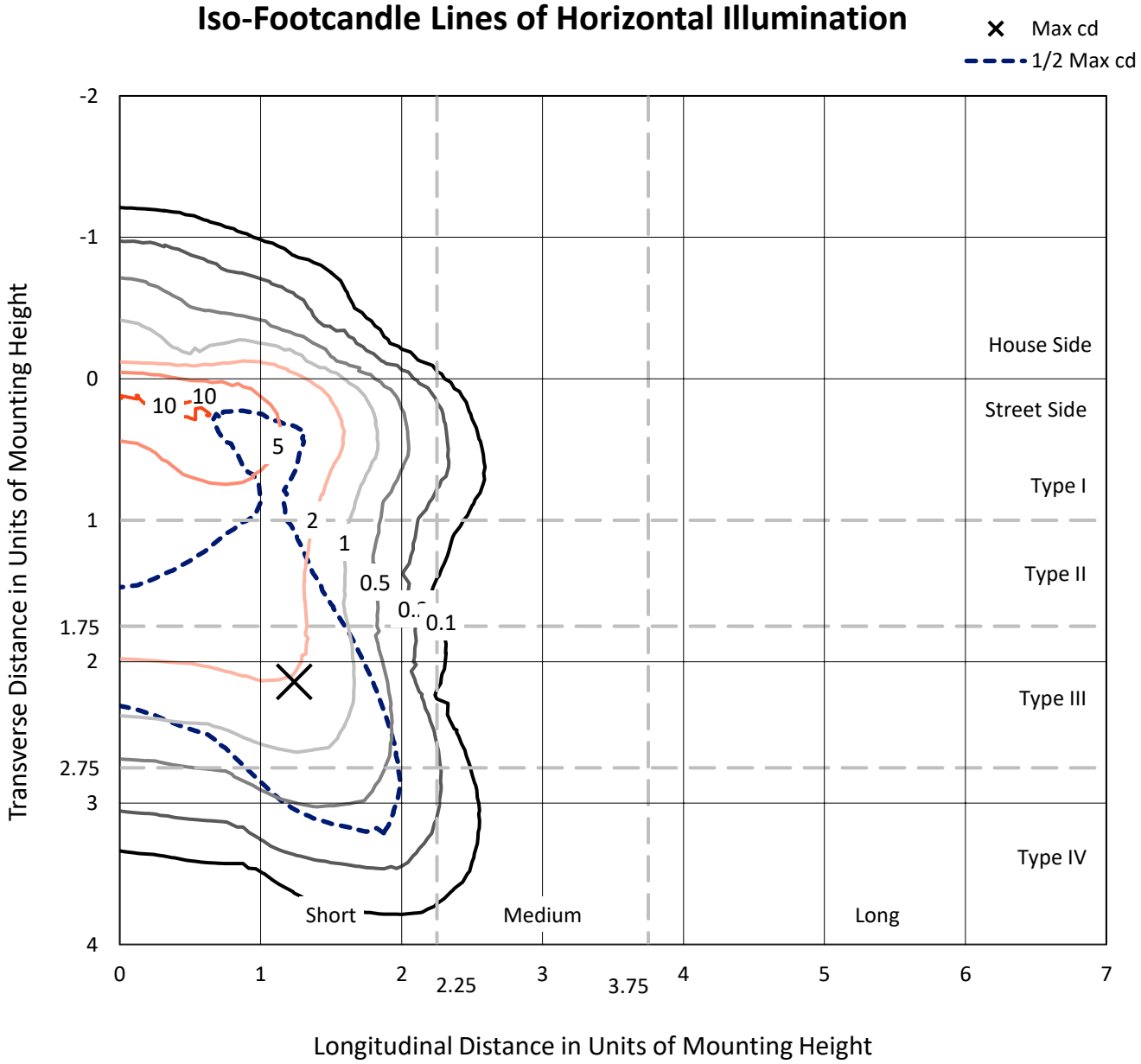
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 10.6 fc
Type IV - Short - N/A

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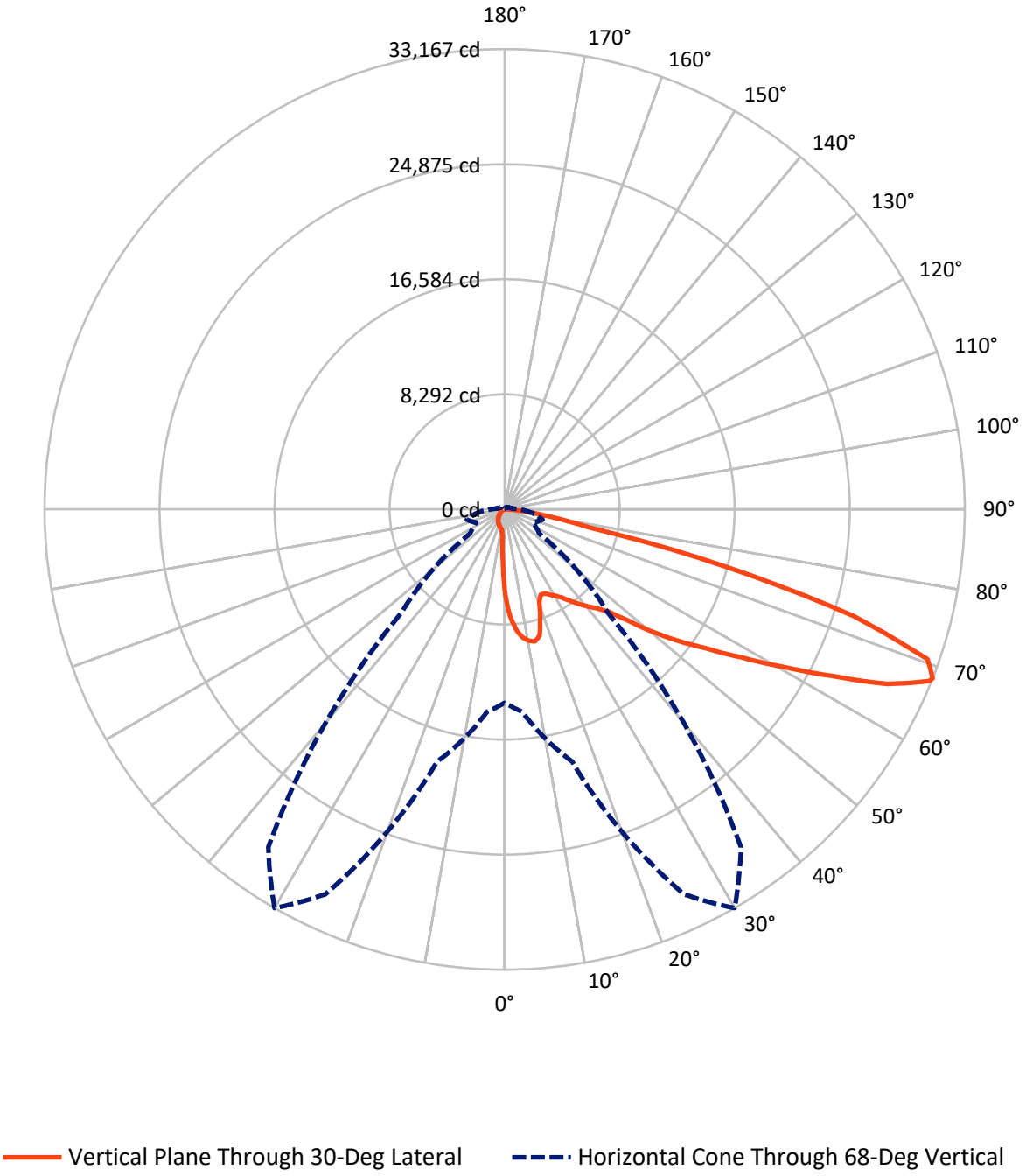
## Luminous Intensity Polar Plot



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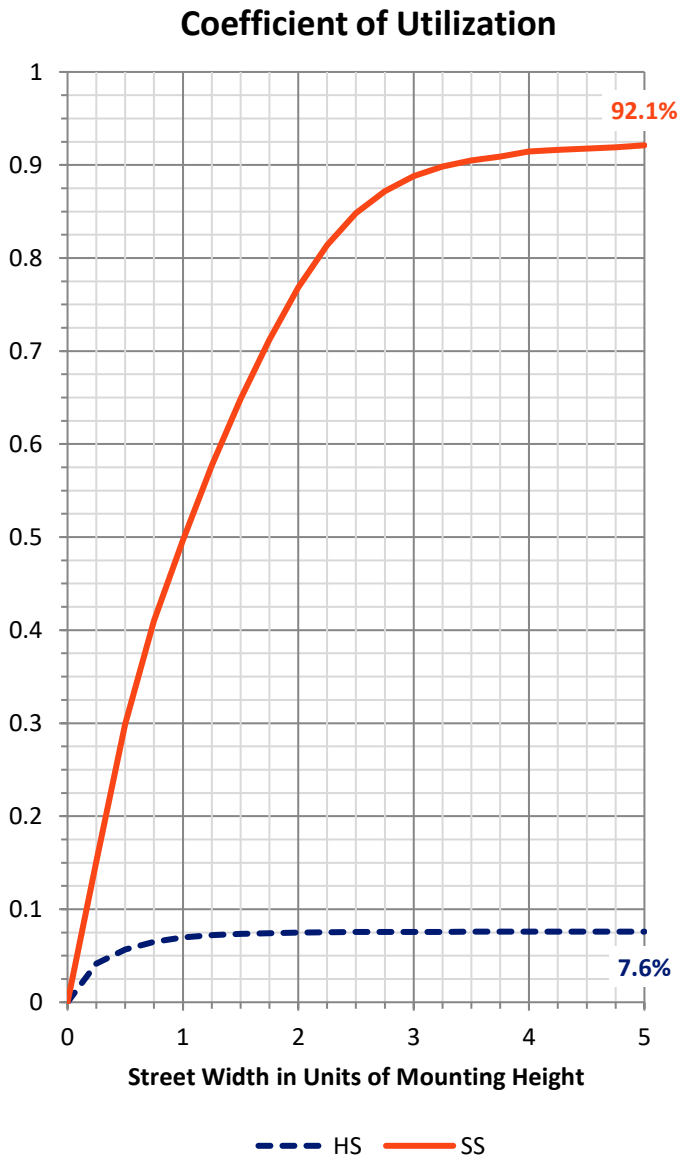
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2403.9 | 0.0 | 2403.9 |
| | % Fixture | 7.6 | 0.0 | 7.6 |
| **Street Side** | Lumens | 29091.8 | 0.0 | 29091.8 |
| | % Fixture | 92.4 | 0.0 | 92.4 |
| **Total** | Lumens | 31495.8 | 0.0 | 31495.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 535.9 | 1.7 |
| 10°-20° | 1530.0 | 4.9 |
| 20°-30° | 2404.3 | 7.6 |
| 30°-40° | 3770.9 | 12.0 |
| 40°-50° | 5636.4 | 17.9 |
| 50°-60° | 7498.3 | 23.8 |
| 60°-70° | 7248.5 | 23.0 |
| 70°-80° | 2605.6 | 8.3 |
| 80°-90° | 265.9 | 0.8 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 31495.8 | 100.0 |
| 0°-180° | 31495.8 | 100.0 |



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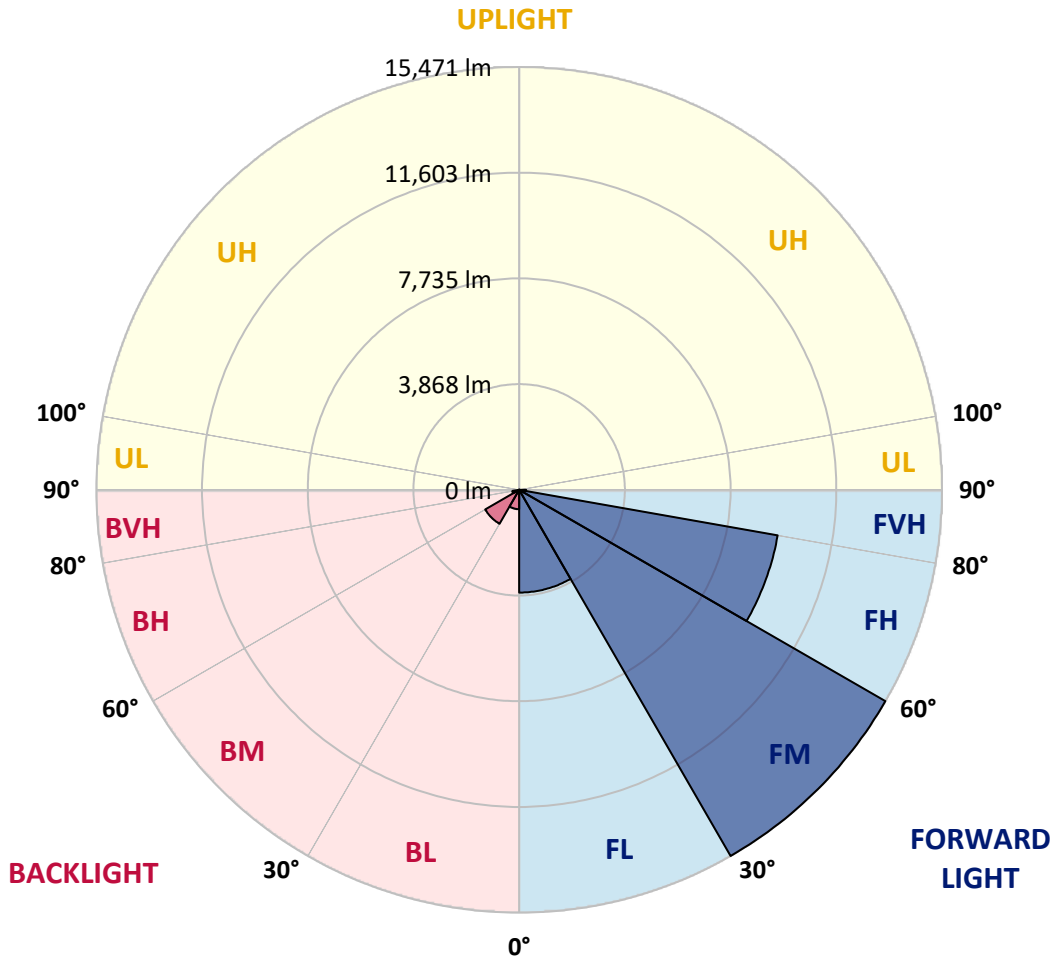
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 3760.6 | 11.9 | | | |
| FM | (30°-60°) | 15470.7 | 49.1 | | | |
| FH | (60°-80°) | 9604.1 | 30.5 | | | G4/12000 |
| FVH | (80°-90°) | 256.5 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 709.6 | 2.3 | B2/1000 | | |
| BM | (30°-60°) | 1434.9 | 4.6 | B2/2500 | | |
| BH | (60°-80°) | 250.0 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 9.4 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G4**
Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 30° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 |
| 2.5° | 7937.9 | 7937.9 | 7881.2 | 7805.7 | 7720.8 | 7692.5 | 7532.0 | 7305.5 | 7069.5 | 6795.8 | 6399.4 |
| 5° | 8957.2 | 8947.8 | 8834.5 | 8834.5 | 8721.3 | 8617.4 | 8457.0 | 8126.6 | 7749.1 | 7258.3 | 6569.3 |
| 7.5° | 9410.3 | 9429.2 | 9382.0 | 9382.0 | 9315.9 | 9240.4 | 9146.0 | 8825.1 | 8381.5 | 7720.8 | 6739.2 |
| 10° | 9570.7 | 9580.2 | 9580.2 | 9646.2 | 9627.4 | 9617.9 | 9608.5 | 9429.2 | 8966.7 | 8192.7 | 6918.5 |
| 12.5° | 9183.7 | 9230.9 | 9363.1 | 9655.7 | 9750.1 | 9853.9 | 9995.5 | 9938.8 | 9617.9 | 8787.3 | 7192.2 |
| 15° | 7937.9 | 7947.3 | 8315.4 | 9042.2 | 9429.2 | 9825.6 | 10373.0 | 10486.3 | 10278.6 | 9429.2 | 7475.4 |
| 17.5° | 6550.4 | 6578.7 | 6871.3 | 7683.0 | 8306.0 | 9221.5 | 10590.1 | 11052.6 | 10977.1 | 10061.5 | 7739.6 |
| 20° | 5974.6 | 6012.4 | 6154.0 | 6663.6 | 7135.6 | 7985.0 | 10373.0 | 11590.6 | 11618.9 | 10693.9 | 7985.0 |
| 22.5° | 5842.5 | 5870.8 | 5984.1 | 6380.5 | 6673.1 | 7239.4 | 9636.8 | 12015.3 | 12345.7 | 11420.7 | 8277.6 |
| 25° | 5804.7 | 5833.0 | 6002.9 | 6437.1 | 6710.8 | 7182.8 | 8966.7 | 12241.8 | 13204.6 | 12175.8 | 8560.8 |
| 27.5° | 5776.4 | 5814.2 | 6087.9 | 6644.8 | 6965.7 | 7418.7 | 8844.0 | 12289.0 | 14025.7 | 12978.1 | 9023.3 |
| 30° | 5814.2 | 5870.8 | 6229.5 | 6861.9 | 7230.0 | 7739.6 | 9136.6 | 12336.2 | 14931.8 | 13893.6 | 9608.5 |
| 32.5° | 5965.2 | 6012.4 | 6446.6 | 7154.5 | 7579.2 | 8154.9 | 9636.8 | 12619.4 | 15790.8 | 14828.0 | 10165.4 |
| 35° | 6135.1 | 6201.2 | 6720.3 | 7569.7 | 8079.4 | 8730.7 | 10316.4 | 13176.3 | 16611.9 | 15715.3 | 10741.1 |
| 37.5° | 6342.7 | 6418.2 | 7041.2 | 8041.7 | 8626.9 | 9363.1 | 11052.6 | 13950.2 | 17338.7 | 16442.0 | 11316.9 |
| 40° | 6625.9 | 6710.8 | 7409.3 | 8541.9 | 9174.3 | 9910.5 | 11779.4 | 14714.8 | 17895.6 | 16876.2 | 11694.4 |
| 42.5° | 7739.6 | 7852.9 | 8145.5 | 9032.7 | 9740.6 | 10495.7 | 12496.7 | 15441.5 | 18103.2 | 17017.8 | 11769.9 |
| 45° | 9816.1 | 9929.4 | 9853.9 | 10023.8 | 10495.7 | 11203.6 | 13280.1 | 16140.0 | 18131.5 | 16980.0 | 11732.2 |
| 47.5° | 11902.1 | 12034.2 | 11968.1 | 11873.7 | 11977.6 | 12317.4 | 14157.9 | 16583.6 | 17980.5 | 16961.1 | 11732.2 |
| 50° | 13893.6 | 13818.1 | 13827.5 | 13799.2 | 13893.6 | 14072.9 | 15007.4 | 16668.5 | 17942.8 | 17140.5 | 11836.0 |
| 52.5° | 14960.2 | 14997.9 | 15233.9 | 15583.1 | 15790.8 | 15970.1 | 15979.5 | 16800.7 | 17669.0 | 16838.4 | 11713.3 |
| 55° | 16007.8 | 16083.4 | 16630.8 | 17225.4 | 17687.9 | 18027.7 | 16951.7 | 16715.7 | 16036.2 | 15828.5 | 11071.5 |
| 57.5° | 17187.7 | 17291.5 | 18065.5 | 19292.5 | 20104.2 | 20283.5 | 17914.4 | 15130.1 | 13572.7 | 14384.4 | 9825.6 |
| 60° | 18811.1 | 18933.8 | 19962.6 | 21803.1 | 23011.3 | 22643.2 | 17990.0 | 12610.0 | 10778.9 | 11939.8 | 8107.7 |
| 62.5° | 20085.3 | 20330.7 | 22190.1 | 25059.5 | 26390.3 | 25219.9 | 16583.6 | 9665.1 | 7532.0 | 8390.9 | 5918.0 |
| 65° | 18726.2 | 19198.1 | 22227.9 | 28787.7 | 30326.2 | 28249.7 | 14375.0 | 6597.6 | 4247.4 | 5427.2 | 3784.9 |
| 67.5° | 15139.5 | 15800.2 | 19736.1 | 30599.9 | 33025.6 | 29844.8 | 11316.9 | 3501.7 | 2435.2 | 3152.5 | 1991.5 |
| 68° | 13931.4 | 14648.7 | 18820.5 | 30599.9 | 33167.2 | 29703.2 | 10505.1 | 3029.8 | 2246.4 | 2831.6 | 1727.3 |
| 70° | 9627.4 | 10137.0 | 14469.4 | 28882.1 | 32336.6 | 27079.3 | 6918.5 | 1736.7 | 1689.5 | 1944.3 | 1142.1 |
| 72.5° | 4719.3 | 5266.7 | 7739.6 | 22888.6 | 26343.1 | 20812.1 | 3152.5 | 1151.5 | 1283.6 | 1425.2 | 896.7 |
| 75° | 1878.3 | 1991.5 | 3048.7 | 11288.6 | 16460.9 | 13280.1 | 1651.8 | 868.4 | 1104.3 | 1113.8 | 707.9 |
| 77.5° | 1076.0 | 1142.1 | 1689.5 | 4153.0 | 6172.8 | 5936.9 | 1066.6 | 622.9 | 877.8 | 802.3 | 462.5 |
| 80° | 604.1 | 613.5 | 953.3 | 2189.8 | 3530.0 | 3161.9 | 726.8 | 453.1 | 670.1 | 566.3 | 311.5 |
| 82.5° | 302.0 | 339.8 | 604.1 | 1208.1 | 1963.2 | 2010.4 | 387.0 | 320.9 | 538.0 | 405.9 | 254.8 |
| 85° | 217.1 | 236.0 | 434.2 | 670.1 | 906.1 | 1359.2 | 236.0 | 160.5 | 405.9 | 273.7 | 179.3 |
| 87.5° | 113.3 | 141.6 | 273.7 | 330.4 | 368.1 | 462.5 | 113.3 | 75.5 | 226.5 | 160.5 | 94.4 |
| 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: P1459017
CATALOG NUMBER: GLAN-SB6C-840-U-T4LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 | 6210.6 |
| 2.5° | 6210.6 | 5993.5 | 5549.9 | 5030.8 | 4624.9 | 4209.6 | 3869.8 | 3548.9 | 3397.9 | 3379.0 | 3416.8 |
| 5° | 6182.3 | 5710.3 | 4700.4 | 3709.4 | 2897.6 | 2331.3 | 2019.9 | 1859.4 | 1774.5 | 1736.7 | 1746.1 |
| 7.5° | 6125.6 | 5408.3 | 3794.3 | 2510.7 | 1878.3 | 1632.9 | 1557.4 | 1529.1 | 1519.6 | 1519.6 | 1519.6 |
| 10° | 6069.0 | 5002.5 | 2907.1 | 1840.5 | 1538.5 | 1472.4 | 1453.5 | 1453.5 | 1444.1 | 1444.1 | 1453.5 |
| 12.5° | 6040.7 | 4624.9 | 2255.8 | 1538.5 | 1434.7 | 1406.3 | 1387.5 | 1378.0 | 1378.0 | 1378.0 | 1387.5 |
| 15° | 5974.6 | 4209.6 | 1821.6 | 1425.2 | 1368.6 | 1330.8 | 1321.4 | 1312.0 | 1312.0 | 1312.0 | 1312.0 |
| 17.5° | 5918.0 | 3803.8 | 1585.7 | 1349.7 | 1302.5 | 1264.8 | 1255.3 | 1245.9 | 1245.9 | 1255.3 | 1255.3 |
| 20° | 5833.0 | 3416.8 | 1425.2 | 1274.2 | 1236.5 | 1198.7 | 1189.3 | 1179.8 | 1189.3 | 1189.3 | 1189.3 |
| 22.5° | 5729.2 | 3095.9 | 1330.8 | 1217.6 | 1170.4 | 1132.6 | 1132.6 | 1132.6 | 1132.6 | 1132.6 | 1142.1 |
| 25° | 5663.2 | 2869.3 | 1264.8 | 1151.5 | 1104.3 | 1076.0 | 1066.6 | 1066.6 | 1085.4 | 1085.4 | 1094.9 |
| 27.5° | 5767.0 | 2812.7 | 1274.2 | 1132.6 | 1047.7 | 1019.4 | 1009.9 | 1009.9 | 1028.8 | 1038.2 | 1047.7 |
| 30° | 6078.5 | 2916.5 | 1387.5 | 1189.3 | 1009.9 | 962.7 | 953.3 | 953.3 | 981.6 | 991.1 | 1000.5 |
| 32.5° | 6437.1 | 3133.6 | 1557.4 | 1264.8 | 981.6 | 906.1 | 887.2 | 887.2 | 915.5 | 925.0 | 934.4 |
| 35° | 6927.9 | 3473.4 | 1783.9 | 1330.8 | 1000.5 | 849.5 | 811.7 | 811.7 | 830.6 | 849.5 | 858.9 |
| 37.5° | 7560.3 | 4030.3 | 2048.2 | 1378.0 | 1000.5 | 783.4 | 736.2 | 726.8 | 745.6 | 745.6 | 755.1 |
| 40° | 8221.0 | 4757.0 | 2321.9 | 1378.0 | 953.3 | 717.3 | 670.1 | 641.8 | 651.3 | 641.8 | 651.3 |
| 42.5° | 8589.1 | 5342.2 | 2557.9 | 1293.1 | 896.7 | 651.3 | 604.1 | 566.3 | 556.9 | 538.0 | 547.4 |
| 45° | 8796.8 | 5606.5 | 2491.8 | 1198.7 | 840.0 | 604.1 | 547.4 | 500.2 | 481.4 | 453.1 | 453.1 |
| 47.5° | 8796.8 | 5634.8 | 2133.1 | 1123.2 | 783.4 | 566.3 | 490.8 | 443.6 | 415.3 | 387.0 | 396.4 |
| 50° | 8692.9 | 5380.0 | 1689.5 | 1047.7 | 717.3 | 528.6 | 443.6 | 405.9 | 368.1 | 349.2 | 349.2 |
| 52.5° | 8258.8 | 4549.4 | 1293.1 | 953.3 | 641.8 | 481.4 | 396.4 | 358.7 | 320.9 | 311.5 | 311.5 |
| 55° | 7513.1 | 3341.3 | 1047.7 | 858.9 | 575.8 | 443.6 | 358.7 | 330.4 | 292.6 | 273.7 | 273.7 |
| 57.5° | 6106.8 | 2284.1 | 868.4 | 774.0 | 509.7 | 396.4 | 320.9 | 292.6 | 245.4 | 226.5 | 226.5 |
| 60° | 4530.5 | 1491.3 | 736.2 | 679.6 | 434.2 | 358.7 | 283.2 | 245.4 | 207.6 | 188.8 | 179.3 |
| 62.5° | 3058.1 | 1009.9 | 613.5 | 538.0 | 368.1 | 311.5 | 245.4 | 207.6 | 160.5 | 122.7 | 122.7 |
| 65° | 1906.6 | 783.4 | 509.7 | 424.7 | 320.9 | 273.7 | 207.6 | 160.5 | 113.3 | 84.9 | 75.5 |
| 67.5° | 1094.9 | 632.4 | 415.3 | 330.4 | 273.7 | 217.1 | 160.5 | 132.1 | 94.4 | 66.1 | 56.6 |
| 68° | *1009.9* | *604.1* | *387.0* | *311.5* | *254.8* | *207.6* | *151.0* | *122.7* | *84.9* | *56.6* | *56.6* |
| 70° | 821.2 | 538.0 | 330.4 | 254.8 | 217.1 | 169.9 | 132.1 | 103.8 | 66.1 | 37.8 | 37.8 |
| 72.5° | 726.8 | 453.1 | 283.2 | 198.2 | 151.0 | 141.6 | 103.8 | 75.5 | 47.2 | 28.3 | 18.9 |
| 75° | 594.6 | 358.7 | 226.5 | 151.0 | 103.8 | 103.8 | 75.5 | 47.2 | 18.9 | 0.0 | 0.0 |
| 77.5° | 387.0 | 264.3 | 179.3 | 94.4 | 56.6 | 66.1 | 47.2 | 18.9 | 0.0 | 0.0 | 0.0 |
| 80° | 254.8 | 198.2 | 122.7 | 47.2 | 28.3 | 28.3 | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 179.3 | 132.1 | 75.5 | 18.9 | 9.4 | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 113.3 | 56.6 | 28.3 | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 47.2 | 18.9 | 9.4 | 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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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: SP1-2407-184-11

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-840-U-5WQ

Data in this report applies to families of products including GSS-SB1A-840-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

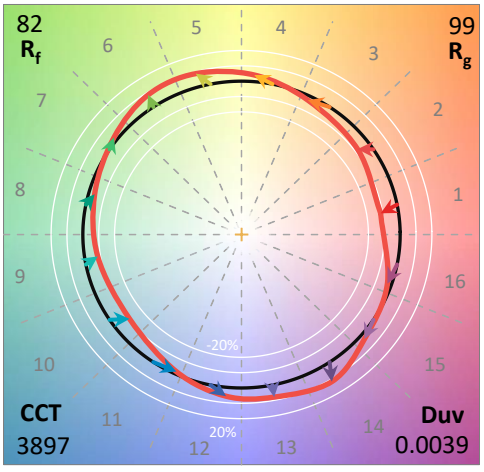
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-11 |
| 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-840-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 4000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3897 |
| CIE u': | 0.2249 |
| CIE v': | 0.5084 |
| Duv: | 0.0039 |
| CIE x: | 0.3882 |
| CIE y: | 0.3900 |
| CIE z: | 0.2218 |
| Peak Wavelength (nm): | 445 |
| Dominant Wavelength (nm): | 577 |
| Purity: | 33.54925 |
| Rf: | 81.8 |
| Rg: | 98.6 |

| | |
|---|---|
| CRI (Ra): | 80.2 |
| R1: | 78.9 |
| R2: | 83.5 |
| R3: | 88.3 |
| R4: | 82.1 |
| R5: | 78.8 |
| R6: | 78.4 |
| R7: | 85.8 |
| R8: | 65.8 |
| R9: | 6.7 |
| R10: | 61.9 |
| R11: | 81.9 |
| R12: | 58.9 |
| R13: | 79.2 |
| R14: | 93.2 |
| R15: | 71.9 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 24M |
| Operation Time: | 1H 24M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-11

| 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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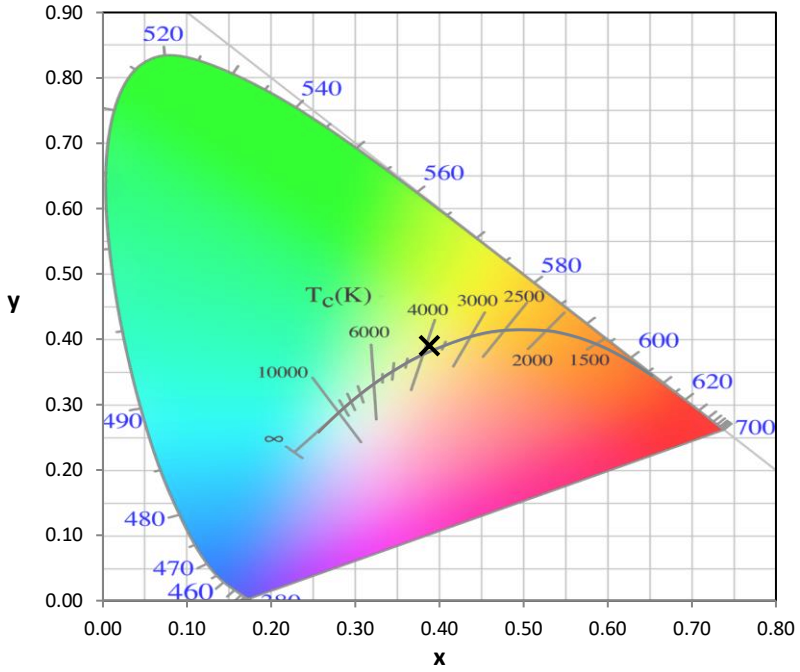
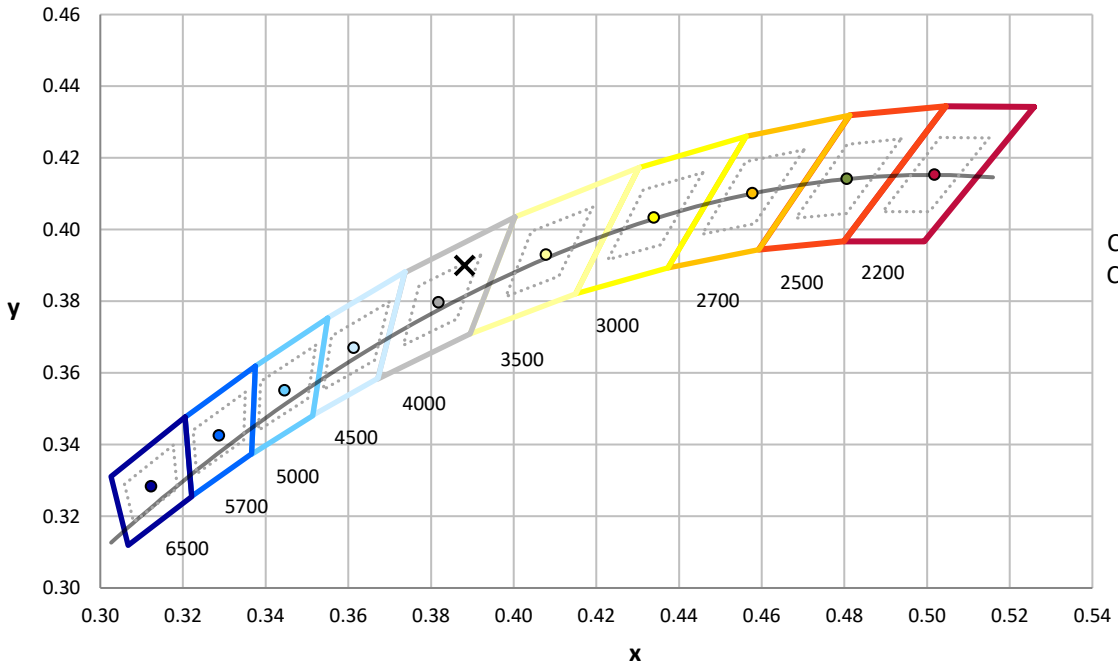
## CIE 1931 Chromaticity Diagram




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




CCT = 3897K
CIE x = 0.3882
CIE y = 0.3900
Duv = 0.0039

Point lies inside the ANSI 4000K 4-step quadrangle

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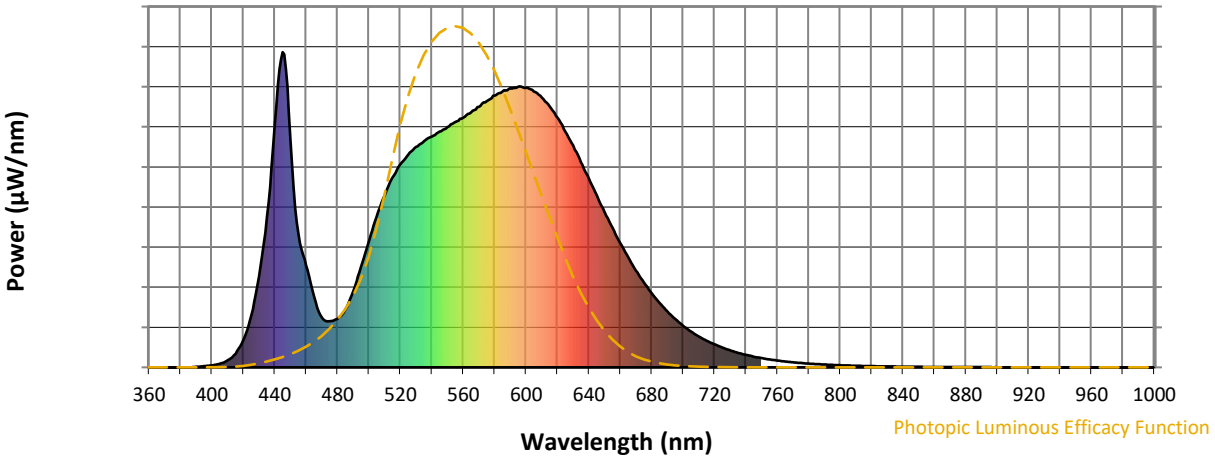
## Photopic Flux vs. Wavelength




## 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 | 242 | NR | 620 | 792 | NR | 750 | 29 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 320 | NR | 625 | 748 | NR | 755 | 25 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 401 | NR | 630 | 703 | NR | 760 | 22 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 479 | NR | 635 | 651 | NR | 765 | 19 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 546 | NR | 640 | 599 | NR | 770 | 16 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 602 | NR | 645 | 545 | NR | 775 | 14 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 645 | NR | 650 | 493 | NR | 780 | 12 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 674 | NR | 655 | 443 | NR | 785 | 10 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 699 | NR | 660 | 394 | NR | 790 | 9 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 718 | NR | 665 | 349 | NR | 795 | 8 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 732 | NR | 670 | 307 | NR | 800 | 7 | NR | 930 | 0 | NR |
| 415 | 43 | NR | 545 | 749 | NR | 675 | 269 | NR | 805 | 6 | NR | 935 | 0 | NR |
| 420 | 86 | NR | 550 | 762 | NR | 680 | 235 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 164 | NR | 555 | 778 | NR | 685 | 204 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 288 | NR | 560 | 792 | NR | 690 | 178 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 478 | NR | 565 | 809 | NR | 695 | 153 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 766 | NR | 570 | 827 | NR | 700 | 132 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 1000 | NR | 575 | 845 | NR | 705 | 114 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 726 | NR | 580 | 862 | NR | 710 | 98 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 425 | NR | 585 | 875 | NR | 715 | 84 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 324 | NR | 590 | 887 | NR | 720 | 73 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 225 | NR | 595 | 890 | NR | 725 | 63 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 157 | NR | 600 | 887 | NR | 730 | 54 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 147 | NR | 605 | 875 | NR | 735 | 46 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 154 | NR | 610 | 856 | NR | 740 | 40 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 184 | NR | 615 | 828 | NR | 745 | 34 | NR | 875 | 1 | NR | | | |

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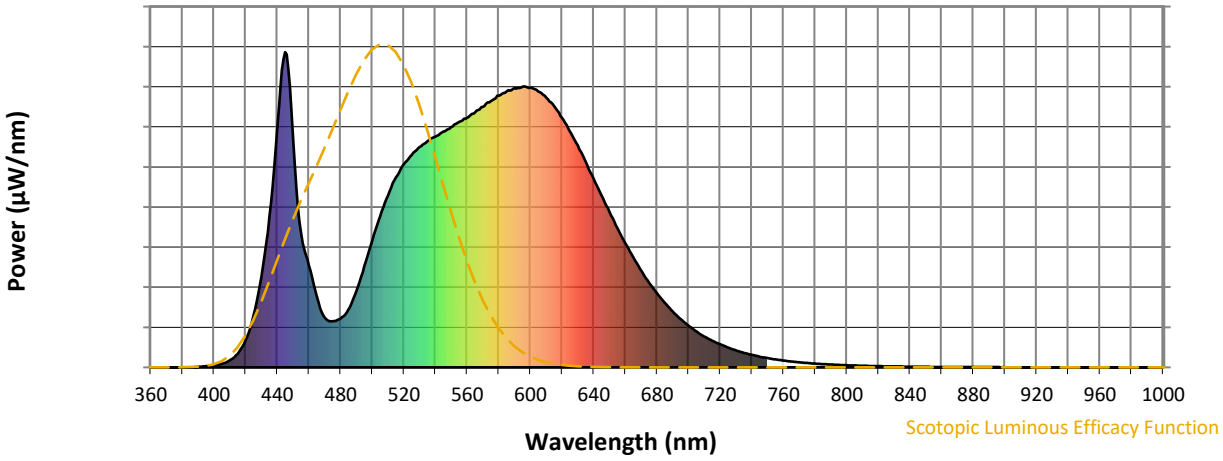
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.57**

| 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 | 242 | NR | 620 | 792 | NR | 750 | 29 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 320 | NR | 625 | 748 | NR | 755 | 25 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 401 | NR | 630 | 703 | NR | 760 | 22 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 479 | NR | 635 | 651 | NR | 765 | 19 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 546 | NR | 640 | 599 | NR | 770 | 16 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 602 | NR | 645 | 545 | NR | 775 | 14 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 645 | NR | 650 | 493 | NR | 780 | 12 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 674 | NR | 655 | 443 | NR | 785 | 10 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 699 | NR | 660 | 394 | NR | 790 | 9 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 718 | NR | 665 | 349 | NR | 795 | 8 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 732 | NR | 670 | 307 | NR | 800 | 7 | NR | 930 | 0 | NR |
| 415 | 43 | NR | 545 | 749 | NR | 675 | 269 | NR | 805 | 6 | NR | 935 | 0 | NR |
| 420 | 86 | NR | 550 | 762 | NR | 680 | 235 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 164 | NR | 555 | 778 | NR | 685 | 204 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 288 | NR | 560 | 792 | NR | 690 | 178 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 478 | NR | 565 | 809 | NR | 695 | 153 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 766 | NR | 570 | 827 | NR | 700 | 132 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 1000 | NR | 575 | 845 | NR | 705 | 114 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 726 | NR | 580 | 862 | NR | 710 | 98 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 425 | NR | 585 | 875 | NR | 715 | 84 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 324 | NR | 590 | 887 | NR | 720 | 73 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 225 | NR | 595 | 890 | NR | 725 | 63 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 157 | NR | 600 | 887 | NR | 730 | 54 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 147 | NR | 605 | 875 | NR | 735 | 46 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 154 | NR | 610 | 856 | NR | 740 | 40 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 184 | NR | 615 | 828 | NR | 745 | 34 | NR | 875 | 1 | NR | | | |

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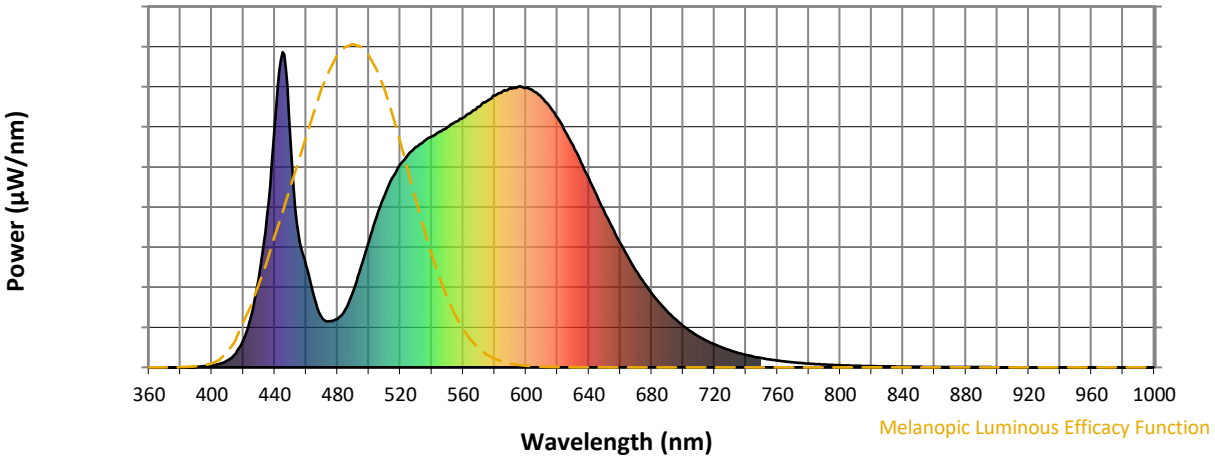
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.06**

| 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 | 242 | NR | 620 | 792 | NR | 750 | 29 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 320 | NR | 625 | 748 | NR | 755 | 25 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 401 | NR | 630 | 703 | NR | 760 | 22 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 479 | NR | 635 | 651 | NR | 765 | 19 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 546 | NR | 640 | 599 | NR | 770 | 16 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 602 | NR | 645 | 545 | NR | 775 | 14 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 645 | NR | 650 | 493 | NR | 780 | 12 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 674 | NR | 655 | 443 | NR | 785 | 10 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 699 | NR | 660 | 394 | NR | 790 | 9 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 718 | NR | 665 | 349 | NR | 795 | 8 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 732 | NR | 670 | 307 | NR | 800 | 7 | NR | 930 | 0 | NR |
| 415 | 43 | NR | 545 | 749 | NR | 675 | 269 | NR | 805 | 6 | NR | 935 | 0 | NR |
| 420 | 86 | NR | 550 | 762 | NR | 680 | 235 | NR | 810 | 5 | NR | 940 | 0 | NR |
| 425 | 164 | NR | 555 | 778 | NR | 685 | 204 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 288 | NR | 560 | 792 | NR | 690 | 178 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 478 | NR | 565 | 809 | NR | 695 | 153 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 766 | NR | 570 | 827 | NR | 700 | 132 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 1000 | NR | 575 | 845 | NR | 705 | 114 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 726 | NR | 580 | 862 | NR | 710 | 98 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 425 | NR | 585 | 875 | NR | 715 | 84 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 324 | NR | 590 | 887 | NR | 720 | 73 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 225 | NR | 595 | 890 | NR | 725 | 63 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 157 | NR | 600 | 887 | NR | 730 | 54 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 147 | NR | 605 | 875 | NR | 735 | 46 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 154 | NR | 610 | 856 | NR | 740 | 40 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 184 | NR | 615 | 828 | NR | 745 | 34 | NR | 875 | 1 | NR | | | |

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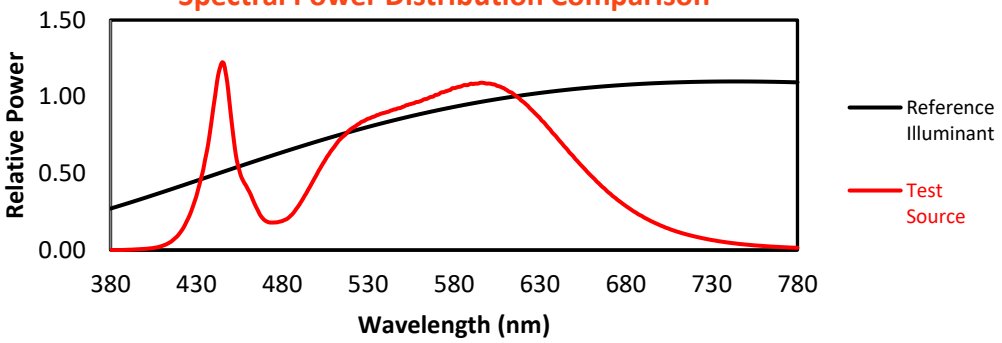
# TM-30-18

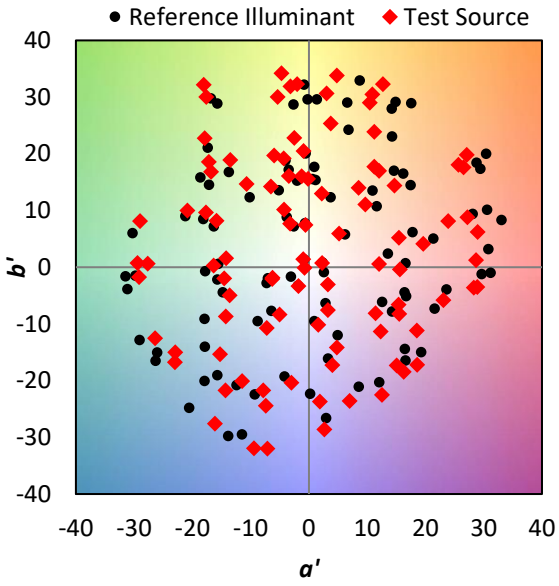
## Summary

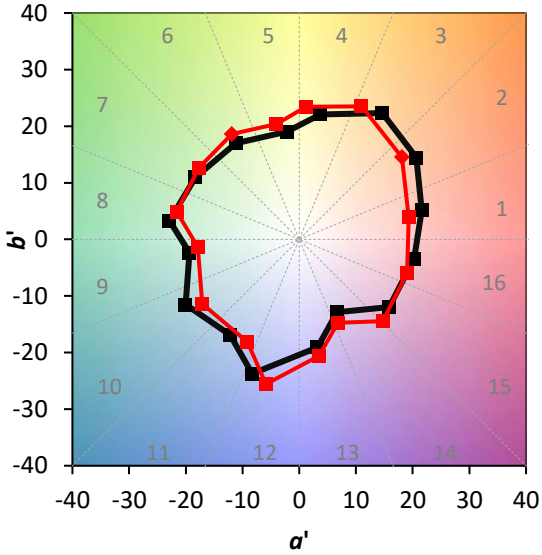
$R_f$ = 81.8
$R_g$ = 98.6
CIE $R_a$ = 80.2
$R_9$ = 6.7

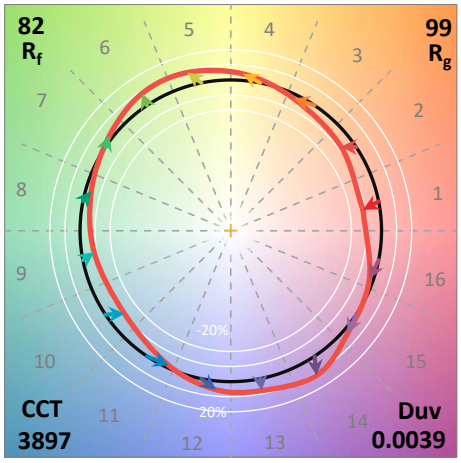
## Spectral Power Distribution Comparison

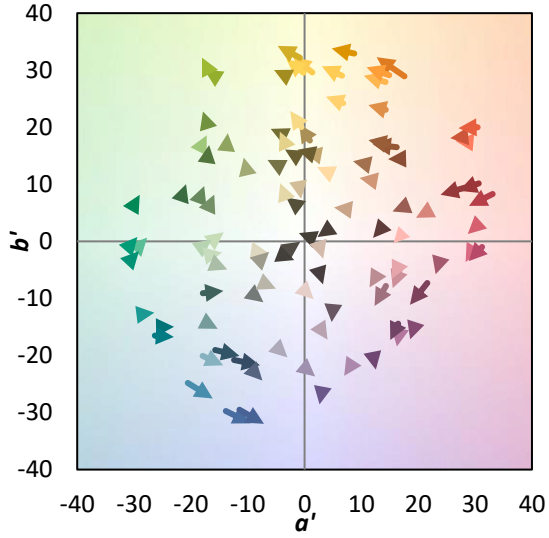



## Color Vector Graphics



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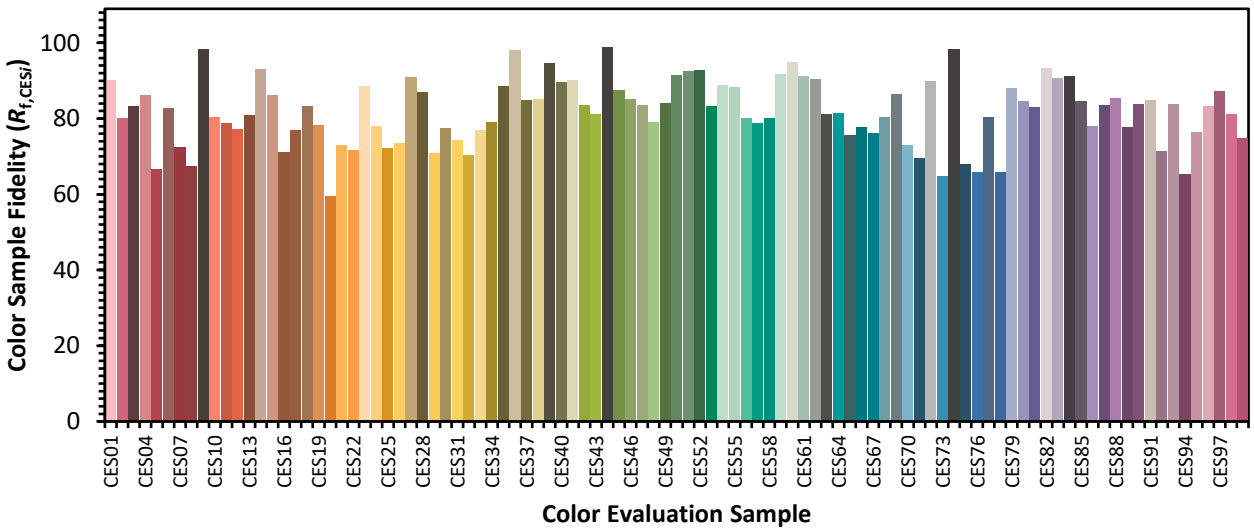
**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 73 | CES51 = 93 | CES76 = 66 |
| CES02 = 61 | CES27 = 91 | CES52 = 93 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 83 | CES78 = 66 |
| CES04 = 69 | CES29 = 71 | CES54 = 89 | CES79 = 88 |
| CES05 = 48 | CES30 = 77 | CES55 = 88 | CES80 = 85 |
| CES06 = 50 | CES31 = 74 | CES56 = 80 | CES81 = 83 |
| CES07 = 41 | CES32 = 70 | CES57 = 79 | CES82 = 93 |
| CES08 = 40 | CES33 = 77 | CES58 = 80 | CES83 = 91 |
| CES09 = 29 | CES34 = 79 | CES59 = 92 | CES84 = 91 |
| CES10 = 74 | CES35 = 88 | CES60 = 95 | CES85 = 84 |
| CES11 = 57 | CES36 = 98 | CES61 = 91 | CES86 = 78 |
| CES12 = 63 | CES37 = 85 | CES62 = 90 | CES87 = 84 |
| CES13 = 42 | CES38 = 85 | CES63 = 81 | CES88 = 85 |
| CES14 = 74 | CES39 = 95 | CES64 = 81 | CES89 = 78 |
| CES15 = 71 | CES40 = 90 | CES65 = 76 | CES90 = 84 |
| CES16 = 47 | CES41 = 90 | CES66 = 78 | CES91 = 85 |
| CES17 = 49 | CES42 = 84 | CES67 = 76 | CES92 = 71 |
| CES18 = 56 | CES43 = 81 | CES68 = 80 | CES93 = 84 |
| CES19 = 71 | CES44 = 99 | CES69 = 86 | CES94 = 65 |
| CES20 = 65 | CES45 = 87 | CES70 = 73 | CES95 = 77 |
| CES21 = 86 | CES46 = 85 | CES71 = 70 | CES96 = 83 |
| CES22 = 78 | CES47 = 84 | CES72 = 90 | CES97 = 87 |
| CES23 = 91 | CES48 = 79 | CES73 = 65 | CES98 = 81 |
| CES24 = 90 | CES49 = 84 | CES74 = 98 | CES99 = 75 |
| CES25 = 71 | CES50 = 91 | CES75 = 68 | |



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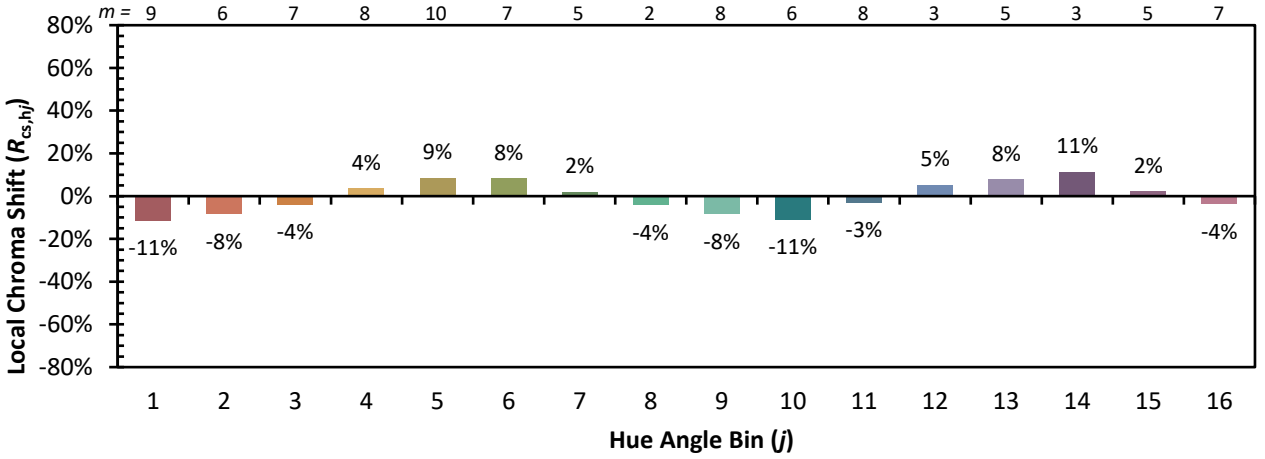
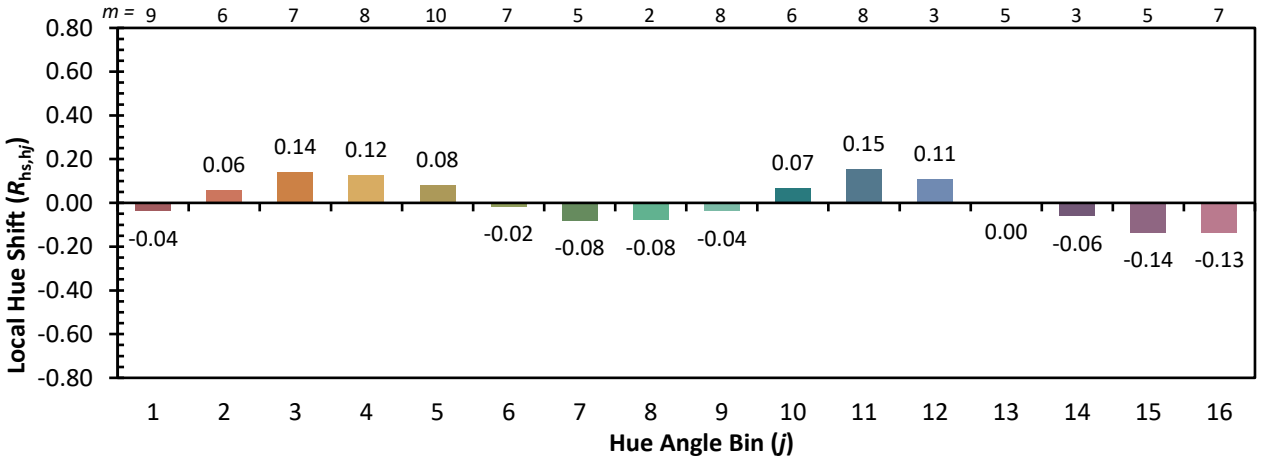
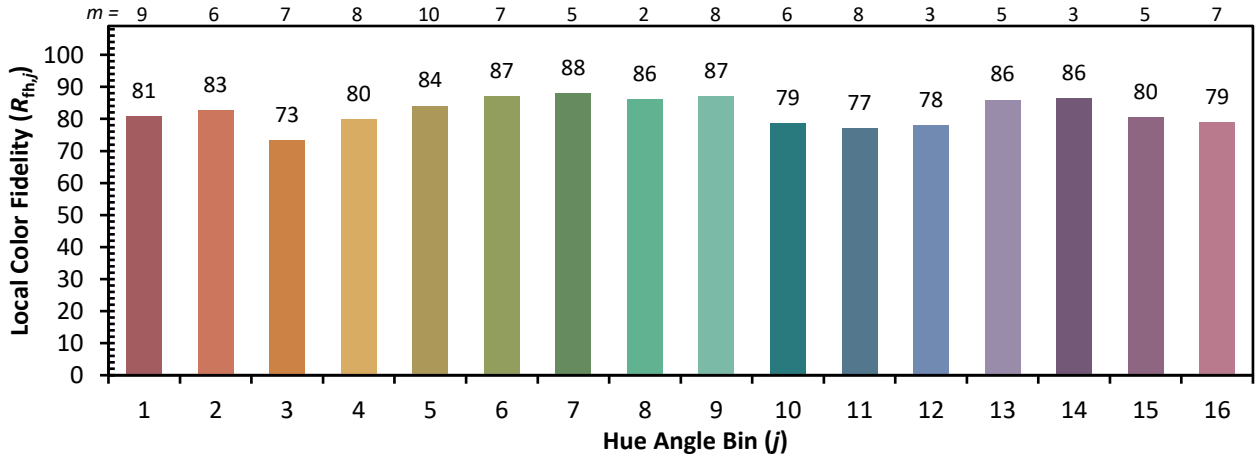
## Color Rendition by Hue-Angle Bin



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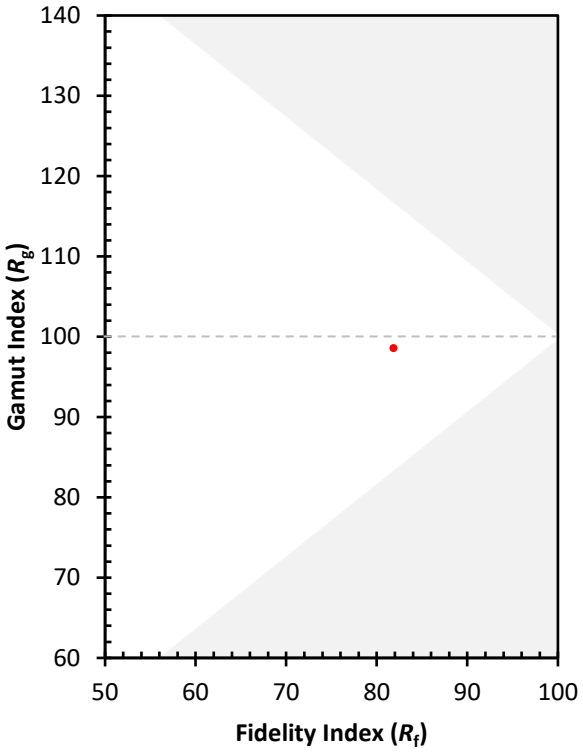
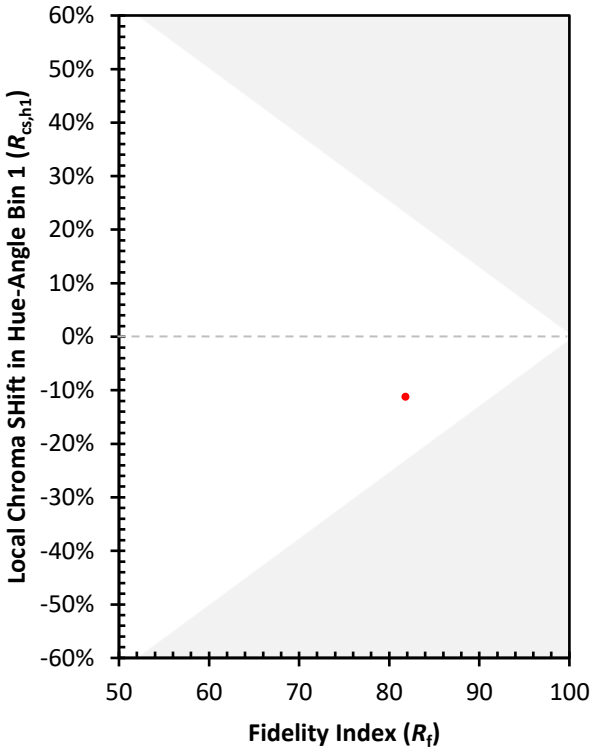
## Measure Comparisons

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