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: P1458805

Luminaire Tested: GLAN-SB7C-735-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: | P1458805 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB7C-735-U-T4LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 7xLight Square PACKAGE 70CRI 3500K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (182) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 38612.1 lumens |
| Efficiency: | N/A |
| Efficacy: | 110.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 350.5 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | NR |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1458805
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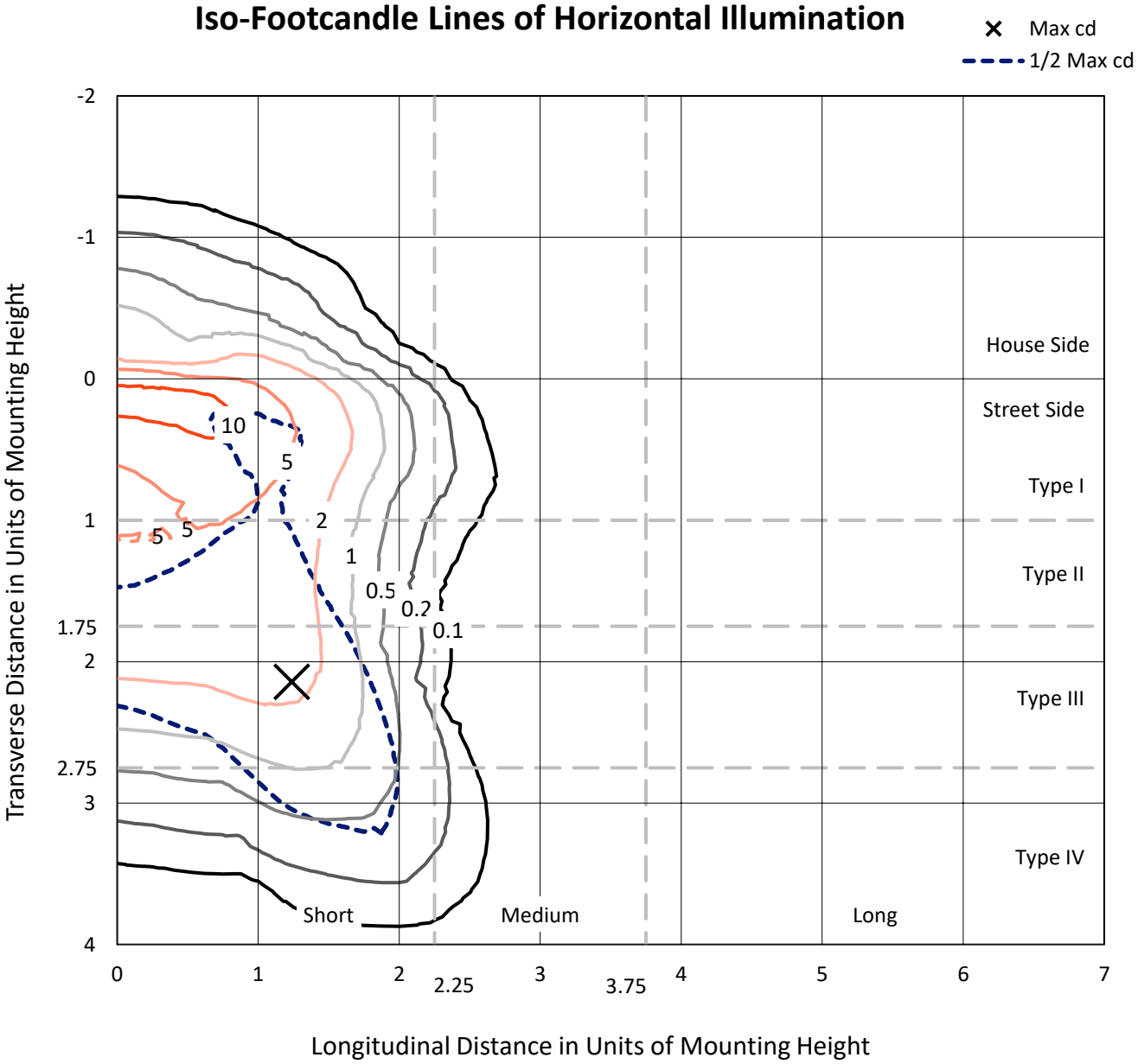
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 12.9 fc
Type IV - Short - N/A

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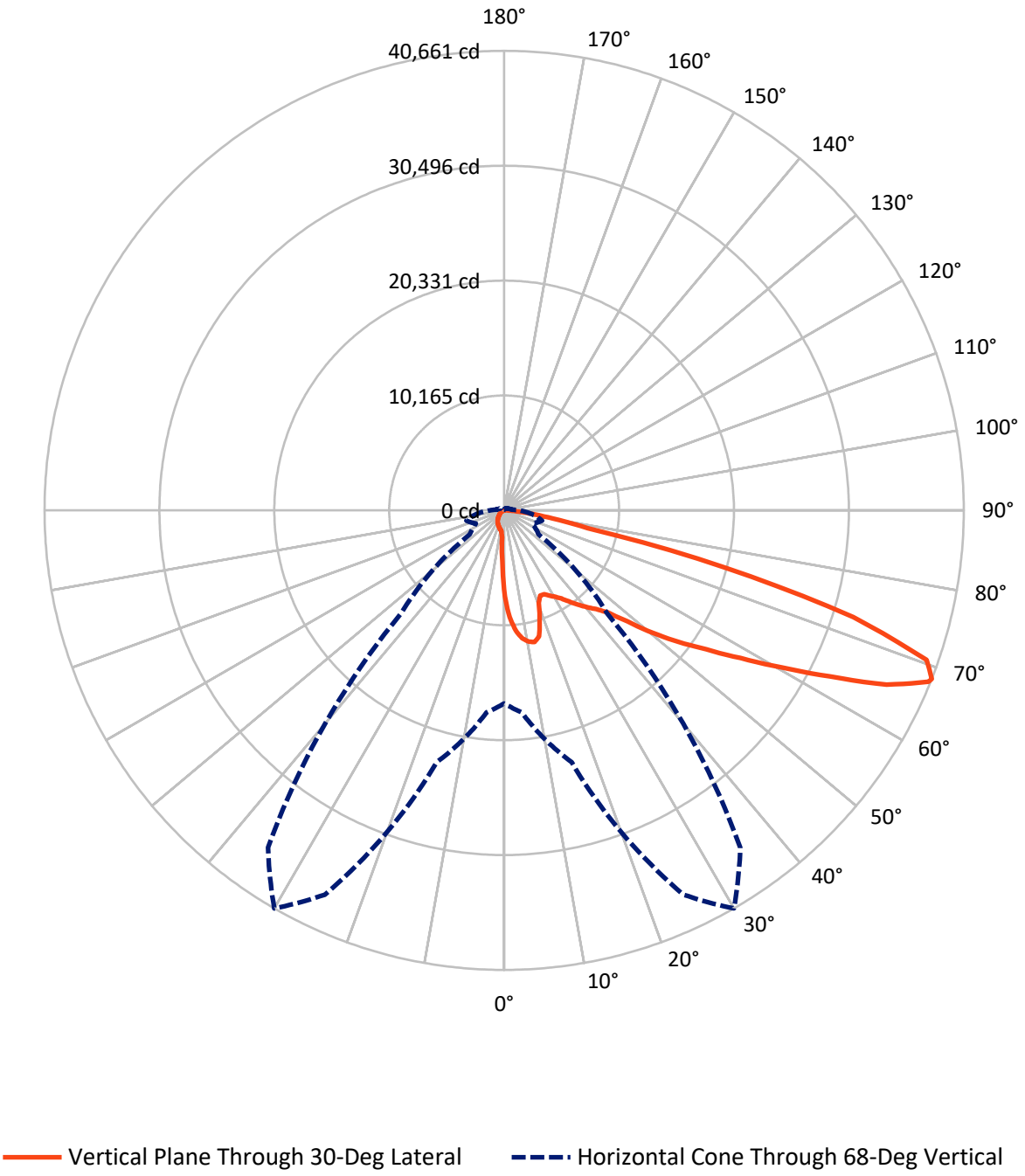
## Luminous Intensity Polar Plot



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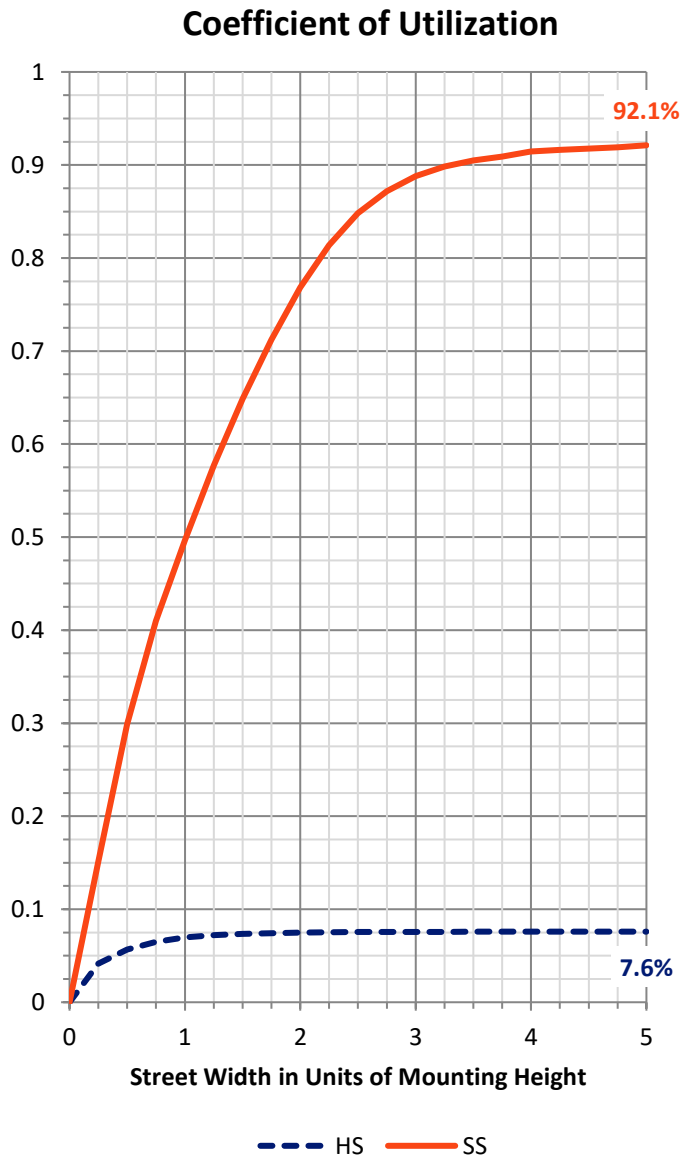
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2947.1 | 0.0 | 2947.1 |
| | % Fixture | 7.6 | 0.0 | 7.6 |
| **Street Side** | Lumens | 35665.0 | 0.0 | 35665.0 |
| | % Fixture | 92.4 | 0.0 | 92.4 |
| **Total** | Lumens | 38612.1 | 0.0 | 38612.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 657.0 | 1.7 |
| 10°-20° | 1875.7 | 4.9 |
| 20°-30° | 2947.5 | 7.6 |
| 30°-40° | 4623.0 | 12.0 |
| 40°-50° | 6910.0 | 17.9 |
| 50°-60° | 9192.5 | 23.8 |
| 60°-70° | 8886.3 | 23.0 |
| 70°-80° | 3194.3 | 8.3 |
| 80°-90° | 326.0 | 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° | 38612.1 | 100.0 |
| 0°-180° | 38612.1 | 100.0 |



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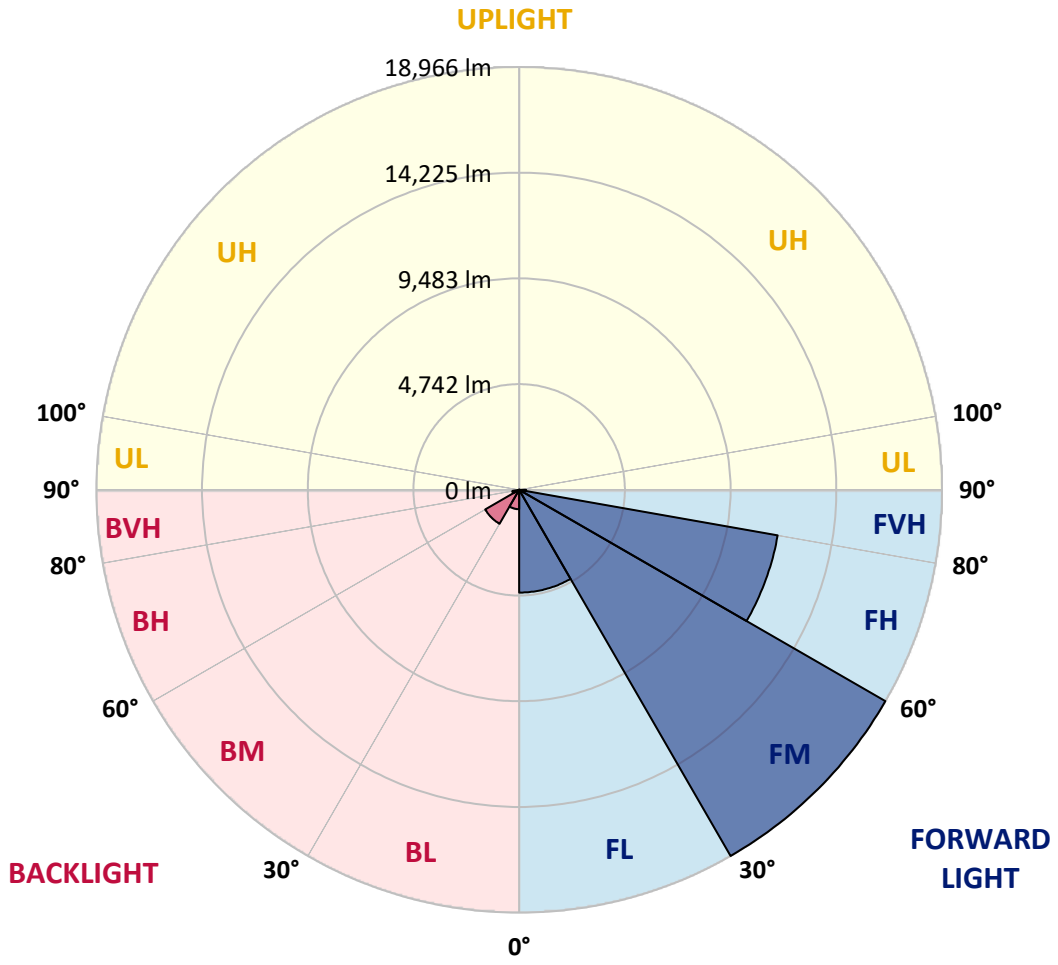
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 4610.3 | 11.9 | | | |
| FM | (30°-60°) | 18966.3 | 49.1 | | | |
| FH | (60°-80°) | 11774.1 | 30.5 | | | G4/12000 |
| FVH | (80°-90°) | 314.4 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 869.9 | 2.3 | B2/1000 | | |
| BM | (30°-60°) | 1759.1 | 4.6 | B2/2500 | | |
| BH | (60°-80°) | 306.5 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 11.6 | 0.0 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

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



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REPORT NUMBER: P1458805
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 30° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 7613.9 | 7613.9 | 7613.9 | 7613.9 | *7613.9* | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 |
| 2.5° | 9731.4 | 9731.4 | 9662.0 | 9569.4 | *9465.2* | 9430.5 | 9233.8 | 8956.1 | 8666.8 | 8331.3 | 7845.3 |
| 5° | 10981.1 | 10969.5 | 10830.6 | 10830.6 | *10691.8* | 10564.5 | 10367.8 | 9962.8 | 9500.0 | 8898.3 | 8053.6 |
| 7.5° | 11536.5 | 11559.6 | 11501.8 | 11501.8 | *11420.8* | 11328.2 | 11212.5 | 10819.1 | 10275.2 | 9465.2 | 8261.8 |
| 10° | 11733.2 | 11744.8 | 11744.8 | 11825.8 | *11802.6* | 11791.1 | 11779.5 | 11559.6 | 10992.6 | 10043.8 | 8481.7 |
| 12.5° | 11258.8 | 11316.6 | 11478.6 | 11837.3 | *11953.1* | 12080.3 | 12253.9 | 12184.5 | 11791.1 | 10772.8 | 8817.3 |
| 15° | 9731.4 | 9743.0 | 10194.2 | 11085.2 | *11559.6* | 12045.6 | 12716.8 | 12855.6 | 12601.0 | 11559.6 | 9164.4 |
| 17.5° | 8030.4 | 8065.1 | 8423.8 | 9419.0 | *10182.7* | 11305.1 | 12982.9 | 13549.9 | 13457.3 | 12334.9 | 9488.4 |
| 20° | 7324.6 | 7370.9 | 7544.4 | 8169.3 | *8747.8* | 9789.2 | 12716.8 | 14209.4 | 14244.2 | 13110.2 | 9789.2 |
| 22.5° | 7162.6 | 7197.3 | 7336.1 | 7822.1 | *8180.8* | 8875.1 | 11814.2 | 14730.1 | 15135.1 | 14001.2 | 10147.9 |
| 25° | 7116.3 | 7151.0 | 7359.3 | 7891.6 | *8227.1* | 8805.7 | 10992.6 | 15007.9 | 16188.1 | 14926.9 | 10495.1 |
| 27.5° | 7081.6 | 7127.9 | 7463.4 | 8146.1 | *8539.5* | 9095.0 | 10842.2 | 15065.7 | 17194.8 | 15910.4 | 11062.1 |
| 30° | 7127.9 | 7197.3 | 7637.0 | 8412.3 | *8863.5* | 9488.4 | 11200.9 | 15123.6 | 18305.6 | 17032.8 | 11779.5 |
| 32.5° | 7313.0 | 7370.9 | 7903.1 | 8771.0 | *9291.7* | 9997.5 | 11814.2 | 15470.7 | 19358.6 | 18178.4 | 12462.2 |
| 35° | 7521.3 | 7602.3 | 8238.7 | 9280.1 | *9905.0* | 10703.4 | 12647.3 | 16153.4 | 20365.3 | 19266.1 | 13168.0 |
| 37.5° | 7775.8 | 7868.4 | 8632.1 | 9858.7 | *10576.1* | 11478.6 | 13549.9 | 17102.2 | 21256.3 | 20157.0 | 13873.9 |
| 40° | 8123.0 | 8227.1 | 9083.4 | 10471.9 | *11247.2* | 12149.8 | 14440.9 | 18039.5 | 21939.0 | 20689.3 | 14336.7 |
| 42.5° | 9488.4 | 9627.2 | 9985.9 | 11073.6 | *11941.5* | 12867.2 | 15320.3 | 18930.5 | 22193.6 | 20862.9 | 14429.3 |
| 45° | 12034.1 | 12172.9 | 12080.3 | 12288.6 | *12867.2* | 13735.0 | 16280.7 | 19786.8 | 22228.3 | 20816.6 | 14383.0 |
| 47.5° | 14591.3 | 14753.3 | 14672.3 | 14556.6 | *14683.9* | 15100.4 | 17356.8 | 20330.6 | 22043.1 | 20793.5 | 14383.0 |
| 50° | 17032.8 | 16940.2 | 16951.8 | 16917.1 | *17032.8* | 17252.7 | 18398.2 | 20434.7 | 21996.9 | 21013.3 | 14510.3 |
| 52.5° | 18340.4 | 18386.6 | 18675.9 | 19104.1 | *19358.6* | 19578.5 | 19590.0 | 20596.7 | 21661.3 | 20643.0 | 14359.9 |
| 55° | 19624.8 | 19717.3 | 20388.5 | 21117.4 | *21684.4* | 22101.0 | 20781.9 | 20492.6 | 19659.5 | 19404.9 | 13573.0 |
| 57.5° | 21071.2 | 21198.4 | 22147.3 | 23651.5 | *24646.7* | 24866.5 | 21962.1 | 18548.6 | 16639.4 | 17634.5 | 12045.6 |
| 60° | 23061.4 | 23211.8 | 24473.1 | 26729.5 | *28210.6* | 27759.3 | 22054.7 | 15459.1 | 13214.3 | 14637.6 | 9939.7 |
| 62.5° | 24623.5 | 24924.4 | 27203.9 | 30721.5 | *32353.1* | 30918.3 | 20330.6 | 11848.9 | 9233.8 | 10286.8 | 7255.1 |
| 65° | 22957.3 | 23535.8 | 27250.2 | 35292.2 | *37178.3* | 34632.6 | 17622.9 | 8088.3 | 5207.0 | 6653.4 | 4640.1 |
| 67.5° | 18560.2 | 19370.2 | 24195.4 | 37513.8 | *40487.6* | 36588.1 | 13873.9 | 4292.9 | 2985.4 | 3864.8 | 2441.5 |
| 68° | *17079.1* | *17958.5* | *23073.0* | *37513.8* | *40661.2* | *36414.6* | *12878.8* | *3714.4* | *2753.9* | *3471.4* | *2117.5* |
| 70° | 11802.6 | 12427.5 | 17738.7 | 35407.9 | *39642.9* | 33197.8 | 8481.7 | 2129.1 | 2071.2 | 2383.7 | 1400.1 |
| 72.5° | 5785.6 | 6456.7 | 9488.4 | 28060.2 | *32295.2* | 25514.5 | 3864.8 | 1411.7 | 1573.7 | 1747.3 | 1099.3 |
| 75° | 2302.7 | 2441.5 | 3737.5 | 13839.2 | *20180.2* | 16280.7 | 2025.0 | 1064.6 | 1353.8 | 1365.4 | 867.8 |
| 77.5° | 1319.1 | 1400.1 | 2071.2 | 5091.3 | *7567.6* | 7278.3 | 1307.5 | 763.7 | 1076.1 | 983.6 | 567.0 |
| 80° | 740.6 | 752.1 | 1168.7 | 2684.5 | *4327.6* | 3876.4 | 891.0 | 555.4 | 821.6 | 694.3 | 381.8 |
| 82.5° | 370.3 | 416.6 | 740.6 | 1481.1 | *2406.8* | 2464.7 | 474.4 | 393.4 | 659.6 | 497.6 | 312.4 |
| 85° | 266.1 | 289.3 | 532.3 | 821.6 | *1110.8* | 1666.3 | 289.3 | 196.7 | 497.6 | 335.6 | 219.9 |
| 87.5° | 138.9 | 173.6 | 335.6 | 405.0 | *451.3* | 567.0 | 138.9 | 92.6 | 277.7 | 196.7 | 115.7 |
| 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: P1458805
CATALOG NUMBER: GLAN-SB7C-735-U-T4LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 | 7613.9 |
| 2.5° | 7613.9 | 7347.7 | 6803.9 | 6167.5 | 5669.9 | 5160.8 | 4744.2 | 4350.8 | 4165.6 | 4142.5 | 4188.8 |
| 5° | 7579.1 | 7000.6 | 5762.5 | 4547.5 | 3552.4 | 2858.1 | 2476.2 | 2279.5 | 2175.4 | 2129.1 | 2140.7 |
| 7.5° | 7509.7 | 6630.3 | 4651.6 | 3077.9 | 2302.7 | 2001.8 | 1909.2 | 1874.5 | 1863.0 | 1863.0 | 1863.0 |
| 10° | 7440.3 | 6132.7 | 3563.9 | 2256.4 | 1886.1 | 1805.1 | 1782.0 | 1782.0 | 1770.4 | 1770.4 | 1782.0 |
| 12.5° | 7405.6 | 5669.9 | 2765.5 | 1886.1 | 1758.8 | 1724.1 | 1701.0 | 1689.4 | 1689.4 | 1689.4 | 1701.0 |
| 15° | 7324.6 | 5160.8 | 2233.2 | 1747.3 | 1677.8 | 1631.5 | 1620.0 | 1608.4 | 1608.4 | 1608.4 | 1608.4 |
| 17.5° | 7255.1 | 4663.2 | 1944.0 | 1654.7 | 1596.8 | 1550.5 | 1539.0 | 1527.4 | 1527.4 | 1539.0 | 1539.0 |
| 20° | 7151.0 | 4188.8 | 1747.3 | 1562.1 | 1515.8 | 1469.5 | 1458.0 | 1446.4 | 1458.0 | 1458.0 | 1458.0 |
| 22.5° | 7023.7 | 3795.4 | 1631.5 | 1492.7 | 1434.8 | 1388.5 | 1388.5 | 1388.5 | 1388.5 | 1388.5 | 1400.1 |
| 25° | 6942.7 | 3517.6 | 1550.5 | 1411.7 | 1353.8 | 1319.1 | 1307.5 | 1307.5 | 1330.7 | 1330.7 | 1342.3 |
| 27.5° | 7070.0 | 3448.2 | 1562.1 | 1388.5 | 1284.4 | 1249.7 | 1238.1 | 1238.1 | 1261.3 | 1272.8 | 1284.4 |
| 30° | 7451.9 | 3575.5 | 1701.0 | 1458.0 | 1238.1 | 1180.3 | 1168.7 | 1168.7 | 1203.4 | 1215.0 | 1226.5 |
| 32.5° | 7891.6 | 3841.6 | 1909.2 | 1550.5 | 1203.4 | 1110.8 | 1087.7 | 1087.7 | 1122.4 | 1134.0 | 1145.5 |
| 35° | 8493.3 | 4258.2 | 2187.0 | 1631.5 | 1226.5 | 1041.4 | 995.1 | 995.1 | 1018.3 | 1041.4 | 1053.0 |
| 37.5° | 9268.5 | 4940.9 | 2511.0 | 1689.4 | 1226.5 | 960.4 | 902.6 | 891.0 | 914.1 | 914.1 | 925.7 |
| 40° | 10078.5 | 5831.9 | 2846.5 | 1689.4 | 1168.7 | 879.4 | 821.6 | 786.8 | 798.4 | 786.8 | 798.4 |
| 42.5° | 10529.8 | 6549.3 | 3135.8 | 1585.3 | 1099.3 | 798.4 | 740.6 | 694.3 | 682.7 | 659.6 | 671.1 |
| 45° | 10784.4 | 6873.3 | 3054.8 | 1469.5 | 1029.8 | 740.6 | 671.1 | 613.3 | 590.1 | 555.4 | 555.4 |
| 47.5° | 10784.4 | 6908.0 | 2615.1 | 1377.0 | 960.4 | 694.3 | 601.7 | 543.8 | 509.1 | 474.4 | 486.0 |
| 50° | 10657.1 | 6595.6 | 2071.2 | 1284.4 | 879.4 | 648.0 | 543.8 | 497.6 | 451.3 | 428.1 | 428.1 |
| 52.5° | 10124.8 | 5577.3 | 1585.3 | 1168.7 | 786.8 | 590.1 | 486.0 | 439.7 | 393.4 | 381.8 | 381.8 |
| 55° | 9210.7 | 4096.2 | 1284.4 | 1053.0 | 705.8 | 543.8 | 439.7 | 405.0 | 358.7 | 335.6 | 335.6 |
| 57.5° | 7486.6 | 2800.2 | 1064.6 | 948.8 | 624.8 | 486.0 | 393.4 | 358.7 | 300.9 | 277.7 | 277.7 |
| 60° | 5554.2 | 1828.3 | 902.6 | 833.1 | 532.3 | 439.7 | 347.1 | 300.9 | 254.6 | 231.4 | 219.9 |
| 62.5° | 3749.1 | 1238.1 | 752.1 | 659.6 | 451.3 | 381.8 | 300.9 | 254.6 | 196.7 | 150.4 | 150.4 |
| 65° | 2337.4 | 960.4 | 624.8 | 520.7 | 393.4 | 335.6 | 254.6 | 196.7 | 138.9 | 104.1 | 92.6 |
| 67.5° | 1342.3 | 775.3 | 509.1 | 405.0 | 335.6 | 266.1 | 196.7 | 162.0 | 115.7 | 81.0 | 69.4 |
| 68° | *1238.1* | *740.6* | *474.4* | *381.8* | *312.4* | *254.6* | *185.1* | *150.4* | *104.1* | *69.4* | *69.4* |
| 70° | 1006.7 | 659.6 | 405.0 | 312.4 | 266.1 | 208.3 | 162.0 | 127.3 | 81.0 | 46.3 | 46.3 |
| 72.5° | 891.0 | 555.4 | 347.1 | 243.0 | 185.1 | 173.6 | 127.3 | 92.6 | 57.9 | 34.7 | 23.1 |
| 75° | 729.0 | 439.7 | 277.7 | 185.1 | 127.3 | 127.3 | 92.6 | 57.9 | 23.1 | 0.0 | 0.0 |
| 77.5° | 474.4 | 324.0 | 219.9 | 115.7 | 69.4 | 81.0 | 57.9 | 23.1 | 0.0 | 0.0 | 0.0 |
| 80° | 312.4 | 243.0 | 150.4 | 57.9 | 34.7 | 34.7 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 219.9 | 162.0 | 92.6 | 23.1 | 11.6 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 138.9 | 69.4 | 34.7 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 57.9 | 23.1 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-5

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

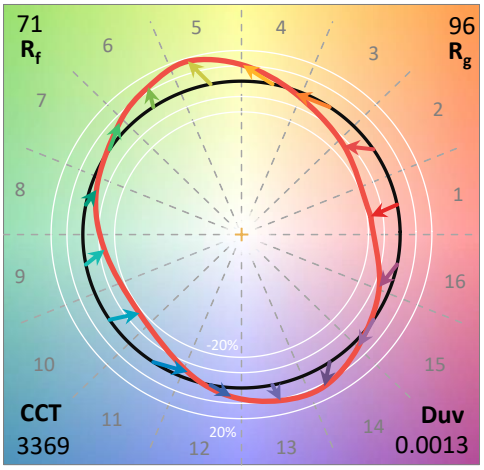
## Test Information

| | |
|---|---|
| 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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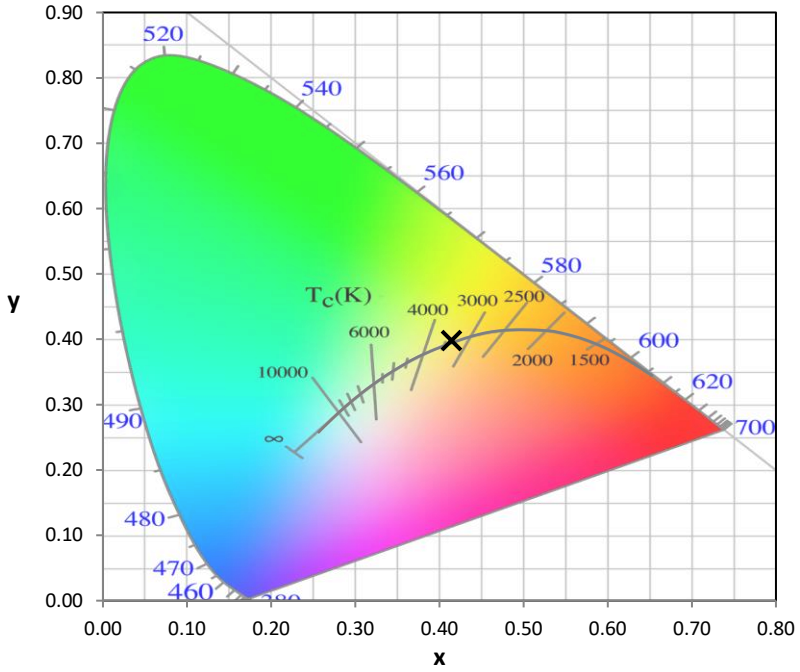
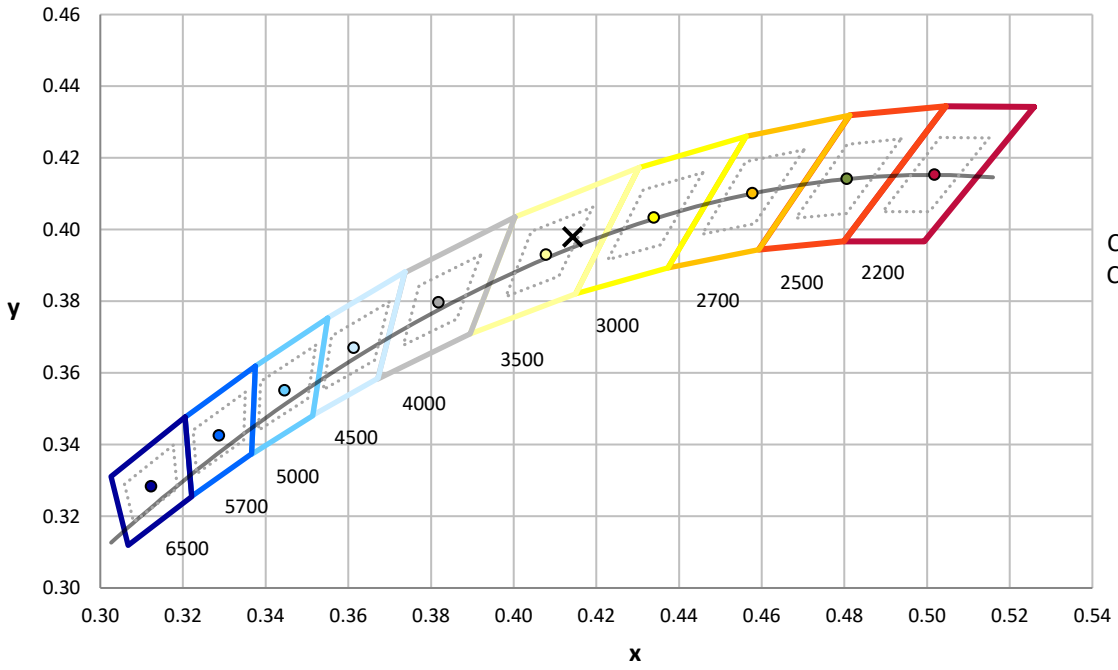
**CIE 1931 Chromaticity Diagram**




**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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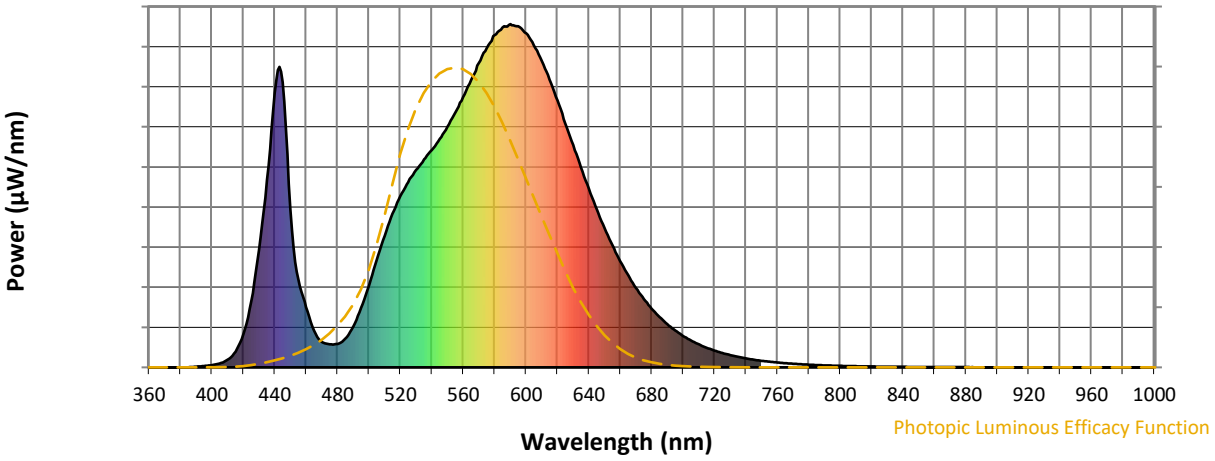
## Photopic Flux vs. Wavelength




## 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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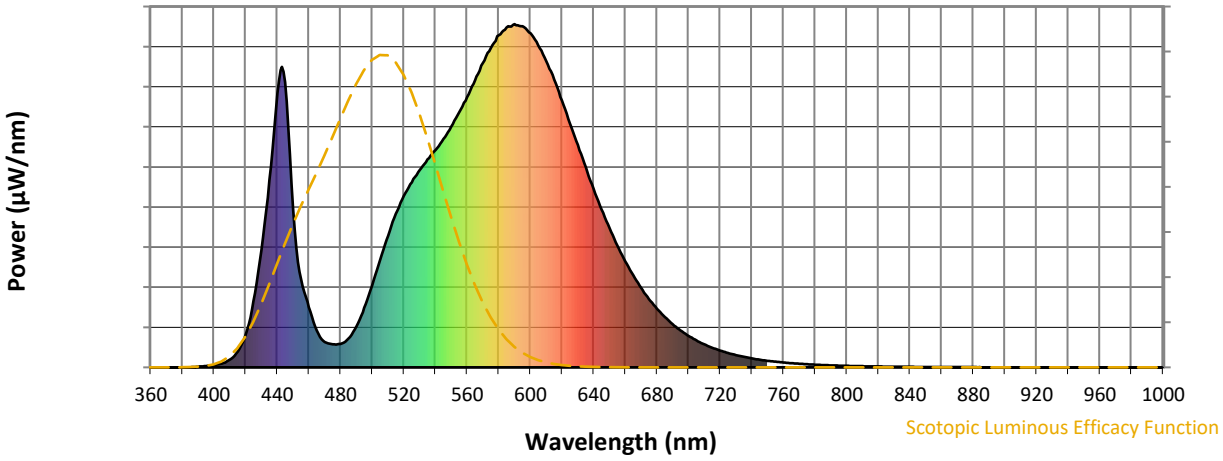
## Scotopic Flux vs. Wavelength




**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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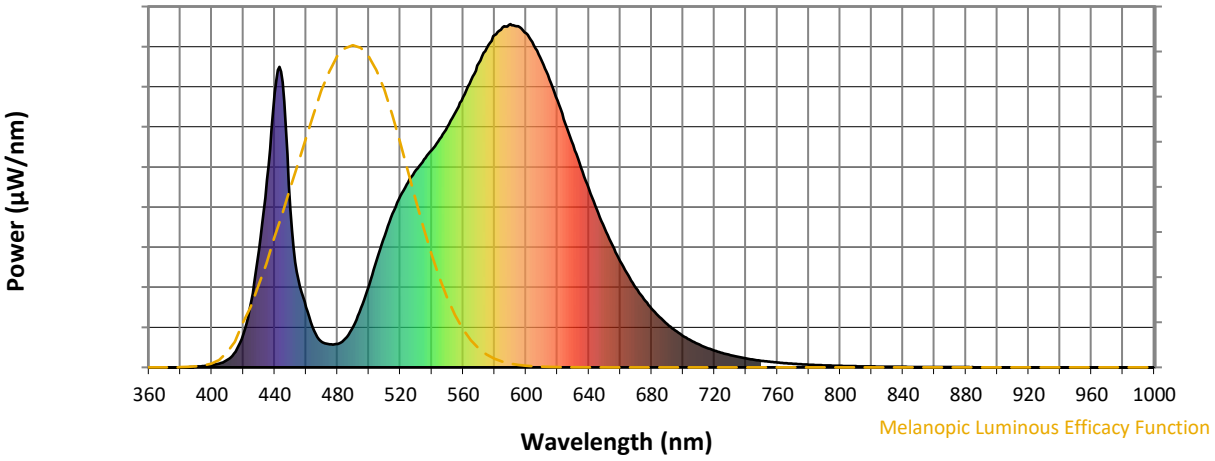
## Melanopic Flux vs. Wavelength




**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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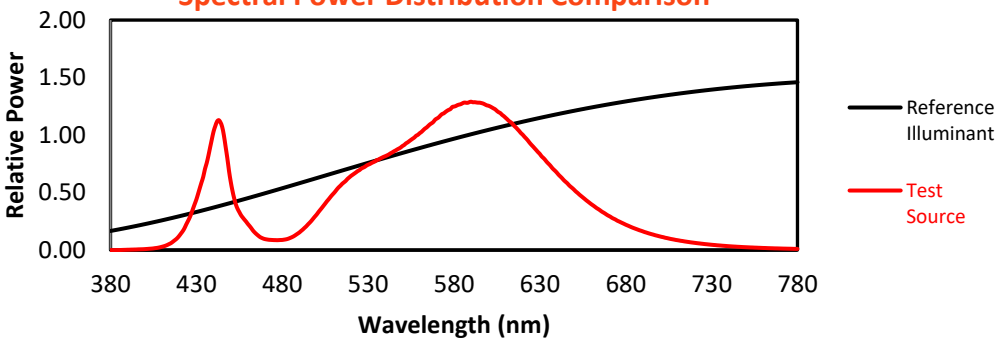
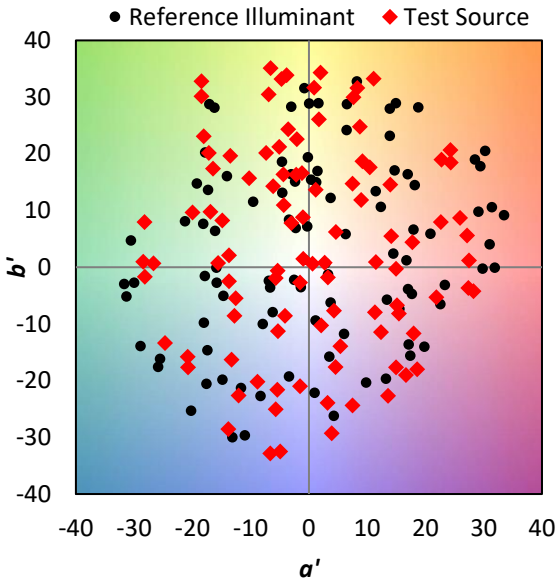
## Summary

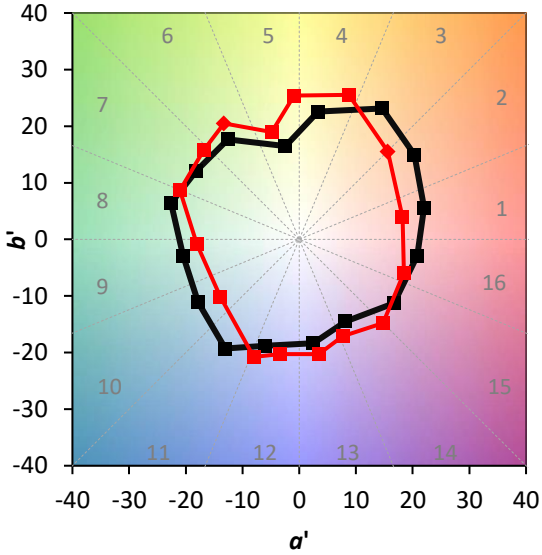
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

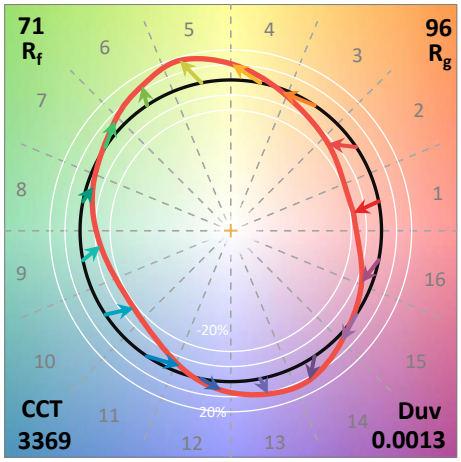
## Spectral Power Distribution Comparison

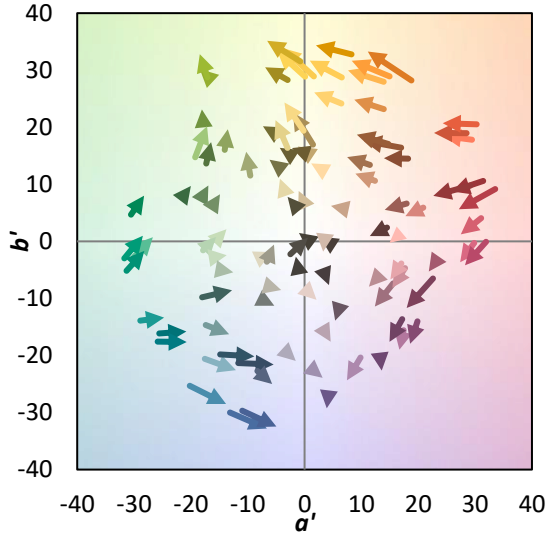



## Color Vector Graphics



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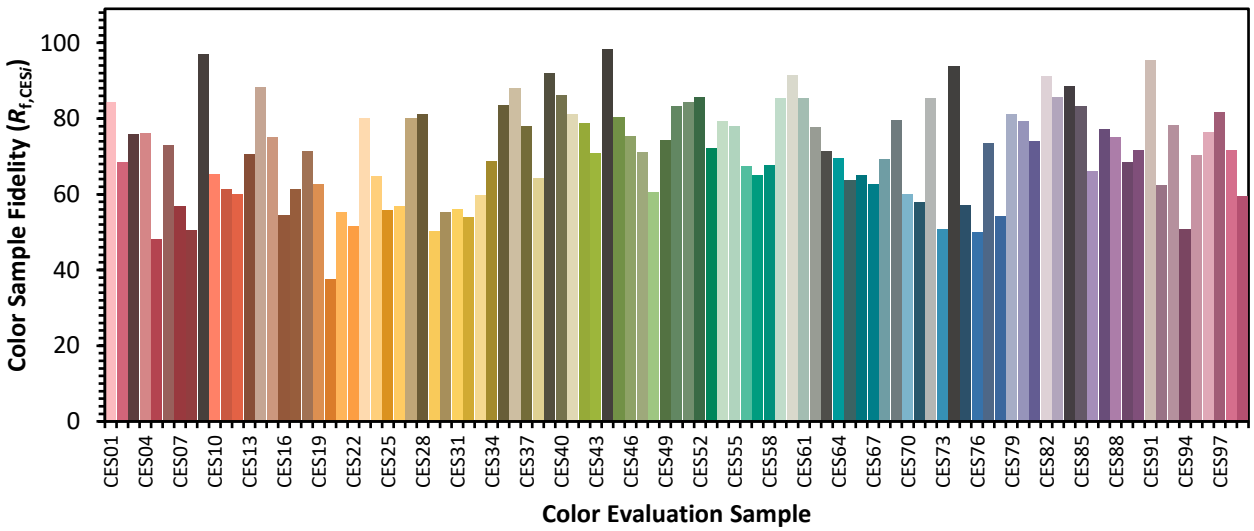
## Individual Sample Fidelity Index ($R_{f,i}$)

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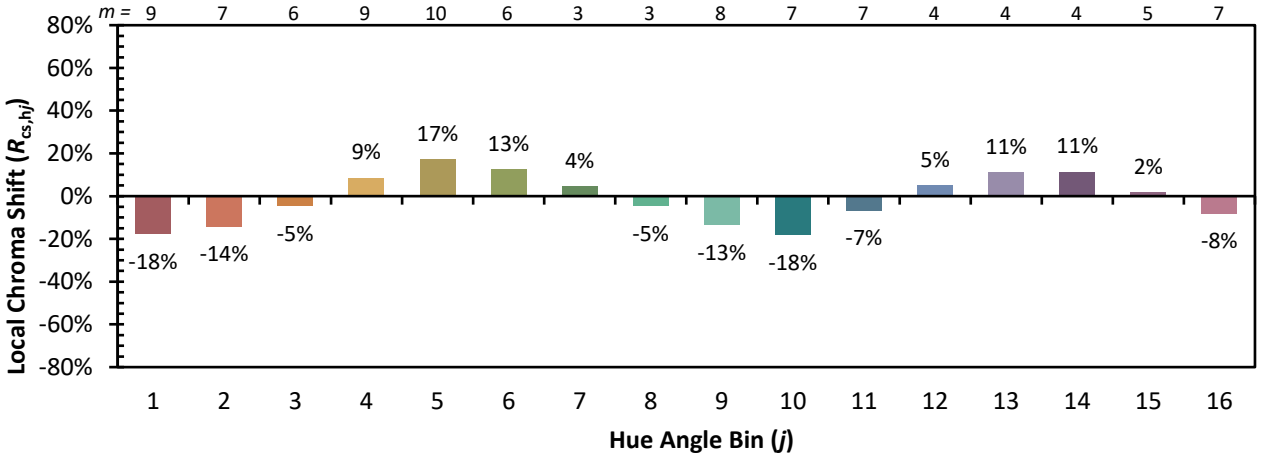
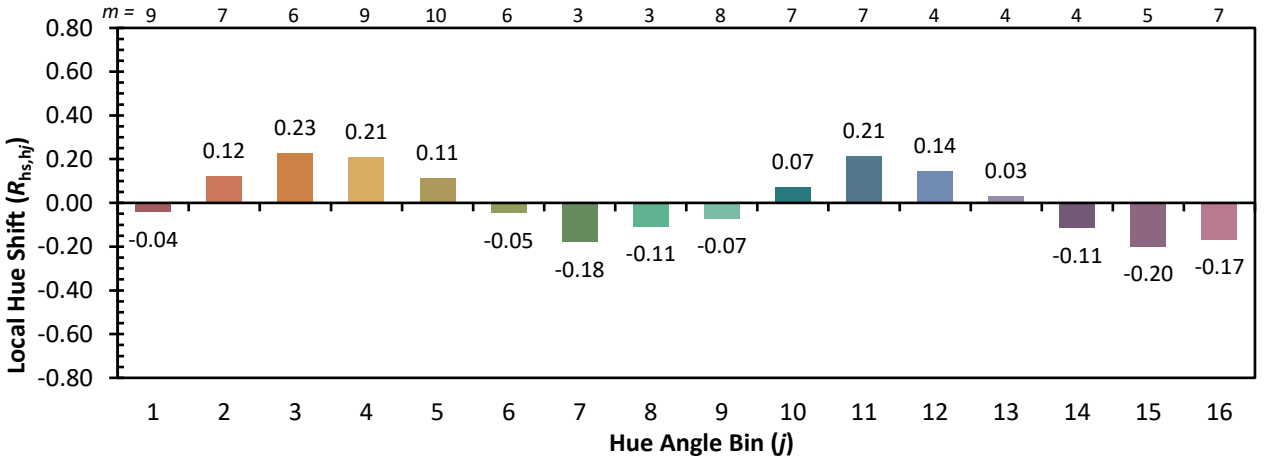
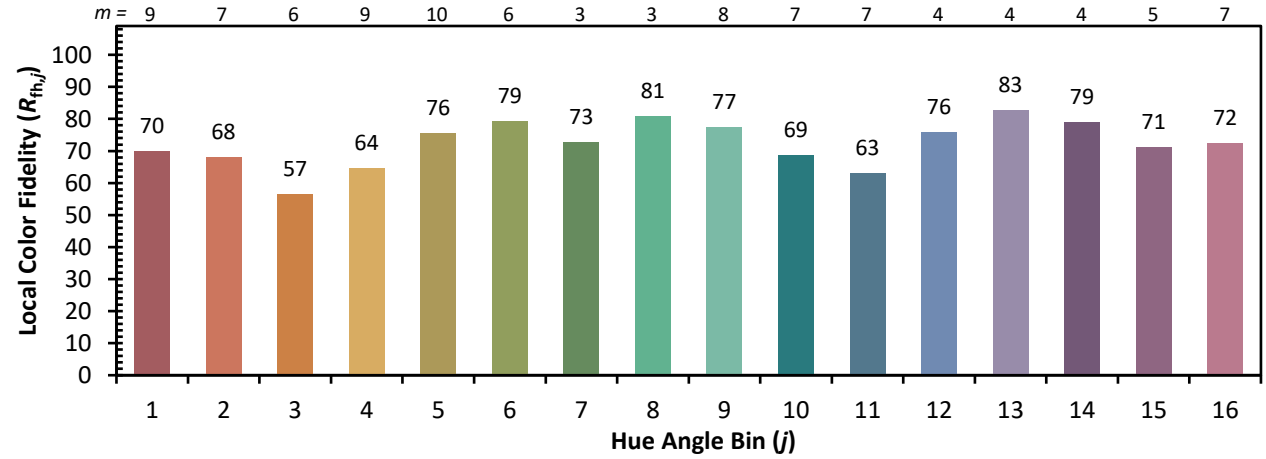
## Color Rendition by Hue-Angle Bin



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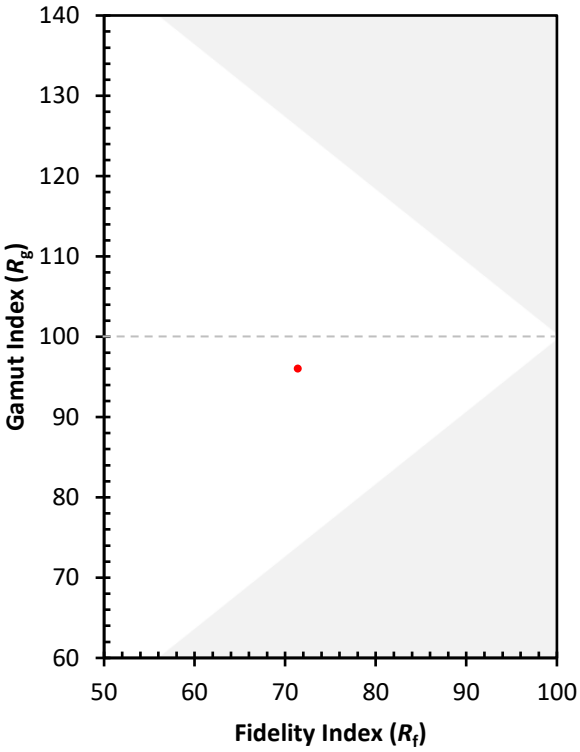
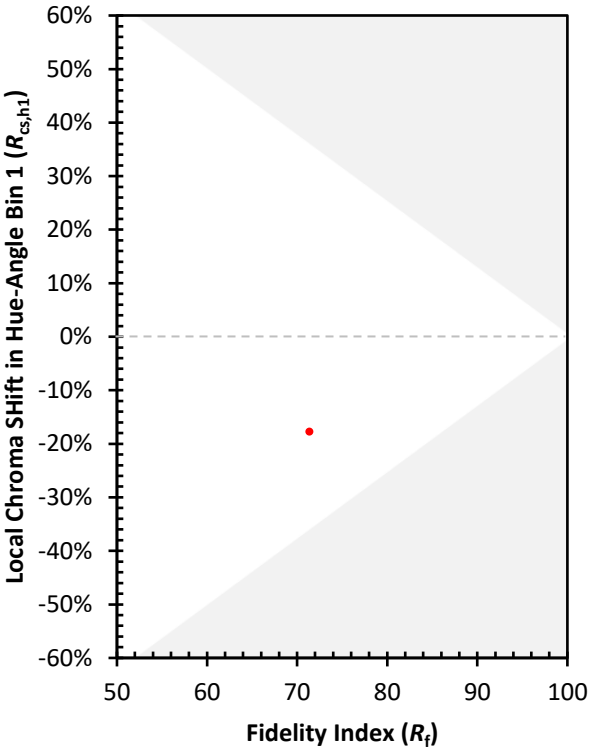
## Measure Comparisons

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