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: P1456493

Luminaire Tested: GLAN-SB5C-735-U-T3LG

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: | P1456493 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB5C-735-U-T3LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 5xLight Square PACKAGE 70CRI 3500K FIXTURE w/ TYPE III LOW GLARE |
| Light Source: | (130) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 36891.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 147.9 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B3 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 249.5 |
| 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: P1456493
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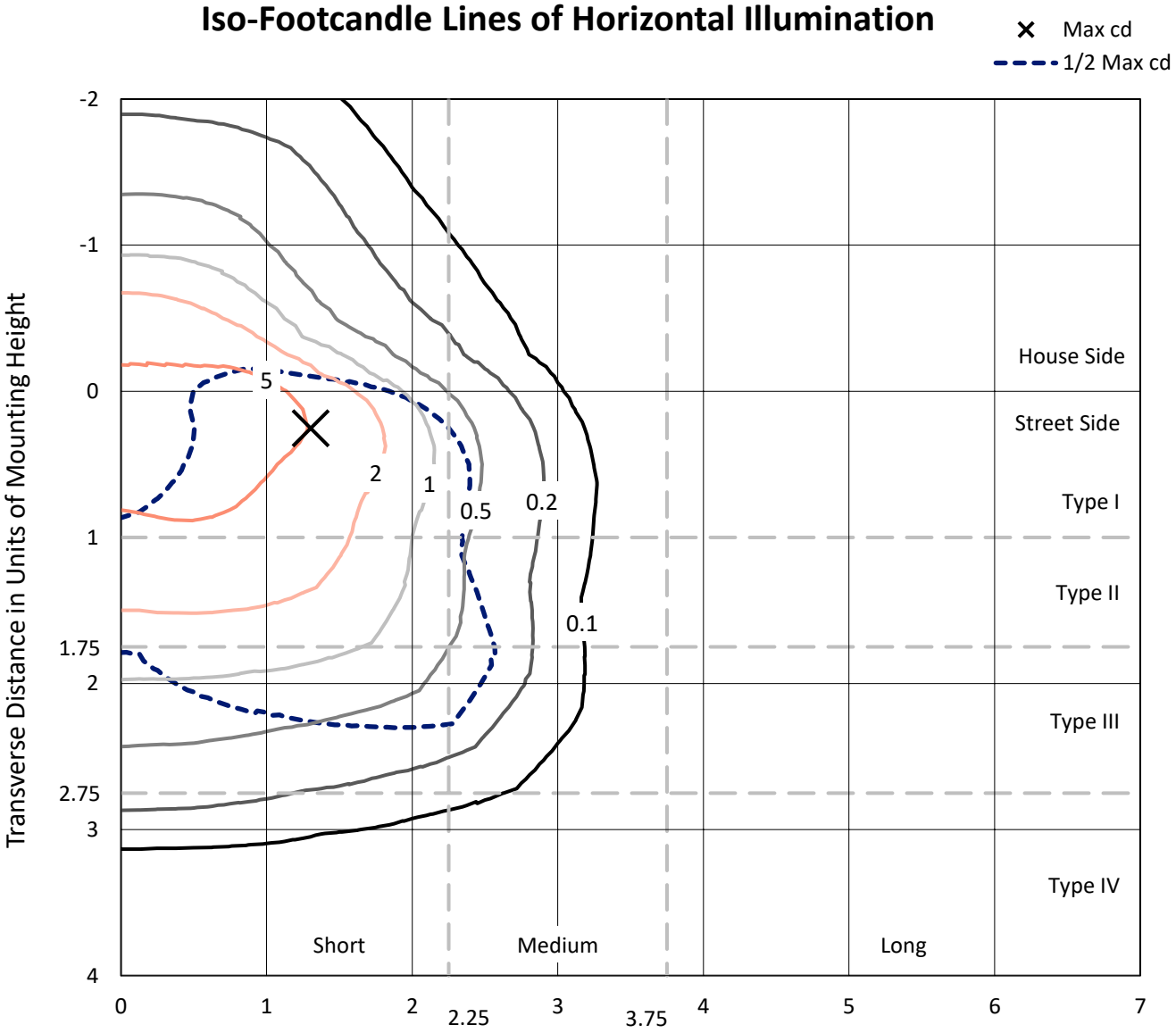
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 9.4 fc
Type III - Short - N/A

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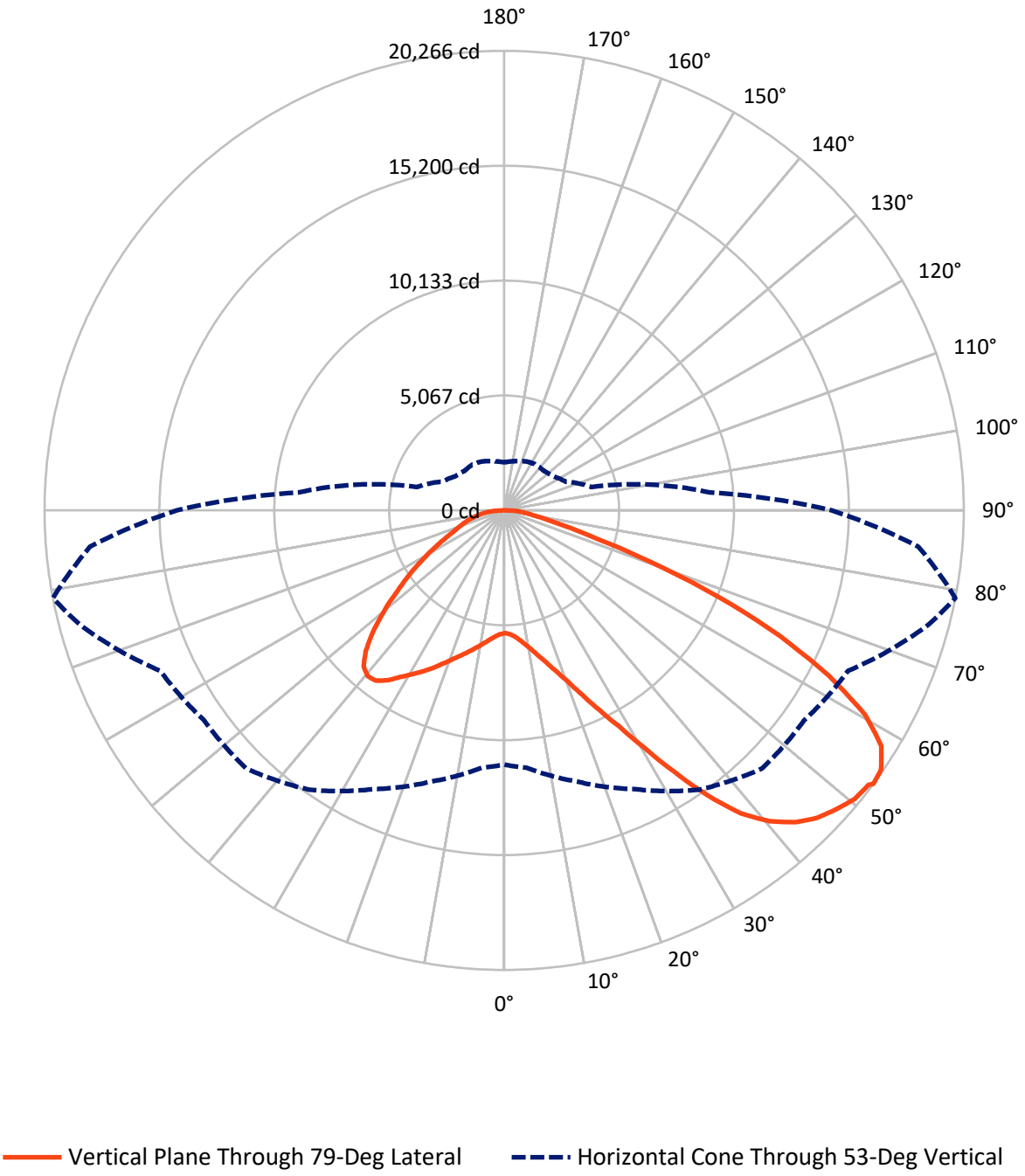
## Luminous Intensity Polar Plot



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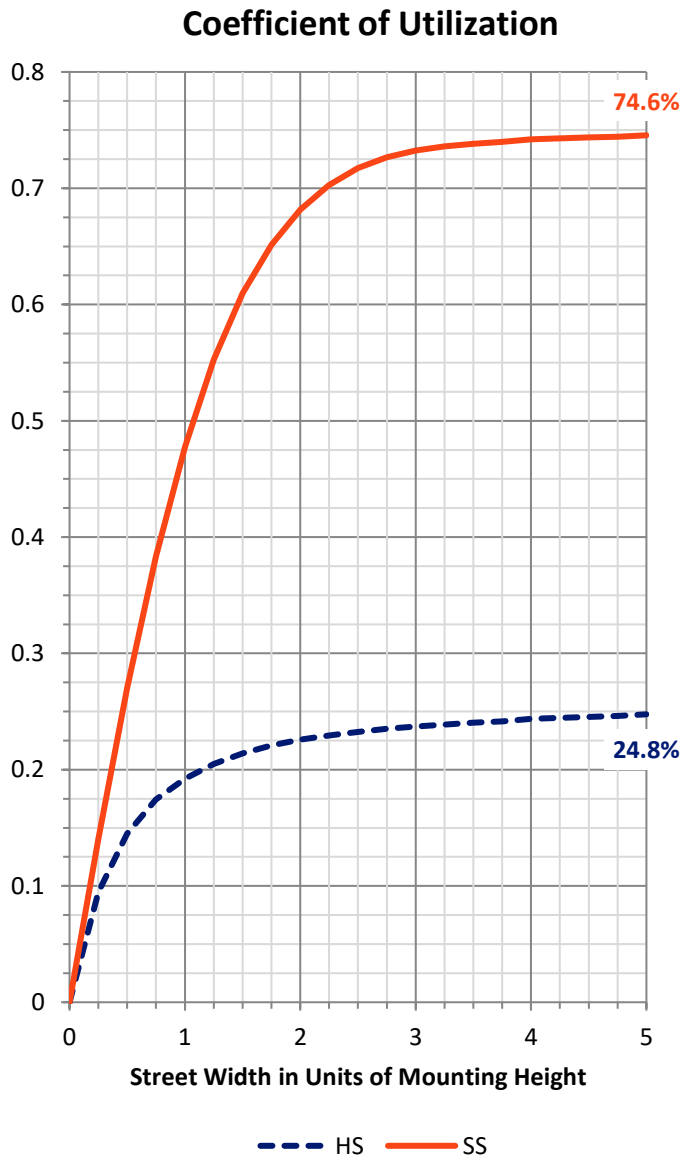
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 9300.1 | 0.0 | 9300.1 |
| | % Fixture | 25.2 | 0.0 | 25.2 |
| **Street Side** | Lumens | 27591.6 | 0.0 | 27591.6 |
| | % Fixture | 74.8 | 0.0 | 74.8 |
| **Total** | Lumens | 36891.8 | 0.0 | 36891.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 516.0 | 1.4 |
| 10°-20° | 1598.0 | 4.3 |
| 20°-30° | 3055.3 | 8.3 |
| 30°-40° | 5245.6 | 14.2 |
| 40°-50° | 7347.5 | 19.9 |
| 50°-60° | 8338.4 | 22.6 |
| 60°-70° | 7312.3 | 19.8 |
| 70°-80° | 2859.2 | 7.8 |
| 80°-90° | 619.5 | 1.7 |
| 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° | 36891.8 | 100.0 |
| 0°-180° | 36891.8 | 100.0 |



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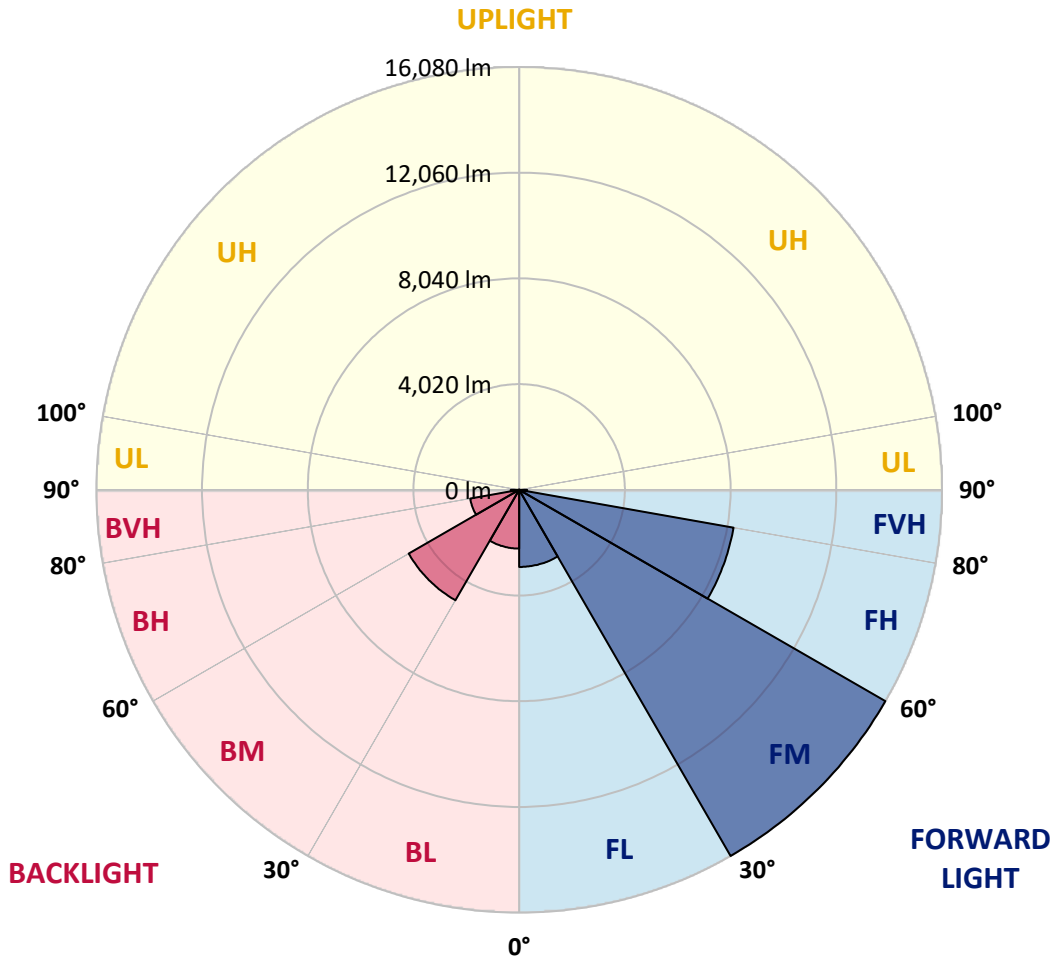
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2932.6 | 7.9 | | | |
| FM | (30°-60°) | 16079.8 | 43.6 | | | |
| FH | (60°-80°) | 8278.8 | 22.4 | | | G4/12000 |
| FVH | (80°-90°) | 300.5 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 2236.7 | 6.1 | B3/2500 | | |
| BM | (30°-60°) | 4851.7 | 13.2 | B3/5000 | | |
| BH | (60°-80°) | 1892.7 | 5.1 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 319.0 | 0.9 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

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



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REPORT NUMBER: P1456493
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | *5415.8* | 5415.8 |
| 2.5° | 5424.0 | 5424.0 | 5391.2 | 5424.0 | 5407.6 | 5432.2 | 5448.7 | 5448.7 | 5481.6 | *5473.3* | 5473.3 |
| 5° | 5333.6 | 5317.2 | 5309.0 | 5366.5 | 5399.4 | 5465.1 | 5539.1 | 5572.0 | 5629.5 | *5629.5* | 5637.7 |
| 7.5° | 5095.3 | 5087.1 | 5128.2 | 5243.2 | 5350.1 | 5514.4 | 5670.6 | 5761.0 | 5851.4 | *5867.8* | 5867.8 |
| 10° | 4947.4 | 4939.2 | 4988.5 | 5128.2 | 5300.8 | 5539.1 | 5785.6 | 5974.6 | 6122.6 | *6163.7* | 6163.7 |
| 12.5° | 4947.4 | 4947.4 | 4988.5 | 5128.2 | 5309.0 | 5596.6 | 5933.6 | 6254.1 | 6484.2 | *6533.5* | 6517.0 |
| 15° | 5087.1 | 5078.9 | 5128.2 | 5276.1 | 5448.7 | 5719.9 | 6130.8 | 6558.1 | 6870.4 | *6960.8* | 6969.1 |
| 17.5° | 5235.0 | 5226.8 | 5300.8 | 5489.8 | 5695.2 | 5966.4 | 6385.6 | 6911.5 | 7355.3 | *7470.4* | 7495.0 |
| 20° | 5465.1 | 5456.9 | 5547.3 | 5728.1 | 5982.9 | 6295.2 | 6730.7 | 7330.7 | 7947.0 | *8070.3* | 8103.2 |
| 22.5° | 5728.1 | 5736.3 | 5834.9 | 6056.8 | 6311.6 | 6722.5 | 7256.7 | 7922.4 | 8662.0 | *8851.0* | 8883.9 |
| 25° | 6278.7 | 6254.1 | 6336.2 | 6492.4 | 6763.6 | 7256.7 | 7914.1 | 8637.3 | 9516.7 | *9746.8* | 9787.9 |
| 27.5° | 7010.1 | 6969.1 | 7059.5 | 7215.6 | 7412.8 | 7873.1 | 8629.1 | 9434.5 | 10494.7 | *10782.3* | 10790.5 |
| 30° | 7667.6 | 7642.9 | 7766.2 | 8086.7 | 8292.2 | 8645.6 | 9451.0 | 10371.4 | 11702.7 | *12121.9* | 12138.3 |
| 32.5° | 8234.7 | 8226.4 | 8456.5 | 8867.5 | 9335.9 | 9713.9 | 10494.7 | 11554.8 | 13231.3 | *13716.2* | 13609.4 |
| 35° | 8777.1 | 8801.7 | 9089.4 | 9516.7 | 10141.3 | 10897.4 | 11686.3 | 12894.4 | 14842.1 | *15425.6* | 15253.0 |
| 37.5° | 9327.7 | 9344.1 | 9722.2 | 10272.8 | 10930.2 | 11916.4 | 12976.6 | 14349.0 | 16239.2 | *16962.4* | 16584.4 |
| 40° | 9837.2 | 9886.5 | 10396.0 | 10987.8 | 11842.5 | 12845.1 | 14028.5 | 15359.9 | 17315.8 | *18030.8* | 17619.9 |
| 42.5° | 10346.7 | 10420.7 | 10971.3 | 11784.9 | 12697.2 | 13740.9 | 14759.9 | 15976.2 | 18006.1 | *18803.3* | 18170.5 |
| 45° | 10872.7 | 10922.0 | 11604.1 | 12450.6 | 13486.1 | 14447.6 | 15179.1 | 16370.7 | 18482.8 | *19345.7* | 18482.8 |
| 47.5° | 11226.1 | 11324.7 | 12072.6 | 13050.5 | 14086.0 | 14990.0 | 15516.0 | 16535.1 | 18786.9 | *19699.1* | 18597.8 |
| 50° | 11365.8 | 11505.5 | 12310.9 | 13395.7 | 14579.1 | 15499.6 | 15779.0 | 16625.5 | 19123.8 | *20011.4* | 18573.2 |
| 52.5° | 11341.1 | 11472.6 | 12352.0 | 13551.8 | 14973.6 | 15968.0 | 16033.7 | 16724.1 | 19362.1 | *20118.2* | 18359.5 |
| 53° | *11209.7* | *11390.5* | *12376.6* | *13560.1* | *15031.1* | *16091.3* | *16148.8* | *16732.3* | *19395.0* | *20266.1* | *18326.6* |
| 55° | 10757.7 | 10856.3 | 12121.9 | 13551.8 | 15302.3 | 16551.5 | 16469.3 | 16978.8 | 19485.4 | *20167.5* | 17965.0 |
| 57.5° | 10346.7 | 10445.4 | 11546.6 | 13395.7 | 15524.2 | 17200.7 | 16987.1 | 16937.8 | 18992.3 | *19608.7* | 17052.8 |
| 60° | 10083.8 | 10116.6 | 11045.3 | 12902.6 | 15433.8 | 17652.7 | 17324.0 | 16452.9 | 17776.0 | *18285.5* | 15450.3 |
| 62.5° | 9861.9 | 9853.6 | 10675.5 | 12195.8 | 15088.7 | 17718.5 | 17389.8 | 15253.0 | 15992.7 | *16074.8* | 13313.5 |
| 65° | 9360.6 | 9303.0 | 10100.2 | 11398.7 | 14373.7 | 17422.6 | 16584.4 | 13436.8 | 13625.8 | *13354.6* | 10691.9 |
| 67.5° | 8366.1 | 8242.9 | 8949.6 | 10182.4 | 12919.0 | 16584.4 | 15047.6 | 11324.7 | 10741.2 | *10198.8* | 8053.9 |
| 70° | 5991.1 | 5991.1 | 6558.1 | 7790.9 | 10371.4 | 14332.6 | 12919.0 | 8571.6 | 7396.4 | *6911.5* | 5382.9 |
| 72.5° | 2933.9 | 3007.9 | 3599.6 | 4602.2 | 6952.6 | 10404.3 | 9894.7 | 5555.5 | 4487.1 | *4248.8* | 3451.7 |
| 75° | 1249.2 | 1257.4 | 1536.8 | 2038.1 | 3525.6 | 6155.4 | 6196.5 | 3205.1 | 2876.4 | *2761.3* | 2284.7 |
| 77.5° | 871.1 | 887.6 | 1010.8 | 1199.9 | 1676.5 | 2827.1 | 3221.5 | 1939.5 | 1931.3 | *1849.1* | 1627.2 |
| 80° | 665.7 | 682.1 | 764.3 | 895.8 | 1125.9 | 1446.4 | 1668.3 | 1314.9 | 1380.7 | *1298.5* | 1175.2 |
| 82.5° | 501.3 | 517.7 | 575.3 | 673.9 | 805.4 | 969.8 | 936.9 | 969.8 | 1019.1 | *969.8* | 846.5 |
| 85° | 336.9 | 345.2 | 386.3 | 468.4 | 517.7 | 583.5 | 583.5 | 706.8 | 739.6 | *723.2* | 665.7 |
| 87.5° | 172.6 | 172.6 | 205.5 | 246.5 | 263.0 | 271.2 | 238.3 | 312.3 | 353.4 | *386.3* | 312.3 |
| 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: P1456493
CATALOG NUMBER: GLAN-SB5C-735-U-T3LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 | 5415.8 |
| 2.5° | 5473.3 | 5481.6 | 5456.9 | 5448.7 | 5440.5 | 5399.4 | 5399.4 | 5358.3 | 5350.1 | 5358.3 | 5333.6 |
| 5° | 5654.1 | 5637.7 | 5572.0 | 5522.6 | 5465.1 | 5350.1 | 5284.3 | 5193.9 | 5169.3 | 5144.6 | 5120.0 |
| 7.5° | 5876.0 | 5851.4 | 5736.3 | 5604.8 | 5448.7 | 5226.8 | 5103.5 | 4955.6 | 4906.3 | 4865.2 | 4848.8 |
| 10° | 6155.4 | 6106.1 | 5925.3 | 5645.9 | 5358.3 | 5087.1 | 4914.5 | 4733.7 | 4651.5 | 4635.1 | 4594.0 |
| 12.5° | 6517.0 | 6426.6 | 6089.7 | 5654.1 | 5276.1 | 4922.7 | 4733.7 | 4594.0 | 4561.1 | 4552.9 | 4511.8 |
| 15° | 6919.7 | 6788.3 | 6245.8 | 5662.4 | 5169.3 | 4783.0 | 4667.9 | 4594.0 | 4594.0 | 4585.8 | 4561.1 |
| 17.5° | 7412.8 | 7199.2 | 6393.8 | 5629.5 | 5037.8 | 4741.9 | 4684.4 | 4618.6 | 4602.2 | 4610.4 | 4577.5 |
| 20° | 8004.5 | 7651.2 | 6549.9 | 5588.4 | 4980.2 | 4750.1 | 4684.4 | 4594.0 | 4552.9 | 4544.7 | 4520.0 |
| 22.5° | 8686.7 | 8168.9 | 6722.5 | 5522.6 | 4980.2 | 4741.9 | 4635.1 | 4511.8 | 4429.6 | 4396.7 | 4363.9 |
| 25° | 9467.4 | 8768.8 | 6903.3 | 5498.0 | 4996.7 | 4709.0 | 4536.5 | 4339.2 | 4207.7 | 4158.4 | 4133.8 |
| 27.5° | 10412.5 | 9401.6 | 7034.8 | 5522.6 | 4988.5 | 4635.1 | 4363.9 | 4109.1 | 3961.2 | 3879.0 | 3862.6 |
| 30° | 11456.2 | 10083.8 | 7125.2 | 5563.7 | 4939.2 | 4495.4 | 4158.4 | 3870.8 | 3665.3 | 3566.7 | 3542.1 |
| 32.5° | 12688.9 | 10848.1 | 7215.6 | 5563.7 | 4815.9 | 4298.1 | 3920.1 | 3607.8 | 3394.1 | 3279.1 | 3262.6 |
| 35° | 14053.2 | 11784.9 | 7297.8 | 5555.5 | 4667.9 | 4084.5 | 3681.8 | 3361.3 | 3139.4 | 3024.3 | 3016.1 |
| 37.5° | 15211.9 | 12491.7 | 7338.9 | 5473.3 | 4462.5 | 3837.9 | 3459.9 | 3139.4 | 2909.3 | 2786.0 | 2777.8 |
| 40° | 15926.9 | 12787.6 | 7256.7 | 5309.0 | 4215.9 | 3583.1 | 3213.3 | 2917.5 | 2687.4 | 2539.4 | 2506.6 |
| 42.5° | 16198.1 | 12647.8 | 6993.7 | 5037.8 | 3920.1 | 3328.4 | 3007.9 | 2695.6 | 2391.5 | 2268.2 | 2243.6 |
| 45° | 16107.7 | 12105.4 | 6434.9 | 4651.5 | 3591.4 | 3098.3 | 2827.1 | 2473.7 | 2276.4 | 2169.6 | 2161.4 |
| 47.5° | 15803.6 | 11267.2 | 5736.3 | 4166.6 | 3246.2 | 2892.8 | 2588.7 | 2416.2 | 2235.4 | 2120.3 | 2112.1 |
| 50° | 15269.5 | 10371.4 | 4898.1 | 3616.0 | 2933.9 | 2679.1 | 2531.2 | 2391.5 | 2243.6 | 2153.2 | 2136.7 |
| 52.5° | 14587.3 | 9360.6 | 4125.5 | 3081.8 | 2662.7 | 2490.1 | 2473.7 | 2375.1 | 2260.0 | 2161.4 | 2120.3 |
| 53° | *14431.2* | *9097.6* | *3977.6* | *2991.4* | *2621.6* | *2465.5* | *2457.2* | *2375.1* | *2243.6* | *2153.2* | *2120.3* |
| 55° | 13683.3 | 8284.0 | 3509.2 | 2670.9 | 2416.2 | 2383.3 | 2457.2 | 2366.8 | 2202.5 | 2128.5 | 2103.9 |
| 57.5° | 12483.5 | 7215.6 | 3057.2 | 2375.1 | 2202.5 | 2284.7 | 2432.6 | 2334.0 | 2153.2 | 2021.7 | 1980.6 |
| 60° | 11037.1 | 5991.1 | 2712.0 | 2177.8 | 2046.3 | 2161.4 | 2334.0 | 2218.9 | 1972.4 | 1906.6 | 1898.4 |
| 62.5° | 9311.2 | 4848.8 | 2449.0 | 2013.5 | 1914.8 | 2029.9 | 2186.0 | 1988.8 | 1808.0 | 1758.7 | 1742.3 |
| 65° | 7273.1 | 3854.3 | 2243.6 | 1890.2 | 1783.4 | 1873.8 | 1980.6 | 1857.3 | 1742.3 | 1701.2 | 1693.0 |
| 67.5° | 5407.6 | 3024.3 | 2079.2 | 1783.4 | 1651.9 | 1709.4 | 1832.7 | 1799.8 | 1701.2 | 1676.5 | 1668.3 |
| 70° | 3731.1 | 2457.2 | 1931.3 | 1684.7 | 1487.5 | 1553.2 | 1742.3 | 1766.9 | 1668.3 | 1651.9 | 1643.6 |
| 72.5° | 2613.4 | 2079.2 | 1775.1 | 1577.9 | 1356.0 | 1421.8 | 1701.2 | 1701.2 | 1594.3 | 1619.0 | 1602.6 |
| 75° | 1964.2 | 1750.5 | 1594.3 | 1446.4 | 1191.6 | 1290.3 | 1643.6 | 1627.2 | 1520.4 | 1627.2 | 1586.1 |
| 77.5° | 1479.3 | 1413.5 | 1380.7 | 1282.0 | 1043.7 | 1142.3 | 1528.6 | 1495.7 | 1356.0 | 1364.2 | 1290.3 |
| 80° | 1076.6 | 1093.0 | 1183.4 | 1093.0 | 871.1 | 945.1 | 1290.3 | 1273.8 | 1101.2 | 1134.1 | 1043.7 |
| 82.5° | 772.5 | 813.6 | 1010.8 | 879.3 | 632.8 | 673.9 | 887.6 | 961.5 | 862.9 | 813.6 | 830.0 |
| 85° | 583.5 | 608.1 | 813.6 | 649.2 | 394.5 | 443.8 | 608.1 | 690.3 | 673.9 | 624.6 | 632.8 |
| 87.5° | 246.5 | 279.4 | 378.0 | 304.1 | 230.1 | 230.1 | 378.0 | 484.9 | 435.6 | 369.8 | 386.3 |
| 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

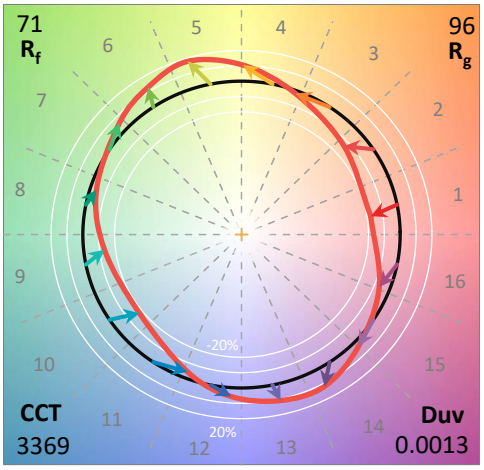
## Test Information

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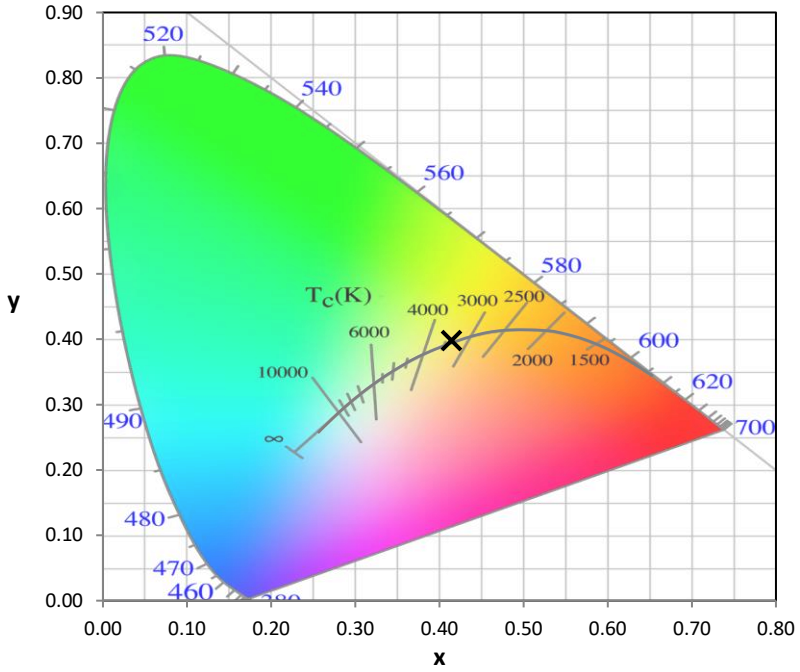
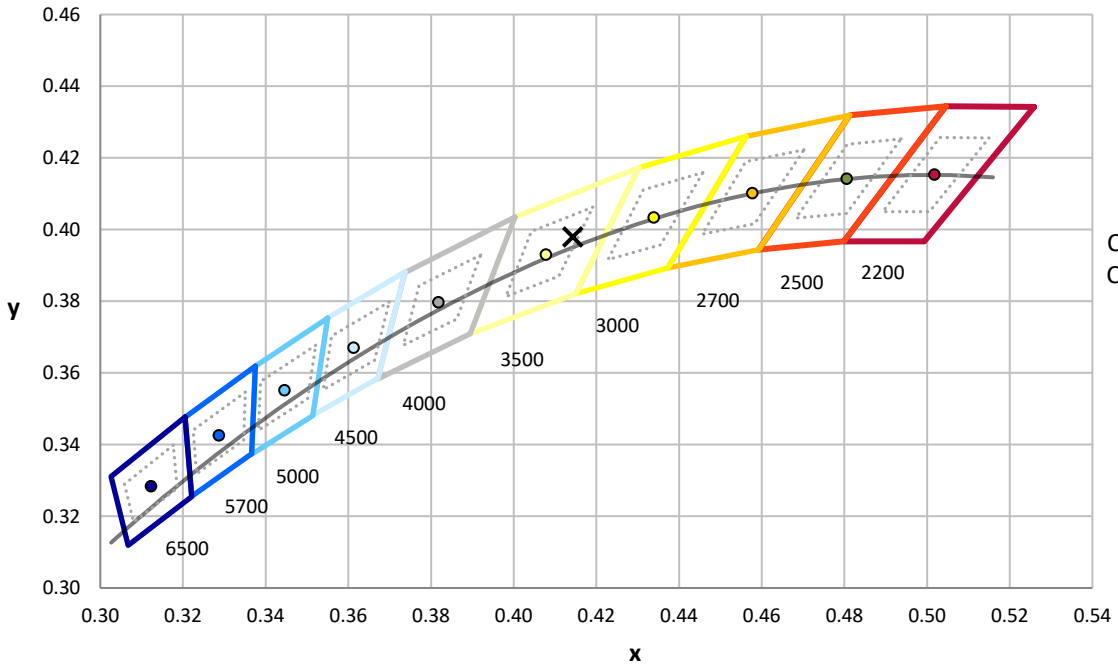
**CIE 1931 Chromaticity Diagram**




**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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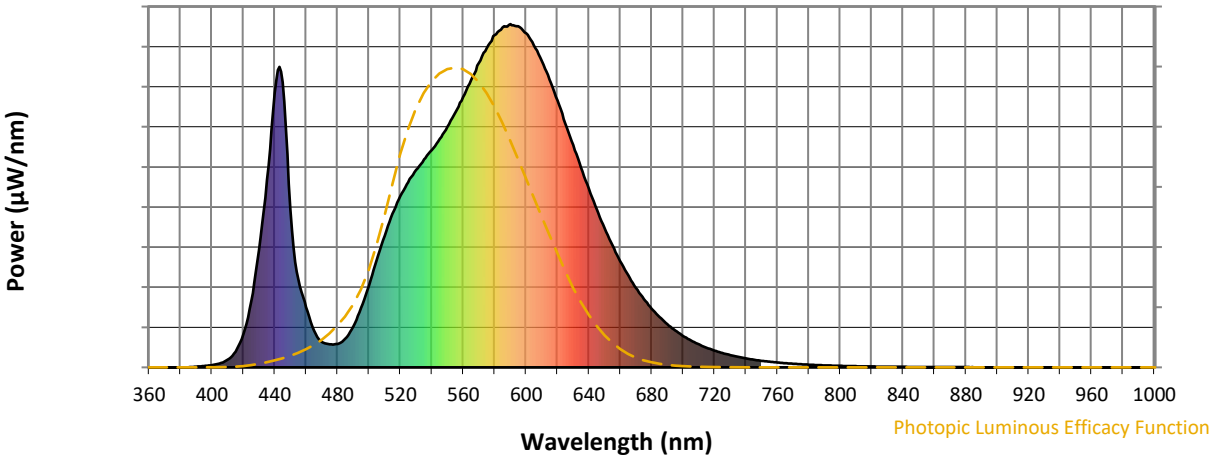
## Photopic Flux vs. Wavelength




## 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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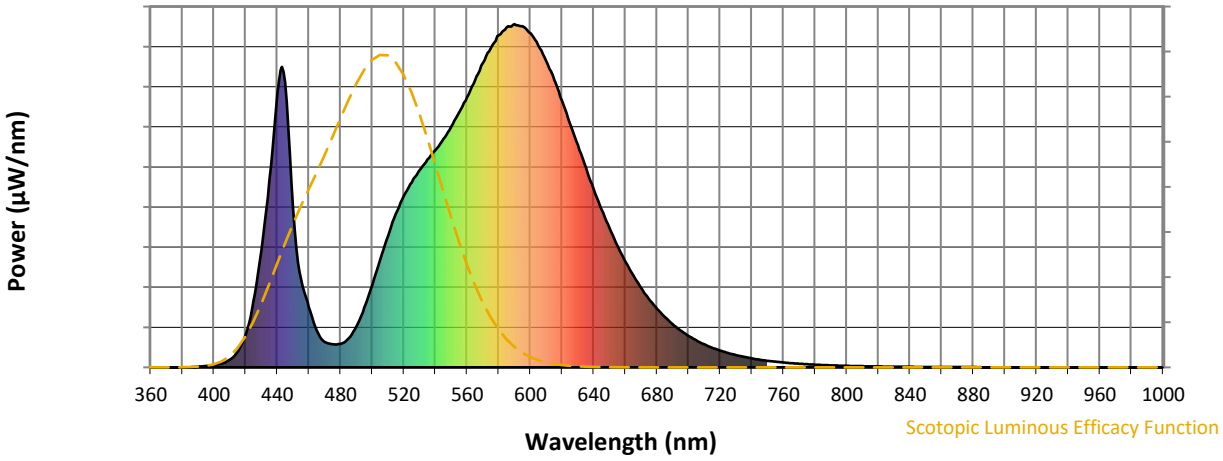
## Scotopic Flux vs. Wavelength




**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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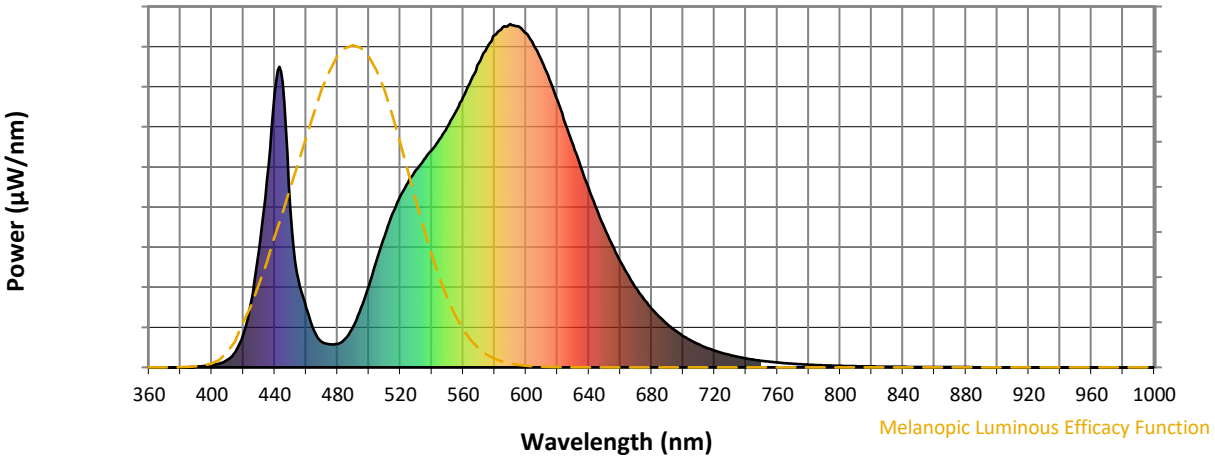
## Melanopic Flux vs. Wavelength




**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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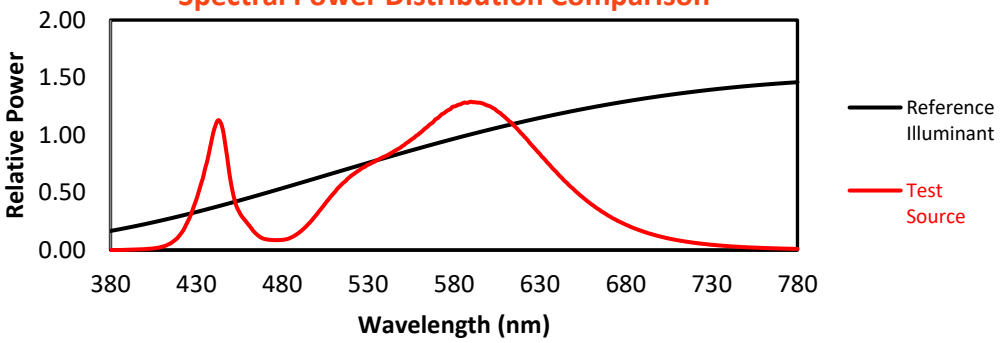
# TM-30-18

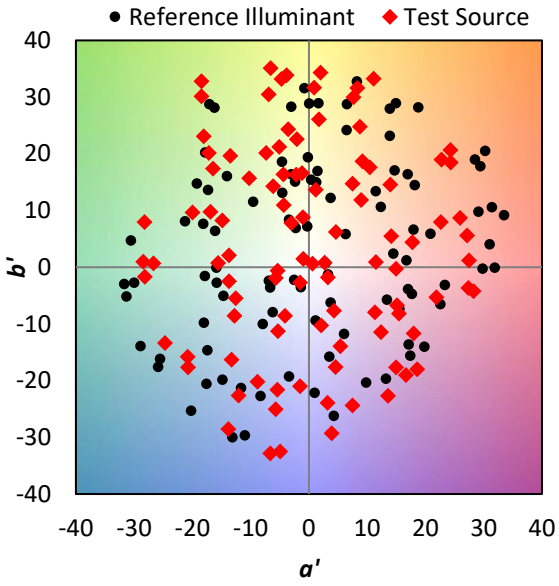
## Summary

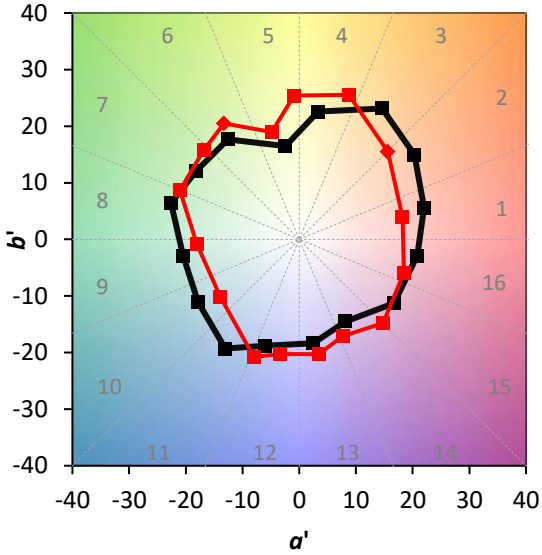
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

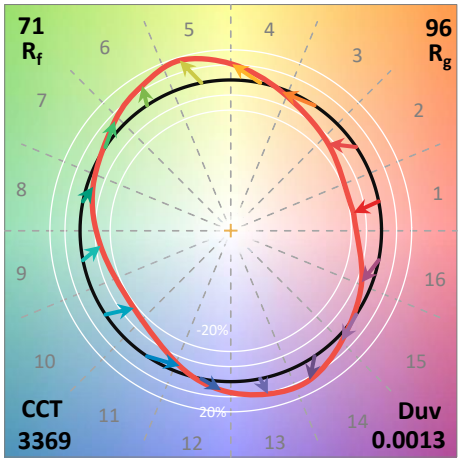
## Spectral Power Distribution Comparison

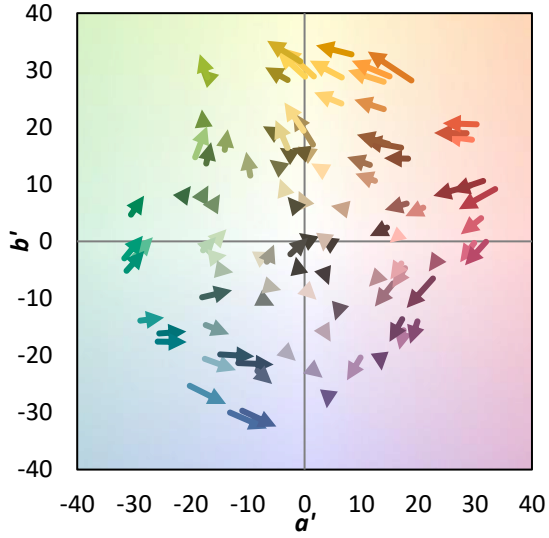



## Color Vector Graphics



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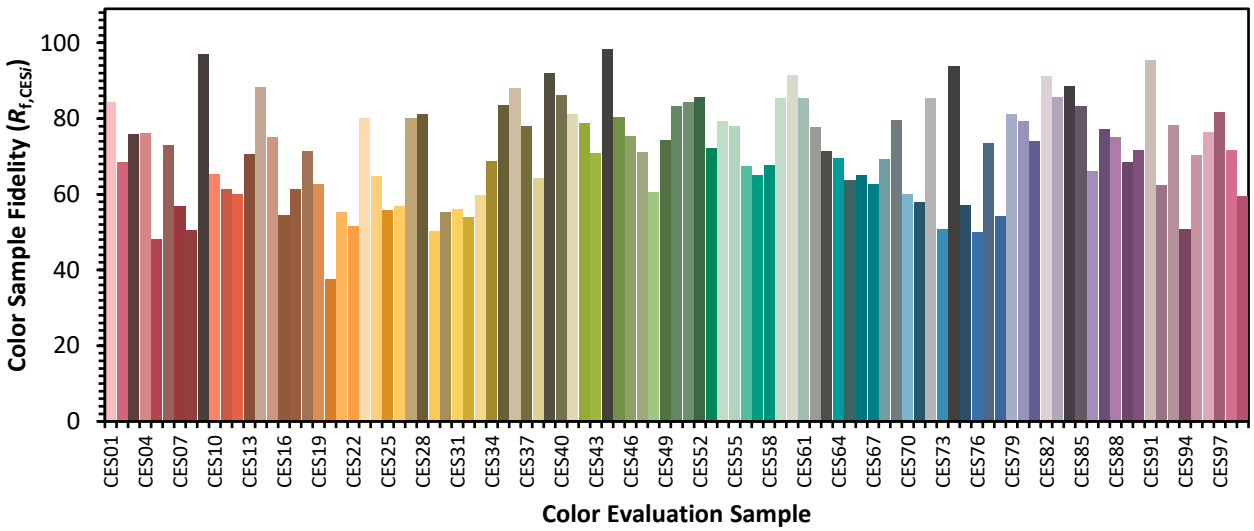
## Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|---|---|---|---|
| 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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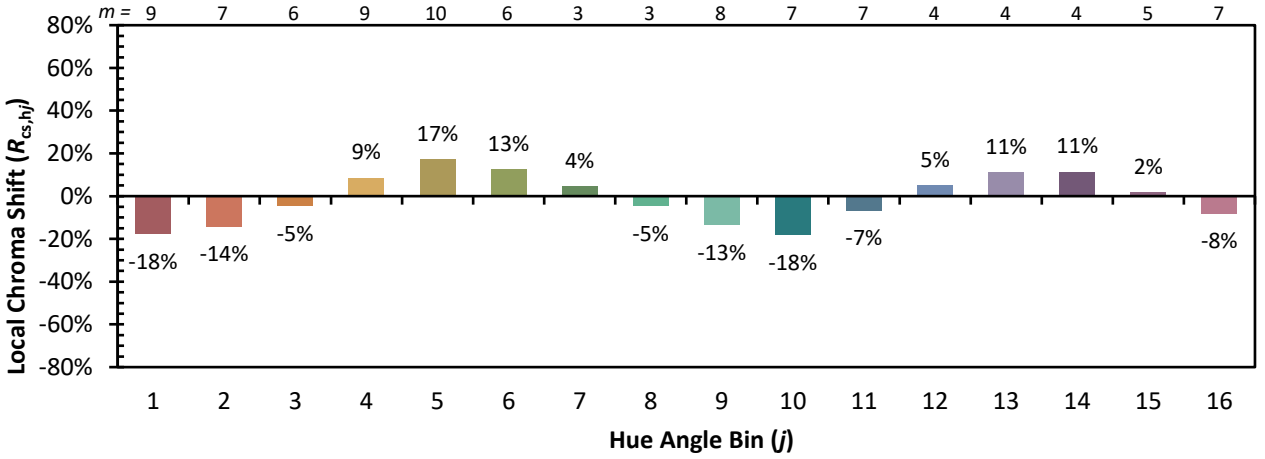
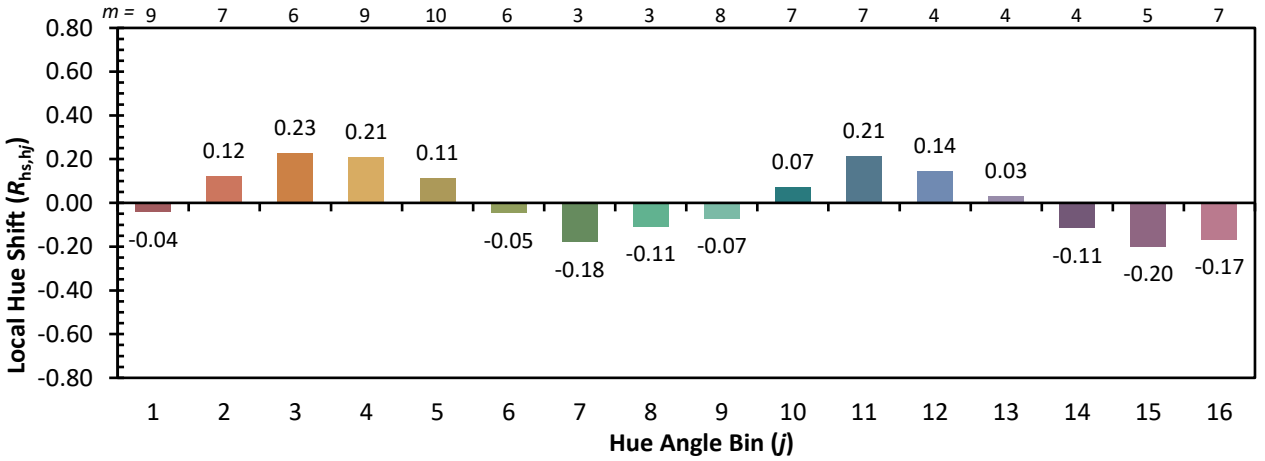
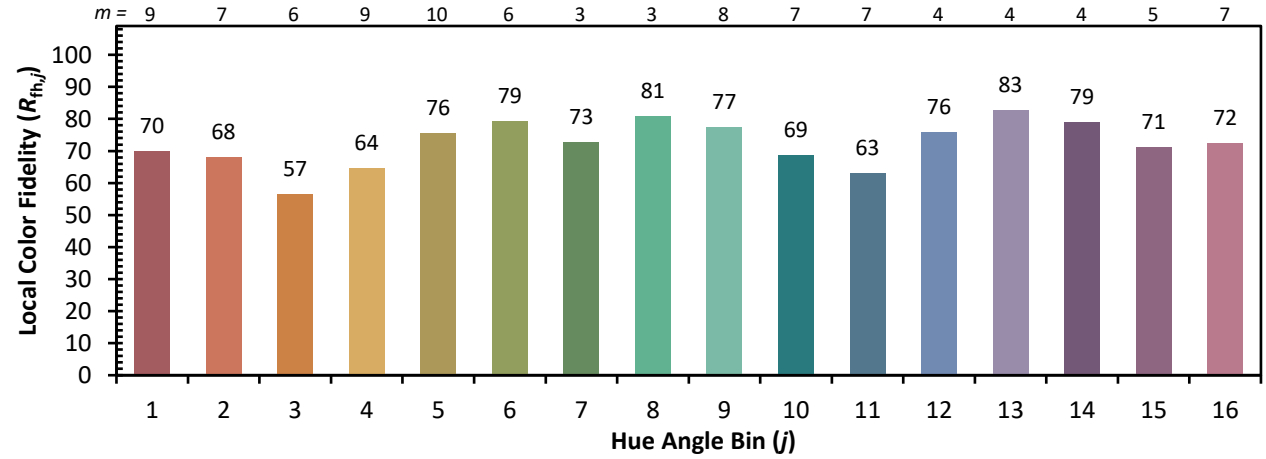
**TM-30-18**

## Color Rendition by Hue-Angle Bin



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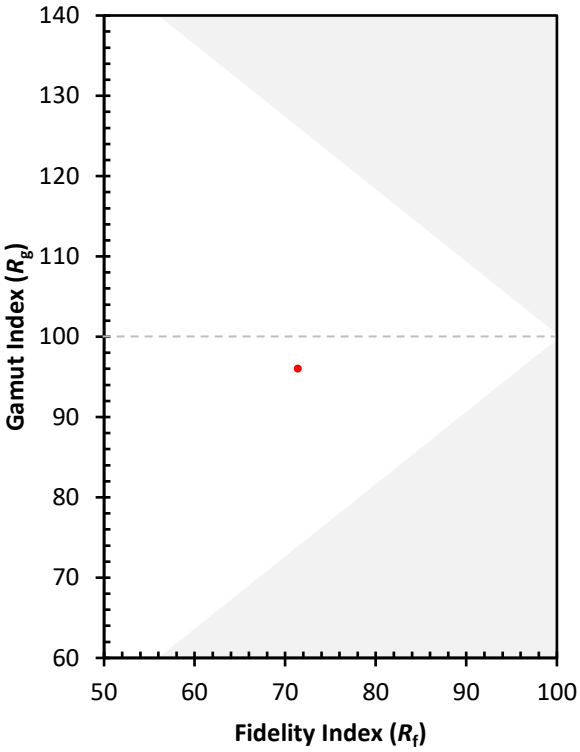
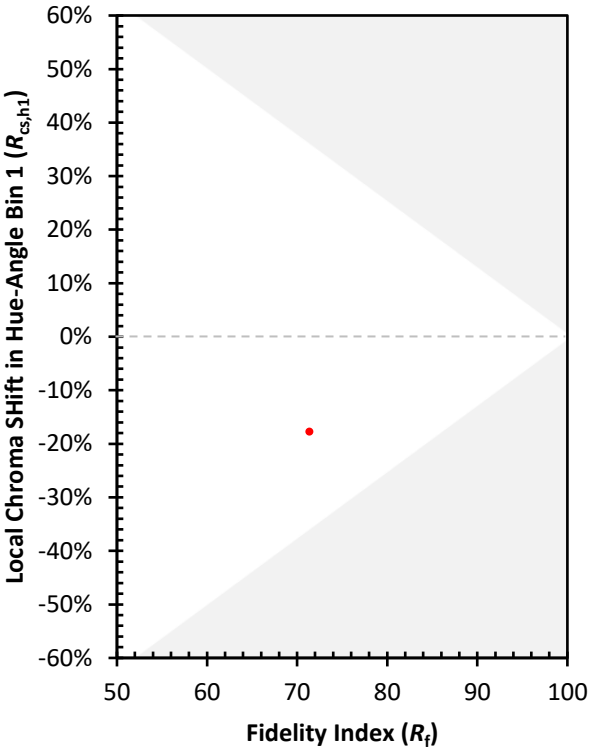
## Measure Comparisons




(END OF REPORT)