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: P1456793

Luminaire Tested: GLAN-SB8C-927-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: | P1456793 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB8C-927-U-T3LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 8xLight Square PACKAGE 90CRI 2700K FIXTURE w/ TYPE III LOW GLARE |
| Light Source: | (208) 2700K CCT, 90 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 35933.3 lumens |
| Efficiency: | N/A |
| Efficacy: | 89.9 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B3 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 399.8 |
| 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: P1456793
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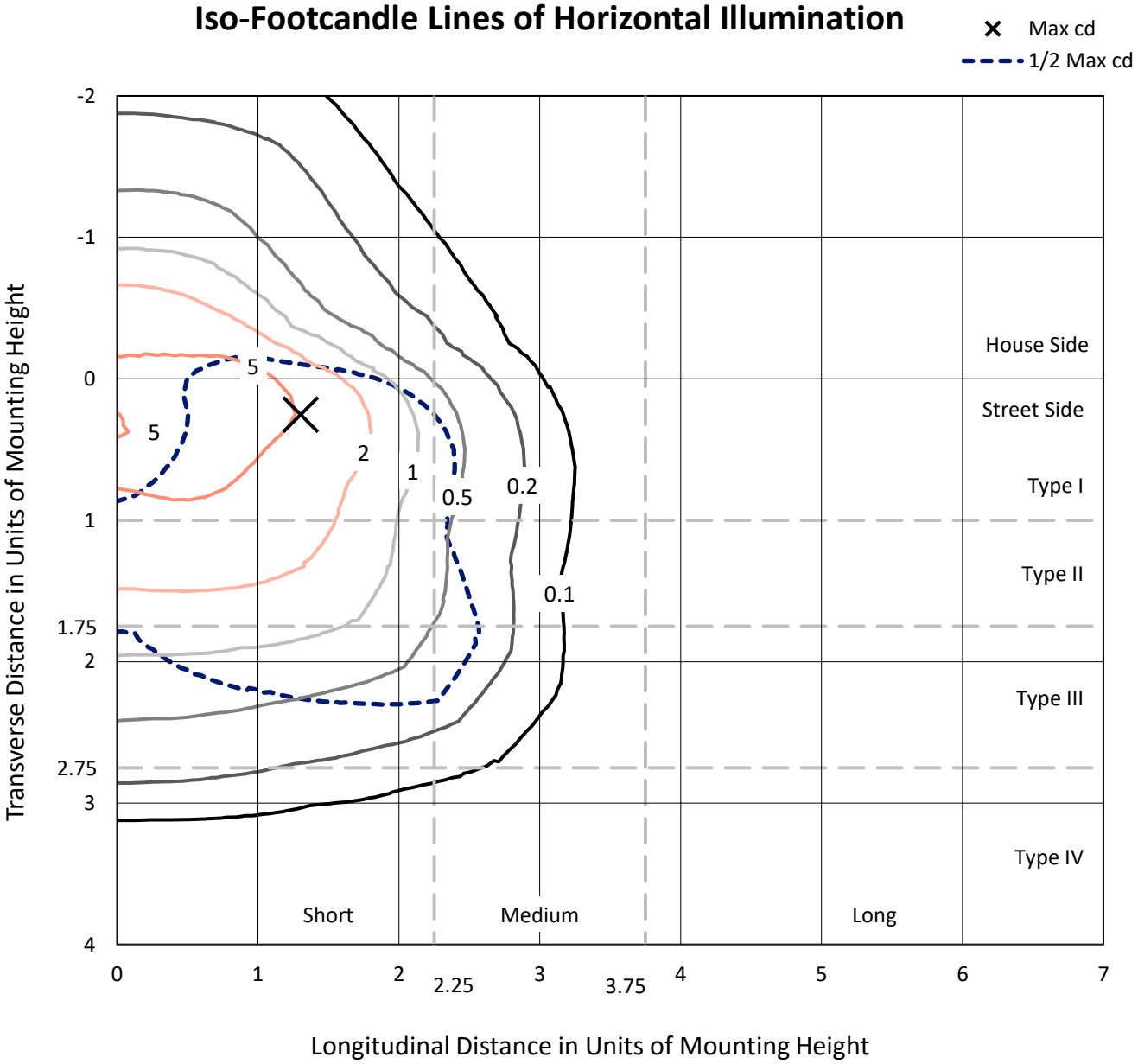
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 9.1 fc
Type III - Short - N/A

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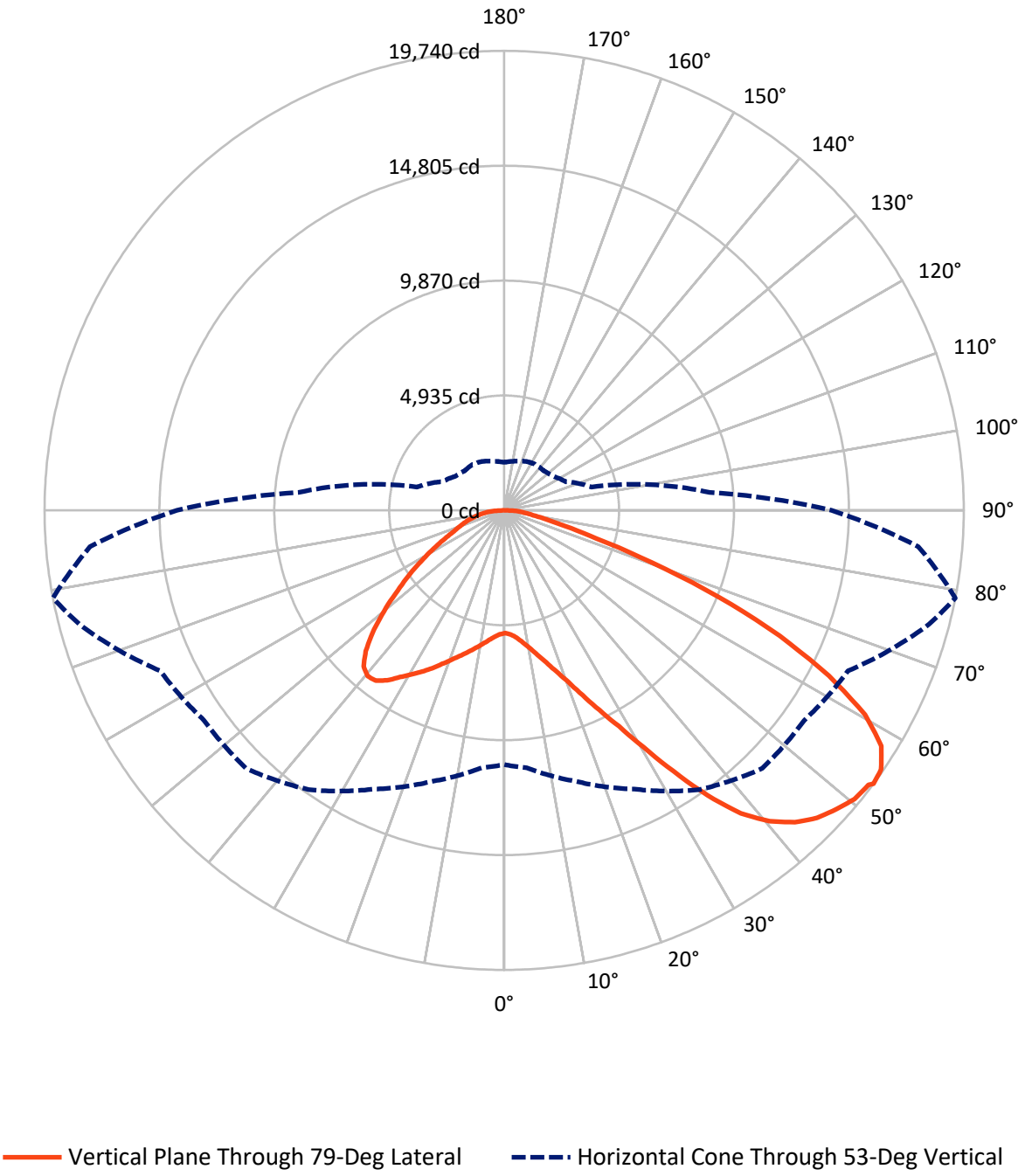
## Luminous Intensity Polar Plot



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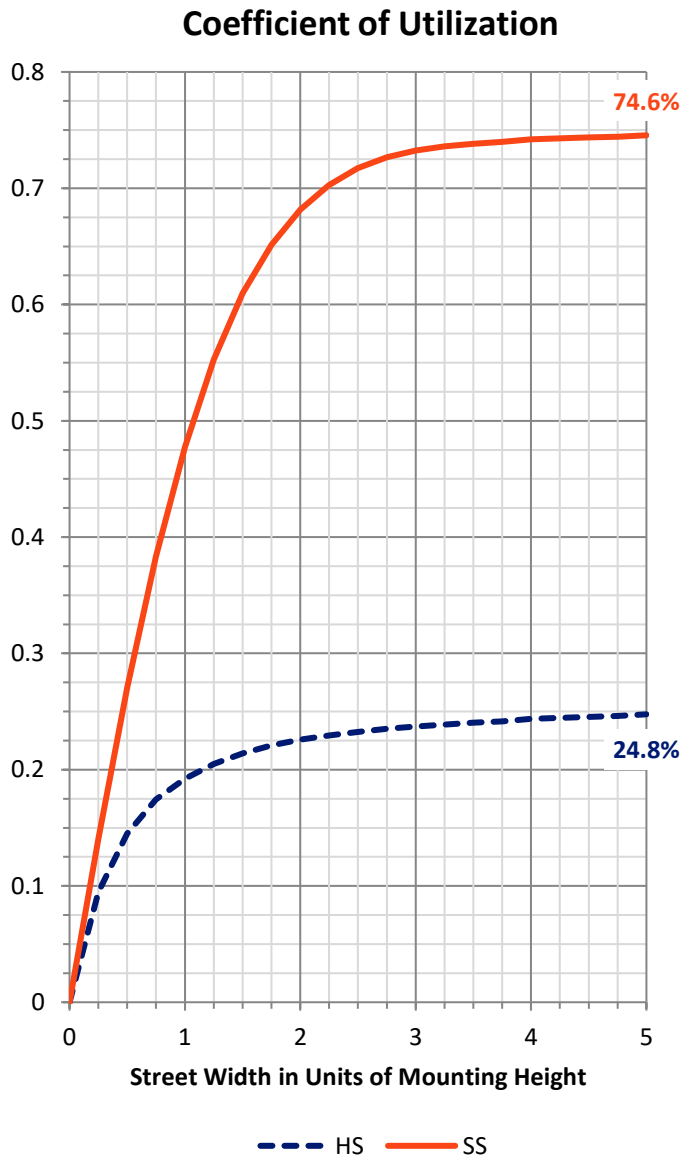
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 9058.5 | 0.0 | 9058.5 |
| | % Fixture | 25.2 | 0.0 | 25.2 |
| **Street Side** | Lumens | 26874.8 | 0.0 | 26874.8 |
| | % Fixture | 74.8 | 0.0 | 74.8 |
| **Total** | Lumens | 35933.3 | 0.0 | 35933.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 502.6 | 1.4 |
| 10°-20° | 1556.5 | 4.3 |
| 20°-30° | 2975.9 | 8.3 |
| 30°-40° | 5109.3 | 14.2 |
| 40°-50° | 7156.6 | 19.9 |
| 50°-60° | 8121.8 | 22.6 |
| 60°-70° | 7122.3 | 19.8 |
| 70°-80° | 2784.9 | 7.8 |
| 80°-90° | 603.4 | 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° | 35933.3 | 100.0 |
| 0°-180° | 35933.3 | 100.0 |



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REPORT NUMBER: P1456793
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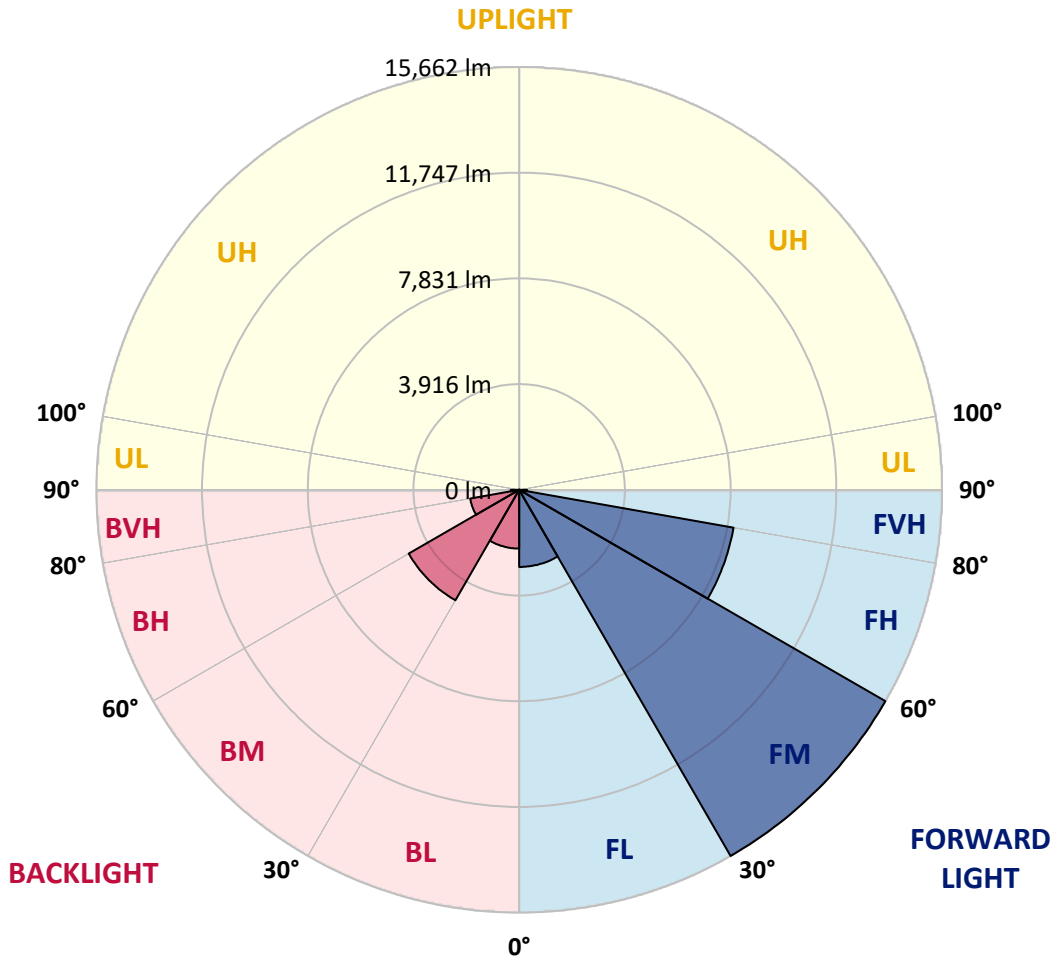
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2856.4 | 7.9 | | | |
| FM | (30°-60°) | 15662.1 | 43.6 | | | |
| FH | (60°-80°) | 8063.7 | 22.4 | | | G4/12000 |
| FVH | (80°-90°) | 292.7 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 2178.6 | 6.1 | B3/2500 | | |
| BM | (30°-60°) | 4725.6 | 13.2 | B3/5000 | | |
| BH | (60°-80°) | 1843.6 | 5.1 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 310.7 | 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: P1456793
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | *5275.1* | 5275.1 |
| 2.5° | 5283.1 | 5283.1 | 5251.1 | 5283.1 | 5267.1 | 5291.1 | 5307.1 | 5307.1 | 5339.1 | *5331.1* | 5331.1 |
| 5° | 5195.1 | 5179.0 | 5171.0 | 5227.1 | 5259.1 | 5323.1 | 5395.2 | 5427.2 | 5483.2 | *5483.2* | 5491.2 |
| 7.5° | 4962.9 | 4954.9 | 4994.9 | 5107.0 | 5211.1 | 5371.2 | 5523.3 | 5611.3 | 5699.4 | *5715.4* | 5715.4 |
| 10° | 4818.8 | 4810.8 | 4858.9 | 4994.9 | 5163.0 | 5395.2 | 5635.3 | 5819.4 | 5963.5 | *6003.5* | 6003.5 |
| 12.5° | 4818.8 | 4818.8 | 4858.9 | 4994.9 | 5171.0 | 5451.2 | 5779.4 | 6091.6 | 6315.7 | *6363.7* | 6347.7 |
| 15° | 4954.9 | 4946.9 | 4994.9 | 5139.0 | 5307.1 | 5571.3 | 5971.5 | 6387.8 | 6691.9 | *6780.0* | 6788.0 |
| 17.5° | 5099.0 | 5091.0 | 5163.0 | 5347.1 | 5547.3 | 5811.4 | 6219.7 | 6732.0 | 7164.2 | *7276.3* | 7300.3 |
| 20° | 5323.1 | 5315.1 | 5403.2 | 5579.3 | 5827.4 | 6131.6 | 6555.9 | 7140.2 | 7740.6 | *7860.6* | 7892.6 |
| 22.5° | 5579.3 | 5587.3 | 5683.3 | 5899.5 | 6147.6 | 6547.9 | 7068.2 | 7716.5 | 8437.0 | *8621.1* | 8653.1 |
| 25° | 6115.6 | 6091.6 | 6171.6 | 6323.7 | 6587.9 | 7068.2 | 7708.5 | 8413.0 | 9269.5 | *9493.6* | 9533.6 |
| 27.5° | 6828.0 | 6788.0 | 6876.0 | 7028.1 | 7220.2 | 7668.5 | 8404.9 | 9189.4 | 10222.0 | *10502.2* | 10510.2 |
| 30° | 7468.4 | 7444.4 | 7564.5 | 7876.6 | 8076.8 | 8421.0 | 9205.4 | 10101.9 | 11398.7 | *11806.9* | 11823.0 |
| 32.5° | 8020.7 | 8012.7 | 8236.8 | 8637.1 | 9093.4 | 9461.6 | 10222.0 | 11254.6 | 12887.6 | *13359.9* | 13255.8 |
| 35° | 8549.0 | 8573.0 | 8853.2 | 9269.5 | 9877.8 | 10614.2 | 11382.7 | 12559.4 | 14456.5 | *15024.8* | 14856.7 |
| 37.5° | 9085.3 | 9101.4 | 9469.6 | 10005.9 | 10646.3 | 11606.8 | 12639.4 | 13976.2 | 15817.3 | *16521.7* | 16153.5 |
| 40° | 9581.6 | 9629.7 | 10126.0 | 10702.3 | 11534.8 | 12511.4 | 13664.0 | 14960.8 | 16865.9 | *17562.3* | 17162.1 |
| 42.5° | 10077.9 | 10150.0 | 10686.3 | 11478.8 | 12367.3 | 13383.9 | 14376.5 | 15561.2 | 17538.3 | *18314.8* | 17698.4 |
| 45° | 10590.2 | 10638.3 | 11302.7 | 12127.1 | 13135.7 | 14072.3 | 14784.7 | 15945.4 | 18002.6 | *18843.1* | 18002.6 |
| 47.5° | 10934.4 | 11030.5 | 11758.9 | 12711.5 | 13720.1 | 14600.6 | 15112.9 | 16105.5 | 18298.8 | *19187.3* | 18114.7 |
| 50° | 11070.5 | 11206.6 | 11991.1 | 13047.7 | 14200.4 | 15096.9 | 15369.0 | 16193.5 | 18627.0 | *19491.5* | 18090.6 |
| 52.5° | 11046.5 | 11174.6 | 12031.1 | 13199.8 | 14584.6 | 15553.2 | 15617.2 | 16289.6 | 18859.1 | *19595.5* | 17882.5 |
| 53° | *10918.4* | *11094.5* | *12055.1* | *13207.8* | *14640.6* | *15673.2* | *15729.3* | *16297.6* | *18891.1* | *19739.6* | *17850.5* |
| 55° | 10478.2 | 10574.2 | 11806.9 | 13199.8 | 14904.8 | 16121.5 | 16041.4 | 16537.7 | 18979.2 | *19643.6* | 17498.3 |
| 57.5° | 10077.9 | 10174.0 | 11246.6 | 13047.7 | 15120.9 | 16753.9 | 16545.7 | 16497.7 | 18498.9 | *19099.2* | 16609.8 |
| 60° | 9821.8 | 9853.8 | 10758.3 | 12567.4 | 15032.8 | 17194.1 | 16873.9 | 16025.4 | 17314.2 | *17810.5* | 15048.9 |
| 62.5° | 9605.7 | 9597.6 | 10398.1 | 11879.0 | 14696.6 | 17258.2 | 16938.0 | 14856.7 | 15577.2 | *15657.2* | 12967.6 |
| 65° | 9117.4 | 9061.3 | 9837.8 | 11102.5 | 14000.2 | 16970.0 | 16153.5 | 13087.7 | 13271.8 | *13007.7* | 10414.1 |
| 67.5° | 8148.8 | 8028.7 | 8717.1 | 9917.8 | 12583.4 | 16153.5 | 14656.6 | 11030.5 | 10462.2 | *9933.8* | 7844.6 |
| 70° | 5835.4 | 5835.4 | 6387.8 | 7588.5 | 10101.9 | 13960.2 | 12583.4 | 8348.9 | 7204.2 | *6732.0* | 5243.1 |
| 72.5° | 2857.7 | 2929.7 | 3506.1 | 4482.6 | 6772.0 | 10134.0 | 9637.7 | 5411.2 | 4370.6 | *4138.4* | 3362.0 |
| 75° | 1216.7 | 1224.7 | 1496.9 | 1985.2 | 3434.0 | 5995.5 | 6035.6 | 3121.8 | 2801.6 | *2689.6* | 2225.3 |
| 77.5° | 848.5 | 864.5 | 984.6 | 1168.7 | 1633.0 | 2753.6 | 3137.8 | 1889.1 | 1881.1 | *1801.1* | 1584.9 |
| 80° | 648.4 | 664.4 | 744.4 | 872.5 | 1096.6 | 1408.8 | 1625.0 | 1280.8 | 1344.8 | *1264.7* | 1144.7 |
| 82.5° | 488.3 | 504.3 | 560.3 | 656.4 | 784.5 | 944.6 | 912.5 | 944.6 | 992.6 | *944.6* | 824.5 |
| 85° | 328.2 | 336.2 | 376.2 | 456.3 | 504.3 | 568.3 | 568.3 | 688.4 | 720.4 | *704.4* | 648.4 |
| 87.5° | 168.1 | 168.1 | 200.1 | 240.1 | 256.2 | 264.2 | 232.1 | 304.2 | 344.2 | *376.2* | 304.2 |
| 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: P1456793
CATALOG NUMBER: GLAN-SB8C-927-U-T3LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 | 5275.1 |
| 2.5° | 5331.1 | 5339.1 | 5315.1 | 5307.1 | 5299.1 | 5259.1 | 5259.1 | 5219.1 | 5211.1 | 5219.1 | 5195.1 |
| 5° | 5507.2 | 5491.2 | 5427.2 | 5379.2 | 5323.1 | 5211.1 | 5147.0 | 5059.0 | 5035.0 | 5010.9 | 4986.9 |
| 7.5° | 5723.4 | 5699.4 | 5587.3 | 5459.2 | 5307.1 | 5091.0 | 4970.9 | 4826.8 | 4778.8 | 4738.8 | 4722.8 |
| 10° | 5995.5 | 5947.5 | 5771.4 | 5499.2 | 5219.1 | 4954.9 | 4786.8 | 4610.7 | 4530.7 | 4514.7 | 4474.6 |
| 12.5° | 6347.7 | 6259.7 | 5931.5 | 5507.2 | 5139.0 | 4794.8 | 4610.7 | 4474.6 | 4442.6 | 4434.6 | 4394.6 |
| 15° | 6740.0 | 6611.9 | 6083.6 | 5515.2 | 5035.0 | 4658.7 | 4546.7 | 4474.6 | 4474.6 | 4466.6 | 4442.6 |
| 17.5° | 7220.2 | 7012.1 | 6227.7 | 5483.2 | 4906.9 | 4618.7 | 4562.7 | 4498.6 | 4482.6 | 4490.6 | 4458.6 |
| 20° | 7796.6 | 7452.4 | 6379.8 | 5443.2 | 4850.9 | 4626.7 | 4562.7 | 4474.6 | 4434.6 | 4426.6 | 4402.6 |
| 22.5° | 8461.0 | 7956.7 | 6547.9 | 5379.2 | 4850.9 | 4618.7 | 4514.7 | 4394.6 | 4314.5 | 4282.5 | 4250.5 |
| 25° | 9221.4 | 8541.0 | 6724.0 | 5355.2 | 4866.9 | 4586.7 | 4418.6 | 4226.5 | 4098.4 | 4050.4 | 4026.4 |
| 27.5° | 10142.0 | 9157.4 | 6852.0 | 5379.2 | 4858.9 | 4514.7 | 4250.5 | 4002.4 | 3858.3 | 3778.2 | 3762.2 |
| 30° | 11158.6 | 9821.8 | 6940.1 | 5419.2 | 4810.8 | 4378.6 | 4050.4 | 3770.2 | 3570.1 | 3474.0 | 3450.0 |
| 32.5° | 12359.3 | 10566.2 | 7028.1 | 5419.2 | 4690.8 | 4186.5 | 3818.2 | 3514.1 | 3305.9 | 3193.9 | 3177.9 |
| 35° | 13688.1 | 11478.8 | 7108.2 | 5411.2 | 4546.7 | 3978.3 | 3586.1 | 3273.9 | 3057.8 | 2945.7 | 2937.7 |
| 37.5° | 14816.7 | 12167.2 | 7148.2 | 5331.1 | 4346.6 | 3738.2 | 3370.0 | 3057.8 | 2833.7 | 2713.6 | 2705.6 |
| 40° | 15513.1 | 12455.3 | 7068.2 | 5171.0 | 4106.4 | 3490.1 | 3129.8 | 2841.7 | 2617.5 | 2473.5 | 2441.4 |
| 42.5° | 15777.3 | 12319.2 | 6812.0 | 4906.9 | 3818.2 | 3241.9 | 2929.7 | 2625.5 | 2329.4 | 2209.3 | 2185.3 |
| 45° | 15689.2 | 11790.9 | 6267.7 | 4530.7 | 3498.1 | 3017.8 | 2753.6 | 2409.4 | 2217.3 | 2113.2 | 2105.2 |
| 47.5° | 15393.1 | 10974.5 | 5587.3 | 4058.4 | 3161.9 | 2817.7 | 2521.5 | 2353.4 | 2177.3 | 2065.2 | 2057.2 |
| 50° | 14872.8 | 10101.9 | 4770.8 | 3522.1 | 2857.7 | 2609.5 | 2465.5 | 2329.4 | 2185.3 | 2097.2 | 2081.2 |
| 52.5° | 14208.4 | 9117.4 | 4018.4 | 3001.8 | 2593.5 | 2425.4 | 2409.4 | 2313.4 | 2201.3 | 2105.2 | 2065.2 |
| 53° | *14056.3* | *8861.2* | *3874.3* | *2913.7* | *2553.5* | *2401.4* | *2393.4* | *2313.4* | *2185.3* | *2097.2* | *2065.2* |
| 55° | 13327.8 | 8068.7 | 3418.0 | 2601.5 | 2353.4 | 2321.4 | 2393.4 | 2305.4 | 2145.3 | 2073.2 | 2049.2 |
| 57.5° | 12159.2 | 7028.1 | 2977.8 | 2313.4 | 2145.3 | 2225.3 | 2369.4 | 2273.3 | 2097.2 | 1969.2 | 1929.1 |
| 60° | 10750.3 | 5835.4 | 2641.6 | 2121.2 | 1993.2 | 2105.2 | 2273.3 | 2161.3 | 1921.1 | 1857.1 | 1849.1 |
| 62.5° | 9069.3 | 4722.8 | 2385.4 | 1961.2 | 1865.1 | 1977.2 | 2129.3 | 1937.1 | 1761.0 | 1713.0 | 1697.0 |
| 65° | 7084.2 | 3754.2 | 2185.3 | 1841.1 | 1737.0 | 1825.1 | 1929.1 | 1809.1 | 1697.0 | 1657.0 | 1649.0 |
| 67.5° | 5267.1 | 2945.7 | 2025.2 | 1737.0 | 1608.9 | 1665.0 | 1785.1 | 1753.0 | 1657.0 | 1633.0 | 1625.0 |
| 70° | 3634.1 | 2393.4 | 1881.1 | 1641.0 | 1448.9 | 1512.9 | 1697.0 | 1721.0 | 1625.0 | 1608.9 | 1600.9 |
| 72.5° | 2545.5 | 2025.2 | 1729.0 | 1536.9 | 1320.8 | 1384.8 | 1657.0 | 1657.0 | 1552.9 | 1576.9 | 1560.9 |
| 75° | 1913.1 | 1705.0 | 1552.9 | 1408.8 | 1160.7 | 1256.7 | 1600.9 | 1584.9 | 1480.9 | 1584.9 | 1544.9 |
| 77.5° | 1440.8 | 1376.8 | 1344.8 | 1248.7 | 1016.6 | 1112.7 | 1488.9 | 1456.9 | 1320.8 | 1328.8 | 1256.7 |
| 80° | 1048.6 | 1064.6 | 1152.7 | 1064.6 | 848.5 | 920.5 | 1256.7 | 1240.7 | 1072.6 | 1104.7 | 1016.6 |
| 82.5° | 752.4 | 792.5 | 984.6 | 856.5 | 616.4 | 656.4 | 864.5 | 936.6 | 840.5 | 792.5 | 808.5 |
| 85° | 568.3 | 592.3 | 792.5 | 632.4 | 384.2 | 432.3 | 592.3 | 672.4 | 656.4 | 608.4 | 616.4 |
| 87.5° | 240.1 | 272.2 | 368.2 | 296.2 | 224.1 | 224.1 | 368.2 | 472.3 | 424.2 | 360.2 | 376.2 |
| 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: SP1-2407-184-13

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-927-U-5WQ

Data in this report applies to families of products including GSS-SB1A-927-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

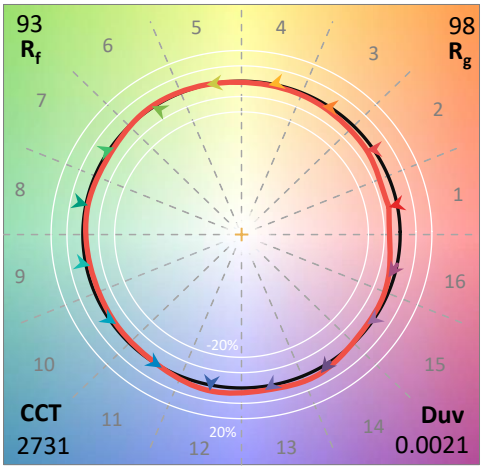
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-13 |
| 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-927-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 2700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2731 |
| CIE u': | 0.2605 |
| CIE v': | 0.5298 |
| Duv: | 0.0021 |
| CIE x: | 0.4610 |
| CIE y: | 0.4166 |
| CIE z: | 0.1224 |
| Peak Wavelength (nm): | 622 |
| Dominant Wavelength (nm): | 583 |
| Purity: | 63.43685 |
| Rf: | 92.6 |
| Rg: | 98 |

| | | | | | |
|---|---|---|---|---|---|
| CRI (Ra): | 91.8 | | | | |
| R1: | 91.4 | R9: | 54.7 | | |
| R2: | 95.1 | R10: | 87.7 | | |
| R3: | 97.6 | R11: | 92.9 | | |
| R4: | 92.3 | R12: | 84.0 | | |
| R5: | 91.1 | R13: | 92.2 | | |
| R6: | 94.7 | R14: | 97.8 | | |
| R7: | 92.3 | R15: | 86.8 | | |
| R8: | 80.0 | | | | |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | M |
| Operation Time: | 1H 0M |
| 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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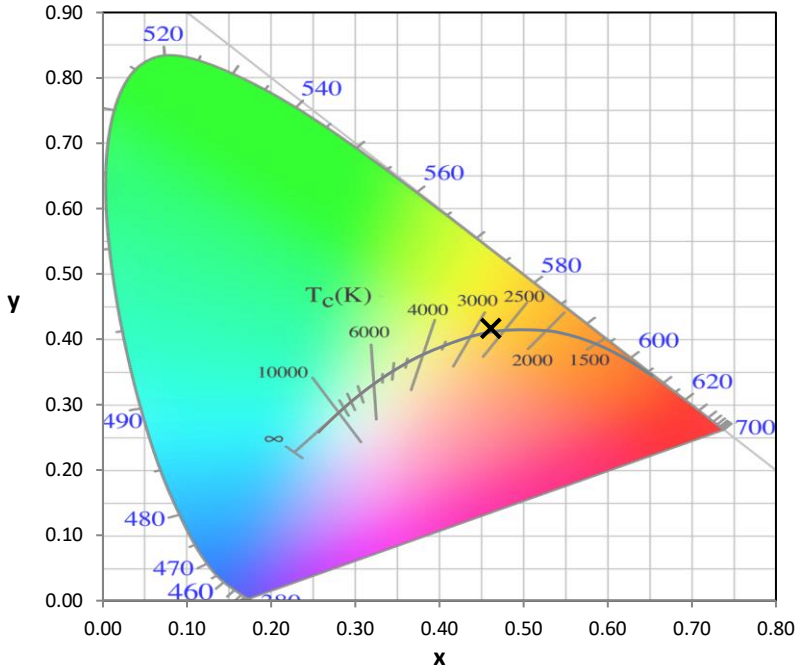
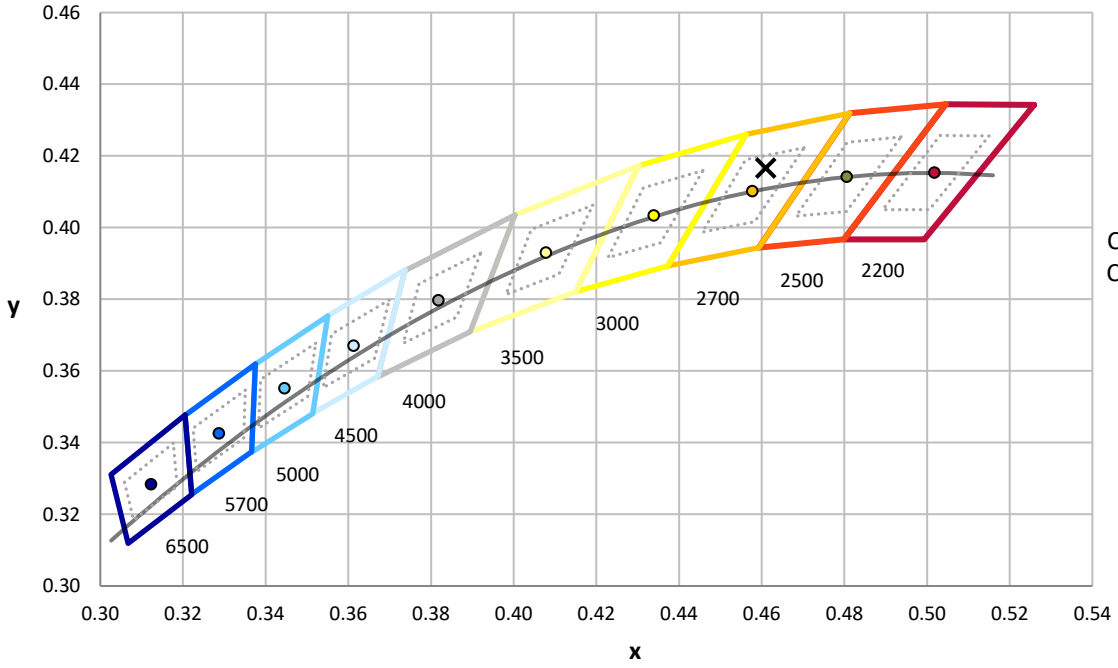
## CIE 1931 Chromaticity Diagram




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




CCT = 2731K
CIE x = 0.4610
CIE y = 0.4166
Duv = 0.0021

Point lies inside the ANSI 2700K 4-step quadrangle

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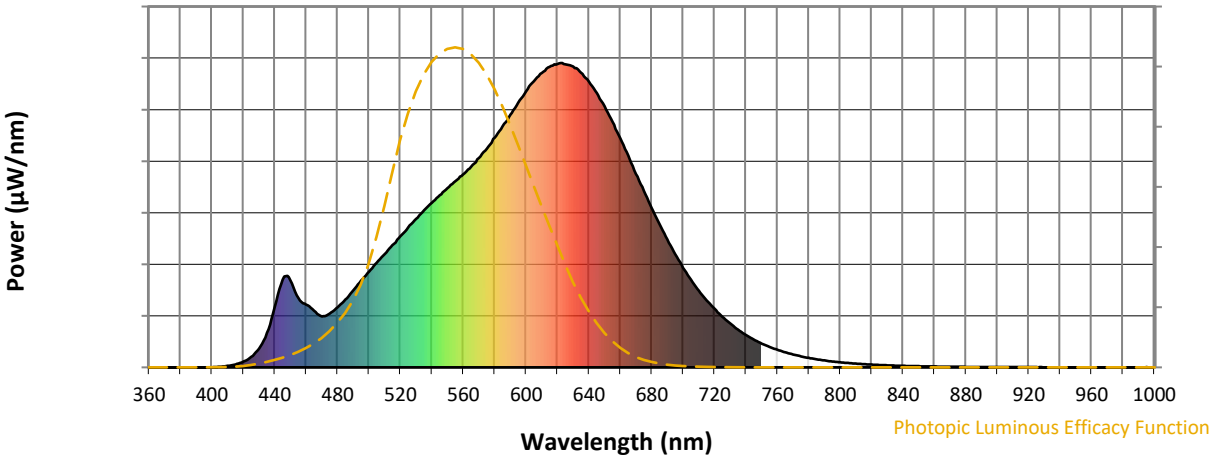
## Photopic Flux vs. Wavelength




## 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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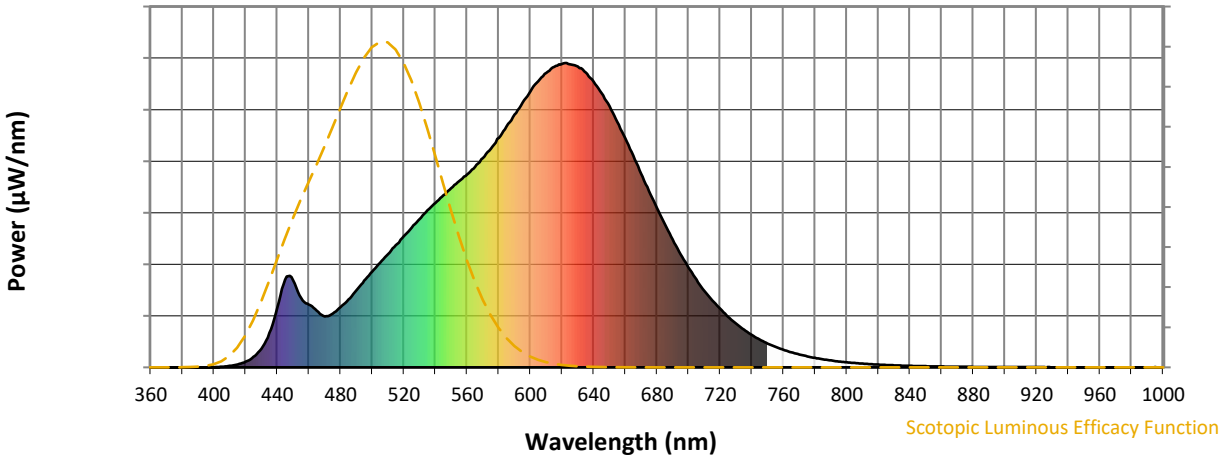
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.27**

| 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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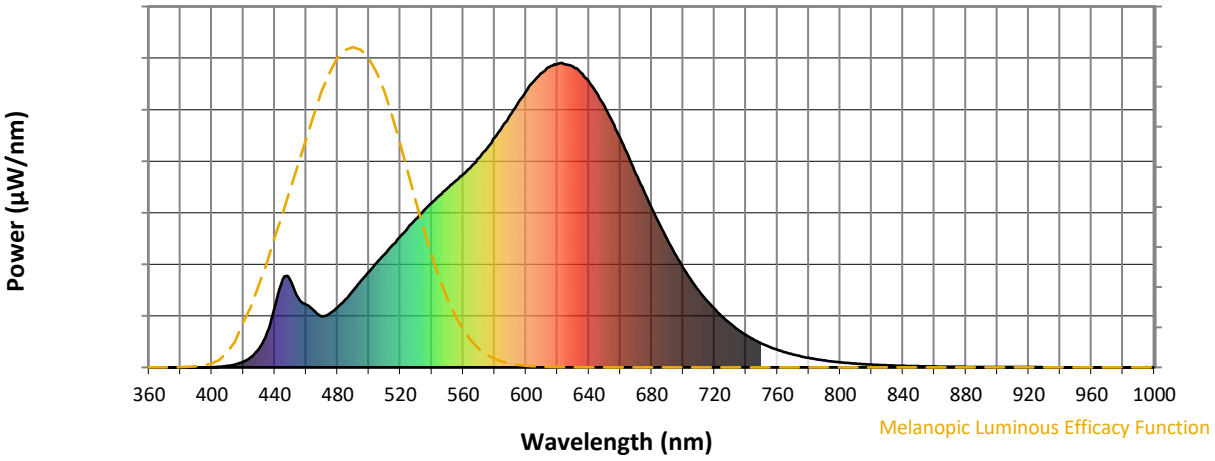
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.38**

| 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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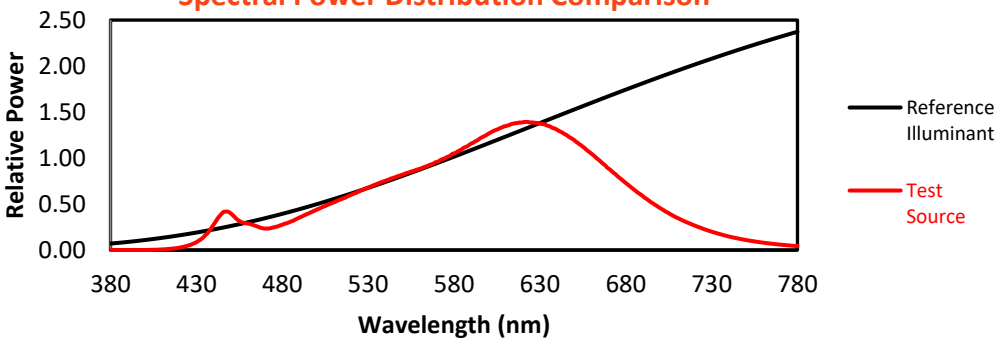
# TM-30-18

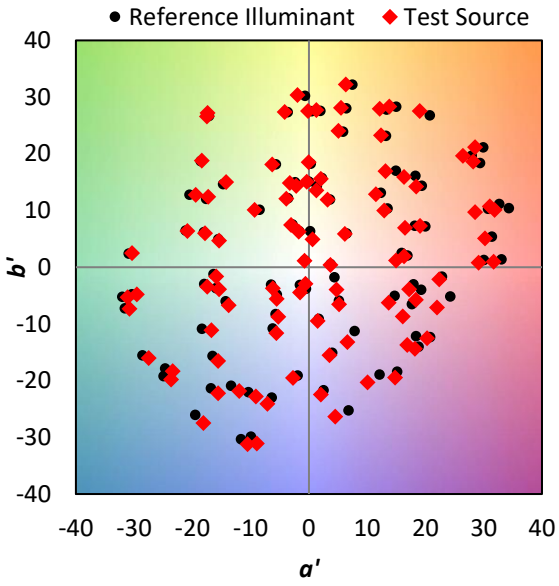
## Summary

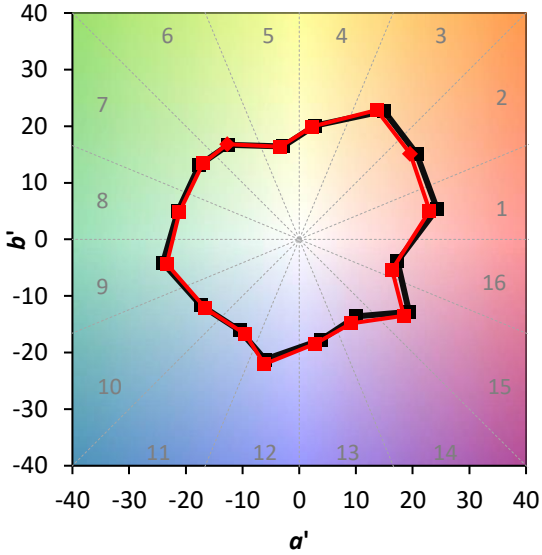
$R_f$ = 92.6
$R_g$ = 98
CIE $R_a$ = 91.8
$R_9$ = 54.7

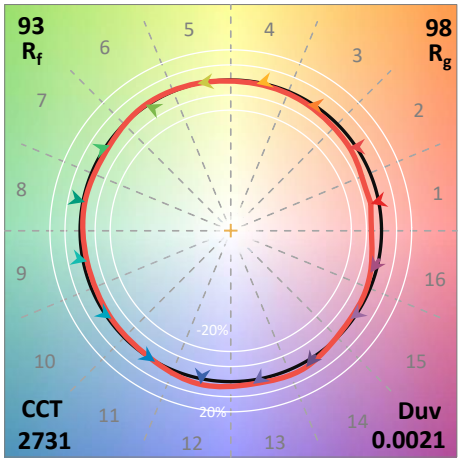
## Spectral Power Distribution Comparison

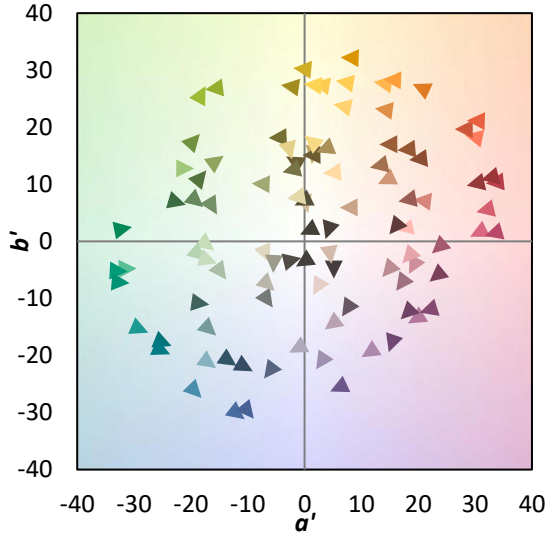



## Color Vector Graphics



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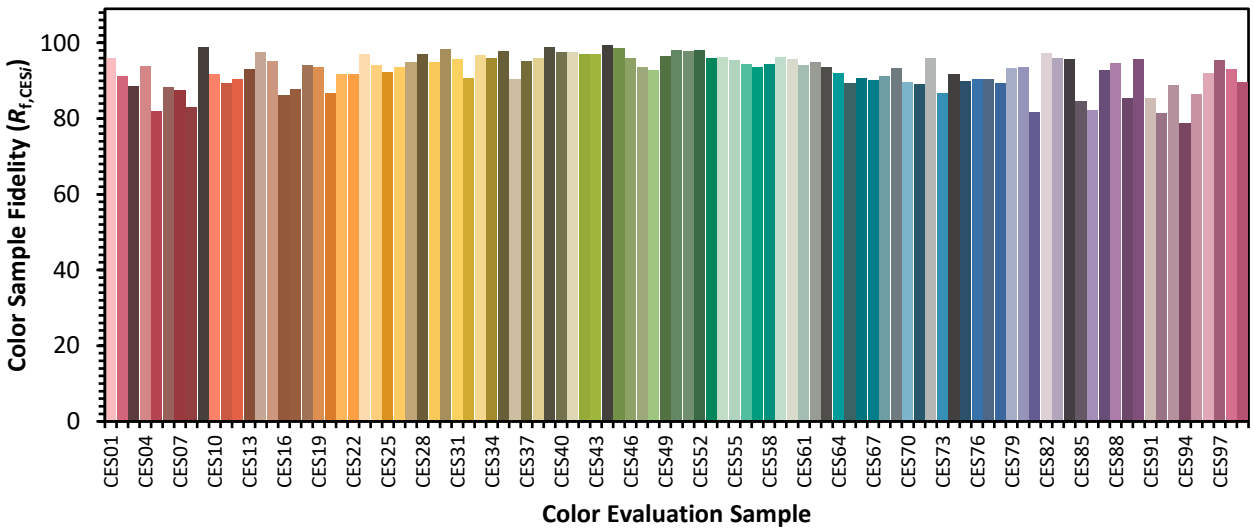
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 94 | CES51 = 98 | CES76 = 90 |
| CES02 = 64 | CES27 = 95 | CES52 = 98 | CES77 = 90 |
| CES03 = 32 | CES28 = 97 | CES53 = 96 | CES78 = 89 |
| CES04 = 71 | CES29 = 95 | CES54 = 96 | CES79 = 93 |
| CES05 = 51 | CES30 = 98 | CES55 = 95 | CES80 = 94 |
| CES06 = 52 | CES31 = 96 | CES56 = 94 | CES81 = 82 |
| CES07 = 44 | CES32 = 91 | CES57 = 94 | CES82 = 97 |
| CES08 = 43 | CES33 = 97 | CES58 = 94 | CES83 = 96 |
| CES09 = 29 | CES34 = 96 | CES59 = 96 | CES84 = 96 |
| CES10 = 77 | CES35 = 98 | CES60 = 96 | CES85 = 85 |
| CES11 = 59 | CES36 = 90 | CES61 = 94 | CES86 = 82 |
| CES12 = 66 | CES37 = 95 | CES62 = 95 | CES87 = 93 |
| CES13 = 44 | CES38 = 96 | CES63 = 94 | CES88 = 95 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 85 |
| CES15 = 72 | CES40 = 98 | CES65 = 89 | CES90 = 96 |
| CES16 = 48 | CES41 = 98 | CES66 = 91 | CES91 = 85 |
| CES17 = 50 | CES42 = 97 | CES67 = 90 | CES92 = 82 |
| CES18 = 57 | CES43 = 97 | CES68 = 91 | CES93 = 89 |
| CES19 = 72 | CES44 = 99 | CES69 = 93 | CES94 = 79 |
| CES20 = 68 | CES45 = 99 | CES70 = 90 | CES95 = 87 |
| CES21 = 87 | CES46 = 96 | CES71 = 89 | CES96 = 92 |
| CES22 = 79 | CES47 = 94 | CES72 = 96 | CES97 = 96 |
| CES23 = 92 | CES48 = 93 | CES73 = 87 | CES98 = 93 |
| CES24 = 91 | CES49 = 96 | CES74 = 92 | CES99 = 90 |
| CES25 = 72 | CES50 = 98 | CES75 = 90 | |



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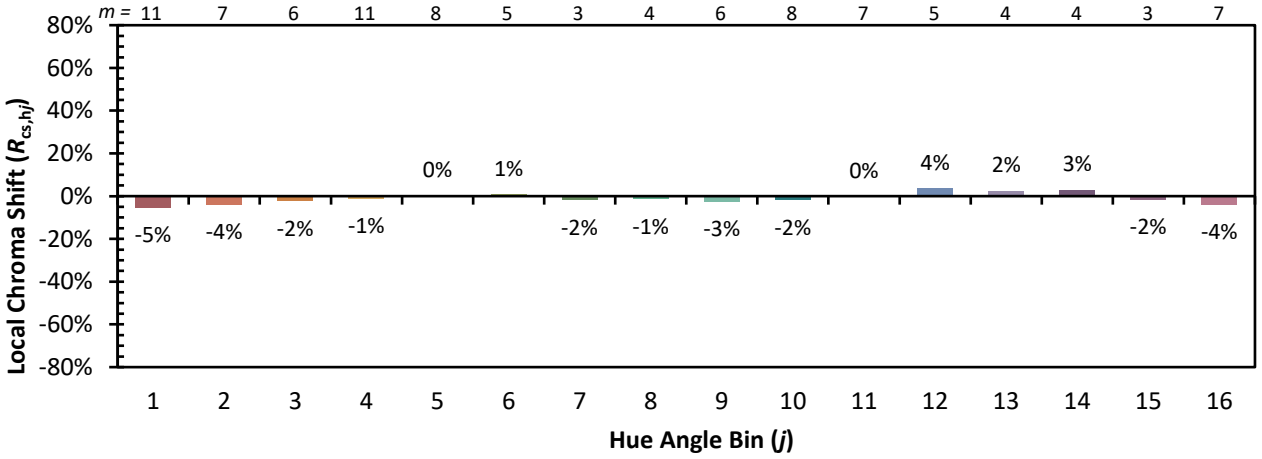
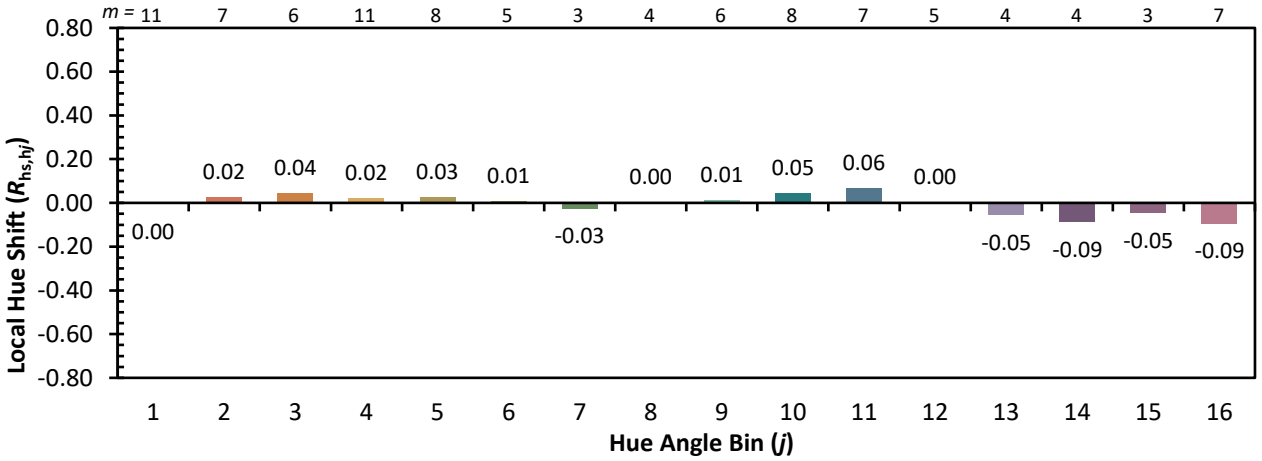
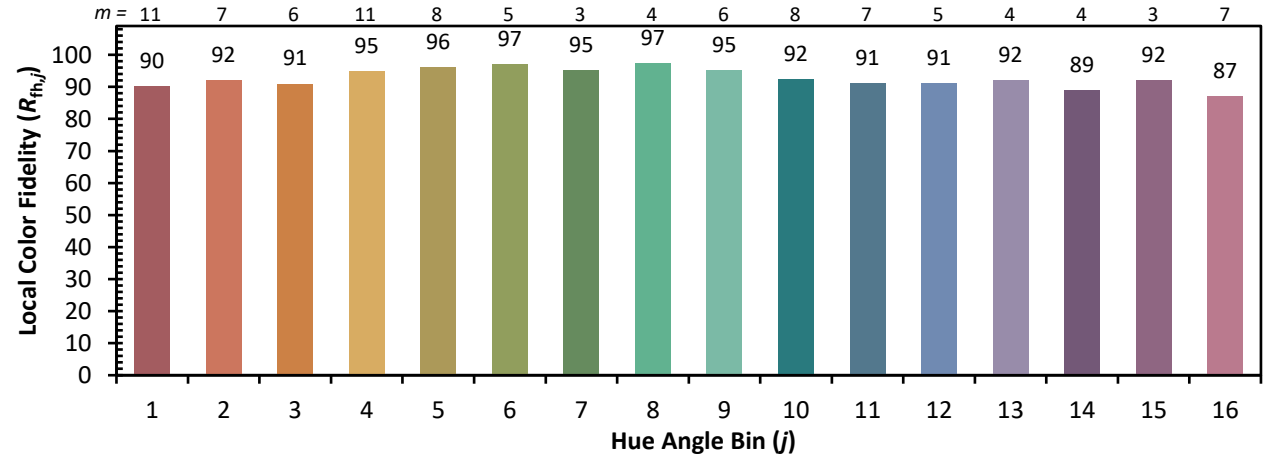
## Color Rendition by Hue-Angle Bin



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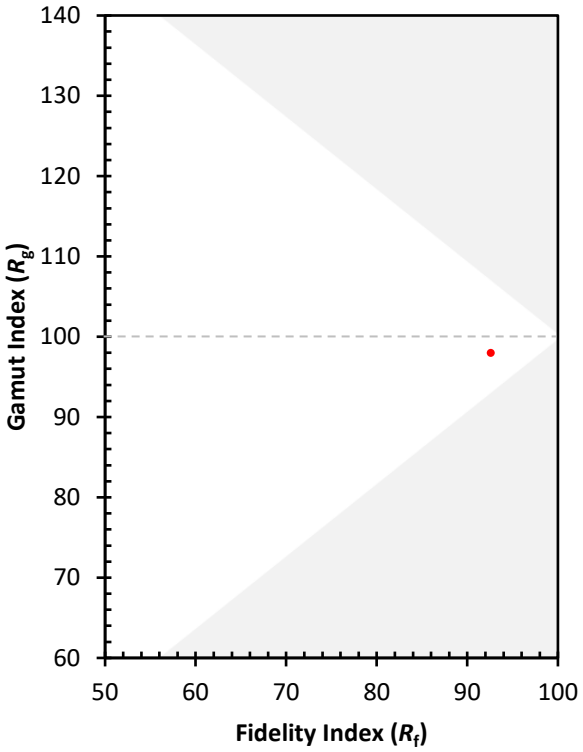
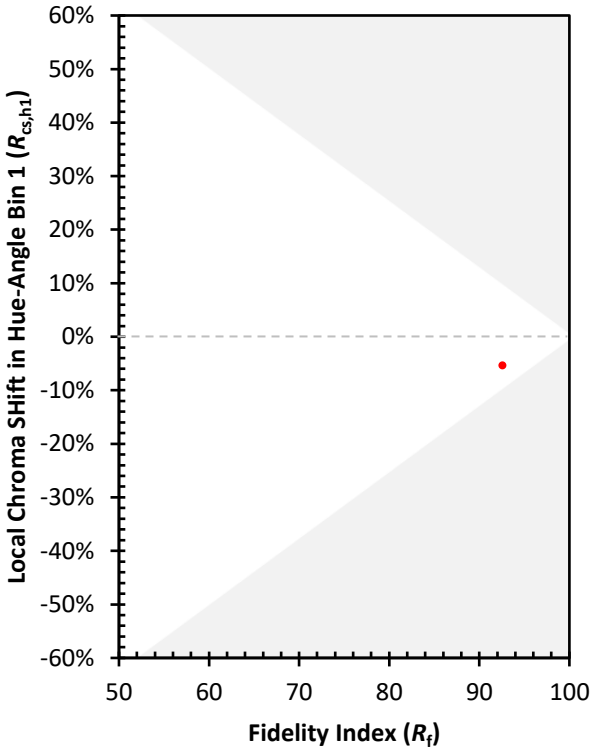
## Measure Comparisons




(END OF REPORT)