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: P1456253

Luminaire Tested: GLAN-SB8C-930-U-T2LG

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: | P1456253 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB8C-930-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 8xLight Square PACKAGE 90CRI 3000K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (208) 3000K CCT, 90 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 40783.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 102.0 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1.5' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B4 - 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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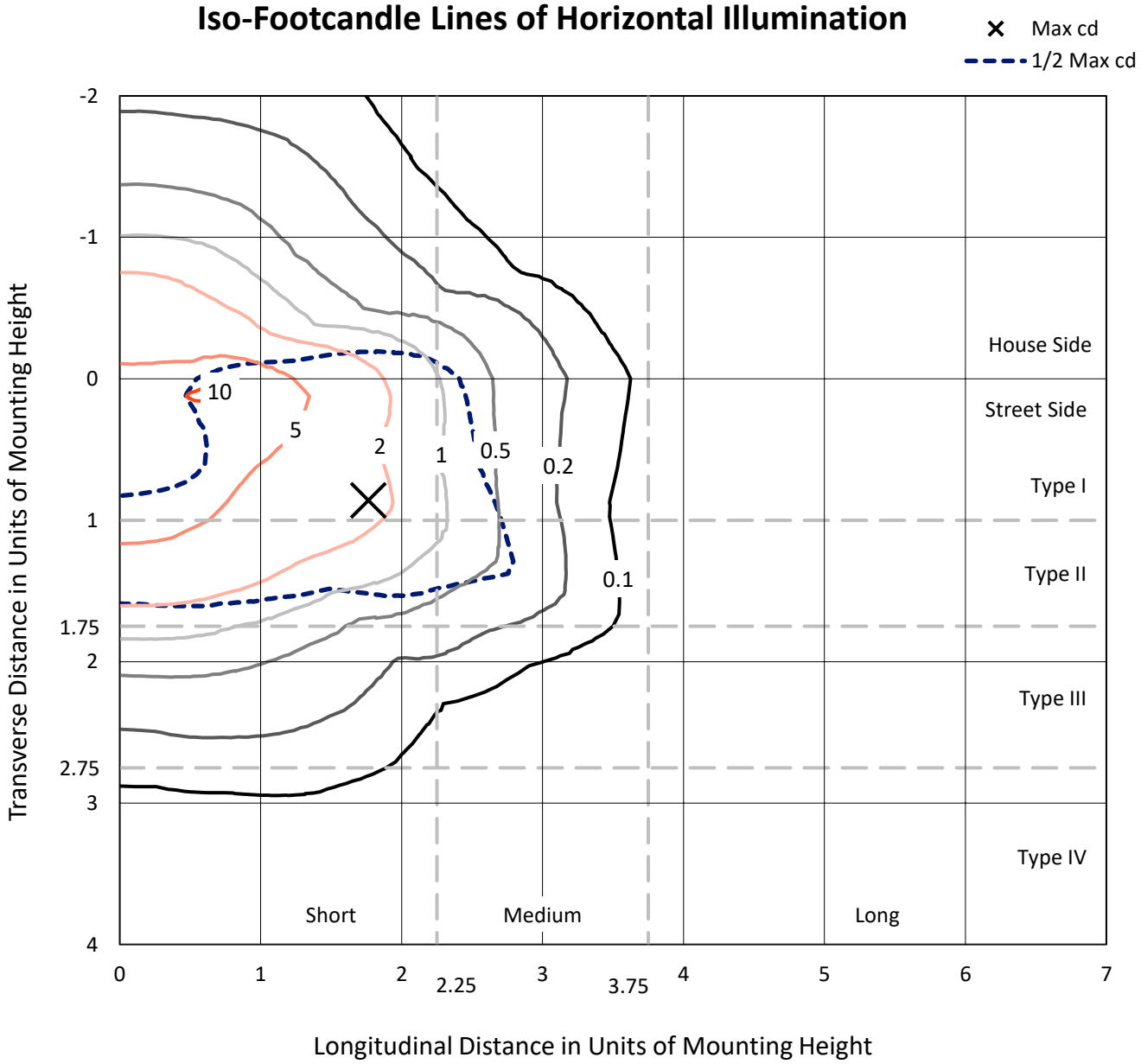
Scaled Data Report

REPORT NUMBER: P1456253
CATALOG NUMBER: GLAN-SB8C-930-U-T2LG

## Iso-Footcandle Lines of Horizontal Illumination




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

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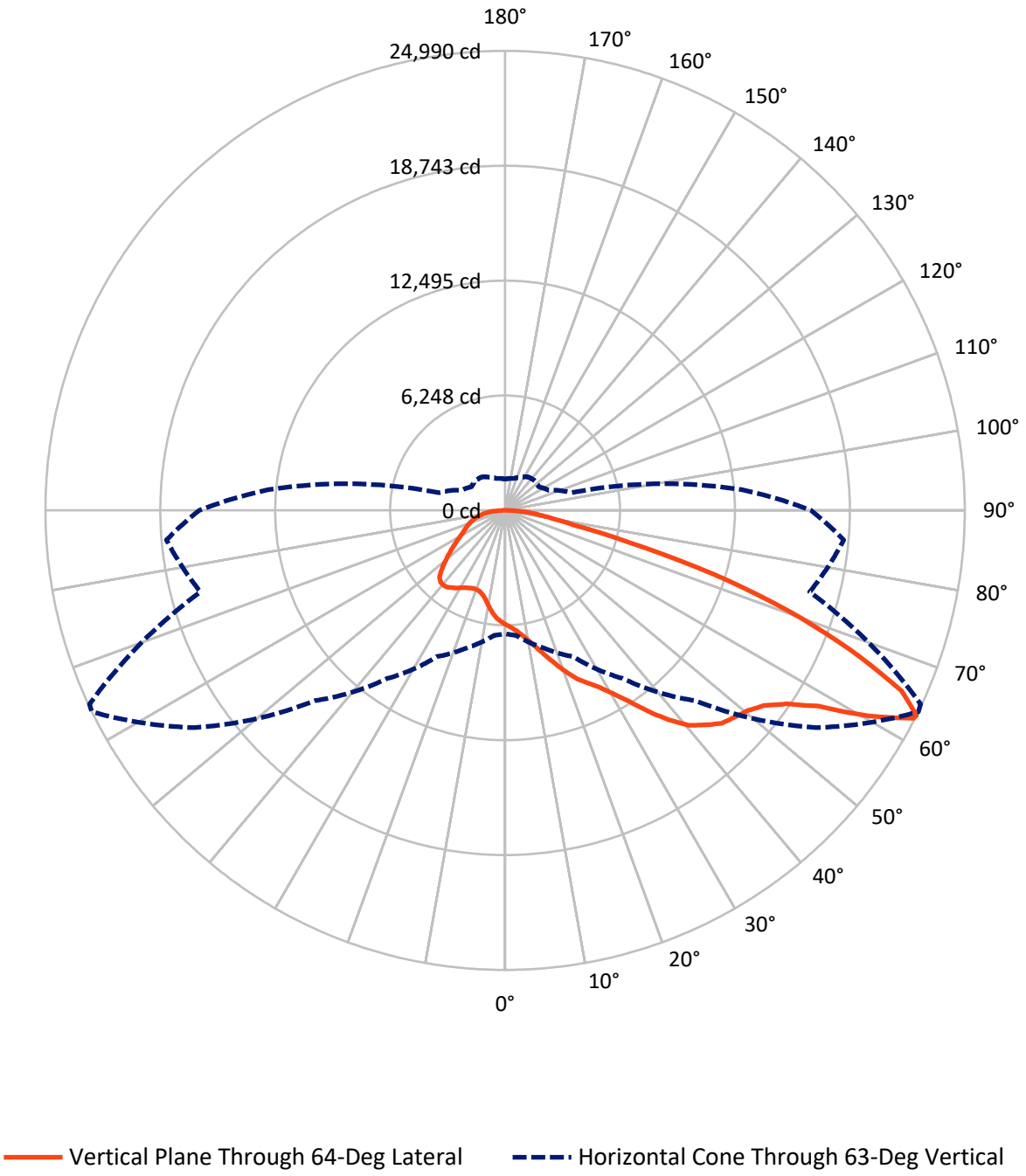
## Luminous Intensity Polar Plot



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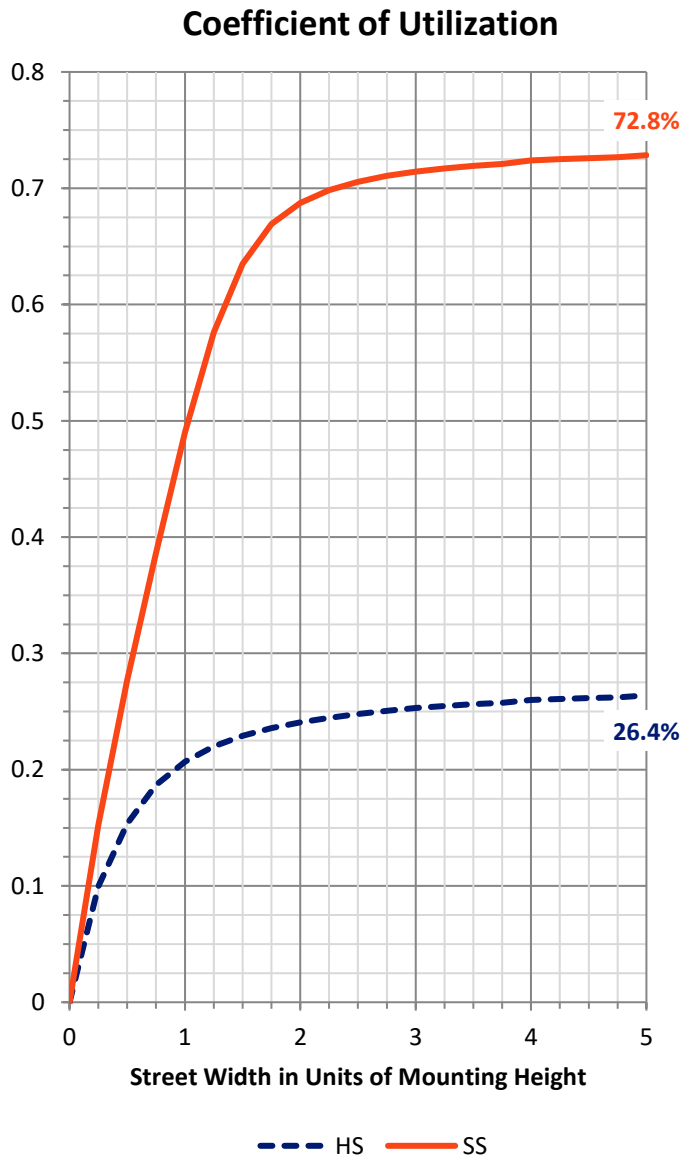
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 10957.5 | 0.0 | 10957.5 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 29826.3 | 0.0 | 29826.3 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 40783.8 | 0.0 | 40783.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 570.3 | 1.4 |
| 10°-20° | 1755.5 | 4.3 |
| 20°-30° | 3210.2 | 7.9 |
| 30°-40° | 5522.2 | 13.5 |
| 40°-50° | 8143.7 | 20.0 |
| 50°-60° | 9760.7 | 23.9 |
| 60°-70° | 7833.9 | 19.2 |
| 70°-80° | 3147.9 | 7.7 |
| 80°-90° | 839.4 | 2.1 |
| 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° | 40783.8 | 100.0 |
| 0°-180° | 40783.8 | 100.0 |



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REPORT NUMBER: P1456253
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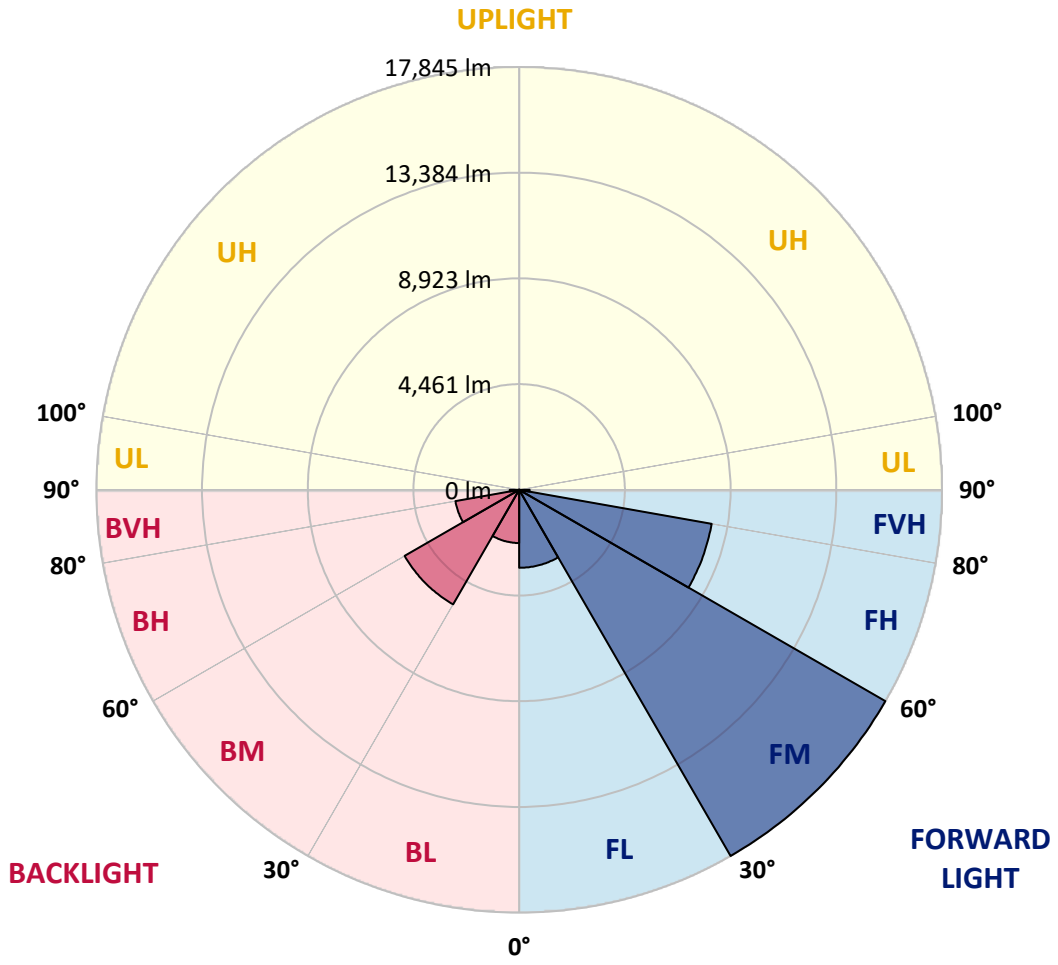
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 3290.5 | 8.1 | | | |
| FM | (30°-60°) | 17845.1 | 43.8 | | | |
| FH | (60°-80°) | 8249.8 | 20.2 | | | G4/12000 |
| FVH | (80°-90°) | 441.0 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 2245.6 | 5.5 | B3/2500 | | |
| BM | (30°-60°) | 5581.5 | 13.7 | B4/8500 | | |
| BH | (60°-80°) | 2732.0 | 6.7 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 398.4 | 1.0 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B4-U0-G4**
Type II Short



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Scaled Data Report

REPORT NUMBER: P1456253
CATALOG NUMBER: GLAN-SB8C-930-U-T2LG

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | *6210.9* | 6210.9 | 6210.9 | 6210.9 |
| 2.5° | 6467.4 | 6476.6 | 6449.1 | 6439.9 | 6458.2 | 6421.6 | 6412.4 | *6375.8* | 6357.5 | 6320.8 | 6275.0 |
| 5° | 6650.6 | 6659.8 | 6641.5 | 6641.5 | 6659.8 | 6632.3 | 6623.1 | *6586.5* | 6568.2 | 6531.5 | 6439.9 |
| 7.5° | 6641.5 | 6650.6 | 6668.9 | 6742.2 | 6833.8 | 6870.5 | 6898.0 | *6870.5* | 6861.3 | 6806.4 | 6714.7 |
| 10° | 6494.9 | 6504.0 | 6549.9 | 6659.8 | 6888.8 | 7053.7 | 7227.7 | *7227.7* | 7246.1 | 7200.3 | 7035.4 |
| 12.5° | 6293.4 | 6302.5 | 6412.4 | 6586.5 | 6888.8 | 7172.8 | 7530.0 | *7676.6* | 7667.5 | 7640.0 | 7447.6 |
| 15° | 5807.8 | 5807.8 | 5972.7 | 6302.5 | 6788.0 | 7255.2 | 7786.5 | *8180.4* | 8189.6 | 8217.1 | 7988.1 |
| 17.5° | 5395.6 | 5404.8 | 5542.2 | 5835.3 | 6467.4 | 7209.4 | 8061.4 | *8739.2* | 8766.7 | 8922.5 | 8592.7 |
| 20° | 5432.3 | 5432.3 | 5478.1 | 5606.3 | 6119.3 | 7026.2 | 8217.1 | *9334.7* | 9426.3 | 9792.7 | 9380.5 |
| 22.5° | 5716.2 | 5716.2 | 5752.9 | 5743.7 | 6055.2 | 6907.1 | 8317.9 | *9930.1* | 10095.0 | 10855.4 | 10324.0 |
| 25° | 6238.4 | 6229.2 | 6192.6 | 6137.6 | 6320.8 | 7035.4 | 8546.9 | *10388.2* | 10708.8 | 12027.9 | 11414.1 |
| 27.5° | 6879.6 | 6861.3 | 6806.4 | 6714.7 | 6843.0 | 7420.1 | 8940.8 | *10873.7* | 11221.8 | 13310.4 | 12568.4 |
| 30° | 7676.6 | 7621.6 | 7566.7 | 7447.6 | 7585.0 | 8052.2 | 9527.1 | *11560.7* | 11890.5 | 14766.9 | 13960.8 |
| 32.5° | 8620.2 | 8684.3 | 8501.1 | 8336.2 | 8482.7 | 8913.3 | 10397.3 | *12376.0* | 12733.3 | 16287.6 | 15408.2 |
| 35° | 10030.9 | 10223.3 | 10168.3 | 9334.7 | 9472.1 | 9948.4 | 11414.1 | *13429.5* | 13750.1 | 17670.9 | 16892.2 |
| 37.5° | 11423.3 | 11377.5 | 11423.3 | 10727.1 | 10507.2 | 11084.4 | 12504.3 | *14437.2* | 14748.6 | 18797.6 | 18202.2 |
| 40° | 12540.9 | 12678.3 | 12678.3 | 12110.4 | 11826.4 | 12211.1 | 13493.6 | *15362.4* | 15664.7 | 19420.5 | 19145.7 |
| 42.5° | 13759.3 | 13777.6 | 13741.0 | 13246.3 | 13136.3 | 13237.1 | 14363.9 | *15948.7* | 16196.0 | 19741.2 | 19787.0 |
| 45° | 15133.4 | 15124.2 | 14968.5 | 14556.2 | 14391.4 | 14299.7 | 14904.4 | *16516.6* | 16764.0 | 19887.7 | 20135.1 |
| 47.5° | 16269.3 | 16315.1 | 16324.2 | 15884.5 | 15609.7 | 15215.8 | 15371.5 | *16800.6* | 17084.6 | 19722.8 | 20208.4 |
| 50° | 16333.4 | 16406.7 | 16754.8 | 16883.0 | 16828.1 | 16196.0 | 15802.1 | *17102.9* | 17386.9 | 19759.5 | 20474.0 |
| 52.5° | 15930.3 | 16003.6 | 16452.5 | 16983.8 | 17625.1 | 17322.8 | 16480.0 | *17625.1* | 17918.2 | 20116.8 | 21078.6 |
| 55° | 14849.4 | 14968.5 | 15637.2 | 16379.2 | 17524.3 | 17954.8 | 17680.0 | *18568.6* | 18843.4 | 20400.7 | 21784.0 |
| 57.5° | 12925.7 | 13072.2 | 13997.4 | 15179.2 | 16745.6 | 17808.3 | 19420.5 | *20080.1* | 20309.1 | 20602.3 | 21793.1 |
| 60° | 9664.5 | 9783.6 | 11230.9 | 12824.9 | 15179.2 | 16892.2 | 20455.7 | *22672.6* | 22800.8 | 19512.1 | 20556.5 |
| 62.5° | 7117.8 | 7236.9 | 8207.9 | 9353.0 | 11927.1 | 15206.7 | 20657.2 | *24916.9* | 24935.2 | 17542.6 | 18852.6 |
| 63° | *6705.6* | *6824.7* | *7704.1* | *8775.9* | *11157.7* | *14638.7* | *20593.1* | *24990.2* | *24926.1* | *17139.5* | *18477.0* |
| 65° | 5221.6 | 5432.3 | 6348.3 | 7163.6 | 8363.7 | 11652.3 | 19768.6 | *23689.4* | 23781.0 | 15948.7 | 16589.9 |
| 67.5° | 3554.3 | 3710.1 | 4873.5 | 5817.0 | 6320.8 | 7420.1 | 16214.3 | *20272.5* | 20419.1 | 14712.0 | 13237.1 |
| 70° | 2748.2 | 2821.5 | 3499.4 | 4607.8 | 5111.6 | 4717.7 | 10571.4 | *16324.2* | 16324.2 | 11487.4 | 9380.5 |
| 72.5° | 2152.7 | 2180.2 | 2638.3 | 3600.1 | 4113.1 | 3627.6 | 5890.3 | *11872.2* | 11432.5 | 6815.5 | 6256.7 |
| 75° | 1539.0 | 1575.6 | 1987.9 | 2684.1 | 3279.5 | 2858.1 | 3765.0 | *6916.3* | 6650.6 | 3920.8 | 4177.2 |
| 77.5° | 1218.4 | 1236.7 | 1484.0 | 1978.7 | 2656.6 | 2180.2 | 2867.3 | *3774.2* | 3737.5 | 2757.4 | 2684.1 |
| 80° | 961.9 | 998.5 | 1163.4 | 1419.9 | 2052.0 | 1703.9 | 2134.4 | *2491.7* | 2418.4 | 1896.3 | 1722.2 |
| 82.5° | 687.0 | 751.2 | 897.7 | 1081.0 | 1520.7 | 1218.4 | 1401.6 | *1758.8* | 1758.8 | 1429.1 | 1135.9 |
| 85° | 421.4 | 476.4 | 531.3 | 668.7 | 1081.0 | 787.8 | 742.0 | *1135.9* | 1163.4 | 1071.8 | 732.9 |
| 87.5° | 201.5 | 219.9 | 256.5 | 284.0 | 393.9 | 357.3 | 293.1 | *430.5* | 439.7 | 476.4 | 302.3 |
| 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: P1456253
CATALOG NUMBER: GLAN-SB8C-930-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 | 6210.9 |
| 2.5° | 6265.9 | 6247.6 | 6155.9 | 6064.3 | 5963.6 | 5872.0 | 5780.4 | 5707.1 | 5624.6 | 5643.0 | 5652.1 |
| 5° | 6385.0 | 6339.2 | 6137.6 | 5899.4 | 5588.0 | 5294.8 | 5010.9 | 4809.3 | 4681.1 | 4644.4 | 4571.2 |
| 7.5° | 6641.5 | 6531.5 | 6165.1 | 5661.3 | 5084.2 | 4626.1 | 4360.5 | 4241.4 | 4204.7 | 4213.9 | 4195.6 |
| 10° | 6934.6 | 6769.7 | 6201.7 | 5377.3 | 4644.4 | 4333.0 | 4296.3 | 4369.6 | 4406.3 | 4442.9 | 4452.1 |
| 12.5° | 7319.3 | 7053.7 | 6183.4 | 5065.8 | 4433.7 | 4378.8 | 4516.2 | 4653.6 | 4736.0 | 4791.0 | 4781.9 |
| 15° | 7768.2 | 7411.0 | 6128.5 | 4809.3 | 4406.3 | 4552.8 | 4726.9 | 4882.6 | 4983.4 | 5038.3 | 5010.9 |
| 17.5° | 8308.7 | 7832.3 | 6064.3 | 4644.4 | 4488.7 | 4662.8 | 4846.0 | 5001.7 | 5111.6 | 5148.3 | 5120.8 |
| 20° | 8977.4 | 8308.7 | 5954.4 | 4571.2 | 4552.8 | 4708.6 | 4873.5 | 5020.0 | 5111.6 | 5148.3 | 5111.6 |
| 22.5° | 9765.2 | 8876.7 | 5862.8 | 4571.2 | 4580.3 | 4708.6 | 4827.7 | 4937.6 | 5020.0 | 5047.5 | 5001.7 |
| 25° | 10772.9 | 9536.2 | 5826.2 | 4644.4 | 4589.5 | 4662.8 | 4726.9 | 4791.0 | 4836.8 | 4855.1 | 4836.8 |
| 27.5° | 11798.9 | 10296.6 | 5844.5 | 4736.0 | 4580.3 | 4598.6 | 4598.6 | 4607.8 | 4617.0 | 4626.1 | 4617.0 |
| 30° | 12980.6 | 11066.0 | 5917.8 | 4855.1 | 4598.6 | 4507.0 | 4479.5 | 4424.6 | 4378.8 | 4342.1 | 4305.5 |
| 32.5° | 14125.7 | 11798.9 | 6046.0 | 5029.2 | 4580.3 | 4406.3 | 4351.3 | 4213.9 | 4085.6 | 3975.7 | 3975.7 |
| 35° | 15362.4 | 12559.2 | 6275.0 | 5157.4 | 4562.0 | 4314.7 | 4158.9 | 4003.2 | 3865.8 | 3710.1 | 3710.1 |
| 37.5° | 16425.0 | 13209.6 | 6458.2 | 5304.0 | 4543.7 | 4204.7 | 3957.4 | 3783.3 | 3636.8 | 3481.0 | 3462.7 |
| 40° | 17167.0 | 13585.2 | 6568.2 | 5359.0 | 4479.5 | 4058.2 | 3765.0 | 3545.2 | 3334.5 | 3123.8 | 3114.6 |
| 42.5° | 17524.3 | 13566.9 | 6504.0 | 5340.6 | 4360.5 | 3874.9 | 3600.1 | 3307.0 | 3023.0 | 2830.6 | 2812.3 |
| 45° | 17716.7 | 13447.8 | 6256.7 | 5184.9 | 4168.1 | 3682.6 | 3389.4 | 3078.0 | 2794.0 | 2619.9 | 2583.3 |
| 47.5° | 17680.0 | 13154.7 | 5917.8 | 4800.2 | 3911.6 | 3471.9 | 3178.7 | 2858.1 | 2629.1 | 2528.3 | 2528.3 |
| 50° | 17780.8 | 12925.7 | 5533.0 | 4360.5 | 3563.5 | 3224.5 | 2986.4 | 2693.2 | 2555.8 | 2427.6 | 2381.8 |
| 52.5° | 18229.7 | 13118.0 | 5203.2 | 3948.2 | 3233.7 | 2986.4 | 2821.5 | 2574.1 | 2400.1 | 2317.6 | 2290.2 |
| 55° | 18825.1 | 13530.3 | 4891.8 | 3581.8 | 2913.1 | 2775.7 | 2693.2 | 2464.2 | 2262.7 | 2180.2 | 2134.4 |
| 57.5° | 18935.0 | 13814.2 | 4589.5 | 3224.5 | 2647.4 | 2610.8 | 2583.3 | 2271.8 | 2106.9 | 2042.8 | 2006.2 |
| 60° | 18174.7 | 13603.5 | 4195.6 | 2903.9 | 2436.7 | 2455.0 | 2381.8 | 2152.7 | 1960.4 | 1896.3 | 1859.6 |
| 62.5° | 16883.0 | 13053.9 | 3801.7 | 2629.1 | 2271.8 | 2308.5 | 2235.2 | 2006.2 | 1813.8 | 1749.7 | 1731.4 |
| 63° | *16626.6* | *12907.3* | *3710.1* | *2601.6* | *2235.2* | *2281.0* | *2216.9* | *1987.9* | *1795.5* | *1731.4* | *1703.9* |
| 65° | 15096.7 | 12027.9 | 3389.4 | 2455.0 | 2116.1 | 2116.1 | 2125.3 | 1896.3 | 1731.4 | 1703.9 | 1685.6 |
| 67.5° | 12311.9 | 10040.1 | 3041.3 | 2281.0 | 1987.9 | 2015.3 | 2061.1 | 1932.9 | 1868.8 | 1850.4 | 1832.1 |
| 70° | 9307.2 | 7557.5 | 2739.0 | 2116.1 | 1850.4 | 1942.1 | 2253.5 | 2198.6 | 1960.4 | 1795.5 | 1758.8 |
| 72.5° | 6595.7 | 5148.3 | 2473.4 | 1951.2 | 1685.6 | 1914.6 | 2336.0 | 2097.8 | 1768.0 | 1575.6 | 1539.0 |
| 75° | 4415.4 | 3316.1 | 2207.7 | 1777.2 | 1502.3 | 1768.0 | 2207.7 | 1914.6 | 1539.0 | 1493.2 | 1438.2 |
| 77.5° | 2775.7 | 2363.4 | 1942.1 | 1575.6 | 1300.8 | 1575.6 | 2006.2 | 1703.9 | 1328.3 | 1346.6 | 1264.2 |
| 80° | 1694.7 | 1685.6 | 1630.6 | 1337.5 | 1044.3 | 1255.0 | 1685.6 | 1438.2 | 1062.6 | 1062.6 | 943.5 |
| 82.5° | 1007.7 | 1218.4 | 1383.3 | 1108.4 | 760.3 | 897.7 | 1218.4 | 1081.0 | 888.6 | 861.1 | 806.1 |
| 85° | 677.9 | 824.5 | 1099.3 | 851.9 | 485.5 | 549.6 | 842.8 | 906.9 | 815.3 | 714.5 | 668.7 |
| 87.5° | 247.3 | 329.8 | 503.8 | 348.1 | 210.7 | 329.8 | 632.1 | 659.6 | 494.7 | 384.7 | 348.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
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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: SP1-2407-184-14

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-930-U-5WQ

Data in this report applies to families of products including GSS-SB1A-930-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

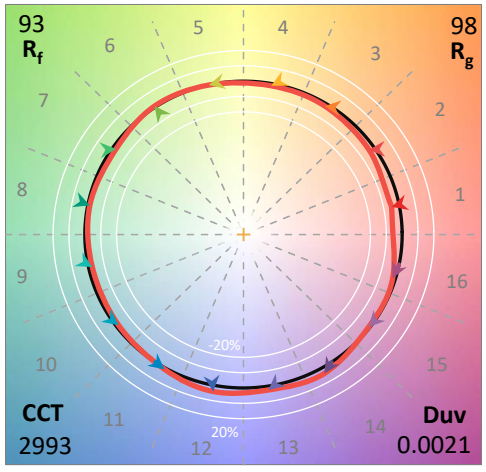
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-14 |
| 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-930-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 3000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2993 |
| CIE u': | 0.2501 |
| CIE v': | 0.5245 |
| Duv: | 0.0021 |
| CIE x: | 0.4406 |
| CIE y: | 0.4107 |
| CIE z: | 0.1487 |
| Peak Wavelength (nm): | 621 |
| Dominant Wavelength (nm): | 582 |
| Purity: | 55.53327 |
| Rf: | 92.6 |
| Rg: | 98.5 |

| | |
|---|---|
| CRI (Ra): | 92.4 |
| R1: | 92.2 |
| R2: | 95.2 |
| R3: | 97.0 |
| R4: | 93.1 |
| R5: | 91.7 |
| R6: | 94.2 |
| R7: | 93.3 |
| R8: | 82.3 |
| R9: | 58.2 |
| R10: | 87.7 |
| R11: | 93.5 |
| R12: | 81.7 |
| R13: | 92.9 |
| R14: | 97.6 |
| R15: | 88.1 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 20M |
| Operation Time: | 1H 20M |
| 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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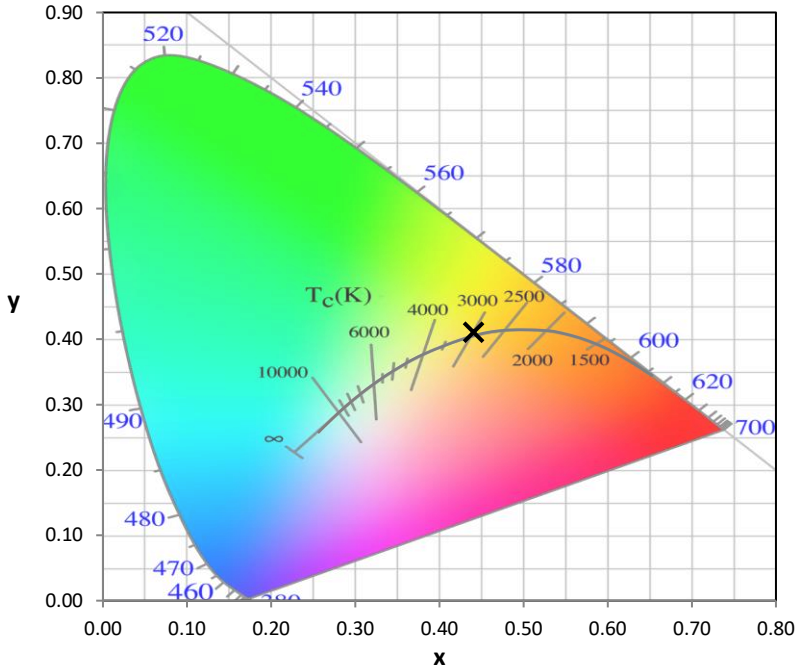
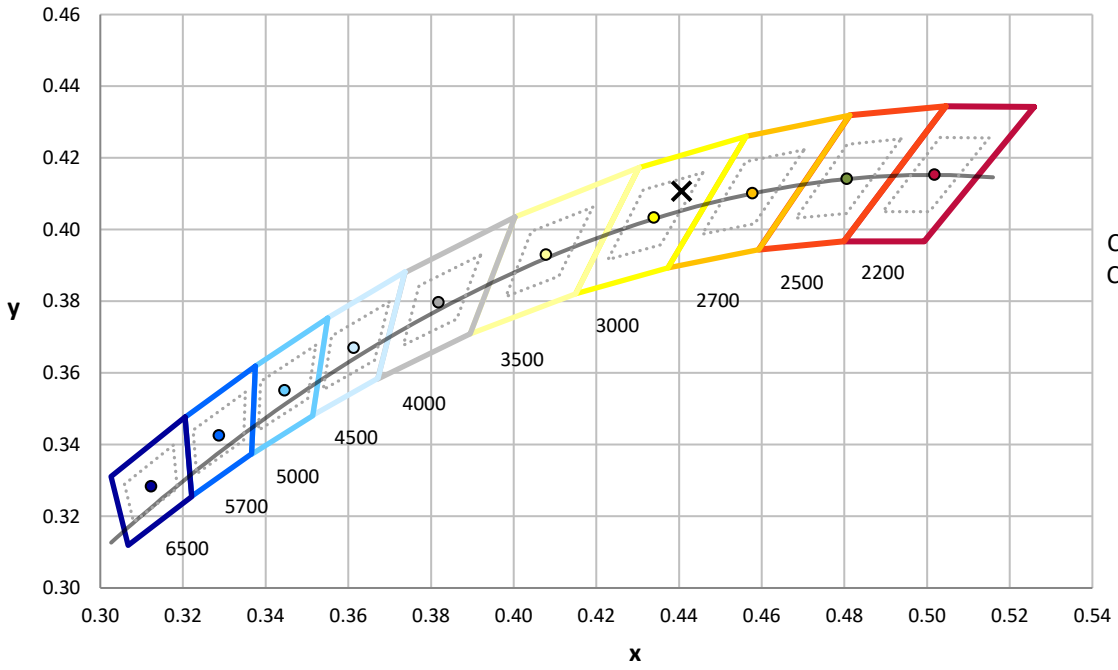
## CIE 1931 Chromaticity Diagram




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




CCT = 2993K
CIE x = 0.4406
CIE y = 0.4107
Duv = 0.0021

Point lies inside the ANSI 3000K 4-step quadrangle

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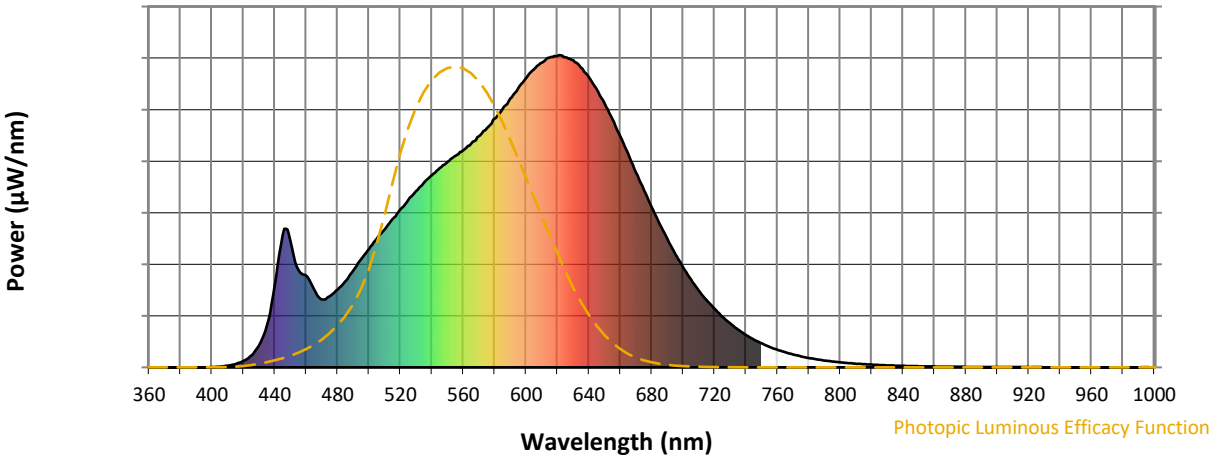
## Photopic Flux vs. Wavelength




## 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 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

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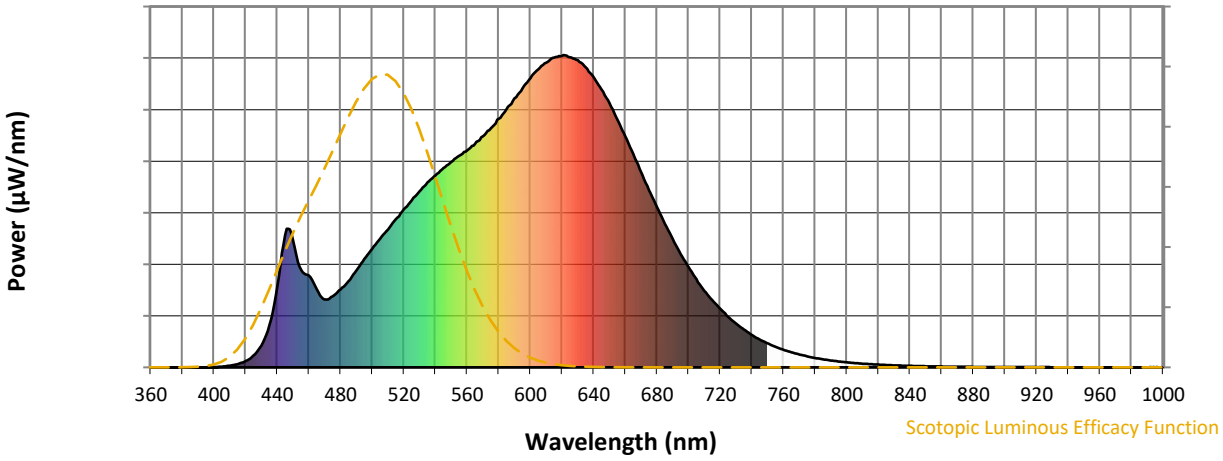
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.39**

| 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 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

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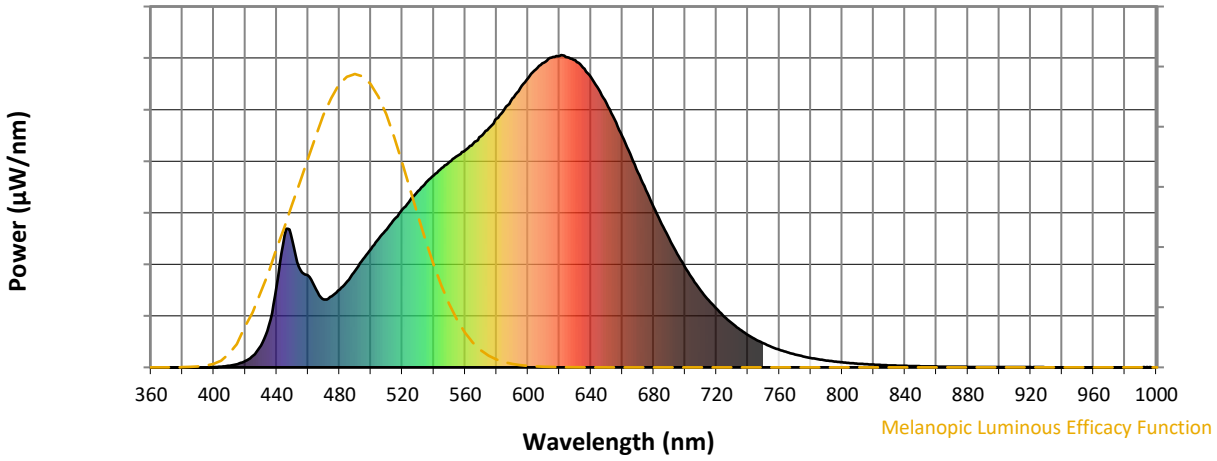
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.69**

| 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 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

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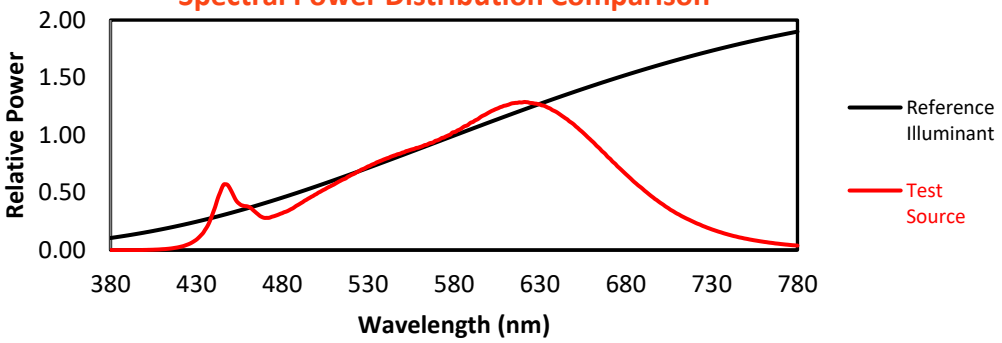
# TM-30-18

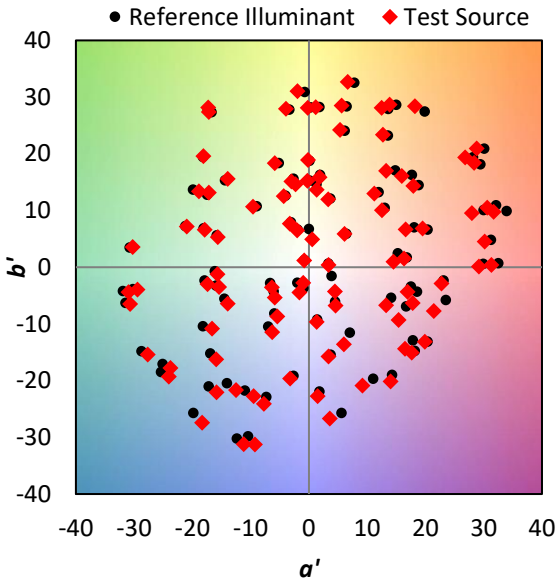
## Summary

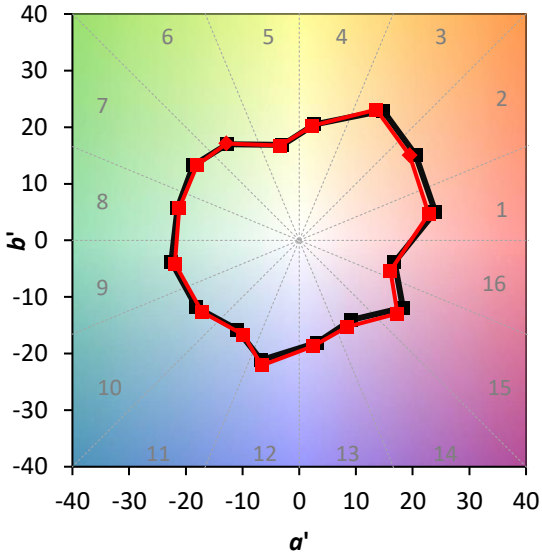
$R_f$ = 92.6
$R_g$ = 98.5
CIE $R_a$ = 92.4
$R_9$ = 58.2

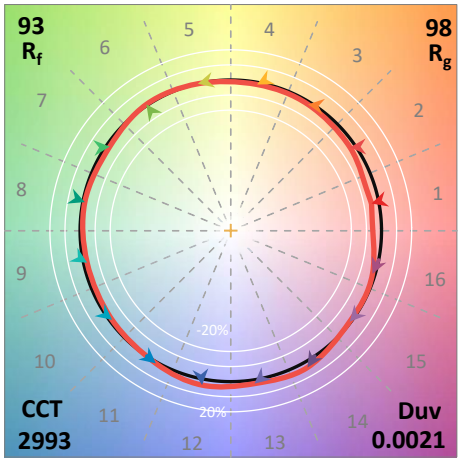
## Spectral Power Distribution Comparison

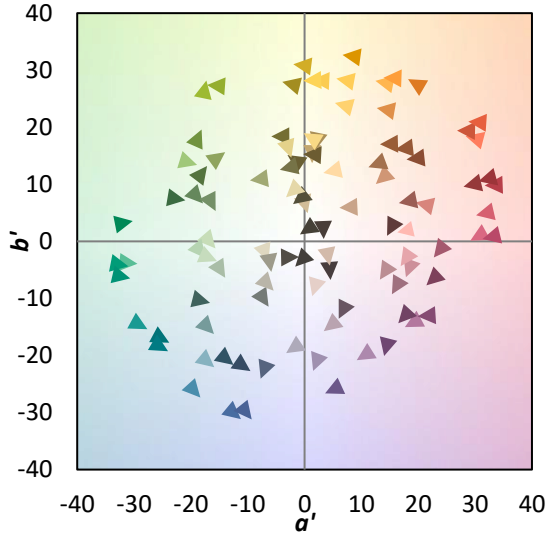



## Color Vector Graphics



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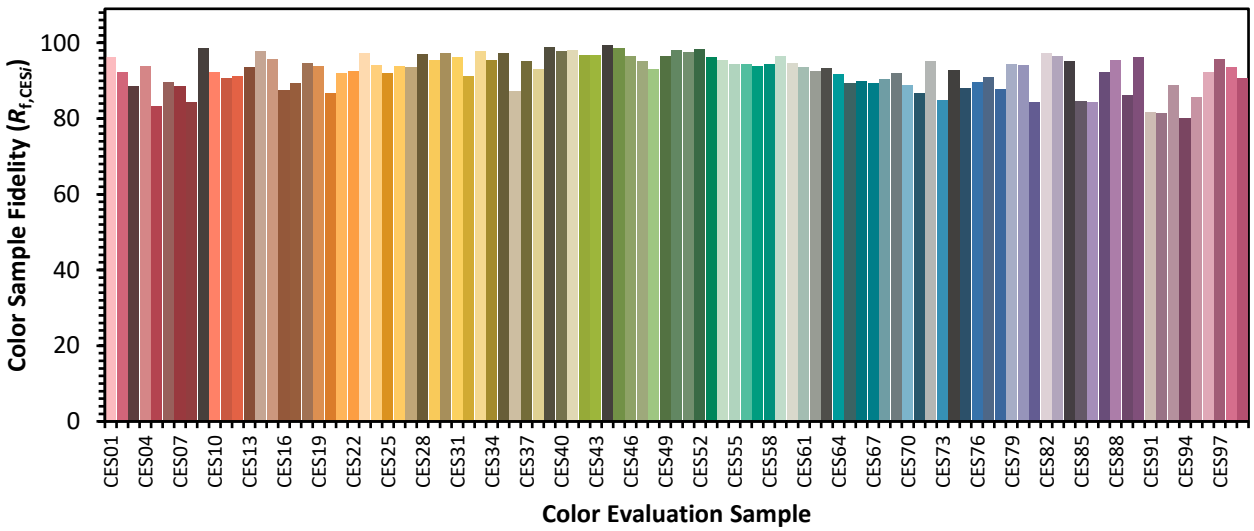
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 94 | CES51 = 98 | CES76 = 90 |
| CES02 = 63 | CES27 = 94 | CES52 = 98 | CES77 = 91 |
| CES03 = 32 | CES28 = 97 | CES53 = 96 | CES78 = 88 |
| CES04 = 70 | CES29 = 95 | CES54 = 95 | CES79 = 94 |
| CES05 = 51 | CES30 = 97 | CES55 = 94 | CES80 = 94 |
| CES06 = 51 | CES31 = 96 | CES56 = 94 | CES81 = 84 |
| CES07 = 43 | CES32 = 91 | CES57 = 94 | CES82 = 97 |
| CES08 = 42 | CES33 = 98 | CES58 = 94 | CES83 = 97 |
| CES09 = 29 | CES34 = 96 | CES59 = 97 | CES84 = 95 |
| CES10 = 76 | CES35 = 97 | CES60 = 95 | CES85 = 85 |
| CES11 = 59 | CES36 = 87 | CES61 = 94 | CES86 = 84 |
| CES12 = 65 | CES37 = 95 | CES62 = 92 | CES87 = 92 |
| CES13 = 44 | CES38 = 93 | CES63 = 93 | CES88 = 95 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 86 |
| CES15 = 72 | CES40 = 98 | CES65 = 89 | CES90 = 96 |
| CES16 = 48 | CES41 = 98 | CES66 = 90 | CES91 = 82 |
| CES17 = 50 | CES42 = 97 | CES67 = 89 | CES92 = 81 |
| CES18 = 57 | CES43 = 97 | CES68 = 90 | CES93 = 89 |
| CES19 = 72 | CES44 = 99 | CES69 = 92 | CES94 = 80 |
| CES20 = 67 | CES45 = 99 | CES70 = 89 | CES95 = 86 |
| CES21 = 86 | CES46 = 96 | CES71 = 87 | CES96 = 92 |
| CES22 = 79 | CES47 = 95 | CES72 = 95 | CES97 = 96 |
| CES23 = 92 | CES48 = 93 | CES73 = 85 | CES98 = 94 |
| CES24 = 91 | CES49 = 97 | CES74 = 93 | CES99 = 91 |
| CES25 = 72 | CES50 = 98 | CES75 = 88 | |



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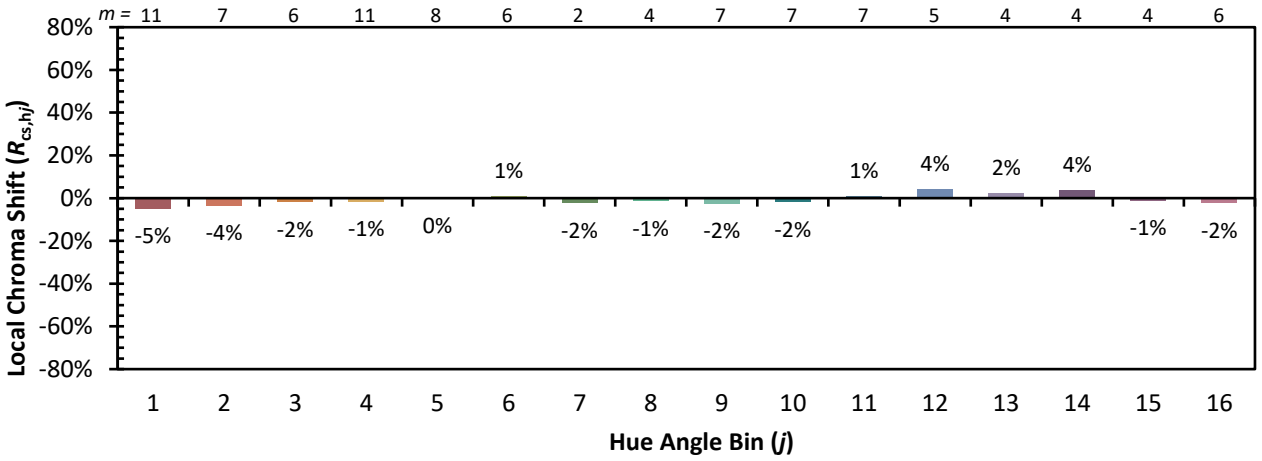
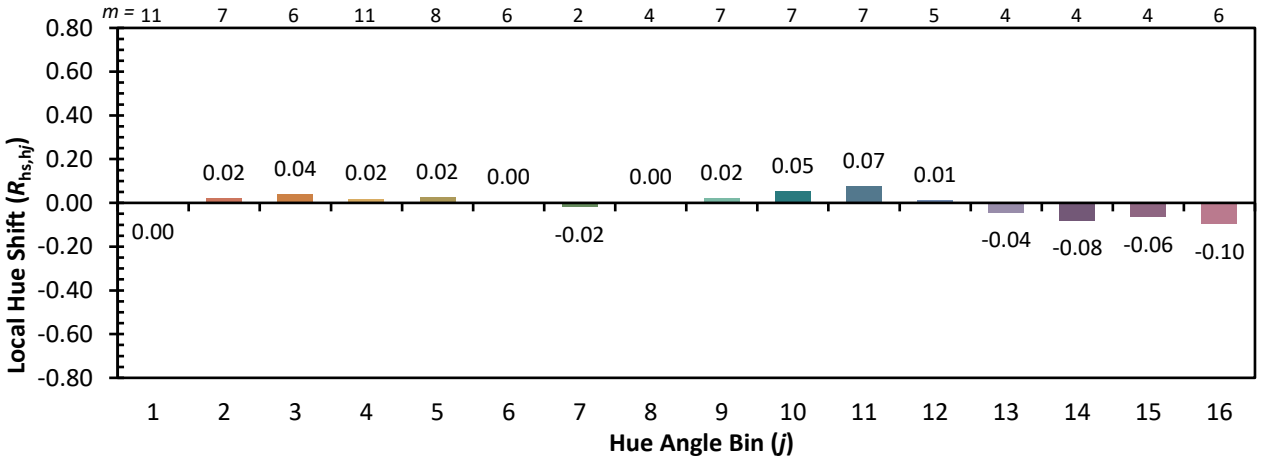
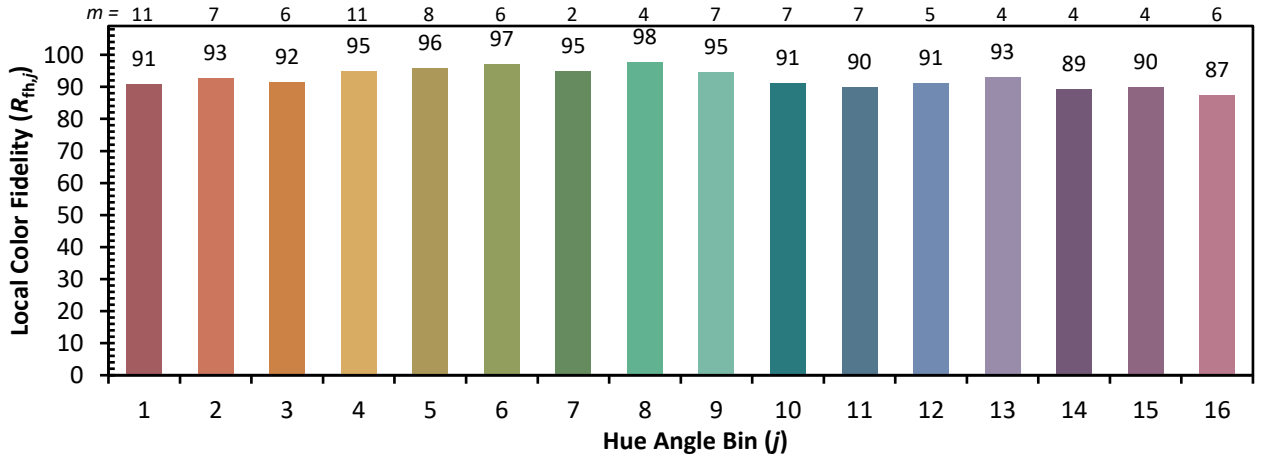
## Color Rendition by Hue-Angle Bin



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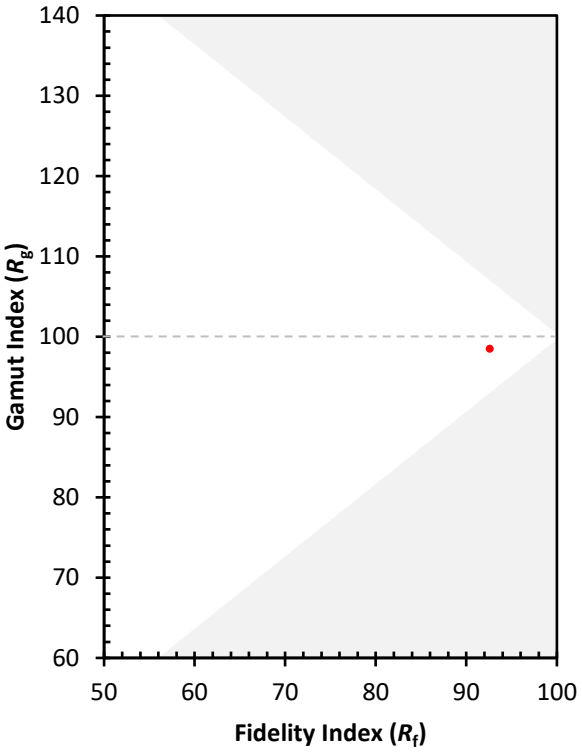
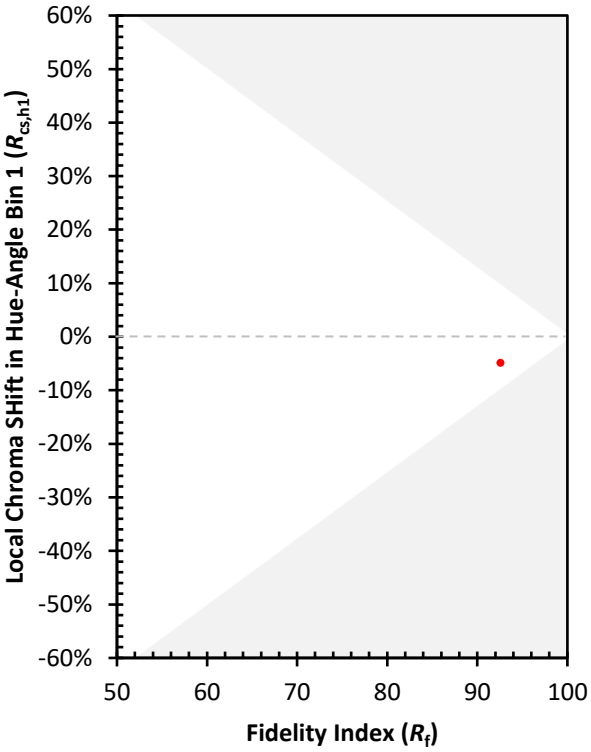
## Measure Comparisons




(END OF REPORT)