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: McGRAW-EDISON

Report Number: P1500908

Luminaire Tested: GSS-SB4D-935-U-T4LG

Issue Date: 07/20/2026

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: | P1500908 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 7/20/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB4D-935-U-T4LG |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 4SQUARE 238W 90CRI 3500K FIXTURE w/ TYPE IV LOW GLARE DISTRIBUTION FIXTURE |
| Light Source: | (104) 3500K CCT, 90 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 22351 lumens |
| Efficiency: | N/A |
| Efficacy: | 93.9 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B3 - U0 - G3 |

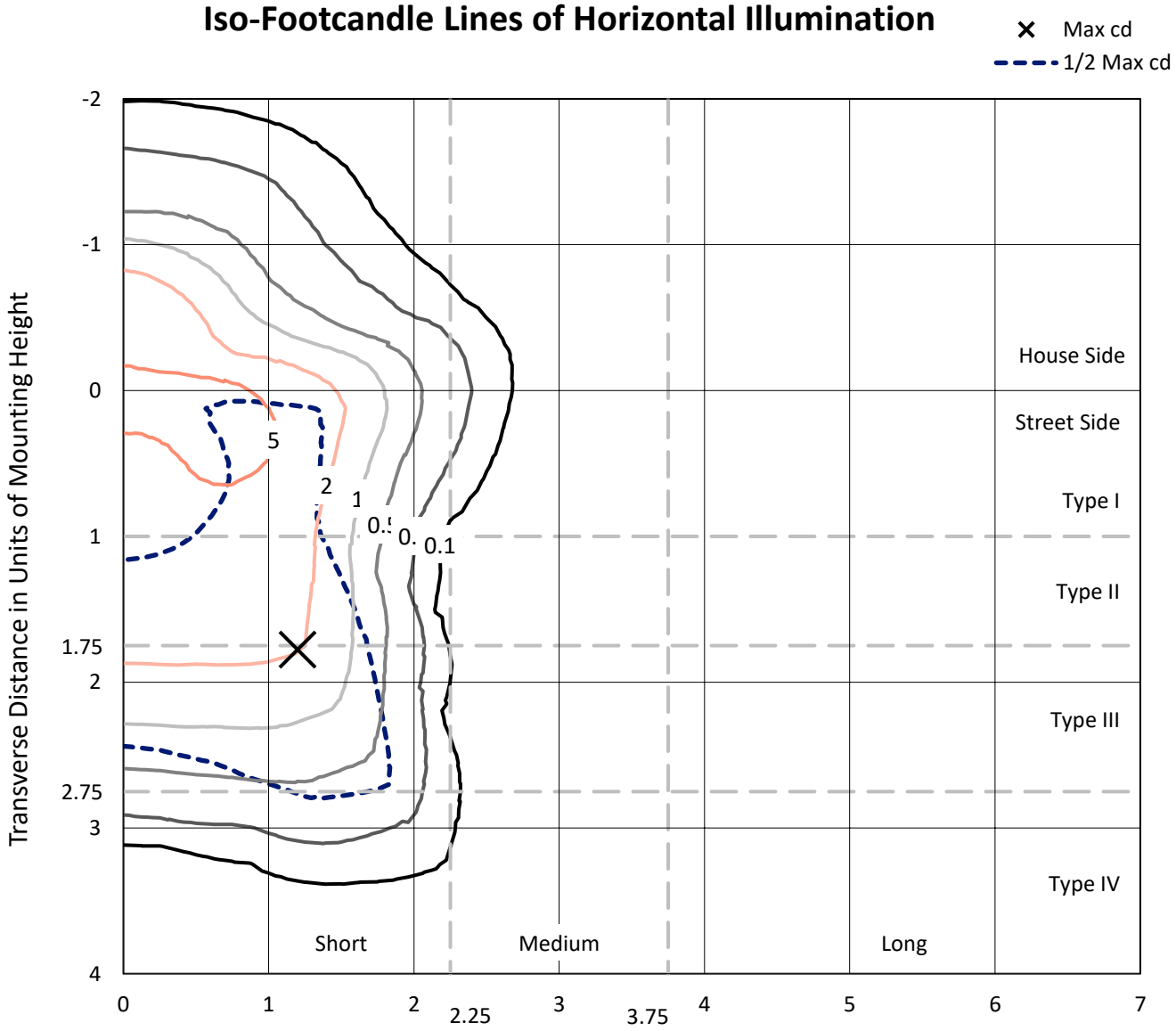
| | |
|---|---|
| Input Watts (W): | 238 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | -- |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1500908
CATALOG NUMBER: GSS-SB4D-935-U-T4LG

## Iso-Footcandle Lines of Horizontal Illumination



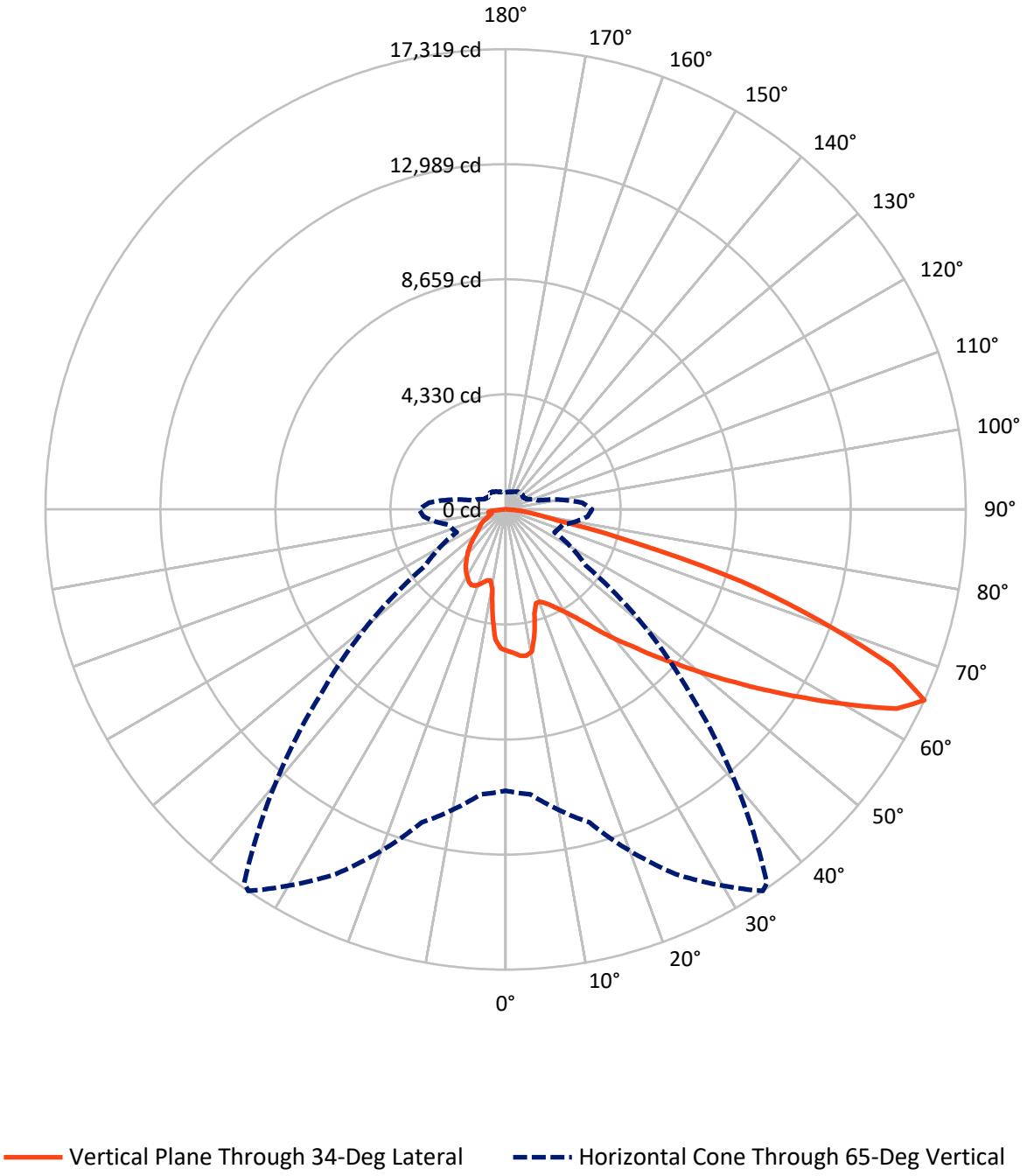

Based on 25 foot mounting height. Maximum calculated value = 9 fc
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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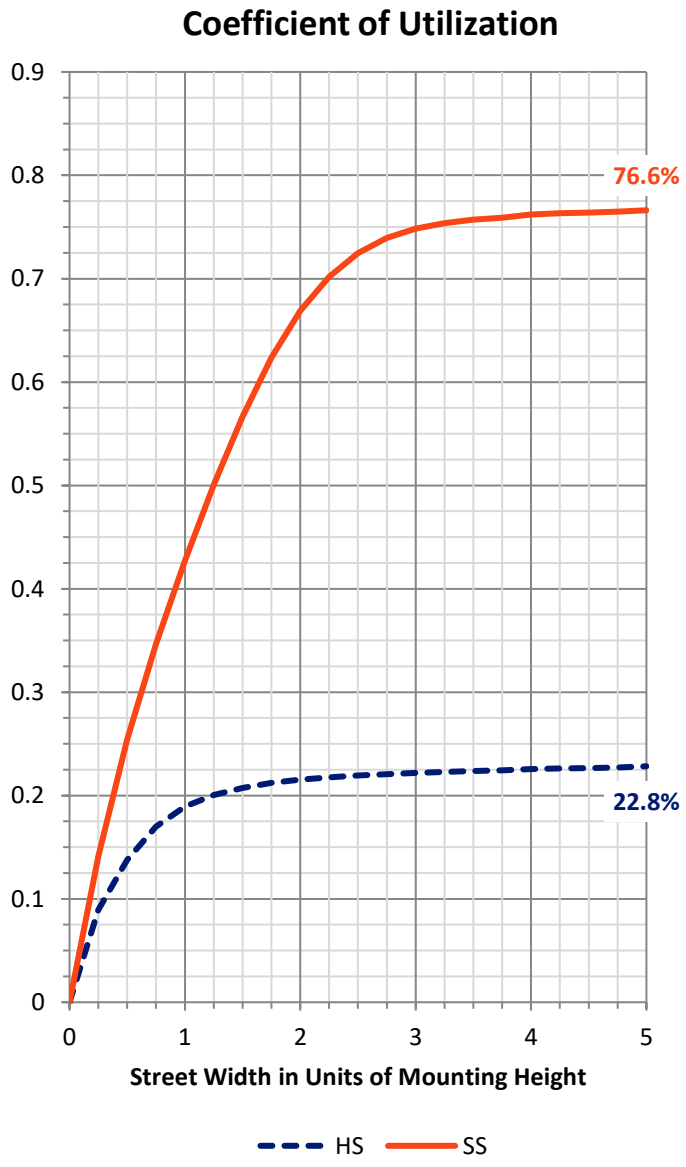
REPORT NUMBER: P1500908
CATALOG NUMBER: GSS-SB4D-935-U-T4LG

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 5200.1 | 0.0 | 5200.1 |
| | % Fixture | 23.3 | 0.0 | 23.3 |
| **Street Side** | Lumens | 17150.9 | 0.0 | 17150.9 |
| | % Fixture | 76.7 | 0.0 | 76.7 |
| **Total** | Lumens | 22351.0 | 0.0 | 22351.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 479.0 | 2.1 |
| 10°-20° | 1205.8 | 5.4 |
| 20°-30° | 1998.7 | 8.9 |
| 30°-40° | 3005.9 | 13.4 |
| 40°-50° | 4211.1 | 18.8 |
| 50°-60° | 5309.5 | 23.8 |
| 60°-70° | 4566.7 | 20.4 |
| 70°-80° | 1357.7 | 6.1 |
| 80°-90° | 216.6 | 1.0 |
| 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° | 22351.0 | 100.0 |
| 0°-180° | 22351.0 | 100.0 |



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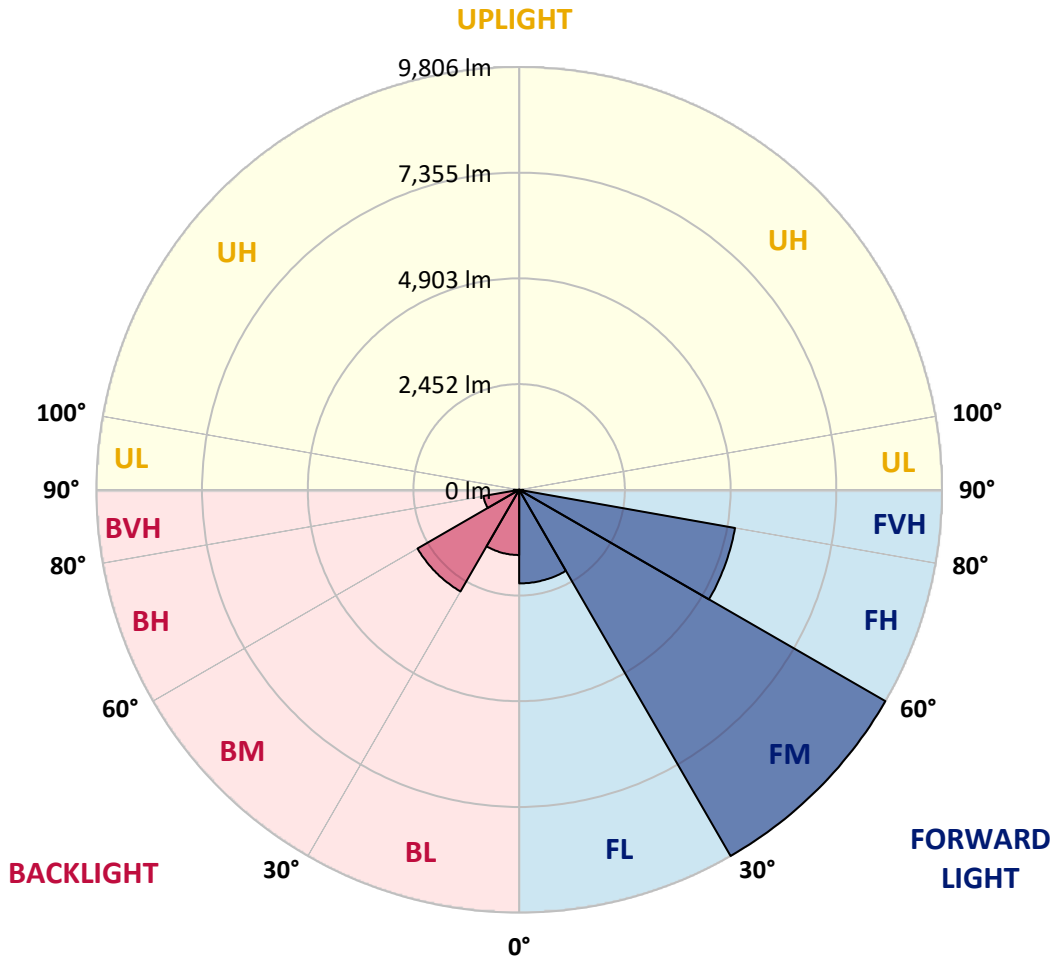
Scaled Data Report

REPORT NUMBER: P1500908
CATALOG NUMBER: GSS-SB4D-935-U-T4LG

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2170.5 | 9.7 | | | |
| FM | (30°-60°) | 9806.0 | 43.9 | | | |
| FH | (60°-80°) | 5082.7 | 22.7 | | | G3/7500 |
| FVH | (80°-90°) | 91.6 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 1513.0 | 6.8 | B3/2500 | | |
| BM | (30°-60°) | 2720.5 | 12.2 | B3/5000 | | |
| BH | (60°-80°) | 841.6 | 3.8 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 125.0 | 0.6 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G3**
Type III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 |
| 2.5° | 5415.3 | 5445.6 | 5410.2 | 5395.0 | 5400.1 | 5405.1 | 5379.8 | 5384.9 | 5354.5 | 5354.5 | 5329.2 |
| 5° | 5531.7 | 5536.7 | 5516.5 | 5531.7 | 5526.6 | 5521.5 | 5521.5 | 5516.5 | 5450.7 | 5435.5 | 5410.2 |
| 7.5° | 5465.9 | 5486.1 | 5496.2 | 5551.9 | 5567.1 | 5597.5 | 5617.7 | 5627.8 | 5577.2 | 5536.7 | 5470.9 |
| 10° | 4863.6 | 4878.8 | 4995.2 | 5248.2 | 5440.6 | 5476.0 | 5663.2 | 5769.5 | 5734.1 | 5713.9 | 5602.5 |
| 12.5° | 3886.8 | 3912.1 | 4043.7 | 4372.7 | 4823.1 | 4919.3 | 5516.5 | 5875.8 | 5956.8 | 5961.8 | 5799.9 |
| 15° | 3466.8 | 3466.8 | 3507.3 | 3694.5 | 4058.9 | 4134.8 | 5015.4 | 5906.2 | 6194.7 | 6230.1 | 6032.7 |
| 17.5° | 3380.7 | 3375.7 | 3401.0 | 3512.3 | 3704.6 | 3750.2 | 4438.5 | 5749.3 | 6478.1 | 6538.8 | 6285.8 |
| 20° | 3375.7 | 3360.5 | 3411.1 | 3537.6 | 3704.6 | 3745.1 | 4170.3 | 5476.0 | 6700.8 | 6893.1 | 6538.8 |
| 22.5° | 3380.7 | 3380.7 | 3451.6 | 3633.8 | 3826.1 | 3861.5 | 4220.9 | 5248.2 | 6882.9 | 7262.5 | 6807.0 |
| 25° | 3436.4 | 3426.3 | 3527.5 | 3750.2 | 4013.4 | 4038.7 | 4428.4 | 5238.1 | 7039.8 | 7677.5 | 7130.9 |
| 27.5° | 3527.5 | 3532.6 | 3669.2 | 3937.5 | 4236.0 | 4286.7 | 4716.8 | 5455.7 | 7232.2 | 8133.0 | 7444.7 |
| 30° | 3719.8 | 3724.9 | 3886.8 | 4160.1 | 4504.3 | 4570.1 | 5050.9 | 5779.7 | 7505.4 | 8623.9 | 7783.8 |
| 32.5° | 3937.5 | 3962.8 | 4160.1 | 4479.0 | 4848.4 | 4883.9 | 5460.8 | 6265.5 | 7915.4 | 9114.8 | 8148.2 |
| 35° | 4301.8 | 4327.1 | 4549.8 | 4883.9 | 5293.8 | 5344.4 | 5961.8 | 6827.3 | 8416.4 | 9610.8 | 8431.6 |
| 37.5° | 4772.5 | 4792.8 | 5010.4 | 5415.3 | 5850.5 | 5901.1 | 6518.6 | 7424.5 | 8922.5 | 10005.6 | 8684.7 |
| 40° | 5334.3 | 5379.8 | 5612.6 | 6007.4 | 6447.7 | 6478.1 | 7125.9 | 8001.4 | 9469.1 | 10278.9 | 8785.9 |
| 42.5° | 5946.7 | 5992.2 | 6230.1 | 6665.3 | 7070.2 | 7161.3 | 7783.8 | 8613.8 | 9914.5 | 10400.3 | 8704.9 |
| 45° | 6731.1 | 6721.0 | 6943.7 | 7399.2 | 7874.9 | 7910.3 | 8487.3 | 9119.9 | 10182.7 | 10299.1 | 8623.9 |
| 47.5° | 7682.6 | 7692.7 | 7834.4 | 8203.9 | 8694.8 | 8775.8 | 9221.1 | 9555.2 | 10339.6 | 10218.1 | 8532.8 |
| 50° | 8755.5 | 8780.8 | 8902.3 | 9170.5 | 9696.9 | 9752.5 | 9884.1 | 9858.8 | 10435.8 | 10046.1 | 8568.3 |
| 52.5° | 9828.4 | 9843.6 | 10005.6 | 10289.0 | 10800.2 | 10840.6 | 10552.2 | 10091.6 | 10076.4 | 9352.7 | 8492.3 |
| 55° | 10709.1 | 10704.0 | 10992.5 | 11427.7 | 12050.2 | 12024.9 | 11210.1 | 9914.5 | 8952.9 | 8274.7 | 8153.3 |
| 57.5° | 11473.3 | 11503.6 | 11878.1 | 12632.2 | 13416.7 | 13396.4 | 11913.6 | 8978.2 | 7313.1 | 6999.4 | 7601.6 |
| 60° | 12161.6 | 12232.4 | 12935.9 | 14064.5 | 14929.9 | 14808.5 | 12040.1 | 7566.2 | 5688.6 | 5481.1 | 6508.4 |
| 62.5° | 11863.0 | 11994.5 | 13123.1 | 15324.7 | 16514.0 | 16245.8 | 11260.7 | 5860.6 | 3851.4 | 3664.2 | 4600.4 |
| 65° | 10587.6 | 10764.7 | 12197.0 | 15142.5 | 17318.7 | 17151.7 | 9843.6 | 3684.4 | 2029.5 | 2226.8 | 3097.3 |
| 67.5° | 8892.2 | 9104.7 | 10653.4 | 13603.9 | 15668.8 | 15309.5 | 7647.2 | 1938.4 | 946.4 | 1467.7 | 1923.2 |
| 70° | 4873.7 | 5400.1 | 7702.8 | 11569.4 | 12551.3 | 12050.2 | 4423.3 | 916.0 | 688.3 | 916.0 | 1148.8 |
| 72.5° | 1832.1 | 1958.6 | 3340.3 | 7778.7 | 9297.0 | 8679.6 | 1680.2 | 592.1 | 577.0 | 678.2 | 830.0 |
| 75° | 880.6 | 941.3 | 1452.5 | 3537.6 | 5076.2 | 4732.0 | 824.9 | 440.3 | 496.0 | 531.4 | 602.3 |
| 77.5° | 526.3 | 566.8 | 905.9 | 2054.8 | 1999.1 | 1837.1 | 506.1 | 339.1 | 399.8 | 379.6 | 354.3 |
| 80° | 313.8 | 349.2 | 551.6 | 1169.1 | 1204.5 | 1067.9 | 308.7 | 237.9 | 278.4 | 242.9 | 217.6 |
| 82.5° | 182.2 | 197.4 | 288.5 | 526.3 | 764.2 | 703.5 | 177.1 | 141.7 | 202.4 | 162.0 | 121.5 |
| 85° | 91.1 | 96.2 | 131.6 | 227.7 | 379.6 | 288.5 | 75.9 | 65.8 | 96.2 | 70.9 | 40.5 |
| 87.5° | 20.2 | 20.2 | 20.2 | 25.3 | 35.4 | 35.4 | 10.1 | 5.1 | 5.1 | 5.1 | 5.1 |
| 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: P1500908
CATALOG NUMBER: GSS-SB4D-935-U-T4LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 | 5314.0 |
| 2.5° | 5324.2 | 5334.3 | 5298.9 | 5258.4 | 5248.2 | 5217.9 | 5228.0 | 5207.8 | 5177.4 | 5182.5 | 5187.5 |
| 5° | 5374.8 | 5354.5 | 5283.7 | 5192.6 | 5111.6 | 5020.5 | 4914.2 | 4792.8 | 4706.7 | 4671.3 | 4701.7 |
| 7.5° | 5420.3 | 5400.1 | 5278.6 | 5076.2 | 4802.9 | 4423.3 | 4028.5 | 3669.2 | 3421.2 | 3330.1 | 3350.4 |
| 10° | 5546.8 | 5465.9 | 5243.2 | 4802.9 | 4150.0 | 3431.4 | 3031.5 | 2808.8 | 2732.9 | 2692.4 | 2697.5 |
| 12.5° | 5713.9 | 5602.5 | 5177.4 | 4327.1 | 3340.3 | 2884.8 | 2743.1 | 2692.4 | 2667.1 | 2657.0 | 2667.1 |
| 15° | 5916.3 | 5744.2 | 5020.5 | 3730.0 | 2965.7 | 2788.6 | 2758.2 | 2763.3 | 2763.3 | 2768.4 | 2768.4 |
| 17.5° | 6093.4 | 5825.2 | 4737.1 | 3299.8 | 2889.8 | 2839.2 | 2869.6 | 2894.9 | 2894.9 | 2899.9 | 2894.9 |
| 20° | 6255.4 | 5865.7 | 4372.7 | 3117.6 | 2905.0 | 2930.3 | 3001.2 | 3026.5 | 3031.5 | 3026.5 | 3026.5 |
| 22.5° | 6427.5 | 5891.0 | 4008.3 | 3016.4 | 2940.4 | 3016.4 | 3092.3 | 3127.7 | 3137.8 | 3142.9 | 3147.9 |
| 25° | 6594.5 | 5840.4 | 3709.7 | 2935.4 | 2925.3 | 3031.5 | 3117.6 | 3163.1 | 3173.2 | 3173.2 | 3178.3 |
| 27.5° | 6761.5 | 5825.2 | 3507.3 | 2829.1 | 2854.4 | 2940.4 | 3041.7 | 3102.4 | 3142.9 | 3147.9 | 3153.0 |
| 30° | 6953.8 | 5779.7 | 3314.9 | 2687.4 | 2697.5 | 2803.8 | 2910.1 | 3016.4 | 3097.3 | 3132.8 | 3132.8 |
| 32.5° | 7085.4 | 5734.1 | 3142.9 | 2535.6 | 2535.6 | 2646.9 | 2778.5 | 2910.1 | 3026.5 | 3097.3 | 3112.5 |
| 35° | 7211.9 | 5693.6 | 2991.0 | 2383.7 | 2388.8 | 2495.1 | 2631.7 | 2773.4 | 2920.2 | 3006.2 | 3046.7 |
| 37.5° | 7277.7 | 5653.1 | 2884.8 | 2267.3 | 2247.1 | 2358.4 | 2449.5 | 2565.9 | 2722.8 | 2864.5 | 2899.9 |
| 40° | 7292.9 | 5653.1 | 2874.6 | 2186.3 | 2100.3 | 2226.8 | 2267.3 | 2348.3 | 2490.0 | 2641.8 | 2697.5 |
| 42.5° | 7191.7 | 5597.5 | 2925.3 | 2135.7 | 1948.5 | 2039.6 | 2085.1 | 2125.6 | 2216.7 | 2343.2 | 2388.8 |
| 45° | 7070.2 | 5521.5 | 2970.8 | 2064.9 | 1761.2 | 1832.1 | 1902.9 | 1908.0 | 1948.5 | 1978.8 | 2009.2 |
| 47.5° | 6969.0 | 5440.6 | 2889.8 | 1933.3 | 1568.9 | 1619.5 | 1695.4 | 1695.4 | 1675.2 | 1614.5 | 1594.2 |
| 50° | 7050.0 | 5465.9 | 2753.2 | 1746.0 | 1391.8 | 1427.2 | 1508.2 | 1462.6 | 1417.1 | 1290.6 | 1275.4 |
| 52.5° | 7120.8 | 5562.0 | 2591.2 | 1563.8 | 1239.9 | 1275.4 | 1356.3 | 1285.5 | 1194.4 | 1093.2 | 1078.0 |
| 55° | 7004.4 | 5567.1 | 2292.6 | 1361.4 | 1133.7 | 1164.0 | 1239.9 | 1153.9 | 1067.9 | 1007.1 | 997.0 |
| 57.5° | 6655.2 | 5415.3 | 1978.8 | 1204.5 | 1042.6 | 1072.9 | 1143.8 | 1057.7 | 976.8 | 971.7 | 997.0 |
| 60° | 5885.9 | 4883.9 | 1690.4 | 1103.3 | 956.5 | 992.0 | 1062.8 | 971.7 | 865.4 | 819.9 | 835.1 |
| 62.5° | 4443.6 | 3755.3 | 1447.4 | 986.9 | 875.6 | 921.1 | 971.7 | 824.9 | 733.8 | 713.6 | 693.4 |
| 65° | *3249.2* | *2884.8* | *1300.7* | *895.8* | *799.6* | *855.3* | *814.8* | *733.8* | *673.1* | *652.9* | *642.7* |
| 67.5° | 2100.3 | 1958.6 | 1118.5 | 809.8 | 728.8 | 774.3 | 718.7 | 678.2 | 612.4 | 602.3 | 617.4 |
| 70° | 1285.5 | 1331.0 | 936.3 | 713.6 | 657.9 | 647.8 | 657.9 | 617.4 | 546.6 | 561.8 | 582.0 |
| 72.5° | 911.0 | 981.8 | 804.7 | 622.5 | 561.8 | 541.5 | 587.1 | 561.8 | 511.2 | 526.3 | 546.6 |
| 75° | 652.9 | 728.8 | 663.0 | 511.2 | 475.7 | 465.6 | 546.6 | 561.8 | 526.3 | 536.5 | 551.6 |
| 77.5° | 384.6 | 465.6 | 470.7 | 394.8 | 359.3 | 415.0 | 582.0 | 647.8 | 622.5 | 592.1 | 577.0 |
| 80° | 248.0 | 278.4 | 334.0 | 253.0 | 253.0 | 359.3 | 637.7 | 789.5 | 678.2 | 602.3 | 592.1 |
| 82.5° | 126.5 | 146.8 | 217.6 | 162.0 | 151.8 | 268.2 | 627.6 | 754.1 | 749.0 | 668.1 | 652.9 |
| 85° | 35.4 | 45.5 | 101.2 | 70.9 | 60.7 | 141.7 | 470.7 | 566.8 | 506.1 | 369.5 | 374.5 |
| 87.5° | 5.1 | 5.1 | 0.0 | 0.0 | 5.1 | 20.2 | 55.7 | 10.1 | 10.1 | 10.1 | 10.1 |
| 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-79-08: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

McGRAW-EDISON

Report Number: SP1-2106-271-3

Luminaire Tested: GFLD-SA1-A-935-U-WR-X-BK

Test Date: 06/15/2021

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.09

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## Test Information

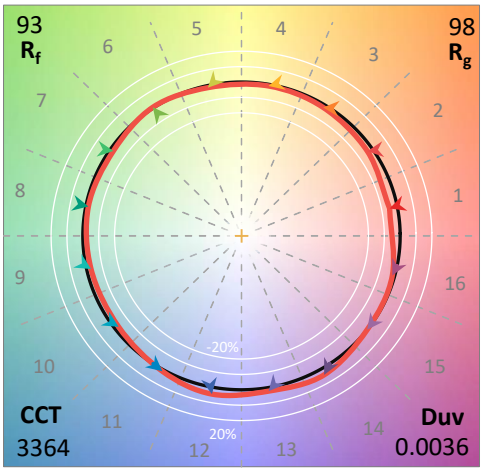
| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | SP1-2106-271-3 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 |
| Measurement Geometry: | 4π |
| Issue Date: | 06/15/2021 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **GFLD-SA1-A-935-U-WR-X-BK** |
| Description: | MCGRAW EDISON |

N6, BLACK

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 3364 | CRI (Ra): | 92.0 | | |
| CIE u': | 0.2376 | R1: | 91.7 | R9: | 59.7 |
| CIE v': | 0.5188 | R2: | 94.0 | R10: | 85.2 |
| Duv: | 0.0036 | R3: | 95.5 | R11: | 92.8 |
| CIE x: | 0.4173 | R4: | 93.0 | R12: | 78.2 |
| CIE y: | 0.4050 | R5: | 90.9 | R13: | 92.0 |
| CIE z: | 0.1777 | R6: | 92.2 | R14: | 96.9 |
| Peak Wavelength (nm): | 622 | R7: | 94.8 | | |
| Dominant Wavelength (nm): | 580 | R8: | 84.1 | | |
| Purity: | 46.9 | | | | |

| | |
|---|---|
| Rf: | 92.6 |
| Rg: | 98.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 76M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 24.8/44% |
| Sphere Temperature (°C): | 24.9 |

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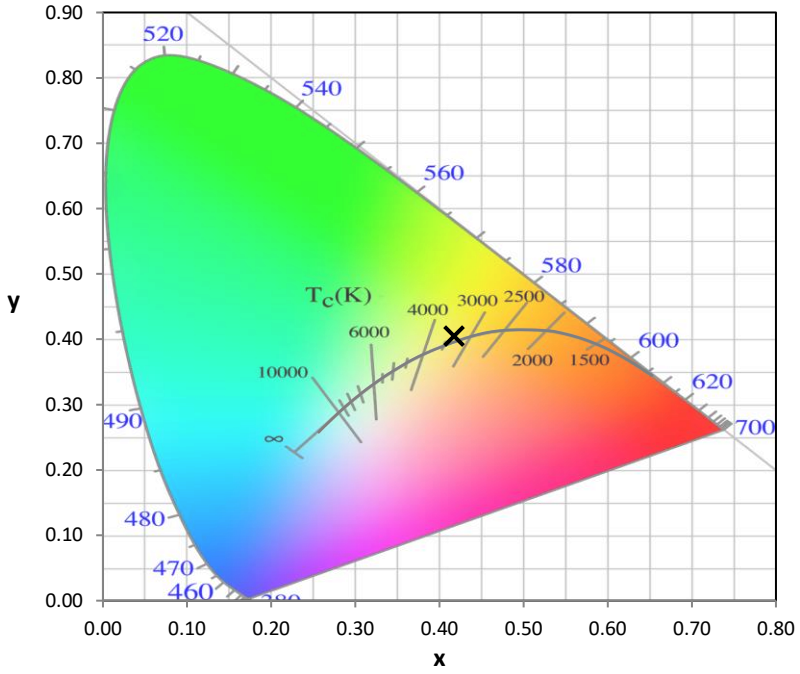
REPORT NUMBER: SP1-2106-271-3

| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 1/31/2021 | 7/31/2021 |
| Power Meter | XITRON 2801 IN0071 | 12/1/2020 | 12/1/2021 |
| AC Power Source | CHROMA 61603 IN0063 | 12/1/2020 | 12/1/2021 |
| DC Power Source | AGILENT E3634A IN0208 | 12/1/2020 | 12/1/2021 |
| Sphere Thermometer | ONSET IN0085 | 12/1/2020 | 12/1/2021 |
| Room Thermometer | ONSET IN0046 | 12/1/2020 | 12/1/2021 |

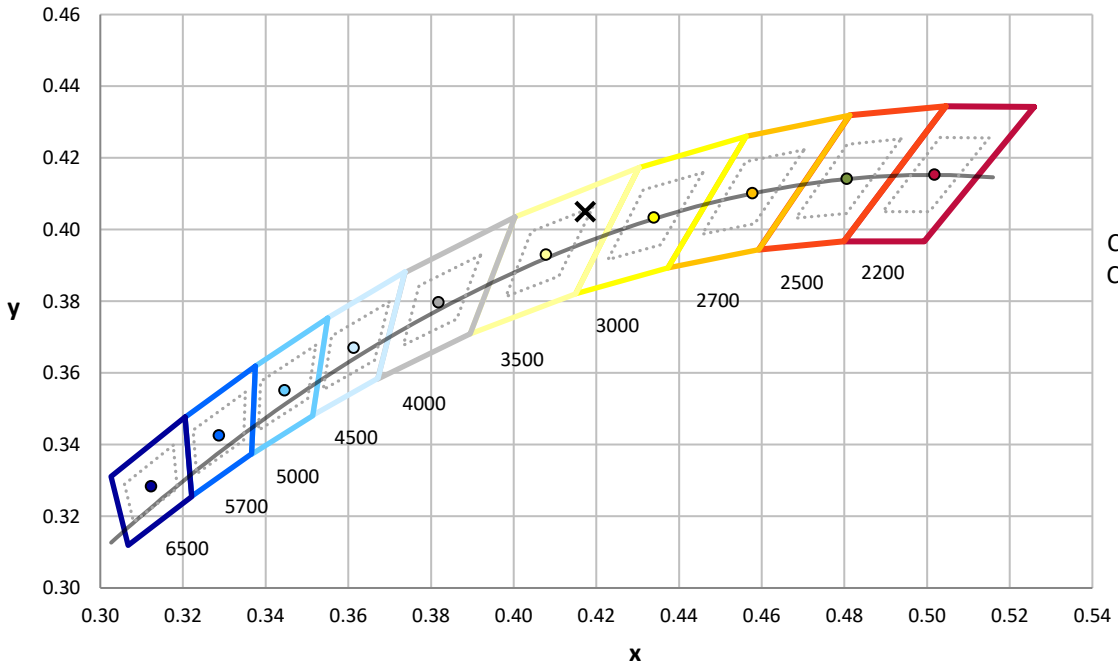
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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-2106-271-3

## CIE 1931 Chromaticity Diagram




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



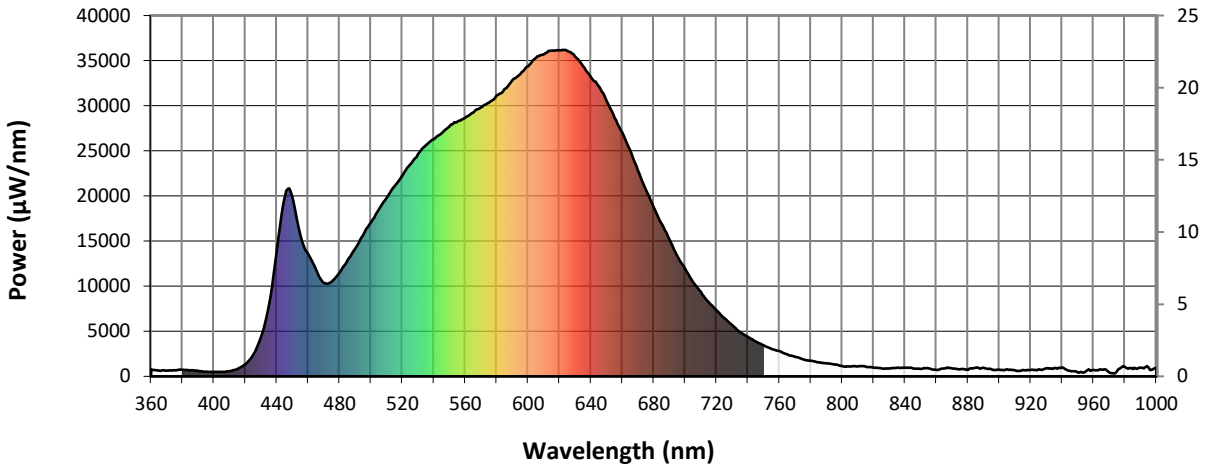

CCT = 3364K
CIE x = 0.4173
CIE y = 0.4050
Duv = 0.0036

Point lies inside the ANSI 3500K 4-step quadrangle

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## Photopic Flux vs. Wavelength



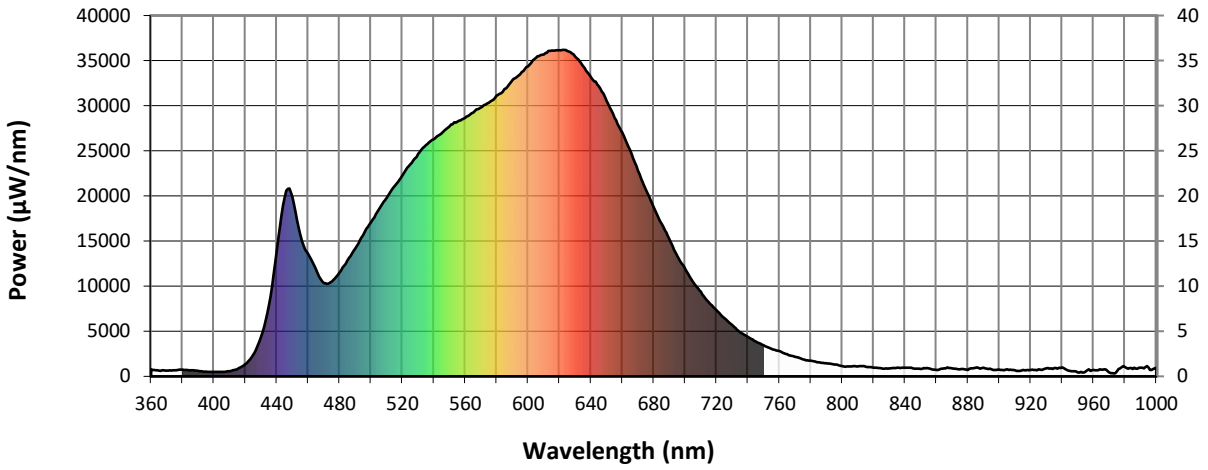

######

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 792 | NR | 490 | 14205 | NR | 620 | 36151 | NR | 750 | 3427 | NR | 880 | 712 | NR |
| 365 | 640 | NR | 495 | 15647 | NR | 625 | 36077 | NR | 755 | 3047 | NR | 885 | 942 | NR |
| 370 | 630 | NR | 500 | 17088 | NR | 630 | 35451 | NR | 760 | 2790 | NR | 890 | 952 | NR |
| 375 | 684 | NR | 505 | 18475 | NR | 635 | 34417 | NR | 765 | 2433 | NR | 895 | 764 | NR |
| 380 | 731 | NR | 510 | 19780 | NR | 640 | 33166 | NR | 770 | 2178 | NR | 900 | 743 | NR |
| 385 | 664 | NR | 515 | 21055 | NR | 645 | 32124 | NR | 775 | 1893 | NR | 905 | 776 | NR |
| 390 | 595 | NR | 520 | 22268 | NR | 650 | 30559 | NR | 780 | 1724 | NR | 910 | 659 | NR |
| 395 | 520 | NR | 525 | 23497 | NR | 655 | 28656 | NR | 785 | 1549 | NR | 915 | 701 | NR |
| 400 | 491 | NR | 530 | 24653 | NR | 660 | 27033 | NR | 790 | 1451 | NR | 920 | 728 | NR |
| 405 | 489 | NR | 535 | 25661 | NR | 665 | 25030 | NR | 795 | 1317 | NR | 925 | 793 | NR |
| 410 | 585 | NR | 540 | 26289 | NR | 670 | 22820 | NR | 800 | 1124 | NR | 930 | 877 | NR |
| 415 | 826 | NR | 545 | 26945 | NR | 675 | 20678 | NR | 805 | 1116 | NR | 935 | 923 | NR |
| 420 | 1336 | NR | 550 | 27713 | NR | 680 | 18748 | NR | 810 | 1105 | NR | 940 | 1001 | NR |
| 425 | 2406 | NR | 555 | 28230 | NR | 685 | 16904 | NR | 815 | 1073 | NR | 945 | 604 | NR |
| 430 | 4355 | NR | 560 | 28678 | NR | 690 | 15203 | NR | 820 | 977 | NR | 950 | 424 | NR |
| 435 | 7911 | NR | 565 | 29242 | NR | 695 | 13356 | NR | 825 | 882 | NR | 955 | 550 | NR |
| 440 | 13821 | NR | 570 | 29806 | NR | 700 | 11948 | NR | 830 | 875 | NR | 960 | 709 | NR |
| 445 | 19836 | NR | 575 | 30322 | NR | 705 | 10482 | NR | 835 | 944 | NR | 965 | 755 | NR |
| 450 | 19902 | NR | 580 | 31125 | NR | 710 | 9351 | NR | 840 | 956 | NR | 970 | 426 | NR |
| 455 | 15697 | NR | 585 | 31838 | NR | 715 | 8217 | NR | 845 | 875 | NR | 975 | 556 | NR |
| 460 | 13589 | NR | 590 | 32845 | NR | 720 | 7313 | NR | 850 | 801 | NR | 980 | 1040 | NR |
| 465 | 11857 | NR | 595 | 33487 | NR | 725 | 6460 | NR | 855 | 890 | NR | 985 | 833 | NR |
| 470 | 10336 | NR | 600 | 34359 | NR | 730 | 5680 | NR | 860 | 706 | NR | 990 | 964 | NR |
| 475 | 10504 | NR | 605 | 35281 | NR | 735 | 4904 | NR | 865 | 902 | NR | 995 | 953 | NR |
| 480 | 11526 | NR | 610 | 35679 | NR | 740 | 4372 | NR | 870 | 879 | NR | 1000 | 950 | NR |
| 485 | 12831 | NR | 615 | 36113 | NR | 745 | 3858 | NR | 875 | 769 | NR | | | |

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## Scotopic Flux vs. Wavelength



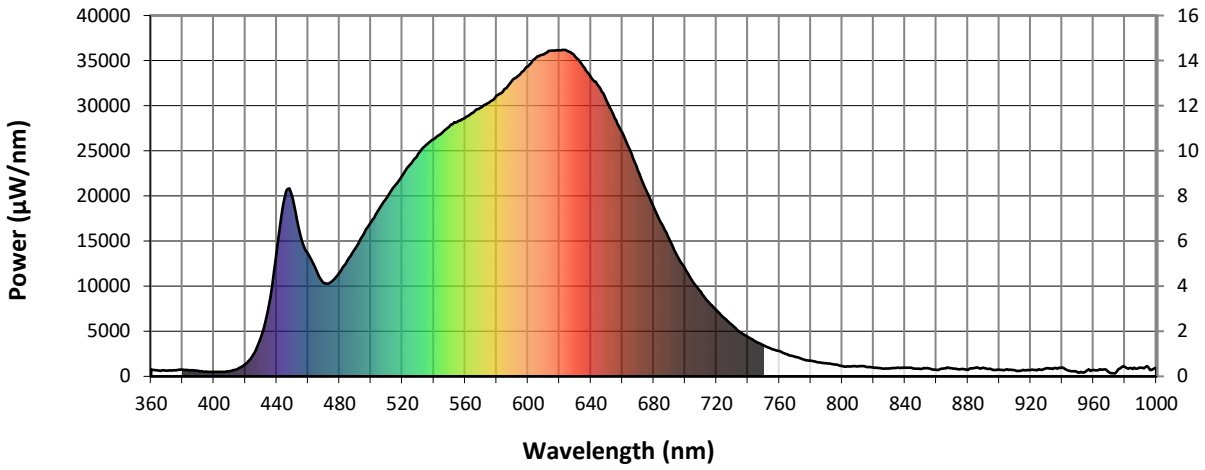

**Scotopic Lumens: 3109.5** **S/P: 1.54**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 792 | NR | 490 | 14205 | NR | 620 | 36151 | NR | 750 | 3427 | NR | 880 | 712 | NR |
| 365 | 640 | NR | 495 | 15647 | NR | 625 | 36077 | NR | 755 | 3047 | NR | 885 | 942 | NR |
| 370 | 630 | NR | 500 | 17088 | NR | 630 | 35451 | NR | 760 | 2790 | NR | 890 | 952 | NR |
| 375 | 684 | NR | 505 | 18475 | NR | 635 | 34417 | NR | 765 | 2433 | NR | 895 | 764 | NR |
| 380 | 731 | NR | 510 | 19780 | NR | 640 | 33166 | NR | 770 | 2178 | NR | 900 | 743 | NR |
| 385 | 664 | NR | 515 | 21055 | NR | 645 | 32124 | NR | 775 | 1893 | NR | 905 | 776 | NR |
| 390 | 595 | NR | 520 | 22268 | NR | 650 | 30559 | NR | 780 | 1724 | NR | 910 | 659 | NR |
| 395 | 520 | NR | 525 | 23497 | NR | 655 | 28656 | NR | 785 | 1549 | NR | 915 | 701 | NR |
| 400 | 491 | NR | 530 | 24653 | NR | 660 | 27033 | NR | 790 | 1451 | NR | 920 | 728 | NR |
| 405 | 489 | NR | 535 | 25661 | NR | 665 | 25030 | NR | 795 | 1317 | NR | 925 | 793 | NR |
| 410 | 585 | NR | 540 | 26289 | NR | 670 | 22820 | NR | 800 | 1124 | NR | 930 | 877 | NR |
| 415 | 826 | NR | 545 | 26945 | NR | 675 | 20678 | NR | 805 | 1116 | NR | 935 | 923 | NR |
| 420 | 1336 | NR | 550 | 27713 | NR | 680 | 18748 | NR | 810 | 1105 | NR | 940 | 1001 | NR |
| 425 | 2406 | NR | 555 | 28230 | NR | 685 | 16904 | NR | 815 | 1073 | NR | 945 | 604 | NR |
| 430 | 4355 | NR | 560 | 28678 | NR | 690 | 15203 | NR | 820 | 977 | NR | 950 | 424 | NR |
| 435 | 7911 | NR | 565 | 29242 | NR | 695 | 13356 | NR | 825 | 882 | NR | 955 | 550 | NR |
| 440 | 13821 | NR | 570 | 29806 | NR | 700 | 11948 | NR | 830 | 875 | NR | 960 | 709 | NR |
| 445 | 19836 | NR | 575 | 30322 | NR | 705 | 10482 | NR | 835 | 944 | NR | 965 | 755 | NR |
| 450 | 19902 | NR | 580 | 31125 | NR | 710 | 9351 | NR | 840 | 956 | NR | 970 | 426 | NR |
| 455 | 15697 | NR | 585 | 31838 | NR | 715 | 8217 | NR | 845 | 875 | NR | 975 | 556 | NR |
| 460 | 13589 | NR | 590 | 32845 | NR | 720 | 7313 | NR | 850 | 801 | NR | 980 | 1040 | NR |
| 465 | 11857 | NR | 595 | 33487 | NR | 725 | 6460 | NR | 855 | 890 | NR | 985 | 833 | NR |
| 470 | 10336 | NR | 600 | 34359 | NR | 730 | 5680 | NR | 860 | 706 | NR | 990 | 964 | NR |
| 475 | 10504 | NR | 605 | 35281 | NR | 735 | 4904 | NR | 865 | 902 | NR | 995 | 953 | NR |
| 480 | 11526 | NR | 610 | 35679 | NR | 740 | 4372 | NR | 870 | 879 | NR | 1000 | 950 | NR |
| 485 | 12831 | NR | 615 | 36113 | NR | 745 | 3858 | NR | 875 | 769 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 1210.8** **S/P: 0.6**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 792 | NR | 490 | 14205 | NR | 620 | 36151 | NR | 750 | 3427 | NR | 880 | 712 | NR |
| 365 | 640 | NR | 495 | 15647 | NR | 625 | 36077 | NR | 755 | 3047 | NR | 885 | 942 | NR |
| 370 | 630 | NR | 500 | 17088 | NR | 630 | 35451 | NR | 760 | 2790 | NR | 890 | 952 | NR |
| 375 | 684 | NR | 505 | 18475 | NR | 635 | 34417 | NR | 765 | 2433 | NR | 895 | 764 | NR |
| 380 | 731 | NR | 510 | 19780 | NR | 640 | 33166 | NR | 770 | 2178 | NR | 900 | 743 | NR |
| 385 | 664 | NR | 515 | 21055 | NR | 645 | 32124 | NR | 775 | 1893 | NR | 905 | 776 | NR |
| 390 | 595 | NR | 520 | 22268 | NR | 650 | 30559 | NR | 780 | 1724 | NR | 910 | 659 | NR |
| 395 | 520 | NR | 525 | 23497 | NR | 655 | 28656 | NR | 785 | 1549 | NR | 915 | 701 | NR |
| 400 | 491 | NR | 530 | 24653 | NR | 660 | 27033 | NR | 790 | 1451 | NR | 920 | 728 | NR |
| 405 | 489 | NR | 535 | 25661 | NR | 665 | 25030 | NR | 795 | 1317 | NR | 925 | 793 | NR |
| 410 | 585 | NR | 540 | 26289 | NR | 670 | 22820 | NR | 800 | 1124 | NR | 930 | 877 | NR |
| 415 | 826 | NR | 545 | 26945 | NR | 675 | 20678 | NR | 805 | 1116 | NR | 935 | 923 | NR |
| 420 | 1336 | NR | 550 | 27713 | NR | 680 | 18748 | NR | 810 | 1105 | NR | 940 | 1001 | NR |
| 425 | 2406 | NR | 555 | 28230 | NR | 685 | 16904 | NR | 815 | 1073 | NR | 945 | 604 | NR |
| 430 | 4355 | NR | 560 | 28678 | NR | 690 | 15203 | NR | 820 | 977 | NR | 950 | 424 | NR |
| 435 | 7911 | NR | 565 | 29242 | NR | 695 | 13356 | NR | 825 | 882 | NR | 955 | 550 | NR |
| 440 | 13821 | NR | 570 | 29806 | NR | 700 | 11948 | NR | 830 | 875 | NR | 960 | 709 | NR |
| 445 | 19836 | NR | 575 | 30322 | NR | 705 | 10482 | NR | 835 | 944 | NR | 965 | 755 | NR |
| 450 | 19902 | NR | 580 | 31125 | NR | 710 | 9351 | NR | 840 | 956 | NR | 970 | 426 | NR |
| 455 | 15697 | NR | 585 | 31838 | NR | 715 | 8217 | NR | 845 | 875 | NR | 975 | 556 | NR |
| 460 | 13589 | NR | 590 | 32845 | NR | 720 | 7313 | NR | 850 | 801 | NR | 980 | 1040 | NR |
| 465 | 11857 | NR | 595 | 33487 | NR | 725 | 6460 | NR | 855 | 890 | NR | 985 | 833 | NR |
| 470 | 10336 | NR | 600 | 34359 | NR | 730 | 5680 | NR | 860 | 706 | NR | 990 | 964 | NR |
| 475 | 10504 | NR | 605 | 35281 | NR | 735 | 4904 | NR | 865 | 902 | NR | 995 | 953 | NR |
| 480 | 11526 | NR | 610 | 35679 | NR | 740 | 4372 | NR | 870 | 879 | NR | 1000 | 950 | NR |
| 485 | 12831 | NR | 615 | 36113 | NR | 745 | 3858 | NR | 875 | 769 | NR | | | |

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Peachtree City, GA 30269

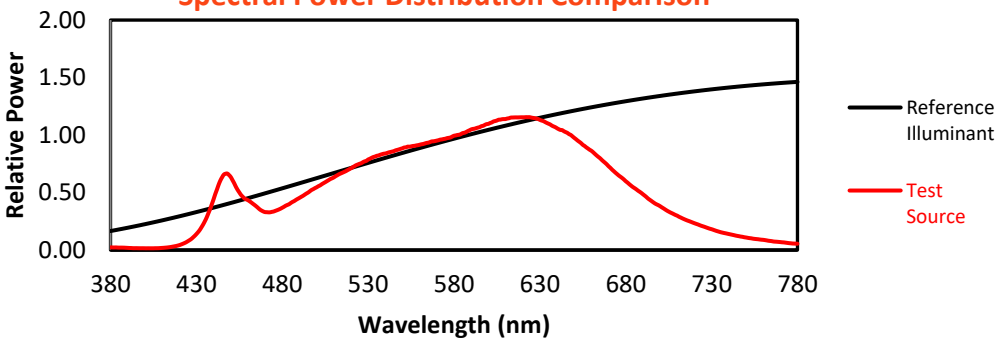
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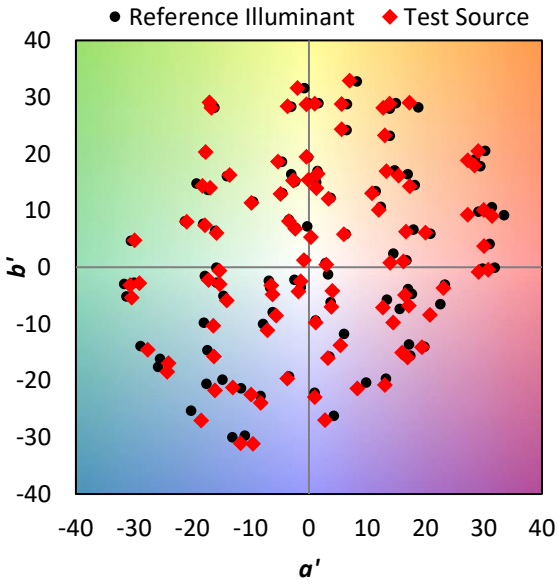
## Summary

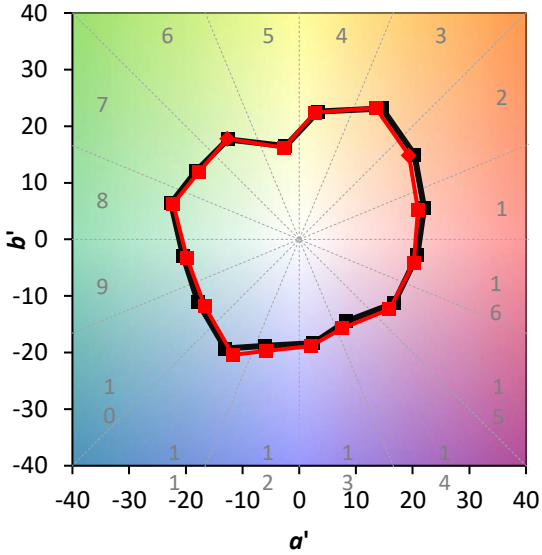
$R_f$ = 92.6
$R_g$ = 98.3
CIE $R_a$ = 92.0
$R_9$ = 59.7

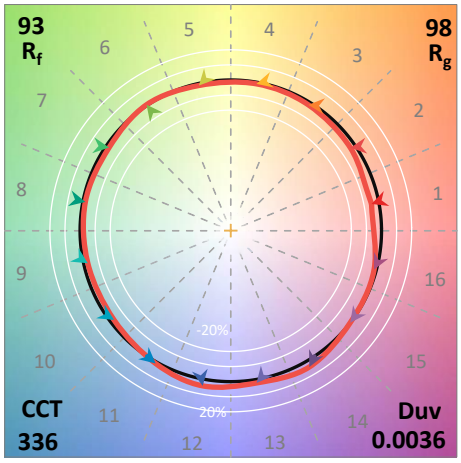
## Spectral Power Distribution Comparison

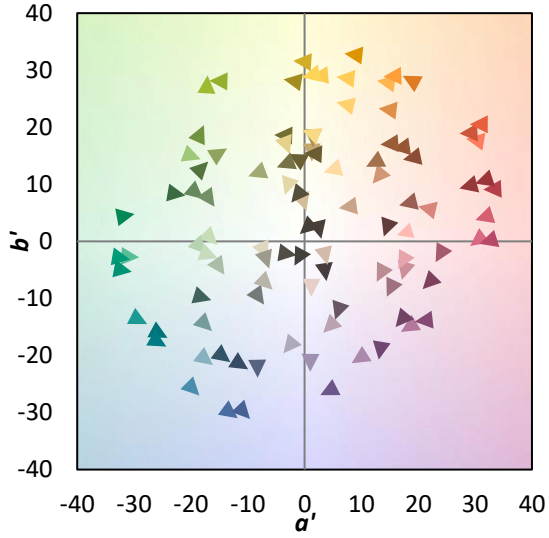



## Color Vector Graphics



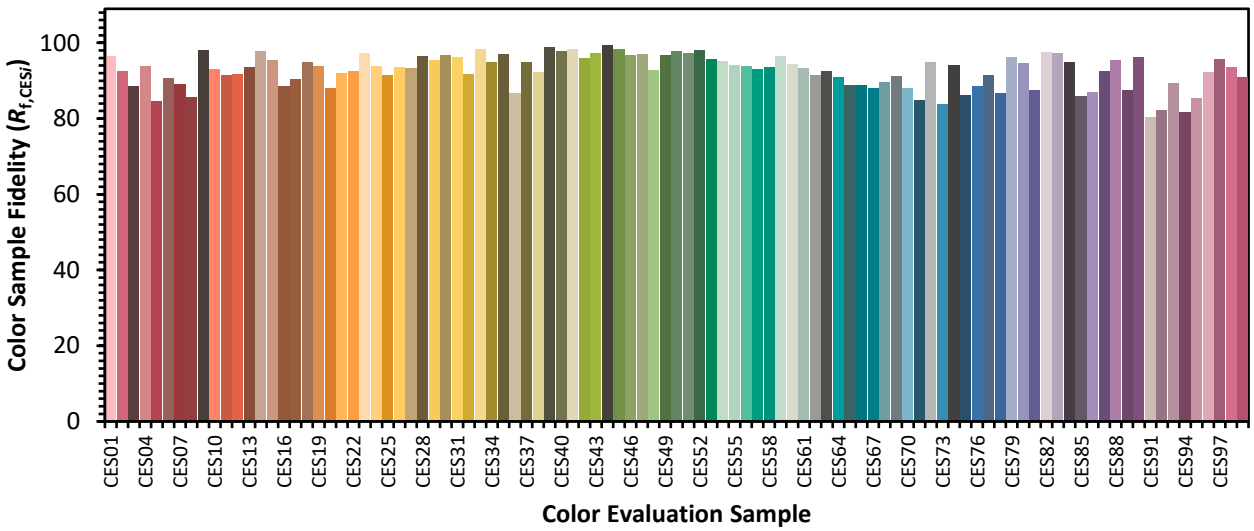
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 94 | CES51 = 97 | CES76 = 88 |
| CES02 = 62 | CES27 = 93 | CES52 = 98 | CES77 = 91 |
| CES03 = 31 | CES28 = 96 | CES53 = 96 | CES78 = 87 |
| CES04 = 70 | CES29 = 96 | CES54 = 95 | CES79 = 96 |
| CES05 = 50 | CES30 = 97 | CES55 = 94 | CES80 = 95 |
| CES06 = 51 | CES31 = 96 | CES56 = 94 | CES81 = 88 |
| CES07 = 42 | CES32 = 92 | CES57 = 93 | CES82 = 98 |
| CES08 = 41 | CES33 = 98 | CES58 = 94 | CES83 = 97 |
| CES09 = 29 | CES34 = 95 | CES59 = 96 | CES84 = 95 |
| CES10 = 75 | CES35 = 97 | CES60 = 94 | CES85 = 86 |
| CES11 = 58 | CES36 = 87 | CES61 = 93 | CES86 = 87 |
| CES12 = 64 | CES37 = 95 | CES62 = 91 | CES87 = 92 |
| CES13 = 43 | CES38 = 92 | CES63 = 93 | CES88 = 96 |
| CES14 = 74 | CES39 = 99 | CES64 = 91 | CES89 = 87 |
| CES15 = 71 | CES40 = 98 | CES65 = 89 | CES90 = 96 |
| CES16 = 48 | CES41 = 98 | CES66 = 89 | CES91 = 80 |
| CES17 = 49 | CES42 = 96 | CES67 = 88 | CES92 = 82 |
| CES18 = 56 | CES43 = 97 | CES68 = 90 | CES93 = 89 |
| CES19 = 71 | CES44 = 99 | CES69 = 91 | CES94 = 82 |
| CES20 = 66 | CES45 = 98 | CES70 = 88 | CES95 = 85 |
| CES21 = 86 | CES46 = 97 | CES71 = 85 | CES96 = 92 |
| CES22 = 78 | CES47 = 97 | CES72 = 95 | CES97 = 96 |
| CES23 = 91 | CES48 = 93 | CES73 = 84 | CES98 = 94 |
| CES24 = 90 | CES49 = 97 | CES74 = 94 | CES99 = 91 |
| CES25 = 71 | CES50 = 98 | CES75 = 86 | |

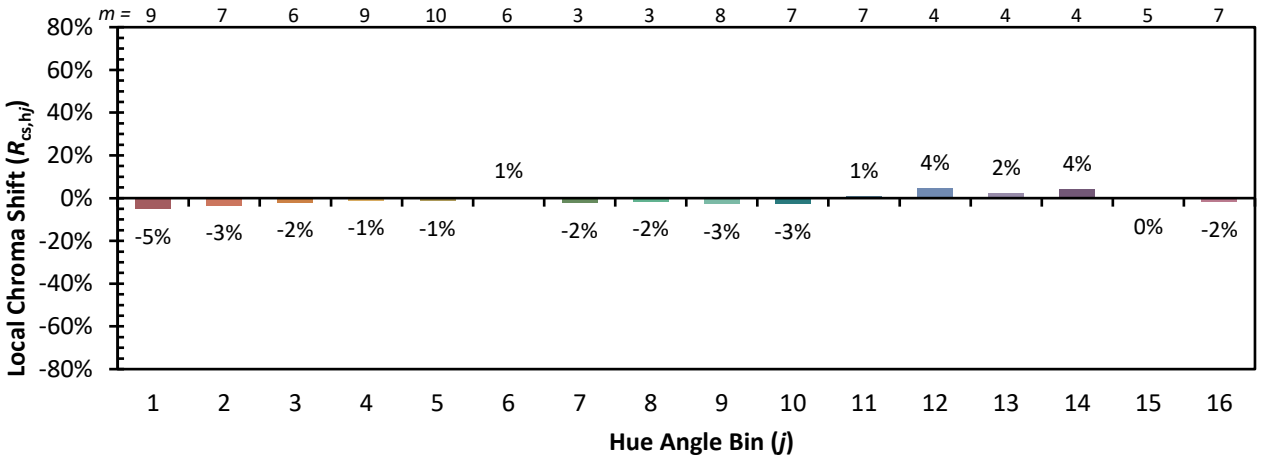


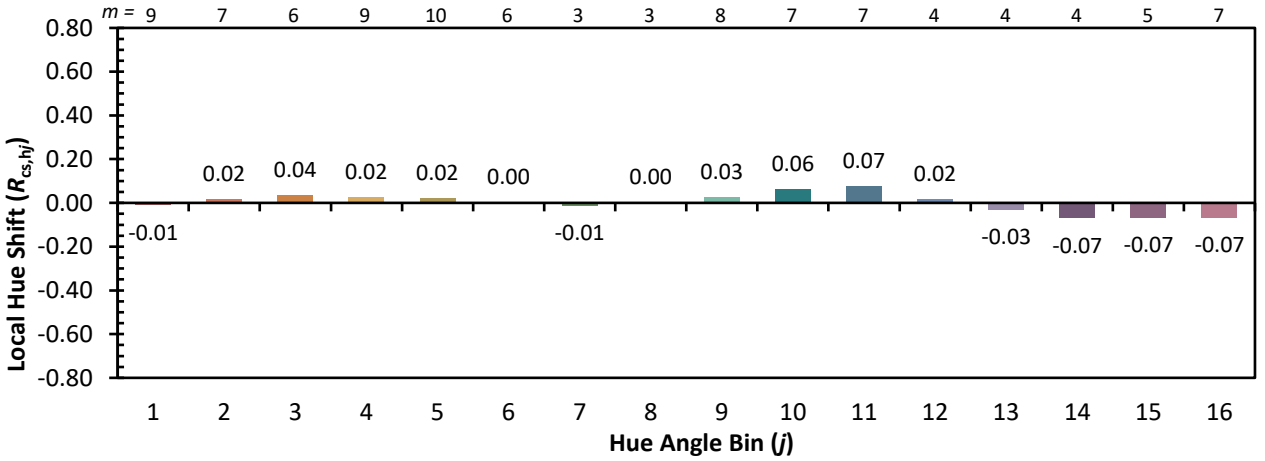
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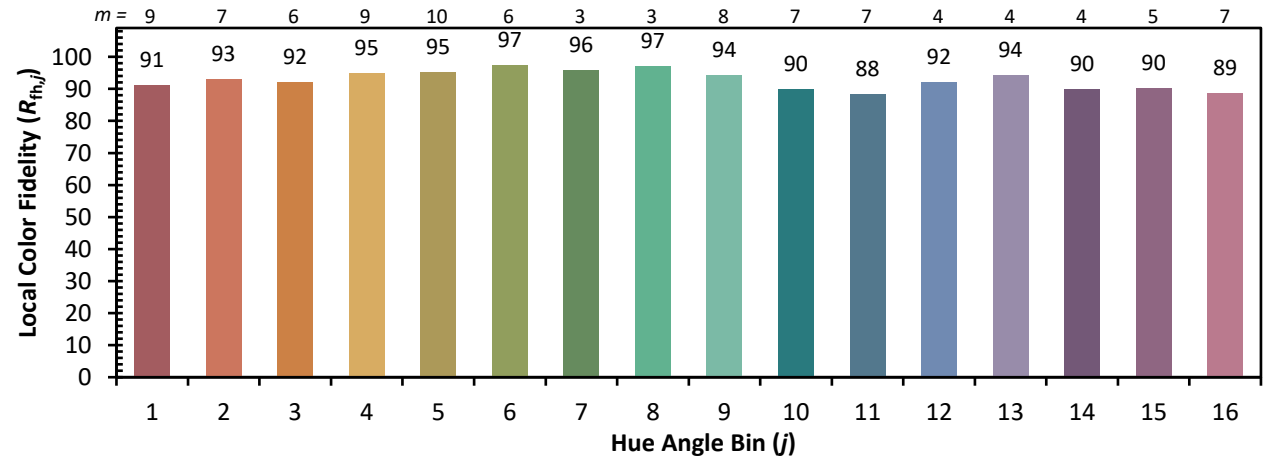
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### Color Rendition by Hue-Angle Bin



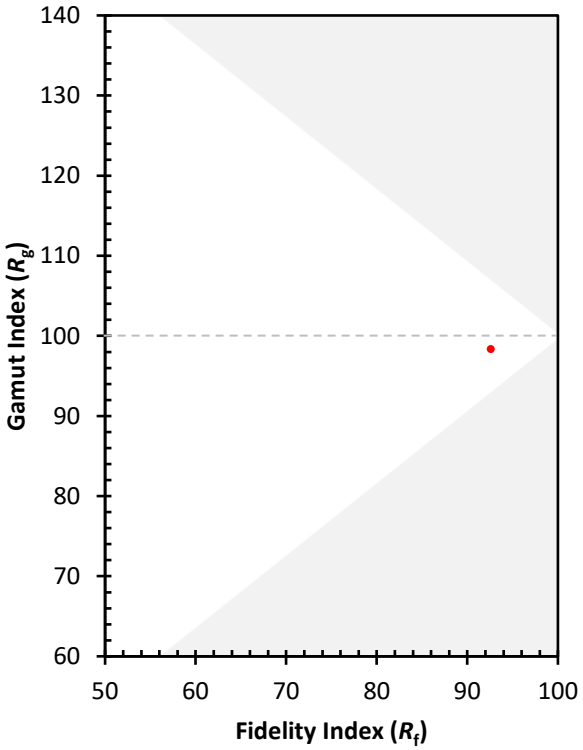



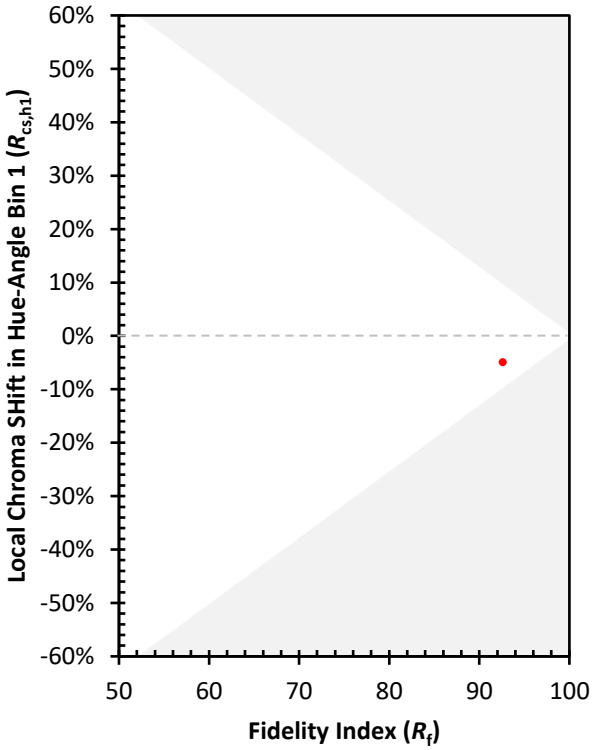
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### Measure Comparisons




(END OF REPORT)