Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1360007

Luminaire Tested: **GSS-SB5A-735-U-T3**

Issue Date: 02/18/2026

Report Generated By 670245763

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P1360007 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB5A-735-U-T3 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 5SQUARE 143W 70CRI 3500K FIXTURE w/ TYPE III DISTRIBUTION OPTIC |
| Light Source: | (130) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 21244.4 lumens |
| Efficiency: | N/A |
| Efficacy: | 148.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B3 - U0 - G3 |

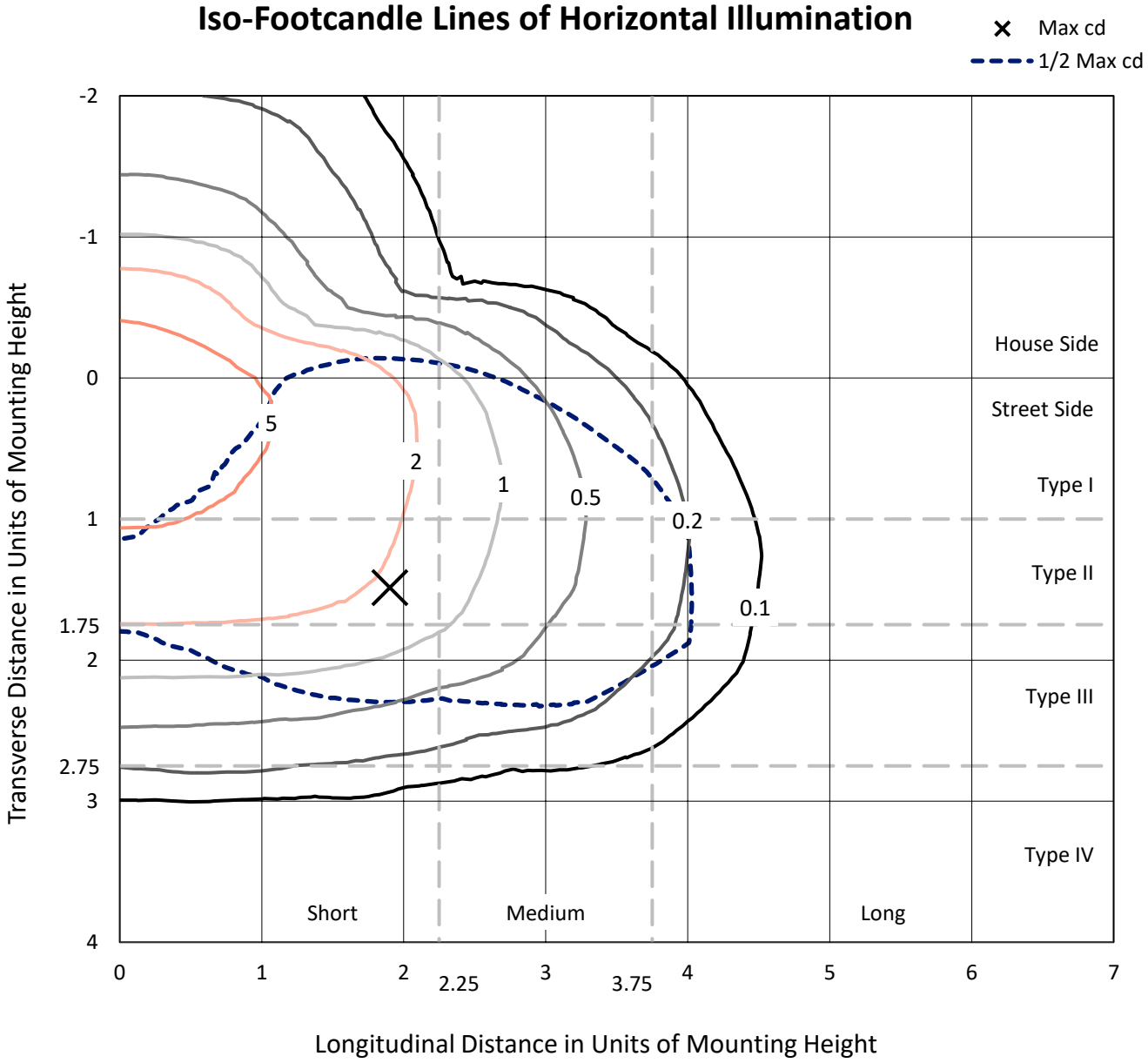
| | |
|---|---|
| Input Watts (W): | 143 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 10.5% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1360007
CATALOG NUMBER: GSS-SB5A-735-U-T3

## Iso-Footcandle Lines of Horizontal Illumination



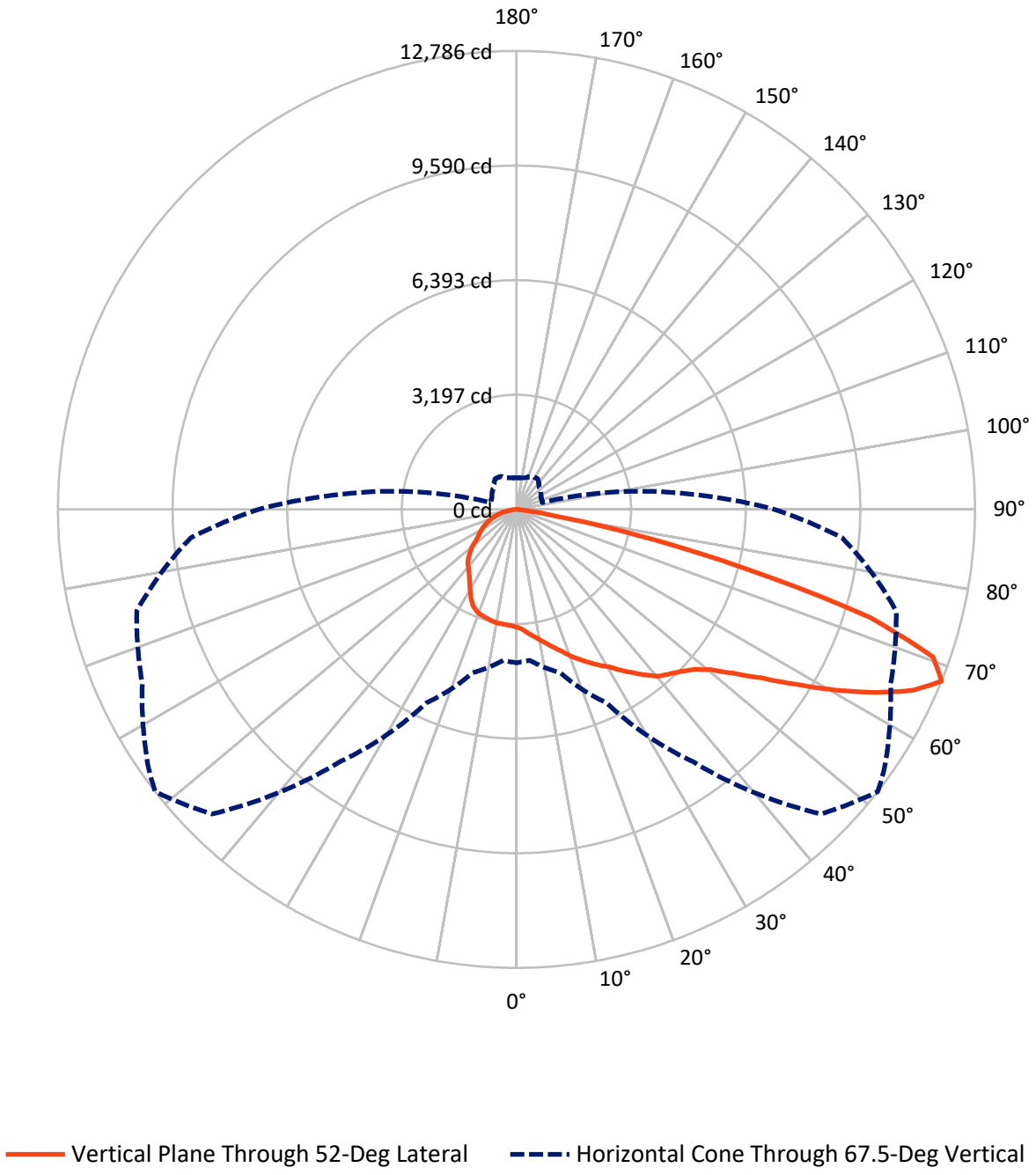

Based on 20 foot mounting height. Maximum calculated value = 9.3 fc
Type III - Short - N/A

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REPORT NUMBER: P1360007
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## Luminous Intensity Polar Plot



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Scaled Data Report

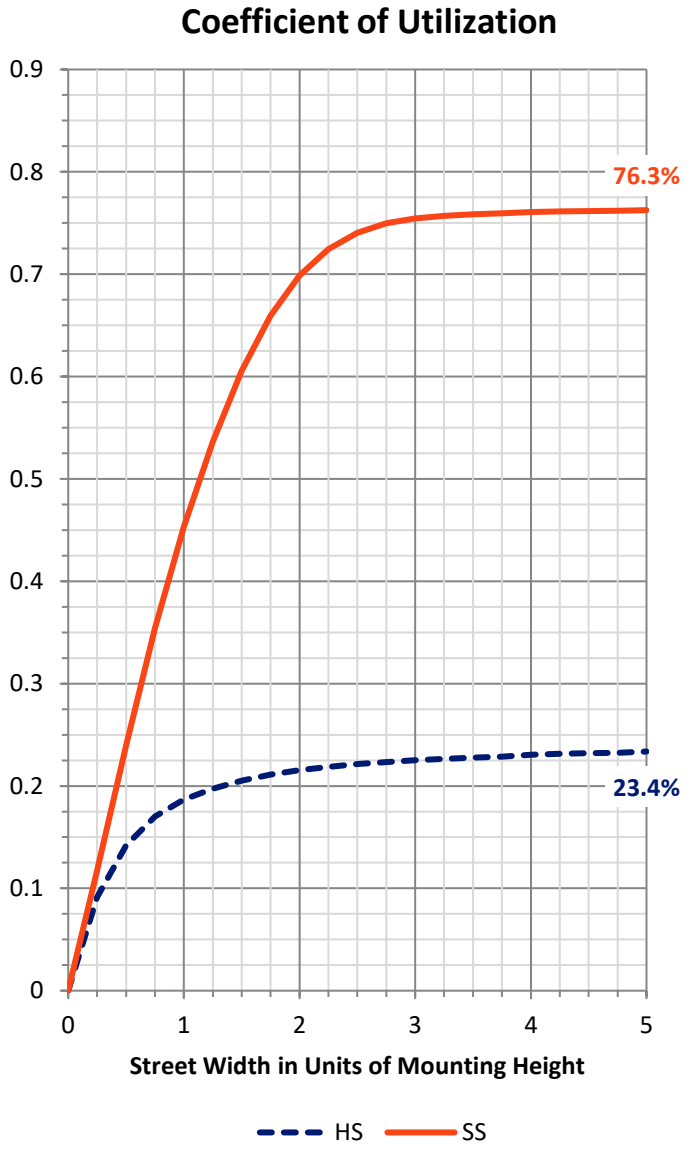
REPORT NUMBER: P1360007
CATALOG NUMBER: GSS-SB5A-735-U-T3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 5026.1 | 0.0 | 5026.1 |
| | % Fixture | 23.7 | 0.0 | 23.7 |
| **Street Side** | Lumens | 16218.3 | 0.0 | 16218.3 |
| | % Fixture | 76.3 | 0.0 | 76.3 |
| **Total** | Lumens | 21244.4 | 0.0 | 21244.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 322.4 | 1.5 |
| 10°-20° | 1016.8 | 4.8 |
| 20°-30° | 1738.4 | 8.2 |
| 30°-40° | 2521.9 | 11.9 |
| 40°-50° | 3275.9 | 15.4 |
| 50°-60° | 4438.6 | 20.9 |
| 60°-70° | 5177.5 | 24.4 |
| 70°-80° | 2552.7 | 12.0 |
| 80°-90° | 200.4 | 0.9 |
| 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° | 21244.4 | 100.0 |
| 0°-180° | 21244.4 | 100.0 |



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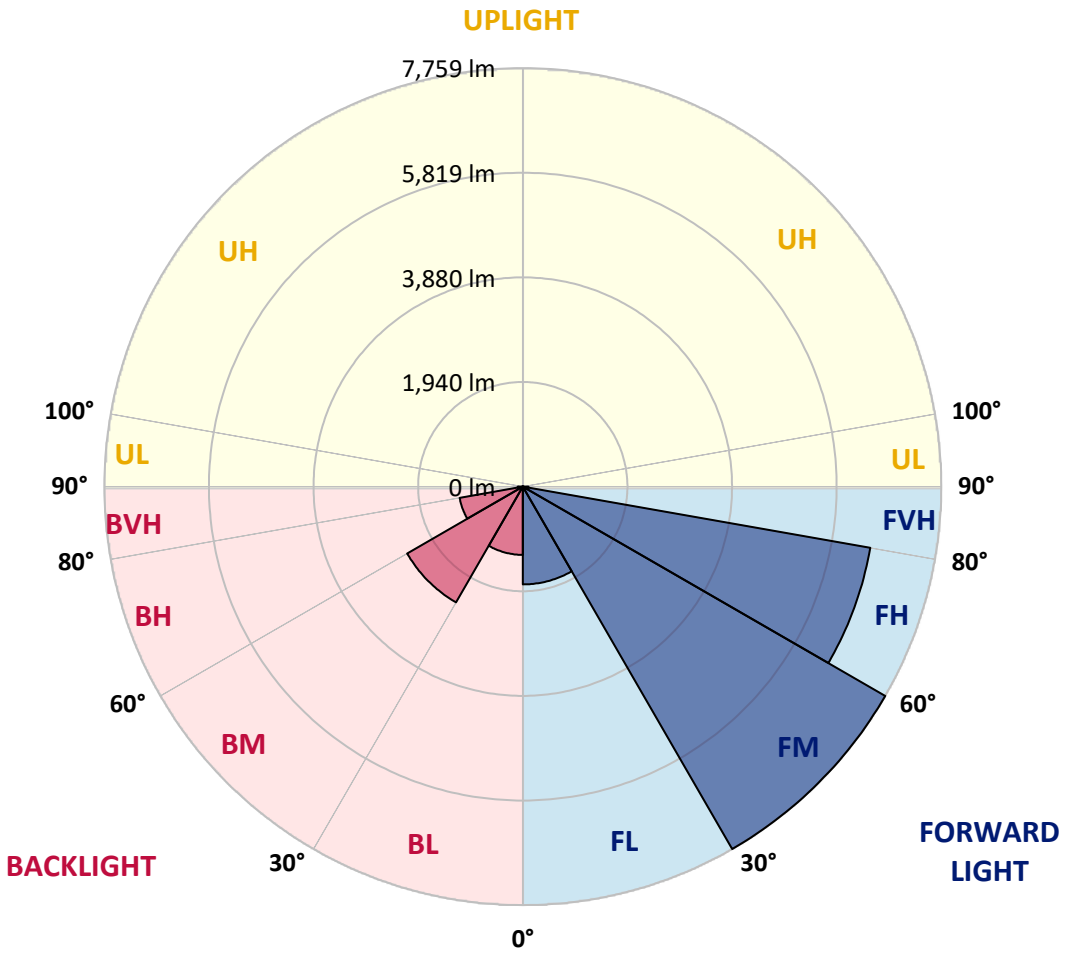
Scaled Data Report

REPORT NUMBER: P1360007
CATALOG NUMBER: GSS-SB5A-735-U-T3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1812.4 | 8.5 | | | |
| FM | (30°-60°) | 7759.1 | 36.5 | | | |
| FH | (60°-80°) | 6541.7 | 30.8 | | | G3/7500 |
| FVH | (80°-90°) | 105.2 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 1265.2 | 6.0 | B3/2500 | | |
| BM | (30°-60°) | 2477.2 | 11.7 | B2/2500 | | |
| BH | (60°-80°) | 1188.6 | 5.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 95.2 | 0.4 | | | G1/100 |
| 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° | 35° | 45° | 52° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 |
| 2.5° | 3386.9 | 3382.2 | 3377.5 | 3358.5 | 3358.5 | 3363.3 | 3353.8 | 3358.5 | 3353.8 | 3330.2 | 3311.2 |
| 5° | 3576.1 | 3533.6 | 3524.1 | 3514.6 | 3524.1 | 3495.7 | 3472.1 | 3457.9 | 3405.8 | 3391.6 | 3334.9 |
| 7.5° | 3656.5 | 3661.3 | 3656.5 | 3637.6 | 3623.4 | 3623.4 | 3585.6 | 3566.7 | 3533.6 | 3476.8 | 3382.2 |
| 10° | 3770.1 | 3765.3 | 3751.2 | 3760.6 | 3789.0 | 3741.7 | 3713.3 | 3699.1 | 3642.4 | 3561.9 | 3472.1 |
| 12.5° | 3973.5 | 3940.4 | 3930.9 | 3916.7 | 3912.0 | 3883.6 | 3850.5 | 3855.2 | 3789.0 | 3666.0 | 3571.4 |
| 15° | 4148.5 | 4110.7 | 4153.2 | 4124.9 | 4087.0 | 4044.4 | 4011.3 | 3982.9 | 3907.3 | 3793.7 | 3675.5 |
| 17.5° | 4314.1 | 4295.1 | 4314.1 | 4314.1 | 4309.3 | 4238.4 | 4172.2 | 4148.5 | 4058.6 | 3930.9 | 3774.8 |
| 20° | 4441.8 | 4441.8 | 4474.9 | 4474.9 | 4460.7 | 4418.1 | 4375.6 | 4347.2 | 4219.5 | 4053.9 | 3874.1 |
| 22.5° | 4607.3 | 4531.7 | 4602.6 | 4607.3 | 4612.1 | 4579.0 | 4550.6 | 4512.7 | 4380.3 | 4181.6 | 3954.6 |
| 25° | 4763.4 | 4702.0 | 4744.5 | 4716.1 | 4735.1 | 4749.3 | 4735.1 | 4720.9 | 4574.2 | 4347.2 | 4072.8 |
| 27.5° | 5009.4 | 4947.9 | 4976.3 | 4910.1 | 4910.1 | 4895.9 | 4919.5 | 4938.5 | 4777.6 | 4508.0 | 4176.9 |
| 30° | 5378.4 | 5307.4 | 5283.8 | 5203.4 | 5123.0 | 5089.8 | 5099.3 | 5132.4 | 5023.6 | 4664.1 | 4281.0 |
| 32.5° | 5695.3 | 5657.5 | 5638.6 | 5572.3 | 5473.0 | 5321.6 | 5345.3 | 5345.3 | 5231.7 | 4777.6 | 4333.0 |
| 35° | 5955.5 | 5946.0 | 5950.8 | 5860.9 | 5842.0 | 5596.0 | 5596.0 | 5586.5 | 5378.4 | 4929.0 | 4470.2 |
| 37.5° | 6125.8 | 6073.7 | 6097.4 | 6130.5 | 6069.0 | 5903.5 | 5860.9 | 5837.2 | 5581.8 | 5089.8 | 4649.9 |
| 40° | 6087.9 | 6050.1 | 6140.0 | 6201.5 | 6154.2 | 6121.1 | 6116.3 | 6069.0 | 5785.2 | 5293.2 | 4914.8 |
| 42.5° | 6083.2 | 6050.1 | 6158.9 | 6225.1 | 6201.5 | 6253.5 | 6267.7 | 6300.8 | 6045.4 | 5614.9 | 5293.2 |
| 45° | 6102.1 | 6087.9 | 6267.7 | 6352.8 | 6296.1 | 6367.0 | 6447.4 | 6475.8 | 6376.5 | 6007.5 | 5766.3 |
| 47.5° | 6258.2 | 6239.3 | 6447.4 | 6546.8 | 6594.1 | 6717.1 | 6665.0 | 6712.3 | 6769.1 | 6565.7 | 6310.3 |
| 50° | 6409.6 | 6428.5 | 6707.6 | 6802.2 | 7034.0 | 7204.3 | 7024.5 | 7100.2 | 7289.4 | 7213.8 | 7038.7 |
| 52.5° | 6650.8 | 6655.6 | 6929.9 | 7166.5 | 7611.1 | 7771.9 | 7596.9 | 7606.4 | 7861.8 | 8003.7 | 7771.9 |
| 55° | 6712.3 | 6764.4 | 7133.3 | 7625.3 | 8263.9 | 8377.4 | 8297.0 | 8263.9 | 8566.6 | 8760.6 | 8509.9 |
| 57.5° | 6707.6 | 6679.2 | 7138.1 | 7819.2 | 8760.6 | 9162.7 | 9210.0 | 9120.1 | 9375.5 | 9455.9 | 9318.8 |
| 60° | 6532.6 | 6589.4 | 7090.8 | 7956.4 | 9224.1 | 10118.2 | 10231.7 | 10113.5 | 10236.4 | 10260.1 | 9876.9 |
| 62.5° | 5998.1 | 6017.0 | 6702.9 | 7961.1 | 9588.4 | 10912.9 | 11248.7 | 11116.3 | 11002.8 | 10709.5 | 9999.9 |
| 65° | 5127.7 | 5094.6 | 5752.1 | 7303.6 | 9654.6 | 11679.2 | 12161.7 | 12161.7 | 11423.8 | 10860.8 | 9739.8 |
| 67.5° | 4276.2 | 4224.2 | 4716.1 | 5955.5 | 8595.0 | 12015.0 | 12786.1 | 12535.4 | 11513.6 | 10964.9 | 9120.1 |
| 70° | 2062.4 | 2209.1 | 2961.2 | 4214.7 | 6570.4 | 10146.6 | 12322.5 | 12417.1 | 11442.7 | 10638.5 | 7918.6 |
| 72.5° | 737.9 | 704.8 | 1064.3 | 1807.0 | 3637.6 | 6622.5 | 10316.9 | 11149.4 | 10946.0 | 9701.9 | 6485.3 |
| 75° | 340.6 | 345.3 | 444.7 | 629.1 | 1177.9 | 3230.8 | 6561.0 | 7677.3 | 9375.5 | 8065.2 | 4853.3 |
| 77.5° | 264.9 | 264.9 | 302.7 | 359.5 | 487.2 | 1045.4 | 3353.8 | 4309.3 | 6059.6 | 4995.2 | 2313.1 |
| 80° | 193.9 | 198.7 | 203.4 | 236.5 | 298.0 | 392.6 | 998.1 | 1494.8 | 2209.1 | 1603.6 | 752.1 |
| 82.5° | 137.2 | 137.2 | 132.4 | 132.4 | 160.8 | 175.0 | 269.6 | 378.4 | 648.1 | 439.9 | 198.7 |
| 85° | 56.8 | 66.2 | 56.8 | 56.8 | 56.8 | 71.0 | 85.1 | 99.3 | 141.9 | 123.0 | 85.1 |
| 87.5° | 9.5 | 9.5 | 9.5 | 14.2 | 18.9 | 23.7 | 28.4 | 33.1 | 37.8 | 37.8 | 37.8 |
| 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: P1360007
CATALOG NUMBER: GSS-SB5A-735-U-T3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 | 3287.6 |
| 2.5° | 3301.8 | 3301.8 | 3287.6 | 3263.9 | 3254.5 | 3240.3 | 3235.5 | 3230.8 | 3221.4 | 3240.3 | 3230.8 |
| 5° | 3320.7 | 3301.8 | 3282.9 | 3245.0 | 3240.3 | 3216.6 | 3193.0 | 3188.2 | 3174.1 | 3188.2 | 3188.2 |
| 7.5° | 3363.3 | 3334.9 | 3292.3 | 3254.5 | 3221.4 | 3216.6 | 3174.1 | 3136.2 | 3136.2 | 3140.9 | 3136.2 |
| 10° | 3439.0 | 3405.8 | 3363.3 | 3292.3 | 3230.8 | 3174.1 | 3103.1 | 3055.8 | 3060.5 | 3060.5 | 3051.1 |
| 12.5° | 3538.3 | 3491.0 | 3415.3 | 3311.2 | 3216.6 | 3126.7 | 3041.6 | 3027.4 | 3022.7 | 3032.1 | 3003.8 |
| 15° | 3614.0 | 3571.4 | 3448.4 | 3330.2 | 3183.5 | 3093.6 | 3003.8 | 2970.6 | 2975.4 | 2965.9 | 2942.3 |
| 17.5° | 3708.6 | 3642.4 | 3491.0 | 3316.0 | 3145.7 | 3060.5 | 2956.5 | 2885.5 | 2847.7 | 2852.4 | 2847.7 |
| 20° | 3798.5 | 3703.9 | 3524.1 | 3316.0 | 3136.2 | 2984.8 | 2852.4 | 2757.8 | 2677.4 | 2663.2 | 2658.4 |
| 22.5° | 3864.7 | 3770.1 | 3561.9 | 3320.7 | 3079.4 | 2899.7 | 2705.8 | 2582.8 | 2464.5 | 2445.6 | 2440.9 |
| 25° | 3959.3 | 3836.3 | 3604.5 | 3287.6 | 3003.8 | 2757.8 | 2516.5 | 2379.4 | 2275.3 | 2256.4 | 2256.4 |
| 27.5° | 4039.7 | 3907.3 | 3661.3 | 3254.5 | 2880.8 | 2563.8 | 2336.8 | 2199.6 | 2133.4 | 2100.3 | 2100.3 |
| 30° | 4124.9 | 3978.2 | 3708.6 | 3155.1 | 2715.2 | 2369.9 | 2194.9 | 2105.0 | 2029.3 | 1996.2 | 1982.0 |
| 32.5° | 4219.5 | 4096.5 | 3718.0 | 3055.8 | 2549.6 | 2242.2 | 2095.5 | 2019.9 | 1939.4 | 1892.1 | 1887.4 |
| 35° | 4337.7 | 4247.8 | 3684.9 | 2909.2 | 2384.1 | 2142.8 | 2000.9 | 1915.8 | 1835.4 | 1788.1 | 1797.5 |
| 37.5° | 4526.9 | 4422.9 | 3585.6 | 2701.0 | 2246.9 | 2081.3 | 1925.2 | 1802.3 | 1707.7 | 1632.0 | 1636.7 |
| 40° | 4806.0 | 4635.7 | 3439.0 | 2450.3 | 2147.6 | 2010.4 | 1835.4 | 1693.5 | 1556.3 | 1442.8 | 1442.8 |
| 42.5° | 5123.0 | 4824.9 | 3259.2 | 2218.5 | 2071.9 | 1920.5 | 1740.8 | 1561.0 | 1367.1 | 1248.8 | 1244.1 |
| 45° | 5477.7 | 4990.5 | 3051.1 | 2029.3 | 1948.9 | 1811.7 | 1617.8 | 1362.3 | 1234.6 | 1173.1 | 1168.4 |
| 47.5° | 5950.8 | 5170.3 | 2805.1 | 1863.8 | 1807.0 | 1702.9 | 1433.3 | 1248.8 | 1173.1 | 1125.8 | 1121.1 |
| 50° | 6395.4 | 5364.2 | 2601.7 | 1702.9 | 1655.6 | 1575.2 | 1305.6 | 1201.5 | 1140.0 | 1102.2 | 1092.7 |
| 52.5° | 6911.0 | 5562.9 | 2374.6 | 1546.8 | 1485.3 | 1376.5 | 1277.2 | 1177.9 | 1121.1 | 1092.7 | 1083.2 |
| 55° | 7421.9 | 5842.0 | 2123.9 | 1404.9 | 1334.0 | 1286.7 | 1248.8 | 1163.7 | 1106.9 | 1088.0 | 1073.8 |
| 57.5° | 8003.7 | 6111.6 | 1816.4 | 1253.5 | 1225.2 | 1220.4 | 1244.1 | 1158.9 | 1111.6 | 1078.5 | 1059.6 |
| 60° | 8306.5 | 6229.8 | 1494.8 | 1116.4 | 1121.1 | 1149.5 | 1225.2 | 1158.9 | 1083.2 | 1026.5 | 1002.8 |
| 62.5° | 8202.4 | 5988.6 | 1182.6 | 979.2 | 1021.8 | 1073.8 | 1192.0 | 1116.4 | 1021.8 | 979.2 | 950.8 |
| 65° | 7786.1 | 5577.1 | 922.4 | 860.9 | 931.9 | 979.2 | 1111.6 | 1054.9 | 960.3 | 917.7 | 913.0 |
| 67.5° | *7185.4* | *4862.8* | *747.4* | *756.9* | *827.8* | *889.3* | *1040.7* | *1017.0* | *908.2* | *879.8* | *879.8* |
| 70° | 6040.6 | 3907.3 | 614.9 | 662.2 | 723.7 | 790.0 | 988.6 | 955.5 | 842.0 | 827.8 | 827.8 |
| 72.5° | 4720.9 | 2757.8 | 525.1 | 581.8 | 600.8 | 695.4 | 917.7 | 884.6 | 818.3 | 851.5 | 856.2 |
| 75° | 3330.2 | 1679.3 | 449.4 | 492.0 | 510.9 | 572.4 | 851.5 | 865.7 | 804.2 | 913.0 | 931.9 |
| 77.5° | 1513.7 | 737.9 | 350.0 | 387.9 | 411.5 | 487.2 | 733.2 | 804.2 | 695.4 | 695.4 | 657.5 |
| 80° | 529.8 | 312.2 | 279.1 | 279.1 | 298.0 | 378.4 | 610.2 | 662.2 | 558.2 | 492.0 | 473.0 |
| 82.5° | 193.9 | 170.3 | 208.1 | 208.1 | 189.2 | 231.8 | 406.8 | 439.9 | 402.1 | 350.0 | 345.3 |
| 85° | 75.7 | 80.4 | 127.7 | 127.7 | 94.6 | 113.5 | 227.1 | 236.5 | 227.1 | 198.7 | 198.7 |
| 87.5° | 33.1 | 33.1 | 37.8 | 37.8 | 33.1 | 28.4 | 42.6 | 42.6 | 28.4 | 18.9 | 9.5 |
| 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

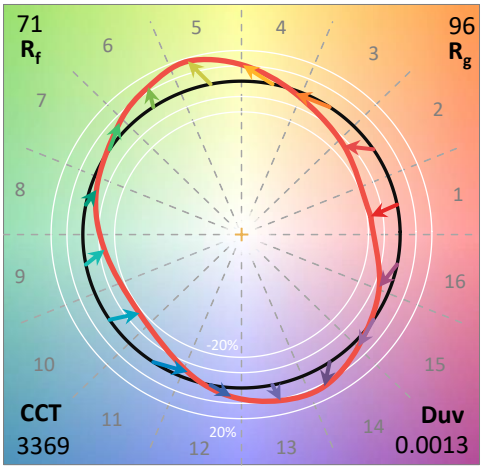
## Test Information

| | |
|---|---|
| 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

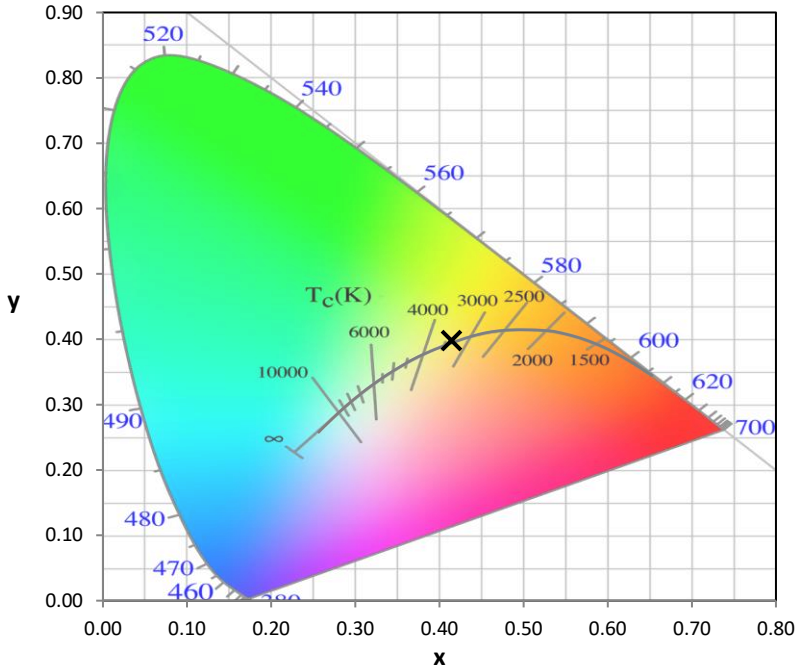
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-5

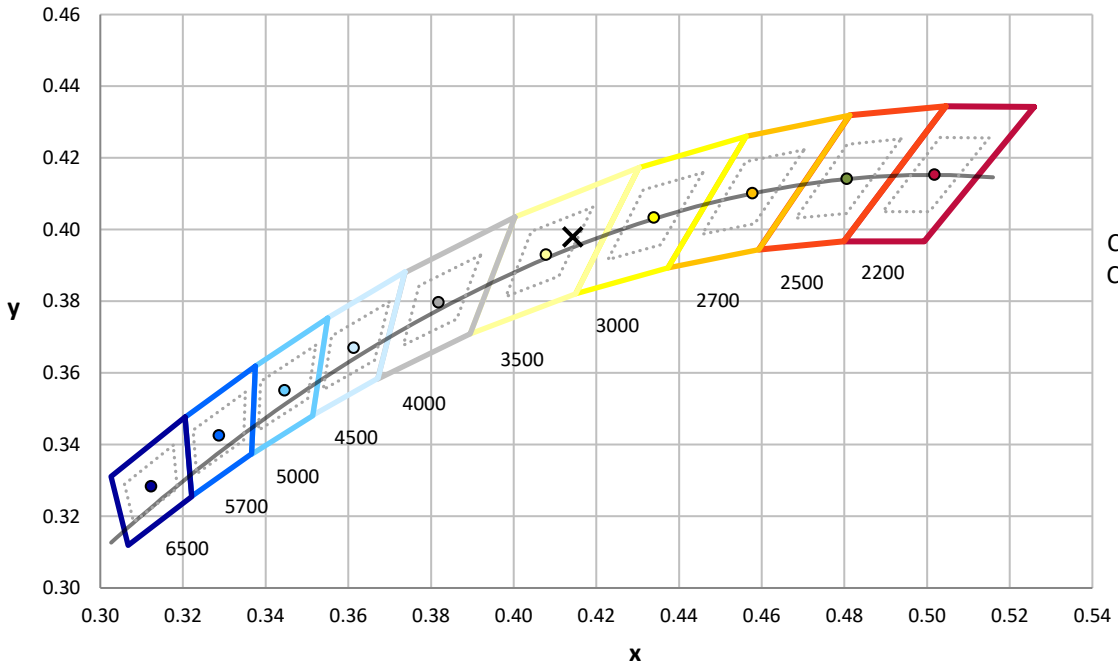
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

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**CIE 1931 Chromaticity Diagram**




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

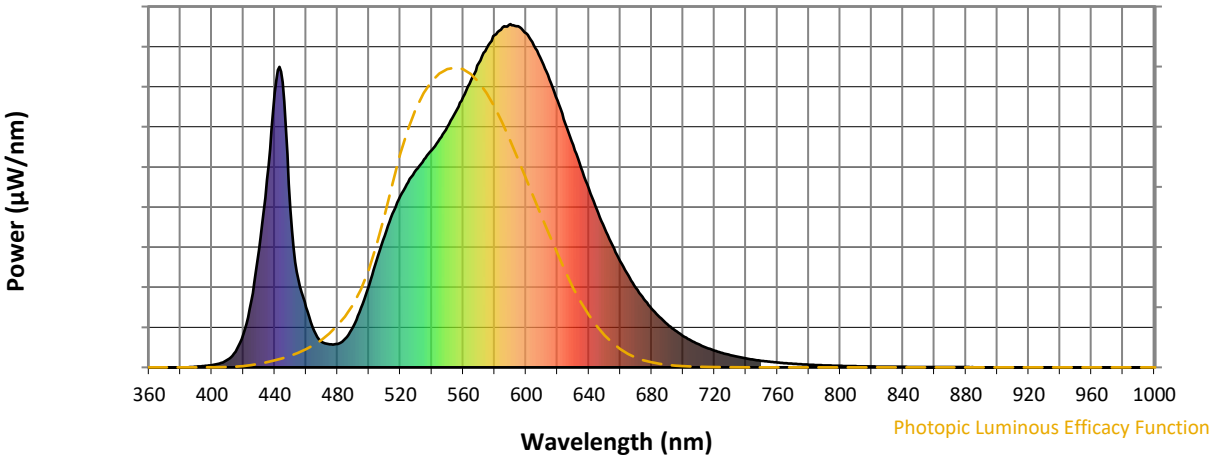



CCT = 3369K
CIE x = 0.4143
CIE y = 0.3980
Duv = 0.0013

Point lies inside the ANSI 3500K 4-step quadrangle

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## Photopic Flux vs. Wavelength

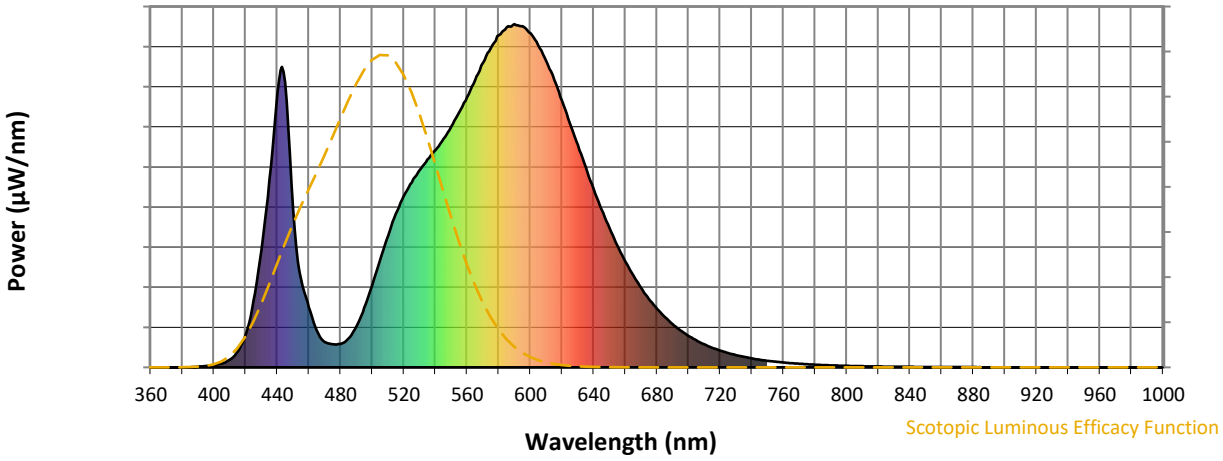



## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

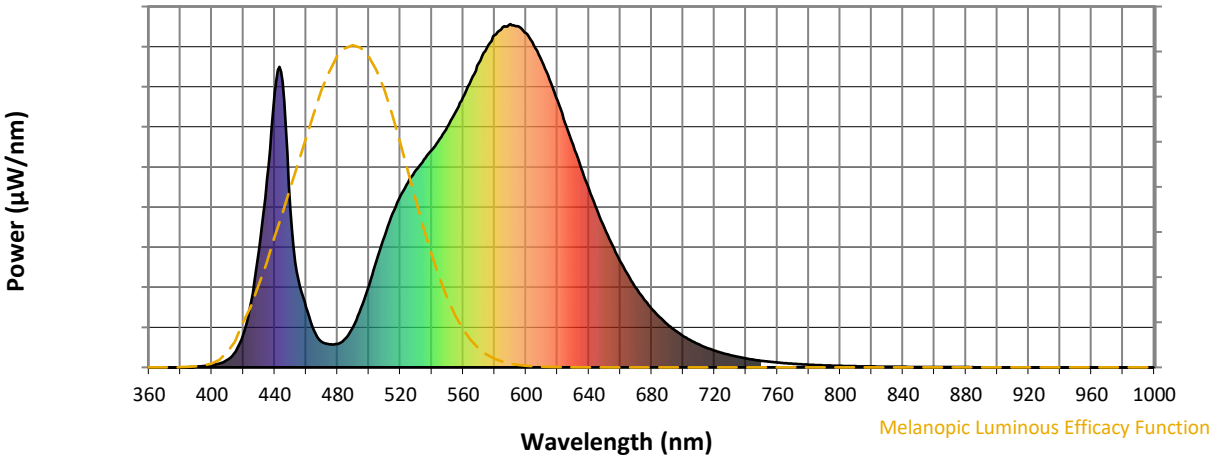



**Scotopic Lumens: NR** **S/P: 1.29**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.36**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

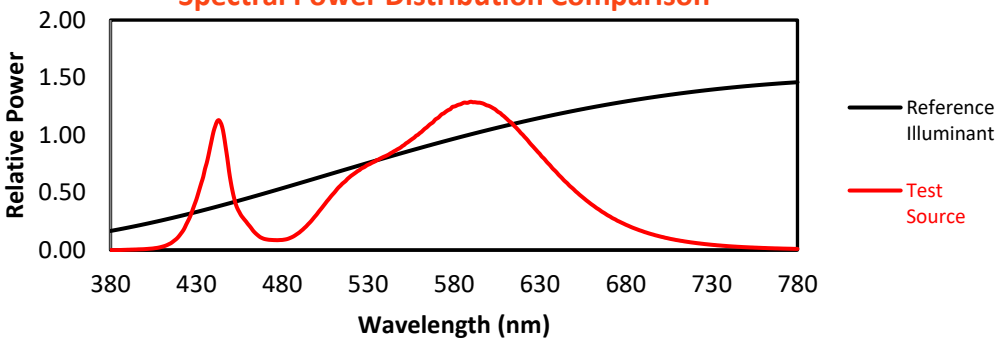
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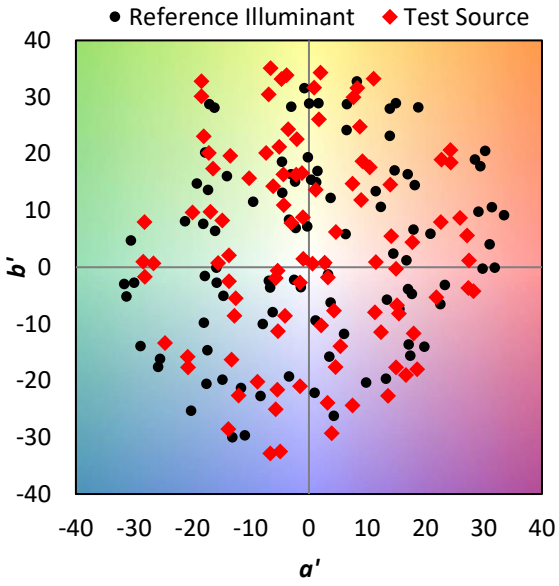
## Summary

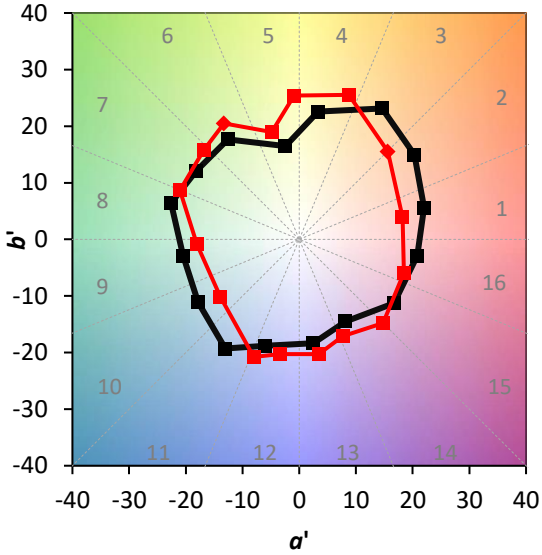
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

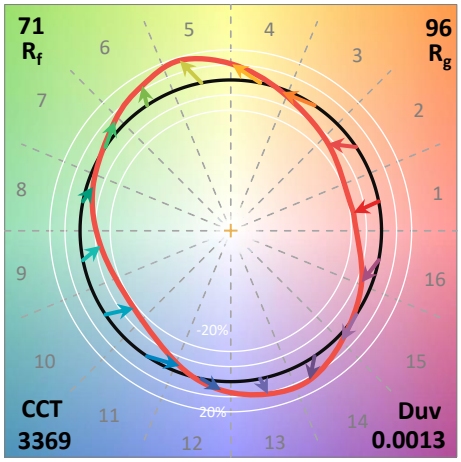
## Spectral Power Distribution Comparison

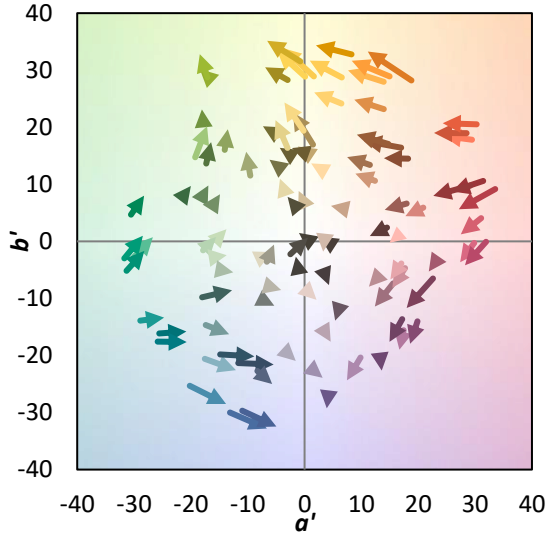



## Color Vector Graphics



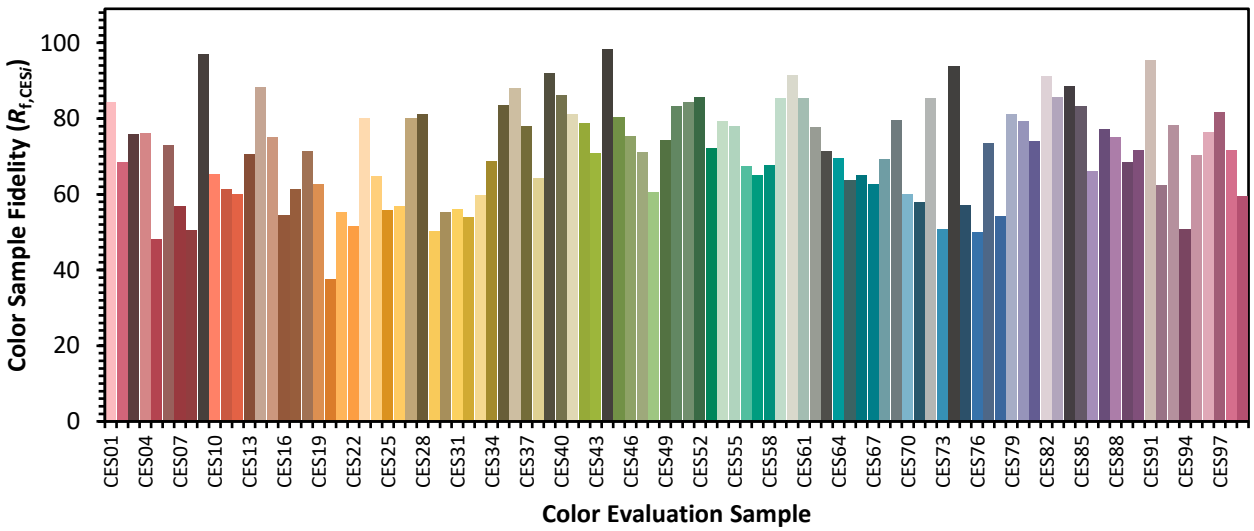



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## Individual Sample Fidelity Index ($R_{f,i}$)

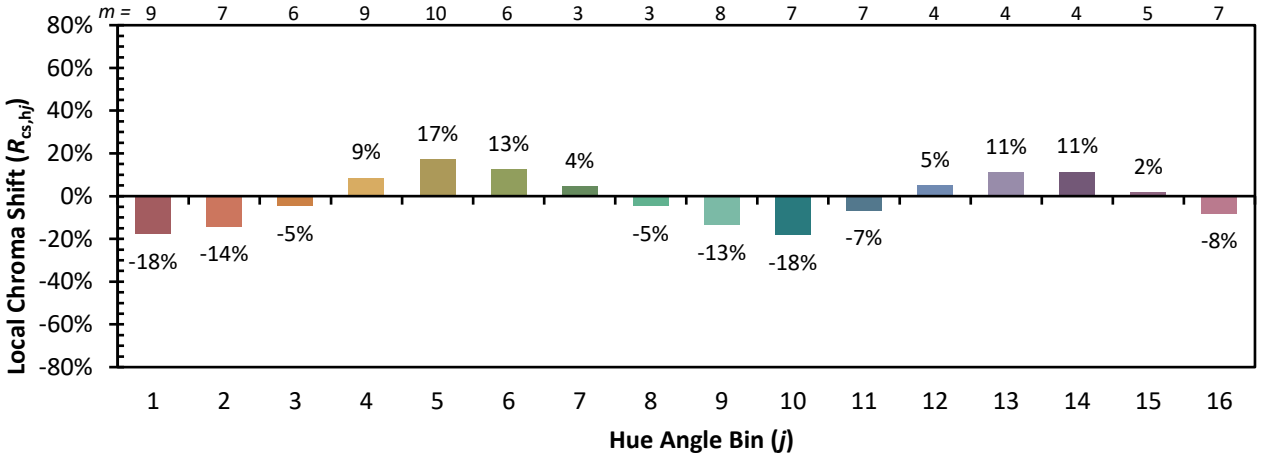
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 57 | CES51 = 84 | CES76 = 50 |
| CES02 = 62 | CES27 = 80 | CES52 = 86 | CES77 = 74 |
| CES03 = 31 | CES28 = 81 | CES53 = 72 | CES78 = 54 |
| CES04 = 70 | CES29 = 50 | CES54 = 79 | CES79 = 81 |
| CES05 = 48 | CES30 = 55 | CES55 = 78 | CES80 = 79 |
| CES06 = 51 | CES31 = 56 | CES56 = 67 | CES81 = 74 |
| CES07 = 40 | CES32 = 54 | CES57 = 65 | CES82 = 91 |
| CES08 = 39 | CES33 = 60 | CES58 = 68 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 85 | CES84 = 89 |
| CES10 = 75 | CES35 = 83 | CES60 = 91 | CES85 = 83 |
| CES11 = 58 | CES36 = 88 | CES61 = 85 | CES86 = 66 |
| CES12 = 64 | CES37 = 78 | CES62 = 78 | CES87 = 77 |
| CES13 = 43 | CES38 = 64 | CES63 = 71 | CES88 = 75 |
| CES14 = 74 | CES39 = 92 | CES64 = 70 | CES89 = 68 |
| CES15 = 71 | CES40 = 86 | CES65 = 64 | CES90 = 72 |
| CES16 = 47 | CES41 = 81 | CES66 = 65 | CES91 = 95 |
| CES17 = 50 | CES42 = 79 | CES67 = 63 | CES92 = 62 |
| CES18 = 56 | CES43 = 71 | CES68 = 69 | CES93 = 78 |
| CES19 = 72 | CES44 = 98 | CES69 = 80 | CES94 = 51 |
| CES20 = 65 | CES45 = 80 | CES70 = 60 | CES95 = 70 |
| CES21 = 87 | CES46 = 75 | CES71 = 58 | CES96 = 76 |
| CES22 = 79 | CES47 = 71 | CES72 = 85 | CES97 = 82 |
| CES23 = 92 | CES48 = 61 | CES73 = 51 | CES98 = 72 |
| CES24 = 91 | CES49 = 74 | CES74 = 94 | CES99 = 60 |
| CES25 = 72 | CES50 = 83 | CES75 = 57 | |

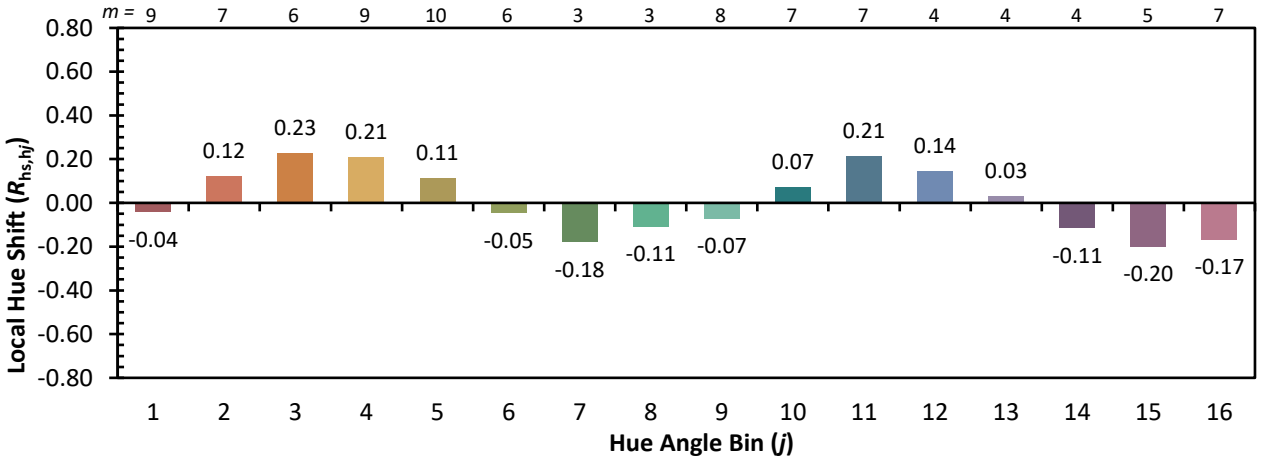


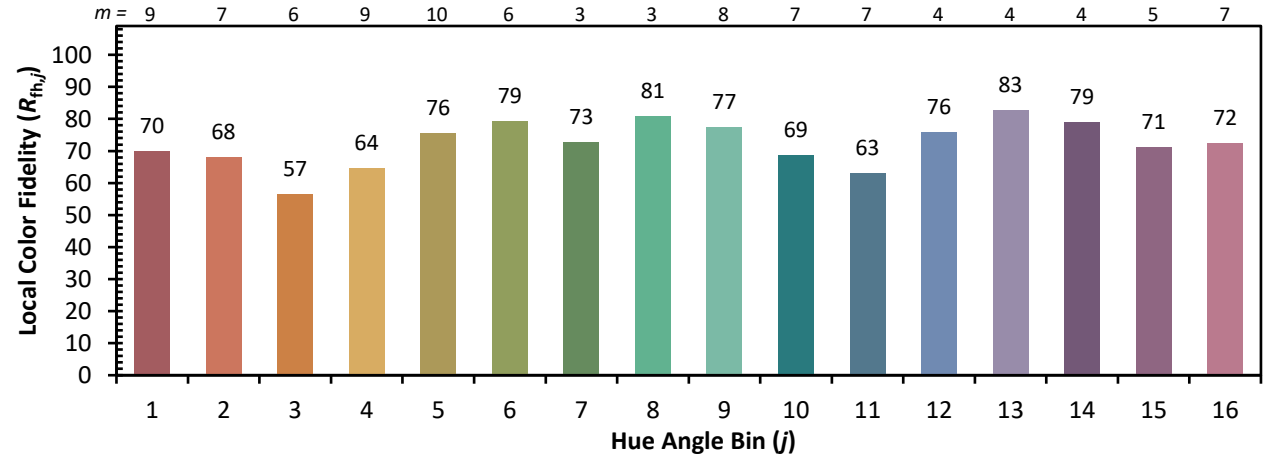
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## Color Rendition by Hue-Angle Bin



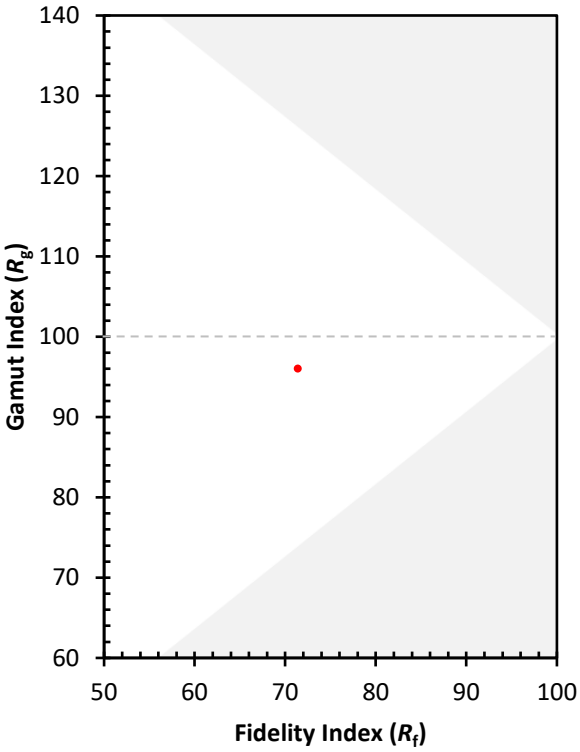



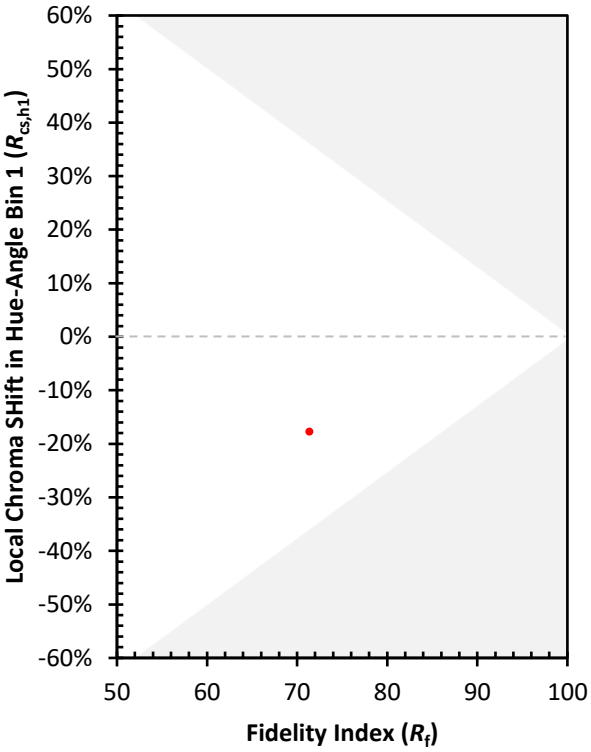



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## Measure Comparisons




(END OF REPORT)