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

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1121 Highway 74 South
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: P1203792

Luminaire Tested: GWC-SB2D-750-U-SL3-HSS

Issue Date: 10/30/2025

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: | P1203792 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-13) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB2D-750-U-SL3-HSS |
| Description: | GALLEON WALL LUMINAIRE |
| | (2) 70 CRI, 5000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 17335 lumens |
| Efficiency: | N/A |
| Efficacy: | 117.4 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B2 - U0 - G3 |

| | |
|---|---|
| Input Watts (W): | 147.6 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 1.234 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.999 |
| Total Harmonic Distortion (THDi): | 3.108 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

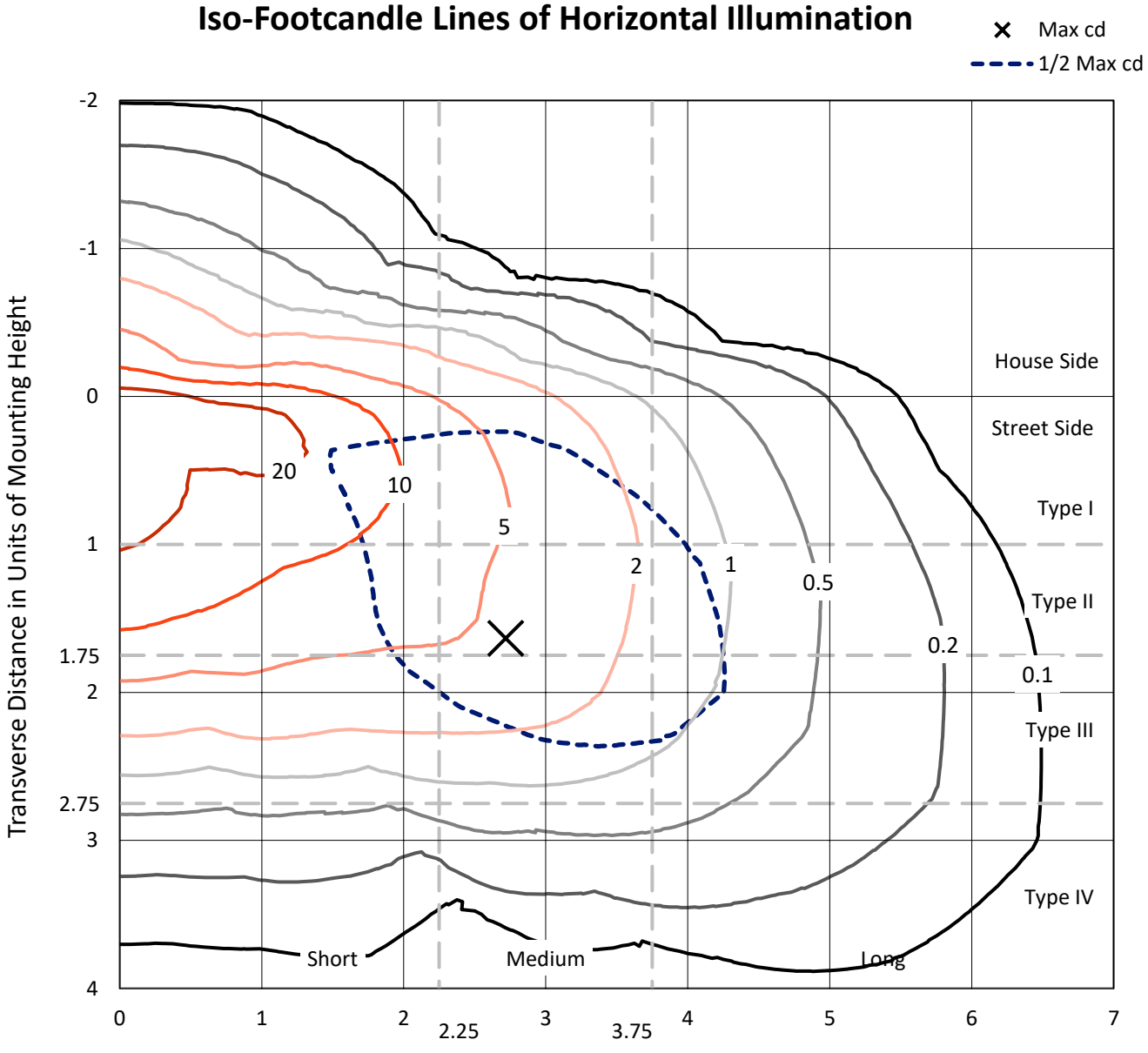


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Scaled Data Report

REPORT NUMBER: P1203792
CATALOG NUMBER: GWC-SB2D-750-U-SL3-HSS

## Iso-Footcandle Lines of Horizontal Illumination



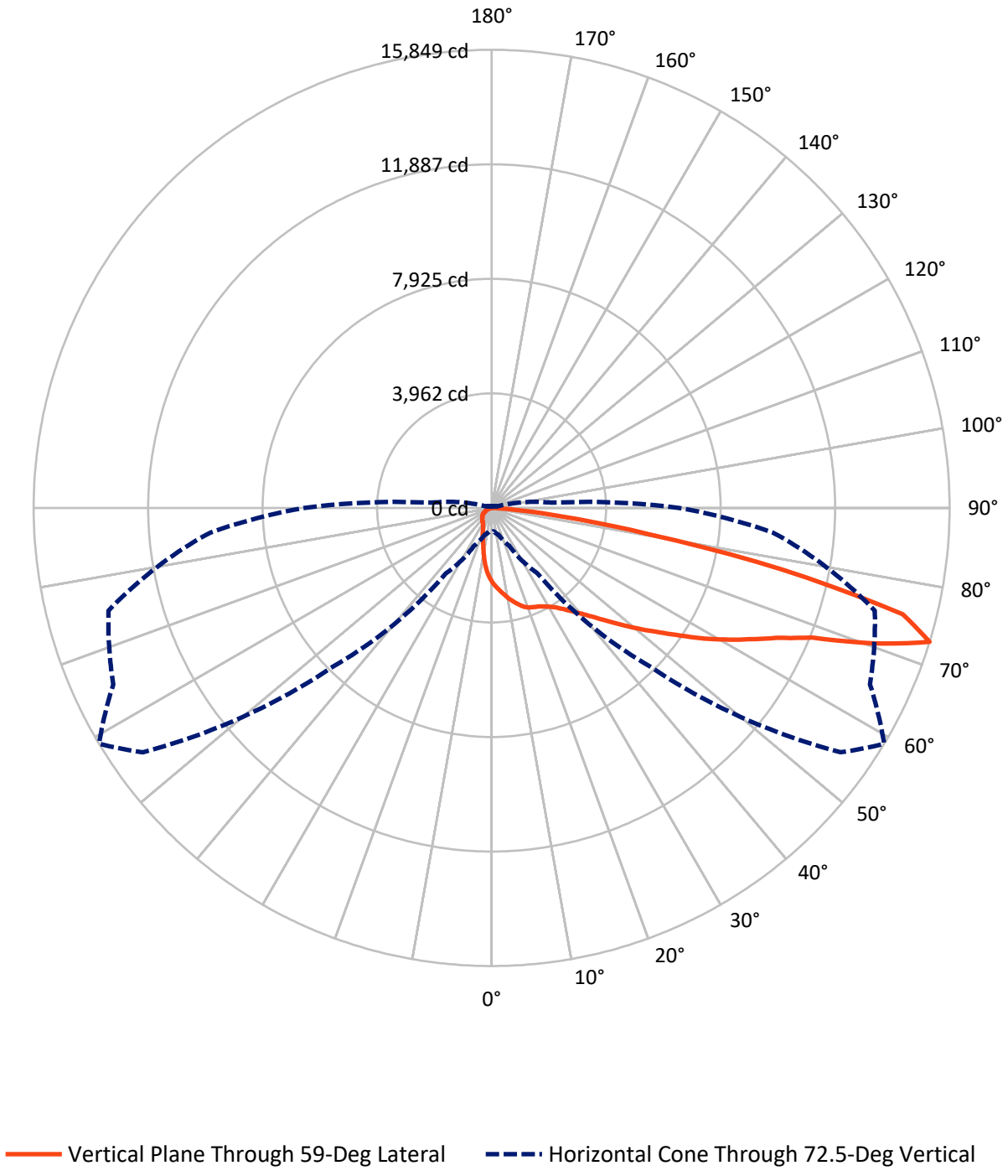

Based on 10 foot mounting height. Maximum calculated value = 43.1 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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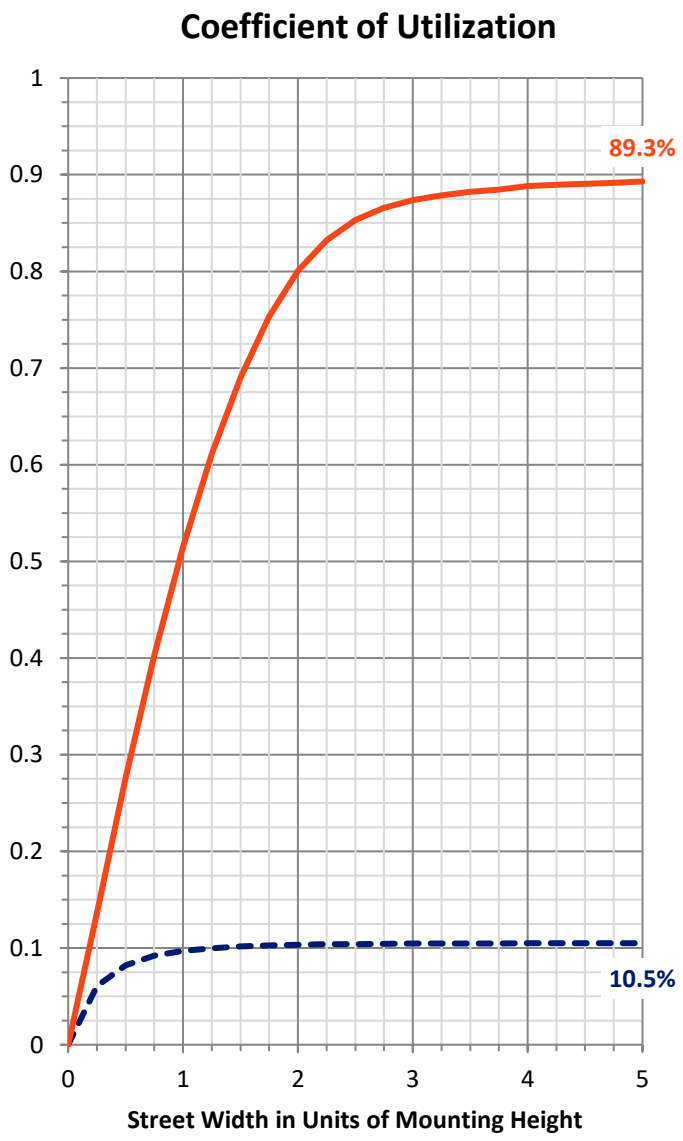
REPORT NUMBER: P1203792
CATALOG NUMBER: GWC-SB2D-750-U-SL3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1830.9 | 0.0 | 1830.9 |
| | % Fixture | 10.6 | 0.0 | 10.6 |
| **Street Side** | Lumens | 15504.1 | 0.0 | 15504.1 |
| | % Fixture | 89.4 | 0.0 | 89.4 |
| **Total** | Lumens | 17335.0 | 0.0 | 17335.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 231.9 | 1.3 |
| 10°-20° | 616.0 | 3.6 |
| 20°-30° | 976.3 | 5.6 |
| 30°-40° | 1566.8 | 9.0 |
| 40°-50° | 2502.5 | 14.4 |
| 50°-60° | 3623.2 | 20.9 |
| 60°-70° | 4299.9 | 24.8 |
| 70°-80° | 3192.0 | 18.4 |
| 80°-90° | 326.4 | 1.9 |
| 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° | 17335.0 | 100.0 |
| 0°-180° | 17335.0 | 100.0 |



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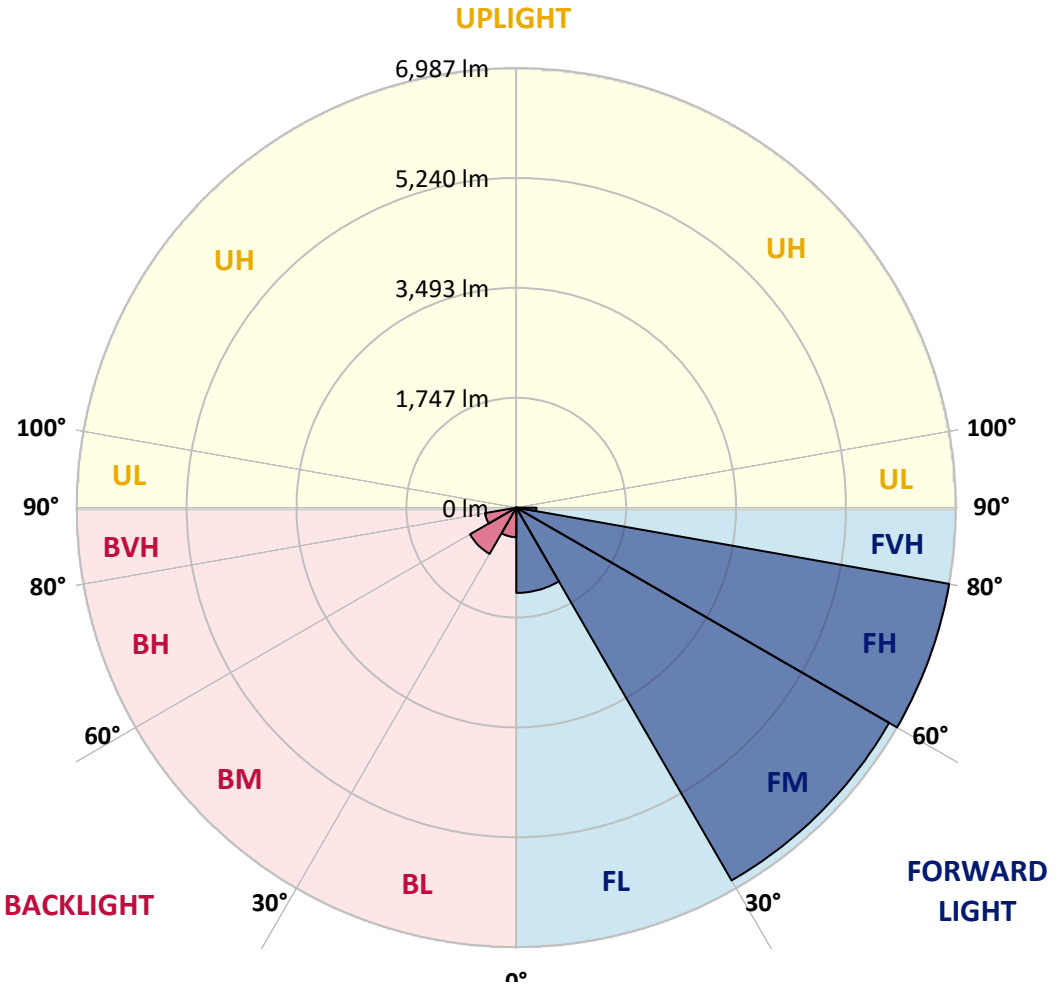
Scaled Data Report

REPORT NUMBER: P1203792
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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°) | 1355.2 | 7.8 | | | |
| FM | (30°-60°) | 6843.6 | 39.5 | | | |
| FH | (60°-80°) | 6987.0 | 40.3 | | | G3/7500 |
| FVH | (80°-90°) | 318.2 | 1.8 | | | G3/500 |
| BL | (0°-30°) | 469.0 | 2.7 | B1/500 | | |
| BM | (30°-60°) | 848.9 | 4.9 | B1/1000 | | |
| BH | (60°-80°) | 504.9 | 2.9 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 8.1 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G3**
Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 |
| 2.5° | 2844.1 | 2828.3 | 2830.5 | 2803.4 | 2784.1 | 2763.8 | 2724.1 | 2718.5 | 2690.2 | 2640.4 | 2589.5 |
| 5° | 3092.0 | 3081.8 | 3072.7 | 3042.2 | 3002.6 | 2952.8 | 2886.0 | 2862.2 | 2810.2 | 2724.1 | 2624.5 |
| 7.5° | 3273.0 | 3260.6 | 3265.1 | 3234.6 | 3202.9 | 3147.4 | 3055.7 | 3011.6 | 2942.6 | 2811.3 | 2660.8 |
| 10° | 3308.1 | 3301.3 | 3330.8 | 3342.1 | 3342.1 | 3307.0 | 3217.6 | 3173.5 | 3072.7 | 2905.2 | 2698.1 |
| 12.5° | 3111.2 | 3112.3 | 3185.9 | 3274.2 | 3389.6 | 3422.4 | 3362.5 | 3314.9 | 3215.3 | 3004.8 | 2745.6 |
| 15° | 2881.5 | 2882.6 | 2953.9 | 3067.1 | 3256.1 | 3445.1 | 3492.6 | 3462.1 | 3359.1 | 3112.3 | 2801.1 |
| 17.5° | 2743.4 | 2737.7 | 2785.3 | 2878.1 | 3076.1 | 3342.1 | 3571.8 | 3592.2 | 3508.5 | 3231.2 | 2862.2 |
| 20° | 2724.1 | 2714.0 | 2738.9 | 2785.3 | 2926.7 | 3213.1 | 3580.9 | 3677.1 | 3662.4 | 3365.9 | 2932.4 |
| 22.5° | 2841.8 | 2826.0 | 2812.4 | 2814.7 | 2874.7 | 3105.5 | 3558.2 | 3724.6 | 3820.8 | 3527.7 | 3028.6 |
| 25° | 3075.0 | 3050.1 | 3006.0 | 2949.4 | 2936.9 | 3082.9 | 3542.4 | 3776.7 | 3967.9 | 3734.8 | 3155.3 |
| 27.5° | 3360.2 | 3325.1 | 3240.2 | 3155.3 | 3082.9 | 3146.3 | 3575.2 | 3859.3 | 4134.3 | 3975.9 | 3302.5 |
| 30° | 3673.7 | 3630.7 | 3545.8 | 3385.1 | 3269.7 | 3287.8 | 3653.3 | 3967.9 | 4347.1 | 4248.6 | 3486.9 |
| 32.5° | 4134.3 | 4034.7 | 3886.5 | 3640.9 | 3488.1 | 3440.5 | 3771.0 | 4106.0 | 4610.8 | 4611.9 | 3754.0 |
| 35° | 4529.3 | 4473.8 | 4324.5 | 4018.9 | 3705.4 | 3643.1 | 3926.1 | 4300.7 | 4976.3 | 5092.9 | 4127.5 |
| 37.5° | 4788.5 | 4712.6 | 4581.4 | 4351.6 | 4042.6 | 3851.4 | 4133.2 | 4539.5 | 5363.4 | 5640.7 | 4588.1 |
| 40° | 5078.2 | 5003.5 | 4829.2 | 4613.0 | 4434.2 | 4209.0 | 4394.6 | 4814.5 | 5787.8 | 6203.2 | 5114.4 |
| 42.5° | 5427.9 | 5330.6 | 5124.6 | 4891.5 | 4704.7 | 4679.8 | 4736.4 | 5157.4 | 6223.5 | 6814.3 | 5662.2 |
| 45° | 5838.7 | 5747.1 | 5510.5 | 5216.3 | 5052.2 | 5008.0 | 5166.5 | 5556.9 | 6709.1 | 7484.3 | 6215.6 |
| 47.5° | 6223.5 | 6117.2 | 5862.5 | 5594.3 | 5412.1 | 5272.9 | 5623.7 | 6028.9 | 7259.1 | 8184.9 | 6738.5 |
| 50° | 6550.6 | 6442.0 | 6208.8 | 5922.5 | 5799.1 | 5616.9 | 6073.0 | 6555.1 | 7804.6 | 8896.8 | 7216.1 |
| 52.5° | 6774.7 | 6678.5 | 6404.6 | 6210.0 | 6126.2 | 6034.5 | 6599.3 | 7113.1 | 8347.9 | 9548.6 | 7688.0 |
| 55° | 6723.8 | 6637.8 | 6396.7 | 6383.1 | 6377.5 | 6473.7 | 7228.5 | 7745.8 | 8901.3 | 10165.5 | 8157.7 |
| 57.5° | 6561.9 | 6464.6 | 6163.6 | 6370.7 | 6571.0 | 6865.2 | 7909.9 | 8493.8 | 9507.9 | 10747.2 | 8610.4 |
| 60° | 6085.5 | 6051.5 | 5868.2 | 6346.9 | 6652.5 | 7248.9 | 8688.5 | 9245.3 | 10164.3 | 11258.7 | 9012.2 |
| 62.5° | 5077.1 | 5106.5 | 5105.4 | 6396.7 | 6799.6 | 7685.8 | 9395.9 | 10005.9 | 10806.0 | 11751.1 | 9369.8 |
| 65° | 3801.6 | 3903.4 | 4033.6 | 5948.5 | 6996.5 | 8465.6 | 10241.3 | 10830.9 | 11457.9 | 12323.7 | 9733.1 |
| 67.5° | 2554.4 | 2635.9 | 2724.1 | 4880.1 | 6410.3 | 9284.9 | 11645.8 | 11961.6 | 12238.8 | 12958.6 | 10141.7 |
| 70° | 1462.2 | 1488.3 | 1611.6 | 3047.8 | 4941.3 | 9058.6 | 13933.1 | 14047.4 | 13403.4 | 13740.7 | 10439.3 |
| 72.5° | 819.4 | 810.3 | 973.3 | 1446.4 | 2761.5 | 7757.1 | 14734.4 | 15849.1 | 14445.8 | 13728.2 | 9775.0 |
| 75° | 547.8 | 548.9 | 670.0 | 912.2 | 1076.3 | 5430.2 | 12697.2 | 14695.9 | 13821.0 | 12173.2 | 7986.8 |
| 77.5° | 373.5 | 385.9 | 492.3 | 705.1 | 498.0 | 2649.4 | 8399.9 | 10294.5 | 11189.7 | 9400.4 | 5513.9 |
| 80° | 161.8 | 163.0 | 324.8 | 505.9 | 336.1 | 843.2 | 4355.0 | 5515.1 | 7018.0 | 5278.5 | 2184.3 |
| 82.5° | 83.8 | 95.1 | 207.1 | 327.1 | 211.6 | 295.4 | 2057.5 | 2409.5 | 2944.8 | 1549.4 | 448.2 |
| 85° | 29.4 | 35.1 | 127.9 | 160.7 | 106.4 | 105.3 | 716.4 | 730.0 | 623.6 | 233.1 | 123.4 |
| 87.5° | 0.0 | 5.7 | 49.8 | 39.6 | 13.6 | 12.4 | 84.9 | 71.3 | 56.6 | 32.8 | 40.7 |
| 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: P1203792
CATALOG NUMBER: GWC-SB2D-750-U-SL3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 | 2563.4 |
| 2.5° | 2565.7 | 2535.1 | 2485.3 | 2424.2 | 2352.9 | 2314.4 | 2259.0 | 2225.0 | 2194.5 | 2195.6 | 2220.5 |
| 5° | 2569.1 | 2518.2 | 2391.4 | 2256.7 | 2107.3 | 1997.6 | 1875.3 | 1789.3 | 1723.7 | 1707.8 | 1731.6 |
| 7.5° | 2579.3 | 2493.3 | 2286.2 | 2062.1 | 1813.1 | 1628.6 | 1460.0 | 1353.6 | 1293.6 | 1277.8 | 1293.6 |
| 10° | 2592.9 | 2466.1 | 2167.3 | 1824.4 | 1515.4 | 1293.6 | 1153.3 | 1085.4 | 1058.2 | 1037.8 | 1050.3 |
| 12.5° | 2604.2 | 2437.8 | 2017.9 | 1578.8 | 1250.6 | 1077.4 | 971.0 | 914.5 | 890.7 | 876.0 | 883.9 |
| 15° | 2623.4 | 2400.5 | 1856.1 | 1350.2 | 1071.8 | 930.3 | 829.6 | 787.7 | 780.9 | 783.2 | 786.6 |
| 17.5° | 2642.7 | 2364.2 | 1675.0 | 1171.4 | 940.5 | 801.3 | 740.2 | 733.4 | 742.4 | 751.5 | 754.9 |
| 20° | 2664.2 | 2312.2 | 1491.7 | 1036.7 | 819.4 | 711.9 | 696.0 | 700.6 | 705.1 | 720.9 | 725.5 |
| 22.5° | 2695.8 | 2246.5 | 1330.9 | 922.4 | 718.7 | 668.9 | 660.9 | 664.3 | 667.7 | 683.6 | 688.1 |
| 25° | 2741.1 | 2176.4 | 1200.8 | 817.1 | 655.3 | 633.8 | 625.9 | 625.9 | 630.4 | 645.1 | 650.8 |
| 27.5° | 2788.7 | 2076.8 | 1095.5 | 719.8 | 617.9 | 595.3 | 581.7 | 581.7 | 587.4 | 604.4 | 611.1 |
| 30° | 2841.8 | 1986.2 | 1012.9 | 647.4 | 586.3 | 556.8 | 538.7 | 534.2 | 541.0 | 562.5 | 568.1 |
| 32.5° | 2938.0 | 1927.4 | 954.1 | 613.4 | 558.0 | 521.7 | 496.8 | 484.4 | 491.2 | 516.1 | 522.9 |
| 35° | 3084.0 | 1913.8 | 913.3 | 596.4 | 530.8 | 490.1 | 455.0 | 435.7 | 441.4 | 467.4 | 475.3 |
| 37.5° | 3254.9 | 1942.1 | 873.7 | 573.8 | 504.8 | 459.5 | 413.1 | 388.2 | 397.2 | 421.0 | 427.8 |
| 40° | 3500.5 | 2059.8 | 843.2 | 556.8 | 478.7 | 423.3 | 371.2 | 346.3 | 361.0 | 381.4 | 384.8 |
| 42.5° | 3797.1 | 2269.2 | 835.2 | 541.0 | 447.0 | 384.8 | 332.7 | 314.6 | 325.9 | 345.2 | 348.6 |
| 45° | 4164.9 | 2536.3 | 871.5 | 520.6 | 412.0 | 347.4 | 302.2 | 292.0 | 295.4 | 314.6 | 323.7 |
| 47.5° | 4559.9 | 2810.2 | 971.0 | 502.5 | 381.4 | 316.9 | 278.4 | 269.4 | 267.1 | 285.2 | 296.5 |
| 50° | 4959.4 | 3053.5 | 1088.8 | 488.9 | 359.9 | 292.0 | 260.3 | 249.0 | 243.3 | 254.6 | 259.2 |
| 52.5° | 5354.4 | 3247.0 | 1165.7 | 466.3 | 338.4 | 267.1 | 244.5 | 227.5 | 217.3 | 223.0 | 227.5 |
| 55° | 5755.0 | 3416.8 | 1170.2 | 432.3 | 318.0 | 251.3 | 228.6 | 209.4 | 196.9 | 196.9 | 199.2 |
| 57.5° | 6129.6 | 3566.2 | 1103.5 | 387.1 | 289.7 | 236.5 | 207.1 | 191.3 | 177.7 | 173.2 | 174.3 |
| 60° | 6461.2 | 3677.1 | 992.6 | 336.1 | 264.8 | 217.3 | 185.6 | 173.2 | 156.2 | 147.1 | 144.9 |
| 62.5° | 6756.6 | 3731.4 | 840.9 | 284.1 | 234.3 | 194.7 | 165.2 | 151.7 | 129.0 | 117.7 | 116.6 |
| 65° | 7006.7 | 3676.0 | 682.5 | 235.4 | 208.2 | 169.8 | 141.5 | 127.9 | 103.0 | 89.4 | 89.4 |
| 67.5° | 7254.6 | 3422.4 | 516.1 | 198.1 | 181.1 | 142.6 | 116.6 | 104.1 | 86.0 | 74.7 | 74.7 |
| 70° | 7286.3 | 2889.4 | 361.0 | 166.4 | 150.5 | 109.8 | 93.9 | 86.0 | 70.2 | 60.0 | 58.9 |
| 72.5° | *6486.1* | *2079.0* | *219.6* | *135.8* | *117.7* | *78.1* | *74.7* | *67.9* | *52.1* | *45.3* | *44.1* |
| 75° | 5184.6 | 1274.4 | 129.0 | 101.9 | 78.1 | 55.5 | 55.5 | 48.7 | 35.1 | 29.4 | 29.4 |
| 77.5° | 3583.1 | 666.6 | 75.8 | 65.6 | 46.4 | 32.8 | 36.2 | 29.4 | 17.0 | 13.6 | 13.6 |
| 80° | 1435.1 | 253.5 | 40.7 | 30.6 | 21.5 | 14.7 | 12.4 | 6.8 | 3.4 | 2.3 | 3.4 |
| 82.5° | 286.3 | 66.8 | 13.6 | 7.9 | 7.9 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 73.6 | 14.7 | 3.4 | 2.3 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 22.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


HS
SS

0

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# LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-4-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-750-U-5WQ

Data in this report applies to products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

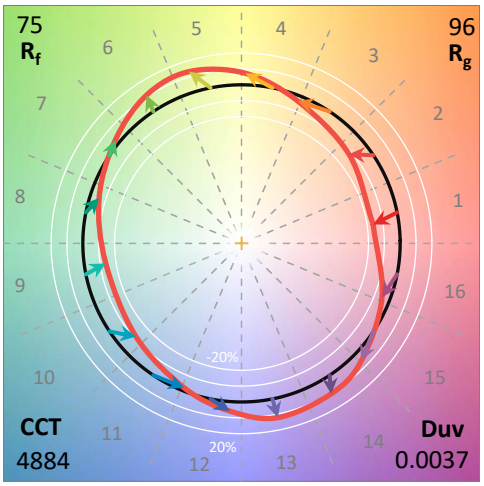
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-4-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-750-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 4884 | CRI (Ra): | 73.5 | | |
| CIE u': | 0.2101 | R1: | 70.5 | R9: | -28.4 |
| CIE v': | 0.4904 | R2: | 77.7 | R10: | 48.6 |
| Duv: | 0.0037 | R3: | 84.6 | R11: | 73.2 |
| CIE x: | 0.3493 | R4: | 74.7 | R12: | 50.7 |
| CIE y: | 0.3624 | R5: | 71.9 | R13: | 71.2 |
| CIE z: | 0.2884 | R6: | 70.7 | R14: | 91.4 |
| Peak Wavelength (nm): | 444 | R7: | 81.2 | | |
| Dominant Wavelength (nm): | 571 | R8: | 56.9 | | |
| Purity: | 13.7 | | | | |

| | |
|---|---|
| Rf: | 74.9 |
| Rg: | 96.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 240M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.0./44% |
| Sphere Temperature (°C): | 25.7 |

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Peachtree City, GA 30269

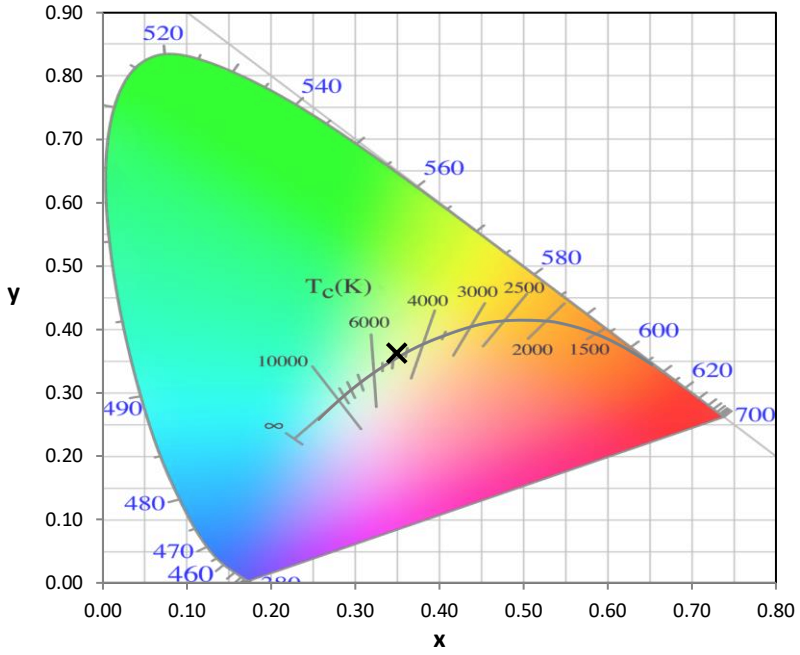
REPORT NUMBER: SP1-1908-441-4-R4

| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

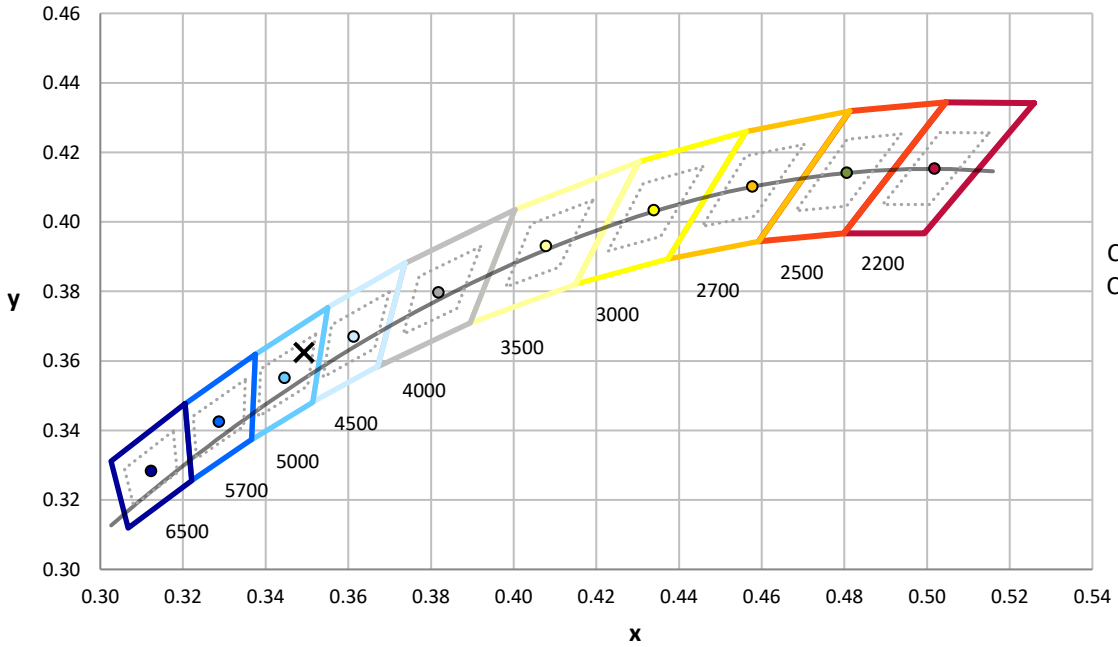
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REPORT NUMBER: SP1-1908-441-4-R4

## CIE 1931 Chromaticity Diagram




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



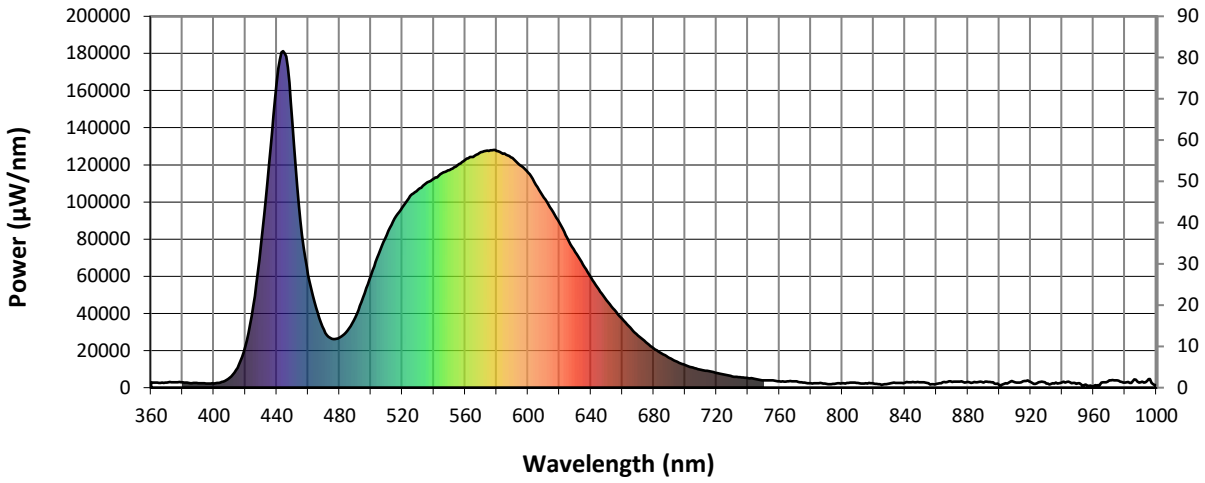

CCT = 4884K
CIE x = 0.3493
CIE y = 0.3624
Duv = 0.0037

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



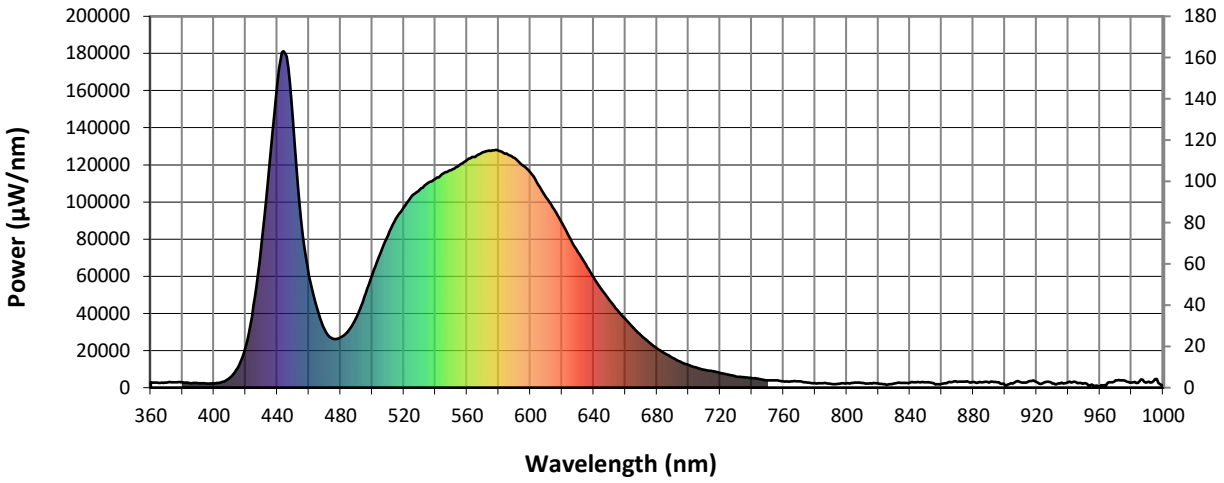

######

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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## Scotopic Flux vs. Wavelength



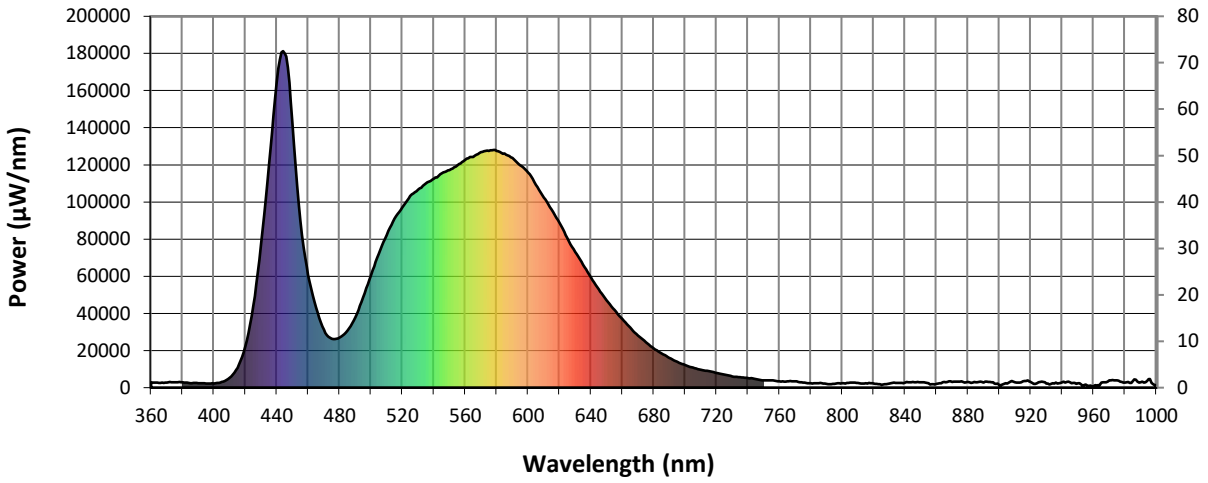

**Scotopic Lumens: 13493.5** **S/P: 1.77**

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 5378.9** **M/P: 0.71**

| 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 | 2945 | NR | 490 | 37941 | NR | 620 | 88803 | NR | 750 | 3908 | NR | 880 | 2997 | NR |
| 365 | 2596 | NR | 495 | 48525 | NR | 625 | 80578 | NR | 755 | 3988 | NR | 885 | 2927 | NR |
| 370 | 2732 | NR | 500 | 60609 | NR | 630 | 73127 | NR | 760 | 3335 | NR | 890 | 2649 | NR |
| 375 | 2894 | NR | 505 | 72036 | NR | 635 | 66244 | NR | 765 | 3438 | NR | 895 | 2828 | NR |
| 380 | 2822 | NR | 510 | 82168 | NR | 640 | 59440 | NR | 770 | 3427 | NR | 900 | 1407 | NR |
| 385 | 2394 | NR | 515 | 90898 | NR | 645 | 52864 | NR | 775 | 2759 | NR | 905 | 2224 | NR |
| 390 | 2370 | NR | 520 | 97142 | NR | 650 | 47085 | NR | 780 | 2340 | NR | 910 | 2905 | NR |
| 395 | 2267 | NR | 525 | 103255 | NR | 655 | 41789 | NR | 785 | 2412 | NR | 915 | 3350 | NR |
| 400 | 2262 | NR | 530 | 106697 | NR | 660 | 37064 | NR | 790 | 1999 | NR | 920 | 3114 | NR |
| 405 | 3000 | NR | 535 | 110081 | NR | 665 | 32299 | NR | 795 | 2054 | NR | 925 | 2834 | NR |
| 410 | 5324 | NR | 540 | 112494 | NR | 670 | 28142 | NR | 800 | 2331 | NR | 930 | 2271 | NR |
| 415 | 10725 | NR | 545 | 115513 | NR | 675 | 24505 | NR | 805 | 2648 | NR | 935 | 2228 | NR |
| 420 | 22128 | NR | 550 | 117203 | NR | 680 | 21162 | NR | 810 | 2485 | NR | 940 | 2833 | NR |
| 425 | 44095 | NR | 555 | 119753 | NR | 685 | 18400 | NR | 815 | 2409 | NR | 945 | 2941 | NR |
| 430 | 77002 | NR | 560 | 122602 | NR | 690 | 16065 | NR | 820 | 2221 | NR | 950 | 2323 | NR |
| 435 | 119881 | NR | 565 | 124314 | NR | 695 | 13860 | NR | 825 | 1562 | NR | 955 | 1667 | NR |
| 440 | 164454 | NR | 570 | 126775 | NR | 700 | 12177 | NR | 830 | 2249 | NR | 960 | 749 | NR |
| 445 | 179997 | NR | 575 | 127511 | NR | 705 | 10757 | NR | 835 | 2573 | NR | 965 | 2669 | NR |
| 450 | 142822 | NR | 580 | 127577 | NR | 710 | 9601 | NR | 840 | 2764 | NR | 970 | 3968 | NR |
| 455 | 90008 | NR | 585 | 126153 | NR | 715 | 8944 | NR | 845 | 3109 | NR | 975 | 3886 | NR |
| 460 | 60557 | NR | 590 | 123678 | NR | 720 | 7947 | NR | 850 | 2963 | NR | 980 | 2788 | NR |
| 465 | 43305 | NR | 595 | 119774 | NR | 725 | 7062 | NR | 855 | 2336 | NR | 985 | 3496 | NR |
| 470 | 31089 | NR | 600 | 115733 | NR | 730 | 6004 | NR | 860 | 2118 | NR | 990 | 2913 | NR |
| 475 | 26278 | NR | 605 | 109231 | NR | 735 | 5594 | NR | 865 | 3144 | NR | 995 | 4659 | NR |
| 480 | 27060 | NR | 610 | 102408 | NR | 740 | 5165 | NR | 870 | 3069 | NR | 1000 | 1308 | NR |
| 485 | 30698 | NR | 615 | 96015 | NR | 745 | 4687 | NR | 875 | 3311 | NR | | | |

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Peachtree City, GA 30269

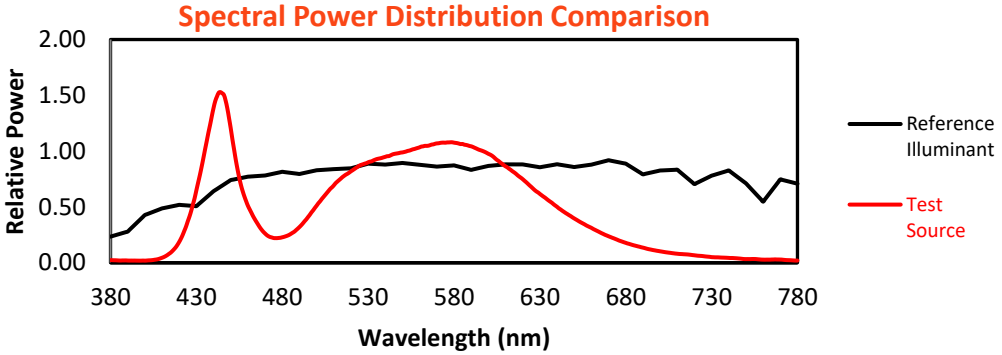
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# TM-30-18

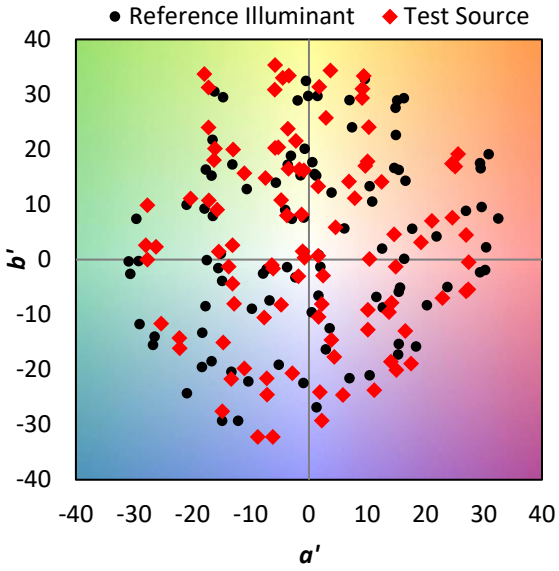
## Summary

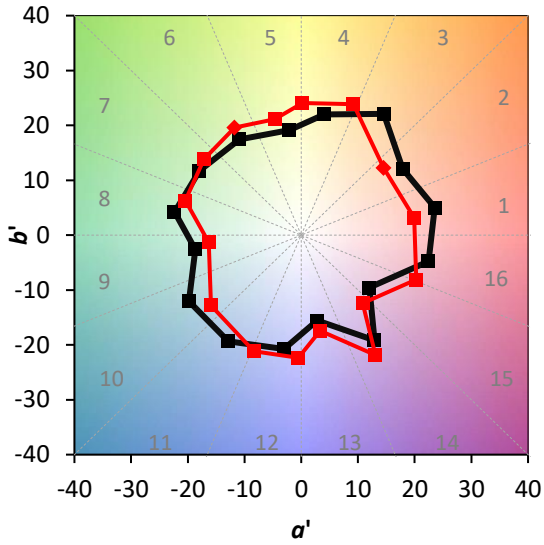
$R_f$ = 74.9
$R_g$ = 96.3
CIE $R_a$ = 73.5
$R_9$ = -28.4

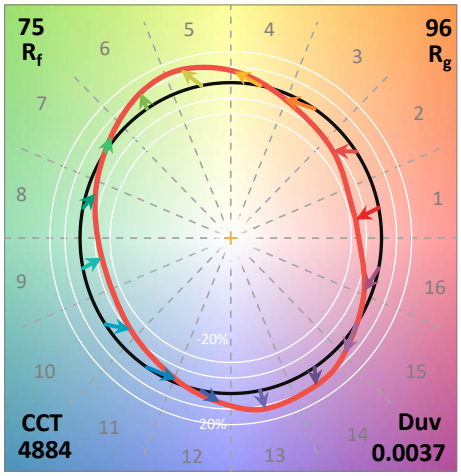
## Spectral Power Distribution Comparison

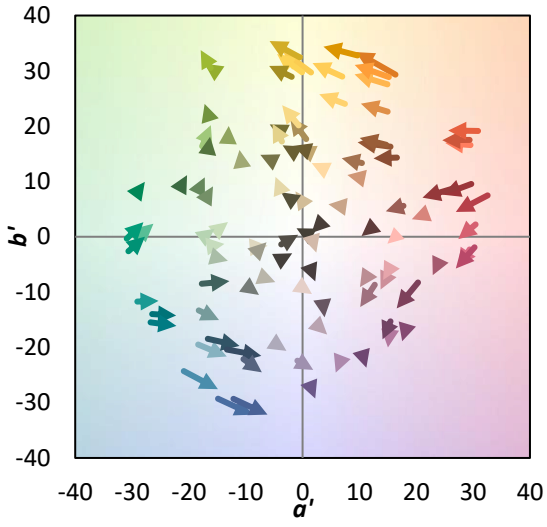



## Color Vector Graphics



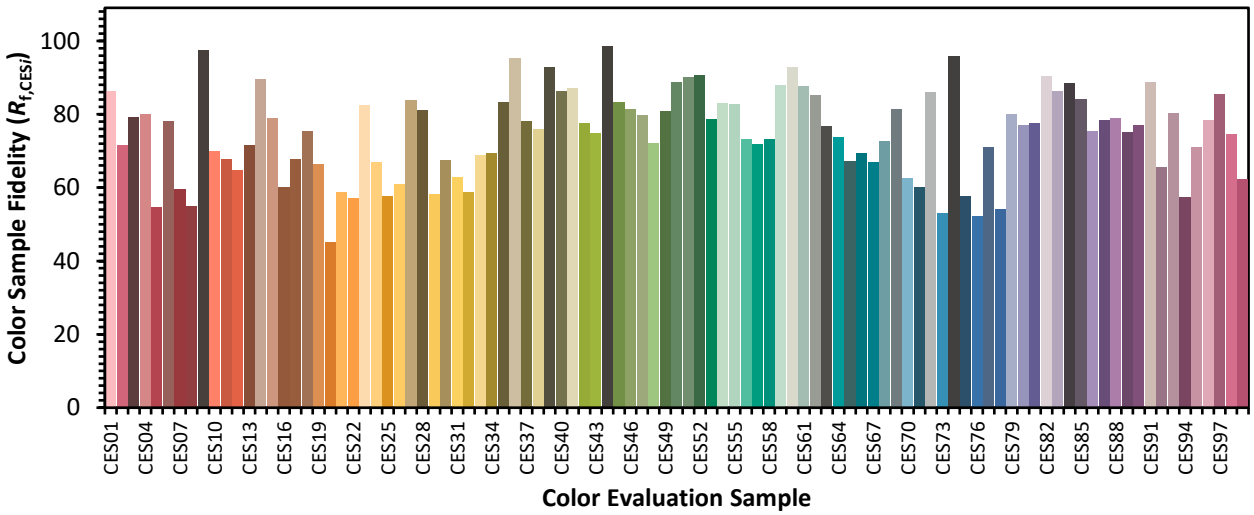
Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 61 | CES51 = 90 | CES76 = 52 |
| CES02 = 60 | CES27 = 84 | CES52 = 91 | CES77 = 71 |
| CES03 = 30 | CES28 = 81 | CES53 = 79 | CES78 = 54 |
| CES04 = 69 | CES29 = 58 | CES54 = 83 | CES79 = 80 |
| CES05 = 46 | CES30 = 67 | CES55 = 83 | CES80 = 77 |
| CES06 = 50 | CES31 = 63 | CES56 = 73 | CES81 = 77 |
| CES07 = 39 | CES32 = 59 | CES57 = 72 | CES82 = 90 |
| CES08 = 38 | CES33 = 69 | CES58 = 73 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 88 | CES84 = 88 |
| CES10 = 73 | CES35 = 83 | CES60 = 93 | CES85 = 84 |
| CES11 = 56 | CES36 = 95 | CES61 = 88 | CES86 = 75 |
| CES12 = 61 | CES37 = 78 | CES62 = 85 | CES87 = 78 |
| CES13 = 41 | CES38 = 76 | CES63 = 77 | CES88 = 79 |
| CES14 = 74 | CES39 = 93 | CES64 = 74 | CES89 = 75 |
| CES15 = 70 | CES40 = 86 | CES65 = 67 | CES90 = 77 |
| CES16 = 46 | CES41 = 87 | CES66 = 69 | CES91 = 89 |
| CES17 = 49 | CES42 = 78 | CES67 = 67 | CES92 = 66 |
| CES18 = 55 | CES43 = 75 | CES68 = 73 | CES93 = 80 |
| CES19 = 71 | CES44 = 99 | CES69 = 81 | CES94 = 57 |
| CES20 = 64 | CES45 = 83 | CES70 = 63 | CES95 = 71 |
| CES21 = 85 | CES46 = 81 | CES71 = 60 | CES96 = 78 |
| CES22 = 77 | CES47 = 80 | CES72 = 86 | CES97 = 85 |
| CES23 = 91 | CES48 = 72 | CES73 = 53 | CES98 = 75 |
| CES24 = 90 | CES49 = 81 | CES74 = 96 | CES99 = 62 |
| CES25 = 71 | CES50 = 89 | CES75 = 58 | |

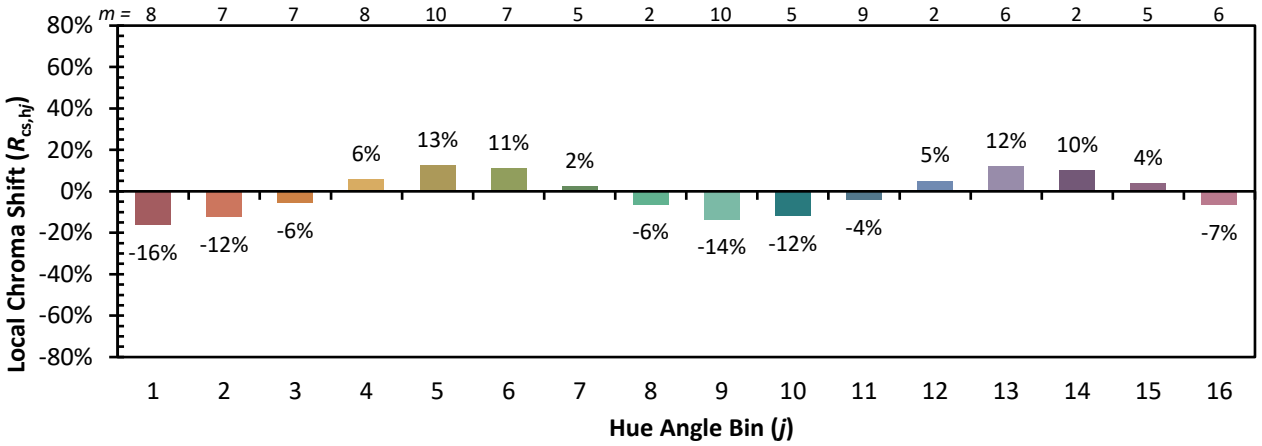


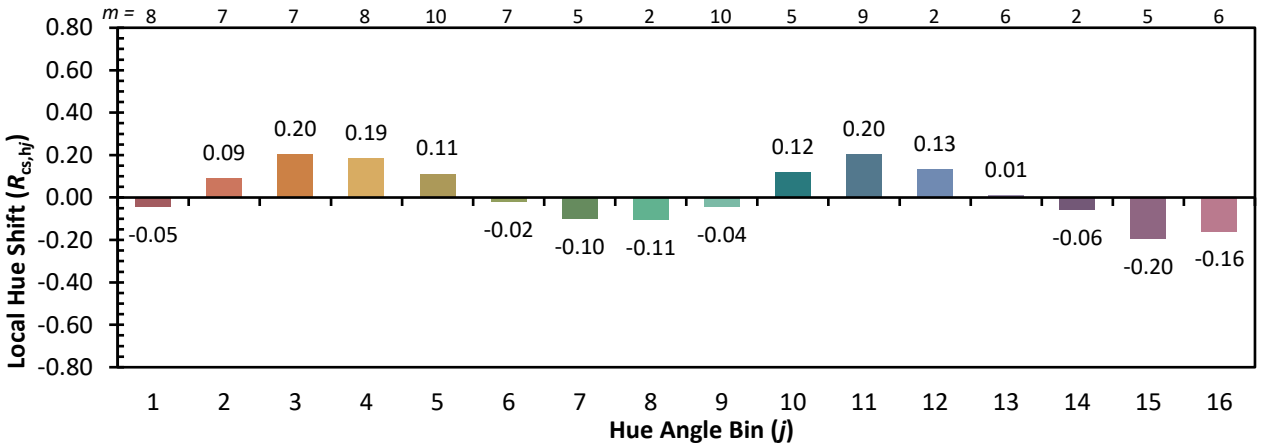
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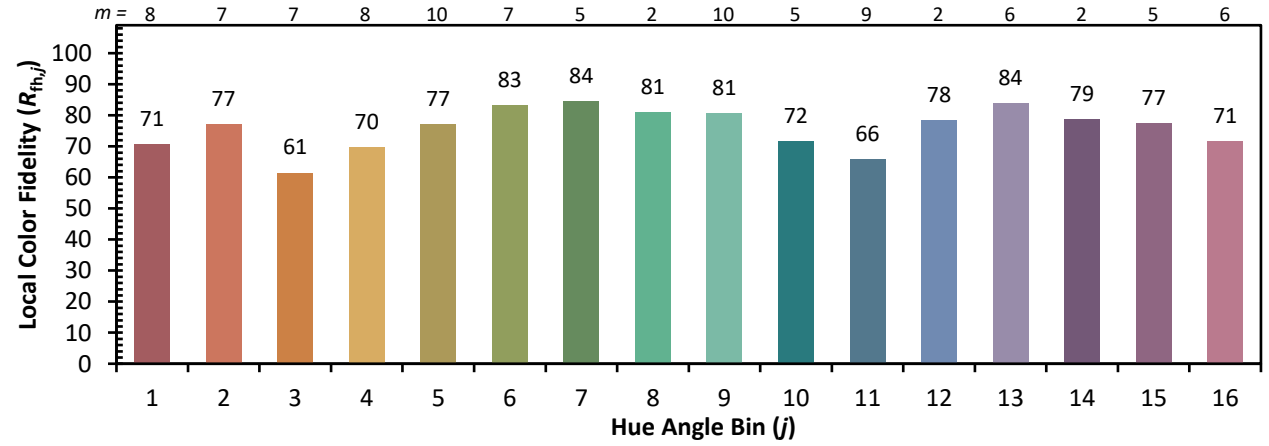
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### Color Rendition by Hue-Angle Bin



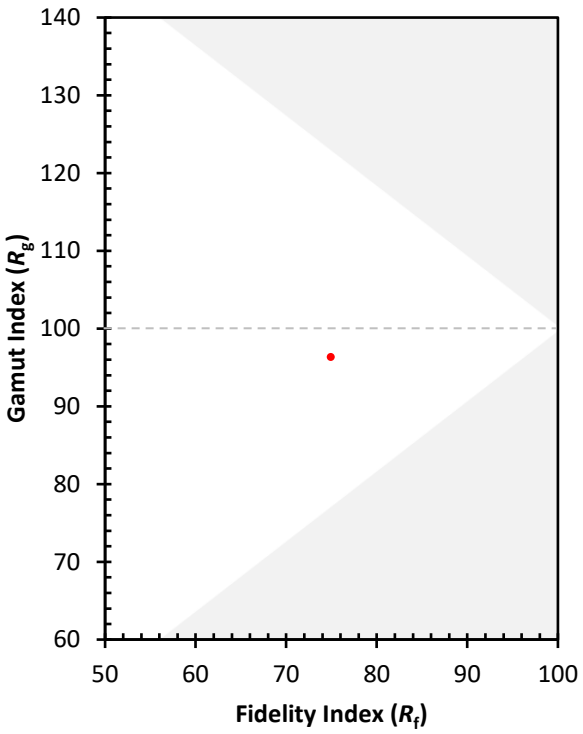



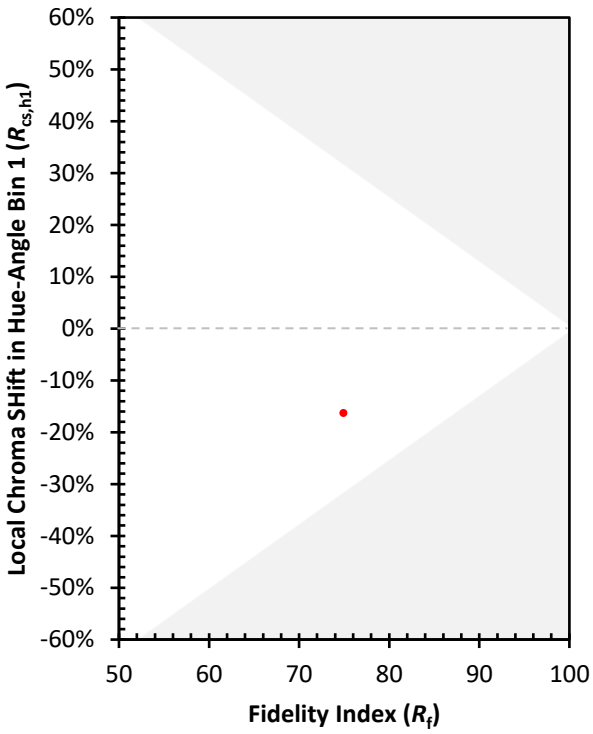
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### Measure Comparisons




(END OF REPORT)