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: P1358088

Luminaire Tested: **GSS-SB5B-735-U-T4FT-HSS**

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: | P1358088 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB5B-735-U-T4FT-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 5SQUARE 184W 70CRI 3500K FIXTURE w/ TYPE IV FORWARD THROW DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (130) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 18986.1 lumens |
| Efficiency: | N/A |
| Efficacy: | 103.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G3 |

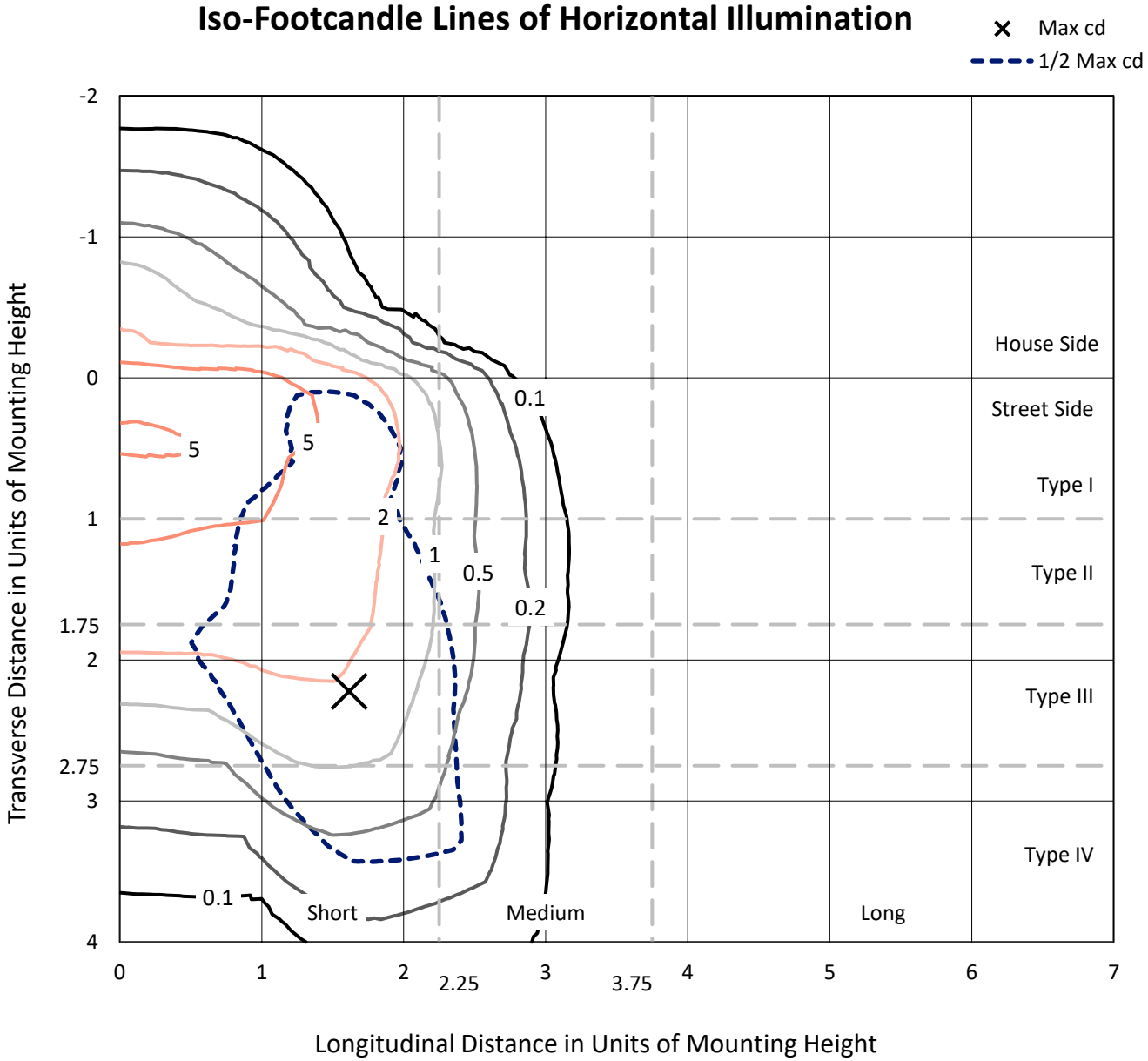
| | |
|---|---|
| Input Watts (W): | 184 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 11.1% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1358088
CATALOG NUMBER: GSS-SB5B-735-U-T4FT-HSS

## Iso-Footcandle Lines of Horizontal Illumination



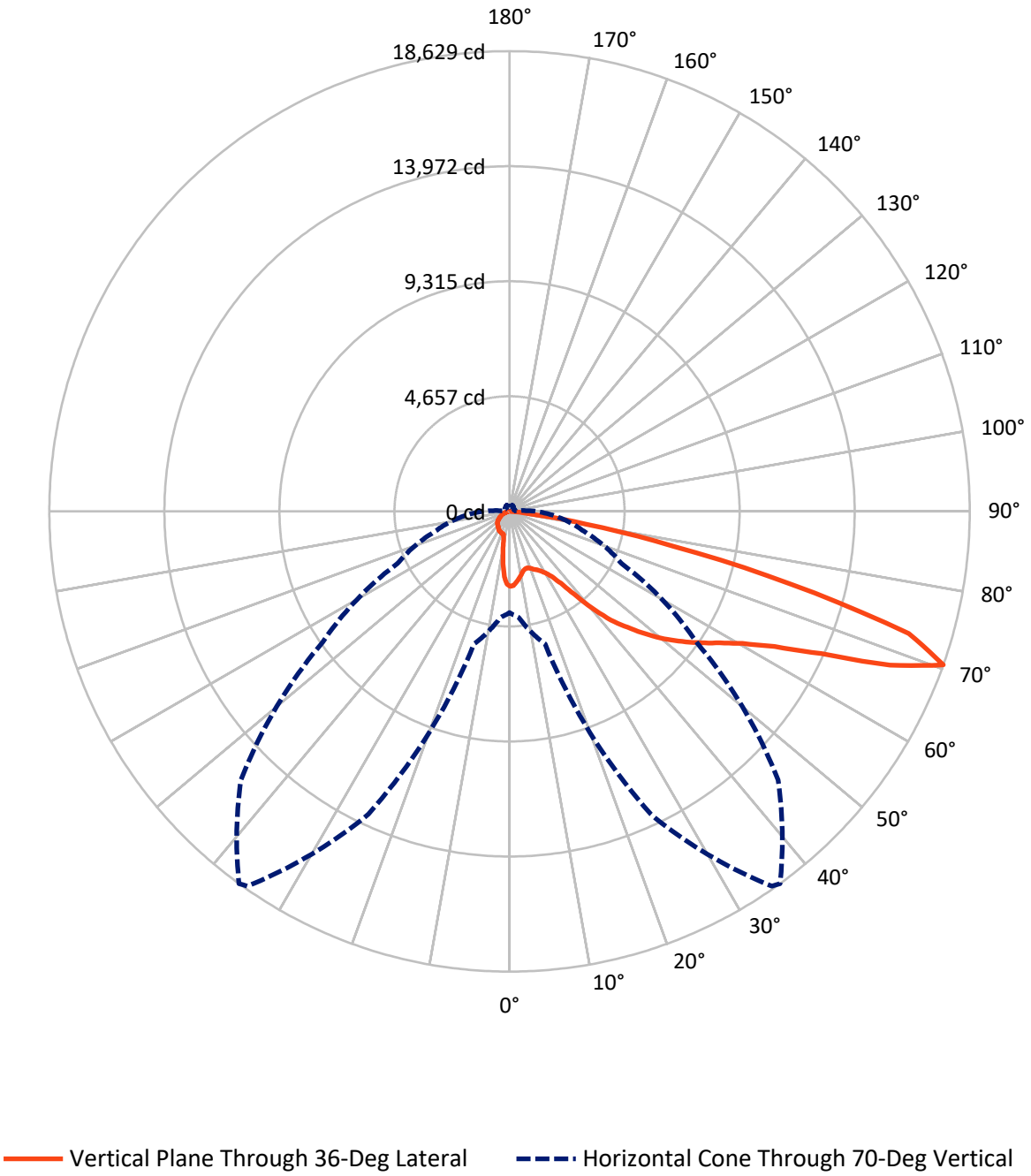

Based on 20 foot mounting height. Maximum calculated value = 7.6 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

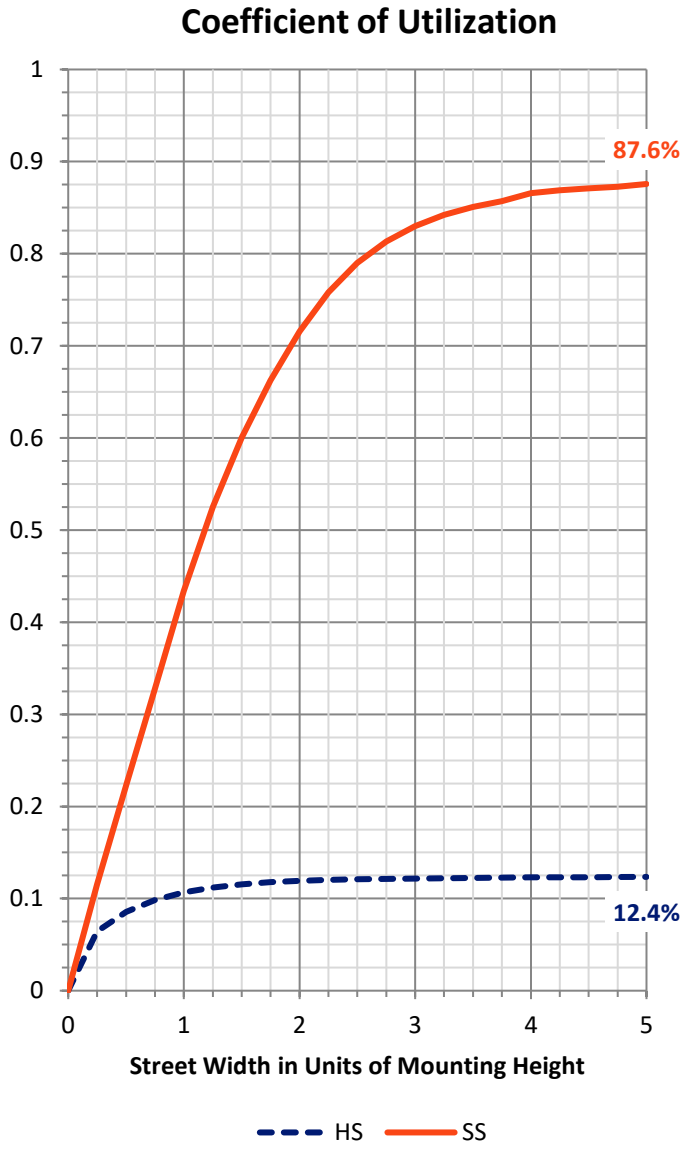
REPORT NUMBER: P1358088
CATALOG NUMBER: GSS-SB5B-735-U-T4FT-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2364.9 | 0.0 | 2364.9 |
| | % Fixture | 12.5 | 0.0 | 12.5 |
| **Street Side** | Lumens | 16621.1 | 0.0 | 16621.1 |
| | % Fixture | 87.5 | 0.0 | 87.5 |
| **Total** | Lumens | 18986.1 | 0.0 | 18986.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 256.0 | 1.3 |
| 10°-20° | 605.2 | 3.2 |
| 20°-30° | 988.5 | 5.2 |
| 30°-40° | 1766.8 | 9.3 |
| 40°-50° | 3163.2 | 16.7 |
| 50°-60° | 4593.8 | 24.2 |
| 60°-70° | 5123.3 | 27.0 |
| 70°-80° | 2358.3 | 12.4 |
| 80°-90° | 131.0 | 0.7 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 18986.1 | 100.0 |
| 0°-180° | 18986.1 | 100.0 |



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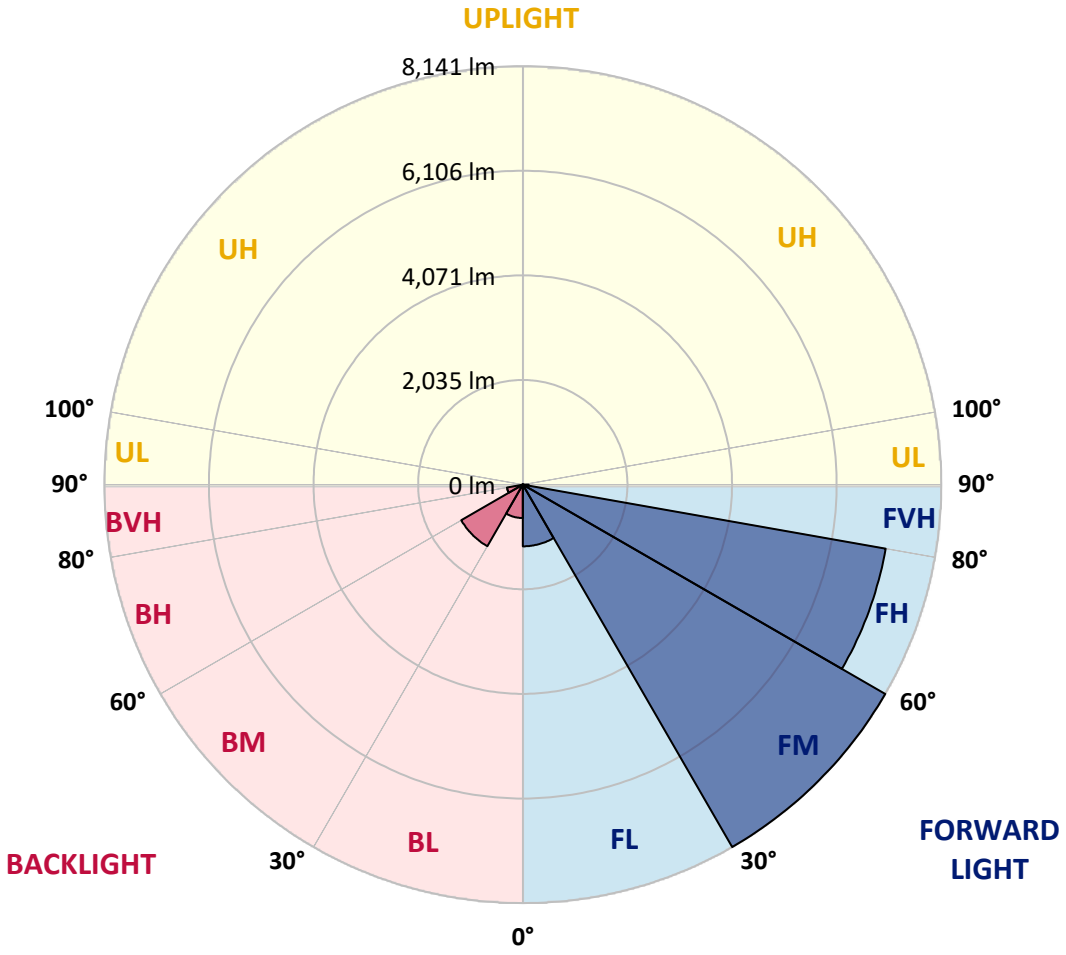
Scaled Data Report

REPORT NUMBER: P1358088
CATALOG NUMBER: GSS-SB5B-735-U-T4FT-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1200.0 | 6.3 | | | |
| FM | (30°-60°) | 8141.3 | 42.9 | | | |
| FH | (60°-80°) | 7168.0 | 37.8 | | | G3/7500 |
| FVH | (80°-90°) | 111.9 | 0.6 | | | G2/225 |
| BL | (0°-30°) | 649.8 | 3.4 | B2/1000 | | |
| BM | (30°-60°) | 1382.5 | 7.3 | B2/2500 | | |
| BH | (60°-80°) | 313.6 | 1.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 19.0 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G3**
Type IV Short



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REPORT NUMBER: P1358088
CATALOG NUMBER: GSS-SB5B-735-U-T4FT-HSS

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 |
| 2.5° | 2997.6 | 2985.7 | 2985.7 | 2997.6 | 3027.4 | 3009.5 | 2997.6 | 3015.5 | 3021.4 | 3039.3 | 3045.3 |
| 5° | 2818.8 | 2824.8 | 2806.9 | 2848.6 | 2878.4 | 2884.4 | 2926.1 | 2979.7 | 3009.5 | 3069.1 | 3075.1 |
| 7.5° | 2586.4 | 2610.2 | 2622.2 | 2681.7 | 2741.3 | 2747.3 | 2824.8 | 2908.2 | 2997.6 | 3081.0 | 3122.7 |
| 10° | 2401.7 | 2407.6 | 2419.5 | 2485.1 | 2592.4 | 2604.3 | 2711.5 | 2848.6 | 2979.7 | 3116.8 | 3164.5 |
| 12.5° | 2282.5 | 2294.4 | 2294.4 | 2348.0 | 2455.3 | 2467.2 | 2592.4 | 2777.1 | 2967.8 | 3128.7 | 3218.1 |
| 15° | 2282.5 | 2270.5 | 2270.5 | 2312.3 | 2395.7 | 2407.6 | 2526.8 | 2723.5 | 2938.0 | 3164.5 | 3307.5 |
| 17.5° | 2294.4 | 2300.3 | 2288.4 | 2318.2 | 2389.7 | 2401.7 | 2508.9 | 2693.7 | 2944.0 | 3218.1 | 3379.0 |
| 20° | 2342.1 | 2342.1 | 2330.1 | 2377.8 | 2443.4 | 2461.2 | 2550.6 | 2705.6 | 2967.8 | 3295.6 | 3480.3 |
| 22.5° | 2407.6 | 2389.7 | 2383.8 | 2437.4 | 2520.8 | 2550.6 | 2628.1 | 2765.2 | 3003.6 | 3390.9 | 3587.6 |
| 25° | 2503.0 | 2485.1 | 2473.2 | 2532.8 | 2610.2 | 2622.2 | 2759.2 | 2866.5 | 3098.9 | 3516.1 | 3766.4 |
| 27.5° | 2681.7 | 2657.9 | 2598.3 | 2640.0 | 2735.4 | 2747.3 | 2884.4 | 3015.5 | 3230.0 | 3659.1 | 3969.0 |
| 30° | 3230.0 | 3194.3 | 3021.4 | 2848.6 | 2884.4 | 2902.2 | 3039.3 | 3206.2 | 3408.8 | 3879.6 | 4272.9 |
| 32.5° | 3879.6 | 3891.5 | 3671.0 | 3343.2 | 3128.7 | 3134.7 | 3224.1 | 3456.5 | 3671.0 | 4189.5 | 4648.4 |
| 35° | 4713.9 | 4678.2 | 4380.2 | 3998.8 | 3593.5 | 3575.7 | 3551.8 | 3808.1 | 4052.4 | 4576.8 | 5119.2 |
| 37.5° | 5512.5 | 5500.6 | 5256.2 | 4779.5 | 4308.7 | 4237.2 | 4070.3 | 4272.9 | 4499.4 | 5065.5 | 5643.6 |
| 40° | 6108.4 | 6048.8 | 5905.8 | 5590.0 | 5190.7 | 5149.0 | 4797.3 | 4845.0 | 5059.6 | 5721.1 | 6191.9 |
| 42.5° | 6495.8 | 6483.9 | 6317.0 | 6221.7 | 6036.9 | 6019.0 | 5601.9 | 5625.7 | 5744.9 | 6466.0 | 6835.5 |
| 45° | 6877.2 | 6847.4 | 6704.4 | 6644.8 | 6656.7 | 6698.4 | 6638.8 | 6501.7 | 6591.1 | 7294.4 | 7526.8 |
| 47.5° | 7258.6 | 7187.1 | 7079.8 | 7103.6 | 7353.9 | 7407.6 | 7604.2 | 7497.0 | 7383.7 | 8241.9 | 8176.3 |
| 50° | 7401.6 | 7407.6 | 7437.4 | 7580.4 | 7991.6 | 8116.8 | 8575.6 | 8361.1 | 8182.3 | 9237.1 | 8927.2 |
| 52.5° | 7455.3 | 7485.1 | 7687.7 | 7938.0 | 8593.5 | 8748.5 | 9642.4 | 9374.2 | 8879.6 | 10202.6 | 9415.9 |
| 55° | 7514.9 | 7497.0 | 7902.2 | 8224.0 | 9225.2 | 9392.1 | 10619.7 | 10184.7 | 9535.1 | 10929.6 | 9833.1 |
| 57.5° | 7818.8 | 7824.7 | 8140.6 | 8486.2 | 9815.2 | 10041.7 | 11513.6 | 10971.3 | 9898.6 | 11477.9 | 9952.3 |
| 60° | 8301.5 | 8414.7 | 8629.3 | 9004.7 | 10518.4 | 10840.2 | 12395.6 | 11543.4 | 10268.1 | 11489.8 | 9433.8 |
| 62.5° | 8581.6 | 8647.1 | 9255.0 | 9988.0 | 11722.2 | 12044.0 | 13331.3 | 11990.4 | 10077.4 | 10429.0 | 8104.8 |
| 65° | 7616.2 | 7669.8 | 9034.5 | 11477.9 | 13599.4 | 13867.6 | 14362.2 | 12026.1 | 9070.3 | 8665.0 | 6293.2 |
| 67.5° | 5685.3 | 5828.3 | 7455.3 | 13045.2 | 16477.8 | 16609.0 | 15613.7 | 11144.1 | 7455.3 | 6060.7 | 3694.9 |
| 70° | 4100.1 | 4314.6 | 5560.2 | 13527.9 | 18521.9 | 18629.2 | 15375.3 | 9243.1 | 5017.8 | 3110.8 | 1740.2 |
| 72.5° | 2967.8 | 3081.0 | 3969.0 | 12687.6 | 17431.4 | 16895.0 | 10846.2 | 5780.7 | 2646.0 | 1585.2 | 798.6 |
| 75° | 2050.0 | 2133.5 | 2526.8 | 9547.0 | 11877.2 | 11769.9 | 5470.8 | 2097.7 | 1287.2 | 917.8 | 482.7 |
| 77.5° | 846.2 | 846.2 | 1132.3 | 5375.4 | 6644.8 | 6752.0 | 2485.1 | 572.1 | 679.4 | 530.4 | 280.1 |
| 80° | 274.1 | 274.1 | 452.9 | 1907.0 | 3075.1 | 3110.8 | 893.9 | 280.1 | 363.5 | 321.8 | 149.0 |
| 82.5° | 101.3 | 95.4 | 232.4 | 631.7 | 762.8 | 810.5 | 244.3 | 137.1 | 220.5 | 190.7 | 71.5 |
| 85° | 35.8 | 35.8 | 83.4 | 131.1 | 143.0 | 125.1 | 65.6 | 65.6 | 107.3 | 89.4 | 29.8 |
| 87.5° | 0.0 | 0.0 | 6.0 | 11.9 | 17.9 | 17.9 | 17.9 | 17.9 | 23.8 | 17.9 | 17.9 |
| 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: P1358088
CATALOG NUMBER: GSS-SB5B-735-U-T4FT-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 | 3033.4 |
| 2.5° | 3033.4 | 3045.3 | 3021.4 | 2997.6 | 2991.6 | 2961.8 | 2944.0 | 2920.1 | 2914.2 | 2908.2 | 2920.1 |
| 5° | 3069.1 | 3069.1 | 3009.5 | 2944.0 | 2866.5 | 2759.2 | 2646.0 | 2544.7 | 2503.0 | 2455.3 | 2461.2 |
| 7.5° | 3110.8 | 3081.0 | 2991.6 | 2818.8 | 2586.4 | 2330.1 | 2115.6 | 1954.7 | 1859.3 | 1775.9 | 1799.8 |
| 10° | 3146.6 | 3116.8 | 2932.0 | 2598.3 | 2211.0 | 1865.3 | 1555.4 | 1376.6 | 1263.4 | 1197.8 | 1227.6 |
| 12.5° | 3200.2 | 3140.6 | 2830.7 | 2318.2 | 1787.8 | 1364.7 | 1126.3 | 1031.0 | 1001.2 | 983.3 | 983.3 |
| 15° | 3259.8 | 3158.5 | 2675.8 | 2002.4 | 1382.6 | 1031.0 | 965.4 | 965.4 | 971.4 | 971.4 | 977.3 |
| 17.5° | 3319.4 | 3164.5 | 2508.9 | 1638.8 | 1072.7 | 941.6 | 947.6 | 953.5 | 965.4 | 953.5 | 953.5 |
| 20° | 3390.9 | 3206.2 | 2294.4 | 1317.0 | 941.6 | 923.7 | 929.7 | 941.6 | 953.5 | 941.6 | 947.6 |
| 22.5° | 3510.1 | 3247.9 | 2109.6 | 1108.5 | 923.7 | 911.8 | 911.8 | 929.7 | 935.6 | 917.8 | 923.7 |
| 25° | 3647.2 | 3301.5 | 1913.0 | 1025.0 | 935.6 | 893.9 | 905.8 | 917.8 | 923.7 | 911.8 | 911.8 |
| 27.5° | 3820.0 | 3390.9 | 1722.3 | 1025.0 | 947.6 | 882.0 | 888.0 | 905.8 | 917.8 | 899.9 | 911.8 |
| 30° | 4070.3 | 3498.2 | 1603.1 | 1054.8 | 959.5 | 858.2 | 864.1 | 888.0 | 905.8 | 893.9 | 899.9 |
| 32.5° | 4380.2 | 3682.9 | 1501.8 | 1078.7 | 953.5 | 834.3 | 828.4 | 864.1 | 893.9 | 888.0 | 899.9 |
| 35° | 4761.6 | 3897.5 | 1436.2 | 1102.5 | 941.6 | 816.4 | 792.6 | 840.3 | 888.0 | 888.0 | 893.9 |
| 37.5° | 5143.0 | 4123.9 | 1466.0 | 1096.5 | 911.8 | 804.5 | 762.8 | 804.5 | 858.2 | 876.0 | 888.0 |
| 40° | 5595.9 | 4374.2 | 1537.5 | 1060.8 | 893.9 | 768.8 | 739.0 | 768.8 | 822.4 | 852.2 | 864.1 |
| 42.5° | 6001.2 | 4612.6 | 1609.0 | 1019.1 | 870.1 | 733.0 | 715.1 | 739.0 | 768.8 | 798.6 | 816.4 |
| 45° | 6477.9 | 4797.3 | 1585.2 | 971.4 | 846.2 | 703.2 | 697.3 | 703.2 | 715.1 | 727.1 | 739.0 |
| 47.5° | 6817.6 | 4856.9 | 1477.9 | 929.7 | 792.6 | 679.4 | 667.5 | 661.5 | 649.6 | 649.6 | 655.5 |
| 50° | 7187.1 | 4690.1 | 1263.4 | 882.0 | 715.1 | 649.6 | 625.7 | 607.9 | 590.0 | 578.1 | 584.0 |
| 52.5° | 7348.0 | 4261.0 | 1060.8 | 798.6 | 625.7 | 607.9 | 578.1 | 554.2 | 530.4 | 524.4 | 518.5 |
| 55° | 7282.4 | 3671.0 | 876.0 | 673.4 | 560.2 | 560.2 | 530.4 | 506.6 | 482.7 | 464.8 | 458.9 |
| 57.5° | 7032.1 | 3063.2 | 703.2 | 500.6 | 494.6 | 506.6 | 482.7 | 458.9 | 435.0 | 411.2 | 411.2 |
| 60° | 6448.1 | 2348.0 | 542.3 | 405.2 | 429.1 | 447.0 | 441.0 | 423.1 | 381.4 | 345.6 | 345.6 |
| 62.5° | 5441.0 | 1591.2 | 387.4 | 327.8 | 363.5 | 393.3 | 399.3 | 381.4 | 333.7 | 292.0 | 286.1 |
| 65° | 4135.8 | 935.6 | 298.0 | 280.1 | 309.9 | 339.7 | 351.6 | 333.7 | 280.1 | 232.4 | 220.5 |
| 67.5° | 2514.9 | 506.6 | 232.4 | 238.4 | 268.2 | 286.1 | 303.9 | 292.0 | 244.3 | 196.7 | 190.7 |
| 70° | *1072.7* | *256.3* | *190.7* | *196.7* | *214.5* | *220.5* | *256.3* | *262.2* | *220.5* | *172.8* | *166.9* |
| 72.5° | 494.6 | 190.7 | 154.9 | 166.9 | 160.9 | 166.9 | 220.5 | 232.4 | 190.7 | 137.1 | 137.1 |
| 75° | 286.1 | 143.0 | 119.2 | 131.1 | 107.3 | 125.1 | 178.8 | 190.7 | 160.9 | 113.2 | 107.3 |
| 77.5° | 154.9 | 101.3 | 83.4 | 89.4 | 77.5 | 95.4 | 143.0 | 149.0 | 119.2 | 89.4 | 89.4 |
| 80° | 89.4 | 65.6 | 59.6 | 53.6 | 53.6 | 65.6 | 101.3 | 95.4 | 77.5 | 77.5 | 77.5 |
| 82.5° | 47.7 | 35.8 | 35.8 | 35.8 | 35.8 | 41.7 | 53.6 | 59.6 | 65.6 | 65.6 | 65.6 |
| 85° | 23.8 | 17.9 | 17.9 | 17.9 | 23.8 | 29.8 | 41.7 | 47.7 | 53.6 | 53.6 | 53.6 |
| 87.5° | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 17.9 | 29.8 | 35.8 | 41.7 | 23.8 | 11.9 |
| 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

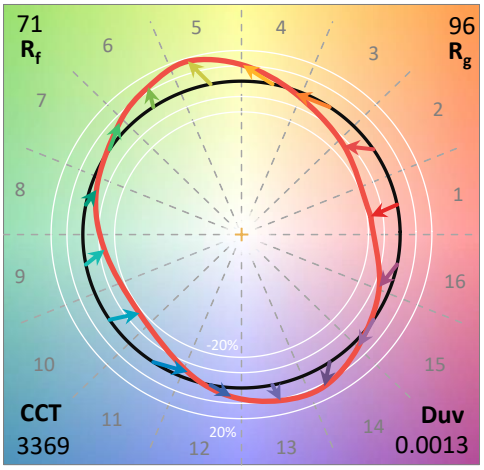
## Test Information

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

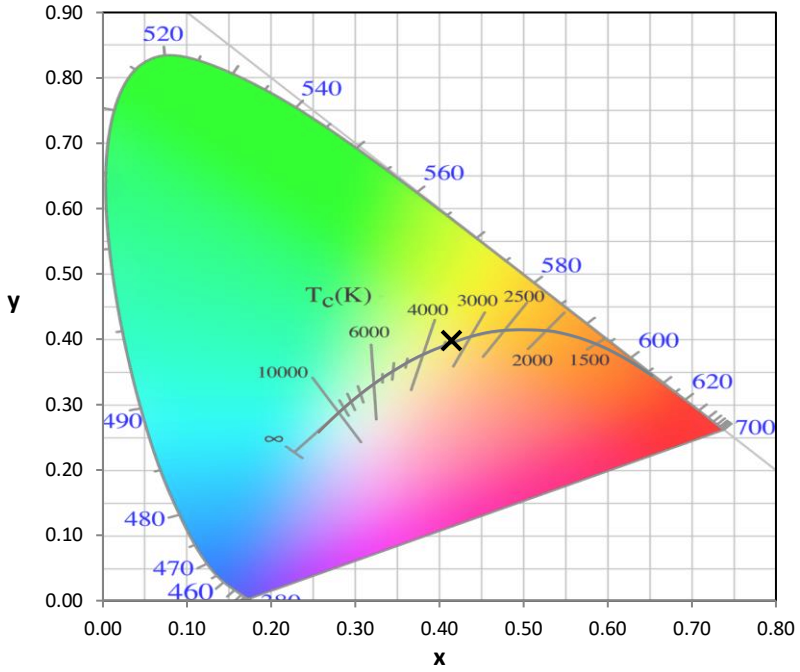
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-5

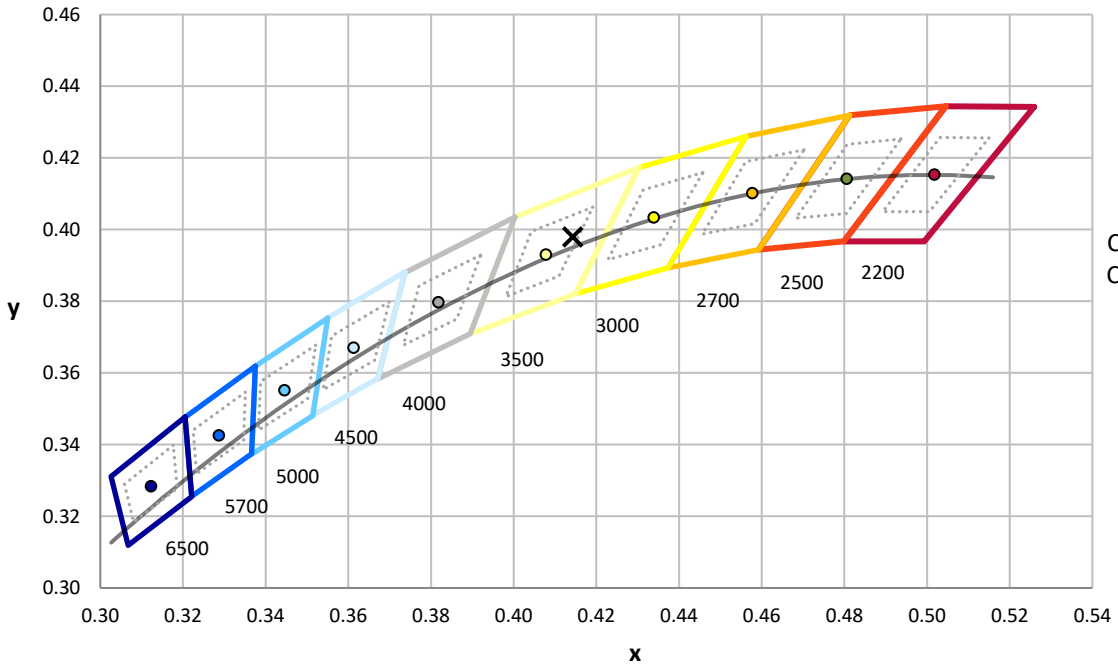
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

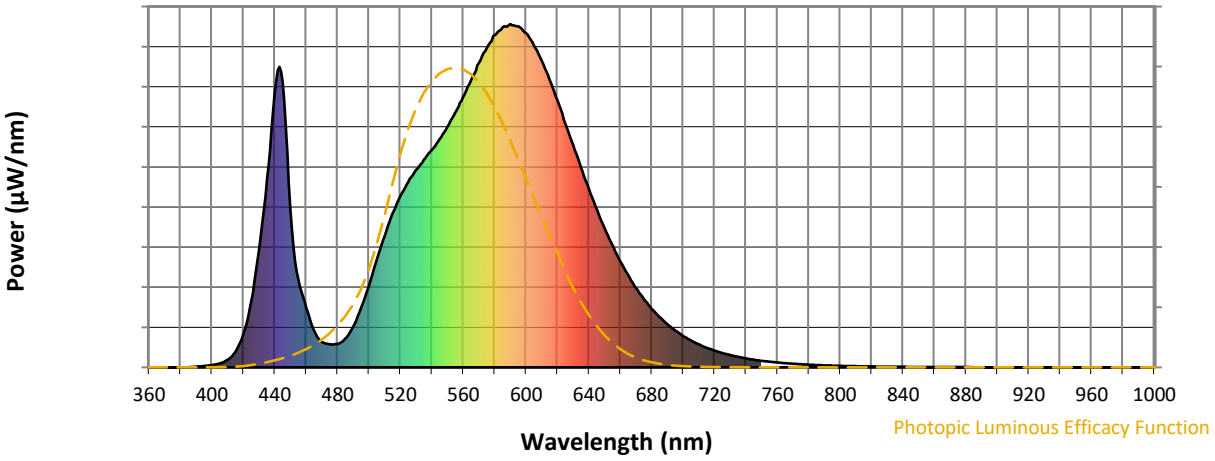



CCT = 3369K
CIE x = 0.4143
CIE y = 0.3980
Duv = 0.0013

Point lies inside the ANSI 3500K 4-step quadrangle

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## Photopic Flux vs. Wavelength

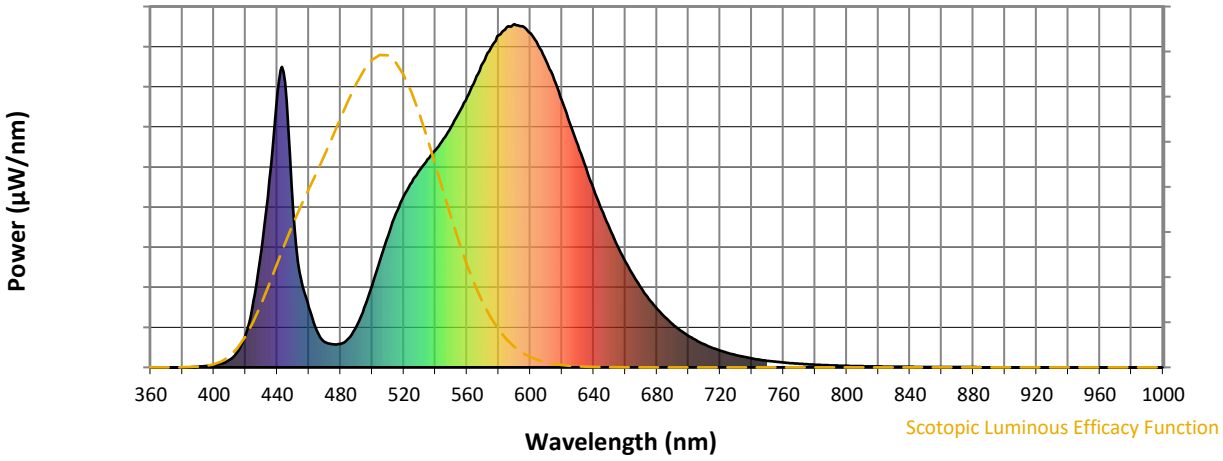



## Photopic Lumens: NR

| 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

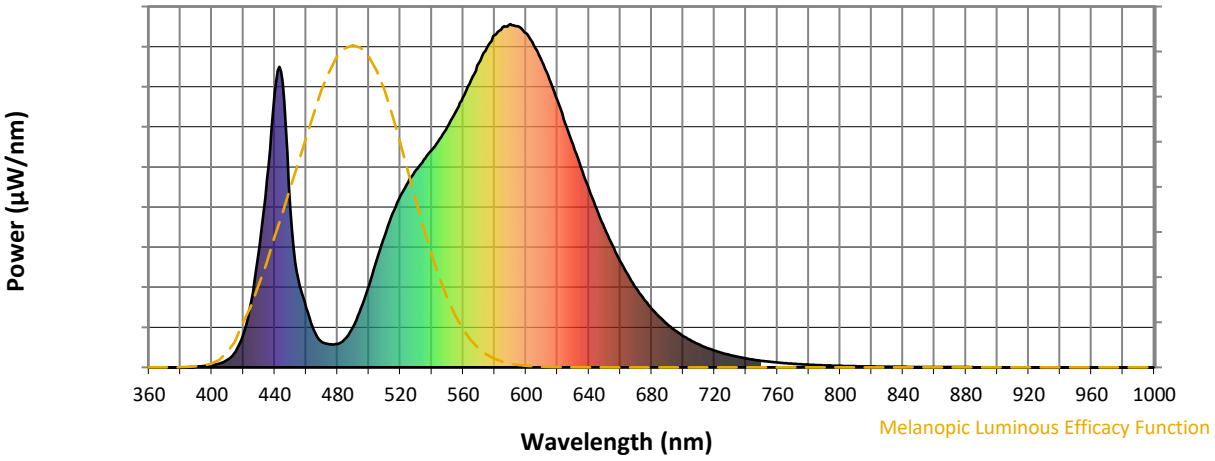



**Scotopic Lumens: NR** **S/P: 1.29**

| 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 | | | |

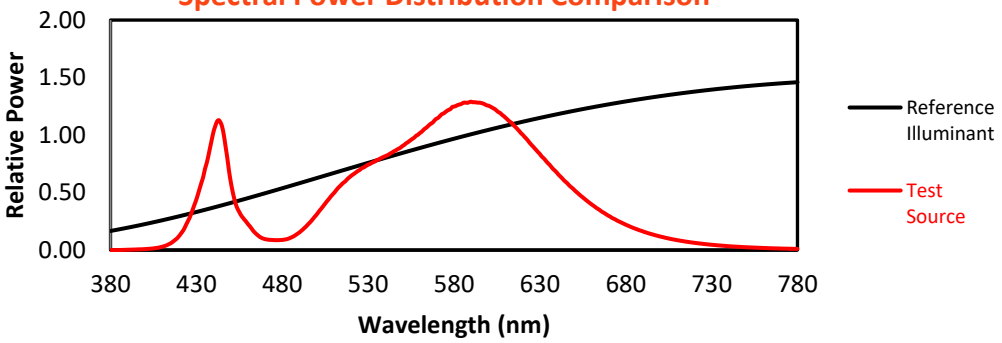
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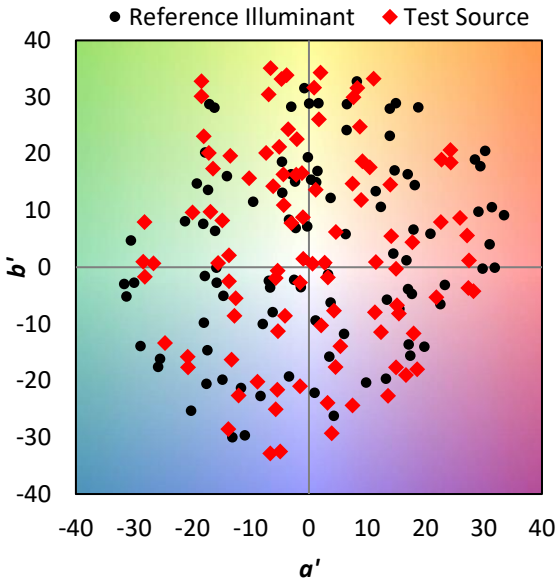
## Summary

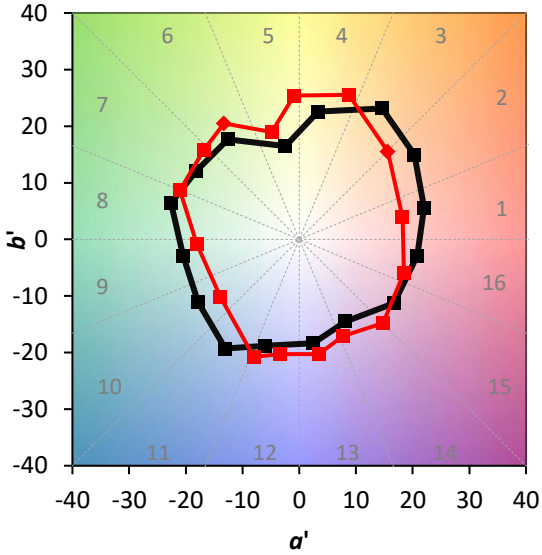
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

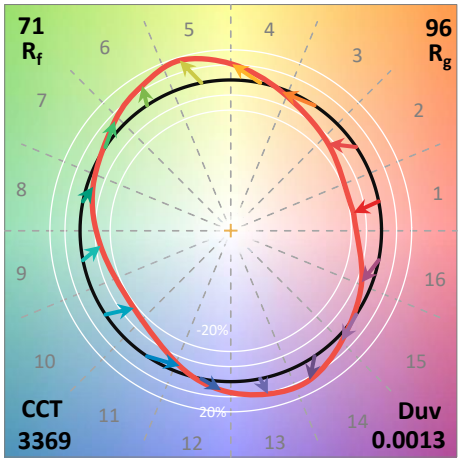
## Spectral Power Distribution Comparison

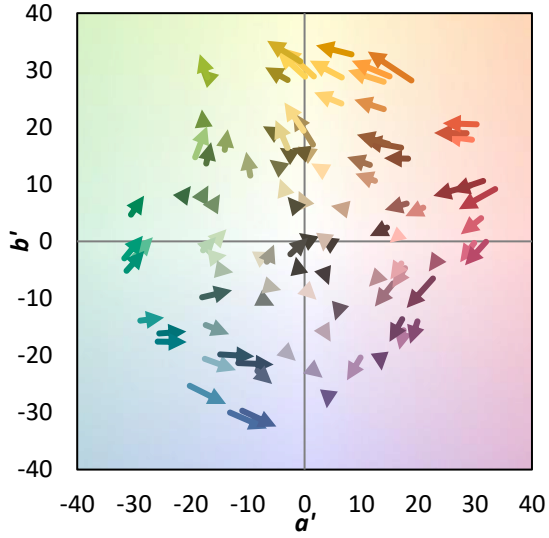



## Color Vector Graphics



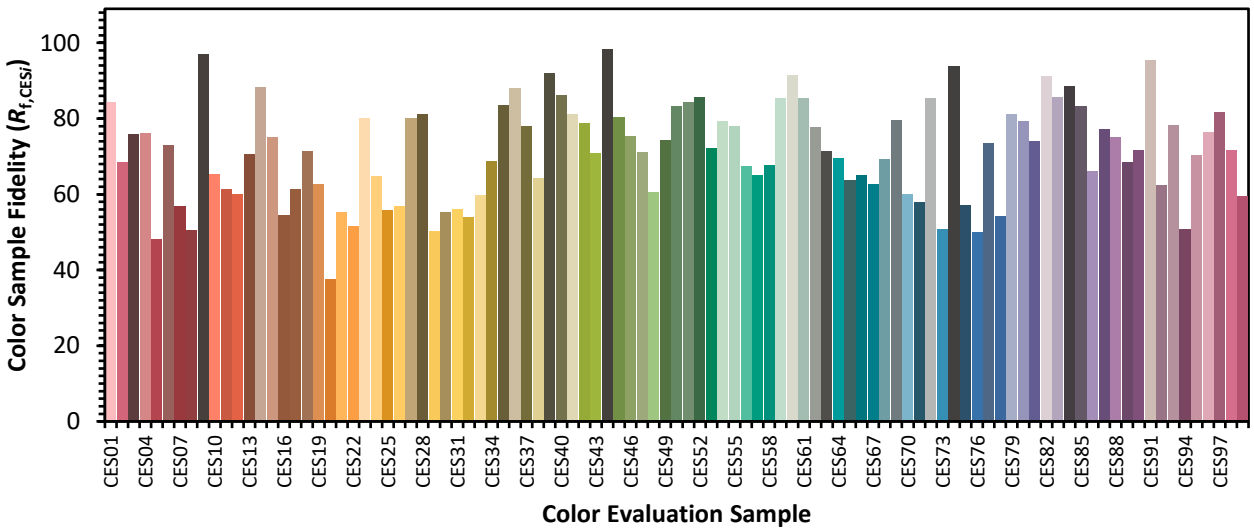



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## Individual Sample Fidelity Index ($R_{f,i}$)

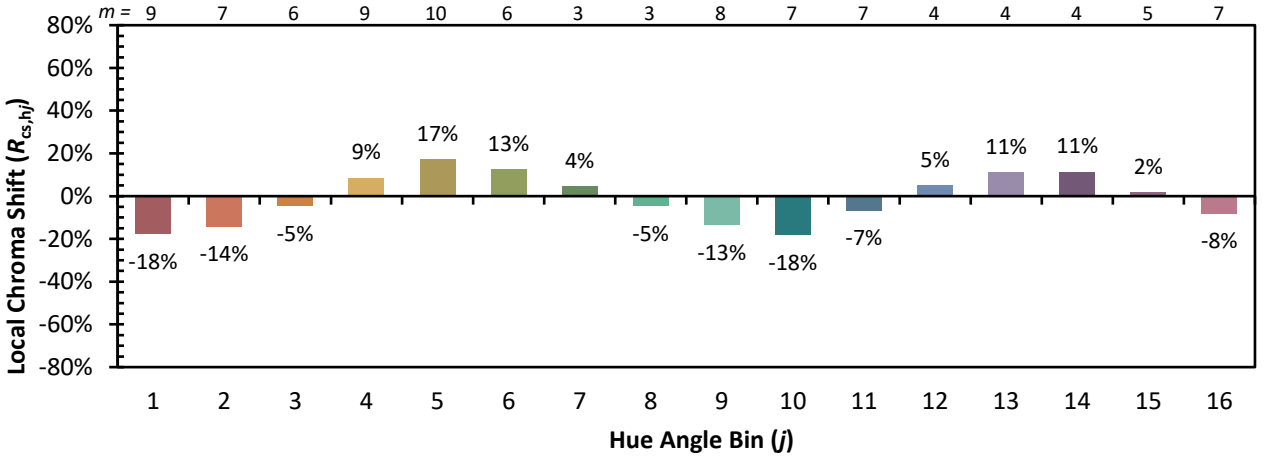
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 57 | CES51 = 84 | CES76 = 50 |
| CES02 = 62 | CES27 = 80 | CES52 = 86 | CES77 = 74 |
| CES03 = 31 | CES28 = 81 | CES53 = 72 | CES78 = 54 |
| CES04 = 70 | CES29 = 50 | CES54 = 79 | CES79 = 81 |
| CES05 = 48 | CES30 = 55 | CES55 = 78 | CES80 = 79 |
| CES06 = 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 | |

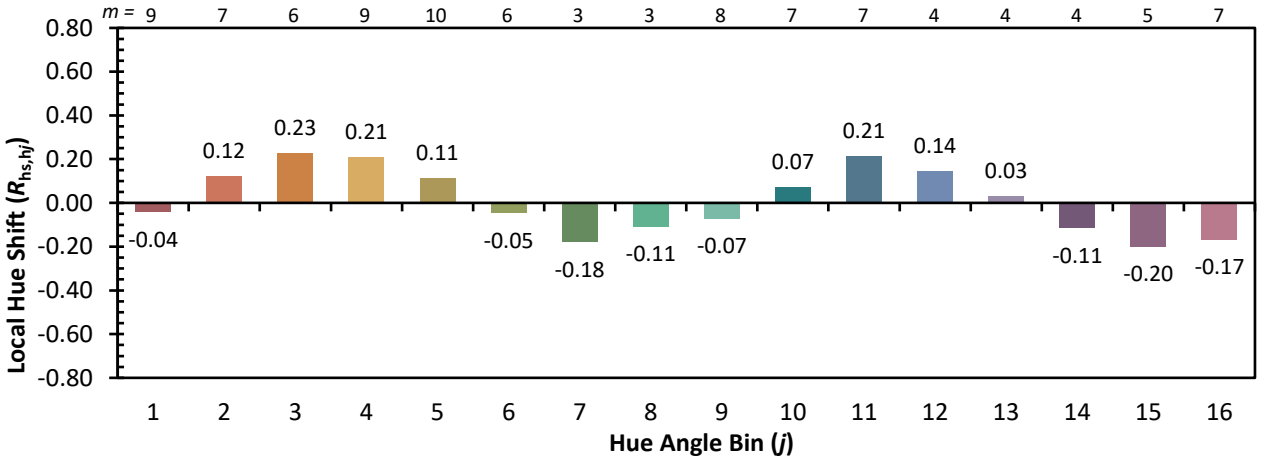


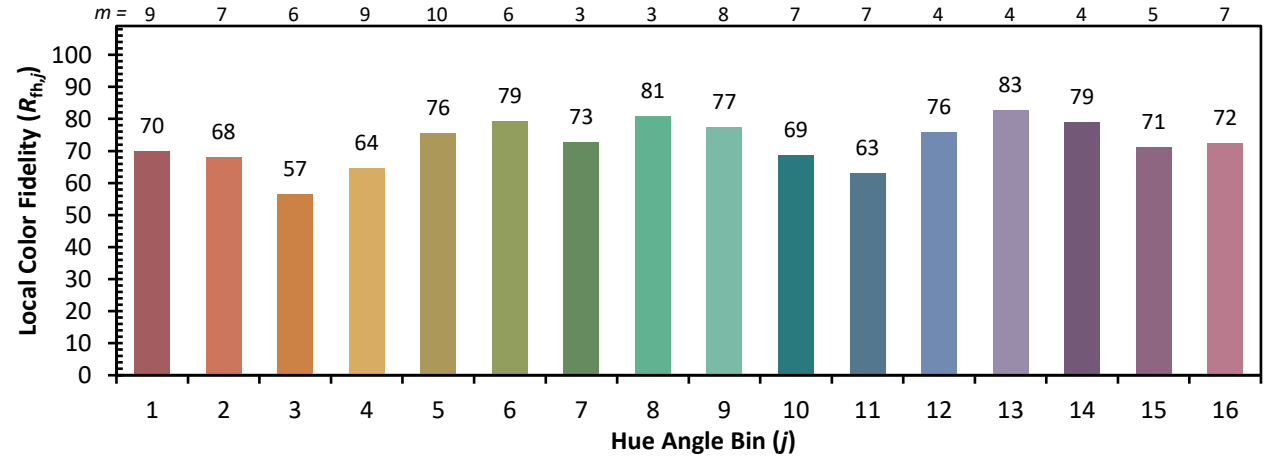
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## Color Rendition by Hue-Angle Bin



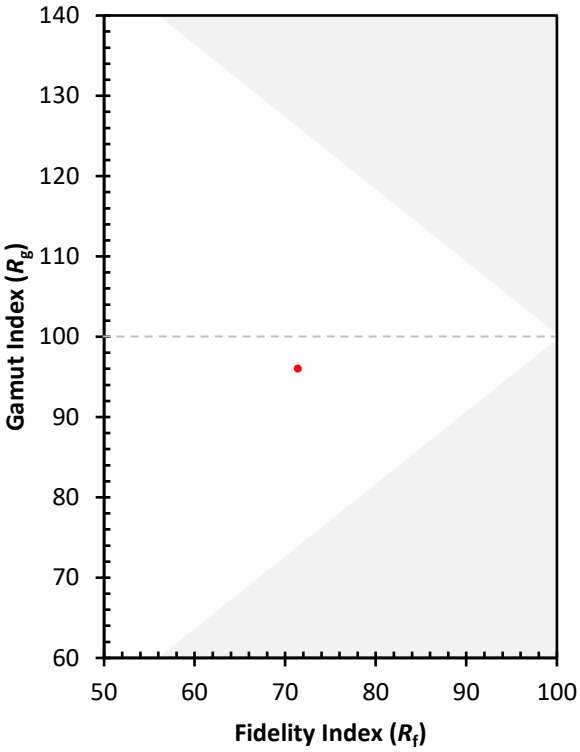



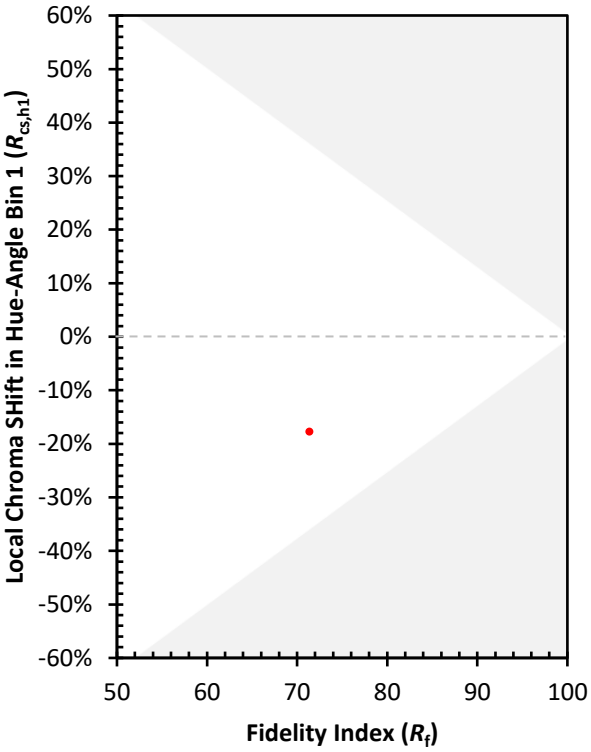



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## Measure Comparisons




(END OF REPORT)