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

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Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: STREETWORKS

Report Number: P1458061

Luminaire Tested: GLAN-SB1C-740-U-T3LG-HSS

Issue Date: 05/20/2026

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1458061 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB1C-740-U-T3LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 1xLight Square PACKAGE 70CRI 4000K FIXTURE w/ TYPE III LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (26) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 6057.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 111.4 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 54.4 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | NR |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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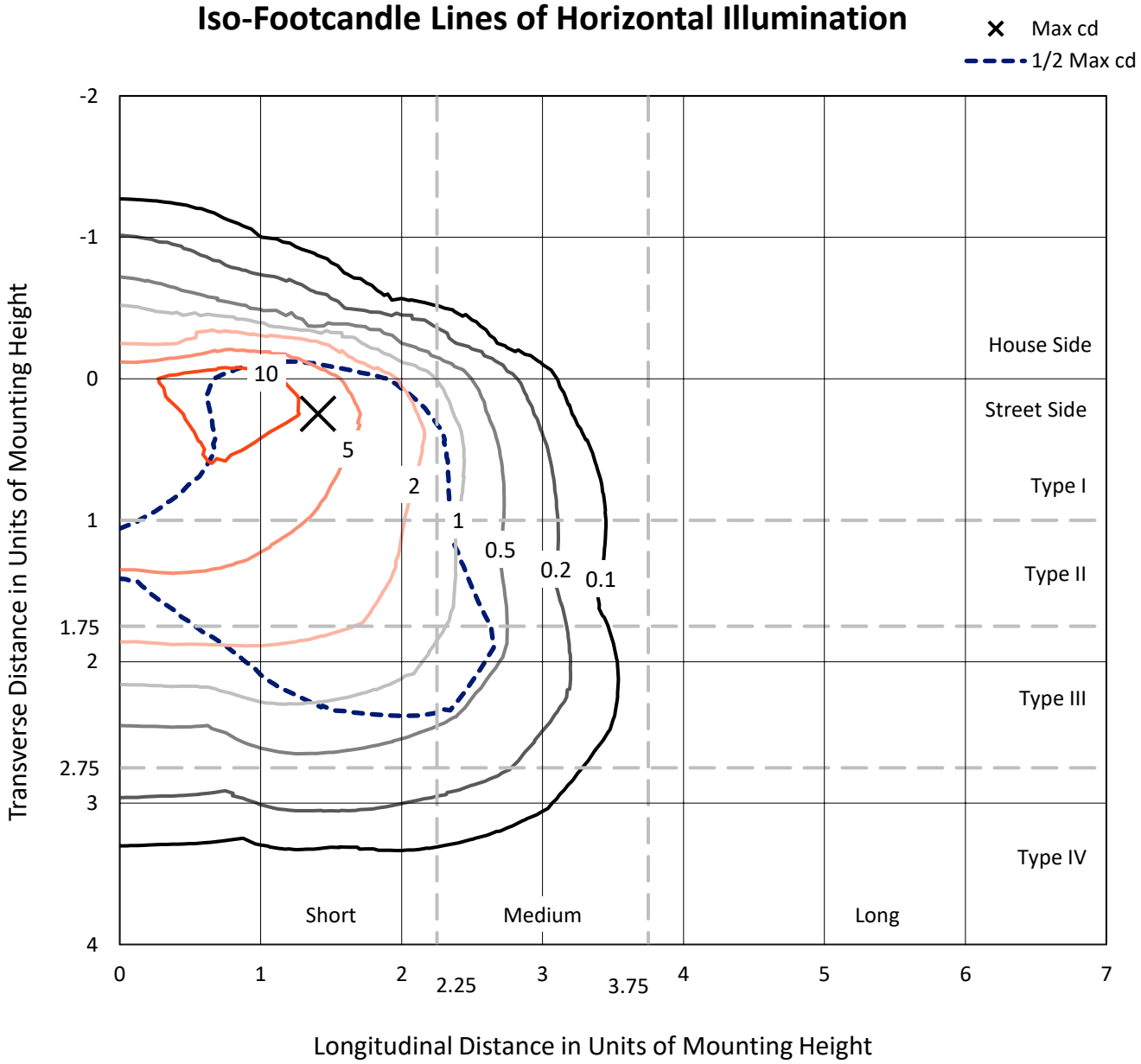
REPORT NUMBER: P1458061
CATALOG NUMBER: GLAN-SB1C-740-U-T3LG-HSS

## Iso-Footcandle Lines of Horizontal Illumination




Based on 10 foot mounting height. Maximum calculated value = 14.9 fc
Type III - Short - N/A

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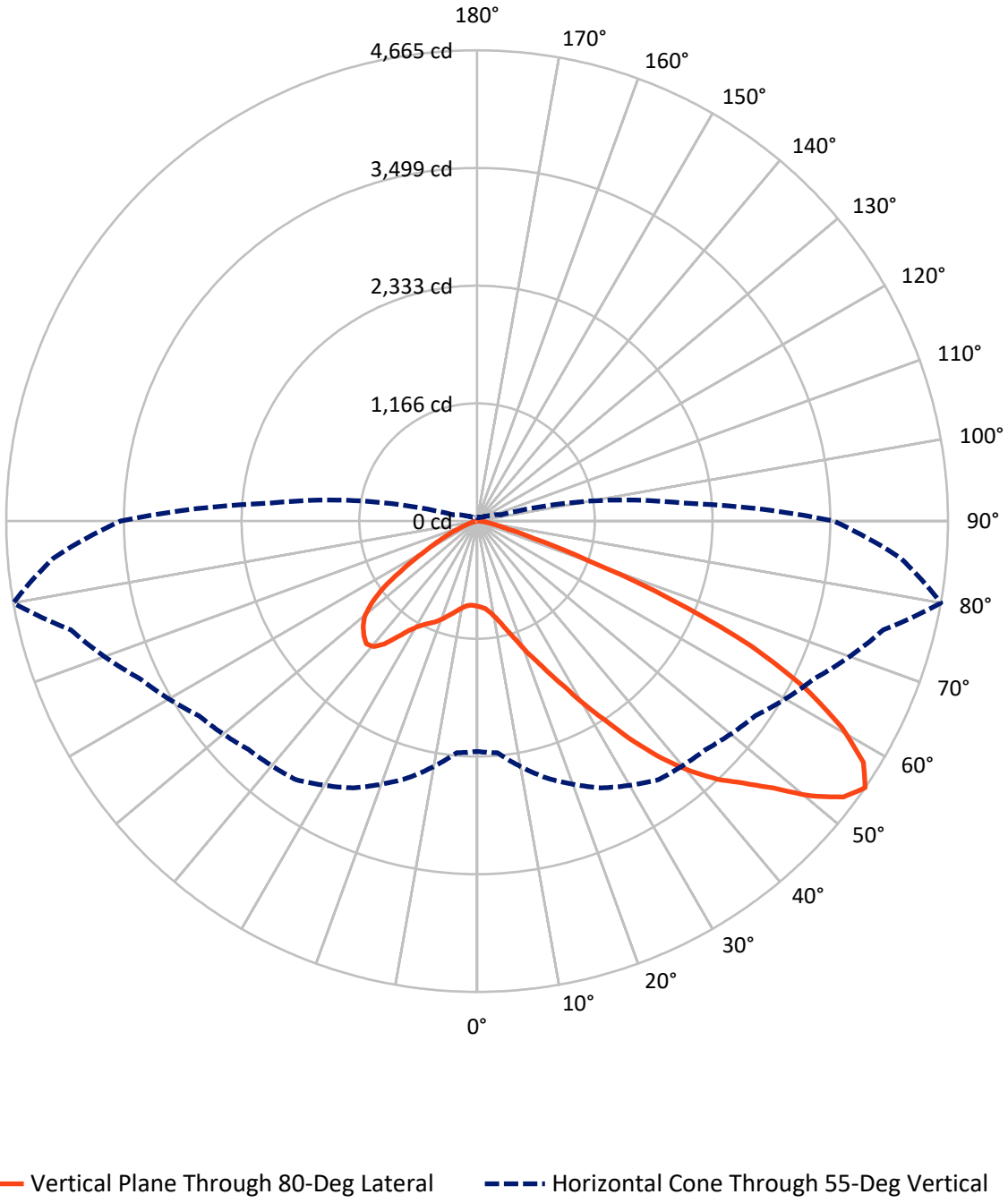
## Luminous Intensity Polar Plot



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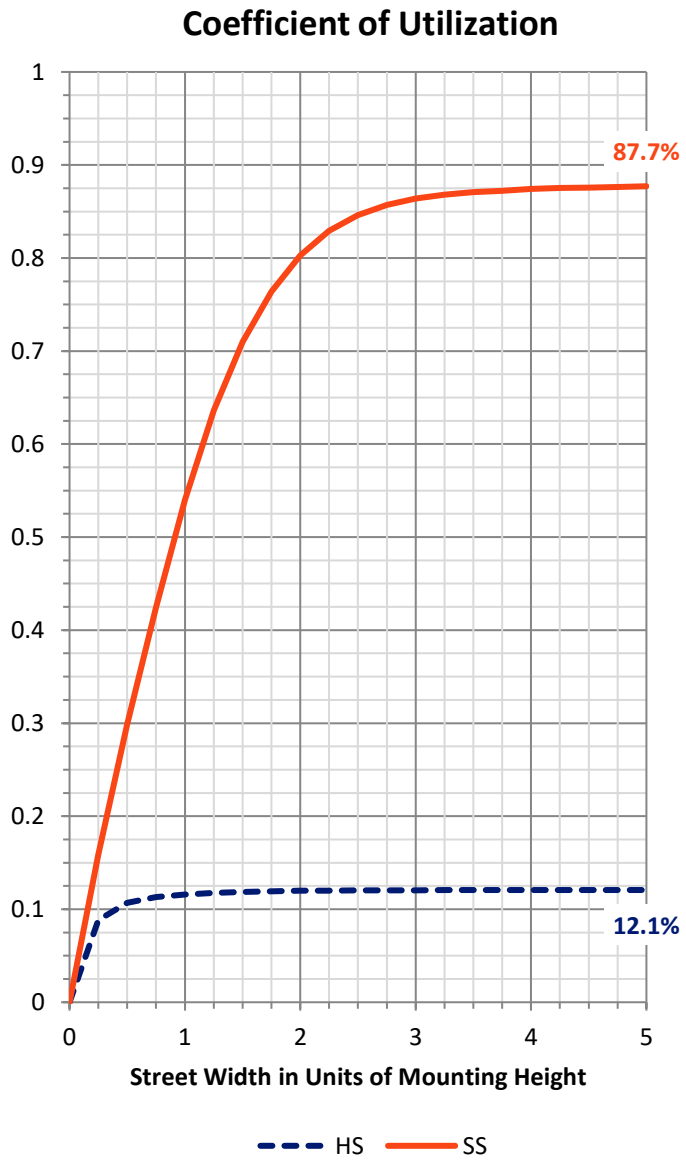
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 736.4 | 0.0 | 736.4 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| **Street Side** | Lumens | 5321.4 | 0.0 | 5321.4 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| **Total** | Lumens | 6057.8 | 0.0 | 6057.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 70.8 | 1.2 |
| 10°-20° | 186.7 | 3.1 |
| 20°-30° | 365.5 | 6.0 |
| 30°-40° | 743.6 | 12.3 |
| 40°-50° | 1253.6 | 20.7 |
| 50°-60° | 1601.7 | 26.4 |
| 60°-70° | 1367.4 | 22.6 |
| 70°-80° | 437.0 | 7.2 |
| 80°-90° | 31.6 | 0.5 |
| 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° | 6057.8 | 100.0 |
| 0°-180° | 6057.8 | 100.0 |



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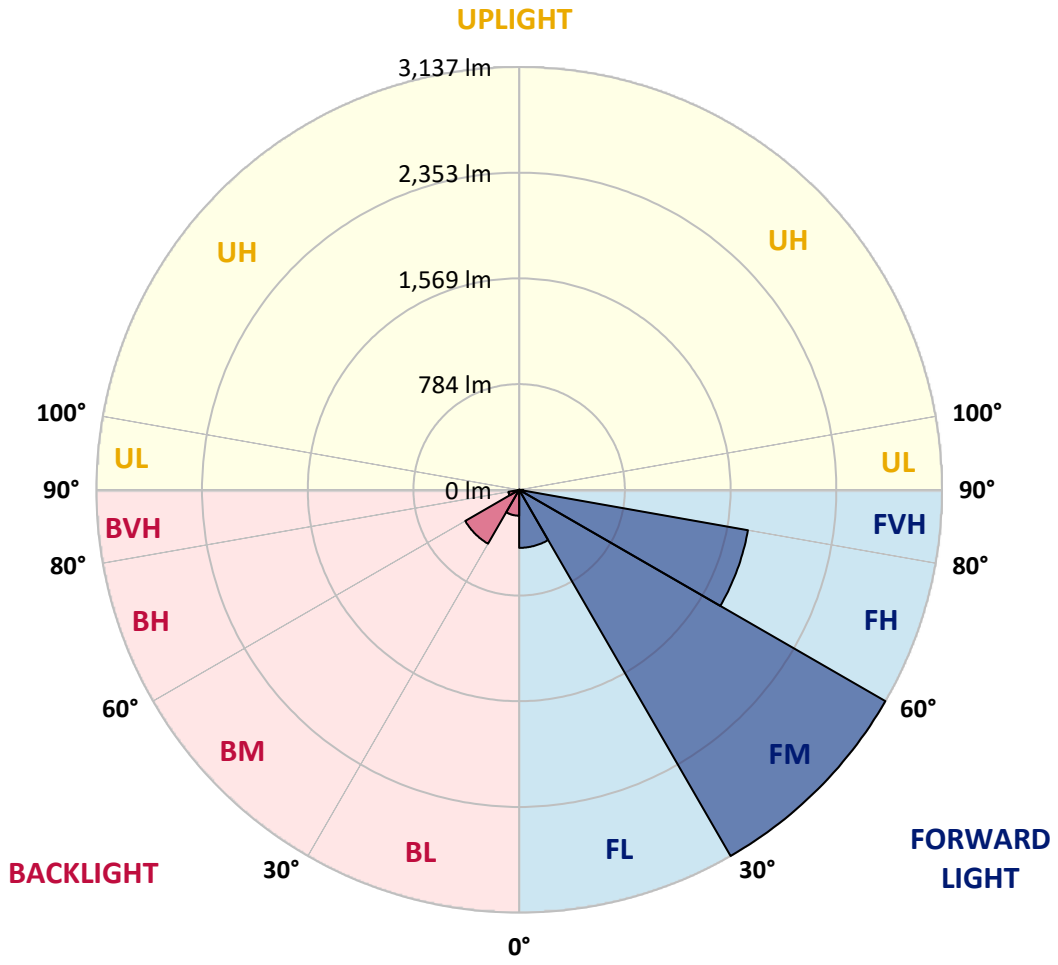
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 430.7 | 7.1 | | | |
| FM | (30°-60°) | 3137.3 | 51.8 | | | |
| FH | (60°-80°) | 1723.5 | 28.5 | | | G1/1800 |
| FVH | (80°-90°) | 29.9 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 192.3 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 461.5 | 7.6 | B1/1000 | | |
| BH | (60°-80°) | 80.9 | 1.3 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.6 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G1**
Type III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | *843.8* | 843.8 |
| 2.5° | 849.0 | 850.7 | 849.0 | 850.7 | 854.2 | 852.5 | 859.3 | 857.6 | 857.6 | *855.9* | 849.0 |
| 5° | 800.8 | 802.5 | 806.0 | 814.6 | 826.6 | 838.7 | 854.2 | 864.5 | 874.8 | *873.1* | 866.2 |
| 7.5° | 706.1 | 709.5 | 723.3 | 740.5 | 780.1 | 816.3 | 855.9 | 881.7 | 904.1 | *911.0* | 905.8 |
| 10° | 652.7 | 656.1 | 664.7 | 682.0 | 718.1 | 778.4 | 855.9 | 909.3 | 948.9 | *962.7* | 964.4 |
| 12.5° | 647.5 | 649.2 | 656.1 | 675.1 | 706.1 | 757.7 | 854.2 | 945.4 | 1012.6 | *1033.3* | 1040.2 |
| 15° | 651.0 | 654.4 | 661.3 | 676.8 | 713.0 | 771.5 | 868.0 | 1002.3 | 1097.0 | *1126.3* | 1128.0 |
| 17.5° | 664.7 | 668.2 | 676.8 | 694.0 | 733.6 | 807.7 | 911.0 | 1060.8 | 1198.6 | *1231.3* | 1250.3 |
| 20° | 692.3 | 694.0 | 704.4 | 726.7 | 771.5 | 852.5 | 974.7 | 1140.0 | 1320.9 | *1369.1* | 1382.9 |
| 22.5° | 728.5 | 733.6 | 747.4 | 775.0 | 831.8 | 914.5 | 1062.6 | 1236.5 | 1455.2 | *1505.1* | 1529.2 |
| 25° | 768.1 | 775.0 | 795.6 | 840.4 | 912.7 | 1009.2 | 1171.0 | 1363.9 | 1613.6 | *1673.9* | 1706.6 |
| 27.5° | 849.0 | 850.7 | 864.5 | 921.3 | 1014.3 | 1133.2 | 1308.8 | 1527.5 | 1799.6 | *1870.2* | 1906.4 |
| 30° | 1026.4 | 1028.1 | 1016.1 | 1031.6 | 1126.3 | 1279.5 | 1470.7 | 1718.7 | 2016.6 | *2114.8* | 2144.0 |
| 32.5° | 1243.4 | 1252.0 | 1250.3 | 1239.9 | 1283.0 | 1425.9 | 1663.6 | 1947.7 | 2271.5 | *2374.8* | 2402.4 |
| 35° | 1489.6 | 1510.3 | 1505.1 | 1501.7 | 1506.9 | 1613.6 | 1884.0 | 2200.9 | 2560.8 | *2686.5* | 2708.9 |
| 37.5° | 1730.7 | 1735.9 | 1760.0 | 1789.3 | 1792.7 | 1866.8 | 2138.9 | 2469.5 | 2829.5 | *2989.6* | 3024.1 |
| 40° | 1916.7 | 1933.9 | 1994.2 | 2052.8 | 2113.1 | 2171.6 | 2349.0 | 2686.5 | 3043.0 | *3258.3* | 3273.8 |
| 42.5° | 2061.4 | 2102.7 | 2190.5 | 2281.8 | 2404.1 | 2469.5 | 2548.7 | 2839.8 | 3216.9 | *3497.6* | 3490.8 |
| 45° | 2237.0 | 2254.3 | 2378.3 | 2498.8 | 2622.8 | 2722.7 | 2721.0 | 2968.9 | 3353.0 | *3702.6* | 3659.5 |
| 47.5° | 2355.9 | 2376.5 | 2545.3 | 2686.5 | 2814.0 | 2863.9 | 2874.2 | 3108.4 | 3540.7 | *3950.6* | 3849.0 |
| 50° | 2419.6 | 2455.8 | 2640.0 | 2819.1 | 2956.9 | 2972.4 | 3018.9 | 3291.0 | 3787.0 | *4279.5* | 4088.3 |
| 52.5° | 2426.5 | 2460.9 | 2672.7 | 2903.5 | 3053.3 | 3084.3 | 3163.5 | 3497.6 | 4026.3 | *4543.0* | 4226.1 |
| 55° | *2283.5* | *2304.2* | *2633.1* | *2917.3* | *3129.1* | *3201.4* | *3363.3* | *3688.8* | *4165.8* | *4665.2* | *4214.0* |
| 57.5° | 2149.2 | 2169.9 | 2455.8 | 2893.2 | 3206.6 | 3354.7 | 3576.9 | 3819.7 | 4057.3 | *4513.7* | 3945.4 |
| 60° | 2033.8 | 2044.2 | 2304.2 | 2781.2 | 3235.9 | 3504.5 | 3761.1 | 3690.5 | 3776.6 | *4150.3* | 3485.6 |
| 62.5° | 1816.8 | 1823.7 | 2132.0 | 2579.7 | 3177.3 | 3619.9 | 3824.8 | 3416.7 | 3468.4 | *3649.2* | 2944.8 |
| 65° | 1372.5 | 1398.4 | 1680.8 | 2428.2 | 3080.9 | 3673.3 | 3676.7 | 3082.6 | 3029.2 | *2986.2* | 2316.3 |
| 67.5° | 931.7 | 960.9 | 1131.4 | 2183.7 | 2924.2 | 3695.7 | 3389.1 | 2650.4 | 2307.7 | *2085.5* | 1517.2 |
| 70° | 744.0 | 744.0 | 802.5 | 1754.8 | 2552.2 | 3409.8 | 3032.7 | 2001.1 | 1465.5 | *1152.1* | 812.8 |
| 72.5° | 489.1 | 490.8 | 545.9 | 1114.2 | 1810.0 | 2600.4 | 2473.0 | 1157.3 | 761.2 | *587.2* | 401.3 |
| 75° | 177.4 | 177.4 | 239.4 | 446.0 | 957.5 | 1548.2 | 1506.9 | 552.8 | 413.3 | *320.3* | 242.8 |
| 77.5° | 94.7 | 98.2 | 115.4 | 184.3 | 366.8 | 630.3 | 589.0 | 282.4 | 234.2 | *199.8* | 151.5 |
| 80° | 63.7 | 65.4 | 77.5 | 113.7 | 177.4 | 242.8 | 189.4 | 158.4 | 158.4 | *134.3* | 101.6 |
| 82.5° | 34.4 | 36.2 | 51.7 | 74.1 | 94.7 | 113.7 | 91.3 | 93.0 | 111.9 | *91.3* | 58.6 |
| 85° | 24.1 | 24.1 | 39.6 | 53.4 | 53.4 | 55.1 | 39.6 | 58.6 | 65.4 | *56.8* | 39.6 |
| 87.5° | 13.8 | 13.8 | 22.4 | 25.8 | 25.8 | 24.1 | 12.1 | 20.7 | 25.8 | *29.3* | 17.2 |
| 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: P1458061
CATALOG NUMBER: GLAN-SB1C-740-U-T3LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 | 843.8 |
| 2.5° | 847.3 | 842.1 | 831.8 | 811.1 | 800.8 | 787.0 | 775.0 | 759.5 | 756.0 | 754.3 | 747.4 |
| 5° | 861.1 | 850.7 | 819.7 | 775.0 | 737.1 | 700.9 | 664.7 | 644.1 | 626.9 | 618.2 | 616.5 |
| 7.5° | 895.5 | 874.8 | 818.0 | 738.8 | 668.2 | 606.2 | 552.8 | 506.3 | 482.2 | 461.5 | 463.3 |
| 10° | 947.2 | 914.5 | 821.5 | 704.4 | 599.3 | 499.4 | 421.9 | 354.8 | 306.5 | 284.2 | 282.4 |
| 12.5° | 1016.1 | 969.6 | 833.5 | 669.9 | 514.9 | 375.4 | 277.3 | 237.7 | 227.3 | 225.6 | 223.9 |
| 15° | 1100.4 | 1035.0 | 845.6 | 625.1 | 401.3 | 260.0 | 225.6 | 217.0 | 215.3 | 213.5 | 213.5 |
| 17.5° | 1202.0 | 1110.8 | 852.5 | 549.4 | 292.8 | 223.9 | 211.8 | 206.7 | 204.9 | 203.2 | 203.2 |
| 20° | 1329.5 | 1195.2 | 861.1 | 452.9 | 248.0 | 215.3 | 201.5 | 194.6 | 192.9 | 192.9 | 191.2 |
| 22.5° | 1455.2 | 1289.9 | 854.2 | 368.5 | 239.4 | 204.9 | 189.4 | 182.5 | 179.1 | 179.1 | 177.4 |
| 25° | 1599.9 | 1386.3 | 833.5 | 332.4 | 237.7 | 196.3 | 177.4 | 167.0 | 161.9 | 160.2 | 160.2 |
| 27.5° | 1765.2 | 1496.5 | 800.8 | 334.1 | 237.7 | 189.4 | 161.9 | 148.1 | 144.7 | 141.2 | 141.2 |
| 30° | 1954.6 | 1630.9 | 776.7 | 356.5 | 241.1 | 182.5 | 148.1 | 130.9 | 125.7 | 122.3 | 124.0 |
| 32.5° | 2171.6 | 1780.7 | 775.0 | 392.6 | 246.3 | 172.2 | 132.6 | 113.7 | 108.5 | 106.8 | 108.5 |
| 35° | 2417.9 | 1966.7 | 814.6 | 420.2 | 232.5 | 149.8 | 113.7 | 98.2 | 93.0 | 93.0 | 94.7 |
| 37.5° | 2691.7 | 2180.2 | 868.0 | 413.3 | 187.7 | 118.8 | 98.2 | 86.1 | 80.9 | 82.7 | 84.4 |
| 40° | 2941.4 | 2347.3 | 876.6 | 353.0 | 141.2 | 101.6 | 84.4 | 75.8 | 72.3 | 74.1 | 75.8 |
| 42.5° | 3130.8 | 2481.6 | 793.9 | 273.8 | 118.8 | 86.1 | 72.3 | 65.4 | 63.7 | 67.2 | 67.2 |
| 45° | 3284.1 | 2535.0 | 663.0 | 203.2 | 105.0 | 74.1 | 63.7 | 60.3 | 56.8 | 58.6 | 58.6 |
| 47.5° | 3444.3 | 2543.6 | 540.7 | 163.6 | 93.0 | 67.2 | 58.6 | 55.1 | 51.7 | 51.7 | 51.7 |
| 50° | 3599.2 | 2522.9 | 413.3 | 144.7 | 86.1 | 60.3 | 53.4 | 49.9 | 46.5 | 44.8 | 44.8 |
| 52.5° | 3637.1 | 2357.6 | 303.1 | 134.3 | 79.2 | 56.8 | 49.9 | 46.5 | 43.1 | 41.3 | 41.3 |
| 55° | *3532.1* | *2044.2* | *237.7* | *120.5* | *72.3* | *51.7* | *46.5* | *43.1* | *37.9* | *36.2* | *36.2* |
| 57.5° | 3185.9 | 1558.5 | 189.4 | 103.3 | 65.4 | 49.9 | 43.1 | 39.6 | 34.4 | 32.7 | 32.7 |
| 60° | 2736.5 | 1105.6 | 153.3 | 84.4 | 60.3 | 44.8 | 39.6 | 34.4 | 31.0 | 27.6 | 27.6 |
| 62.5° | 2238.8 | 793.9 | 124.0 | 70.6 | 56.8 | 39.6 | 36.2 | 31.0 | 24.1 | 18.9 | 18.9 |
| 65° | 1717.0 | 570.0 | 96.4 | 56.8 | 51.7 | 34.4 | 31.0 | 25.8 | 18.9 | 13.8 | 13.8 |
| 67.5° | 1110.8 | 368.5 | 72.3 | 49.9 | 39.6 | 29.3 | 24.1 | 20.7 | 17.2 | 12.1 | 10.3 |
| 70° | 585.5 | 215.3 | 53.4 | 43.1 | 29.3 | 22.4 | 20.7 | 17.2 | 13.8 | 8.6 | 8.6 |
| 72.5° | 303.1 | 141.2 | 39.6 | 37.9 | 22.4 | 15.5 | 17.2 | 13.8 | 10.3 | 5.2 | 5.2 |
| 75° | 194.6 | 94.7 | 29.3 | 31.0 | 13.8 | 12.1 | 12.1 | 8.6 | 5.2 | 3.4 | 1.7 |
| 77.5° | 125.7 | 63.7 | 20.7 | 25.8 | 8.6 | 6.9 | 6.9 | 3.4 | 1.7 | 0.0 | 0.0 |
| 80° | 74.1 | 39.6 | 13.8 | 17.2 | 3.4 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 37.9 | 20.7 | 6.9 | 6.9 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 24.1 | 10.3 | 1.7 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 12.1 | 3.4 | 1.7 | 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 |

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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: SP1-2407-184-1

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-740-U-5WQ

Data in this report applies to families of products including GSS-SB1A-740-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

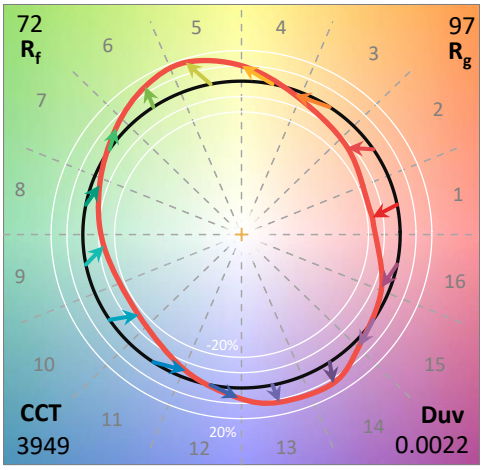
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-1 |
| 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-740-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 4000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3949 |
| CIE u': | 0.2248 |
| CIE v': | 0.5053 |
| Duv: | 0.0022 |
| CIE x: | 0.3844 |
| CIE y: | 0.3840 |
| CIE z: | 0.2316 |
| Peak Wavelength (nm): | 440 |
| Dominant Wavelength (nm): | 578 |
| Purity: | 30.60026 |
| Rf: | 71.8 |
| Rg: | 96.5 |

| | |
|---|---|
| CRI (Ra): | 70.7 |
| R1: | 68.0 |
| R2: | 76.0 |
| R3: | 84.3 |
| R4: | 72.0 |
| R5: | 68.6 |
| R6: | 68.3 |
| R7: | 77.9 |
| R8: | 50.3 |
| R9: | -36.7 |
| R10: | 45.1 |
| R11: | 70.7 |
| R12: | 47.1 |
| R13: | 68.5 |
| R14: | 91.1 |
| R15: | 58.7 |



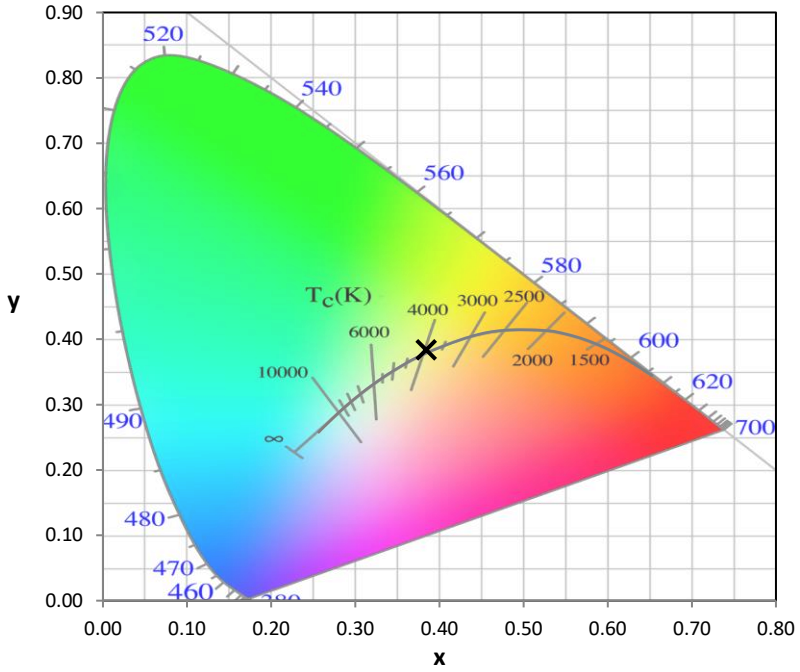

## Test Conditions

| | |
|---|---|
| Stabilization Time: | 34M |
| Operation Time: | 1H 34M |
| Sphere Temperature (°C): | 25.2 |

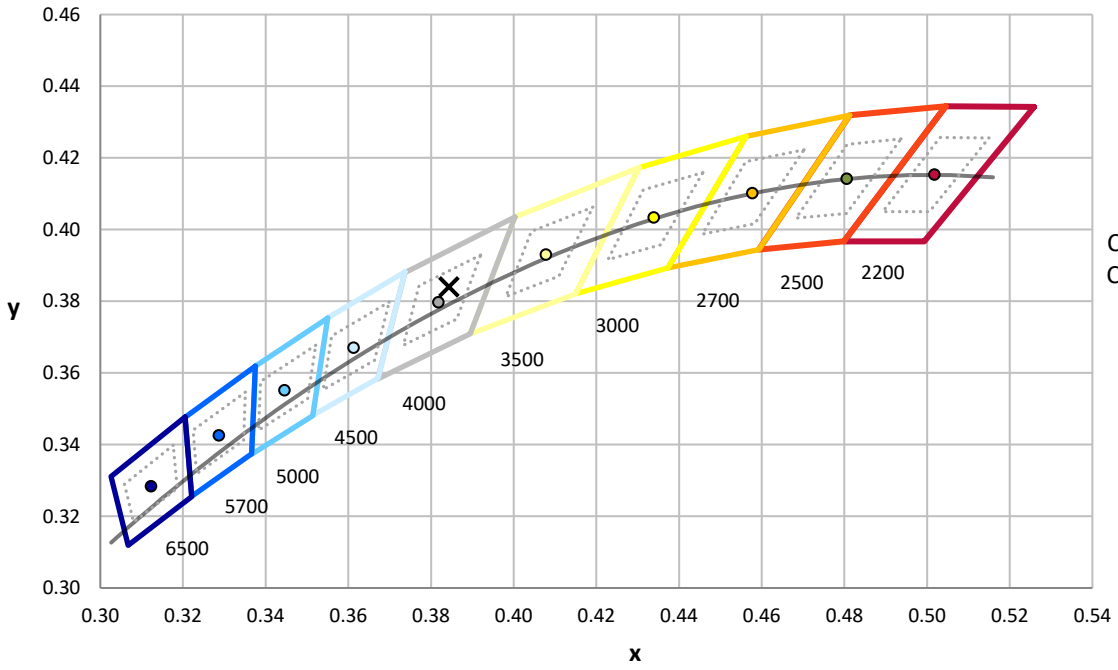
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

REPORT NUMBER: SP1-2407-184-1

## CIE 1931 Chromaticity Diagram




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




CCT = 3949K
CIE x = 0.3844
CIE y = 0.3840
Duv = 0.0022

Point lies inside the ANSI 4000K 4-step quadrangle

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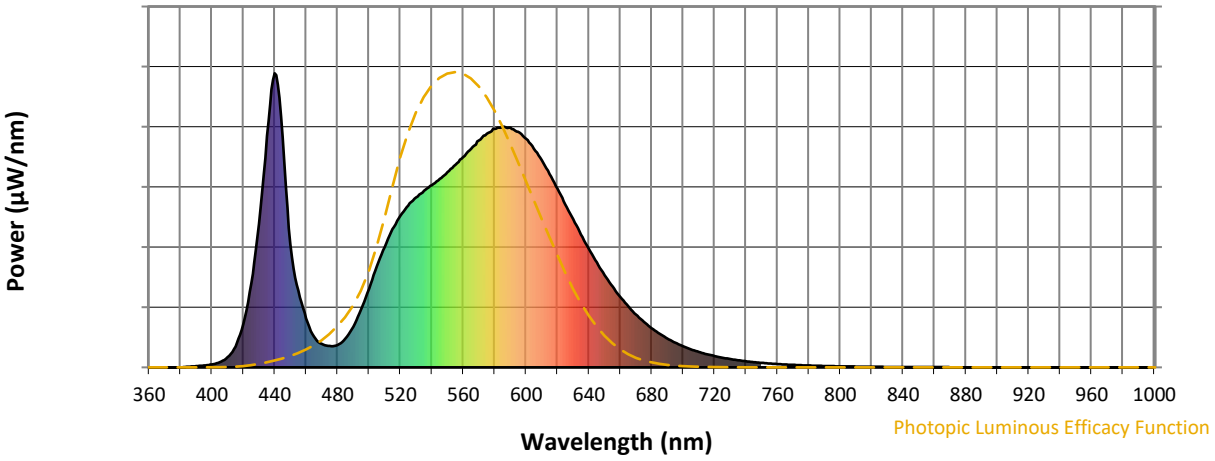
## Photopic Flux vs. Wavelength




## 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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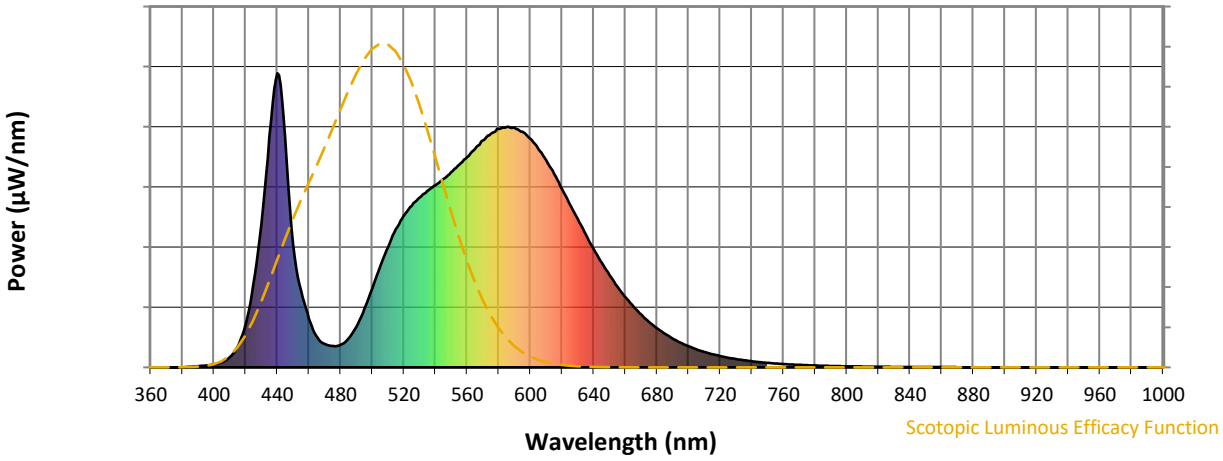
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.47**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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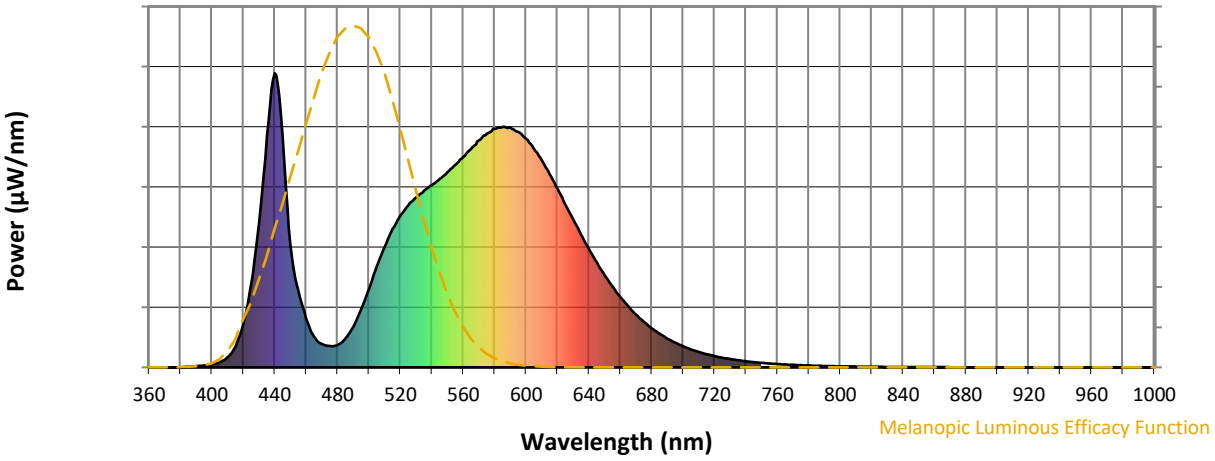
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.78**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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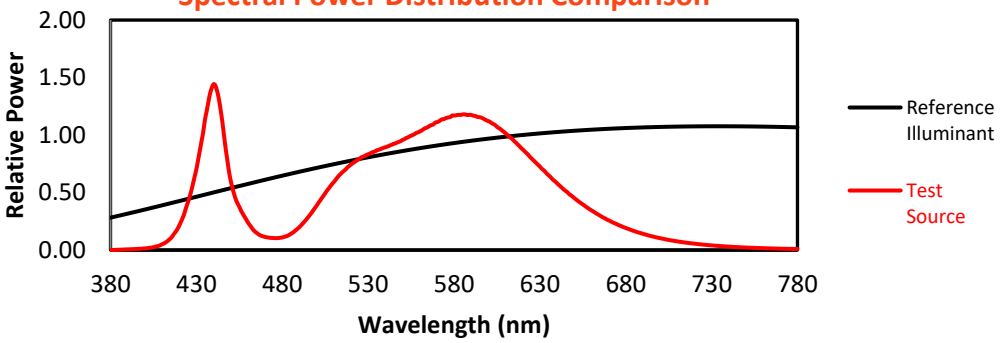
# TM-30-18

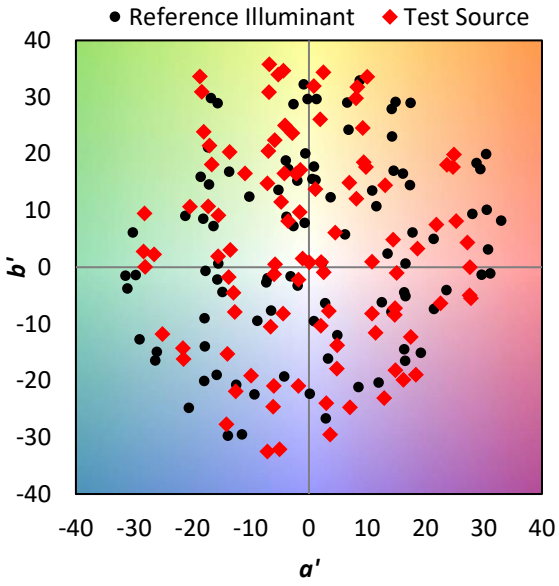
## Summary

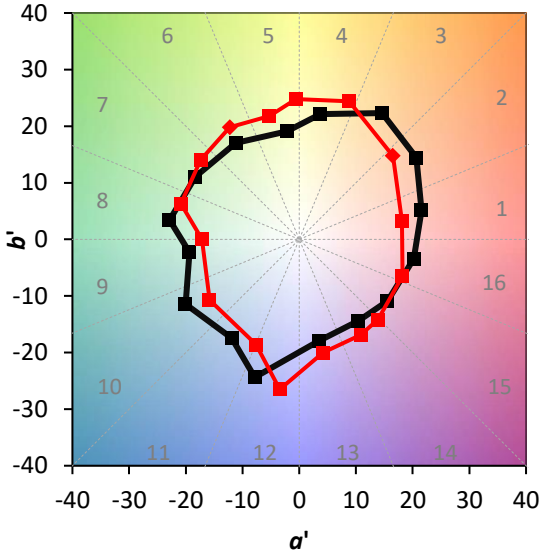
$R_f$ = 71.8
$R_g$ = 96.5
CIE $R_a$ = 70.7
$R_9$ = -36.7

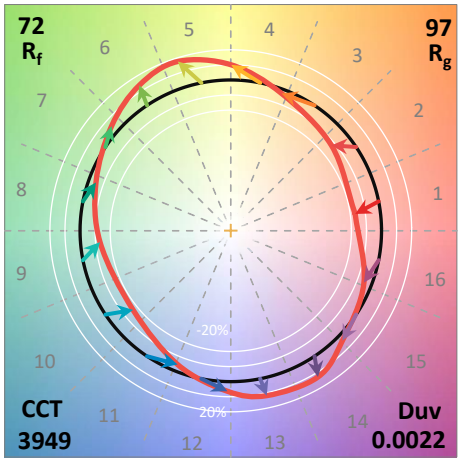
## Spectral Power Distribution Comparison

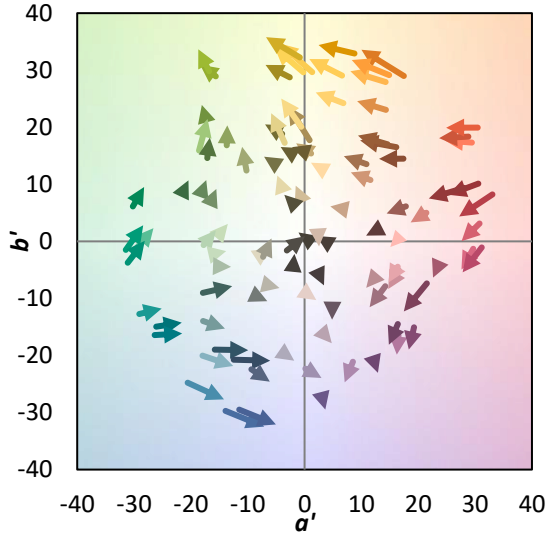



## Color Vector Graphics



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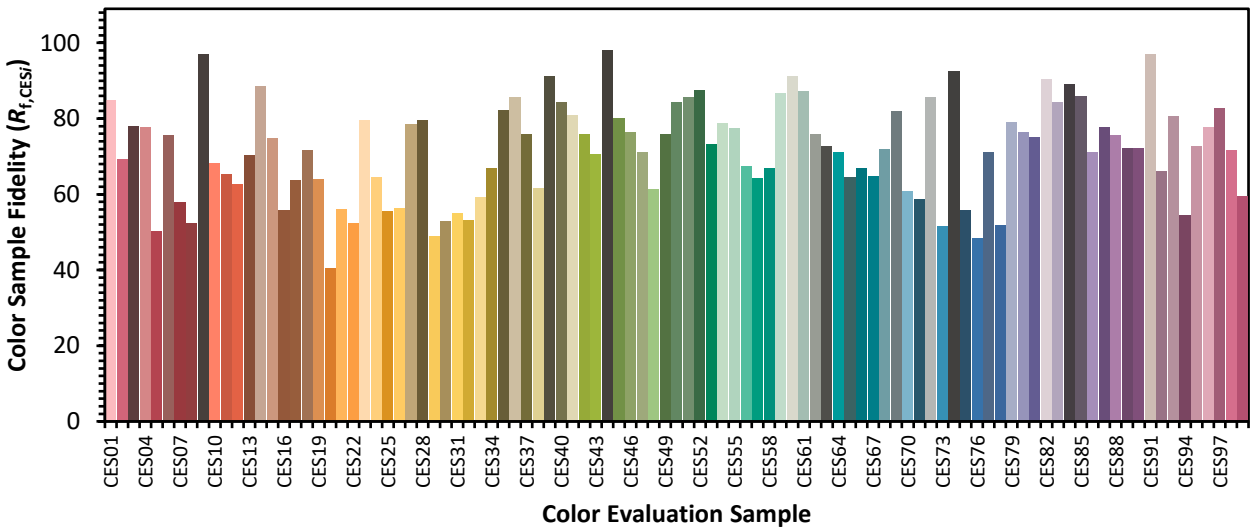
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 56 | CES51 = 86 | CES76 = 48 |
| CES02 = 61 | CES27 = 79 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 80 | CES53 = 73 | CES78 = 52 |
| CES04 = 70 | CES29 = 49 | CES54 = 79 | CES79 = 79 |
| CES05 = 47 | CES30 = 53 | CES55 = 77 | CES80 = 77 |
| CES06 = 50 | CES31 = 55 | CES56 = 67 | CES81 = 75 |
| CES07 = 40 | CES32 = 53 | CES57 = 64 | CES82 = 90 |
| CES08 = 39 | CES33 = 59 | CES58 = 67 | CES83 = 84 |
| CES09 = 29 | CES34 = 67 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 82 | CES60 = 91 | CES85 = 86 |
| CES11 = 57 | CES36 = 86 | CES61 = 87 | CES86 = 71 |
| CES12 = 63 | CES37 = 76 | CES62 = 76 | CES87 = 78 |
| CES13 = 42 | CES38 = 62 | CES63 = 73 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 71 | CES89 = 72 |
| CES15 = 71 | CES40 = 84 | CES65 = 64 | CES90 = 72 |
| CES16 = 46 | CES41 = 81 | CES66 = 67 | CES91 = 97 |
| CES17 = 49 | CES42 = 76 | CES67 = 65 | CES92 = 66 |
| CES18 = 56 | CES43 = 71 | CES68 = 72 | CES93 = 81 |
| CES19 = 72 | CES44 = 98 | CES69 = 82 | CES94 = 55 |
| CES20 = 65 | CES45 = 80 | CES70 = 61 | CES95 = 73 |
| CES21 = 86 | CES46 = 76 | CES71 = 59 | CES96 = 78 |
| CES22 = 78 | CES47 = 71 | CES72 = 86 | CES97 = 83 |
| CES23 = 92 | CES48 = 61 | CES73 = 52 | CES98 = 72 |
| CES24 = 91 | CES49 = 76 | CES74 = 93 | CES99 = 60 |
| CES25 = 72 | CES50 = 84 | CES75 = 56 | |



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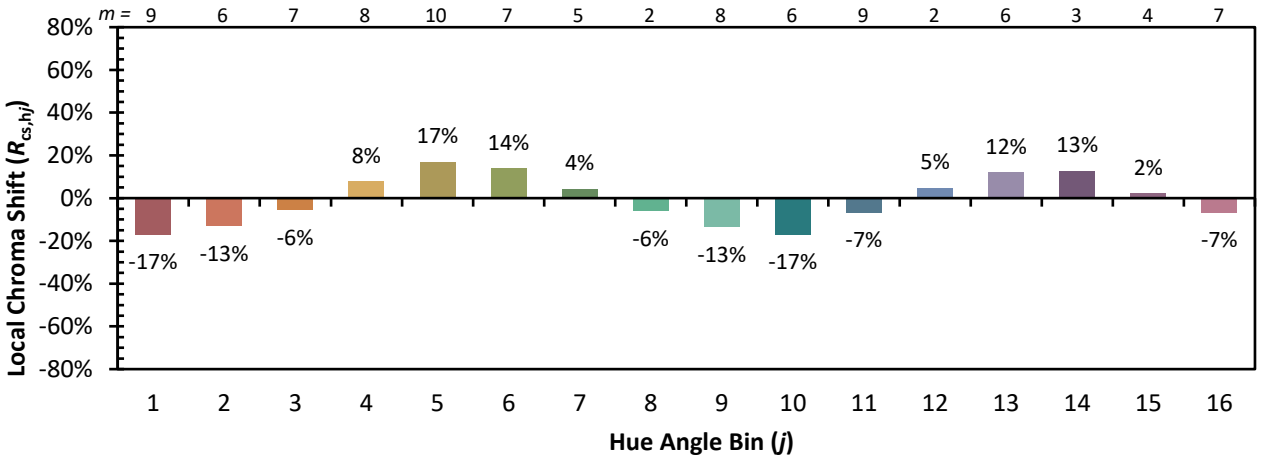
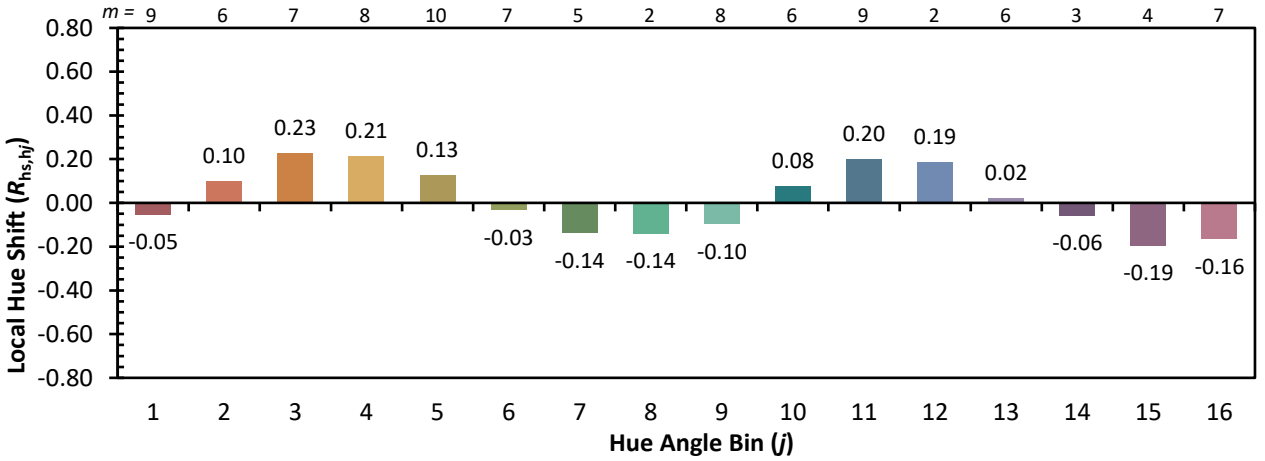
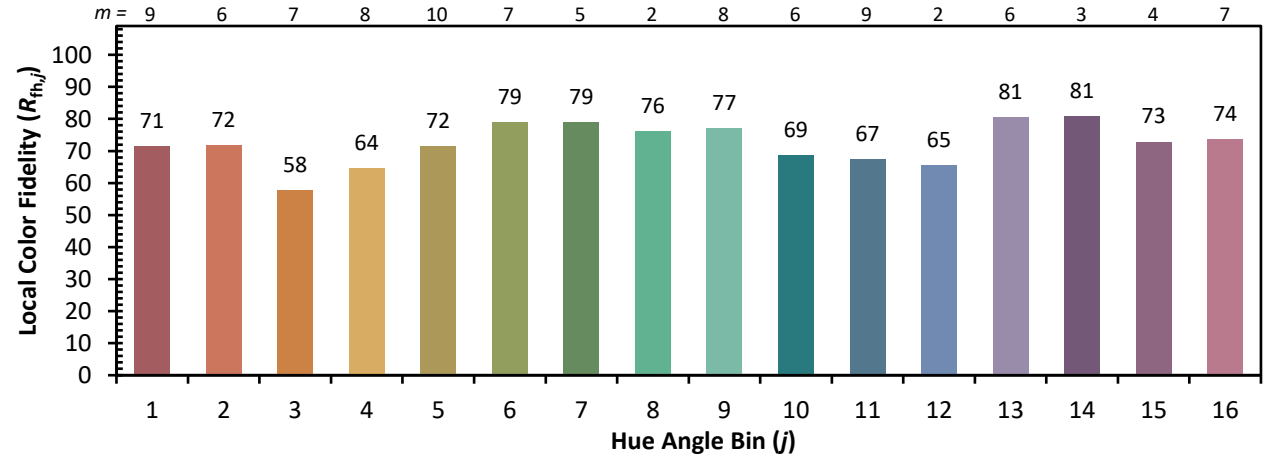
## Color Rendition by Hue-Angle Bin



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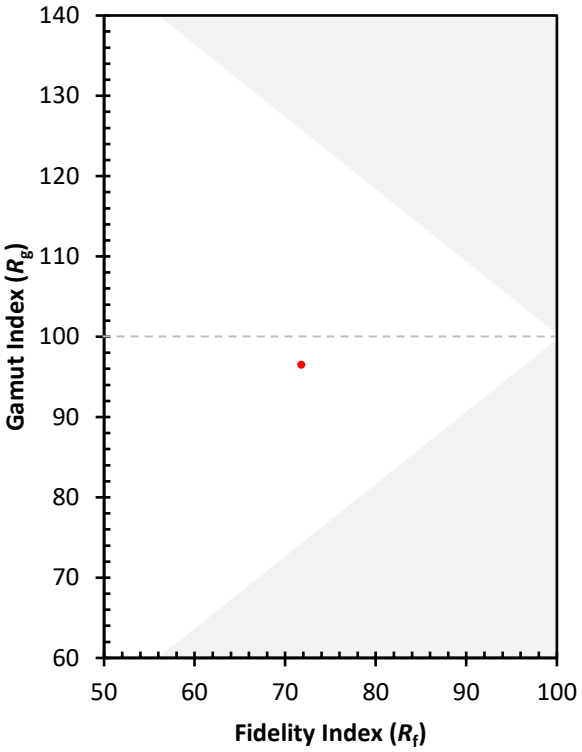
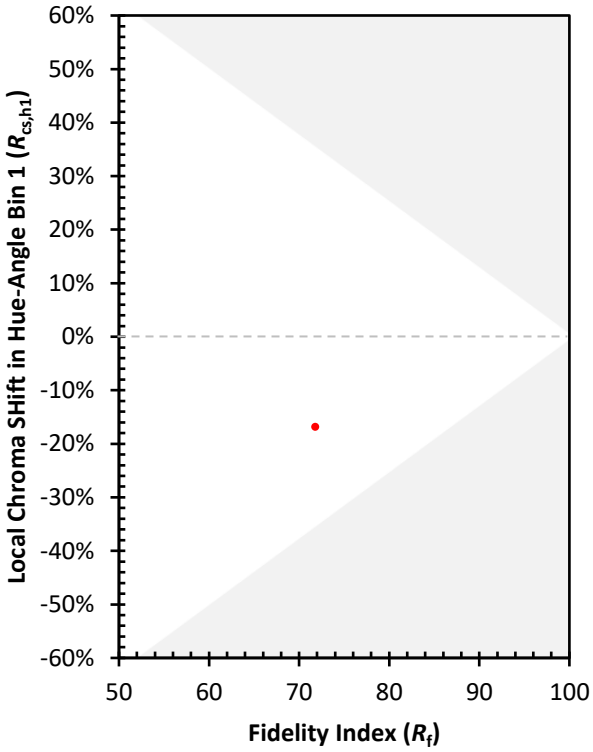
## Measure Comparisons




(END OF REPORT)