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: P1455838

Luminaire Tested: GLAN-SB3D-727-U-T2LG

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: | P1455838 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB3D-727-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 3xLight Square PACKAGE 70CRI 2700K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (78) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 27405.3 lumens |
| Efficiency: | N/A |
| Efficacy: | 125.7 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 1' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B3 - U0 - G3 |

| | |
|---|---|
| Input Watts (W): | 218.1 |
| 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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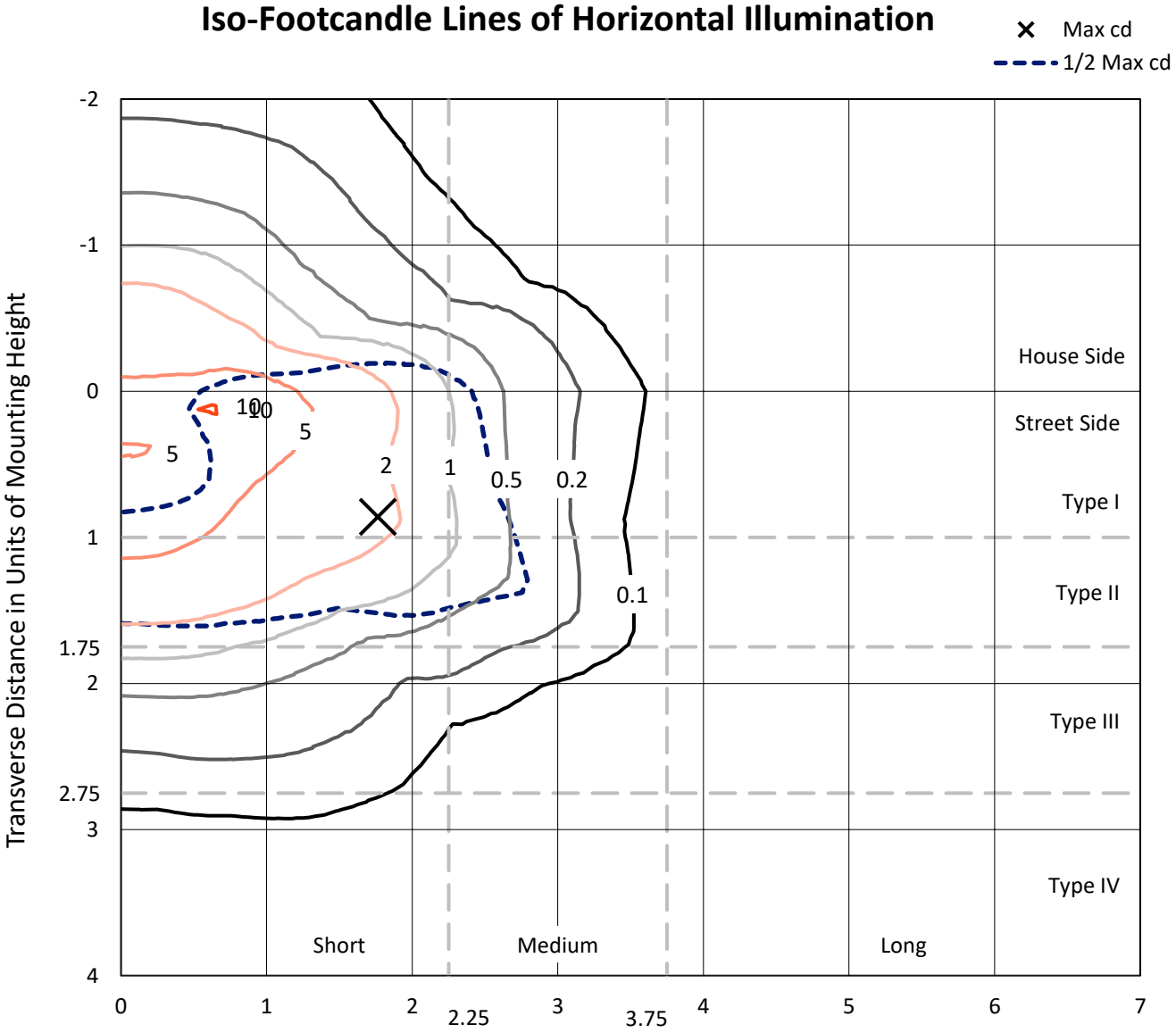
Scaled Data Report

REPORT NUMBER: P1455838
CATALOG NUMBER: GLAN-SB3D-727-U-T2LG

## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 10.3 fc
Type II - Short - N/A

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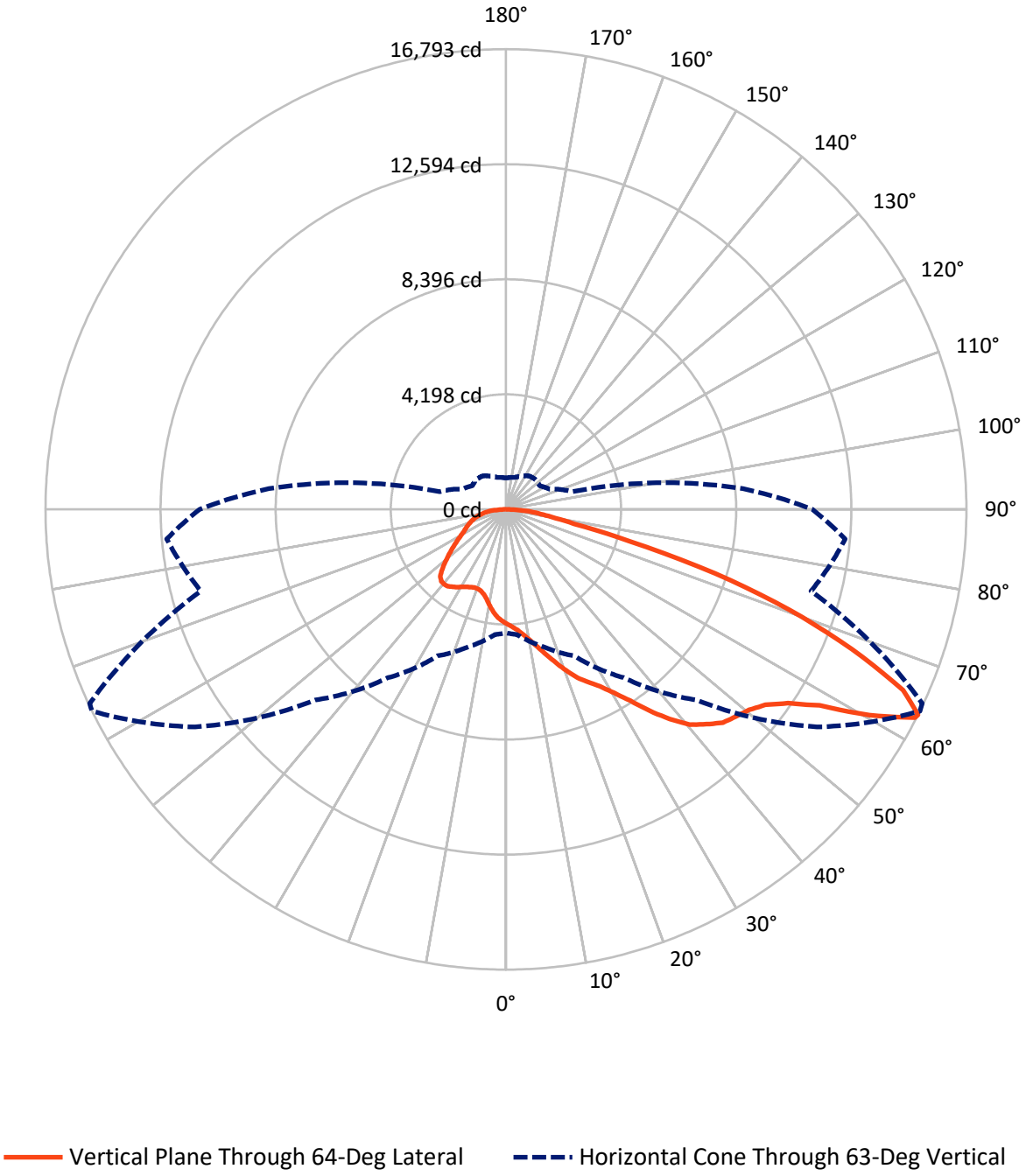
## Luminous Intensity Polar Plot



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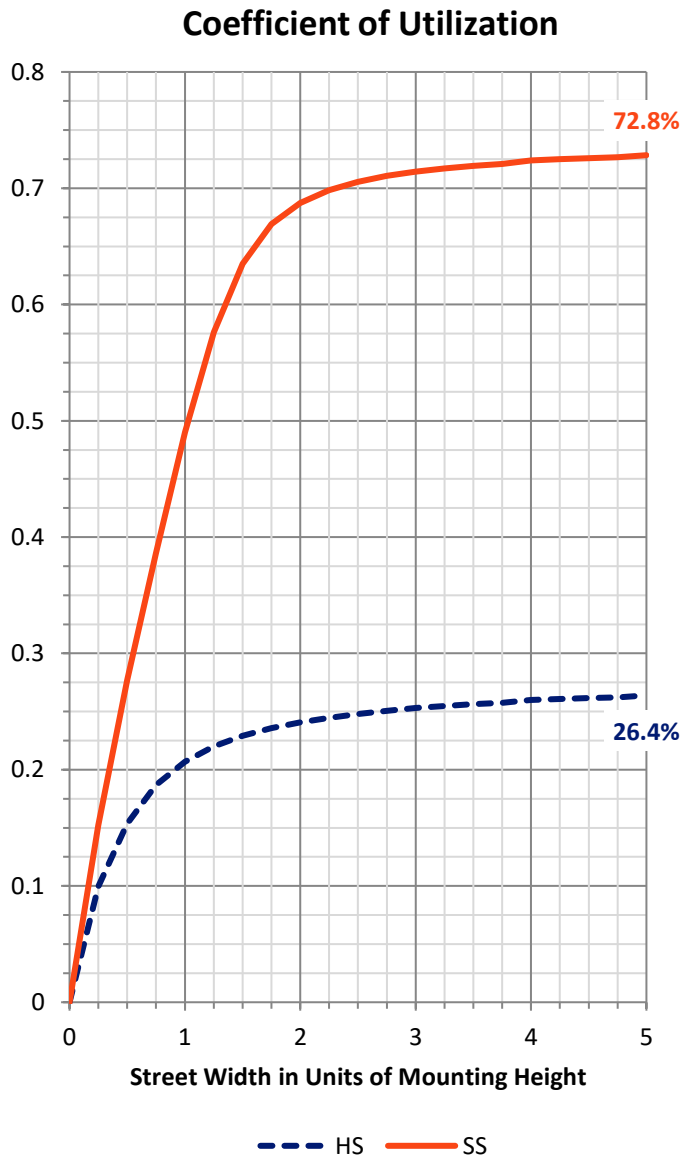
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 7363.0 | 0.0 | 7363.0 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 20042.3 | 0.0 | 20042.3 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 27405.3 | 0.0 | 27405.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 383.2 | 1.4 |
| 10°-20° | 1179.7 | 4.3 |
| 20°-30° | 2157.2 | 7.9 |
| 30°-40° | 3710.7 | 13.5 |
| 40°-50° | 5472.3 | 20.0 |
| 50°-60° | 6558.9 | 23.9 |
| 60°-70° | 5264.1 | 19.2 |
| 70°-80° | 2115.3 | 7.7 |
| 80°-90° | 564.0 | 2.1 |
| 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° | 27405.3 | 100.0 |
| 0°-180° | 27405.3 | 100.0 |



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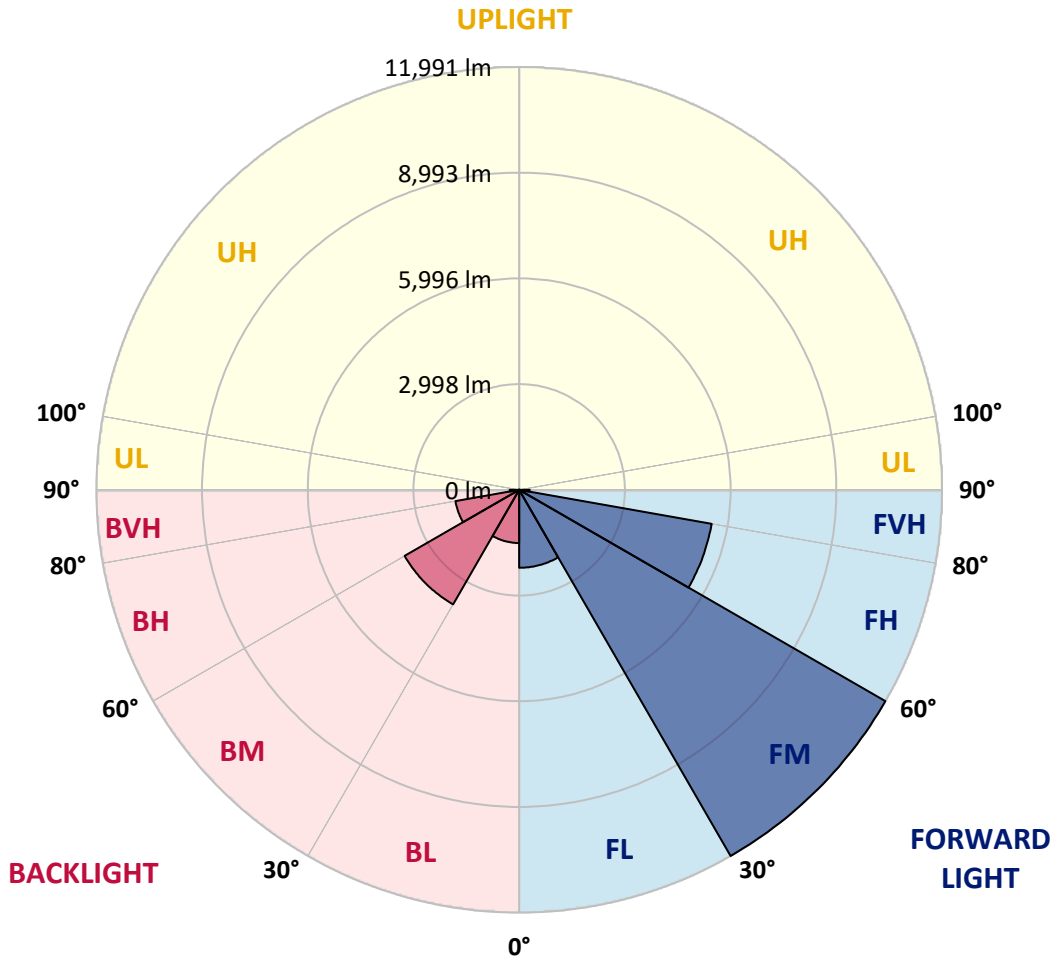
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2211.1 | 8.1 | | | |
| FM | (30°-60°) | 11991.3 | 43.8 | | | |
| FH | (60°-80°) | 5543.6 | 20.2 | | | G3/7500 |
| FVH | (80°-90°) | 296.3 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 1508.9 | 5.5 | B3/2500 | | |
| BM | (30°-60°) | 3750.6 | 13.7 | B3/5000 | | |
| BH | (60°-80°) | 1835.8 | 6.7 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 267.7 | 1.0 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

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



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REPORT NUMBER: P1455838
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | *4173.5* | 4173.5 | 4173.5 | 4173.5 |
| 2.5° | 4345.9 | 4352.0 | 4333.6 | 4327.4 | 4339.7 | 4315.1 | 4308.9 | *4284.3* | 4272.0 | 4247.4 | 4216.6 |
| 5° | 4469.0 | 4475.1 | 4462.8 | 4462.8 | 4475.1 | 4456.7 | 4450.5 | *4425.9* | 4413.6 | 4389.0 | 4327.4 |
| 7.5° | 4462.8 | 4469.0 | 4481.3 | 4530.5 | 4592.1 | 4616.7 | 4635.2 | *4616.7* | 4610.6 | 4573.6 | 4512.1 |
| 10° | 4364.3 | 4370.5 | 4401.3 | 4475.1 | 4629.0 | 4739.8 | 4856.8 | *4856.8* | 4869.1 | 4838.3 | 4727.5 |
| 12.5° | 4228.9 | 4235.1 | 4308.9 | 4425.9 | 4629.0 | 4819.9 | 5059.9 | *5158.4* | 5152.3 | 5133.8 | 5004.5 |
| 15° | 3902.7 | 3902.7 | 4013.5 | 4235.1 | 4561.3 | 4875.3 | 5232.3 | *5497.0* | 5503.1 | 5521.6 | 5367.7 |
| 17.5° | 3625.7 | 3631.8 | 3724.2 | 3921.1 | 4345.9 | 4844.5 | 5417.0 | *5872.5* | 5890.9 | 5995.6 | 5774.0 |
| 20° | 3650.3 | 3650.3 | 3681.1 | 3767.2 | 4112.0 | 4721.4 | 5521.6 | *6272.6* | 6334.2 | 6580.4 | 6303.4 |
| 22.5° | 3841.1 | 3841.1 | 3865.7 | 3859.6 | 4068.9 | 4641.4 | 5589.3 | *6672.7* | 6783.5 | 7294.4 | 6937.4 |
| 25° | 4192.0 | 4185.8 | 4161.2 | 4124.3 | 4247.4 | 4727.5 | 5743.2 | *6980.5* | 7195.9 | 8082.4 | 7669.9 |
| 27.5° | 4622.9 | 4610.6 | 4573.6 | 4512.1 | 4598.3 | 4986.1 | 6007.9 | *7306.7* | 7540.7 | 8944.1 | 8445.5 |
| 30° | 5158.4 | 5121.5 | 5084.6 | 5004.5 | 5096.9 | 5410.8 | 6401.9 | *7768.4* | 7990.0 | 9922.9 | 9381.2 |
| 32.5° | 5792.5 | 5835.5 | 5712.4 | 5601.6 | 5700.1 | 5989.4 | 6986.6 | *8316.3* | 8556.3 | 10944.7 | 10353.8 |
| 35° | 6740.4 | 6869.7 | 6832.8 | 6272.6 | 6364.9 | 6685.0 | 7669.9 | *9024.2* | 9239.6 | 11874.2 | 11351.0 |
| 37.5° | 7676.1 | 7645.3 | 7676.1 | 7208.3 | 7060.5 | 7448.3 | 8402.4 | *9701.3* | 9910.6 | 12631.4 | 12231.3 |
| 40° | 8427.1 | 8519.4 | 8519.4 | 8137.8 | 7946.9 | 8205.5 | 9067.3 | *10323.0* | 10526.1 | 13050.0 | 12865.3 |
| 42.5° | 9245.8 | 9258.1 | 9233.5 | 8901.1 | 8827.2 | 8894.9 | 9652.0 | *10717.0* | 10883.2 | 13265.4 | 13296.2 |
| 45° | 10169.1 | 10163.0 | 10058.3 | 9781.3 | 9670.5 | 9608.9 | 10015.2 | *11098.6* | 11264.8 | 13363.9 | 13530.1 |
| 47.5° | 10932.4 | 10963.2 | 10969.3 | 10673.9 | 10489.2 | 10224.5 | 10329.2 | *11289.4* | 11480.3 | 13253.1 | 13579.3 |
| 50° | 10975.5 | 11024.7 | 11258.7 | 11344.8 | 11307.9 | 10883.2 | 10618.5 | *11492.6* | 11683.4 | 13277.7 | 13757.8 |
| 52.5° | 10704.7 | 10753.9 | 11055.5 | 11412.6 | 11843.4 | 11640.3 | 11074.0 | *11843.4* | 12040.4 | 13517.8 | 14164.1 |
| 55° | 9978.3 | 10058.3 | 10507.7 | 11006.3 | 11775.7 | 12065.0 | 11880.4 | *12477.5* | 12662.1 | 13708.6 | 14638.1 |
| 57.5° | 8685.6 | 8784.1 | 9405.8 | 10199.9 | 11252.5 | 11966.6 | 13050.0 | *13493.2* | 13647.0 | 13844.0 | 14644.3 |
| 60° | 6494.2 | 6574.2 | 7546.8 | 8617.9 | 10199.9 | 11351.0 | 13745.5 | *15235.2* | 15321.4 | 13111.5 | 13813.2 |
| 62.5° | 4782.9 | 4863.0 | 5515.5 | 6284.9 | 8014.6 | 10218.4 | 13881.0 | *16743.3* | 16755.6 | 11788.0 | 12668.3 |
| 63° | *4505.9* | *4585.9* | *5176.9* | *5897.1* | *7497.6* | *9836.7* | *13837.9* | *16792.6* | *16749.5* | *11517.2* | *12415.9* |
| 65° | 3508.7 | 3650.3 | 4265.9 | 4813.7 | 5620.1 | 7830.0 | 13283.9 | *15918.5* | 15980.0 | 10717.0 | 11147.9 |
| 67.5° | 2388.4 | 2493.0 | 3274.8 | 3908.8 | 4247.4 | 4986.1 | 10895.5 | *13622.4* | 13720.9 | 9886.0 | 8894.9 |
| 70° | 1846.7 | 1895.9 | 2351.5 | 3096.3 | 3434.8 | 3170.2 | 7103.6 | *10969.3* | 10969.3 | 7719.2 | 6303.4 |
| 72.5° | 1446.6 | 1465.0 | 1772.8 | 2419.2 | 2763.9 | 2437.6 | 3958.1 | *7977.7* | 7682.2 | 4579.8 | 4204.3 |
| 75° | 1034.1 | 1058.8 | 1335.8 | 1803.6 | 2203.7 | 1920.6 | 2530.0 | *4647.5* | 4469.0 | 2634.6 | 2807.0 |
| 77.5° | 818.7 | 831.0 | 997.2 | 1329.6 | 1785.1 | 1465.0 | 1926.7 | *2536.1* | 2511.5 | 1852.8 | 1803.6 |
| 80° | 646.3 | 671.0 | 781.8 | 954.1 | 1378.9 | 1144.9 | 1434.3 | *1674.3* | 1625.1 | 1274.2 | 1157.3 |
| 82.5° | 461.7 | 504.8 | 603.3 | 726.4 | 1021.8 | 818.7 | 941.8 | *1181.9* | 1181.9 | 960.3 | 763.3 |
| 85° | 283.2 | 320.1 | 357.0 | 449.4 | 726.4 | 529.4 | 498.6 | *763.3* | 781.8 | 720.2 | 492.5 |
| 87.5° | 135.4 | 147.7 | 172.4 | 190.8 | 264.7 | 240.1 | 197.0 | *289.3* | 295.5 | 320.1 | 203.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 |

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Scaled Data Report

REPORT NUMBER: P1455838
CATALOG NUMBER: GLAN-SB3D-727-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 | 4173.5 |
| 2.5° | 4210.5 | 4198.1 | 4136.6 | 4075.0 | 4007.3 | 3945.8 | 3884.2 | 3835.0 | 3779.6 | 3791.9 | 3798.0 |
| 5° | 4290.5 | 4259.7 | 4124.3 | 3964.2 | 3754.9 | 3558.0 | 3367.1 | 3231.7 | 3145.5 | 3120.9 | 3071.7 |
| 7.5° | 4462.8 | 4389.0 | 4142.7 | 3804.2 | 3416.4 | 3108.6 | 2930.1 | 2850.1 | 2825.4 | 2831.6 | 2819.3 |
| 10° | 4659.8 | 4549.0 | 4167.4 | 3613.4 | 3120.9 | 2911.6 | 2887.0 | 2936.2 | 2960.9 | 2985.5 | 2991.6 |
| 12.5° | 4918.4 | 4739.8 | 4155.1 | 3404.1 | 2979.3 | 2942.4 | 3034.7 | 3127.1 | 3182.5 | 3219.4 | 3213.2 |
| 15° | 5220.0 | 4979.9 | 4118.1 | 3231.7 | 2960.9 | 3059.4 | 3176.3 | 3281.0 | 3348.7 | 3385.6 | 3367.1 |
| 17.5° | 5583.2 | 5263.1 | 4075.0 | 3120.9 | 3016.3 | 3133.2 | 3256.3 | 3361.0 | 3434.8 | 3459.5 | 3441.0 |
| 20° | 6032.5 | 5583.2 | 4001.2 | 3071.7 | 3059.4 | 3164.0 | 3274.8 | 3373.3 | 3434.8 | 3459.5 | 3434.8 |
| 22.5° | 6561.9 | 5964.8 | 3939.6 | 3071.7 | 3077.8 | 3164.0 | 3244.0 | 3317.9 | 3373.3 | 3391.8 | 3361.0 |
| 25° | 7239.0 | 6408.0 | 3915.0 | 3120.9 | 3084.0 | 3133.2 | 3176.3 | 3219.4 | 3250.2 | 3262.5 | 3250.2 |
| 27.5° | 7928.5 | 6918.9 | 3927.3 | 3182.5 | 3077.8 | 3090.1 | 3090.1 | 3096.3 | 3102.4 | 3108.6 | 3102.4 |
| 30° | 8722.5 | 7436.0 | 3976.5 | 3262.5 | 3090.1 | 3028.6 | 3010.1 | 2973.2 | 2942.4 | 2917.8 | 2893.1 |
| 32.5° | 9492.0 | 7928.5 | 4062.7 | 3379.4 | 3077.8 | 2960.9 | 2923.9 | 2831.6 | 2745.4 | 2671.5 | 2671.5 |
| 35° | 10323.0 | 8439.4 | 4216.6 | 3465.6 | 3065.5 | 2899.3 | 2794.7 | 2690.0 | 2597.7 | 2493.0 | 2493.0 |
| 37.5° | 11037.1 | 8876.4 | 4339.7 | 3564.1 | 3053.2 | 2825.4 | 2659.2 | 2542.3 | 2443.8 | 2339.1 | 2326.8 |
| 40° | 11535.7 | 9128.8 | 4413.6 | 3601.0 | 3010.1 | 2726.9 | 2530.0 | 2382.2 | 2240.7 | 2099.1 | 2092.9 |
| 42.5° | 11775.7 | 9116.5 | 4370.5 | 3588.7 | 2930.1 | 2603.8 | 2419.2 | 2222.2 | 2031.4 | 1902.1 | 1889.8 |
| 45° | 11905.0 | 9036.5 | 4204.3 | 3484.1 | 2800.8 | 2474.6 | 2277.6 | 2068.3 | 1877.5 | 1760.5 | 1735.9 |
| 47.5° | 11880.4 | 8839.5 | 3976.5 | 3225.6 | 2628.5 | 2333.0 | 2136.0 | 1920.6 | 1766.7 | 1699.0 | 1699.0 |
| 50° | 11948.1 | 8685.6 | 3718.0 | 2930.1 | 2394.5 | 2166.8 | 2006.7 | 1809.8 | 1717.4 | 1631.2 | 1600.5 |
| 52.5° | 12249.7 | 8814.9 | 3496.4 | 2653.1 | 2172.9 | 2006.7 | 1895.9 | 1729.7 | 1612.8 | 1557.4 | 1538.9 |
| 55° | 12649.8 | 9091.9 | 3287.1 | 2406.9 | 1957.5 | 1865.2 | 1809.8 | 1655.9 | 1520.4 | 1465.0 | 1434.3 |
| 57.5° | 12723.7 | 9282.7 | 3084.0 | 2166.8 | 1779.0 | 1754.4 | 1735.9 | 1526.6 | 1415.8 | 1372.7 | 1348.1 |
| 60° | 12212.8 | 9141.1 | 2819.3 | 1951.3 | 1637.4 | 1649.7 | 1600.5 | 1446.6 | 1317.3 | 1274.2 | 1249.6 |
| 62.5° | 11344.8 | 8771.8 | 2554.6 | 1766.7 | 1526.6 | 1551.2 | 1502.0 | 1348.1 | 1218.8 | 1175.7 | 1163.4 |
| 63° | *11172.5* | *8673.3* | *2493.0* | *1748.2* | *1502.0* | *1532.8* | *1489.7* | *1335.8* | *1206.5* | *1163.4* | *1144.9* |
| 65° | 10144.5 | 8082.4 | 2277.6 | 1649.7 | 1422.0 | 1422.0 | 1428.1 | 1274.2 | 1163.4 | 1144.9 | 1132.6 |
| 67.5° | 8273.2 | 6746.6 | 2043.7 | 1532.8 | 1335.8 | 1354.2 | 1385.0 | 1298.8 | 1255.7 | 1243.4 | 1231.1 |
| 70° | 6254.1 | 5078.4 | 1840.5 | 1422.0 | 1243.4 | 1305.0 | 1514.3 | 1477.4 | 1317.3 | 1206.5 | 1181.9 |
| 72.5° | 4432.1 | 3459.5 | 1662.0 | 1311.2 | 1132.6 | 1286.5 | 1569.7 | 1409.6 | 1188.0 | 1058.8 | 1034.1 |
| 75° | 2967.0 | 2228.3 | 1483.5 | 1194.2 | 1009.5 | 1188.0 | 1483.5 | 1286.5 | 1034.1 | 1003.4 | 966.4 |
| 77.5° | 1865.2 | 1588.2 | 1305.0 | 1058.8 | 874.1 | 1058.8 | 1348.1 | 1144.9 | 892.6 | 904.9 | 849.5 |
| 80° | 1138.8 | 1132.6 | 1095.7 | 898.7 | 701.7 | 843.3 | 1132.6 | 966.4 | 714.1 | 714.1 | 634.0 |
| 82.5° | 677.1 | 818.7 | 929.5 | 744.8 | 510.9 | 603.3 | 818.7 | 726.4 | 597.1 | 578.6 | 541.7 |
| 85° | 455.5 | 554.0 | 738.7 | 572.5 | 326.2 | 369.3 | 566.3 | 609.4 | 547.9 | 480.1 | 449.4 |
| 87.5° | 166.2 | 221.6 | 338.6 | 233.9 | 141.6 | 221.6 | 424.7 | 443.2 | 332.4 | 258.5 | 233.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
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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: SP1-2407-184-3

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-727-U-5WQ

Data in this report applies to families of products including GSS-SB1A-727-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

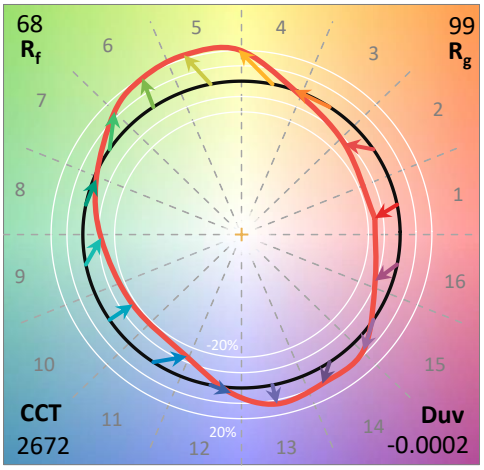
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-3 |
| 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-727-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 2700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2672 |
| CIE u': | 0.2638 |
| CIE v': | 0.5276 |
| Duv: | -0.0002 |
| CIE x: | 0.4619 |
| CIE y: | 0.4106 |
| CIE z: | 0.1275 |
| Peak Wavelength (nm): | 601 |
| Dominant Wavelength (nm): | 584 |
| Purity: | 61.88407 |
| Rf: | 67.9 |
| Rg: | 98.6 |

| | |
|---|---|
| CRI (Ra): | 71.1 |
| R1: | 68.3 |
| R2: | 79.8 |
| R3: | 91.2 |
| R4: | 69.4 |
| R5: | 66.5 |
| R6: | 72.6 |
| R7: | 77.0 |
| R8: | 44.1 |
| R9: | -27.8 |
| R10: | 54.4 |
| R11: | 65.8 |
| R12: | 45.6 |
| R13: | 69.8 |
| R14: | 94.5 |
| R15: | 60.1 |




## Test Conditions

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

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| 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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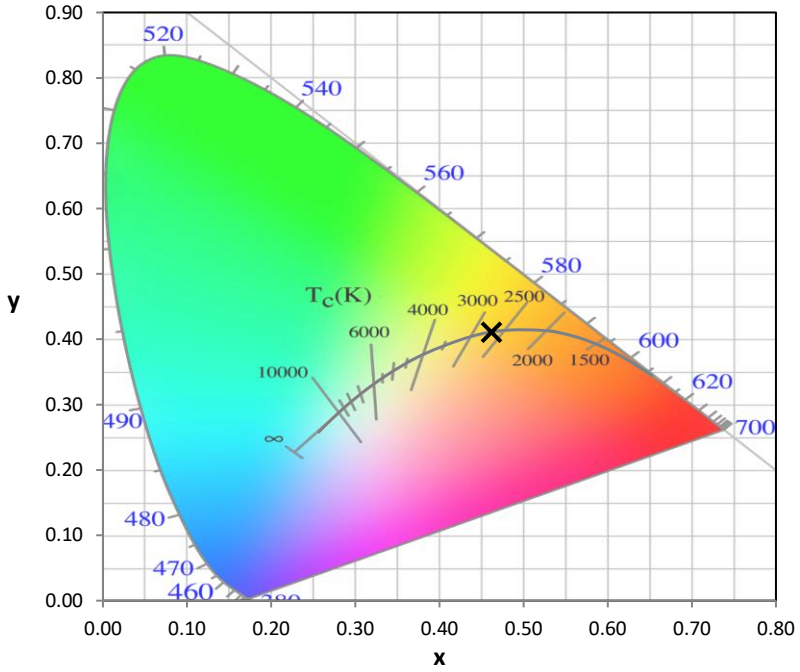
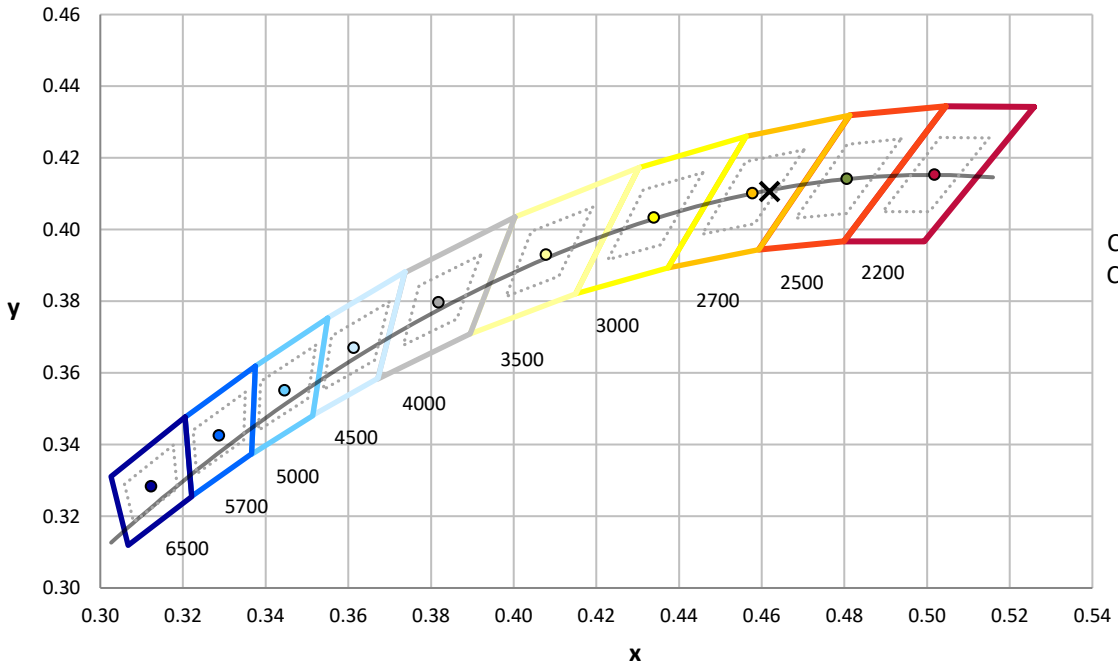
## CIE 1931 Chromaticity Diagram




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




CCT = 2672K
CIE x = 0.4619
CIE y = 0.4106
Duv = -0.0002

Point lies inside the ANSI 2700K 4-step quadrangle

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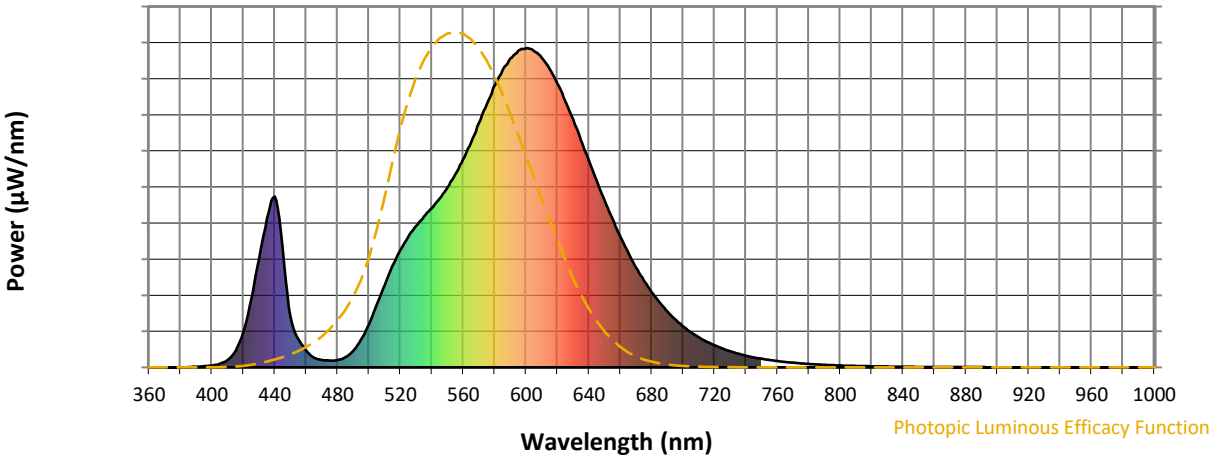
## Photopic Flux vs. Wavelength




## 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 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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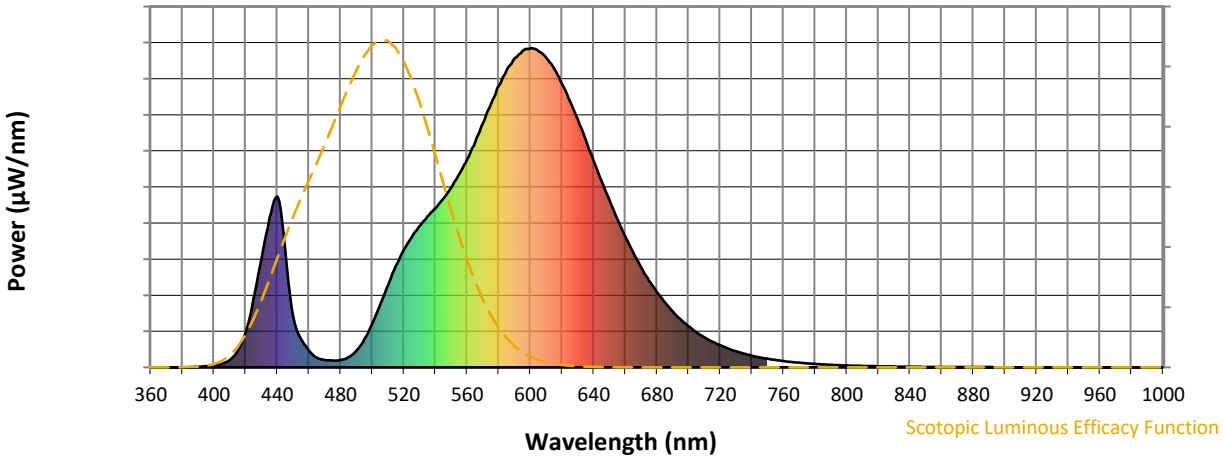
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.02**

| 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 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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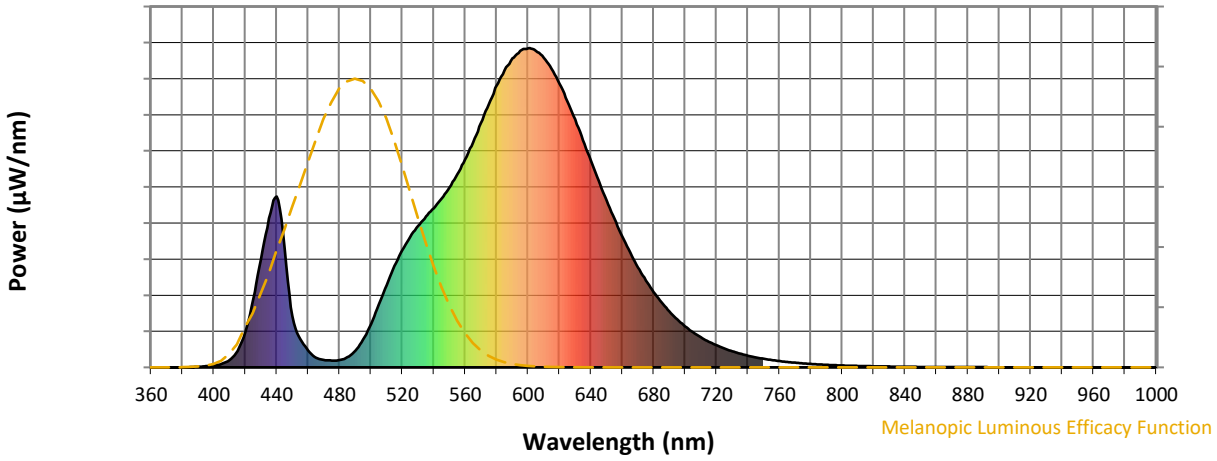
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 1.71**

| 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 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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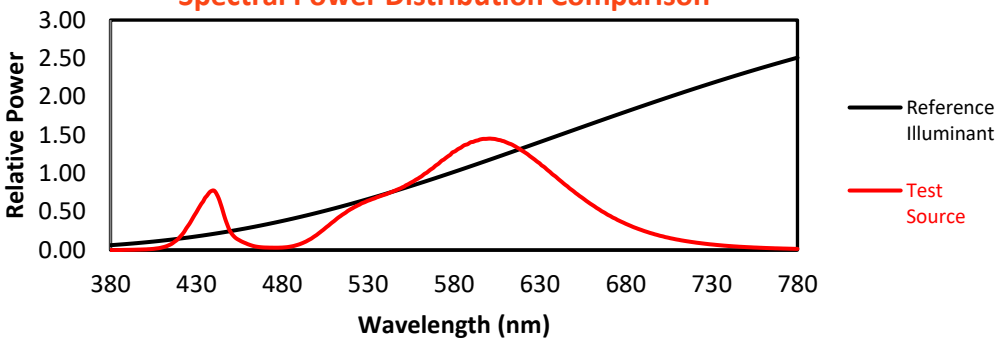
# TM-30-18

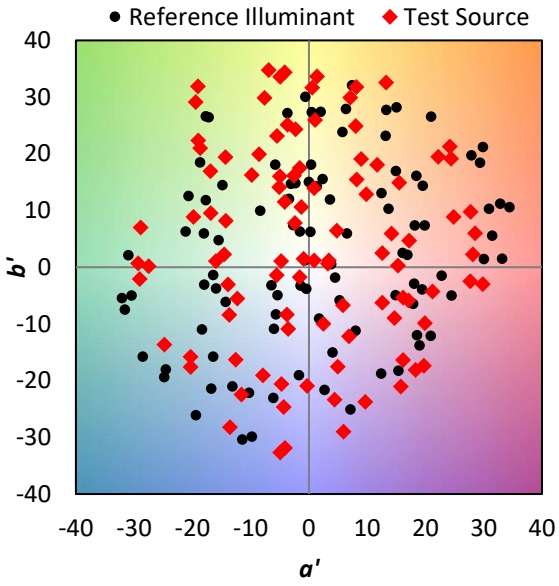
## Summary

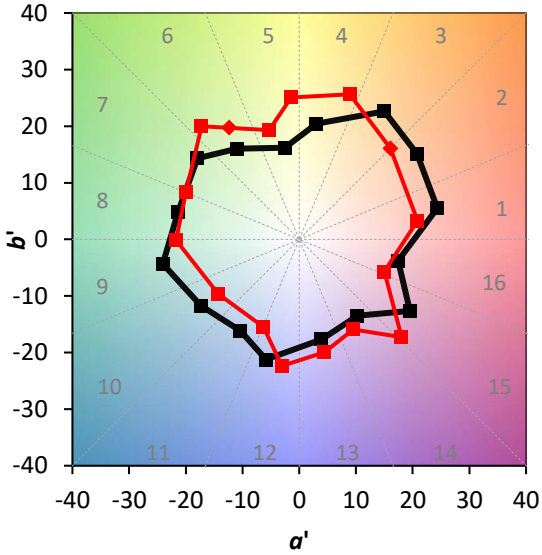
$R_f$ = 67.9
$R_g$ = 98.6
CIE $R_a$ = 71.1
$R_9$ = -27.8

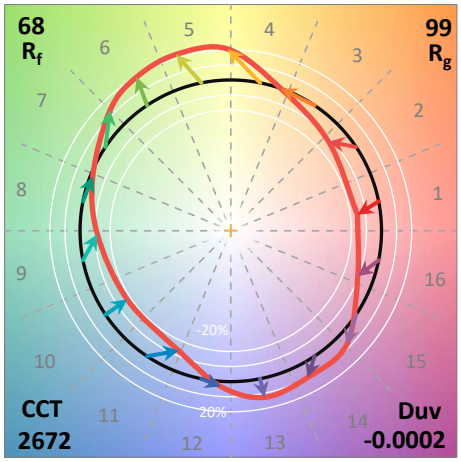
## Spectral Power Distribution Comparison

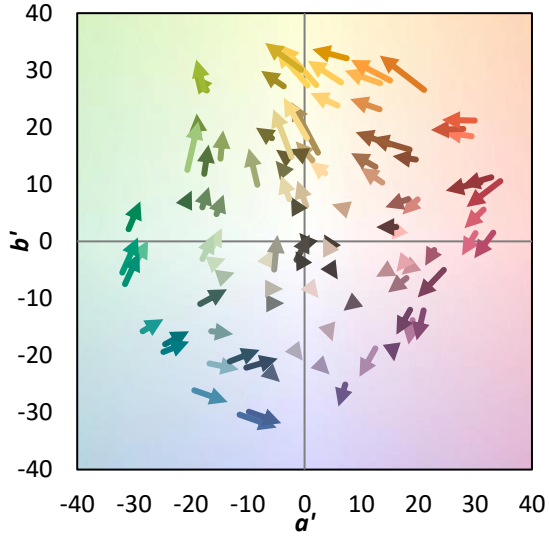



## Color Vector Graphics



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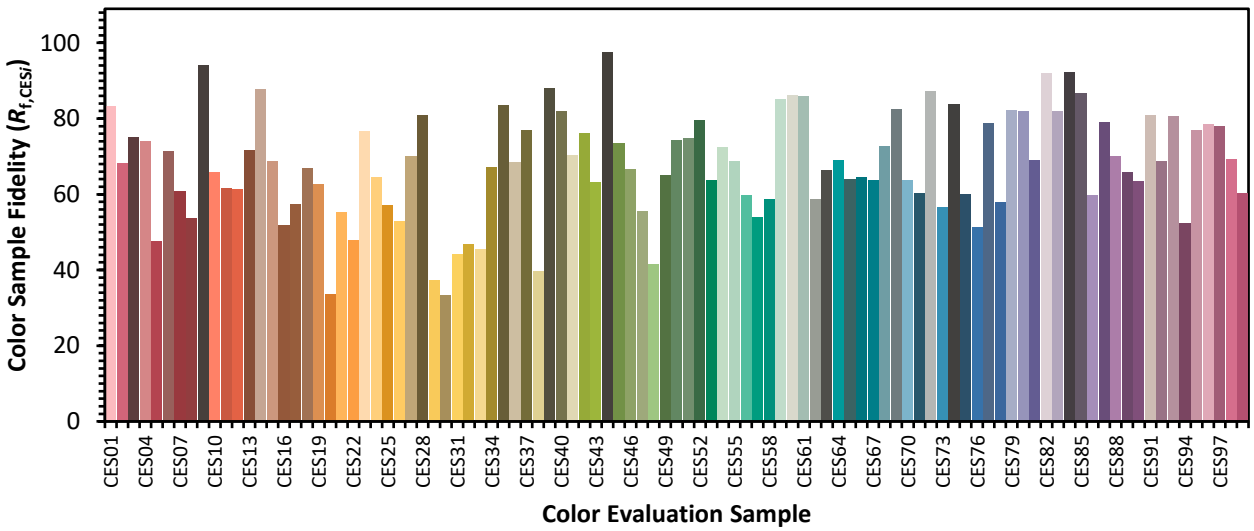
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 53 | CES51 = 75 | CES76 = 51 |
| CES02 = 63 | CES27 = 70 | CES52 = 80 | CES77 = 79 |
| CES03 = 31 | CES28 = 81 | CES53 = 64 | CES78 = 58 |
| CES04 = 71 | CES29 = 37 | CES54 = 73 | CES79 = 82 |
| CES05 = 50 | CES30 = 33 | CES55 = 69 | CES80 = 82 |
| CES06 = 52 | CES31 = 44 | CES56 = 60 | CES81 = 69 |
| CES07 = 42 | CES32 = 47 | CES57 = 54 | CES82 = 92 |
| CES08 = 41 | CES33 = 45 | CES58 = 59 | CES83 = 82 |
| CES09 = 29 | CES34 = 67 | CES59 = 85 | CES84 = 92 |
| CES10 = 77 | CES35 = 84 | CES60 = 86 | CES85 = 87 |
| CES11 = 60 | CES36 = 68 | CES61 = 86 | CES86 = 60 |
| CES12 = 66 | CES37 = 77 | CES62 = 59 | CES87 = 79 |
| CES13 = 44 | CES38 = 40 | CES63 = 66 | CES88 = 70 |
| CES14 = 74 | CES39 = 88 | CES64 = 69 | CES89 = 66 |
| CES15 = 72 | CES40 = 82 | CES65 = 64 | CES90 = 64 |
| CES16 = 48 | CES41 = 70 | CES66 = 65 | CES91 = 81 |
| CES17 = 51 | CES42 = 76 | CES67 = 64 | CES92 = 69 |
| CES18 = 57 | CES43 = 63 | CES68 = 73 | CES93 = 81 |
| CES19 = 73 | CES44 = 97 | CES69 = 83 | CES94 = 53 |
| CES20 = 67 | CES45 = 74 | CES70 = 64 | CES95 = 77 |
| CES21 = 88 | CES46 = 67 | CES71 = 60 | CES96 = 79 |
| CES22 = 80 | CES47 = 55 | CES72 = 87 | CES97 = 78 |
| CES23 = 92 | CES48 = 42 | CES73 = 57 | CES98 = 69 |
| CES24 = 92 | CES49 = 65 | CES74 = 84 | CES99 = 60 |
| CES25 = 73 | CES50 = 74 | CES75 = 60 | |



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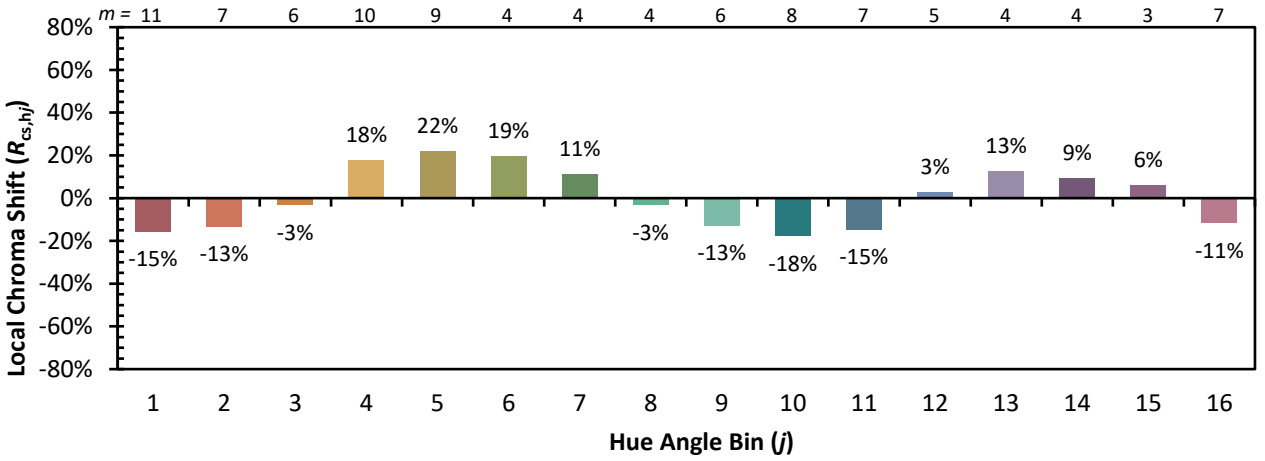
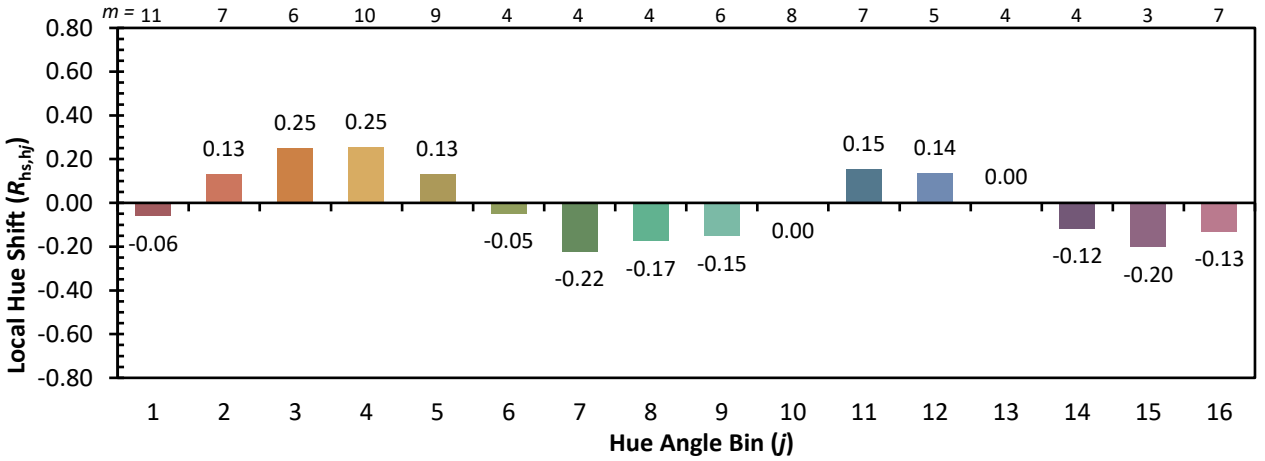
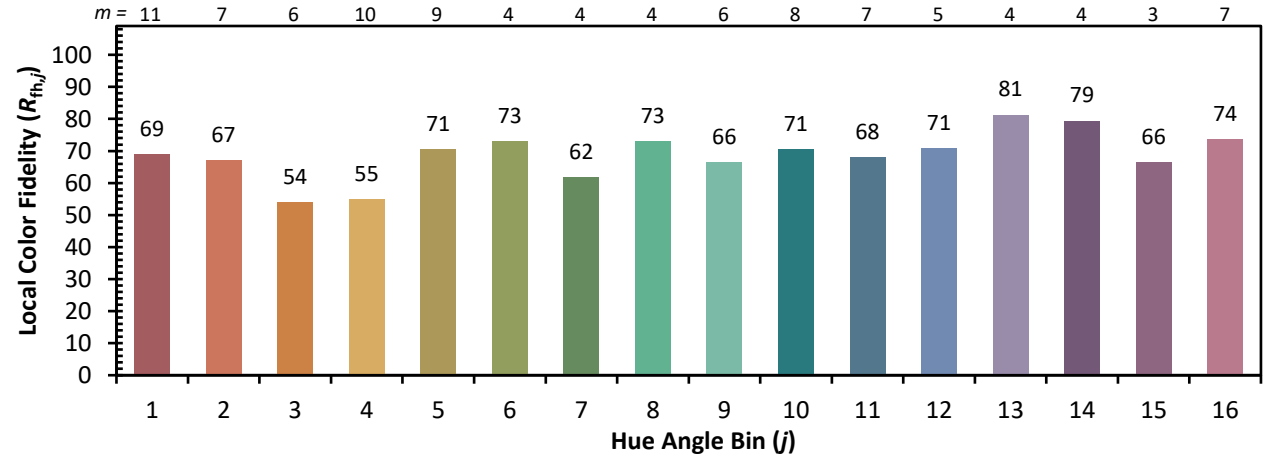
## Color Rendition by Hue-Angle Bin



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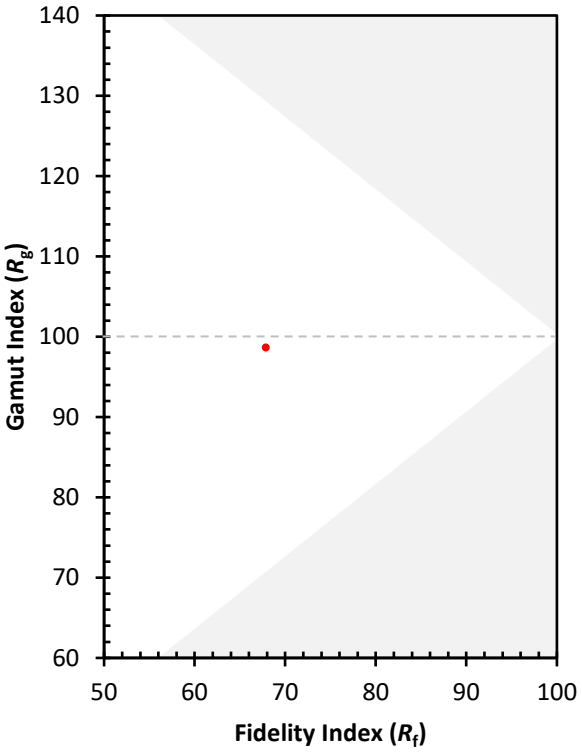
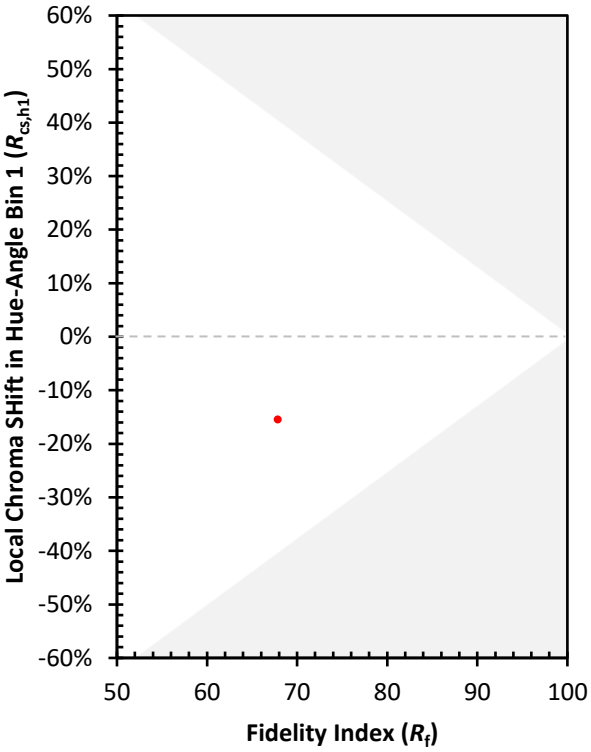
## Measure Comparisons




(END OF REPORT)