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: STREETWORKS

Report Number: P1457169

Luminaire Tested: GLAN-SB3C-827-U-T4LG

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: | P1457169 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB3C-827-U-T4LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 3xLight Square PACKAGE 80CRI 2700K FIXTURE w/ TYPE IV LOW GLARE |
| Light Source: | (78) 2700K CCT, 80 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 19124 lumens |
| Efficiency: | N/A |
| Efficacy: | 128.3 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 1' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B3 - U0 - G3 |

| | |
|---|---|
| Input Watts (W): | 149.1 |
| 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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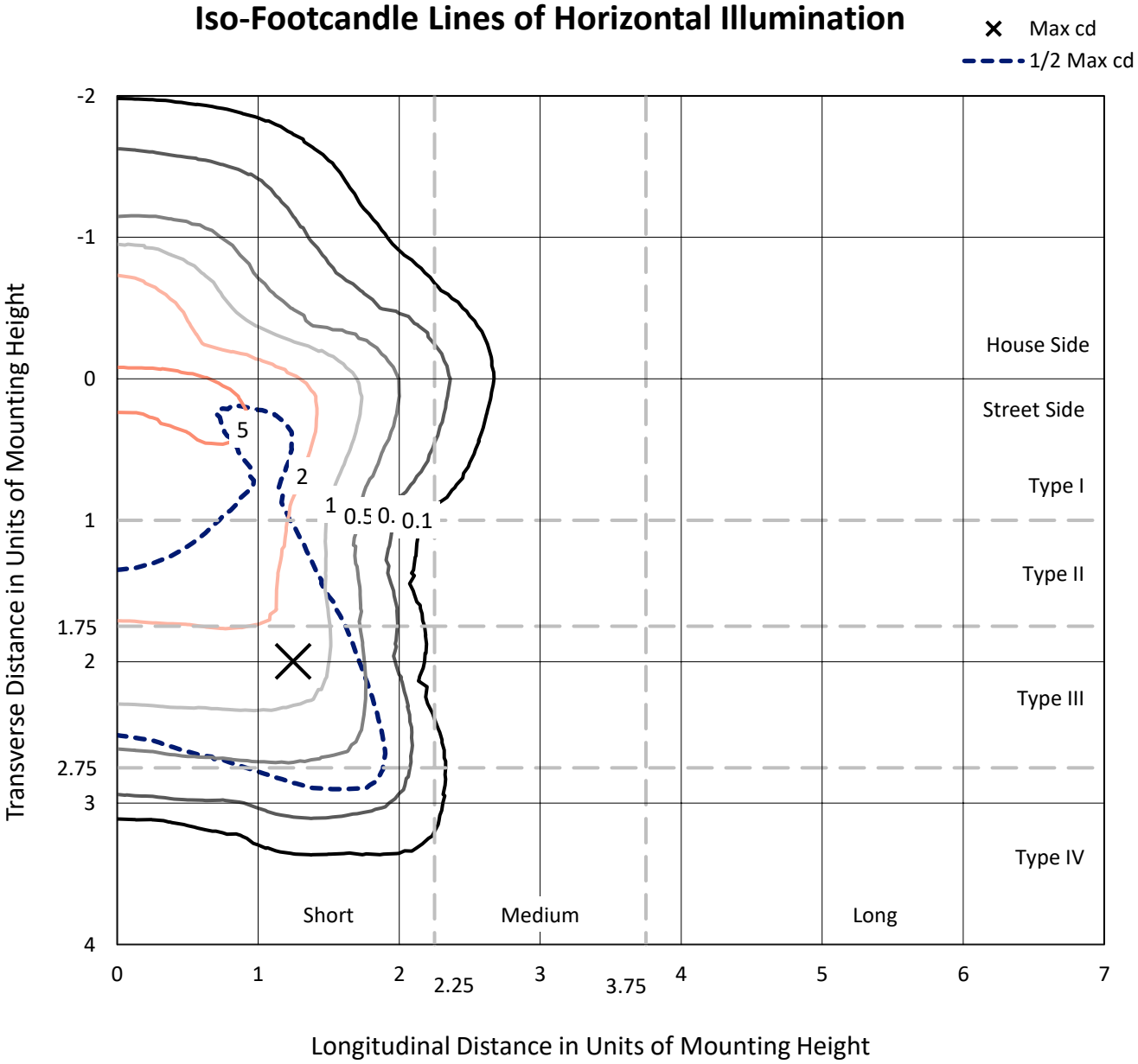
REPORT NUMBER: P1457169
CATALOG NUMBER: GLAN-SB3C-827-U-T4LG

## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
Type IV - Short - N/A

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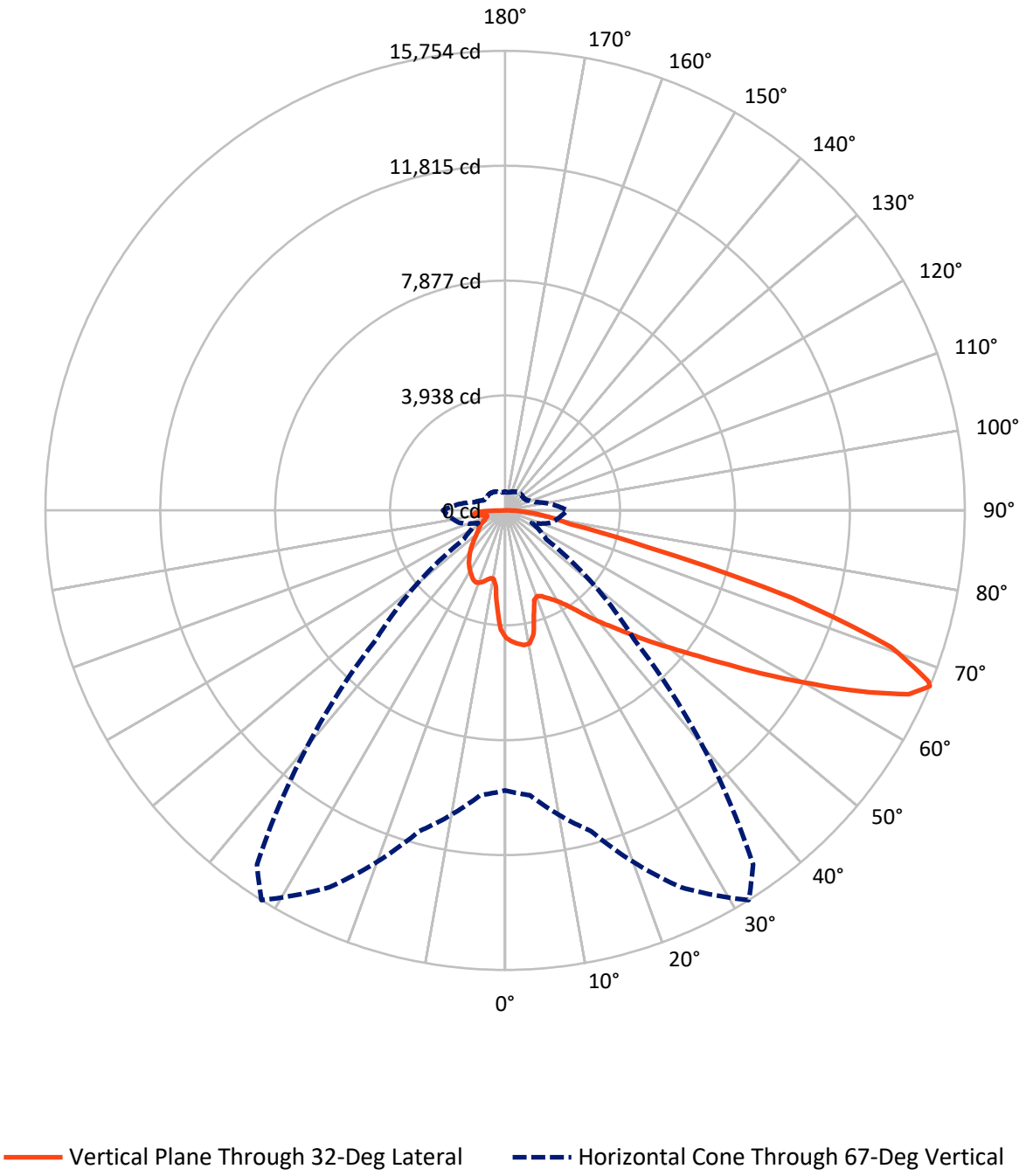
## Luminous Intensity Polar Plot



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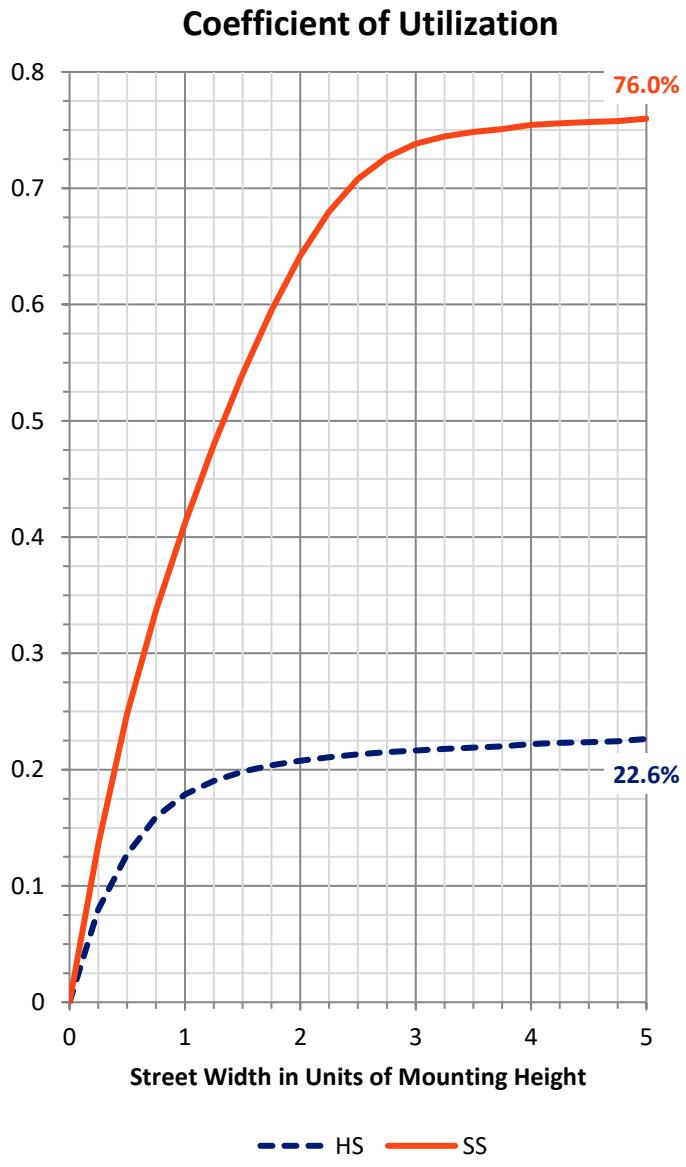
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 4527.6 | 0.0 | 4527.6 |
| | % Fixture | 23.7 | 0.0 | 23.7 |
| **Street Side** | Lumens | 14596.5 | 0.0 | 14596.5 |
| | % Fixture | 76.3 | 0.0 | 76.3 |
| **Total** | Lumens | 19124.0 | 0.0 | 19124.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 381.8 | 2.0 |
| 10°-20° | 1013.7 | 5.3 |
| 20°-30° | 1655.4 | 8.7 |
| 30°-40° | 2439.9 | 12.8 |
| 40°-50° | 3364.7 | 17.6 |
| 50°-60° | 4250.6 | 22.2 |
| 60°-70° | 4113.8 | 21.5 |
| 70°-80° | 1468.2 | 7.7 |
| 80°-90° | 436.0 | 2.3 |
| 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° | 19124.0 | 100.0 |
| 0°-180° | 19124.0 | 100.0 |



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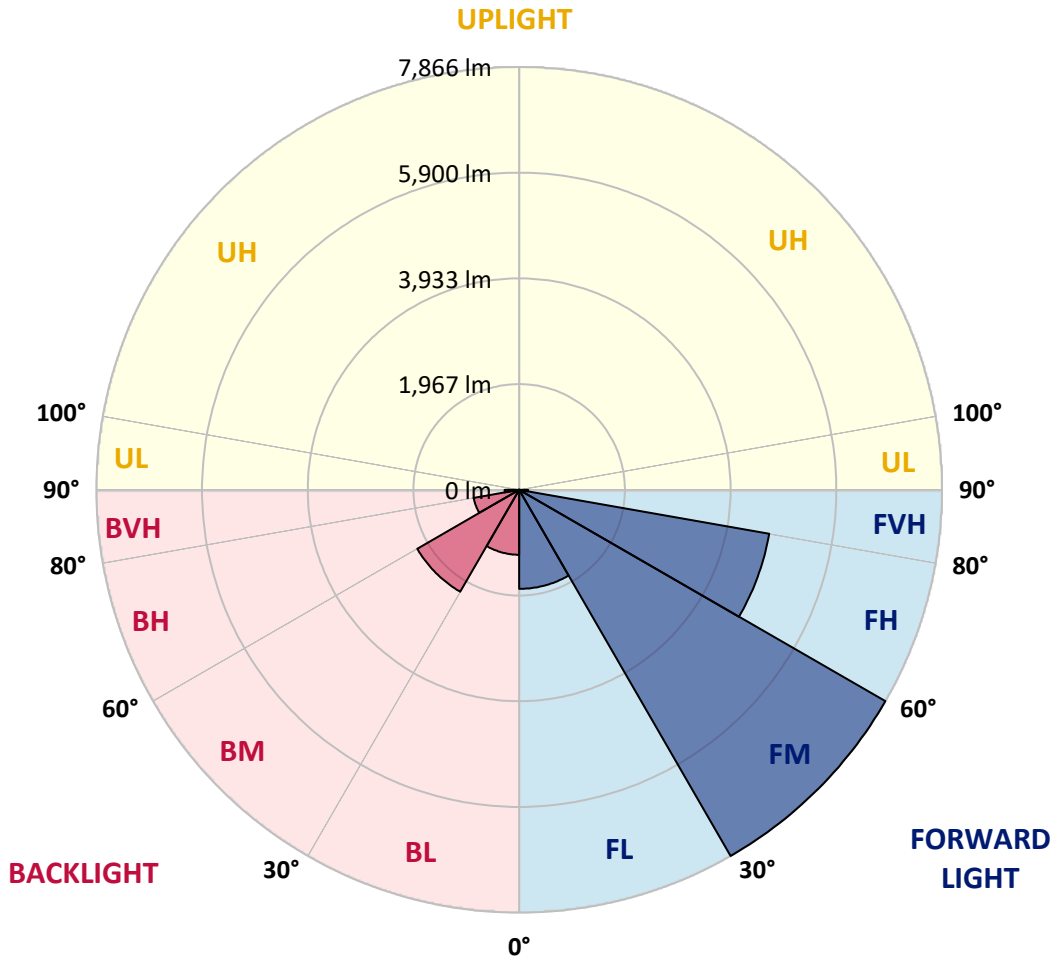
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1842.6 | 9.6 | | | |
| FM | (30°-60°) | 7866.3 | 41.1 | | | |
| FH | (60°-80°) | 4723.2 | 24.7 | | | G2/5000 |
| FVH | (80°-90°) | 164.3 | 0.9 | | | G2/225 |
| BL | (0°-30°) | 1208.2 | 6.3 | B3/2500 | | |
| BM | (30°-60°) | 2188.9 | 11.4 | B2/2500 | | |
| BH | (60°-80°) | 858.8 | 4.5 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 271.7 | 1.4 | | | 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 IV Short



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REPORT NUMBER: P1457169
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 |
| 2.5° | 4535.1 | 4522.3 | 4509.6 | 4518.1 | 4501.1 | 4496.8 | 4475.6 | 4467.1 | 4441.6 | 4437.4 | 4390.7 |
| 5° | 4628.5 | 4603.0 | 4598.8 | 4607.3 | 4590.3 | 4590.3 | 4573.3 | 4560.5 | 4522.3 | 4501.1 | 4433.2 |
| 7.5° | 4628.5 | 4624.2 | 4632.7 | 4662.5 | 4666.7 | 4666.7 | 4666.7 | 4670.9 | 4632.7 | 4603.0 | 4496.8 |
| 10° | 4365.2 | 4322.7 | 4416.2 | 4564.8 | 4637.0 | 4679.4 | 4755.9 | 4802.6 | 4772.9 | 4751.6 | 4607.3 |
| 12.5° | 3579.6 | 3583.9 | 3732.5 | 4051.0 | 4339.7 | 4462.9 | 4781.3 | 4951.2 | 4963.9 | 4930.0 | 4747.4 |
| 15° | 3036.1 | 3057.3 | 3133.8 | 3363.1 | 3694.3 | 3876.9 | 4632.7 | 5082.8 | 5184.7 | 5150.8 | 4917.2 |
| 17.5° | 2870.5 | 2883.2 | 2917.2 | 3048.9 | 3235.7 | 3384.3 | 4229.3 | 5167.8 | 5452.3 | 5409.8 | 5108.3 |
| 20° | 2845.0 | 2853.5 | 2896.0 | 3006.4 | 3133.8 | 3218.7 | 3817.4 | 5099.8 | 5702.8 | 5685.8 | 5282.4 |
| 22.5° | 2849.3 | 2857.8 | 2913.0 | 3065.8 | 3197.5 | 3269.7 | 3685.8 | 4942.7 | 5966.1 | 5983.1 | 5460.8 |
| 25° | 2857.8 | 2862.0 | 2946.9 | 3150.8 | 3316.4 | 3405.5 | 3770.7 | 4802.6 | 6186.9 | 6331.3 | 5656.1 |
| 27.5° | 2904.5 | 2917.2 | 3031.9 | 3261.2 | 3456.5 | 3558.4 | 3970.3 | 4849.3 | 6428.9 | 6726.2 | 5889.6 |
| 30° | 3031.9 | 3040.4 | 3180.5 | 3418.3 | 3630.6 | 3736.8 | 4208.1 | 5036.1 | 6726.2 | 7133.8 | 6118.9 |
| 32.5° | 3231.4 | 3239.9 | 3401.3 | 3647.6 | 3876.9 | 4004.3 | 4518.1 | 5392.8 | 7057.4 | 7562.7 | 6348.2 |
| 35° | 3507.5 | 3511.7 | 3694.3 | 3957.6 | 4199.6 | 4344.0 | 4879.0 | 5796.2 | 7401.3 | 7927.9 | 6518.1 |
| 37.5° | 3834.4 | 3864.1 | 4051.0 | 4327.0 | 4611.5 | 4743.1 | 5303.6 | 6267.6 | 7707.1 | 8237.8 | 6615.8 |
| 40° | 4284.5 | 4293.0 | 4475.6 | 4743.1 | 5044.6 | 5172.0 | 5728.3 | 6713.4 | 8042.5 | 8420.4 | 6704.9 |
| 42.5° | 4747.4 | 4819.6 | 4972.4 | 5269.7 | 5494.7 | 5596.6 | 6212.4 | 7121.1 | 8310.0 | 8428.9 | 6666.7 |
| 45° | 5367.3 | 5422.5 | 5575.4 | 5838.7 | 6063.7 | 6182.6 | 6734.7 | 7494.7 | 8445.9 | 8356.7 | 6581.8 |
| 47.5° | 6076.5 | 6110.4 | 6233.6 | 6471.4 | 6721.9 | 6806.8 | 7278.2 | 7707.1 | 8496.9 | 8305.8 | 6543.6 |
| 50° | 6913.0 | 6913.0 | 7002.2 | 7206.0 | 7435.3 | 7554.2 | 7779.2 | 7834.4 | 8645.5 | 8216.6 | 6641.2 |
| 52.5° | 7617.9 | 7651.9 | 7770.8 | 8059.5 | 8288.8 | 8424.7 | 8169.9 | 8029.8 | 8344.0 | 7719.8 | 6671.0 |
| 55° | 8293.1 | 8331.3 | 8598.8 | 8959.7 | 9350.4 | 9499.0 | 8658.2 | 7932.1 | 7329.1 | 6993.7 | 6467.1 |
| 57.5° | 8938.5 | 9019.2 | 9354.6 | 10059.5 | 10649.8 | 10637.0 | 9278.2 | 7057.4 | 5983.1 | 6191.1 | 6021.3 |
| 60° | 9838.7 | 9923.6 | 10458.7 | 11346.2 | 12068.0 | 11766.5 | 9286.7 | 5872.7 | 4662.5 | 4942.7 | 5184.7 |
| 62.5° | 10590.3 | 10734.7 | 11520.3 | 12998.0 | 13660.4 | 13189.1 | 8518.1 | 4496.8 | 3095.6 | 3448.0 | 4008.5 |
| 65° | 10522.4 | 10713.5 | 11932.1 | 14212.4 | 15201.8 | 14764.4 | 7392.8 | 2845.0 | 1596.6 | 2356.7 | 2806.8 |
| 67° | 9596.7 | 9804.7 | 11384.4 | 14254.9 | 15753.8 | 14819.6 | 6242.1 | 1719.8 | 1014.9 | 1634.8 | 1949.1 |
| 67.5° | 9065.9 | 9371.6 | 11112.6 | 14174.2 | 15651.9 | 14586.1 | 5724.0 | 1439.5 | 955.4 | 1520.2 | 1775.0 |
| 70° | 5575.4 | 6068.0 | 8339.8 | 12530.9 | 14029.8 | 12208.2 | 3180.5 | 815.3 | 777.1 | 1019.1 | 1227.2 |
| 72.5° | 1677.3 | 1825.9 | 3218.7 | 8038.3 | 10297.3 | 9048.9 | 1431.0 | 628.5 | 696.4 | 819.5 | 946.9 |
| 75° | 815.3 | 870.5 | 1329.1 | 3286.6 | 5014.9 | 4989.4 | 798.3 | 539.3 | 645.4 | 687.9 | 747.4 |
| 77.5° | 522.3 | 556.3 | 828.0 | 1838.7 | 2297.3 | 2046.7 | 577.5 | 471.3 | 573.3 | 564.8 | 556.3 |
| 80° | 327.0 | 344.0 | 530.8 | 1065.8 | 1694.3 | 1414.0 | 424.6 | 386.4 | 492.6 | 437.4 | 394.9 |
| 82.5° | 212.3 | 233.5 | 339.7 | 649.7 | 1210.2 | 1053.1 | 280.3 | 276.0 | 407.6 | 348.2 | 305.7 |
| 85° | 140.1 | 157.1 | 216.6 | 382.2 | 717.6 | 751.6 | 182.6 | 191.1 | 314.2 | 263.3 | 233.5 |
| 87.5° | 51.0 | 63.7 | 110.4 | 169.9 | 335.5 | 416.1 | 76.4 | 72.2 | 152.9 | 123.1 | 97.7 |
| 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: P1457169
CATALOG NUMBER: GLAN-SB3C-827-U-T4LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 | 4369.5 |
| 2.5° | 4382.2 | 4369.5 | 4310.0 | 4259.1 | 4220.8 | 4169.9 | 4114.7 | 4051.0 | 4008.5 | 4017.0 | 4004.3 |
| 5° | 4403.4 | 4369.5 | 4254.8 | 4080.7 | 3910.9 | 3698.5 | 3426.8 | 3265.4 | 3142.3 | 3078.6 | 3095.6 |
| 7.5° | 4450.1 | 4390.7 | 4148.6 | 3796.2 | 3354.6 | 2921.5 | 2653.9 | 2501.1 | 2428.9 | 2399.2 | 2394.9 |
| 10° | 4530.8 | 4428.9 | 4012.8 | 3354.6 | 2777.1 | 2484.1 | 2386.4 | 2344.0 | 2335.5 | 2335.5 | 2331.2 |
| 12.5° | 4628.5 | 4467.1 | 3783.5 | 2925.7 | 2501.1 | 2394.9 | 2377.9 | 2382.2 | 2394.9 | 2407.7 | 2386.4 |
| 15° | 4747.4 | 4484.1 | 3499.0 | 2666.7 | 2445.9 | 2420.4 | 2445.9 | 2475.6 | 2496.8 | 2513.8 | 2492.6 |
| 17.5° | 4866.3 | 4467.1 | 3231.4 | 2543.5 | 2454.4 | 2488.3 | 2539.3 | 2586.0 | 2598.7 | 2624.2 | 2607.2 |
| 20° | 4951.2 | 4407.7 | 3002.1 | 2496.8 | 2475.6 | 2552.0 | 2615.7 | 2666.7 | 2692.2 | 2709.1 | 2692.2 |
| 22.5° | 5014.9 | 4331.2 | 2836.5 | 2450.1 | 2475.6 | 2569.0 | 2645.5 | 2704.9 | 2734.6 | 2751.6 | 2730.4 |
| 25° | 5070.1 | 4225.1 | 2709.1 | 2382.2 | 2424.6 | 2513.8 | 2598.7 | 2658.2 | 2700.7 | 2726.1 | 2713.4 |
| 27.5° | 5138.0 | 4140.2 | 2590.3 | 2280.3 | 2318.5 | 2403.4 | 2492.6 | 2564.8 | 2645.5 | 2687.9 | 2679.4 |
| 30° | 5214.5 | 4097.7 | 2475.6 | 2169.9 | 2195.3 | 2280.3 | 2386.4 | 2484.1 | 2594.5 | 2649.7 | 2649.7 |
| 32.5° | 5303.6 | 4068.0 | 2369.4 | 2063.7 | 2084.9 | 2178.4 | 2280.3 | 2369.4 | 2488.3 | 2577.5 | 2573.3 |
| 35° | 5341.9 | 4034.0 | 2284.5 | 1966.0 | 2008.5 | 2084.9 | 2165.6 | 2225.1 | 2348.2 | 2454.4 | 2462.9 |
| 37.5° | 5380.1 | 4021.3 | 2242.1 | 1889.6 | 1923.6 | 1983.0 | 2025.5 | 2055.2 | 2169.9 | 2280.3 | 2284.5 |
| 40° | 5426.8 | 4080.7 | 2271.8 | 1838.7 | 1808.9 | 1868.4 | 1889.6 | 1906.6 | 1966.0 | 2038.2 | 2038.2 |
| 42.5° | 5397.1 | 4123.2 | 2339.7 | 1791.9 | 1668.8 | 1736.7 | 1745.2 | 1741.0 | 1745.2 | 1749.5 | 1745.2 |
| 45° | 5320.6 | 4080.7 | 2339.7 | 1719.8 | 1520.2 | 1592.4 | 1588.1 | 1566.9 | 1532.9 | 1443.7 | 1431.0 |
| 47.5° | 5303.6 | 4055.2 | 2250.5 | 1600.9 | 1371.6 | 1431.0 | 1439.5 | 1397.0 | 1299.4 | 1206.0 | 1176.2 |
| 50° | 5375.8 | 4101.9 | 2110.4 | 1456.5 | 1244.2 | 1295.1 | 1316.4 | 1244.2 | 1133.8 | 1036.1 | 1019.1 |
| 52.5° | 5482.0 | 4161.4 | 1906.6 | 1299.4 | 1138.0 | 1189.0 | 1214.4 | 1133.8 | 1019.1 | 942.7 | 934.2 |
| 55° | 5469.3 | 4161.4 | 1677.3 | 1155.0 | 1057.3 | 1095.5 | 1138.0 | 1053.1 | 963.9 | 921.5 | 917.2 |
| 57.5° | 5193.2 | 4004.3 | 1507.4 | 1053.1 | 980.9 | 1014.9 | 1070.1 | 989.4 | 904.5 | 913.0 | 925.7 |
| 60° | 4654.0 | 3596.6 | 1380.1 | 985.1 | 913.0 | 946.9 | 1006.4 | 913.0 | 802.6 | 772.8 | 772.8 |
| 62.5° | 3834.4 | 2963.9 | 1278.1 | 917.2 | 849.3 | 891.7 | 921.5 | 798.3 | 726.1 | 692.1 | 692.1 |
| 65° | 2874.8 | 2293.0 | 1172.0 | 862.0 | 794.1 | 840.8 | 806.8 | 747.4 | 675.2 | 649.7 | 653.9 |
| 67° | *2131.6* | *1779.2* | *1082.8* | *815.3* | *760.1* | *781.3* | *755.8* | *713.4* | *641.2* | *620.0* | *641.2* |
| 67.5° | 1915.1 | 1690.0 | 1061.6 | 802.6 | 751.6 | 768.6 | 743.1 | 709.1 | 632.7 | 611.5 | 632.7 |
| 70° | 1316.4 | 1299.4 | 946.9 | 743.1 | 704.9 | 687.9 | 700.6 | 658.2 | 594.5 | 586.0 | 607.2 |
| 72.5° | 1002.1 | 1036.1 | 849.3 | 692.1 | 653.9 | 632.7 | 662.4 | 620.0 | 556.3 | 569.0 | 590.2 |
| 75° | 785.6 | 836.5 | 760.1 | 620.0 | 594.5 | 598.7 | 658.2 | 641.2 | 590.2 | 603.0 | 607.2 |
| 77.5° | 581.7 | 675.2 | 649.7 | 539.3 | 518.1 | 577.5 | 743.1 | 794.1 | 704.9 | 683.7 | 653.9 |
| 80° | 424.6 | 484.1 | 547.8 | 445.9 | 433.1 | 556.3 | 917.2 | 1014.9 | 870.5 | 785.6 | 764.3 |
| 82.5° | 314.2 | 339.7 | 450.1 | 356.7 | 314.2 | 496.8 | 1019.1 | 1193.2 | 1036.1 | 874.7 | 849.3 |
| 85° | 225.1 | 263.3 | 356.7 | 263.3 | 208.1 | 407.6 | 997.9 | 1167.7 | 1027.6 | 828.0 | 806.8 |
| 87.5° | 80.7 | 114.7 | 152.9 | 118.9 | 106.2 | 280.3 | 823.8 | 840.8 | 641.2 | 293.0 | 297.2 |
| 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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# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-8

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-827-U-5WQ

Data in this report applies to families of products including GSS-SB1A-827-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

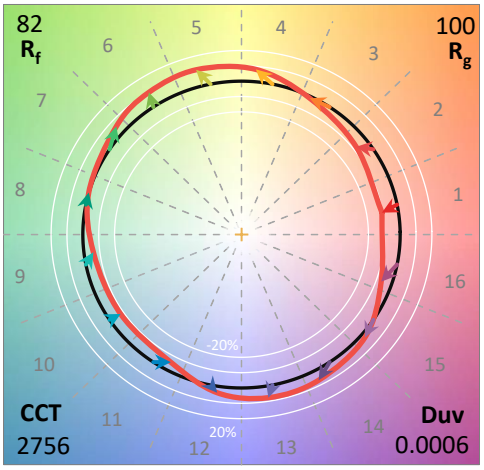
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-8 |
| 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-827-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 2700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2756 |
| CIE u': | 0.2599 |
| CIE v': | 0.5271 |
| Duv: | 0.0006 |
| CIE x: | 0.4563 |
| CIE y: | 0.4112 |
| CIE z: | 0.1325 |
| Peak Wavelength (nm): | 609 |
| Dominant Wavelength (nm): | 583 |
| Purity: | 60.41121 |
| Rf: | 82.2 |
| Rg: | 99.9 |

| | |
|---|---|
| CRI (Ra): | 82.9 |
| R1: | 81.6 |
| R2: | 88.8 |
| R3: | 96.0 |
| R4: | 83.4 |
| R5: | 81.4 |
| R6: | 87.0 |
| R7: | 84.0 |
| R8: | 60.8 |
| R9: | 10.8 |
| R10: | 74.8 |
| R11: | 84.3 |
| R12: | 72.1 |
| R13: | 82.9 |
| R14: | 97.3 |
| R15: | 73.7 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 29M |
| Operation Time: | 1H 29M |
| 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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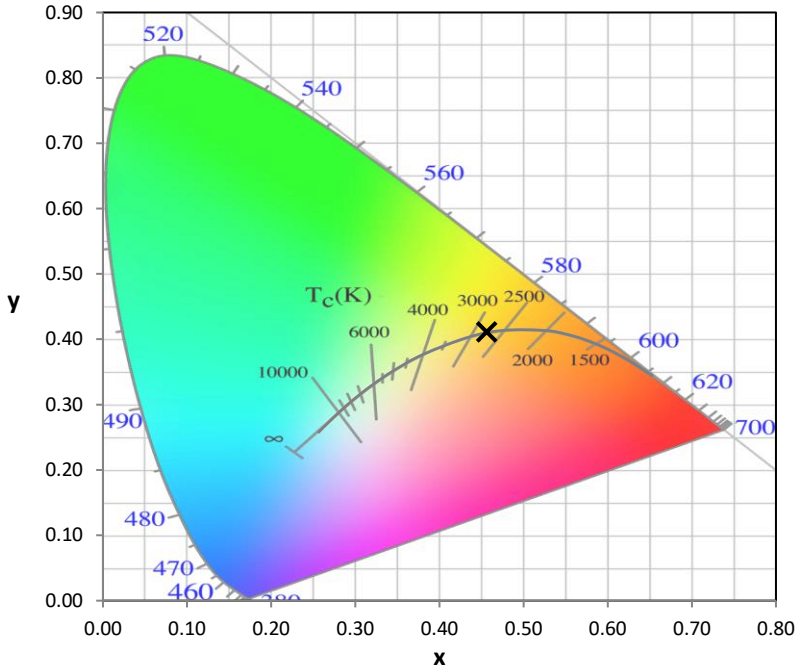
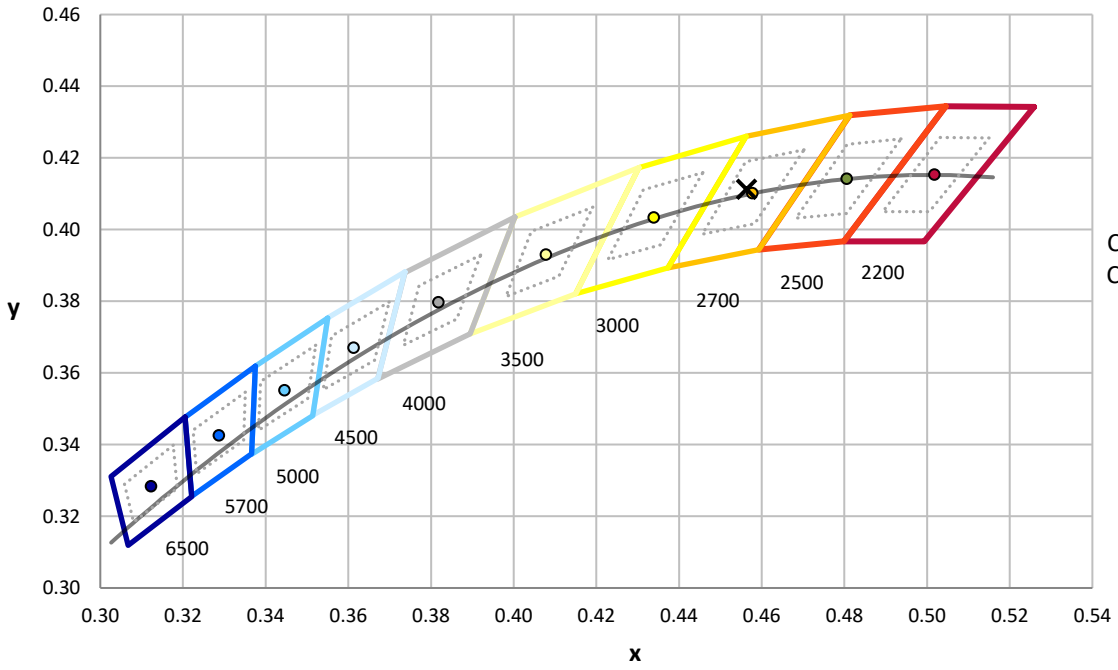
## CIE 1931 Chromaticity Diagram




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




CCT = 2756K
CIE x = 0.4563
CIE y = 0.4112
Duv = 0.0006

Point lies inside the ANSI 2700K 4-step quadrangle

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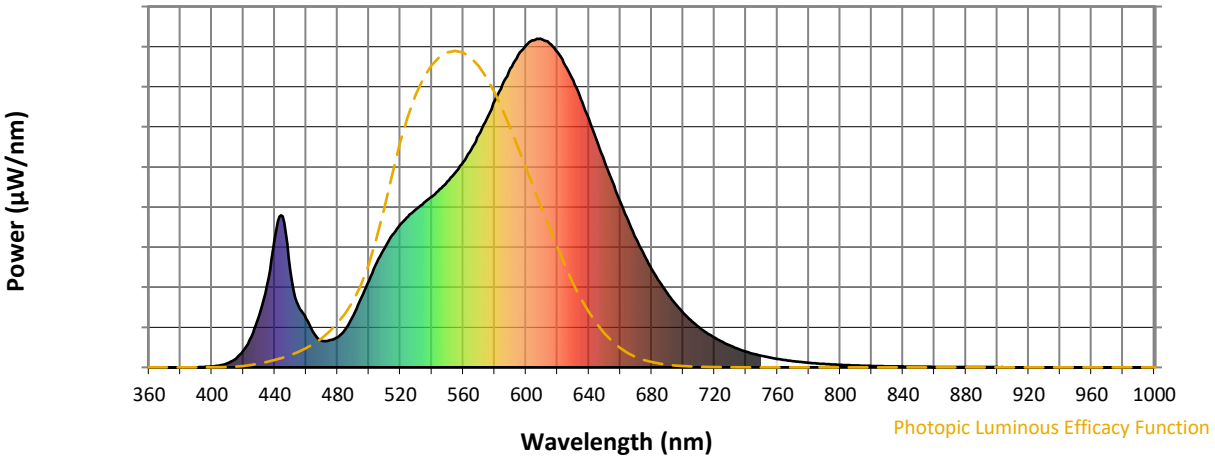
## Photopic Flux vs. Wavelength




## 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 | 158 | NR | 620 | 959 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 211 | NR | 625 | 918 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 264 | NR | 630 | 873 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 318 | NR | 635 | 816 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 363 | NR | 640 | 755 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 403 | NR | 645 | 689 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 435 | NR | 650 | 626 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 459 | NR | 655 | 564 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 481 | NR | 660 | 503 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 501 | NR | 665 | 447 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 519 | NR | 670 | 392 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 26 | NR | 545 | 542 | NR | 675 | 343 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 51 | NR | 550 | 565 | NR | 680 | 299 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 93 | NR | 555 | 593 | NR | 685 | 260 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 156 | NR | 560 | 624 | NR | 690 | 225 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 250 | NR | 565 | 662 | NR | 695 | 194 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 391 | NR | 570 | 707 | NR | 700 | 166 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 460 | NR | 575 | 756 | NR | 705 | 143 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 293 | NR | 580 | 810 | NR | 710 | 122 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 188 | NR | 585 | 860 | NR | 715 | 105 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 149 | NR | 590 | 910 | NR | 720 | 90 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 103 | NR | 595 | 950 | NR | 725 | 77 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 80 | NR | 600 | 980 | NR | 730 | 66 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 82 | NR | 605 | 995 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 92 | NR | 610 | 998 | NR | 740 | 48 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 116 | NR | 615 | 985 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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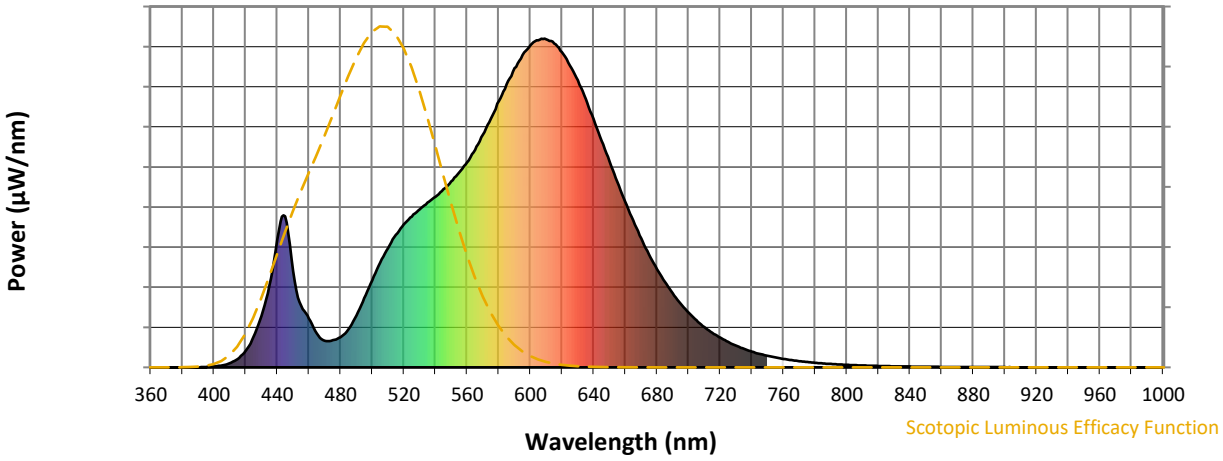
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.2**

| 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 | 158 | NR | 620 | 959 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 211 | NR | 625 | 918 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 264 | NR | 630 | 873 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 318 | NR | 635 | 816 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 363 | NR | 640 | 755 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 403 | NR | 645 | 689 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 435 | NR | 650 | 626 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 459 | NR | 655 | 564 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 481 | NR | 660 | 503 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 501 | NR | 665 | 447 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 519 | NR | 670 | 392 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 26 | NR | 545 | 542 | NR | 675 | 343 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 51 | NR | 550 | 565 | NR | 680 | 299 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 93 | NR | 555 | 593 | NR | 685 | 260 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 156 | NR | 560 | 624 | NR | 690 | 225 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 250 | NR | 565 | 662 | NR | 695 | 194 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 391 | NR | 570 | 707 | NR | 700 | 166 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 460 | NR | 575 | 756 | NR | 705 | 143 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 293 | NR | 580 | 810 | NR | 710 | 122 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 188 | NR | 585 | 860 | NR | 715 | 105 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 149 | NR | 590 | 910 | NR | 720 | 90 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 103 | NR | 595 | 950 | NR | 725 | 77 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 80 | NR | 600 | 980 | NR | 730 | 66 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 82 | NR | 605 | 995 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 92 | NR | 610 | 998 | NR | 740 | 48 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 116 | NR | 615 | 985 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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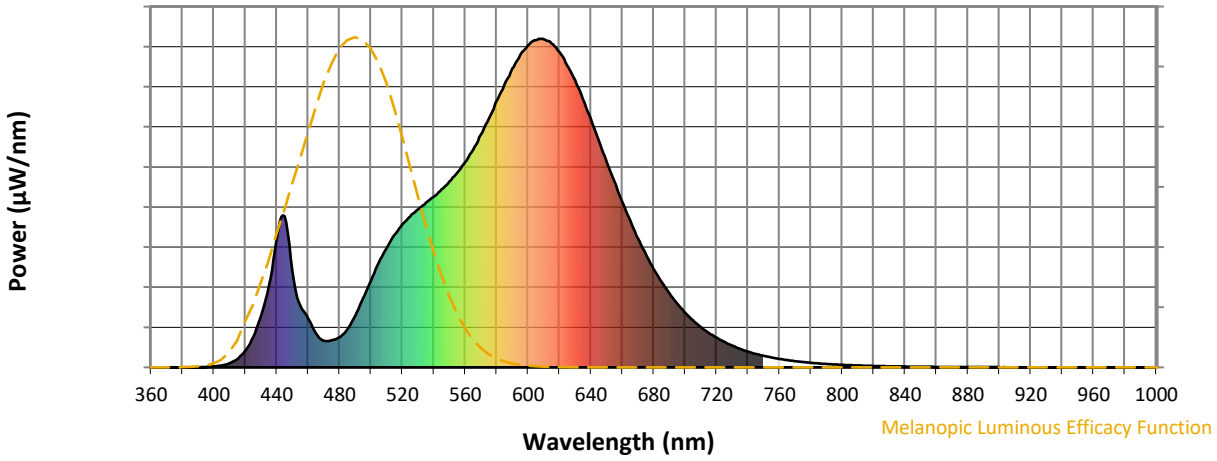
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.16**

| 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 | 158 | NR | 620 | 959 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 211 | NR | 625 | 918 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 264 | NR | 630 | 873 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 318 | NR | 635 | 816 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 363 | NR | 640 | 755 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 403 | NR | 645 | 689 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 435 | NR | 650 | 626 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 459 | NR | 655 | 564 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 481 | NR | 660 | 503 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 501 | NR | 665 | 447 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 13 | NR | 540 | 519 | NR | 670 | 392 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 26 | NR | 545 | 542 | NR | 675 | 343 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 51 | NR | 550 | 565 | NR | 680 | 299 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 93 | NR | 555 | 593 | NR | 685 | 260 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 156 | NR | 560 | 624 | NR | 690 | 225 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 250 | NR | 565 | 662 | NR | 695 | 194 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 391 | NR | 570 | 707 | NR | 700 | 166 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 460 | NR | 575 | 756 | NR | 705 | 143 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 293 | NR | 580 | 810 | NR | 710 | 122 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 188 | NR | 585 | 860 | NR | 715 | 105 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 149 | NR | 590 | 910 | NR | 720 | 90 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 103 | NR | 595 | 950 | NR | 725 | 77 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 80 | NR | 600 | 980 | NR | 730 | 66 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 82 | NR | 605 | 995 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 92 | NR | 610 | 998 | NR | 740 | 48 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 116 | NR | 615 | 985 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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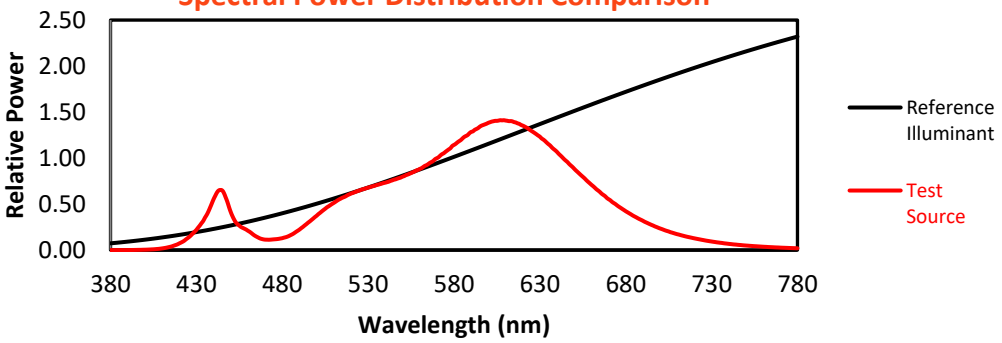
**TM-30-18**

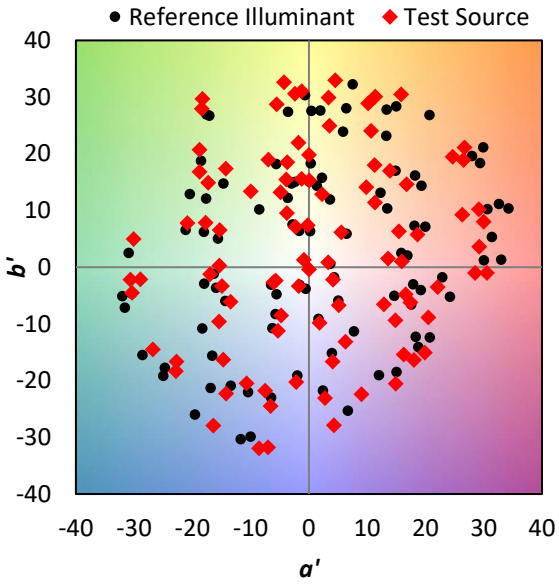
## Summary

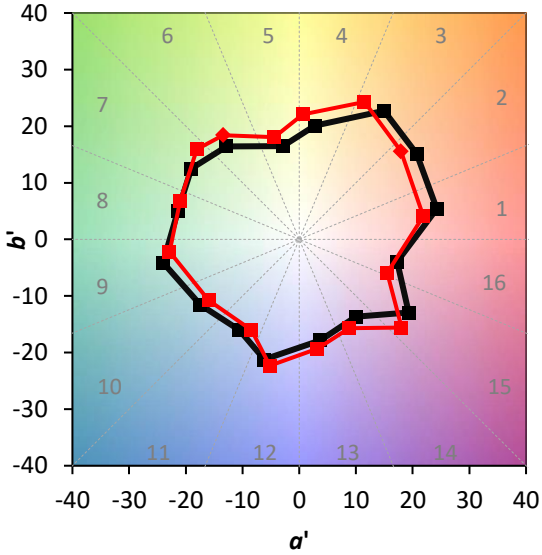
$R_f$ = 82.2
$R_g$ = 99.9
CIE $R_a$ = 82.9
$R_9$ = 10.8

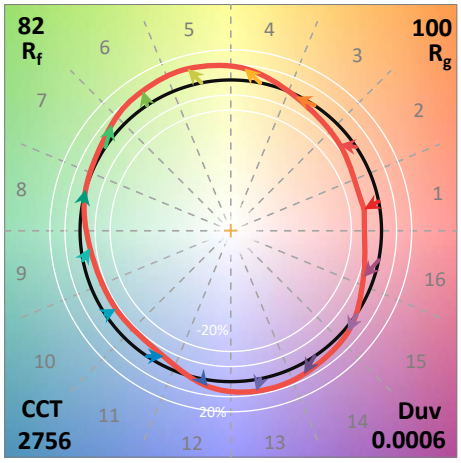
## Spectral Power Distribution Comparison

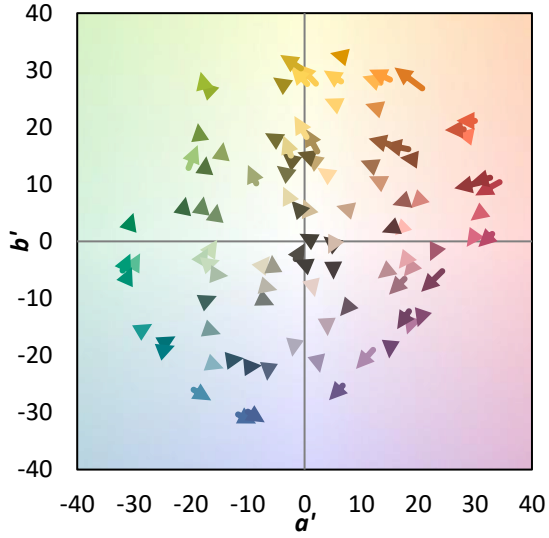



## Color Vector Graphics



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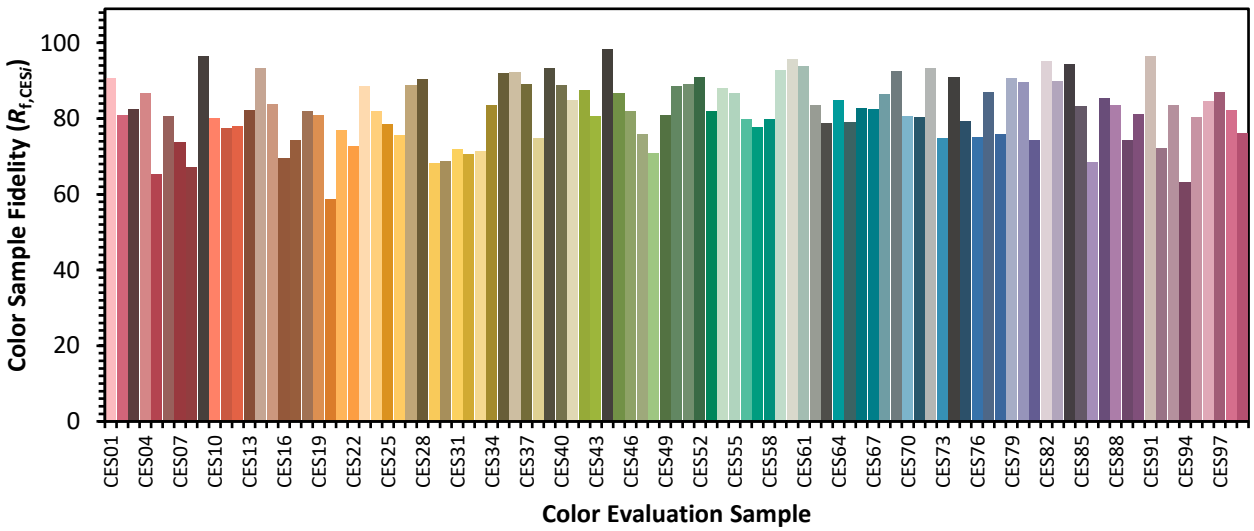
**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 76 | CES51 = 89 | CES76 = 75 |
| CES02 = 63 | CES27 = 89 | CES52 = 91 | CES77 = 87 |
| CES03 = 31 | CES28 = 90 | CES53 = 82 | CES78 = 76 |
| CES04 = 71 | CES29 = 68 | CES54 = 88 | CES79 = 91 |
| CES05 = 50 | CES30 = 69 | CES55 = 87 | CES80 = 90 |
| CES06 = 52 | CES31 = 72 | CES56 = 80 | CES81 = 74 |
| CES07 = 43 | CES32 = 71 | CES57 = 78 | CES82 = 95 |
| CES08 = 42 | CES33 = 71 | CES58 = 80 | CES83 = 90 |
| CES09 = 29 | CES34 = 84 | CES59 = 93 | CES84 = 94 |
| CES10 = 77 | CES35 = 92 | CES60 = 96 | CES85 = 83 |
| CES11 = 59 | CES36 = 92 | CES61 = 94 | CES86 = 69 |
| CES12 = 66 | CES37 = 89 | CES62 = 84 | CES87 = 85 |
| CES13 = 44 | CES38 = 75 | CES63 = 79 | CES88 = 84 |
| CES14 = 74 | CES39 = 93 | CES64 = 85 | CES89 = 74 |
| CES15 = 72 | CES40 = 89 | CES65 = 79 | CES90 = 81 |
| CES16 = 48 | CES41 = 85 | CES66 = 83 | CES91 = 96 |
| CES17 = 50 | CES42 = 88 | CES67 = 82 | CES92 = 72 |
| CES18 = 57 | CES43 = 81 | CES68 = 86 | CES93 = 84 |
| CES19 = 73 | CES44 = 98 | CES69 = 92 | CES94 = 63 |
| CES20 = 67 | CES45 = 87 | CES70 = 81 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 81 | CES96 = 85 |
| CES22 = 79 | CES47 = 76 | CES72 = 93 | CES97 = 87 |
| CES23 = 92 | CES48 = 71 | CES73 = 75 | CES98 = 82 |
| CES24 = 91 | CES49 = 81 | CES74 = 91 | CES99 = 76 |
| CES25 = 72 | CES50 = 88 | CES75 = 79 | |



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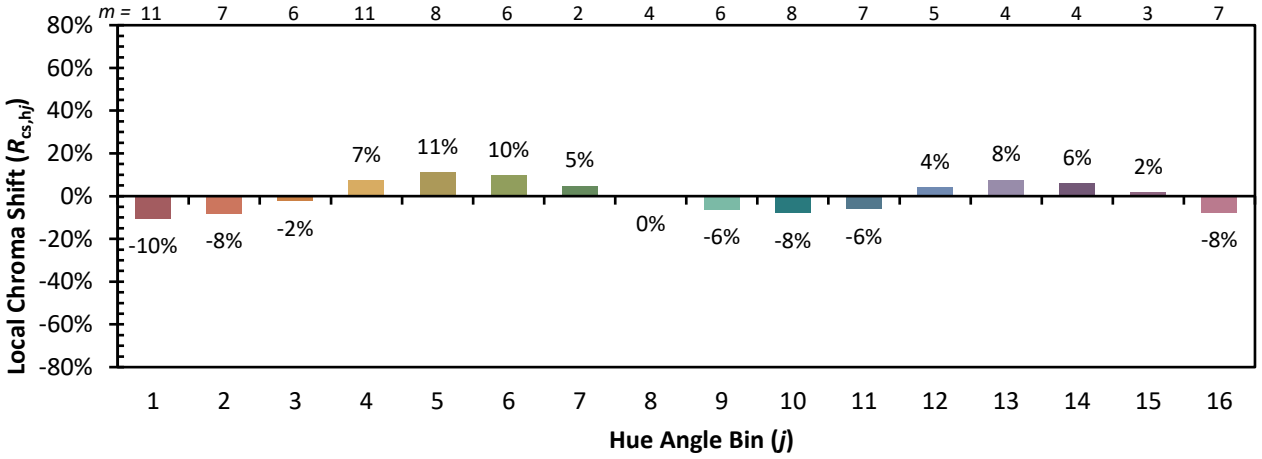
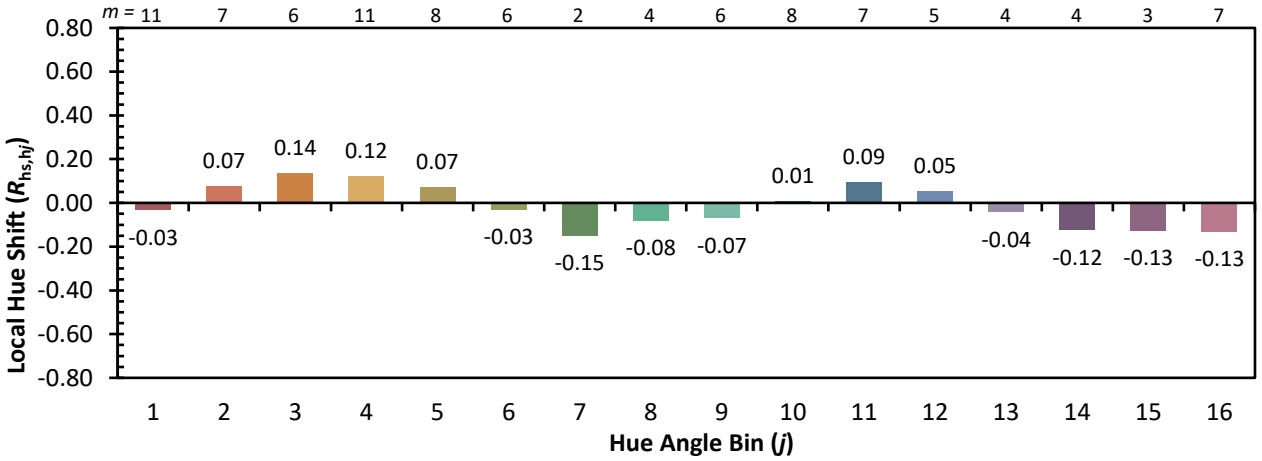
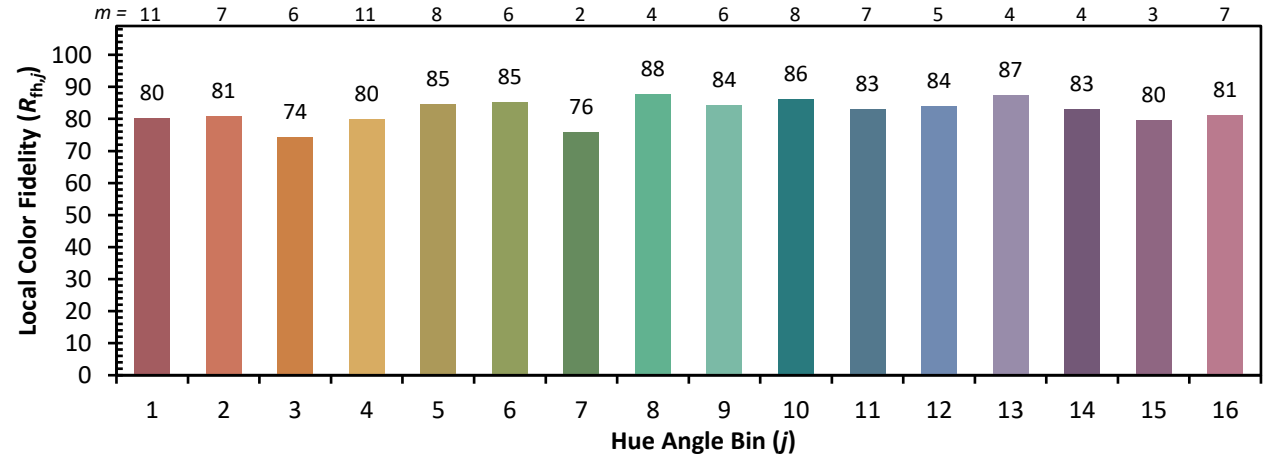
# TM-30-18

## Color Rendition by Hue-Angle Bin



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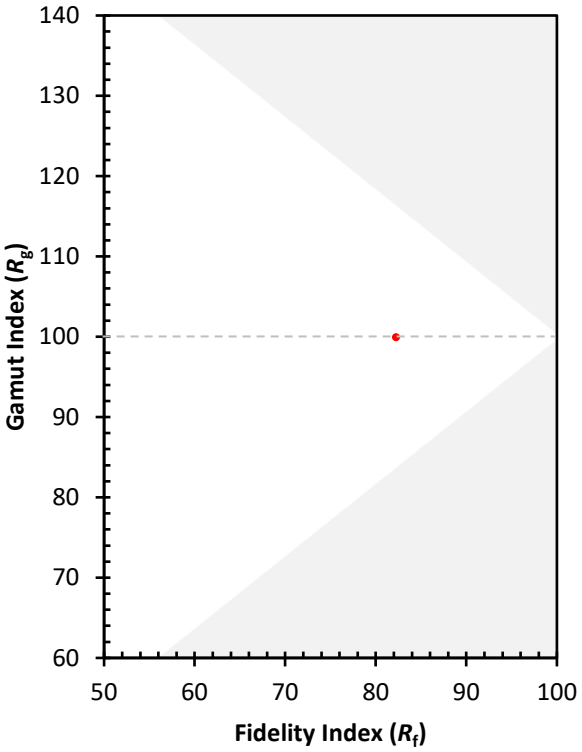
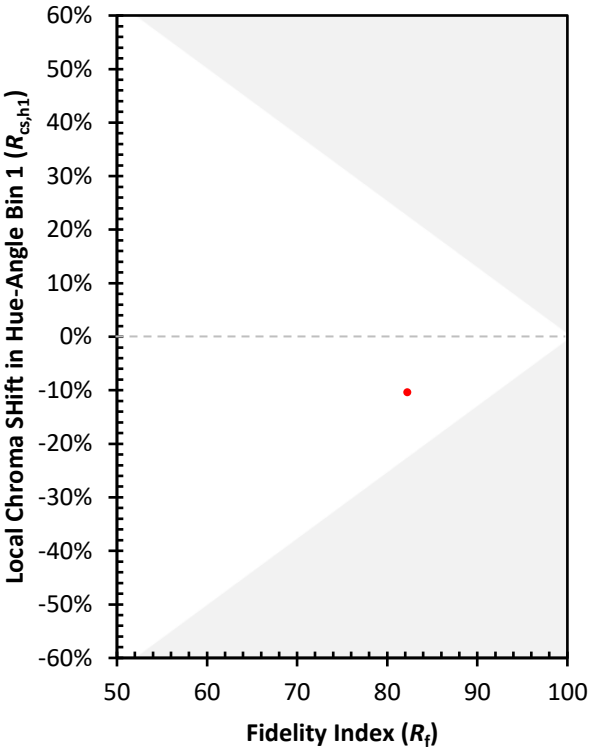
## Measure Comparisons




(END OF REPORT)