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: P1458909

Luminaire Tested: GLAN-SB6C-827-U-T4LG-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: | P1458909 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB6C-827-U-T4LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 6xLight Square PACKAGE 80CRI 2700K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (156) 2700K CCT, 80 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 28638.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 95.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 300.9 |
| 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: P1458909
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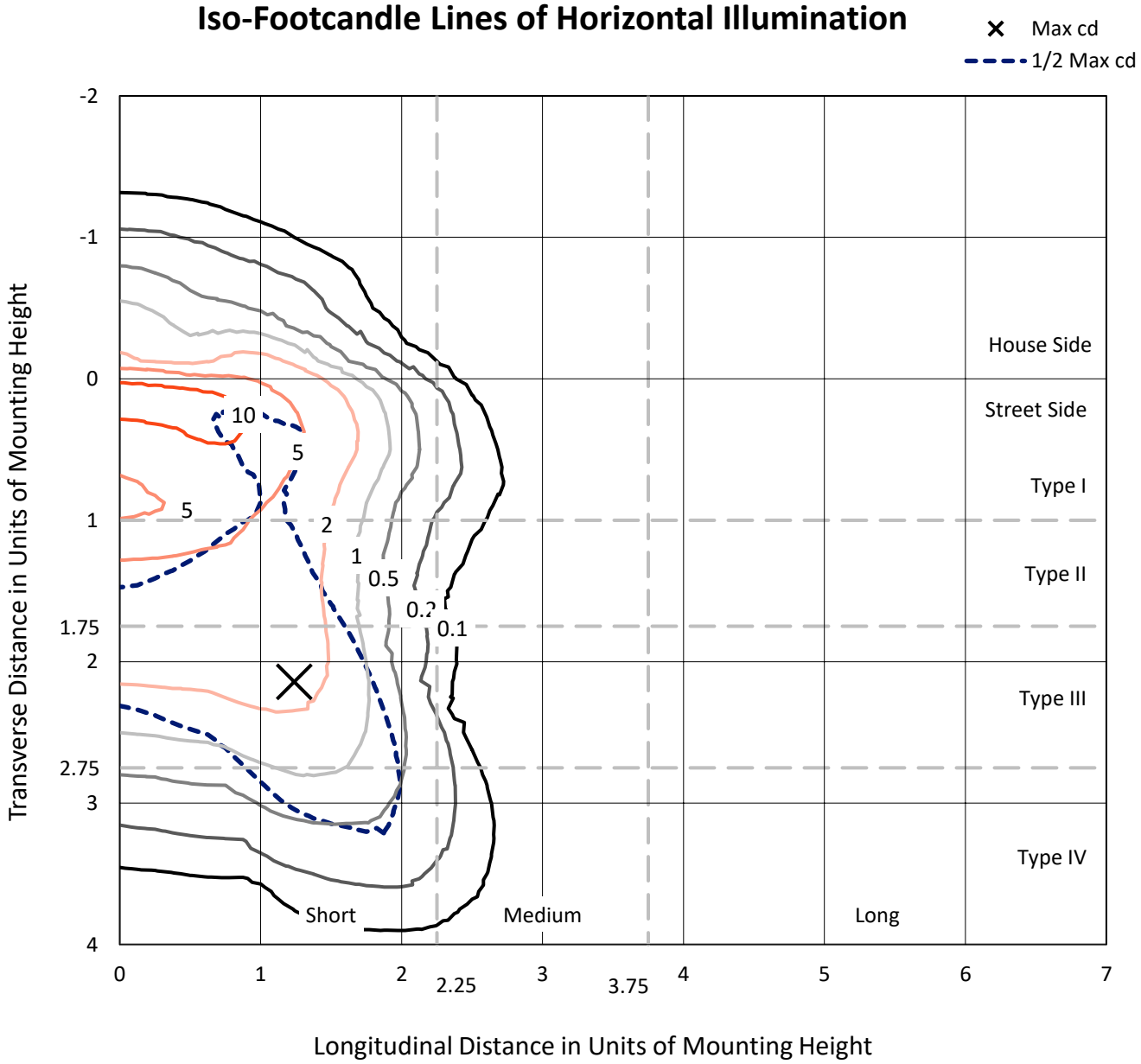
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 13.8 fc
Type IV - Short - N/A

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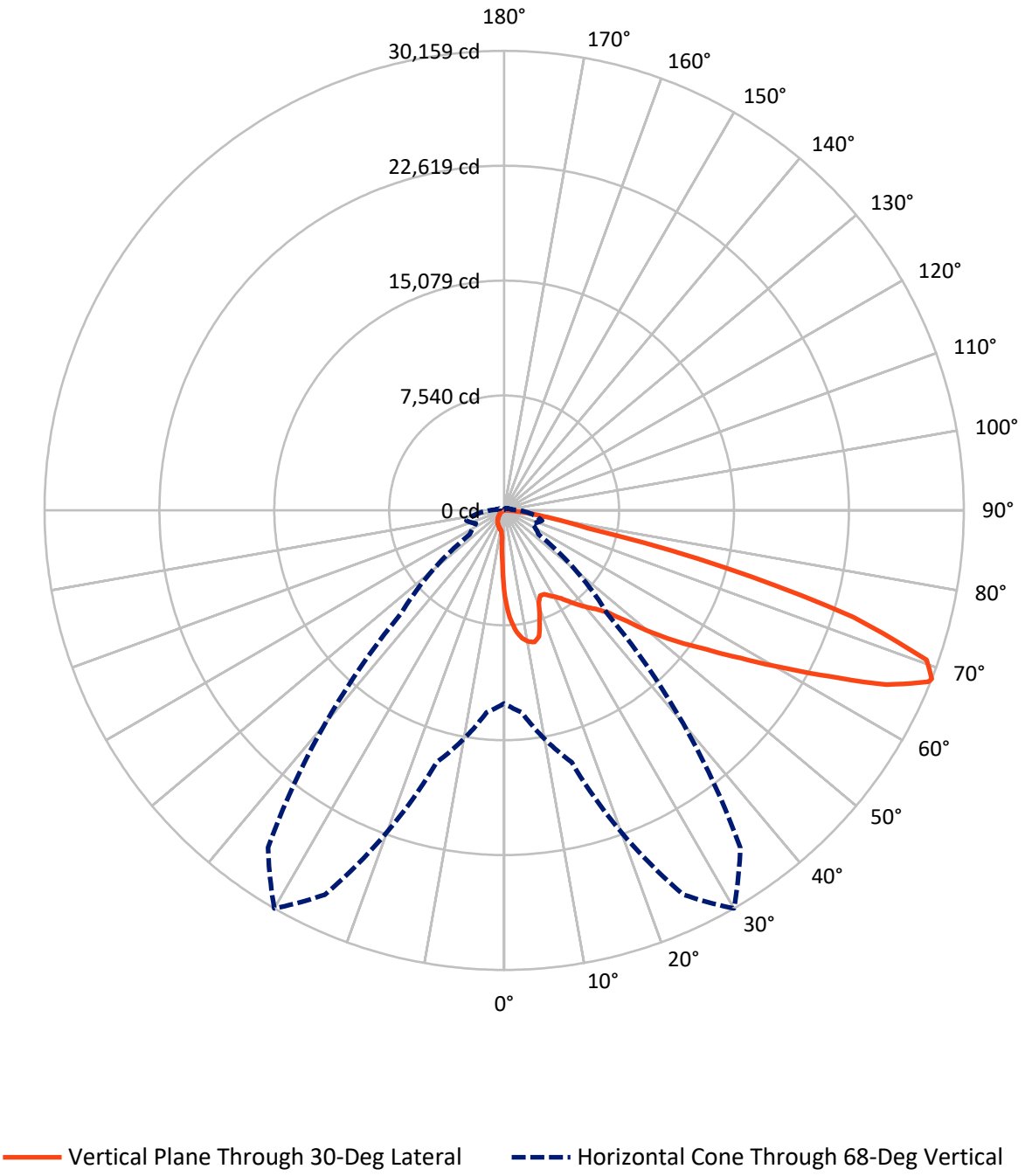
## Luminous Intensity Polar Plot



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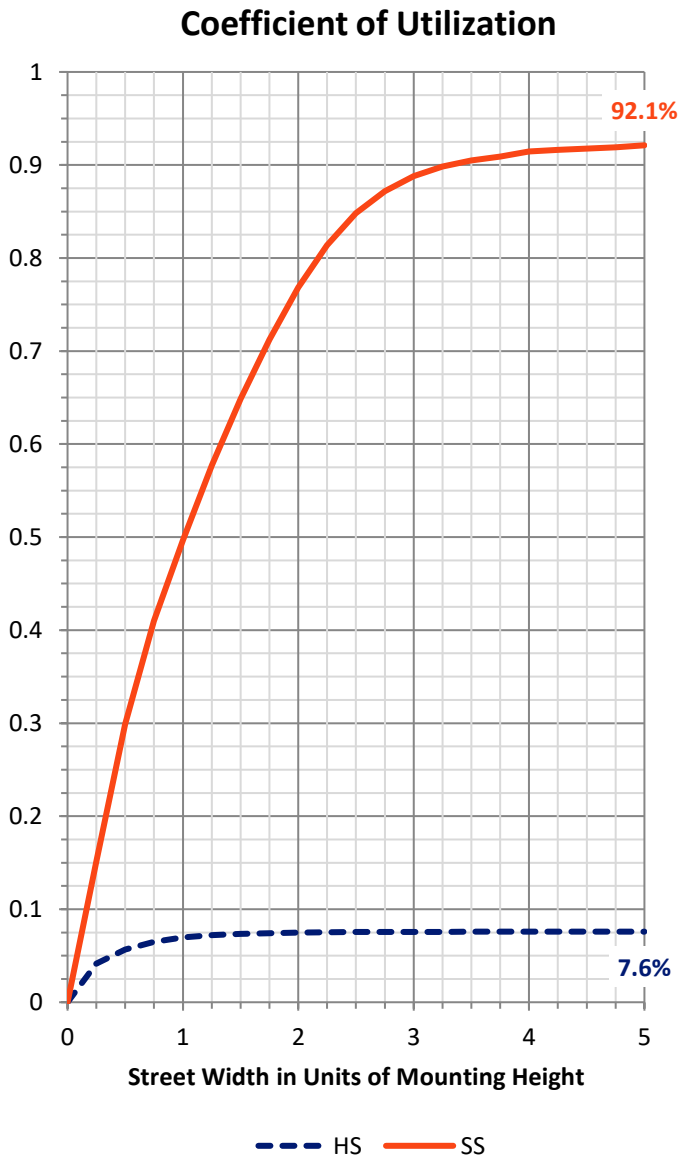
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2185.9 | 0.0 | 2185.9 |
| | % Fixture | 7.6 | 0.0 | 7.6 |
| **Street Side** | Lumens | 26453.0 | 0.0 | 26453.0 |
| | % Fixture | 92.4 | 0.0 | 92.4 |
| **Total** | Lumens | 28638.8 | 0.0 | 28638.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 487.3 | 1.7 |
| 10°-20° | 1391.2 | 4.9 |
| 20°-30° | 2186.2 | 7.6 |
| 30°-40° | 3428.9 | 12.0 |
| 40°-50° | 5125.2 | 17.9 |
| 50°-60° | 6818.1 | 23.8 |
| 60°-70° | 6591.0 | 23.0 |
| 70°-80° | 2369.2 | 8.3 |
| 80°-90° | 241.8 | 0.8 |
| 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° | 28638.8 | 100.0 |
| 0°-180° | 28638.8 | 100.0 |



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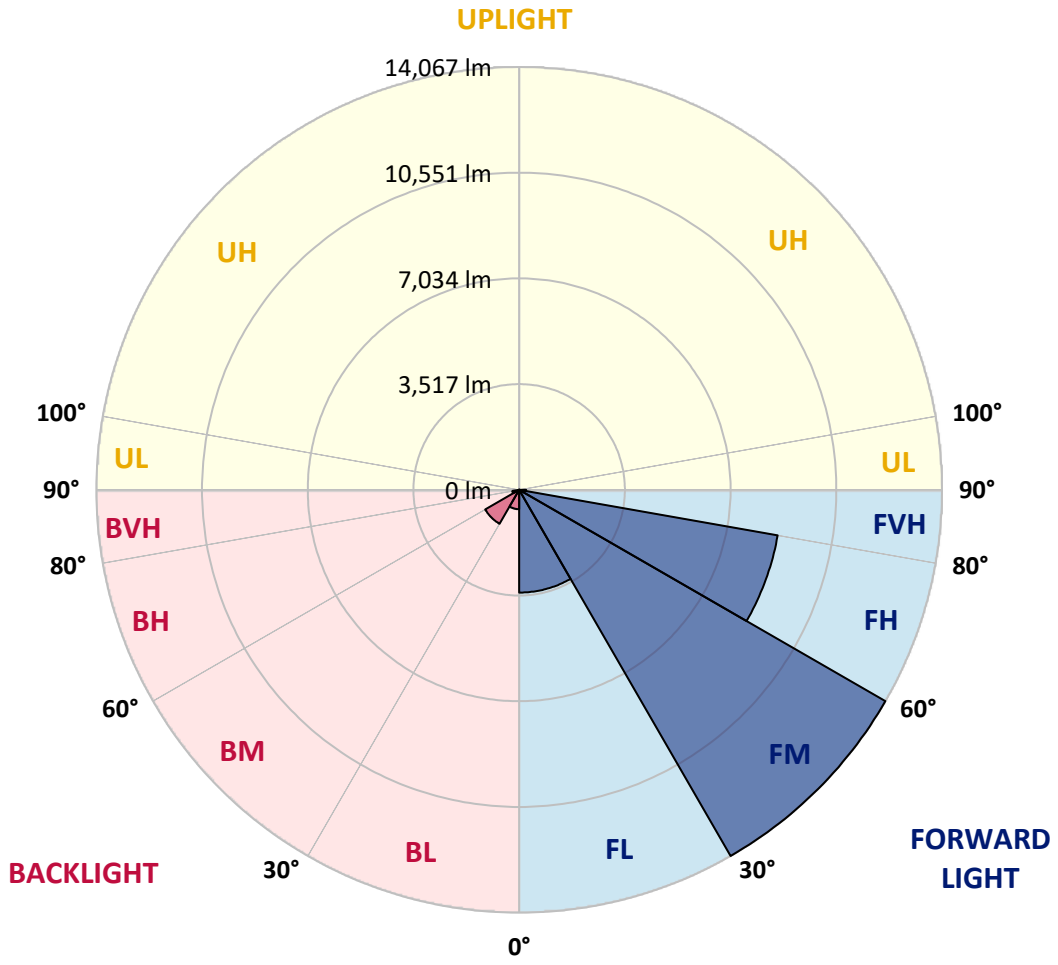
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 3419.5 | 11.9 | | | |
| FM | (30°-60°) | 14067.4 | 49.1 | | | |
| FH | (60°-80°) | 8732.9 | 30.5 | | | G4/12000 |
| FVH | (80°-90°) | 233.2 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 645.2 | 2.3 | B2/1000 | | |
| BM | (30°-60°) | 1304.8 | 4.6 | B2/2500 | | |
| BH | (60°-80°) | 227.3 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 8.6 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G4**
Type IV Short



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REPORT NUMBER: P1458909
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 30° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5647.2 | 5647.2 | 5647.2 | 5647.2 | *5647.2* | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 |
| 2.5° | 7217.8 | 7217.8 | 7166.3 | 7097.7 | *7020.4* | 6994.7 | 6848.8 | 6642.8 | 6428.2 | 6179.4 | 5818.9 |
| 5° | 8144.7 | 8136.1 | 8033.2 | 8033.2 | *7930.2* | 7835.8 | 7689.9 | 7389.5 | 7046.2 | 6599.9 | 5973.4 |
| 7.5° | 8556.7 | 8573.9 | 8530.9 | 8530.9 | *8470.9* | 8402.2 | 8316.4 | 8024.6 | 7621.2 | 7020.4 | 6127.9 |
| 10° | 8702.6 | 8711.2 | 8711.2 | 8771.2 | *8754.1* | 8745.5 | 8736.9 | 8573.9 | 8153.3 | 7449.6 | 6290.9 |
| 12.5° | 8350.7 | 8393.6 | 8513.8 | 8779.8 | *8865.7* | 8960.1 | 9088.8 | 9037.3 | 8745.5 | 7990.2 | 6539.8 |
| 15° | 7217.8 | 7226.4 | 7561.1 | 8222.0 | *8573.9* | 8934.3 | 9432.1 | 9535.1 | 9346.3 | 8573.9 | 6797.3 |
| 17.5° | 5956.2 | 5982.0 | 6248.0 | 6986.1 | *7552.5* | 8385.0 | 9629.5 | 10050.0 | 9981.4 | 9148.9 | 7037.6 |
| 20° | 5432.7 | 5467.0 | 5595.7 | 6059.2 | *6488.3* | 7260.7 | 9432.1 | 10539.2 | 10565.0 | 9723.9 | 7260.7 |
| 22.5° | 5312.5 | 5338.3 | 5441.3 | 5801.7 | *6067.8* | 6582.7 | 8762.7 | 10925.4 | 11225.8 | 10384.7 | 7526.8 |
| 25° | 5278.2 | 5303.9 | 5458.4 | 5853.2 | *6102.1* | 6531.2 | 8153.3 | 11131.4 | 12006.8 | 11071.3 | 7784.3 |
| 27.5° | 5252.4 | 5286.8 | 5535.7 | 6042.0 | *6333.8* | 6745.8 | 8041.7 | 11174.3 | 12753.5 | 11800.8 | 8204.8 |
| 30° | 5286.8 | 5338.3 | 5664.4 | 6239.4 | *6574.1* | 7037.6 | 8307.8 | 11217.2 | 13577.4 | 12633.3 | 8736.9 |
| 32.5° | 5424.1 | 5467.0 | 5861.8 | 6505.5 | *6891.7* | 7415.2 | 8762.7 | 11474.7 | 14358.4 | 13483.0 | 9243.3 |
| 35° | 5578.6 | 5638.7 | 6110.7 | 6883.1 | *7346.6* | 7938.8 | 9380.6 | 11981.1 | 15105.1 | 14289.8 | 9766.8 |
| 37.5° | 5767.4 | 5836.1 | 6402.5 | 7312.2 | *7844.3* | 8513.8 | 10050.0 | 12684.8 | 15765.9 | 14950.6 | 10290.3 |
| 40° | 6024.9 | 6102.1 | 6737.2 | 7767.1 | *8342.1* | 9011.6 | 10710.9 | 13380.0 | 16272.3 | 15345.4 | 10633.6 |
| 42.5° | 7037.6 | 7140.6 | 7406.6 | 8213.4 | *8857.1* | 9543.7 | 11363.1 | 14040.9 | 16461.1 | 15474.1 | 10702.3 |
| 45° | 8925.7 | 9028.7 | 8960.1 | 9114.5 | *9543.7* | 10187.3 | 12075.5 | 14676.0 | 16486.9 | 15439.8 | 10668.0 |
| 47.5° | 10822.4 | 10942.6 | 10882.5 | 10796.7 | *10891.1* | 11200.1 | 12873.7 | 15079.3 | 16349.5 | 15422.6 | 10668.0 |
| 50° | 12633.3 | 12564.7 | 12573.3 | 12547.5 | *12633.3* | 12796.4 | 13646.1 | 15156.6 | 16315.2 | 15585.7 | 10762.4 |
| 52.5° | 13603.2 | 13637.5 | 13852.0 | 14169.6 | *14358.4* | 14521.5 | 14530.1 | 15276.7 | 16066.3 | 15311.1 | 10650.8 |
| 55° | 14555.8 | 14624.5 | 15122.2 | 15662.9 | *16083.5* | 16392.4 | 15414.1 | 15199.5 | 14581.6 | 14392.7 | 10067.2 |
| 57.5° | 15628.6 | 15723.0 | 16426.8 | 17542.5 | *18280.6* | 18443.7 | 16289.5 | 13757.6 | 12341.5 | 13079.6 | 8934.3 |
| 60° | 17104.8 | 17216.4 | 18151.8 | 19825.4 | *20924.0* | 20589.3 | 16358.1 | 11466.1 | 9801.1 | 10856.8 | 7372.3 |
| 62.5° | 18263.4 | 18486.6 | 20177.3 | 22786.4 | *23996.5* | 22932.3 | 15079.3 | 8788.4 | 6848.8 | 7629.8 | 5381.2 |
| 65° | 17027.5 | 17456.7 | 20211.6 | 26176.4 | *27575.4* | 25687.2 | 13071.0 | 5999.1 | 3862.1 | 4934.9 | 3441.6 |
| 67.5° | 13766.2 | 14367.0 | 17945.9 | 27824.3 | *30029.9* | 27137.7 | 10290.3 | 3184.1 | 2214.3 | 2866.5 | 1810.9 |
| 68° | *12667.7* | *13319.9* | *17113.4* | *27824.3* | *30158.7* | *27008.9* | *9552.2* | *2755.0* | *2042.6* | *2574.7* | *1570.6* |
| 70° | 8754.1 | 9217.5 | 13156.9 | 26262.2 | *29403.4* | 24623.0 | 6290.9 | 1579.2 | 1536.3 | 1768.0 | 1038.5 |
| 72.5° | 4291.2 | 4789.0 | 7037.6 | 20812.4 | *23953.6* | 18924.3 | 2866.5 | 1047.1 | 1167.2 | 1295.9 | 815.3 |
| 75° | 1707.9 | 1810.9 | 2772.1 | 10264.6 | *14967.8* | 12075.5 | 1501.9 | 789.6 | 1004.1 | 1012.7 | 643.7 |
| 77.5° | 978.4 | 1038.5 | 1536.3 | 3776.3 | *5612.9* | 5398.4 | 969.8 | 566.4 | 798.2 | 729.5 | 420.5 |
| 80° | 549.3 | 557.9 | 866.8 | 1991.1 | *3209.8* | 2875.1 | 660.8 | 412.0 | 609.4 | 514.9 | 283.2 |
| 82.5° | 274.6 | 309.0 | 549.3 | 1098.6 | *1785.1* | 1828.1 | 351.9 | 291.8 | 489.2 | 369.0 | 231.7 |
| 85° | 197.4 | 214.6 | 394.8 | 609.4 | *823.9* | 1235.9 | 214.6 | 145.9 | 369.0 | 248.9 | 163.1 |
| 87.5° | 103.0 | 128.7 | 248.9 | 300.4 | *334.7* | 420.5 | 103.0 | 68.7 | 206.0 | 145.9 | 85.8 |
| 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: P1458909
CATALOG NUMBER: GLAN-SB6C-827-U-T4LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 | 5647.2 |
| 2.5° | 5647.2 | 5449.8 | 5046.5 | 4574.4 | 4205.4 | 3827.8 | 3518.8 | 3227.0 | 3089.7 | 3072.5 | 3106.8 |
| 5° | 5621.5 | 5192.4 | 4274.1 | 3372.9 | 2634.8 | 2119.9 | 1836.6 | 1690.7 | 1613.5 | 1579.2 | 1587.8 |
| 7.5° | 5570.0 | 4917.7 | 3450.1 | 2282.9 | 1707.9 | 1484.8 | 1416.1 | 1390.4 | 1381.8 | 1381.8 | 1381.8 |
| 10° | 5518.5 | 4548.7 | 2643.4 | 1673.6 | 1398.9 | 1338.9 | 1321.7 | 1321.7 | 1313.1 | 1313.1 | 1321.7 |
| 12.5° | 5492.8 | 4205.4 | 2051.2 | 1398.9 | 1304.5 | 1278.8 | 1261.6 | 1253.0 | 1253.0 | 1253.0 | 1261.6 |
| 15° | 5432.7 | 3827.8 | 1656.4 | 1295.9 | 1244.5 | 1210.1 | 1201.5 | 1193.0 | 1193.0 | 1193.0 | 1193.0 |
| 17.5° | 5381.2 | 3458.7 | 1441.8 | 1227.3 | 1184.4 | 1150.0 | 1141.5 | 1132.9 | 1132.9 | 1141.5 | 1141.5 |
| 20° | 5303.9 | 3106.8 | 1295.9 | 1158.6 | 1124.3 | 1090.0 | 1081.4 | 1072.8 | 1081.4 | 1081.4 | 1081.4 |
| 22.5° | 5209.5 | 2815.0 | 1210.1 | 1107.1 | 1064.2 | 1029.9 | 1029.9 | 1029.9 | 1029.9 | 1029.9 | 1038.5 |
| 25° | 5149.5 | 2609.1 | 1150.0 | 1047.1 | 1004.1 | 978.4 | 969.8 | 969.8 | 987.0 | 987.0 | 995.6 |
| 27.5° | 5243.9 | 2557.6 | 1158.6 | 1029.9 | 952.7 | 926.9 | 918.3 | 918.3 | 935.5 | 944.1 | 952.7 |
| 30° | 5527.1 | 2652.0 | 1261.6 | 1081.4 | 918.3 | 875.4 | 866.8 | 866.8 | 892.6 | 901.2 | 909.7 |
| 32.5° | 5853.2 | 2849.4 | 1416.1 | 1150.0 | 892.6 | 823.9 | 806.7 | 806.7 | 832.5 | 841.1 | 849.7 |
| 35° | 6299.5 | 3158.3 | 1622.1 | 1210.1 | 909.7 | 772.4 | 738.1 | 738.1 | 755.3 | 772.4 | 781.0 |
| 37.5° | 6874.5 | 3664.7 | 1862.4 | 1253.0 | 909.7 | 712.3 | 669.4 | 660.8 | 678.0 | 678.0 | 686.6 |
| 40° | 7475.3 | 4325.5 | 2111.3 | 1253.0 | 866.8 | 652.3 | 609.4 | 583.6 | 592.2 | 583.6 | 592.2 |
| 42.5° | 7810.0 | 4857.7 | 2325.8 | 1175.8 | 815.3 | 592.2 | 549.3 | 514.9 | 506.4 | 489.2 | 497.8 |
| 45° | 7998.8 | 5098.0 | 2265.8 | 1090.0 | 763.8 | 549.3 | 497.8 | 454.9 | 437.7 | 412.0 | 412.0 |
| 47.5° | 7998.8 | 5123.7 | 1939.6 | 1021.3 | 712.3 | 514.9 | 446.3 | 403.4 | 377.6 | 351.9 | 360.5 |
| 50° | 7904.4 | 4892.0 | 1536.3 | 952.7 | 652.3 | 480.6 | 403.4 | 369.0 | 334.7 | 317.6 | 317.6 |
| 52.5° | 7509.6 | 4136.7 | 1175.8 | 866.8 | 583.6 | 437.7 | 360.5 | 326.1 | 291.8 | 283.2 | 283.2 |
| 55° | 6831.6 | 3038.2 | 952.7 | 781.0 | 523.5 | 403.4 | 326.1 | 300.4 | 266.1 | 248.9 | 248.9 |
| 57.5° | 5552.8 | 2076.9 | 789.6 | 703.8 | 463.5 | 360.5 | 291.8 | 266.1 | 223.1 | 206.0 | 206.0 |
| 60° | 4119.6 | 1356.0 | 669.4 | 617.9 | 394.8 | 326.1 | 257.5 | 223.1 | 188.8 | 171.6 | 163.1 |
| 62.5° | 2780.7 | 918.3 | 557.9 | 489.2 | 334.7 | 283.2 | 223.1 | 188.8 | 145.9 | 111.6 | 111.6 |
| 65° | 1733.7 | 712.3 | 463.5 | 386.2 | 291.8 | 248.9 | 188.8 | 145.9 | 103.0 | 77.2 | 68.7 |
| 67.5° | 995.6 | 575.0 | 377.6 | 300.4 | 248.9 | 197.4 | 145.9 | 120.2 | 85.8 | 60.1 | 51.5 |
| 68° | *918.3* | *549.3* | *351.9* | *283.2* | *231.7* | *188.8* | *137.3* | *111.6* | *77.2* | *51.5* | *51.5* |
| 70° | 746.7 | 489.2 | 300.4 | 231.7 | 197.4 | 154.5 | 120.2 | 94.4 | 60.1 | 34.3 | 34.3 |
| 72.5° | 660.8 | 412.0 | 257.5 | 180.2 | 137.3 | 128.7 | 94.4 | 68.7 | 42.9 | 25.7 | 17.2 |
| 75° | 540.7 | 326.1 | 206.0 | 137.3 | 94.4 | 94.4 | 68.7 | 42.9 | 17.2 | 0.0 | 0.0 |
| 77.5° | 351.9 | 240.3 | 163.1 | 85.8 | 51.5 | 60.1 | 42.9 | 17.2 | 0.0 | 0.0 | 0.0 |
| 80° | 231.7 | 180.2 | 111.6 | 42.9 | 25.7 | 25.7 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 163.1 | 120.2 | 68.7 | 17.2 | 8.6 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 103.0 | 51.5 | 25.7 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 42.9 | 17.2 | 8.6 | 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: SP1-2407-184-8

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

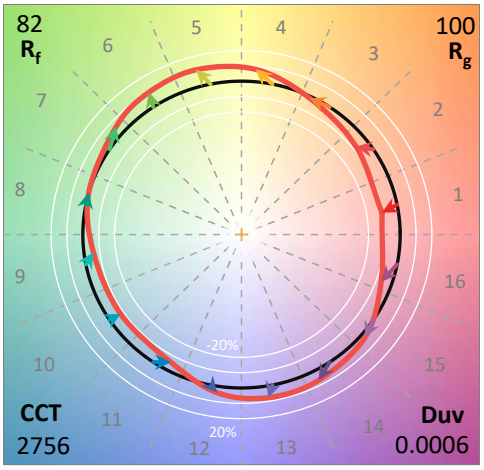
## Test Information

| | |
|---|---|
| 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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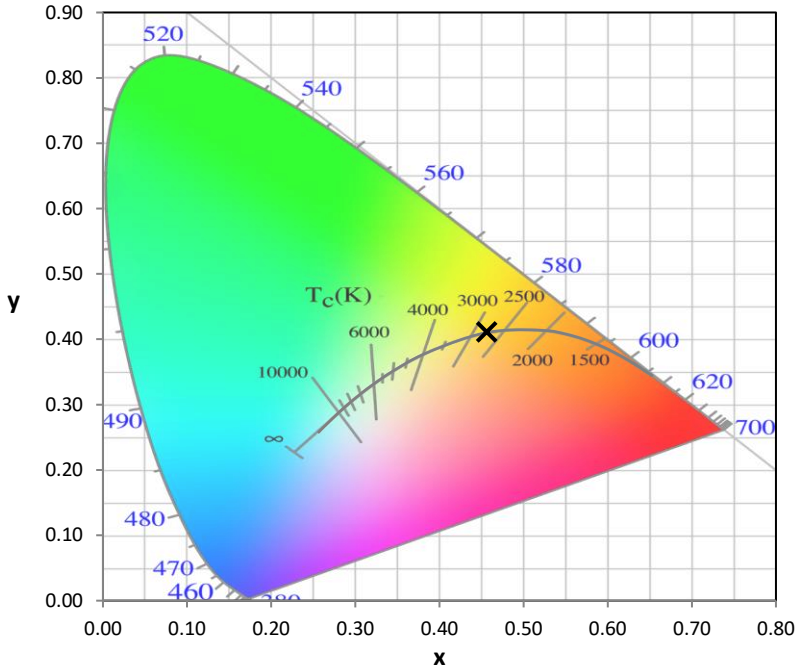
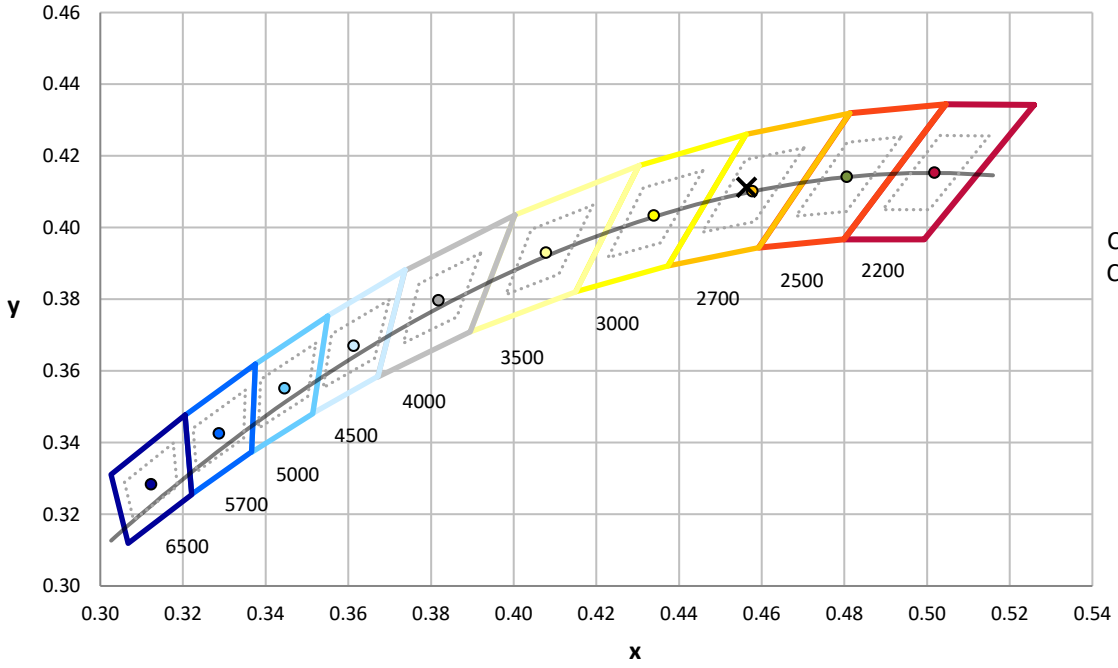
## CIE 1931 Chromaticity Diagram




## 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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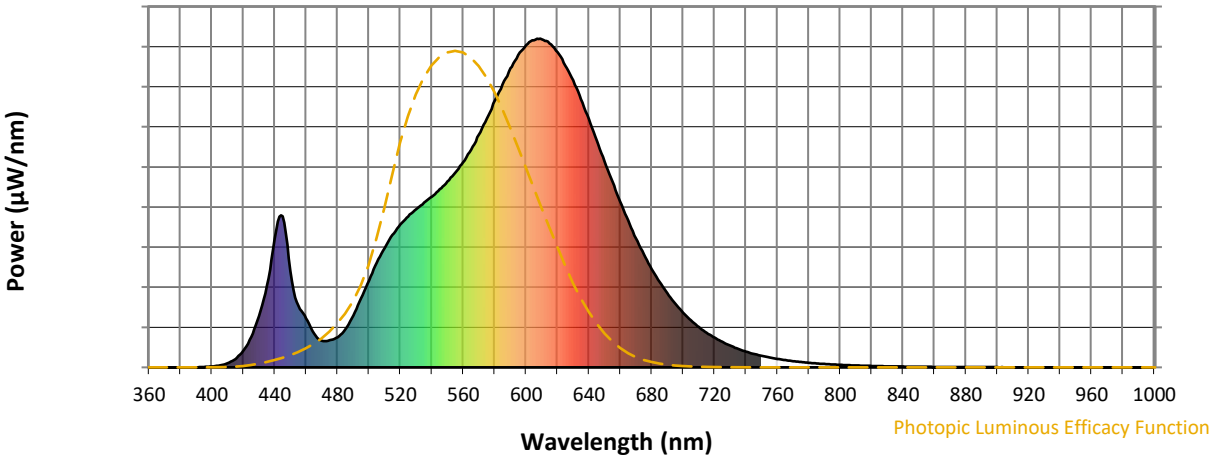
## Photopic Flux vs. Wavelength




## 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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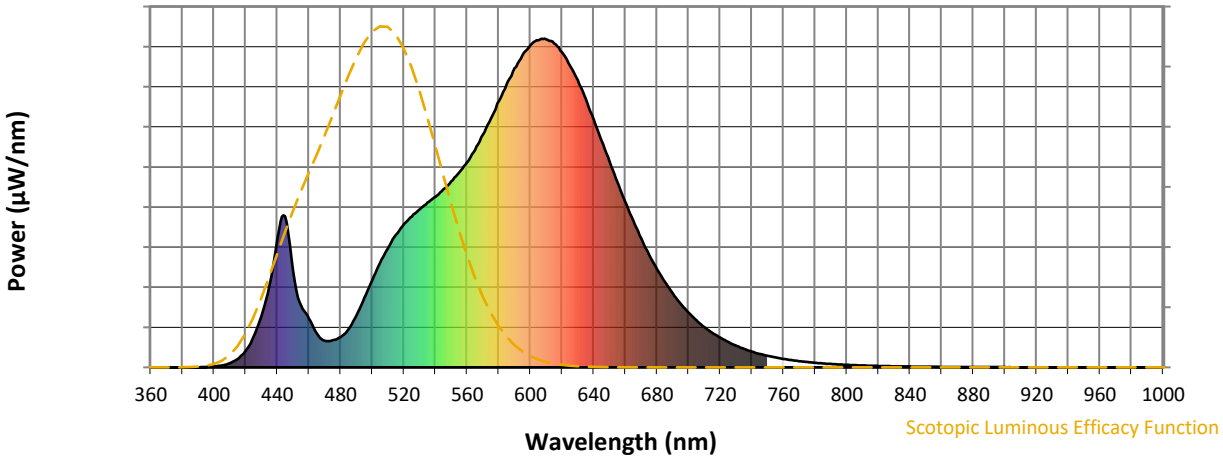
## Scotopic Flux vs. Wavelength




**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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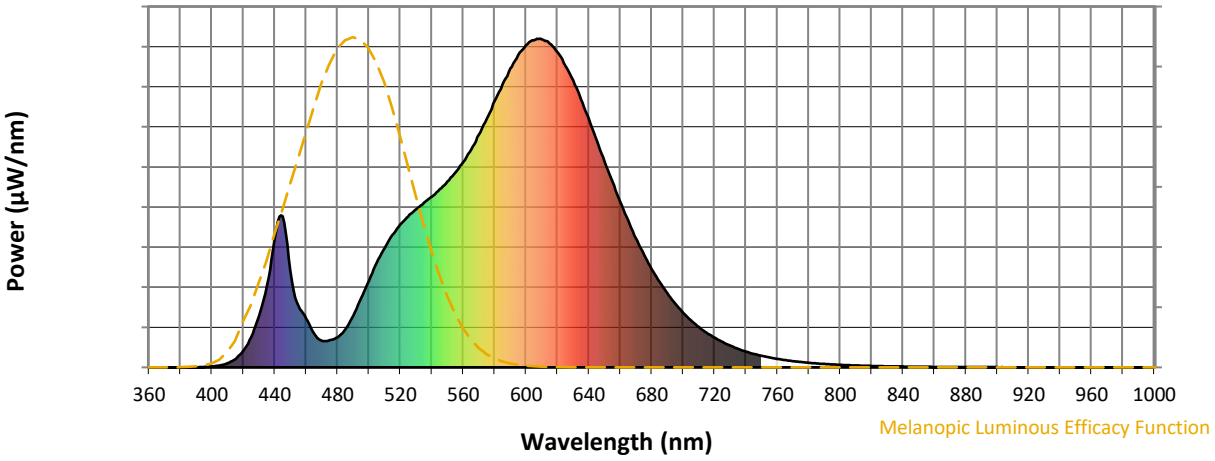
## Melanopic Flux vs. Wavelength




**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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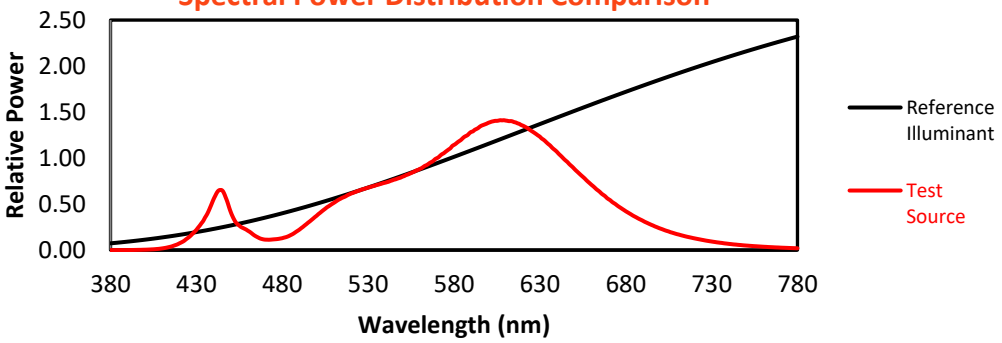
## TM-30-18

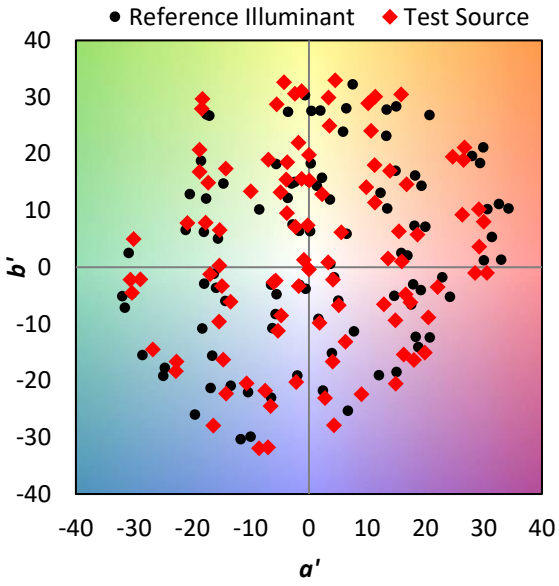
### Summary

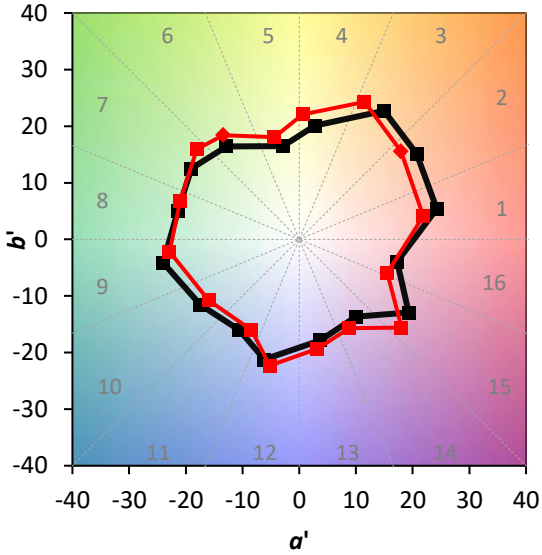
$R_f$ = 82.2
$R_g$ = 99.9
CIE $R_a$ = 82.9
$R_9$ = 10.8

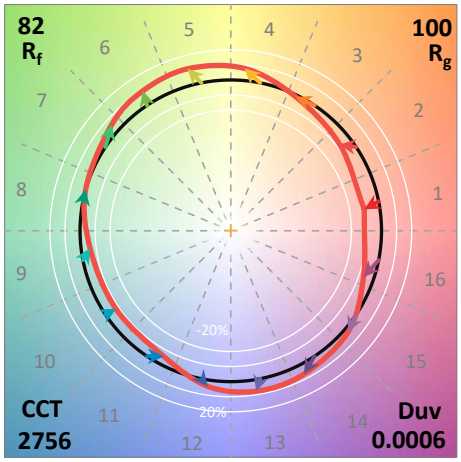
### Spectral Power Distribution Comparison

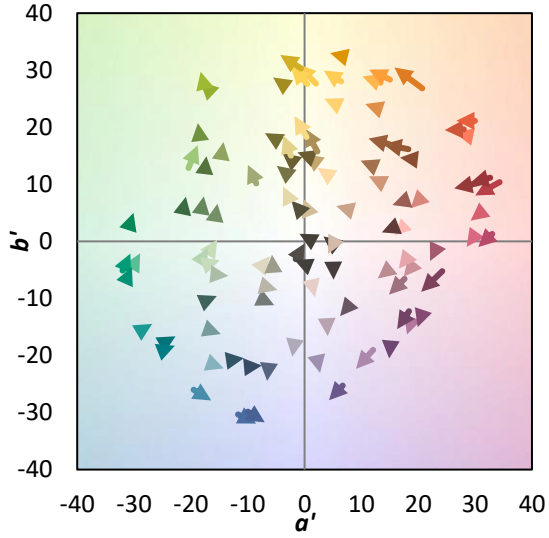



### Color Vector Graphics



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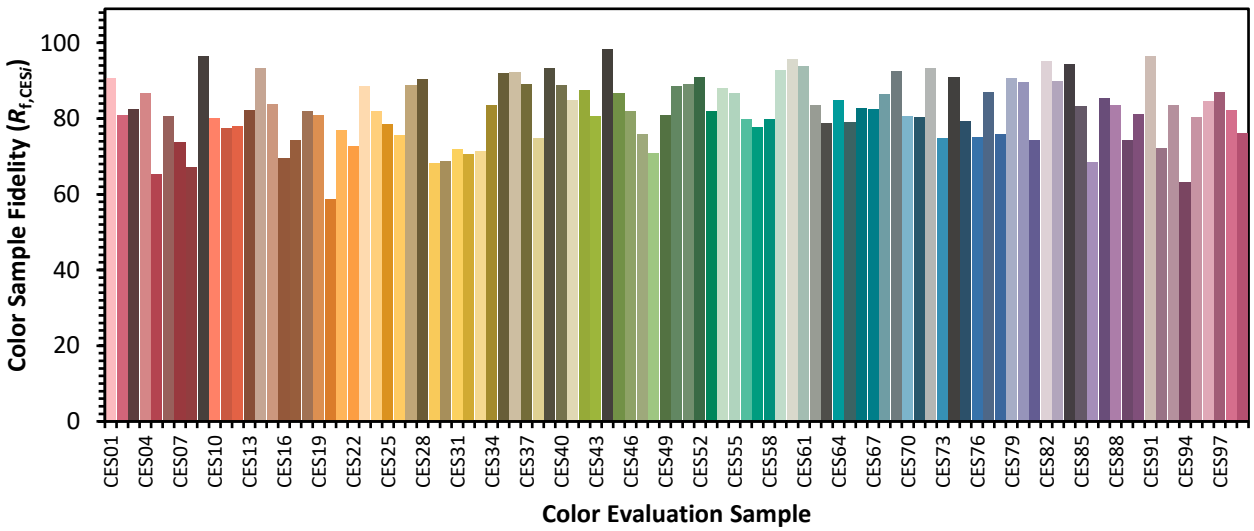
# TM-30-18

**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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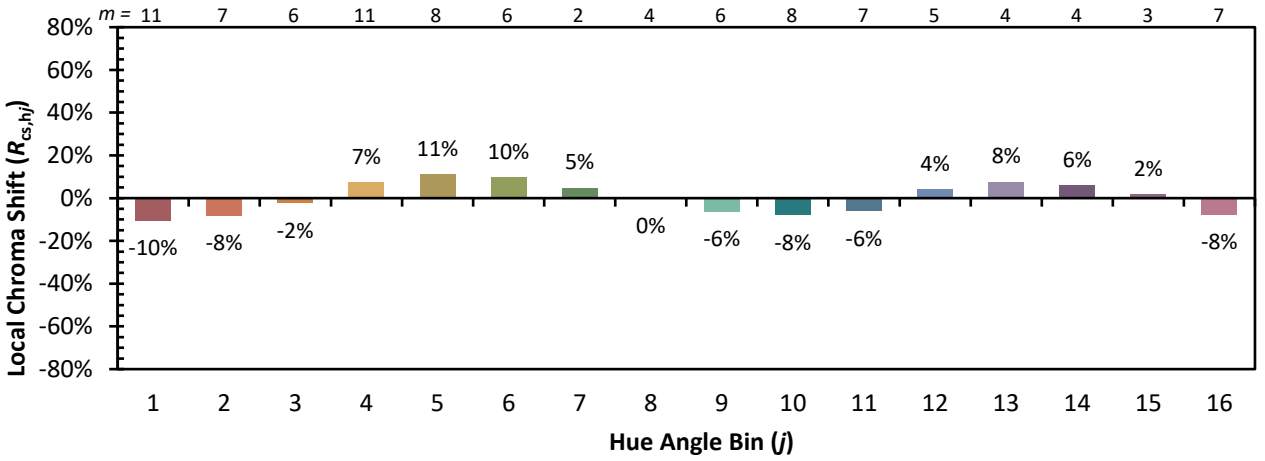
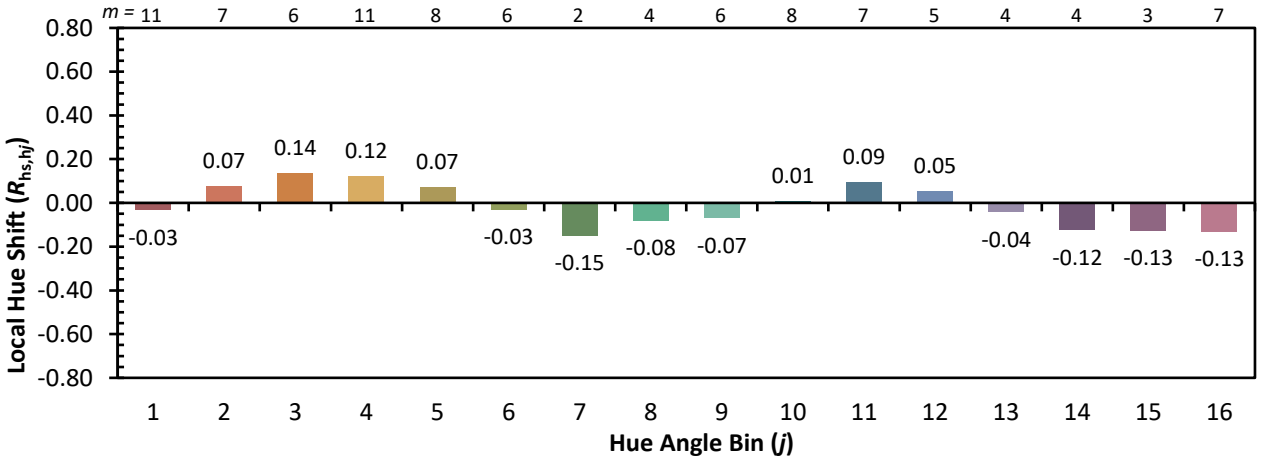
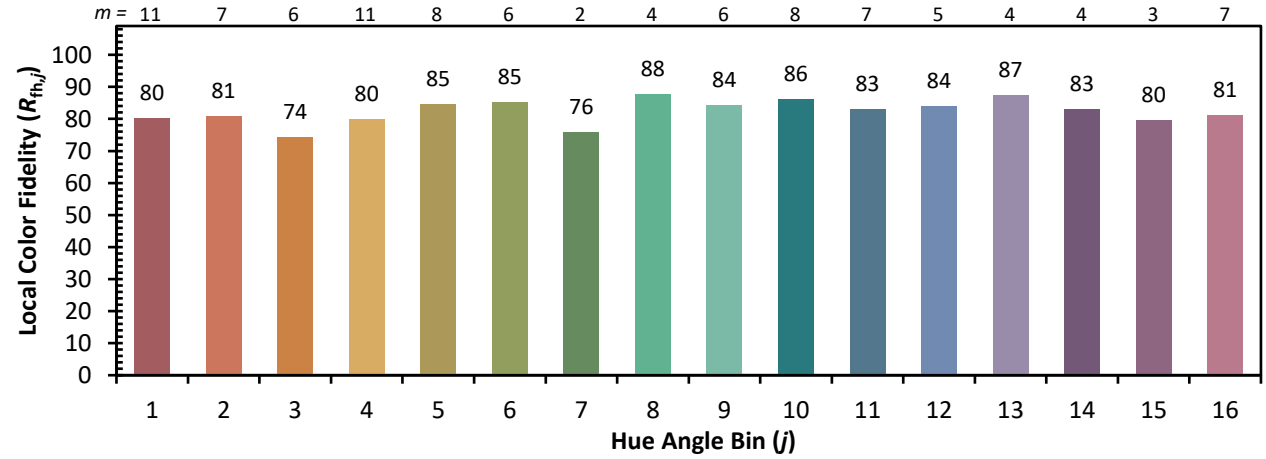
# TM-30-18

## Color Rendition by Hue-Angle Bin



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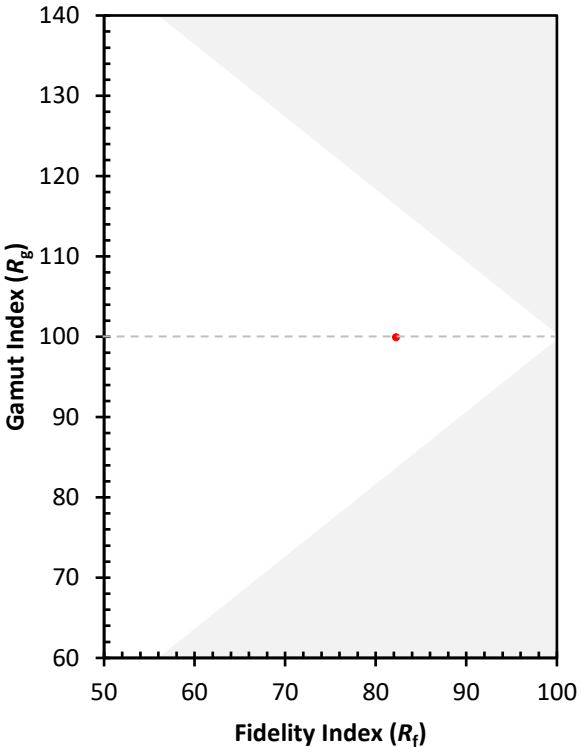
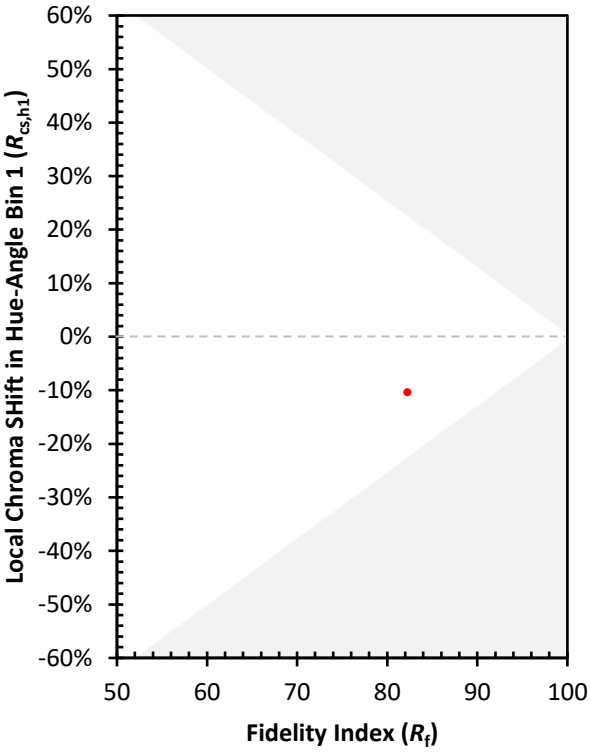
## Measure Comparisons




(END OF REPORT)