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: P1458502

Luminaire Tested: GLAN-SB3D-927-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: | P1458502 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB3D-927-U-T3LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 3xLight Square PACKAGE 90CRI 2700K FIXTURE w/ TYPE III LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (78) 2700K CCT, 90 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 14195.8 lumens |
| Efficiency: | N/A |
| Efficacy: | 65.1 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 1' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| 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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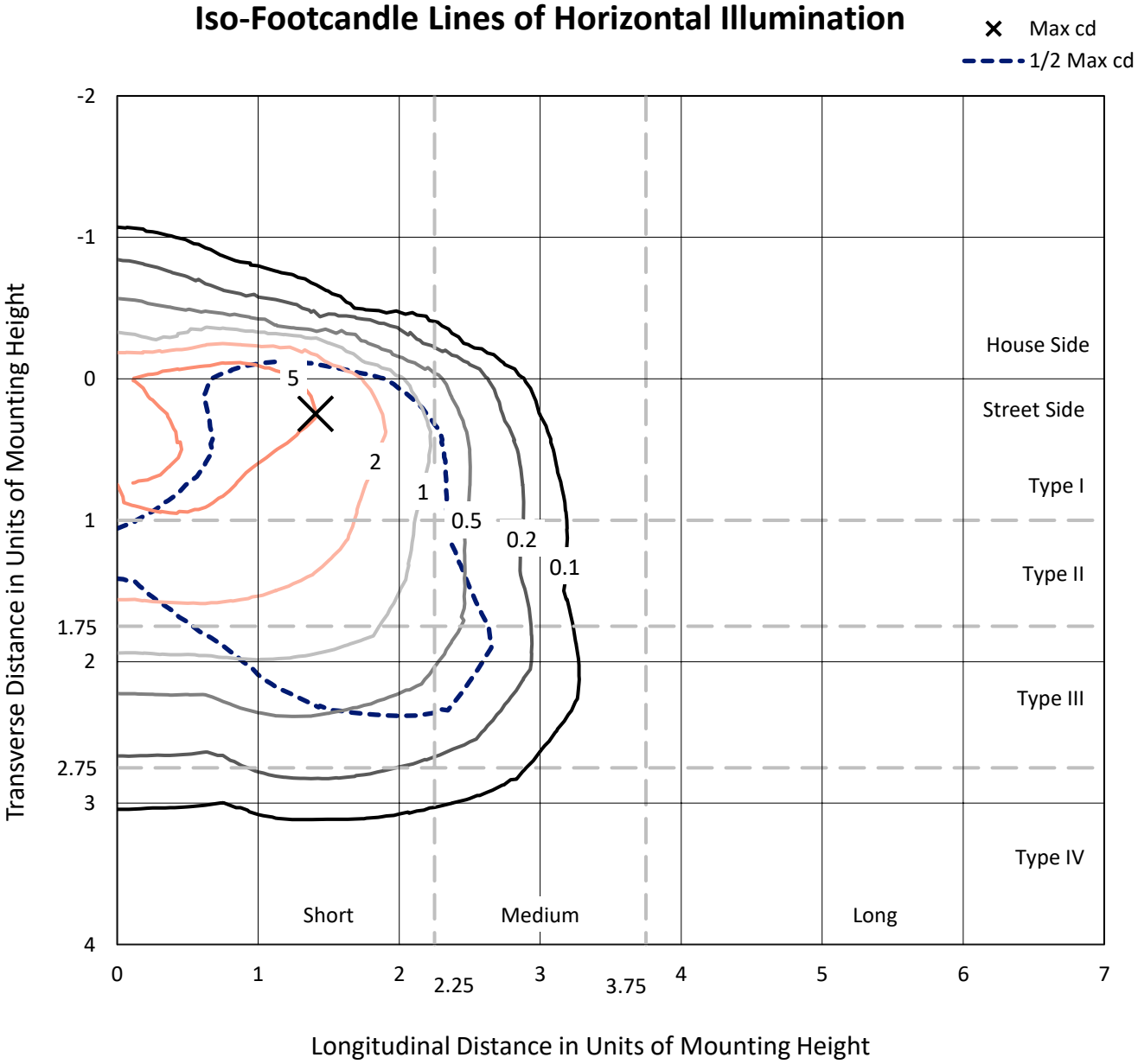
Scaled Data Report

REPORT NUMBER: P1458502
CATALOG NUMBER: GLAN-SB3D-927-U-T3LG-HSS

## Iso-Footcandle Lines of Horizontal Illumination




Based on 20 foot mounting height. Maximum calculated value = 8.8 fc
Type III - Short - N/A

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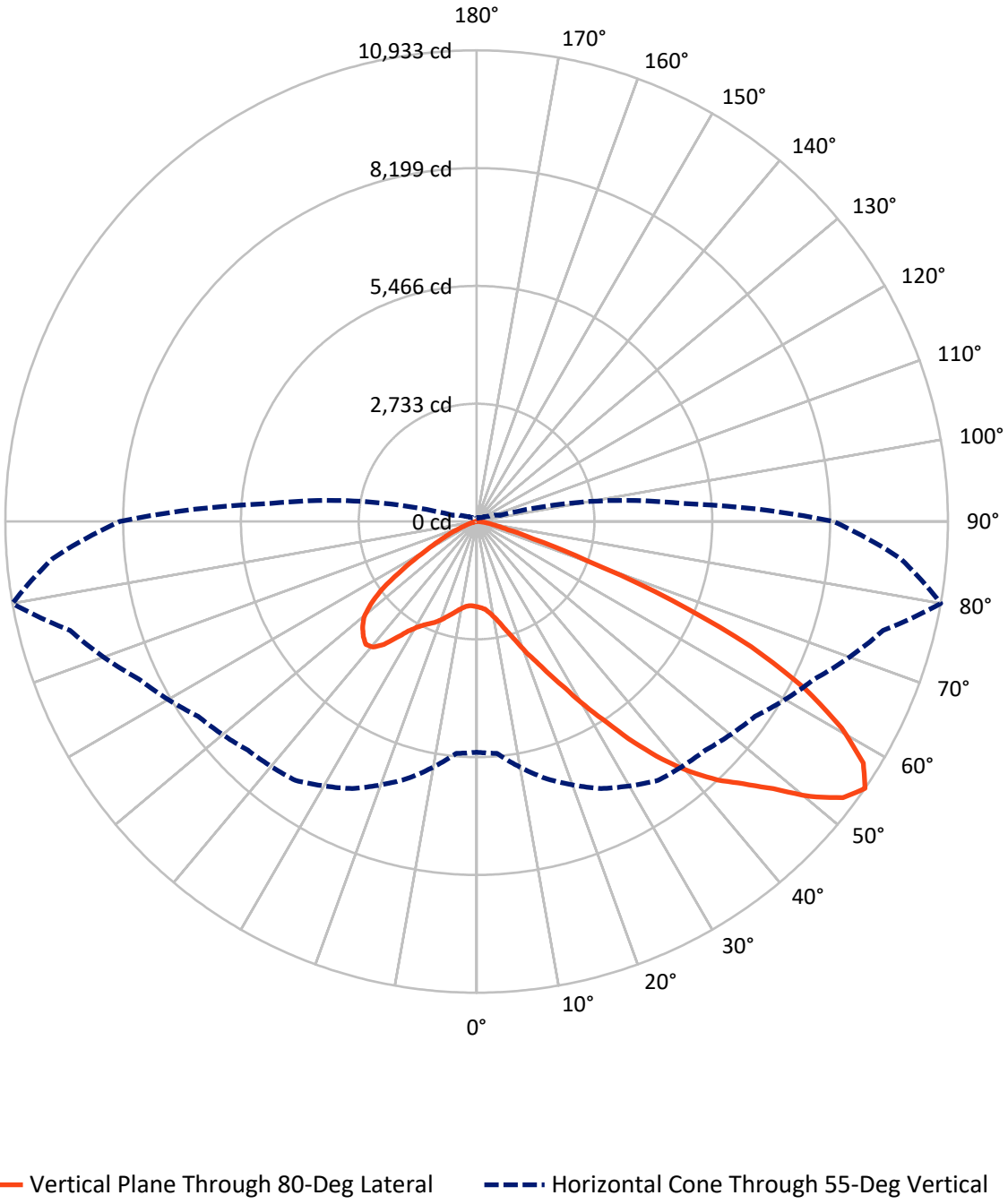
## Luminous Intensity Polar Plot



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REPORT NUMBER: P1458502
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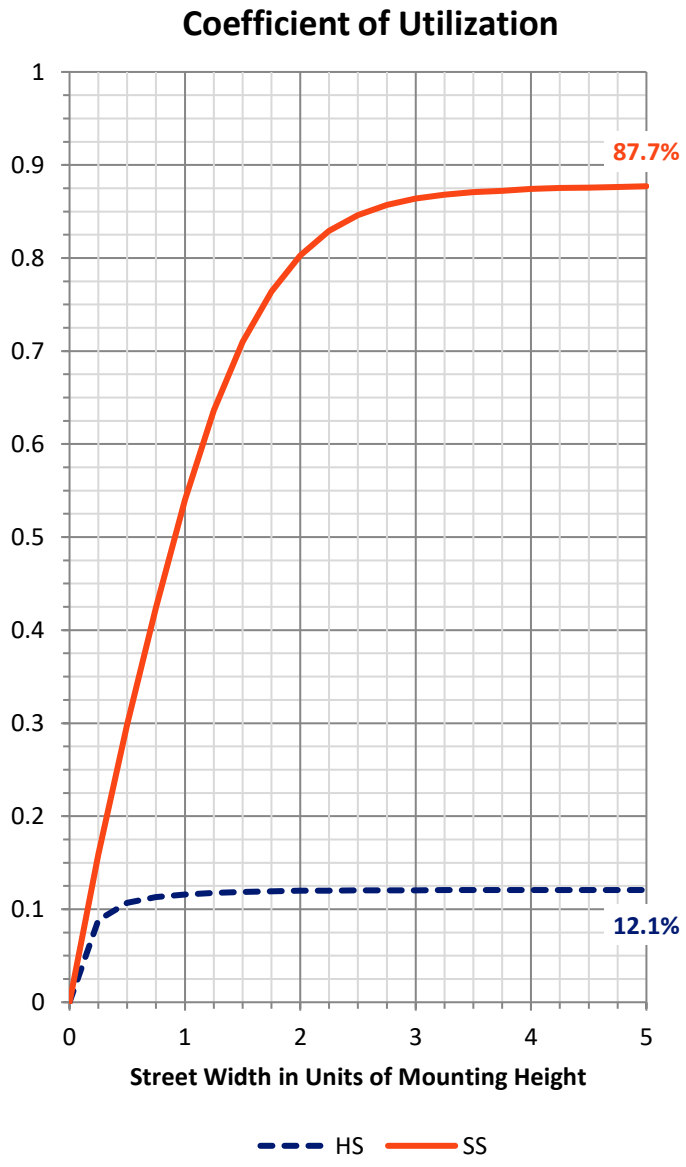
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1725.7 | 0.0 | 1725.7 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| **Street Side** | Lumens | 12470.2 | 0.0 | 12470.2 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| **Total** | Lumens | 14195.8 | 0.0 | 14195.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 165.9 | 1.2 |
| 10°-20° | 437.5 | 3.1 |
| 20°-30° | 856.5 | 6.0 |
| 30°-40° | 1742.5 | 12.3 |
| 40°-50° | 2937.6 | 20.7 |
| 50°-60° | 3753.3 | 26.4 |
| 60°-70° | 3204.5 | 22.6 |
| 70°-80° | 1024.0 | 7.2 |
| 80°-90° | 73.9 | 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° | 14195.8 | 100.0 |
| 0°-180° | 14195.8 | 100.0 |



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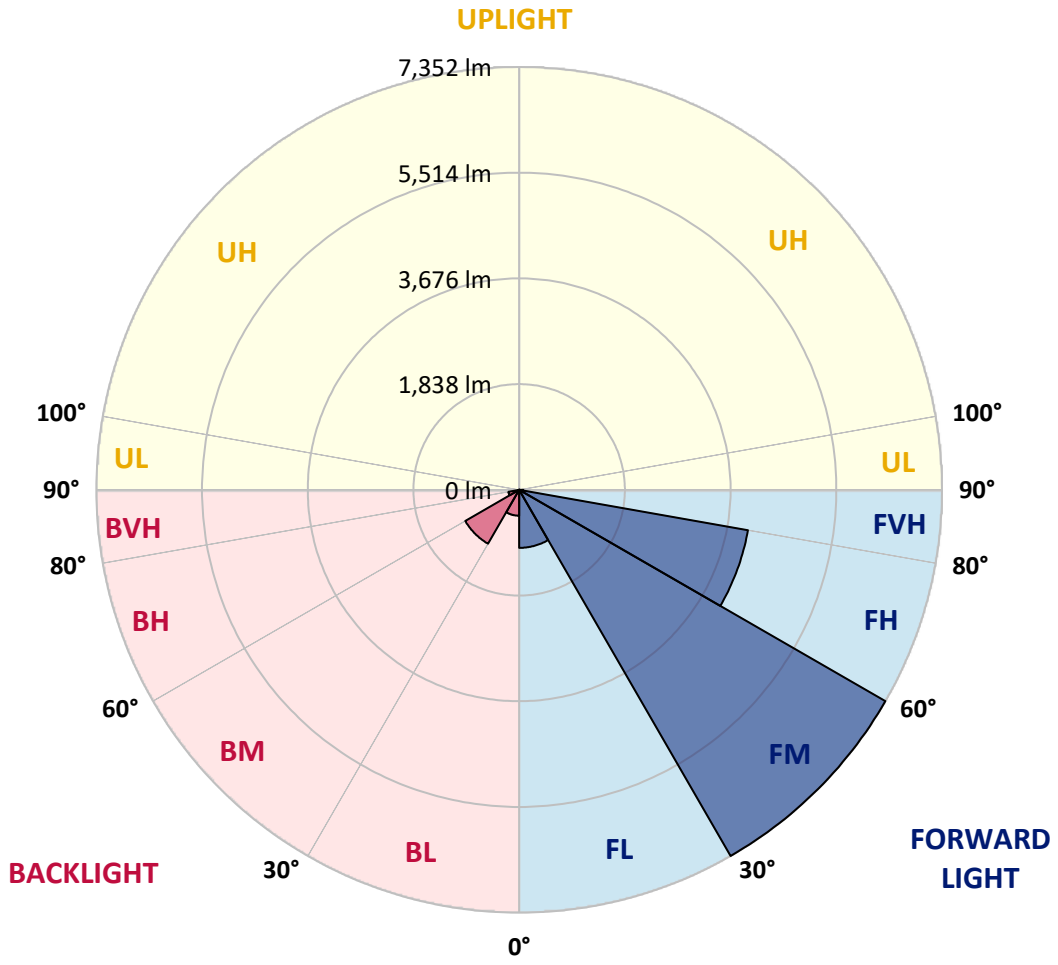
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1009.3 | 7.1 | | | |
| FM | (30°-60°) | 7351.9 | 51.8 | | | |
| FH | (60°-80°) | 4038.8 | 28.5 | | | G2/5000 |
| FVH | (80°-90°) | 70.1 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 450.6 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 1081.5 | 7.6 | B2/2500 | | |
| BH | (60°-80°) | 189.7 | 1.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 3.9 | 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-G2**
Type III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | *1977.5* | 1977.5 |
| 2.5° | 1989.6 | 1993.6 | 1989.6 | 1993.6 | 2001.7 | 1997.6 | 2013.8 | 2009.7 | 2009.7 | *2005.7* | 1989.6 |
| 5° | 1876.6 | 1880.6 | 1888.7 | 1908.8 | 1937.1 | 1965.3 | 2001.7 | 2025.9 | 2050.1 | *2046.1* | 2029.9 |
| 7.5° | 1654.6 | 1662.7 | 1695.0 | 1735.3 | 1828.1 | 1912.9 | 2005.7 | 2066.2 | 2118.7 | *2134.8* | 2122.7 |
| 10° | 1529.5 | 1537.6 | 1557.7 | 1598.1 | 1682.9 | 1824.1 | 2005.7 | 2130.8 | 2223.6 | *2255.9* | 2259.9 |
| 12.5° | 1517.4 | 1521.4 | 1537.6 | 1582.0 | 1654.6 | 1775.7 | 2001.7 | 2215.6 | 2372.9 | *2421.4* | 2437.5 |
| 15° | 1525.5 | 1533.5 | 1549.7 | 1586.0 | 1670.7 | 1808.0 | 2034.0 | 2348.7 | 2570.7 | *2639.3* | 2643.3 |
| 17.5° | 1557.7 | 1565.8 | 1586.0 | 1626.4 | 1719.2 | 1892.7 | 2134.8 | 2485.9 | 2808.8 | *2885.5* | 2929.9 |
| 20° | 1622.3 | 1626.4 | 1650.6 | 1703.0 | 1808.0 | 1997.6 | 2284.2 | 2671.6 | 3095.3 | *3208.3* | 3240.6 |
| 22.5° | 1707.1 | 1719.2 | 1751.5 | 1816.0 | 1949.2 | 2142.9 | 2490.0 | 2897.6 | 3410.1 | *3527.1* | 3583.6 |
| 25° | 1799.9 | 1816.0 | 1864.5 | 1969.4 | 2138.9 | 2364.9 | 2744.2 | 3196.2 | 3781.4 | *3922.6* | 3999.3 |
| 27.5° | 1989.6 | 1993.6 | 2025.9 | 2159.1 | 2377.0 | 2655.4 | 3067.1 | 3579.6 | 4217.2 | *4382.7* | 4467.4 |
| 30° | 2405.2 | 2409.3 | 2381.0 | 2417.3 | 2639.3 | 2998.5 | 3446.4 | 4027.6 | 4725.7 | *4955.7* | 5024.3 |
| 32.5° | 2913.7 | 2933.9 | 2929.9 | 2905.6 | 3006.5 | 3341.5 | 3898.4 | 4564.3 | 5323.0 | *5565.1* | 5629.7 |
| 35° | 3490.8 | 3539.2 | 3527.1 | 3519.1 | 3531.2 | 3781.4 | 4415.0 | 5157.5 | 6001.0 | *6295.6* | 6348.0 |
| 37.5° | 4055.8 | 4067.9 | 4124.4 | 4193.0 | 4201.1 | 4374.6 | 5012.2 | 5787.1 | 6630.5 | *7005.8* | 7086.6 |
| 40° | 4491.6 | 4532.0 | 4673.2 | 4810.5 | 4951.7 | 5088.9 | 5504.6 | 6295.6 | 7130.9 | *7635.4* | 7671.7 |
| 42.5° | 4830.6 | 4927.5 | 5133.3 | 5347.2 | 5633.7 | 5787.1 | 5972.7 | 6654.7 | 7538.5 | *8196.3* | 8180.2 |
| 45° | 5242.3 | 5282.6 | 5573.2 | 5855.7 | 6146.3 | 6380.3 | 6376.3 | 6957.4 | 7857.4 | *8676.6* | 8575.7 |
| 47.5° | 5520.7 | 5569.2 | 5964.6 | 6295.6 | 6594.2 | 6711.2 | 6735.5 | 7284.3 | 8297.2 | *9257.7* | 9019.6 |
| 50° | 5670.0 | 5754.8 | 6186.6 | 6606.3 | 6929.2 | 6965.5 | 7074.4 | 7712.1 | 8874.3 | *10028.5* | 9580.6 |
| 52.5° | 5686.2 | 5766.9 | 6263.3 | 6804.1 | 7155.2 | 7227.8 | 7413.4 | 8196.3 | 9435.3 | *10646.0* | 9903.4 |
| 55° | *5351.2* | *5399.7* | *6170.5* | *6836.3* | *7332.7* | *7502.2* | *7881.6* | *8644.3* | *9762.2* | *10932.5* | *9875.2* |
| 57.5° | 5036.5 | 5084.9 | 5754.8 | 6779.8 | 7514.3 | 7861.4 | 8382.0 | 8951.0 | 9507.9 | *10577.4* | 9245.6 |
| 60° | 4766.1 | 4790.3 | 5399.7 | 6517.5 | 7582.9 | 8212.5 | 8813.8 | 8648.3 | 8850.1 | *9725.8* | 8168.1 |
| 62.5° | 4257.6 | 4273.7 | 4996.1 | 6045.4 | 7445.7 | 8482.9 | 8963.1 | 8006.7 | 8127.7 | *8551.5* | 6900.9 |
| 65° | 3216.4 | 3276.9 | 3938.8 | 5690.2 | 7219.7 | 8608.0 | 8616.1 | 7223.8 | 7098.7 | *6997.8* | 5427.9 |
| 67.5° | 2183.3 | 2251.9 | 2651.4 | 5117.2 | 6852.5 | 8660.4 | 7942.1 | 6210.8 | 5407.7 | *4887.1* | 3555.4 |
| 70° | 1743.4 | 1743.4 | 1880.6 | 4112.3 | 5980.8 | 7990.5 | 7106.7 | 4689.4 | 3434.3 | *2699.8* | 1904.8 |
| 72.5° | 1146.1 | 1150.2 | 1279.3 | 2611.0 | 4241.4 | 6093.8 | 5795.2 | 2711.9 | 1783.7 | *1376.1* | 940.3 |
| 75° | 415.7 | 415.7 | 561.0 | 1045.2 | 2243.8 | 3628.0 | 3531.2 | 1295.4 | 968.5 | *750.6* | 569.0 |
| 77.5° | 222.0 | 230.0 | 270.4 | 431.8 | 859.6 | 1477.0 | 1380.2 | 661.8 | 548.8 | *468.1* | 355.1 |
| 80° | 149.3 | 153.4 | 181.6 | 266.4 | 415.7 | 569.0 | 443.9 | 371.3 | 371.3 | *314.8* | 238.1 |
| 82.5° | 80.7 | 84.7 | 121.1 | 173.5 | 222.0 | 266.4 | 213.9 | 217.9 | 262.3 | *213.9* | 137.2 |
| 85° | 56.5 | 56.5 | 92.8 | 125.1 | 125.1 | 129.1 | 92.8 | 137.2 | 153.4 | *133.2* | 92.8 |
| 87.5° | 32.3 | 32.3 | 52.5 | 60.5 | 60.5 | 56.5 | 28.2 | 48.4 | 60.5 | *68.6* | 40.4 |
| 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: P1458502
CATALOG NUMBER: GLAN-SB3D-927-U-T3LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 | 1977.5 |
| 2.5° | 1985.5 | 1973.4 | 1949.2 | 1900.8 | 1876.6 | 1844.3 | 1816.0 | 1779.7 | 1771.6 | 1767.6 | 1751.5 |
| 5° | 2017.8 | 1993.6 | 1921.0 | 1816.0 | 1727.2 | 1642.5 | 1557.7 | 1509.3 | 1469.0 | 1448.8 | 1444.8 |
| 7.5° | 2098.5 | 2050.1 | 1916.9 | 1731.3 | 1565.8 | 1420.5 | 1295.4 | 1186.5 | 1130.0 | 1081.5 | 1085.6 |
| 10° | 2219.6 | 2142.9 | 1925.0 | 1650.6 | 1404.4 | 1170.3 | 988.7 | 831.3 | 718.3 | 665.9 | 661.8 |
| 12.5° | 2381.0 | 2272.1 | 1953.2 | 1569.9 | 1206.7 | 879.8 | 649.7 | 556.9 | 532.7 | 528.7 | 524.6 |
| 15° | 2578.8 | 2425.4 | 1981.5 | 1464.9 | 940.3 | 609.4 | 528.7 | 508.5 | 504.5 | 500.4 | 500.4 |
| 17.5° | 2816.9 | 2603.0 | 1997.6 | 1287.4 | 686.1 | 524.6 | 496.4 | 484.3 | 480.2 | 476.2 | 476.2 |
| 20° | 3115.5 | 2800.7 | 2017.8 | 1061.4 | 581.1 | 504.5 | 472.2 | 456.0 | 452.0 | 452.0 | 448.0 |
| 22.5° | 3410.1 | 3022.7 | 2001.7 | 863.6 | 561.0 | 480.2 | 443.9 | 427.8 | 419.7 | 419.7 | 415.7 |
| 25° | 3749.1 | 3248.7 | 1953.2 | 778.9 | 556.9 | 460.1 | 415.7 | 391.5 | 379.3 | 375.3 | 375.3 |
| 27.5° | 4136.5 | 3507.0 | 1876.6 | 782.9 | 556.9 | 443.9 | 379.3 | 347.1 | 339.0 | 330.9 | 330.9 |
| 30° | 4580.4 | 3821.7 | 1820.1 | 835.4 | 565.0 | 427.8 | 347.1 | 306.7 | 294.6 | 286.5 | 290.6 |
| 32.5° | 5088.9 | 4172.8 | 1816.0 | 920.1 | 577.1 | 403.6 | 310.7 | 266.4 | 254.2 | 250.2 | 254.2 |
| 35° | 5666.0 | 4608.7 | 1908.8 | 984.7 | 544.8 | 351.1 | 266.4 | 230.0 | 217.9 | 217.9 | 222.0 |
| 37.5° | 6307.7 | 5109.1 | 2034.0 | 968.5 | 439.9 | 278.5 | 230.0 | 201.8 | 189.7 | 193.7 | 197.7 |
| 40° | 6892.8 | 5500.6 | 2054.1 | 827.3 | 330.9 | 238.1 | 197.7 | 177.6 | 169.5 | 173.5 | 177.6 |
| 42.5° | 7336.8 | 5815.3 | 1860.4 | 641.7 | 278.5 | 201.8 | 169.5 | 153.4 | 149.3 | 157.4 | 157.4 |
| 45° | 7695.9 | 5940.4 | 1553.7 | 476.2 | 246.2 | 173.5 | 149.3 | 141.2 | 133.2 | 137.2 | 137.2 |
| 47.5° | 8071.2 | 5960.6 | 1267.2 | 383.4 | 217.9 | 157.4 | 137.2 | 129.1 | 121.1 | 121.1 | 121.1 |
| 50° | 8434.4 | 5912.2 | 968.5 | 339.0 | 201.8 | 141.2 | 125.1 | 117.0 | 109.0 | 104.9 | 104.9 |
| 52.5° | 8523.2 | 5524.8 | 710.3 | 314.8 | 185.6 | 133.2 | 117.0 | 109.0 | 100.9 | 96.9 | 96.9 |
| 55° | *8277.1* | *4790.3* | *556.9* | *282.5* | *169.5* | *121.1* | *109.0* | *100.9* | *88.8* | *84.7* | *84.7* |
| 57.5° | 7465.9 | 3652.2 | 443.9 | 242.1 | 153.4 | 117.0 | 100.9 | 92.8 | 80.7 | 76.7 | 76.7 |
| 60° | 6412.6 | 2590.9 | 359.2 | 197.7 | 141.2 | 104.9 | 92.8 | 80.7 | 72.6 | 64.6 | 64.6 |
| 62.5° | 5246.3 | 1860.4 | 290.6 | 165.5 | 133.2 | 92.8 | 84.7 | 72.6 | 56.5 | 44.4 | 44.4 |
| 65° | 4023.5 | 1335.8 | 226.0 | 133.2 | 121.1 | 80.7 | 72.6 | 60.5 | 44.4 | 32.3 | 32.3 |
| 67.5° | 2603.0 | 863.6 | 169.5 | 117.0 | 92.8 | 68.6 | 56.5 | 48.4 | 40.4 | 28.2 | 24.2 |
| 70° | 1372.1 | 504.5 | 125.1 | 100.9 | 68.6 | 52.5 | 48.4 | 40.4 | 32.3 | 20.2 | 20.2 |
| 72.5° | 710.3 | 330.9 | 92.8 | 88.8 | 52.5 | 36.3 | 40.4 | 32.3 | 24.2 | 12.1 | 12.1 |
| 75° | 456.0 | 222.0 | 68.6 | 72.6 | 32.3 | 28.2 | 28.2 | 20.2 | 12.1 | 8.1 | 4.0 |
| 77.5° | 294.6 | 149.3 | 48.4 | 60.5 | 20.2 | 16.1 | 16.1 | 8.1 | 4.0 | 0.0 | 0.0 |
| 80° | 173.5 | 92.8 | 32.3 | 40.4 | 8.1 | 8.1 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 88.8 | 48.4 | 16.1 | 16.1 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 56.5 | 24.2 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 28.2 | 8.1 | 4.0 | 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: SP1-2407-184-13

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-927-U-5WQ

Data in this report applies to families of products including GSS-SB1A-927-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

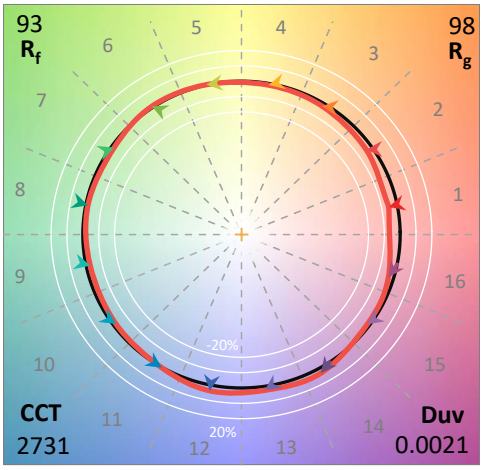
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-13 |
| 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-927-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 2700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2731 |
| CIE u': | 0.2605 |
| CIE v': | 0.5298 |
| Duv: | 0.0021 |
| CIE x: | 0.4610 |
| CIE y: | 0.4166 |
| CIE z: | 0.1224 |
| Peak Wavelength (nm): | 622 |
| Dominant Wavelength (nm): | 583 |
| Purity: | 63.43685 |
| Rf: | 92.6 |
| Rg: | 98 |

| | | | | | |
|---|---|---|---|---|---|
| CRI (Ra): | 91.8 | | | | |
| R1: | 91.4 | R9: | 54.7 | | |
| R2: | 95.1 | R10: | 87.7 | | |
| R3: | 97.6 | R11: | 92.9 | | |
| R4: | 92.3 | R12: | 84.0 | | |
| R5: | 91.1 | R13: | 92.2 | | |
| R6: | 94.7 | R14: | 97.8 | | |
| R7: | 92.3 | R15: | 86.8 | | |
| R8: | 80.0 | | | | |




## Test Conditions

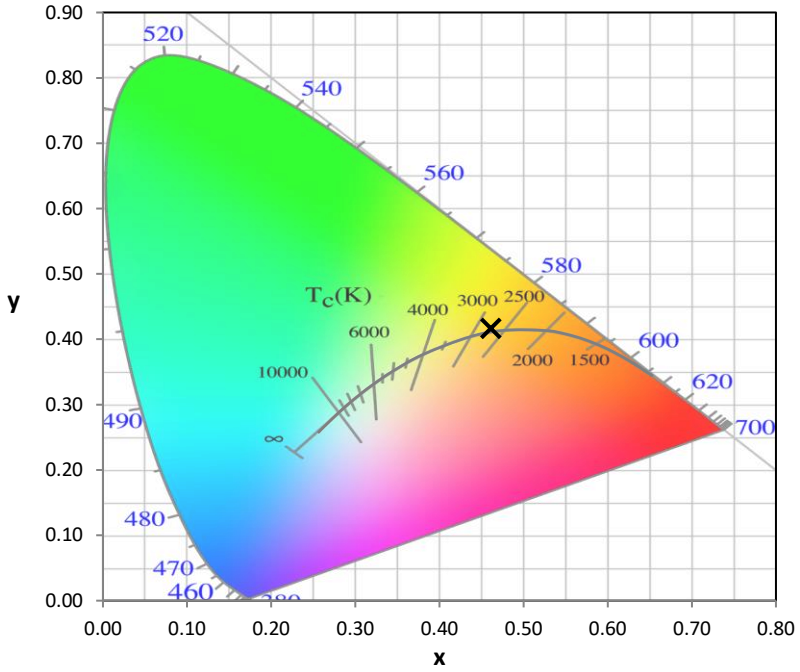
| | |
|---|---|
| Stabilization Time: | M |
| Operation Time: | 1H 0M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-13

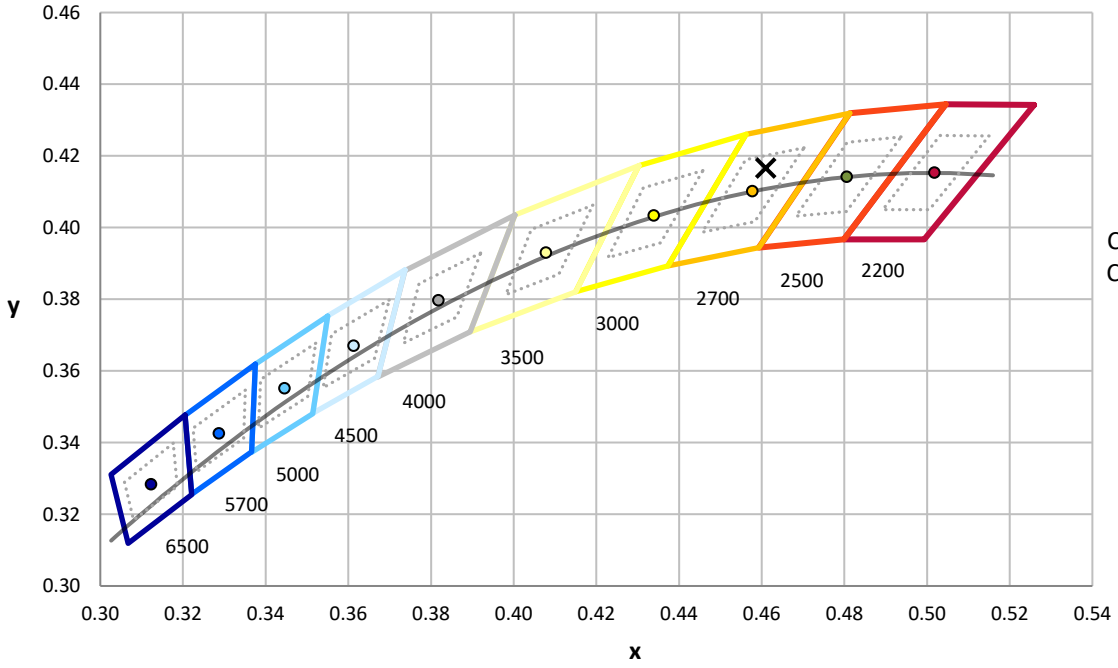
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC 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: SP1-2407-184-13

## CIE 1931 Chromaticity Diagram




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




CCT = 2731K
CIE x = 0.4610
CIE y = 0.4166
Duv = 0.0021

Point lies inside the ANSI 2700K 4-step quadrangle

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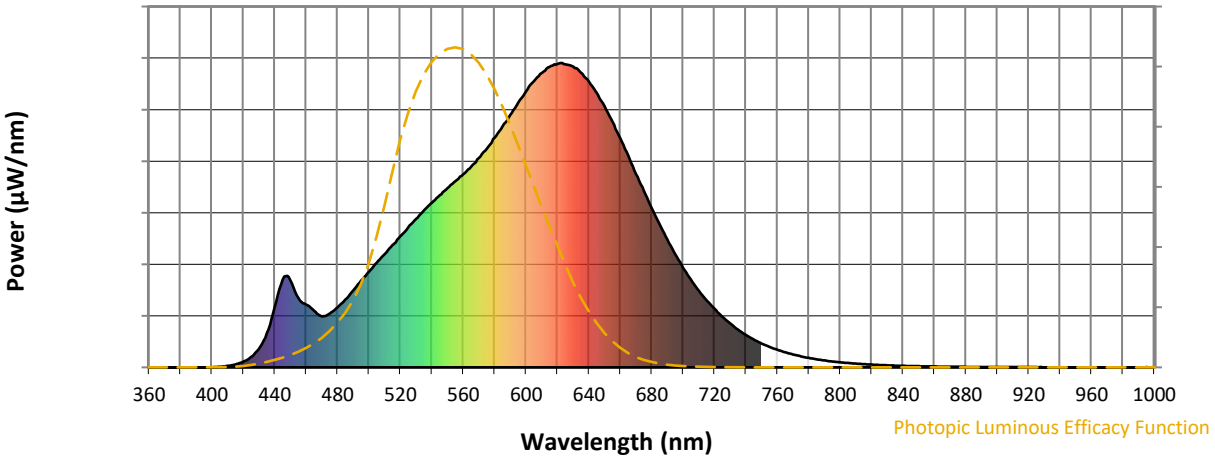
## Photopic Flux vs. Wavelength




## 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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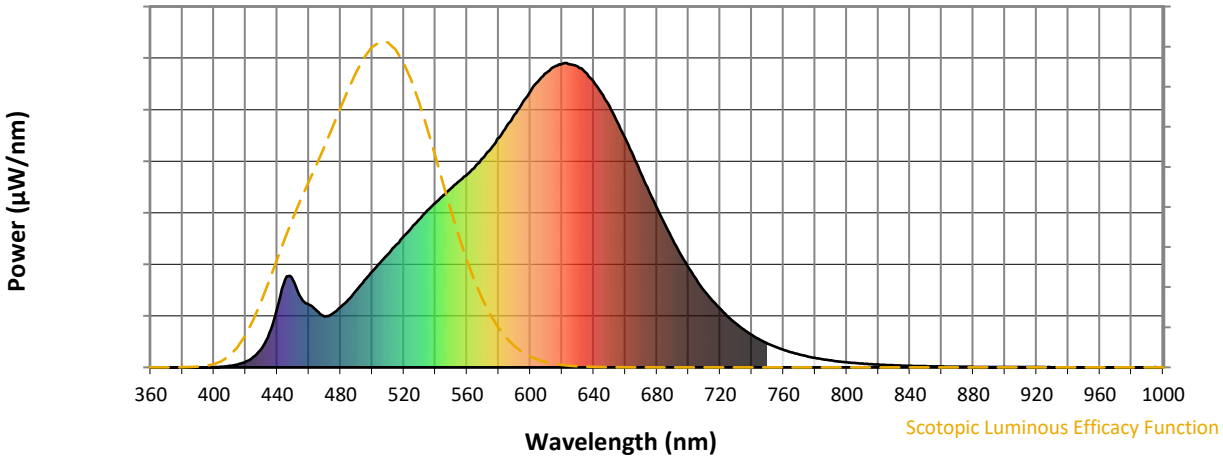
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.27**

| 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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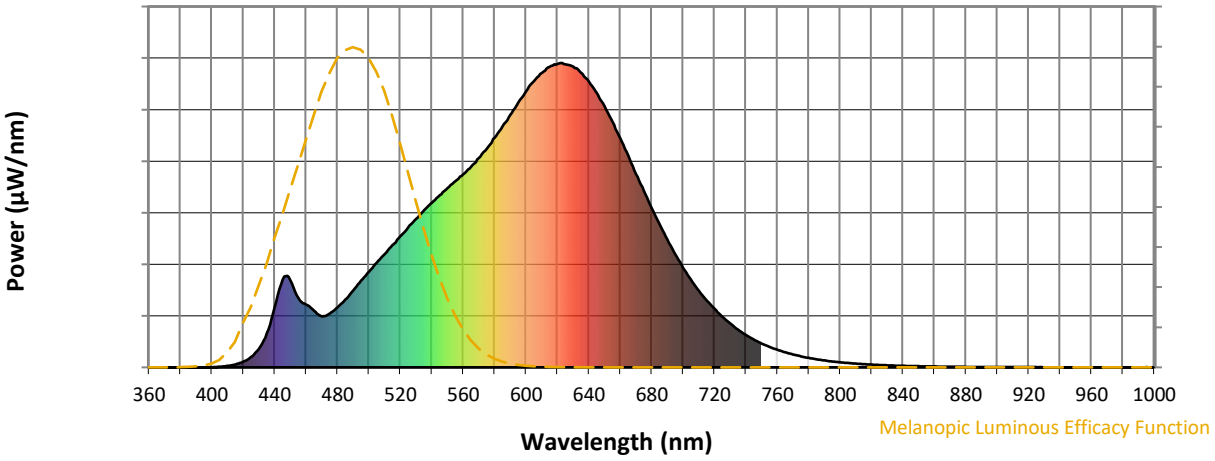
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.38**

| 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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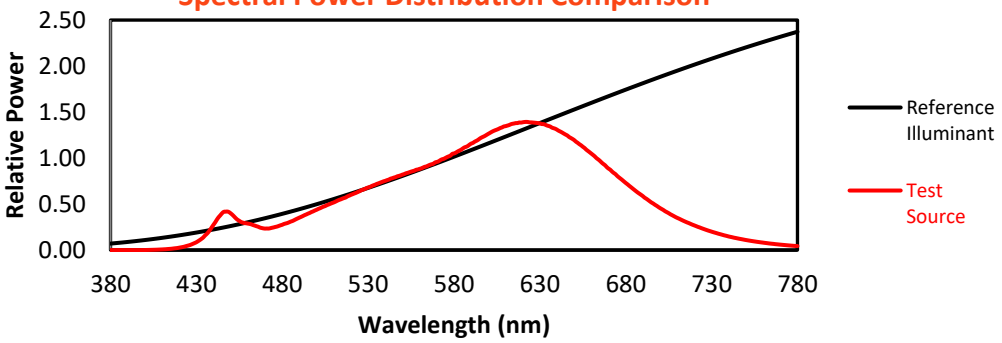
# TM-30-18

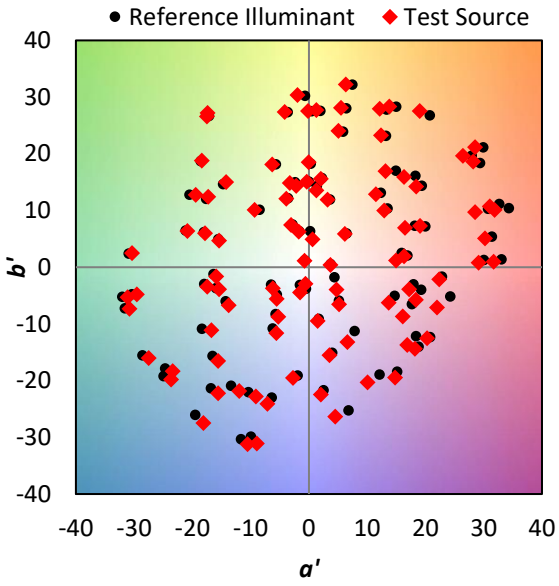
## Summary

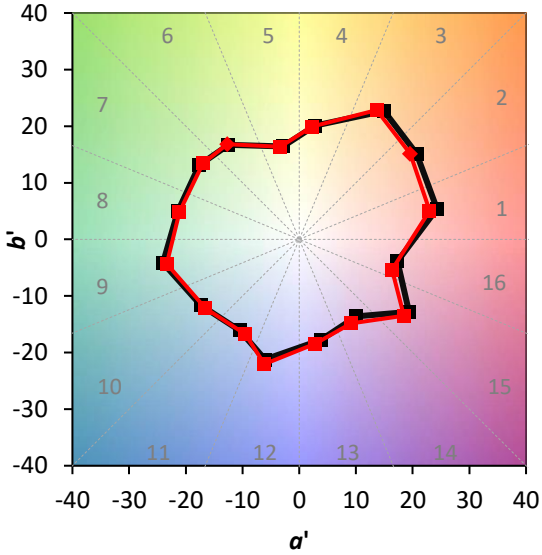
$R_f$ = 92.6
$R_g$ = 98
CIE $R_a$ = 91.8
$R_9$ = 54.7

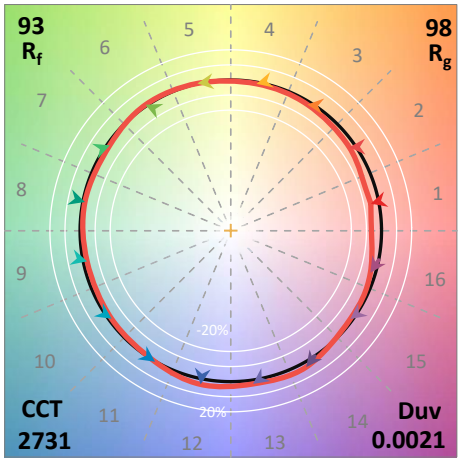
## Spectral Power Distribution Comparison

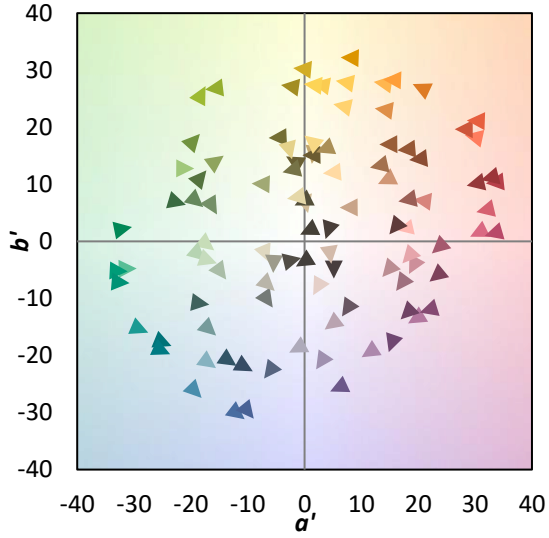



## Color Vector Graphics



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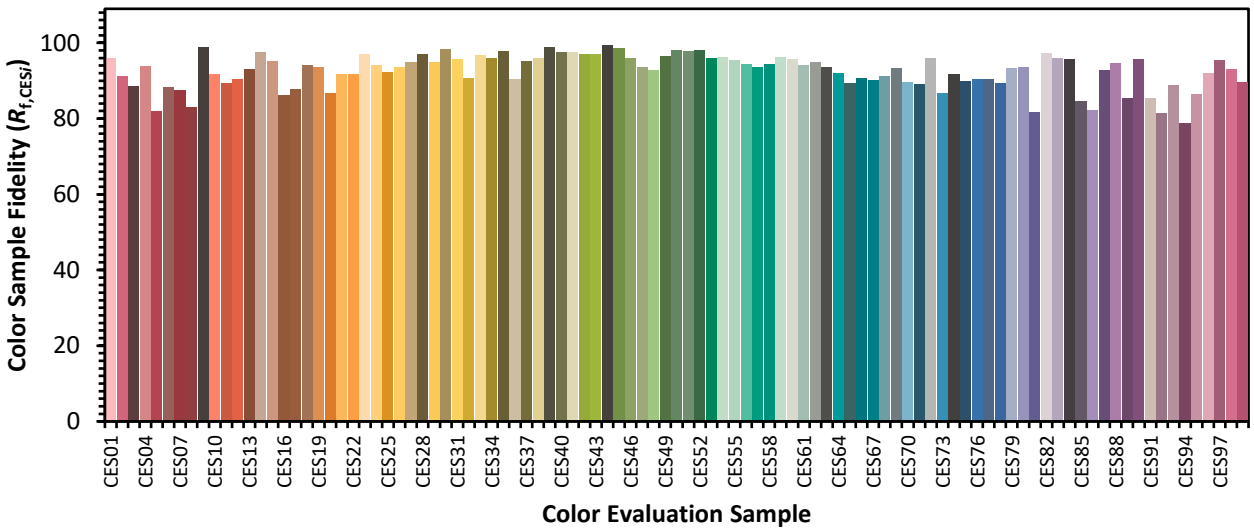
**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 94 | CES51 = 98 | CES76 = 90 |
| CES02 = 64 | CES27 = 95 | CES52 = 98 | CES77 = 90 |
| CES03 = 32 | CES28 = 97 | CES53 = 96 | CES78 = 89 |
| CES04 = 71 | CES29 = 95 | CES54 = 96 | CES79 = 93 |
| CES05 = 51 | CES30 = 98 | CES55 = 95 | CES80 = 94 |
| CES06 = 52 | CES31 = 96 | CES56 = 94 | CES81 = 82 |
| CES07 = 44 | CES32 = 91 | CES57 = 94 | CES82 = 97 |
| CES08 = 43 | CES33 = 97 | CES58 = 94 | CES83 = 96 |
| CES09 = 29 | CES34 = 96 | CES59 = 96 | CES84 = 96 |
| CES10 = 77 | CES35 = 98 | CES60 = 96 | CES85 = 85 |
| CES11 = 59 | CES36 = 90 | CES61 = 94 | CES86 = 82 |
| CES12 = 66 | CES37 = 95 | CES62 = 95 | CES87 = 93 |
| CES13 = 44 | CES38 = 96 | CES63 = 94 | CES88 = 95 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 85 |
| CES15 = 72 | CES40 = 98 | CES65 = 89 | CES90 = 96 |
| CES16 = 48 | CES41 = 98 | CES66 = 91 | CES91 = 85 |
| CES17 = 50 | CES42 = 97 | CES67 = 90 | CES92 = 82 |
| CES18 = 57 | CES43 = 97 | CES68 = 91 | CES93 = 89 |
| CES19 = 72 | CES44 = 99 | CES69 = 93 | CES94 = 79 |
| CES20 = 68 | CES45 = 99 | CES70 = 90 | CES95 = 87 |
| CES21 = 87 | CES46 = 96 | CES71 = 89 | CES96 = 92 |
| CES22 = 79 | CES47 = 94 | CES72 = 96 | CES97 = 96 |
| CES23 = 92 | CES48 = 93 | CES73 = 87 | CES98 = 93 |
| CES24 = 91 | CES49 = 96 | CES74 = 92 | CES99 = 90 |
| CES25 = 72 | CES50 = 98 | CES75 = 90 | |



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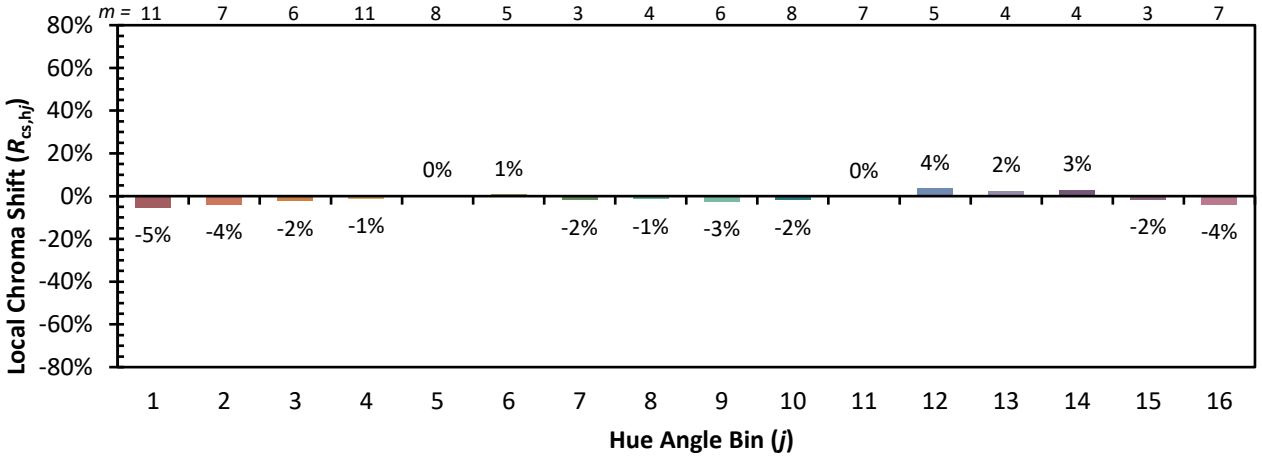
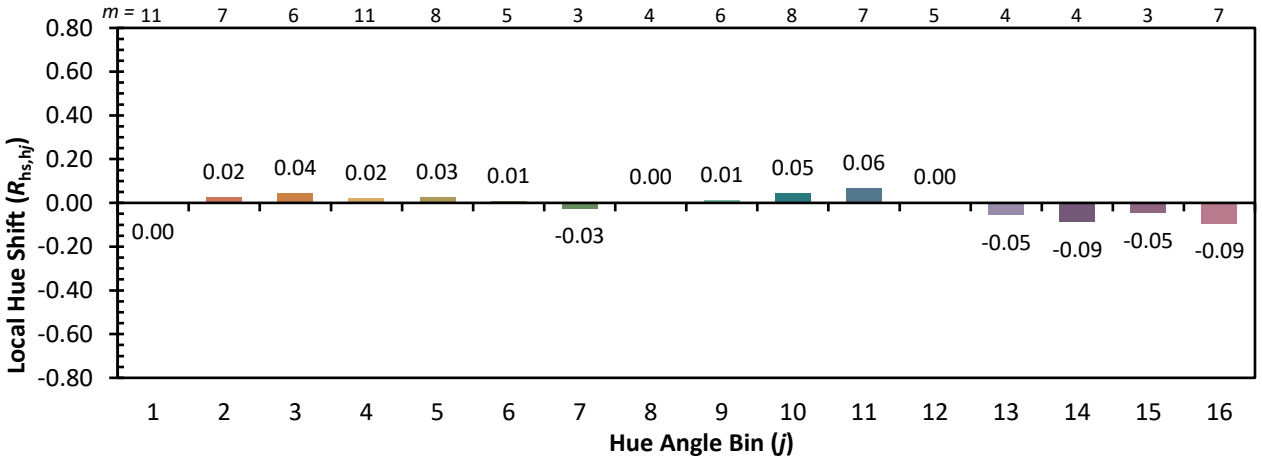
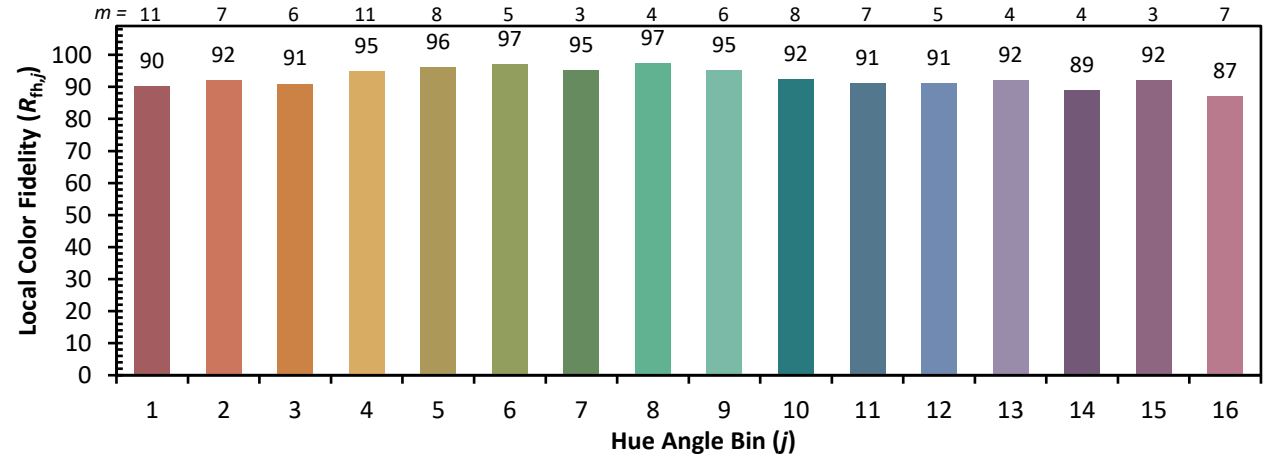
## Color Rendition by Hue-Angle Bin



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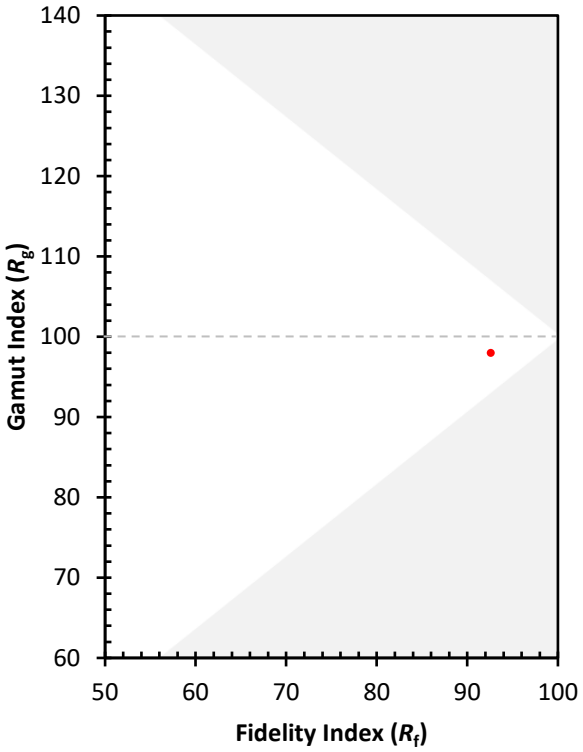
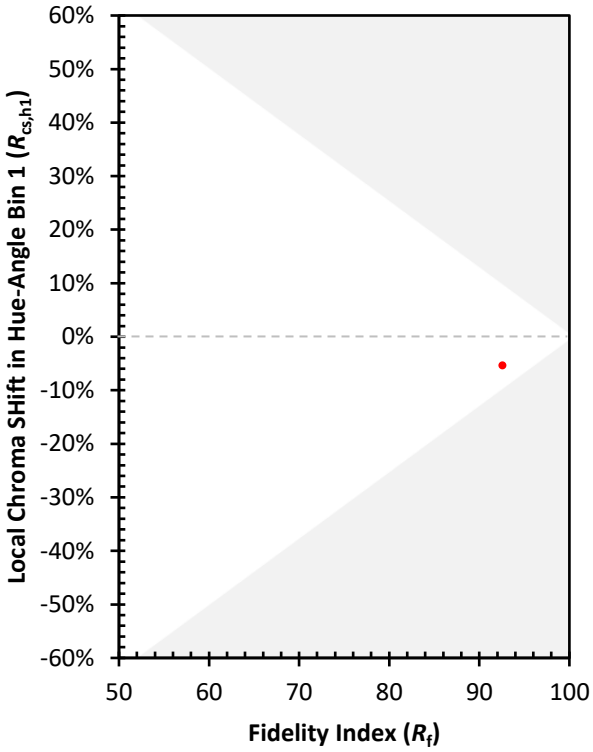
## Measure Comparisons




(END OF REPORT)