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

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1363404

Luminaire Tested: **GSS-SB2B-727-U-SL3**

Issue Date: 02/18/2026

Report Generated By 670245763

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P1363404 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB2B-727-U-SL3 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 2SQUARE 74W 70CRI 2700K FIXTURE w/ TYPE III SPILL CONTROL DISTRIBUTION OPTIC |
| Light Source: | (52) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9062.3 lumens |
| Efficiency: | N/A |
| Efficacy: | 122.5 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B2 - U0 - G2 |

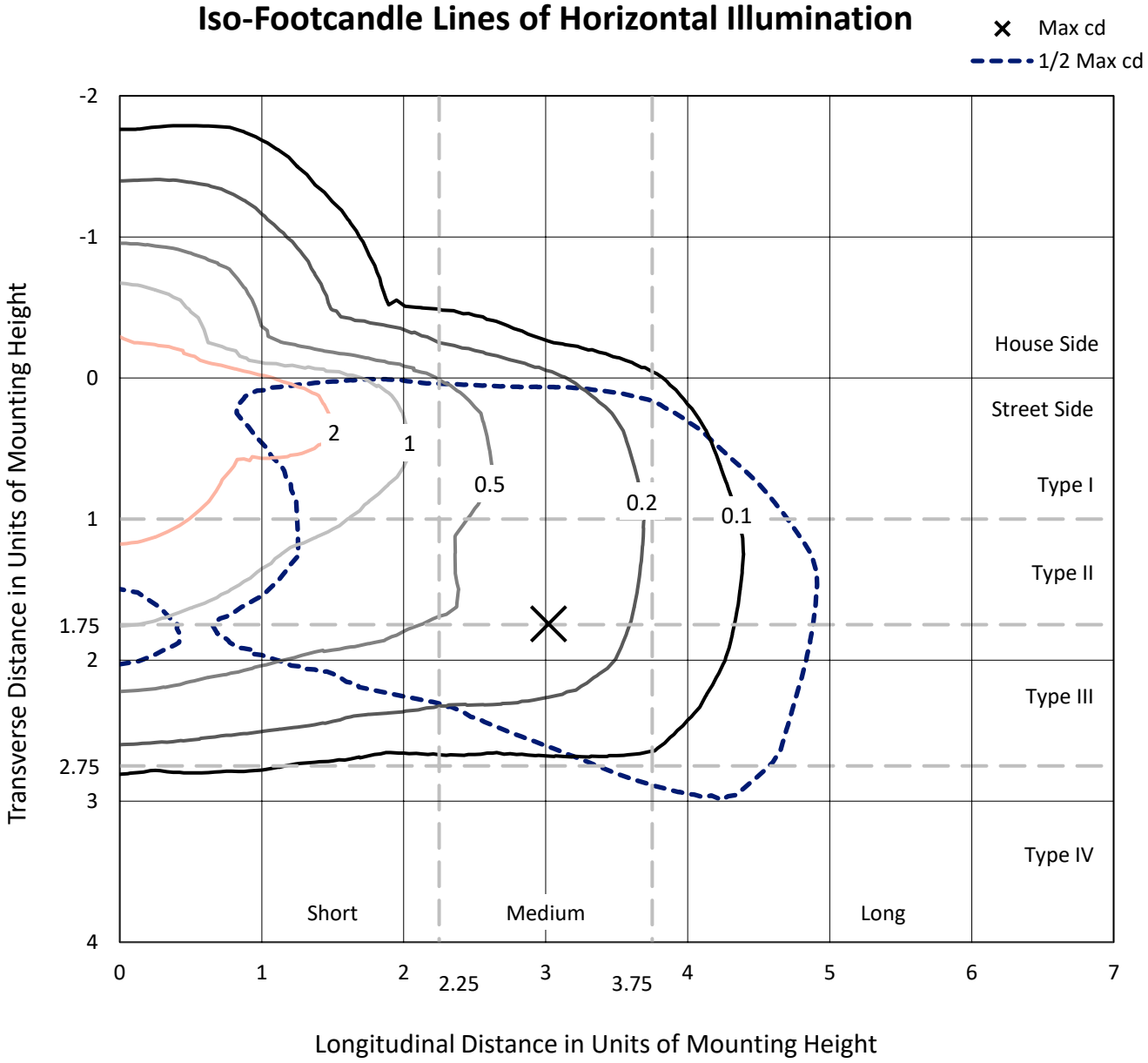
| | |
|---|---|
| Input Watts (W): | 74 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 13.6% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1363404
CATALOG NUMBER: GSS-SB2B-727-U-SL3

## Iso-Footcandle Lines of Horizontal Illumination



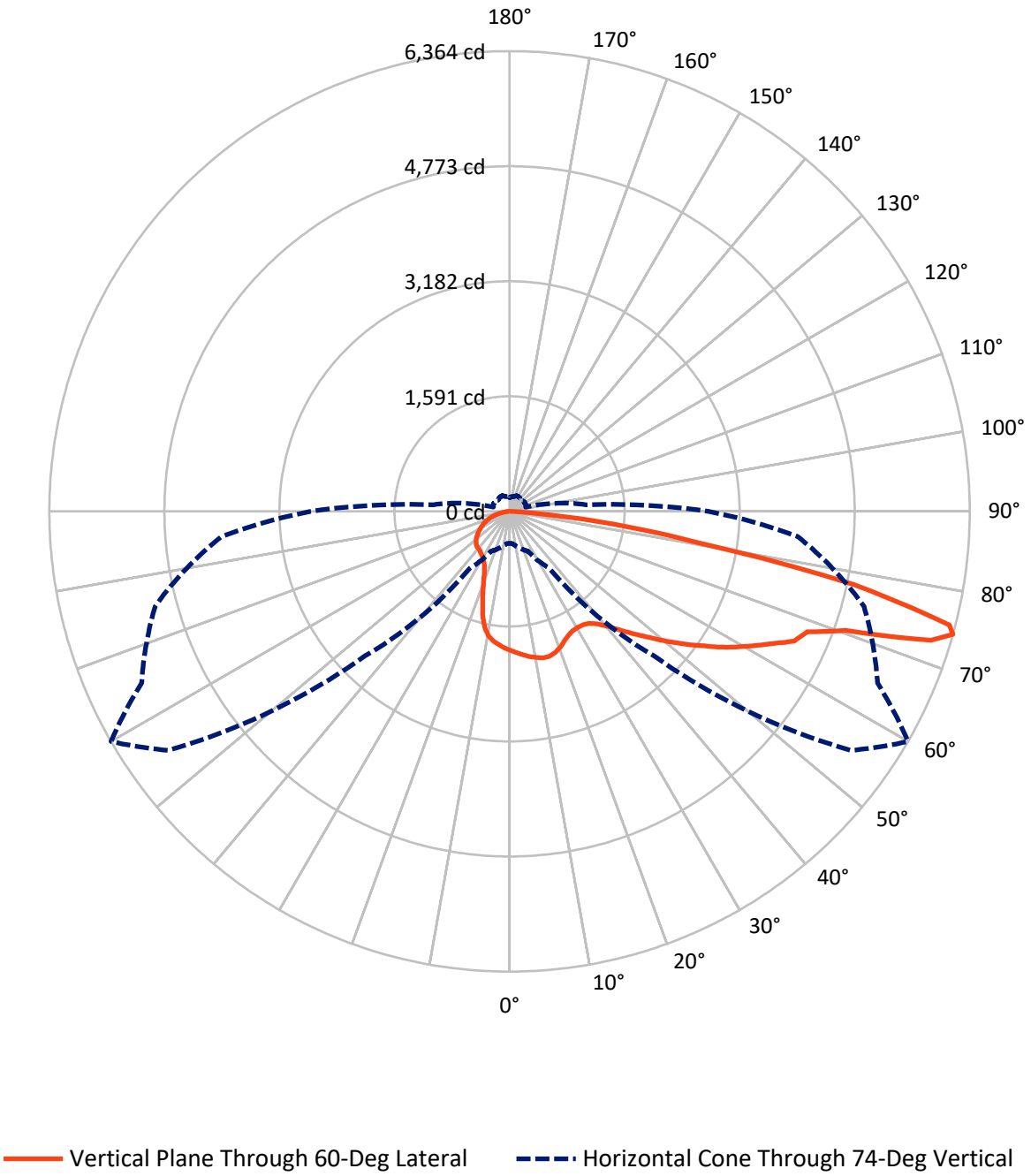

Based on 20 foot mounting height. Maximum calculated value = 4.8 fc
Type III - Medium - N/A

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Scaled Data Report

REPORT NUMBER: P1363404
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## Luminous Intensity Polar Plot



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Scaled Data Report

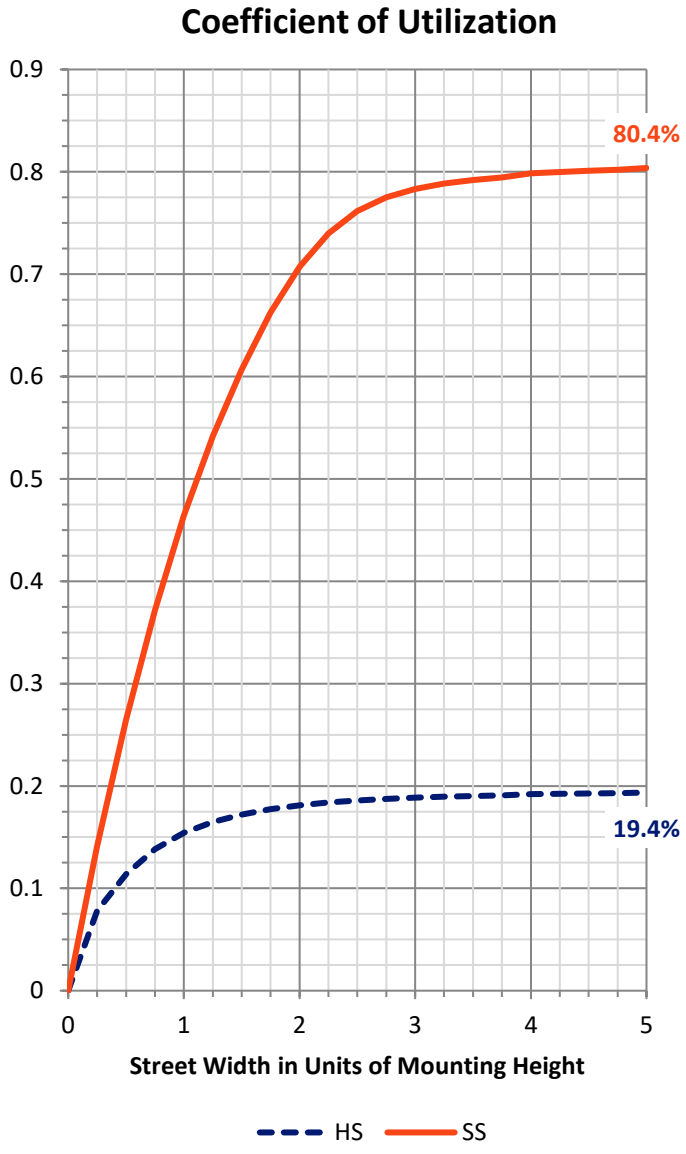
REPORT NUMBER: P1363404
CATALOG NUMBER: GSS-SB2B-727-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1768.9 | 0.0 | 1768.9 |
| | % Fixture | 19.5 | 0.0 | 19.5 |
| **Street Side** | Lumens | 7293.4 | 0.0 | 7293.4 |
| | % Fixture | 80.5 | 0.0 | 80.5 |
| **Total** | Lumens | 9062.3 | 0.0 | 9062.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 176.9 | 2.0 |
| 10°-20° | 434.0 | 4.8 |
| 20°-30° | 648.9 | 7.2 |
| 30°-40° | 925.0 | 10.2 |
| 40°-50° | 1330.0 | 14.7 |
| 50°-60° | 1780.8 | 19.7 |
| 60°-70° | 2091.2 | 23.1 |
| 70°-80° | 1491.5 | 16.5 |
| 80°-90° | 184.1 | 2.0 |
| 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° | 9062.3 | 100.0 |
| 0°-180° | 9062.3 | 100.0 |



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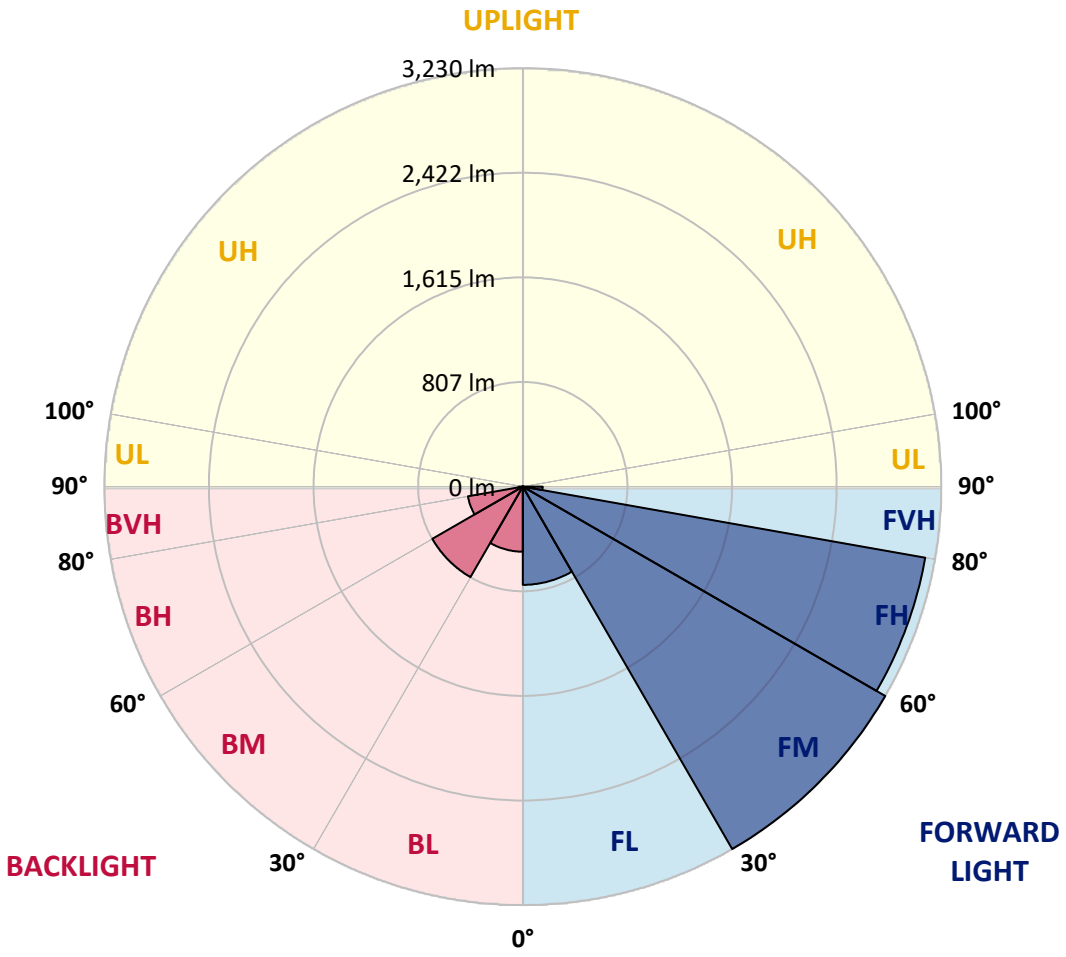
Scaled Data Report

REPORT NUMBER: P1363404
CATALOG NUMBER: GSS-SB2B-727-U-SL3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 757.7 | 8.4 | | | |
| FM | (30°-60°) | 3229.6 | 35.6 | | | |
| FH | (60°-80°) | 3153.1 | 34.8 | | | G2/5000 |
| FVH | (80°-90°) | 153.0 | 1.7 | | | G2/225 |
| BL | (0°-30°) | 502.0 | 5.5 | B2/1000 | | |
| BM | (30°-60°) | 806.2 | 8.9 | B1/1000 | | |
| BH | (60°-80°) | 429.6 | 4.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 31.1 | 0.3 | | | G1/100 |
| 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 Medium



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REPORT NUMBER: P1363404
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | *1922.2* | 1922.2 | 1922.2 | 1922.2 |
| 2.5° | 1983.1 | 1985.4 | 1976.3 | 1969.6 | 1969.6 | 1958.3 | 1958.3 | *1958.3* | 1947.0 | 1944.7 | 1929.0 |
| 5° | 2005.7 | 2003.4 | 1998.9 | 2001.1 | 2003.4 | 1998.9 | 2001.1 | *1994.4* | 1978.6 | 1974.1 | 1949.3 |
| 7.5° | 1942.5 | 1942.5 | 1953.8 | 1976.3 | 2007.9 | 2023.7 | 2032.7 | *2028.2* | 2021.5 | 2007.9 | 1971.8 |
| 10° | 1714.6 | 1730.4 | 1764.3 | 1838.7 | 1931.2 | 2007.9 | 2057.5 | *2055.3* | 2057.5 | 2039.5 | 1998.9 |
| 12.5° | 1513.8 | 1520.6 | 1552.2 | 1617.6 | 1750.7 | 1915.4 | 2053.0 | *2080.1* | 2086.9 | 2075.6 | 2026.0 |
| 15° | 1405.5 | 1403.3 | 1428.1 | 1480.0 | 1581.5 | 1762.0 | 2003.4 | *2077.9* | 2118.5 | 2116.2 | 2064.3 |
| 17.5° | 1358.2 | 1360.4 | 1374.0 | 1407.8 | 1482.2 | 1631.1 | 1915.4 | *2050.8* | 2134.3 | 2161.3 | 2100.4 |
| 20° | 1380.7 | 1374.0 | 1380.7 | 1387.5 | 1428.1 | 1545.4 | 1820.7 | *2003.4* | 2147.8 | 2204.2 | 2141.0 |
| 22.5° | 1428.1 | 1421.3 | 1419.1 | 1414.6 | 1423.6 | 1495.8 | 1734.9 | *1944.7* | 2159.1 | 2260.6 | 2188.4 |
| 25° | 1511.6 | 1504.8 | 1484.5 | 1459.7 | 1448.4 | 1480.0 | 1678.5 | *1895.1* | 2170.4 | 2339.6 | 2249.3 |
| 27.5° | 1631.1 | 1622.1 | 1592.8 | 1534.1 | 1498.0 | 1502.6 | 1660.5 | *1868.0* | 2190.7 | 2416.3 | 2308.0 |
| 30° | 1809.4 | 1804.9 | 1739.4 | 1644.7 | 1570.2 | 1543.2 | 1669.5 | *1861.3* | 2213.2 | 2504.3 | 2366.6 |
| 32.5° | 1969.6 | 1965.0 | 1915.4 | 1809.4 | 1685.3 | 1608.6 | 1692.1 | *1870.3* | 2242.5 | 2617.1 | 2452.4 |
| 35° | 2100.4 | 2091.4 | 2050.8 | 1969.6 | 1843.2 | 1707.9 | 1741.7 | *1901.9* | 2305.7 | 2766.0 | 2556.1 |
| 37.5° | 2233.5 | 2226.8 | 2170.4 | 2084.6 | 2005.7 | 1845.5 | 1825.2 | *1974.1* | 2391.4 | 2969.0 | 2707.3 |
| 40° | 2393.7 | 2384.7 | 2317.0 | 2215.5 | 2145.5 | 2032.7 | 1944.7 | *2089.1* | 2522.3 | 3201.4 | 2878.8 |
| 42.5° | 2547.1 | 2538.1 | 2459.1 | 2371.1 | 2283.2 | 2213.2 | 2114.0 | *2242.5* | 2684.7 | 3496.9 | 3081.8 |
| 45° | 2725.3 | 2725.3 | 2614.8 | 2517.8 | 2425.3 | 2339.6 | 2274.1 | *2418.5* | 2874.3 | 3830.8 | 3307.4 |
| 47.5° | 2892.3 | 2876.5 | 2768.2 | 2662.2 | 2571.9 | 2409.5 | 2427.5 | *2603.5* | 3086.3 | 4169.2 | 3551.1 |
| 50° | 2946.4 | 2941.9 | 2869.7 | 2775.0 | 2698.3 | 2495.2 | 2585.5 | *2824.6* | 3325.5 | 4491.9 | 3781.2 |
| 52.5° | 3009.6 | 2989.3 | 2885.5 | 2872.0 | 2784.0 | 2603.5 | 2779.5 | *3052.5* | 3544.3 | 4785.2 | 3966.2 |
| 55° | 3088.6 | 3066.0 | 2923.9 | 2896.8 | 2849.4 | 2725.3 | 3000.6 | *3287.1* | 3751.9 | 5013.0 | 4139.9 |
| 57.5° | 3233.0 | 3205.9 | 3005.1 | 2946.4 | 2908.1 | 2878.8 | 3251.0 | *3546.6* | 3961.7 | 5191.2 | 4288.8 |
| 60° | 3316.4 | 3293.9 | 3122.4 | 3079.6 | 3023.2 | 3090.8 | 3519.5 | *3785.7* | 4160.2 | 5328.9 | 4403.9 |
| 62.5° | 3273.6 | 3257.8 | 3138.2 | 3219.4 | 3264.6 | 3370.6 | 3826.3 | *4033.9* | 4318.1 | 5432.6 | 4408.4 |
| 65° | 3052.5 | 3020.9 | 2939.7 | 3185.6 | 3542.1 | 3842.1 | 4216.6 | *4324.9* | 4421.9 | 5152.9 | 4142.2 |
| 67.5° | 2522.3 | 2490.7 | 2538.1 | 2790.8 | 3384.1 | 4568.6 | 4753.6 | *4442.2* | 4234.7 | 4898.0 | 4103.8 |
| 70° | 1146.1 | 1094.2 | 1380.7 | 1974.1 | 2799.8 | 4410.6 | 5500.3 | *4929.5* | 4424.2 | 4875.4 | 4027.1 |
| 72.5° | 561.8 | 584.3 | 674.6 | 886.6 | 1712.4 | 3386.4 | 6064.4 | *6095.9* | 5067.2 | 4934.1 | 4081.3 |
| 74° | *439.9* | *446.7* | *521.2* | *609.1* | *956.6* | *2826.9* | *5762.0* | *6364.4* | *5615.4* | *5073.9* | *3997.8* |
| 75° | 379.0 | 388.0 | 462.5 | 507.6 | 615.9 | 2380.2 | 5378.5 | *6283.2* | 5865.8 | 5046.9 | 3812.8 |
| 77.5° | 277.5 | 275.2 | 329.4 | 403.8 | 288.8 | 1060.4 | 4356.5 | *4868.6* | 5001.7 | 4110.6 | 2542.6 |
| 80° | 171.5 | 178.2 | 227.9 | 282.0 | 191.8 | 403.8 | 2560.7 | *2659.9* | 2366.6 | 2380.2 | 1234.1 |
| 82.5° | 103.8 | 108.3 | 121.8 | 146.6 | 106.0 | 142.1 | 1159.6 | *1446.1* | 1198.0 | 778.3 | 207.6 |
| 85° | 31.6 | 33.8 | 40.6 | 51.9 | 38.4 | 51.9 | 390.3 | *351.9* | 250.4 | 103.8 | 60.9 |
| 87.5° | 2.3 | 2.3 | 4.5 | 4.5 | 6.8 | 11.3 | 15.8 | *18.0* | 20.3 | 22.6 | 22.6 |
| 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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Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1363404
CATALOG NUMBER: GSS-SB2B-727-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 | 1922.2 |
| 2.5° | 1929.0 | 1922.2 | 1913.2 | 1897.4 | 1886.1 | 1874.8 | 1861.3 | 1841.0 | 1834.2 | 1836.5 | 1841.0 |
| 5° | 1944.7 | 1926.7 | 1899.6 | 1863.5 | 1836.5 | 1813.9 | 1777.8 | 1748.5 | 1730.4 | 1730.4 | 1721.4 |
| 7.5° | 1960.5 | 1935.7 | 1892.9 | 1831.9 | 1784.6 | 1721.4 | 1653.7 | 1586.0 | 1538.6 | 1518.3 | 1500.3 |
| 10° | 1987.6 | 1949.3 | 1879.3 | 1798.1 | 1696.6 | 1570.2 | 1432.6 | 1292.7 | 1204.7 | 1159.6 | 1157.4 |
| 12.5° | 2005.7 | 1967.3 | 1872.5 | 1741.7 | 1549.9 | 1310.8 | 1101.0 | 985.9 | 949.8 | 934.0 | 929.5 |
| 15° | 2035.0 | 1983.1 | 1856.8 | 1637.9 | 1324.3 | 1037.8 | 922.7 | 888.9 | 886.6 | 888.9 | 891.2 |
| 17.5° | 2059.8 | 1996.6 | 1816.1 | 1473.2 | 1062.6 | 902.4 | 873.1 | 870.8 | 886.6 | 893.4 | 900.2 |
| 20° | 2086.9 | 2007.9 | 1744.0 | 1243.1 | 916.0 | 861.8 | 857.3 | 870.8 | 893.4 | 911.5 | 913.7 |
| 22.5° | 2125.2 | 2016.9 | 1617.6 | 1015.2 | 846.0 | 839.3 | 850.5 | 864.1 | 877.6 | 893.4 | 897.9 |
| 25° | 2165.8 | 2016.9 | 1443.9 | 859.6 | 809.9 | 828.0 | 839.3 | 828.0 | 823.5 | 837.0 | 837.0 |
| 27.5° | 2197.4 | 2001.1 | 1198.0 | 776.1 | 785.1 | 814.4 | 807.7 | 782.9 | 778.3 | 787.4 | 785.1 |
| 30° | 2220.0 | 1942.5 | 949.8 | 731.0 | 760.3 | 785.1 | 767.1 | 753.5 | 744.5 | 746.8 | 749.0 |
| 32.5° | 2253.8 | 1852.2 | 778.3 | 699.4 | 740.0 | 737.7 | 735.5 | 721.9 | 710.7 | 712.9 | 715.2 |
| 35° | 2294.4 | 1703.3 | 681.3 | 676.8 | 721.9 | 703.9 | 706.2 | 690.4 | 676.8 | 676.8 | 679.1 |
| 37.5° | 2346.3 | 1525.1 | 640.7 | 667.8 | 692.6 | 690.4 | 683.6 | 663.3 | 643.0 | 638.5 | 638.5 |
| 40° | 2402.7 | 1306.3 | 620.4 | 663.3 | 679.1 | 685.8 | 672.3 | 647.5 | 593.4 | 559.5 | 557.3 |
| 42.5° | 2438.8 | 1125.8 | 613.7 | 656.5 | 676.8 | 683.6 | 665.5 | 588.8 | 536.9 | 514.4 | 512.1 |
| 45° | 2490.7 | 1026.5 | 613.7 | 638.5 | 667.8 | 674.6 | 611.4 | 559.5 | 530.2 | 518.9 | 521.2 |
| 47.5° | 2542.6 | 1026.5 | 613.7 | 624.9 | 643.0 | 652.0 | 568.5 | 546.0 | 518.9 | 518.9 | 527.9 |
| 50° | 2614.8 | 1082.9 | 609.1 | 604.6 | 611.4 | 577.6 | 541.5 | 523.4 | 487.3 | 473.8 | 476.0 |
| 52.5° | 2723.1 | 1168.7 | 591.1 | 575.3 | 577.6 | 534.7 | 523.4 | 496.3 | 460.2 | 433.2 | 426.4 |
| 55° | 2840.4 | 1261.2 | 555.0 | 541.5 | 539.2 | 507.6 | 503.1 | 473.8 | 439.9 | 403.8 | 397.1 |
| 57.5° | 2969.0 | 1335.6 | 509.9 | 507.6 | 500.9 | 480.5 | 487.3 | 467.0 | 419.6 | 372.3 | 365.5 |
| 60° | 3090.8 | 1419.1 | 467.0 | 471.5 | 460.2 | 455.7 | 464.8 | 451.2 | 392.6 | 340.7 | 336.2 |
| 62.5° | 3090.8 | 1416.8 | 428.7 | 433.2 | 430.9 | 419.6 | 435.4 | 426.4 | 356.5 | 313.6 | 309.1 |
| 65° | 2921.6 | 1353.7 | 383.5 | 394.8 | 403.8 | 381.3 | 401.6 | 385.8 | 324.9 | 291.0 | 284.3 |
| 67.5° | 2899.1 | 1328.8 | 338.4 | 349.7 | 365.5 | 340.7 | 354.2 | 338.4 | 295.5 | 266.2 | 261.7 |
| 70° | 2853.9 | 1272.4 | 297.8 | 311.3 | 318.1 | 291.0 | 309.1 | 297.8 | 266.2 | 243.7 | 239.1 |
| 72.5° | 2876.5 | 1222.8 | 254.9 | 270.7 | 273.0 | 248.2 | 266.2 | 261.7 | 234.6 | 218.8 | 209.8 |
| 74° | *2750.2* | *1058.1* | *230.1* | *243.7* | *239.1* | *221.1* | *236.9* | *236.9* | *212.1* | *200.8* | *189.5* |
| 75° | 2583.2 | 938.5 | 212.1 | 225.6 | 214.3 | 203.0 | 218.8 | 221.1 | 196.3 | 196.3 | 178.2 |
| 77.5° | 1696.6 | 629.4 | 167.0 | 176.0 | 171.5 | 164.7 | 173.7 | 171.5 | 153.4 | 148.9 | 137.6 |
| 80° | 830.2 | 345.2 | 126.3 | 121.8 | 124.1 | 121.8 | 128.6 | 126.3 | 117.3 | 112.8 | 110.5 |
| 82.5° | 155.7 | 115.1 | 83.5 | 81.2 | 76.7 | 72.2 | 81.2 | 81.2 | 108.3 | 121.8 | 121.8 |
| 85° | 47.4 | 45.1 | 40.6 | 40.6 | 38.4 | 33.8 | 36.1 | 51.9 | 63.2 | 42.9 | 40.6 |
| 87.5° | 20.3 | 20.3 | 18.0 | 15.8 | 11.3 | 11.3 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| 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: SP1-2407-184-3

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

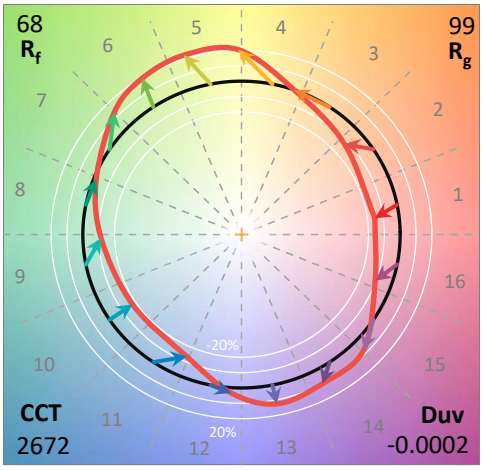
## Test Information

| | |
|---|---|
| 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

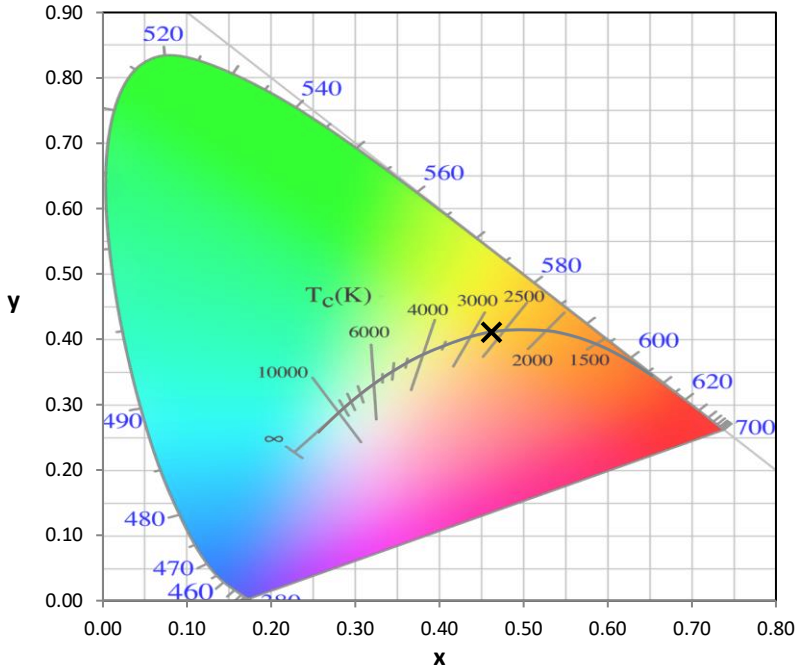
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-3

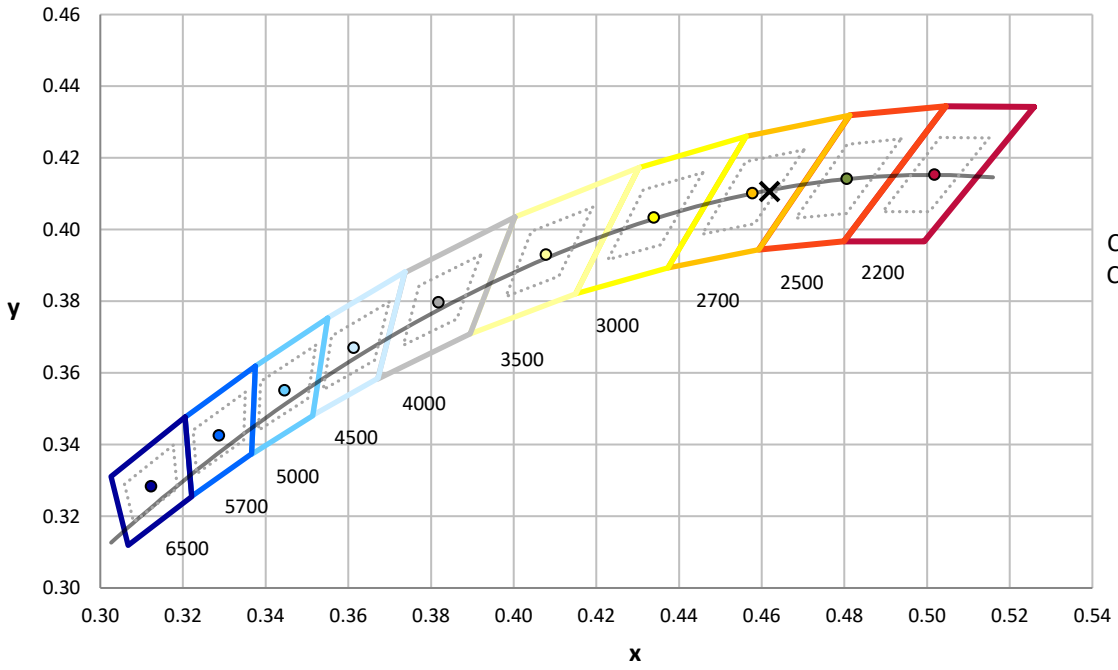
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

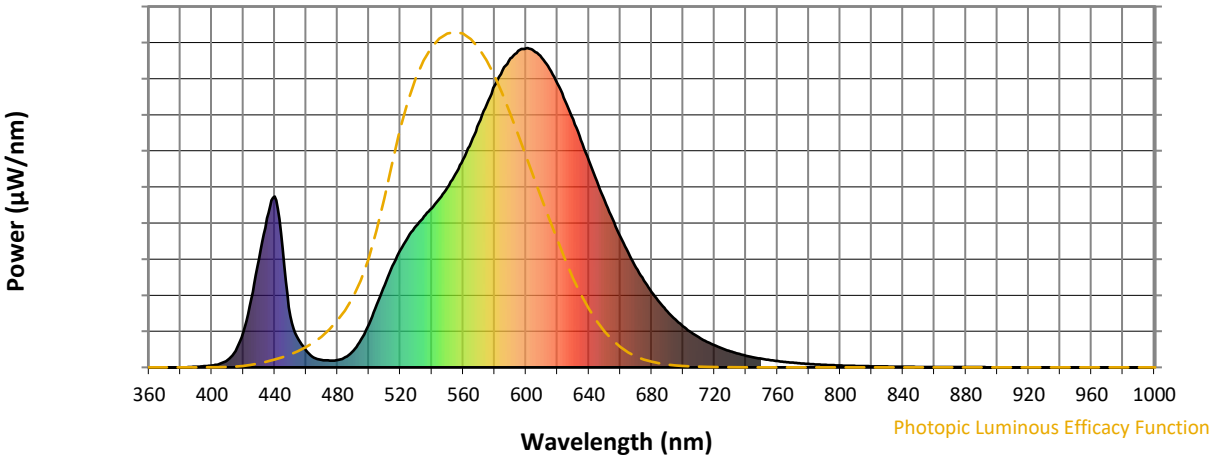



CCT = 2672K
CIE x = 0.4619
CIE y = 0.4106
Duv = -0.0002

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength

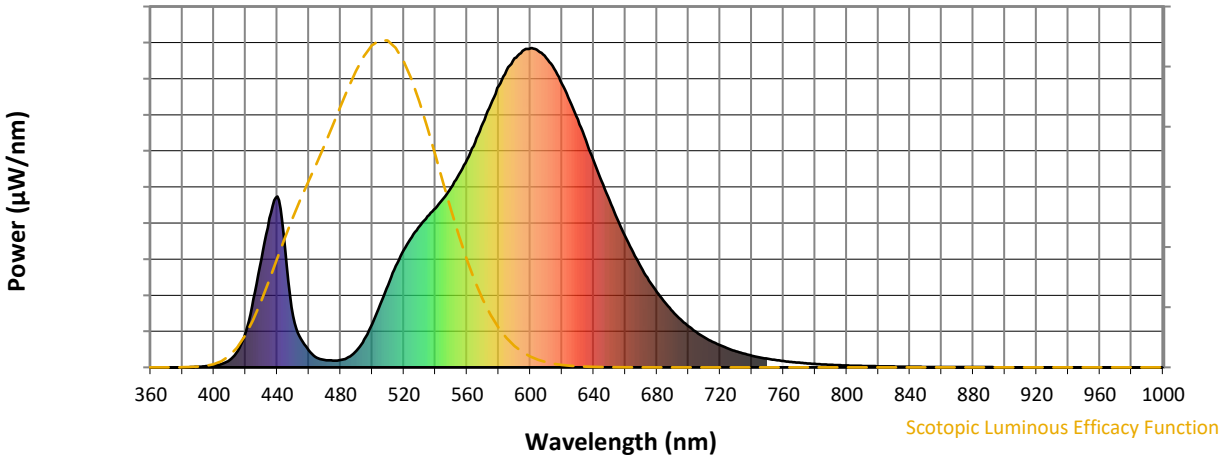



## Photopic Lumens: NR

| 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

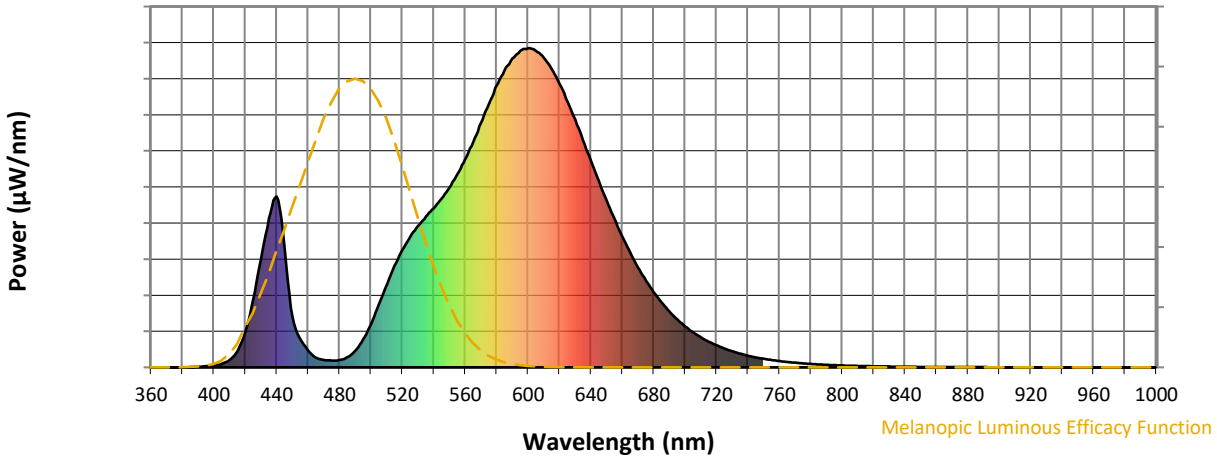



**Scotopic Lumens: NR** **S/P: 1.02**

| 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 | | | |

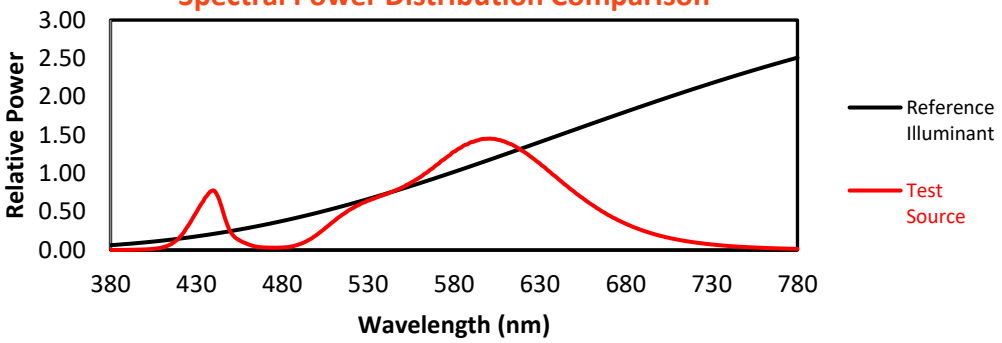
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# TM-30-18

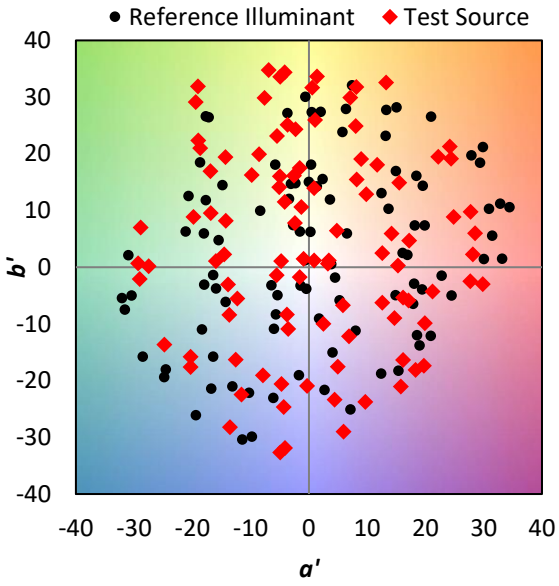
## Summary

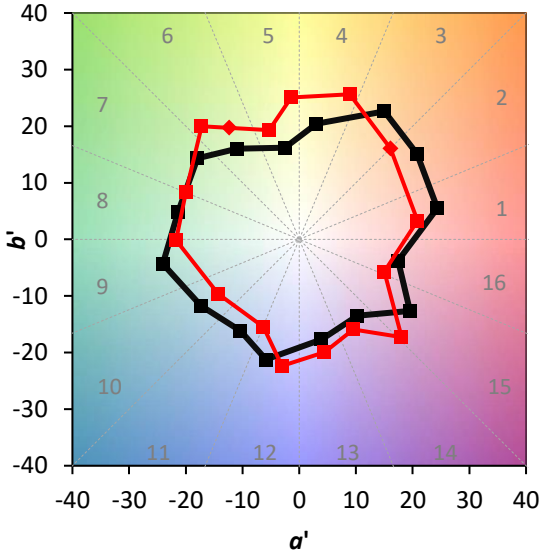
$R_f$ = 67.9
$R_g$ = 98.6
CIE $R_a$ = 71.1
$R_9$ = -27.8

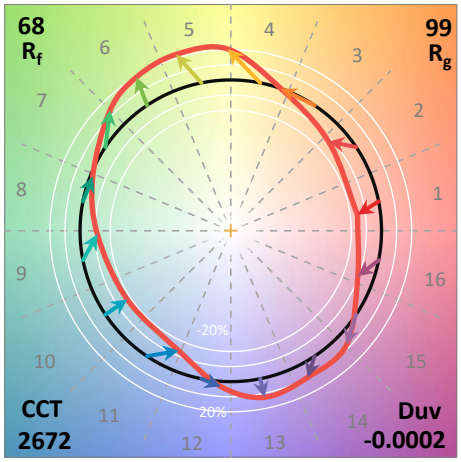
## Spectral Power Distribution Comparison

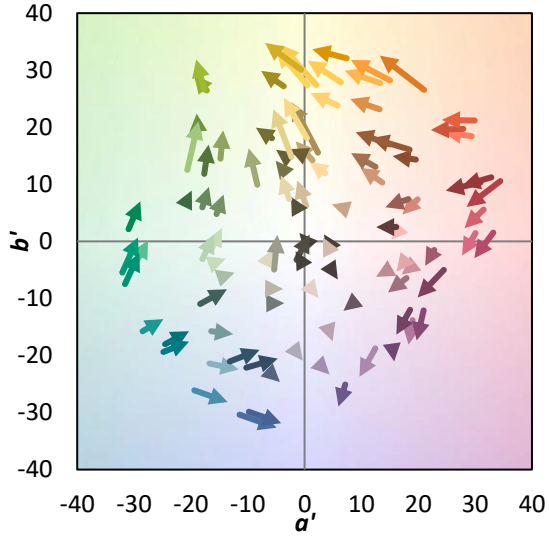



## Color Vector Graphics



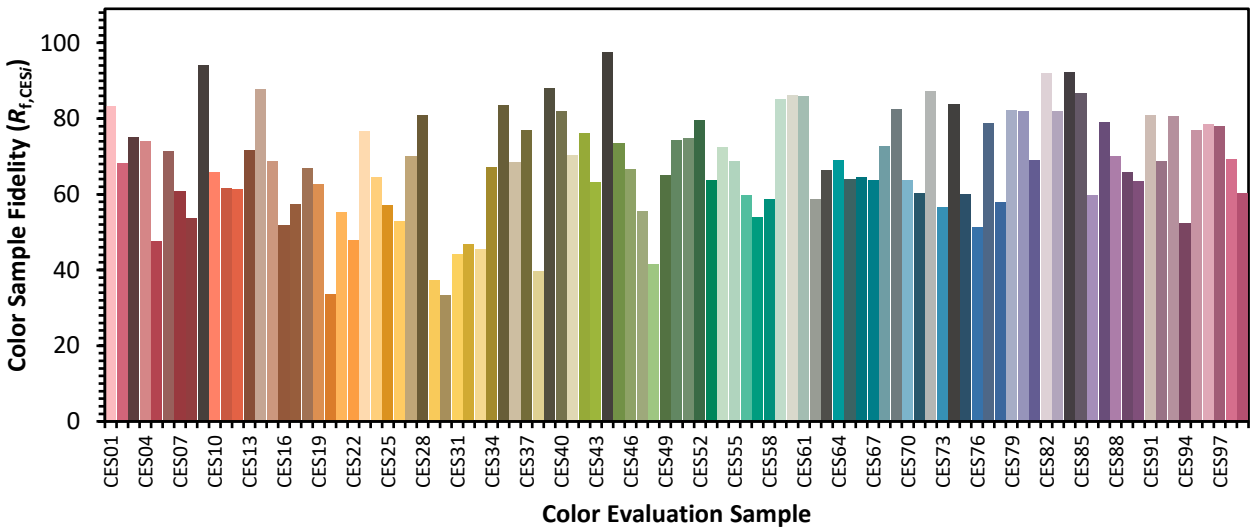



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# TM-30-18

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

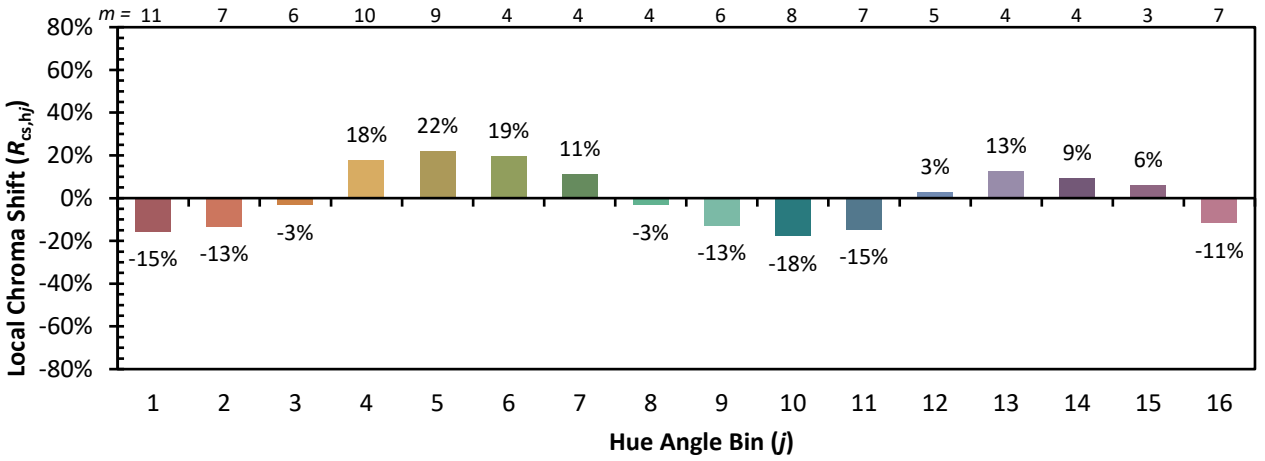
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 53 | CES51 = 75 | CES76 = 51 |
| CES02 = 63 | CES27 = 70 | CES52 = 80 | CES77 = 79 |
| CES03 = 31 | CES28 = 81 | CES53 = 64 | CES78 = 58 |
| CES04 = 71 | CES29 = 37 | CES54 = 73 | CES79 = 82 |
| CES05 = 50 | CES30 = 33 | CES55 = 69 | CES80 = 82 |
| CES06 = 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 | |

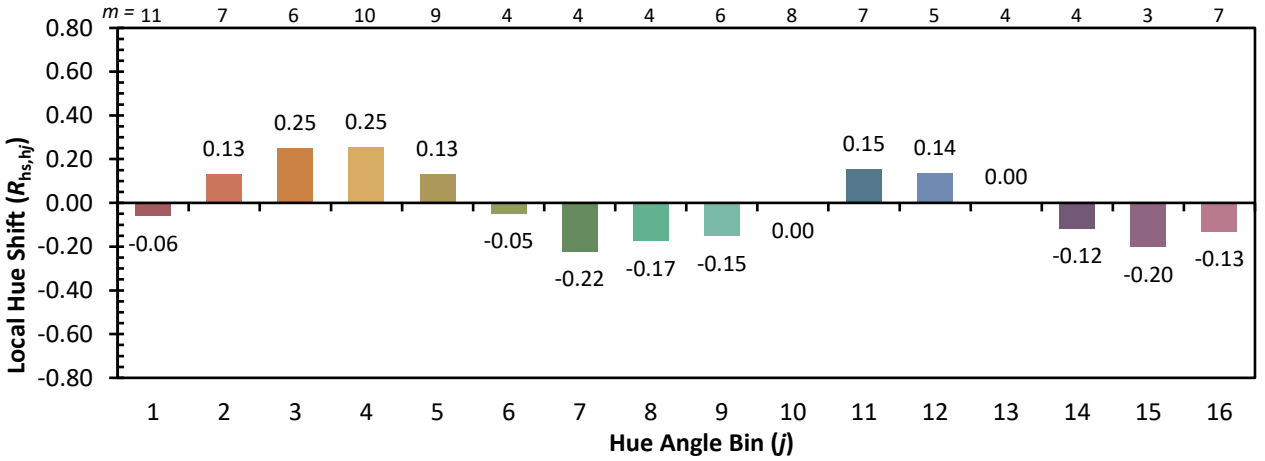


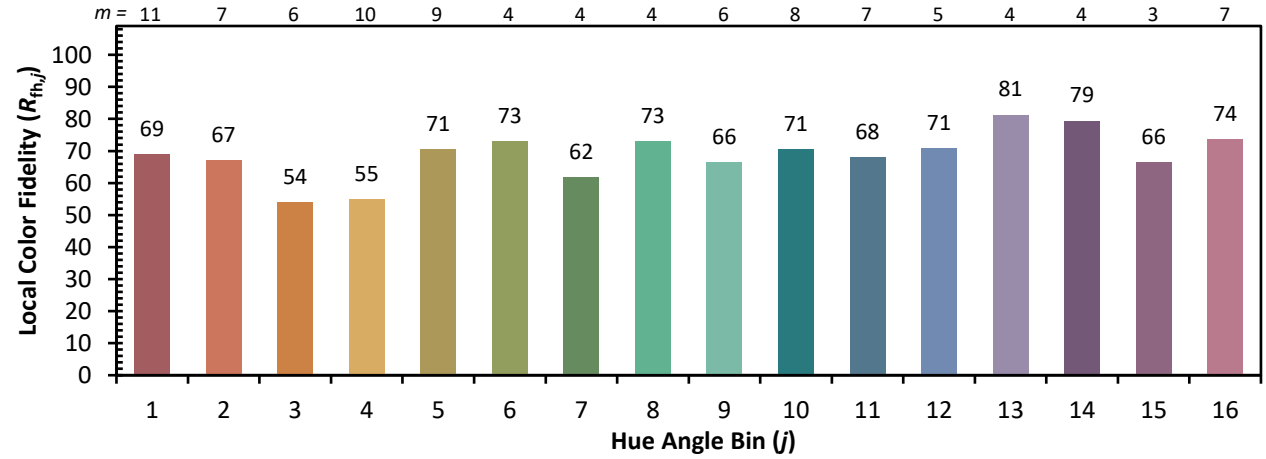
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## Color Rendition by Hue-Angle Bin



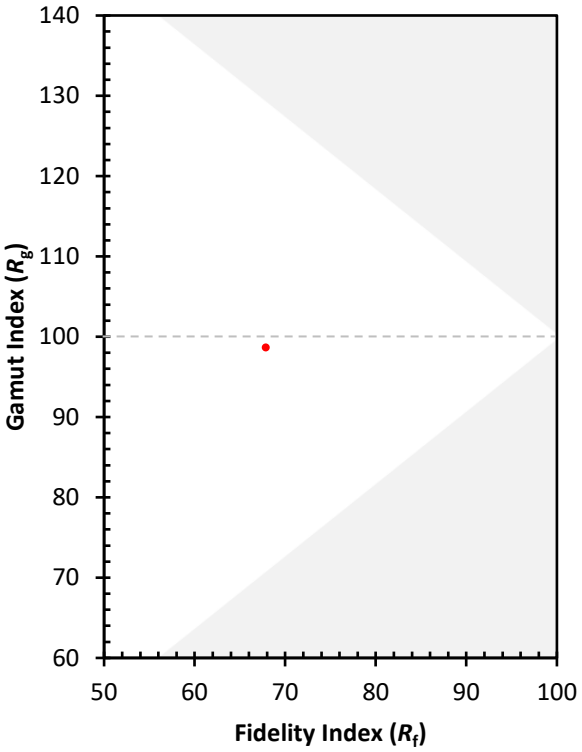



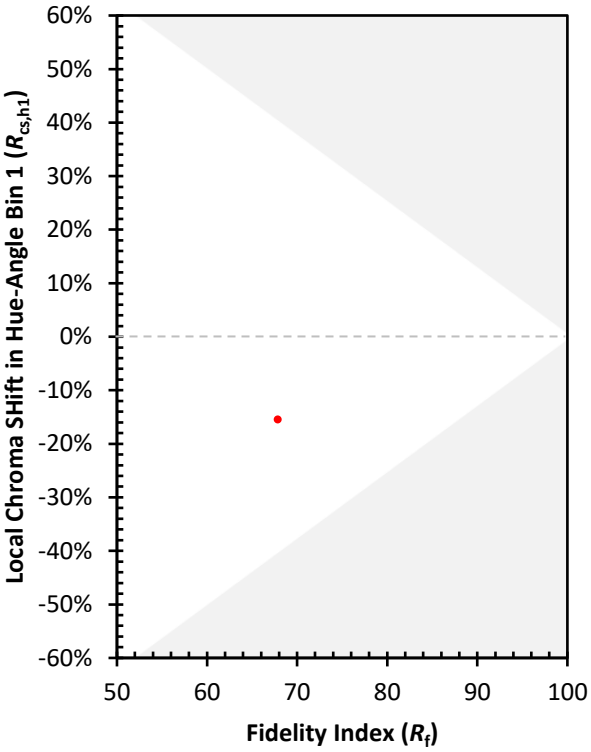



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## Measure Comparisons




(END OF REPORT)