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: McGRAW-EDISON

Report Number: P1203360

Luminaire Tested: GWC-SB2C-730-U-T2-HSS

Issue Date: 10/30/2025

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: | P1203360 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB2C-730-U-T2-HSS |
| Description: | GALLEON WALL LUMINAIRE |
| | (2) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 10935 lumens |
| Efficiency: | N/A |
| Efficacy: | 108.4 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 100.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.857 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.472 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

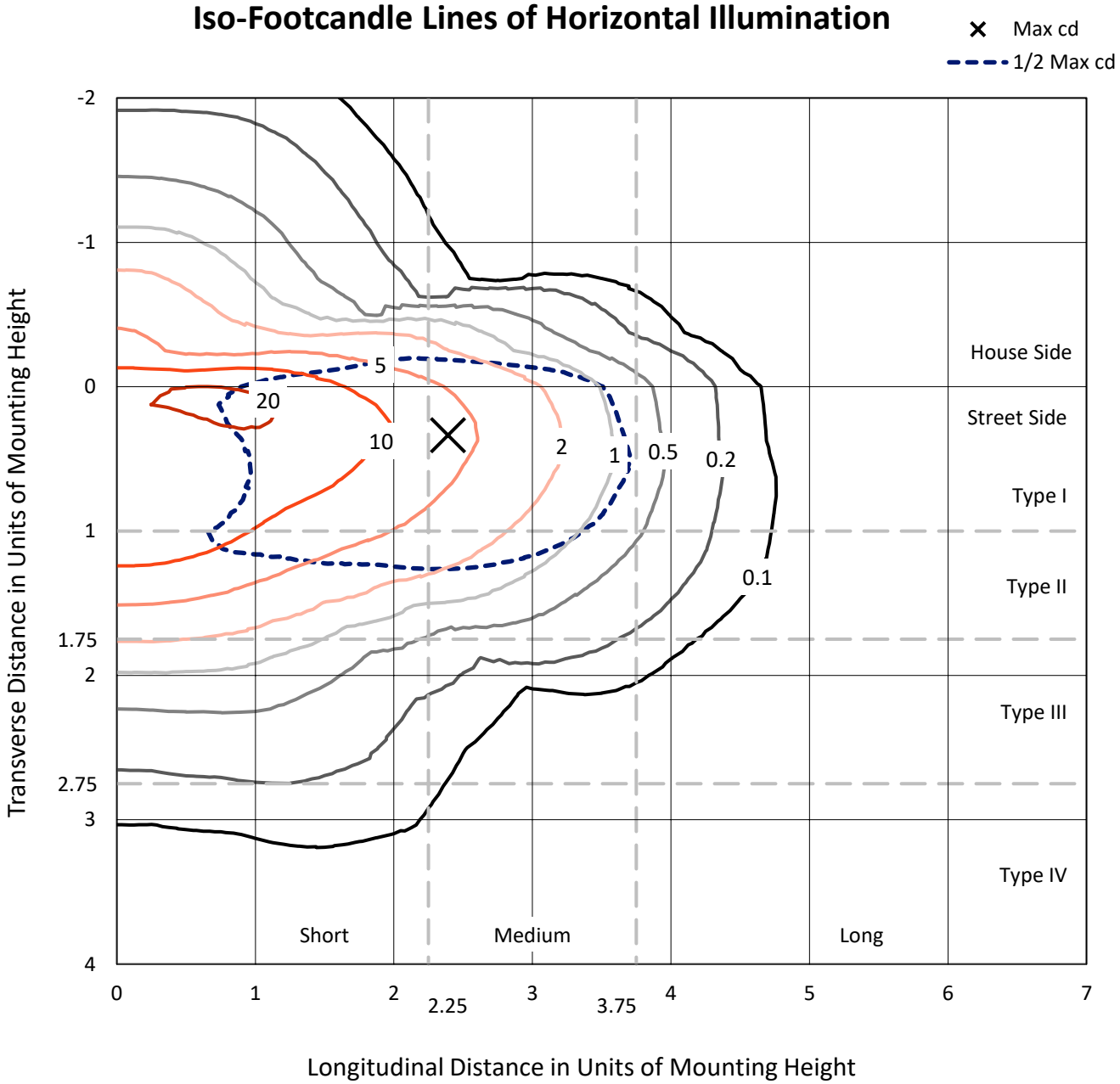


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REPORT NUMBER: P1203360
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## Iso-Footcandle Lines of Horizontal Illumination



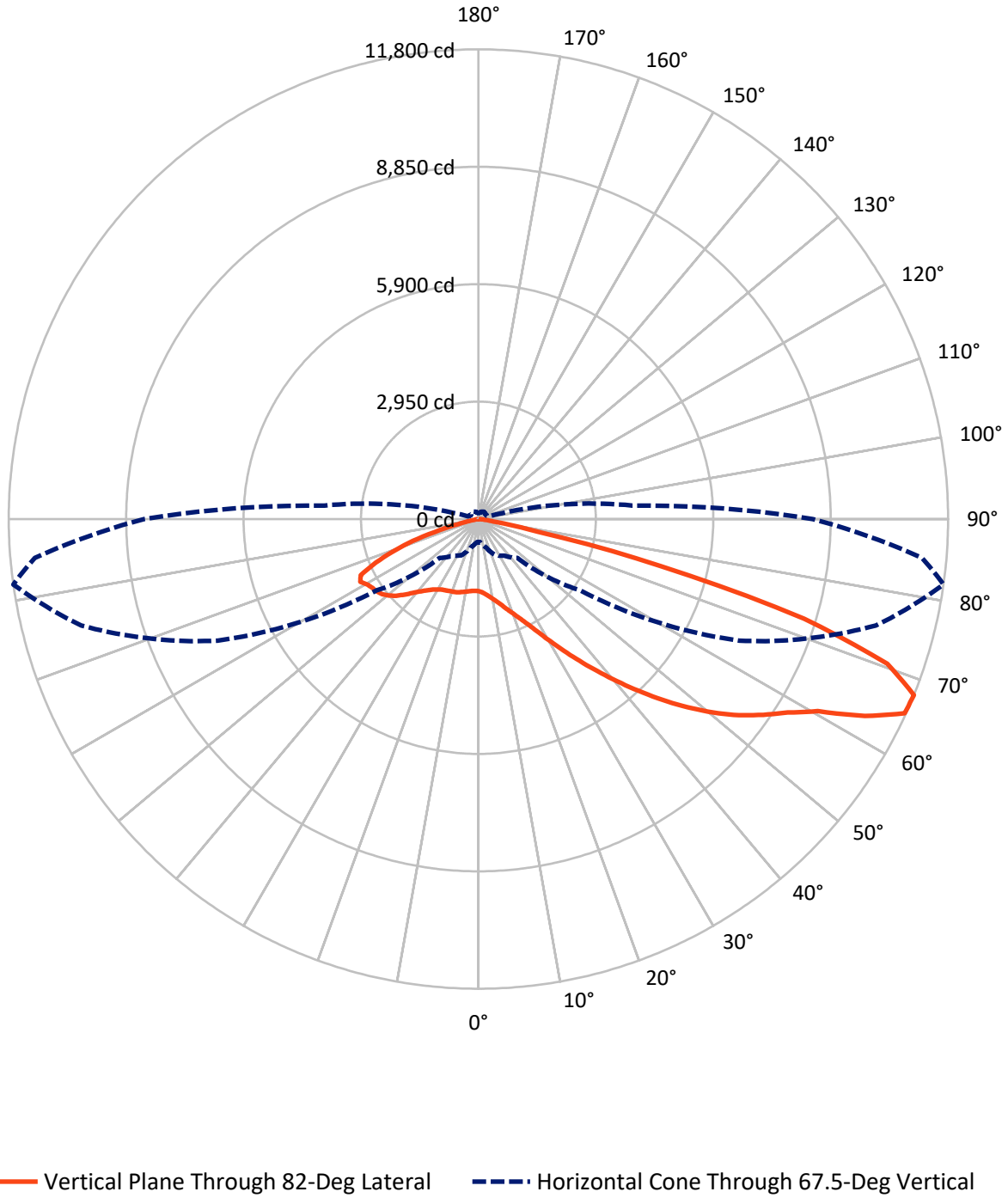

Based on 10 foot mounting height. Maximum calculated value = 25.3 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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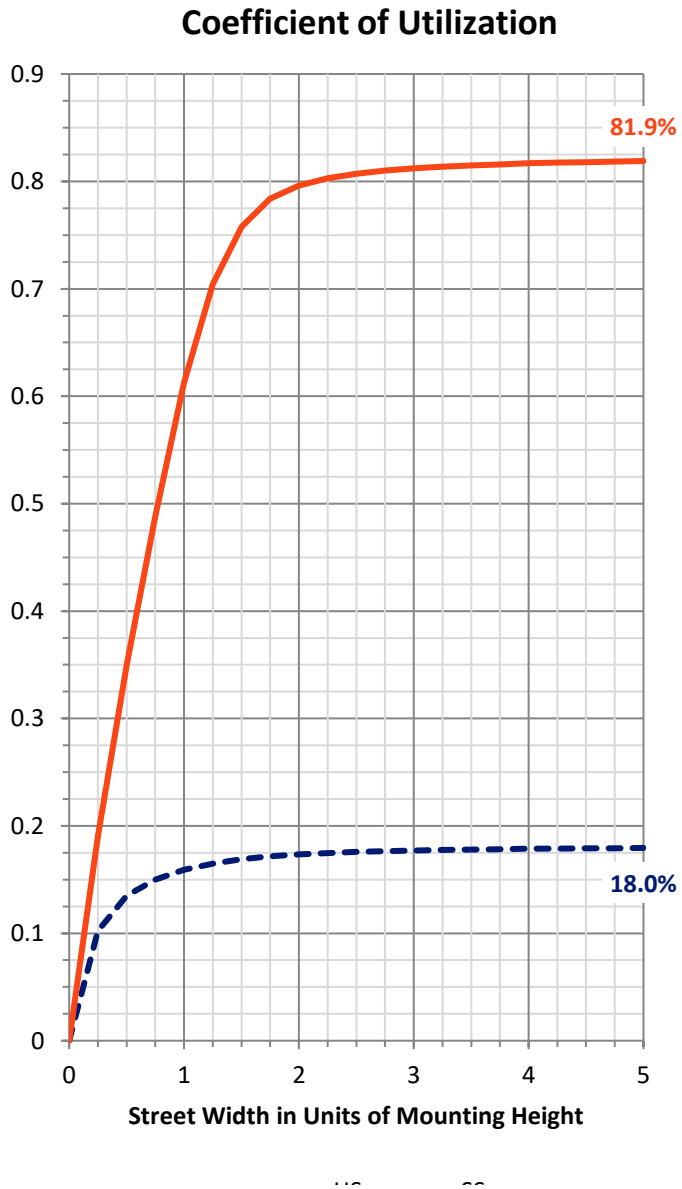
REPORT NUMBER: P1203360
CATALOG NUMBER: GWC-SB2C-730-U-T2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1980.8 | 0.0 | 1980.8 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| **Street Side** | Lumens | 8954.2 | 0.0 | 8954.2 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| **Total** | Lumens | 10935.0 | 0.0 | 10935.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 161.4 | 1.5 |
| 10°-20° | 419.4 | 3.8 |
| 20°-30° | 671.8 | 6.1 |
| 30°-40° | 1187.9 | 10.9 |
| 40°-50° | 2081.3 | 19.0 |
| 50°-60° | 2775.8 | 25.4 |
| 60°-70° | 2584.1 | 23.6 |
| 70°-80° | 991.8 | 9.1 |
| 80°-90° | 61.6 | 0.6 |
| 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° | 10935.0 | 100.0 |
| 0°-180° | 10935.0 | 100.0 |



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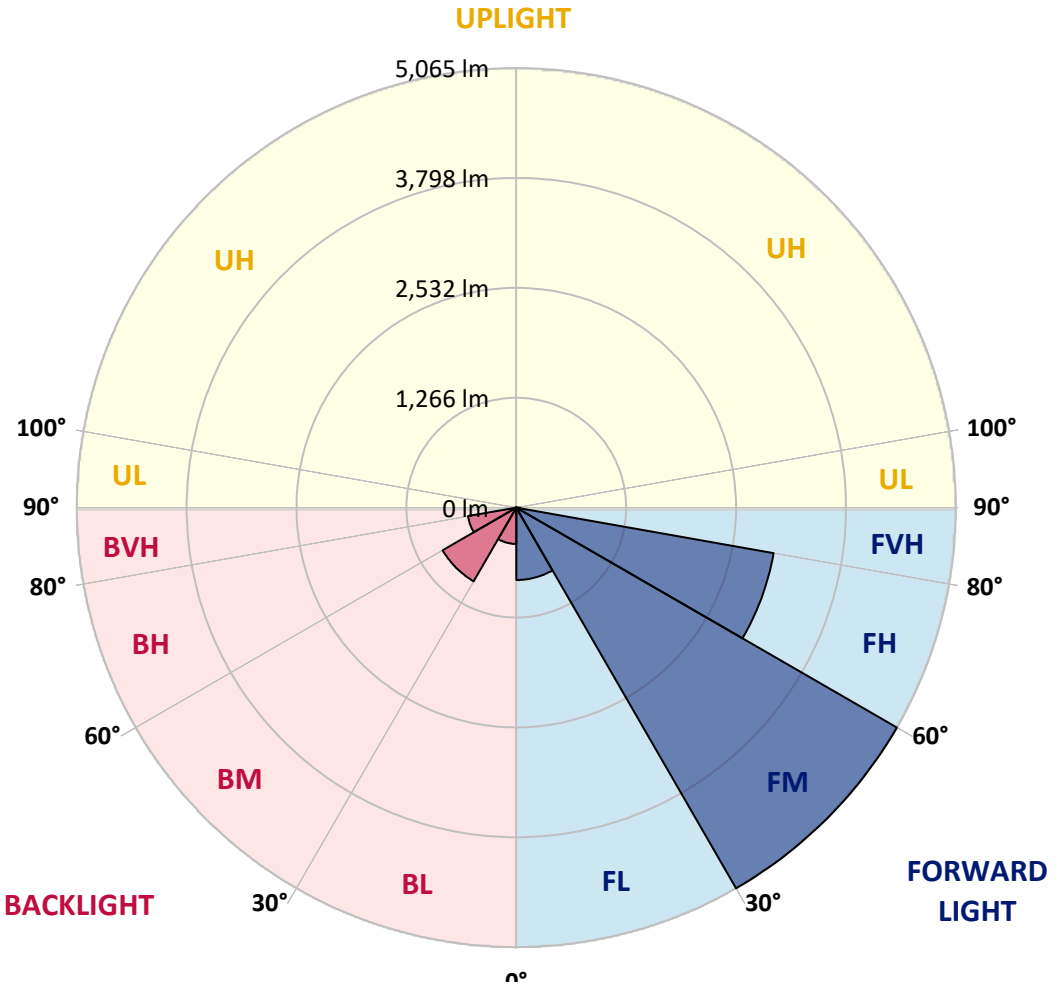
Scaled Data Report

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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°) | 834.2 | 7.6 | | | |
| FM | (30°-60°) | 5064.6 | 46.3 | | | |
| FH | (60°-80°) | 3010.6 | 27.5 | | | G2/5000 |
| FVH | (80°-90°) | 44.8 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 418.3 | 3.8 | B1/500 | | |
| BM | (30°-60°) | 980.3 | 9.0 | B1/1000 | | |
| BH | (60°-80°) | 565.4 | 5.2 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 16.8 | 0.2 | | | 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 II Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | *1811.6* | 1811.6 |
| 2.5° | 1914.7 | 1925.7 | 1919.4 | 1916.3 | 1910.8 | 1902.9 | 1896.6 | 1876.9 | 1856.4 | *1843.1* | 1838.3 |
| 5° | 1953.3 | 1964.3 | 1963.5 | 1966.7 | 1970.6 | 1973.0 | 1971.4 | 1949.3 | 1920.2 | *1897.4* | 1884.0 |
| 7.5° | 1920.2 | 1932.8 | 1943.0 | 1958.8 | 1986.3 | 2015.5 | 2029.6 | 2024.9 | 1995.0 | *1963.5* | 1947.0 |
| 10° | 1826.5 | 1839.9 | 1864.3 | 1901.3 | 1959.6 | 2022.6 | 2075.3 | 2099.7 | 2080.8 | *2046.2* | 2023.3 |
| 12.5° | 1654.9 | 1668.3 | 1716.3 | 1796.6 | 1894.2 | 2003.7 | 2104.4 | 2169.8 | 2174.5 | *2139.9* | 2113.1 |
| 15° | 1462.0 | 1475.4 | 1526.6 | 1627.3 | 1776.1 | 1951.7 | 2120.2 | 2243.8 | 2285.5 | *2255.6* | 2223.3 |
| 17.5° | 1342.3 | 1354.1 | 1392.7 | 1473.8 | 1628.9 | 1847.8 | 2114.7 | 2322.5 | 2417.8 | *2394.2* | 2355.6 |
| 20° | 1306.1 | 1316.4 | 1334.5 | 1391.1 | 1520.3 | 1739.9 | 2078.5 | 2396.5 | 2560.3 | *2546.9* | 2503.6 |
| 22.5° | 1344.7 | 1354.1 | 1359.7 | 1384.8 | 1465.9 | 1669.1 | 2032.8 | 2472.1 | 2725.6 | *2727.2* | 2674.4 |
| 25° | 1433.7 | 1443.1 | 1436.8 | 1452.6 | 1488.0 | 1647.0 | 2015.5 | 2561.1 | 2933.5 | *2950.8* | 2890.9 |
| 27.5° | 1580.1 | 1580.9 | 1565.9 | 1565.1 | 1570.6 | 1680.1 | 2033.6 | 2656.3 | 3195.6 | *3227.9* | 3153.9 |
| 30° | 1873.8 | 1861.9 | 1804.5 | 1742.3 | 1713.9 | 1779.3 | 2084.0 | 2768.9 | 3505.0 | *3562.5* | 3469.6 |
| 32.5° | 2326.4 | 2309.1 | 2203.6 | 2054.8 | 1905.2 | 1939.1 | 2174.5 | 2897.2 | 3842.0 | *3945.9* | 3832.5 |
| 35° | 2817.7 | 2813.0 | 2702.8 | 2481.5 | 2220.2 | 2166.6 | 2321.7 | 3065.7 | 4209.7 | *4375.0* | 4240.4 |
| 37.5° | 3274.3 | 3272.0 | 3209.0 | 2948.4 | 2630.3 | 2483.9 | 2557.9 | 3286.2 | 4603.3 | *4842.6* | 4683.6 |
| 40° | 3691.6 | 3698.7 | 3635.7 | 3402.7 | 3082.2 | 2890.9 | 2879.1 | 3558.6 | 5041.0 | *5352.0* | 5163.1 |
| 42.5° | 4052.2 | 4060.1 | 3996.3 | 3823.9 | 3528.6 | 3341.3 | 3273.6 | 3892.4 | 5468.5 | *5899.2* | 5675.6 |
| 45° | 4297.0 | 4345.9 | 4336.4 | 4198.6 | 3986.8 | 3792.4 | 3747.5 | 4311.2 | 5955.9 | *6479.4* | 6217.2 |
| 47.5° | 4366.3 | 4411.2 | 4482.1 | 4500.9 | 4371.8 | 4180.5 | 4234.1 | 4815.9 | 6448.7 | *7060.4* | 6762.1 |
| 50° | 4195.5 | 4237.2 | 4384.4 | 4580.5 | 4670.2 | 4611.2 | 4707.2 | 5356.7 | 6953.4 | *7639.9* | 7296.6 |
| 52.5° | 3858.5 | 3901.0 | 4086.8 | 4397.0 | 4763.1 | 4948.9 | 5182.0 | 5889.7 | 7442.3 | *8188.6* | 7802.9 |
| 55° | 3371.2 | 3416.1 | 3654.6 | 4005.7 | 4586.0 | 5088.3 | 5578.0 | 6421.9 | 7890.2 | *8682.3* | 8259.5 |
| 57.5° | 2708.3 | 2741.4 | 2989.3 | 3480.6 | 4140.4 | 4949.7 | 5870.1 | 7003.0 | 8312.2 | *9167.2* | 8712.2 |
| 60° | 1765.1 | 1794.2 | 2082.4 | 2630.3 | 3401.9 | 4486.8 | 5928.3 | 7650.9 | 8872.8 | *9797.9* | 9322.3 |
| 62.5° | 1173.9 | 1193.5 | 1364.4 | 1766.7 | 2395.7 | 3597.9 | 5587.4 | 8168.2 | 9694.7 | *10895.3* | 10368.6 |
| 65° | 805.4 | 825.1 | 995.9 | 1276.2 | 1547.8 | 2380.0 | 4607.2 | 8099.7 | 10439.5 | *11766.9* | 11144.1 |
| 67.5° | *574.7* | *591.3* | *736.1* | *1000.6* | *1120.3* | *1382.5* | *3123.2* | *7224.2* | *10332.4* | *11799.9* | *11185.8* |
| 70° | 411.8 | 421.2 | 540.9 | 779.4 | 890.4 | 830.6 | 1736.8 | 5525.2 | 9046.8 | *10896.1* | 10334.0 |
| 72.5° | 288.1 | 291.3 | 375.5 | 593.6 | 717.2 | 606.2 | 826.7 | 3683.7 | 6842.4 | *8552.4* | 8011.5 |
| 75° | 195.2 | 199.2 | 252.7 | 435.4 | 575.5 | 462.9 | 437.7 | 1975.3 | 4016.8 | *4734.0* | 4243.5 |
| 77.5° | 119.7 | 121.2 | 163.0 | 297.6 | 430.6 | 352.7 | 281.9 | 836.9 | 1554.1 | *1525.8* | 1300.6 |
| 80° | 67.7 | 67.7 | 103.9 | 185.0 | 293.7 | 227.5 | 197.6 | 355.9 | 492.1 | *432.2* | 381.0 |
| 82.5° | 37.8 | 38.6 | 75.6 | 114.9 | 194.5 | 134.6 | 108.6 | 164.5 | 212.6 | *188.2* | 163.8 |
| 85° | 15.7 | 17.3 | 46.5 | 54.3 | 92.9 | 66.9 | 44.1 | 69.3 | 78.7 | *70.1* | 51.2 |
| 87.5° | 1.6 | 2.4 | 14.2 | 10.2 | 11.0 | 13.4 | 6.3 | 13.4 | 11.0 | *11.0* | 7.9 |
| 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: P1203360
CATALOG NUMBER: GWC-SB2C-730-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 | 1811.6 |
| 2.5° | 1823.4 | 1811.6 | 1781.6 | 1747.0 | 1701.3 | 1679.3 | 1649.4 | 1628.9 | 1611.6 | 1613.2 | 1597.4 |
| 5° | 1858.8 | 1828.9 | 1762.0 | 1678.5 | 1574.6 | 1500.6 | 1421.8 | 1367.5 | 1323.4 | 1314.0 | 1292.7 |
| 7.5° | 1907.6 | 1860.4 | 1743.1 | 1592.7 | 1417.1 | 1284.1 | 1165.2 | 1088.8 | 1034.5 | 1017.2 | 999.9 |
| 10° | 1970.6 | 1902.1 | 1718.7 | 1484.8 | 1232.1 | 1062.8 | 935.3 | 875.5 | 838.5 | 825.9 | 816.4 |
| 12.5° | 2043.8 | 1950.1 | 1686.4 | 1353.4 | 1041.6 | 878.6 | 797.5 | 767.6 | 755.8 | 751.9 | 749.5 |
| 15° | 2135.9 | 2010.0 | 1637.6 | 1197.5 | 880.2 | 766.0 | 731.4 | 727.5 | 729.0 | 727.5 | 726.7 |
| 17.5° | 2245.4 | 2075.3 | 1558.1 | 1036.9 | 771.5 | 708.6 | 696.0 | 699.1 | 703.1 | 702.3 | 700.7 |
| 20° | 2365.0 | 2139.9 | 1456.5 | 894.4 | 697.5 | 667.6 | 660.5 | 663.7 | 666.8 | 665.3 | 664.5 |
| 22.5° | 2501.2 | 2209.1 | 1343.9 | 783.4 | 647.9 | 629.8 | 622.0 | 622.7 | 622.7 | 619.6 | 618.0 |
| 25° | 2664.2 | 2285.5 | 1225.8 | 704.6 | 610.2 | 596.0 | 586.5 | 583.4 | 578.7 | 569.2 | 567.6 |
| 27.5° | 2858.7 | 2366.6 | 1112.4 | 649.5 | 580.2 | 566.9 | 555.8 | 548.0 | 536.1 | 520.4 | 518.8 |
| 30° | 3077.5 | 2465.0 | 1016.4 | 614.9 | 556.6 | 543.2 | 530.6 | 518.8 | 501.5 | 481.8 | 480.2 |
| 32.5° | 3335.0 | 2570.5 | 946.3 | 592.0 | 535.4 | 521.2 | 506.2 | 492.1 | 473.2 | 453.5 | 454.3 |
| 35° | 3642.0 | 2698.1 | 905.4 | 576.3 | 518.8 | 499.9 | 483.4 | 467.7 | 453.5 | 436.2 | 434.6 |
| 37.5° | 3975.0 | 2833.5 | 892.8 | 568.4 | 507.8 | 478.7 | 459.8 | 448.8 | 447.2 | 436.9 | 436.2 |
| 40° | 4339.6 | 2994.1 | 902.2 | 563.7 | 496.0 | 458.2 | 437.7 | 435.4 | 439.3 | 421.2 | 422.0 |
| 42.5° | 4725.3 | 3184.6 | 918.0 | 558.2 | 479.5 | 437.7 | 418.1 | 418.1 | 414.9 | 389.7 | 389.7 |
| 45° | 5142.6 | 3404.3 | 933.7 | 544.8 | 459.8 | 417.3 | 402.3 | 396.8 | 383.4 | 359.0 | 358.2 |
| 47.5° | 5563.0 | 3627.8 | 945.5 | 520.4 | 436.2 | 399.9 | 386.6 | 374.0 | 354.3 | 332.2 | 331.5 |
| 50° | 5962.2 | 3828.6 | 932.9 | 484.2 | 409.4 | 383.4 | 369.2 | 351.9 | 330.7 | 315.7 | 313.3 |
| 52.5° | 6318.8 | 4002.6 | 879.4 | 441.7 | 381.0 | 366.1 | 353.5 | 335.4 | 318.1 | 302.3 | 300.7 |
| 55° | 6629.0 | 4143.5 | 784.9 | 401.5 | 355.9 | 351.1 | 338.5 | 315.7 | 292.1 | 278.7 | 277.1 |
| 57.5° | 6926.6 | 4250.6 | 666.8 | 368.5 | 333.0 | 334.6 | 315.7 | 295.2 | 273.2 | 259.0 | 257.4 |
| 60° | 7322.6 | 4393.9 | 547.2 | 337.7 | 308.6 | 313.3 | 292.9 | 277.9 | 250.4 | 232.3 | 229.9 |
| 62.5° | 7955.6 | 4616.7 | 434.6 | 300.0 | 280.3 | 281.9 | 273.2 | 255.1 | 222.0 | 200.8 | 199.2 |
| 65° | 8457.9 | 4534.8 | 342.5 | 259.0 | 248.0 | 250.4 | 250.4 | 230.7 | 195.2 | 170.8 | 168.5 |
| 67.5° | *8401.2* | *3882.9* | *273.2* | *218.9* | *217.3* | *218.9* | *224.4* | *207.8* | *173.2* | *153.5* | *150.4* |
| 70° | 7739.1 | 3088.5 | 218.9 | 181.9 | 189.0 | 185.0 | 200.8 | 189.7 | 155.9 | 136.2 | 133.8 |
| 72.5° | 6314.9 | 2224.9 | 166.9 | 150.4 | 144.9 | 151.2 | 181.1 | 170.8 | 129.9 | 107.9 | 105.5 |
| 75° | 3690.0 | 1187.2 | 124.4 | 118.9 | 104.7 | 126.0 | 160.6 | 145.6 | 99.2 | 79.5 | 77.2 |
| 77.5° | 1201.4 | 414.1 | 91.3 | 87.4 | 77.9 | 101.6 | 137.0 | 122.8 | 81.1 | 63.0 | 60.6 |
| 80° | 322.0 | 125.2 | 62.2 | 57.5 | 50.4 | 75.6 | 108.6 | 97.6 | 58.3 | 40.9 | 40.2 |
| 82.5° | 129.1 | 52.7 | 36.2 | 32.3 | 27.6 | 52.0 | 85.8 | 78.7 | 43.3 | 26.0 | 26.0 |
| 85° | 41.7 | 17.3 | 13.4 | 10.2 | 12.6 | 32.3 | 51.2 | 53.5 | 30.7 | 13.4 | 10.2 |
| 87.5° | 5.5 | 2.4 | 2.4 | 3.1 | 2.4 | 5.5 | 15.7 | 15.0 | 8.7 | 1.6 | 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 |


HS
SS

0

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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

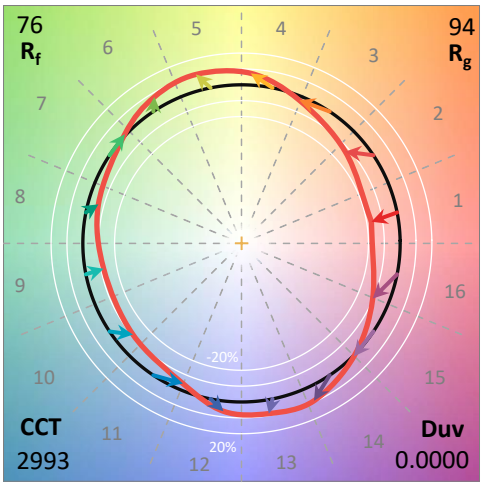
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-2-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-730-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-2-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. (1) 70 CRI, 3000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 2993 | CRI (Ra): | 71.8 | | |
| CIE u': | 0.2508 | R1: | 67.5 | R9: | -38.3 |
| CIE v': | 0.5215 | R2: | 82.9 | R10: | 62.5 |
| Duv: | 0.0000 | R3: | 94.7 | R11: | 63.7 |
| CIE x: | 0.4374 | R4: | 67.7 | R12: | 57.8 |
| CIE y: | 0.4043 | R5: | 67.9 | R13: | 70.4 |
| CIE z: | 0.1583 | R6: | 77.6 | R14: | 97.3 |
| Peak Wavelength (nm): | 593 | R7: | 76.0 | | |
| Dominant Wavelength (nm): | 582 | R8: | 40.5 | | |
| Purity: | 53 | | | | |

| | |
|---|---|
| Rf: | 75.7 |
| Rg: | 93.9 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 53M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.0./44% |
| Sphere Temperature (°C): | 25.7 |

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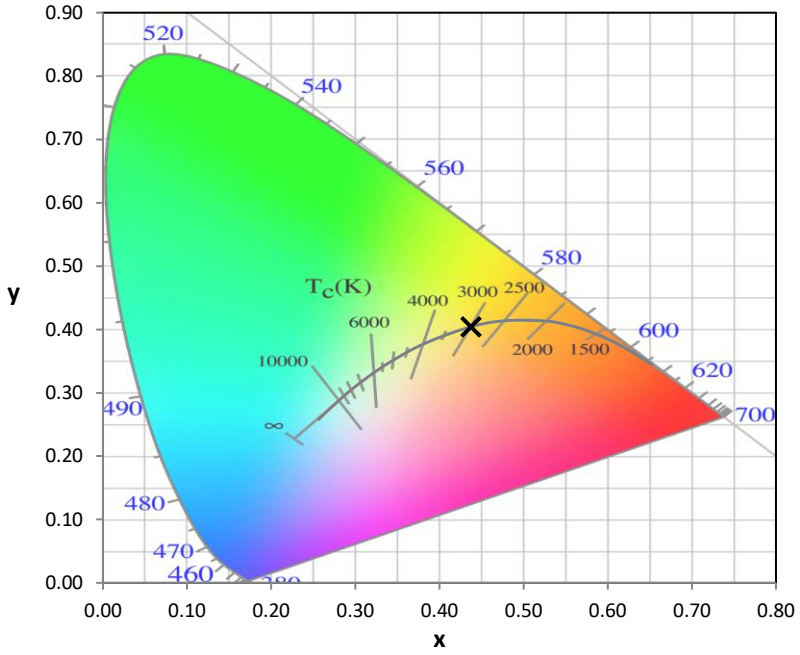
REPORT NUMBER: SP1-1908-441-2-R4

| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

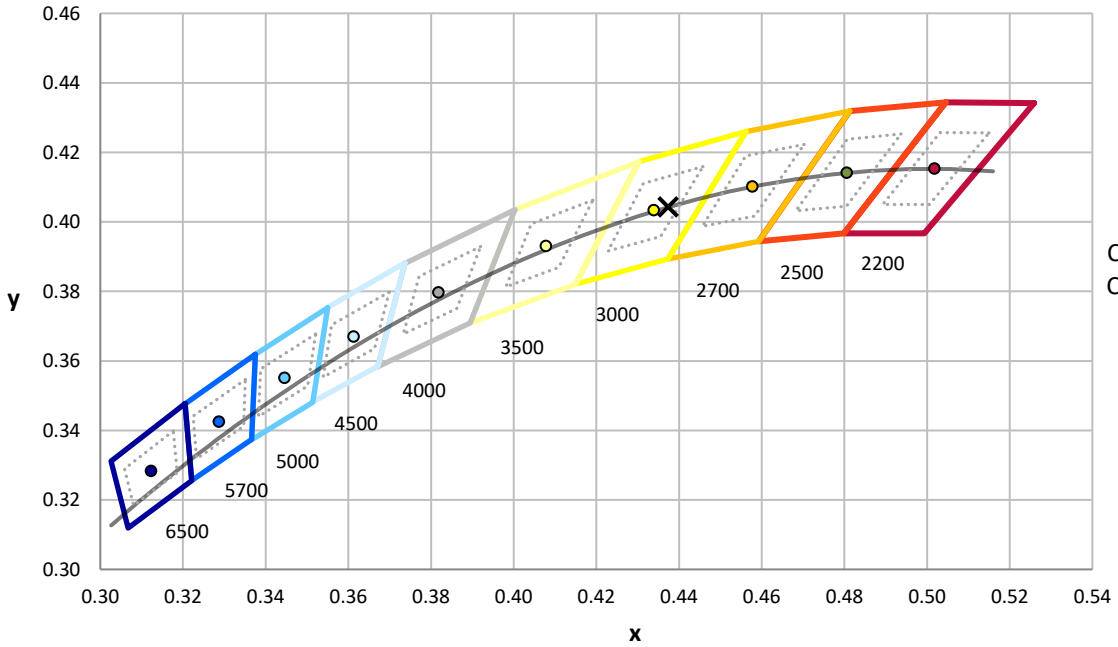
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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-2-R4

## CIE 1931 Chromaticity Diagram




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



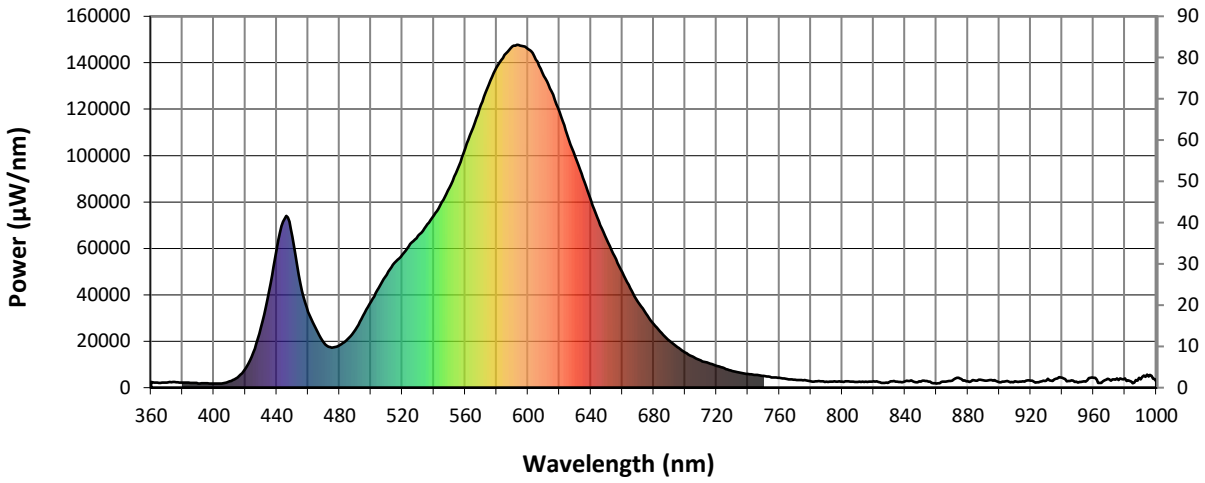

CCT = 2993K
CIE x = 0.4374
CIE y = 0.4043
Duv = 0.0000

Point lies inside the ANSI 3000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



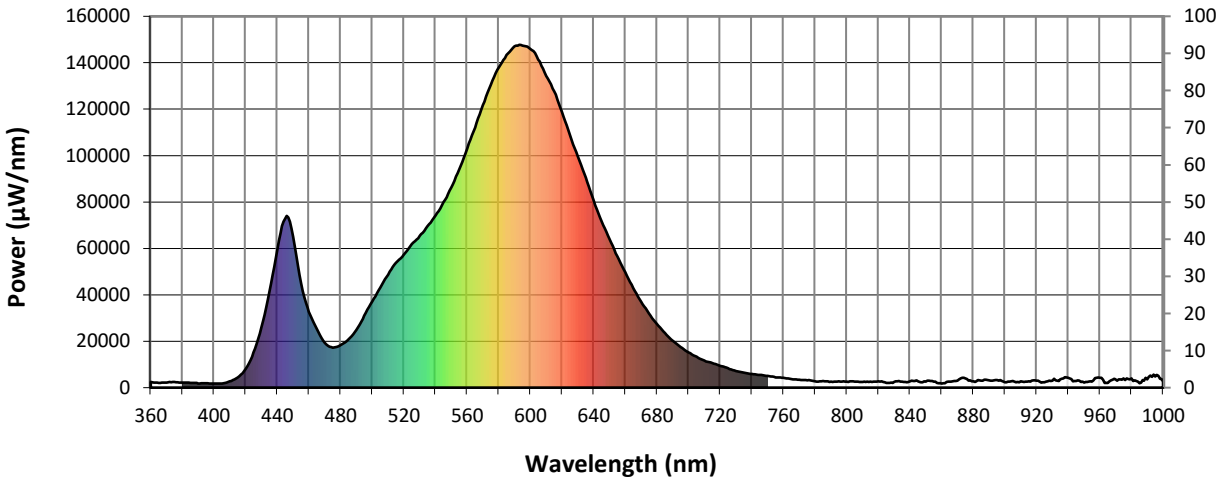

######

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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## Scotopic Flux vs. Wavelength



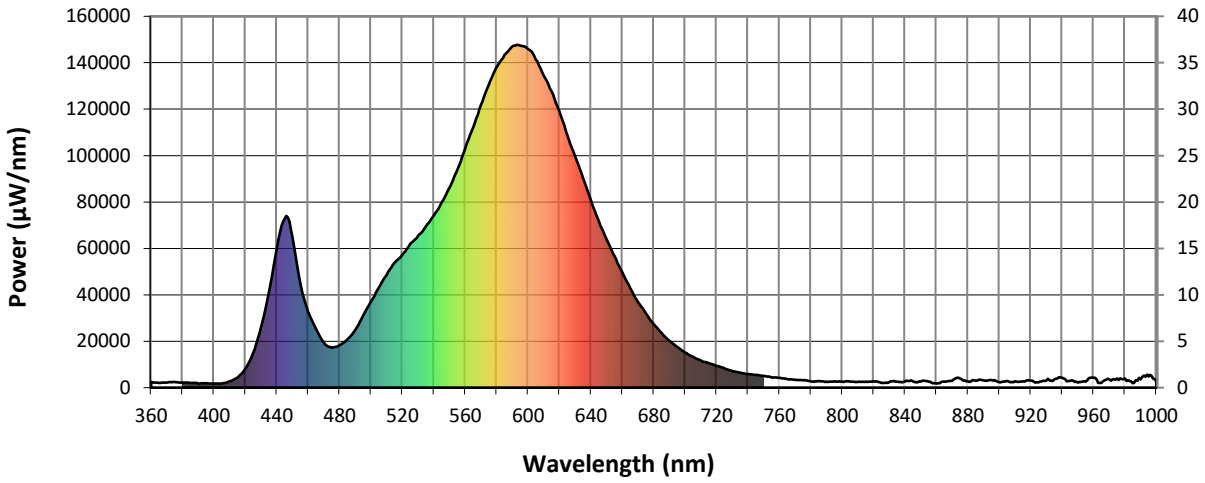

**Scotopic Lumens: 8494.8** **S/P: 1.23**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 3101.5** **M/P: 0.45**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 2397 | NR | 490 | 24908 | NR | 620 | 118784 | NR | 750 | 5037 | NR | 880 | 2677 | NR |
| 365 | 2084 | NR | 495 | 30998 | NR | 625 | 108951 | NR | 755 | 4413 | NR | 885 | 2940 | NR |
| 370 | 2143 | NR | 500 | 37103 | NR | 630 | 99573 | NR | 760 | 4189 | NR | 890 | 3116 | NR |
| 375 | 2413 | NR | 505 | 42987 | NR | 635 | 90444 | NR | 765 | 3677 | NR | 895 | 3345 | NR |
| 380 | 2172 | NR | 510 | 48702 | NR | 640 | 80749 | NR | 770 | 3366 | NR | 900 | 2312 | NR |
| 385 | 1997 | NR | 515 | 53741 | NR | 645 | 71664 | NR | 775 | 3211 | NR | 905 | 2829 | NR |
| 390 | 1830 | NR | 520 | 57283 | NR | 650 | 63936 | NR | 780 | 2682 | NR | 910 | 2783 | NR |
| 395 | 1861 | NR | 525 | 61876 | NR | 655 | 56611 | NR | 785 | 2804 | NR | 915 | 2662 | NR |
| 400 | 1717 | NR | 530 | 65398 | NR | 660 | 49763 | NR | 790 | 2581 | NR | 920 | 3047 | NR |
| 405 | 1761 | NR | 535 | 69597 | NR | 665 | 42891 | NR | 795 | 2711 | NR | 925 | 2256 | NR |
| 410 | 2680 | NR | 540 | 74214 | NR | 670 | 36939 | NR | 800 | 2609 | NR | 930 | 2976 | NR |
| 415 | 4374 | NR | 545 | 79911 | NR | 675 | 31946 | NR | 805 | 2581 | NR | 935 | 3503 | NR |
| 420 | 8071 | NR | 550 | 86153 | NR | 680 | 27385 | NR | 810 | 2404 | NR | 940 | 4226 | NR |
| 425 | 15169 | NR | 555 | 93952 | NR | 685 | 23504 | NR | 815 | 2556 | NR | 945 | 2930 | NR |
| 430 | 26038 | NR | 560 | 102904 | NR | 690 | 20210 | NR | 820 | 2742 | NR | 950 | 2115 | NR |
| 435 | 41316 | NR | 565 | 112009 | NR | 695 | 17459 | NR | 825 | 2014 | NR | 955 | 2634 | NR |
| 440 | 59674 | NR | 570 | 121662 | NR | 700 | 15207 | NR | 830 | 2488 | NR | 960 | 4200 | NR |
| 445 | 72751 | NR | 575 | 130476 | NR | 705 | 13322 | NR | 835 | 2625 | NR | 965 | 1982 | NR |
| 450 | 65091 | NR | 580 | 137926 | NR | 710 | 11676 | NR | 840 | 2754 | NR | 970 | 3613 | NR |
| 455 | 44894 | NR | 585 | 143406 | NR | 715 | 10626 | NR | 845 | 2708 | NR | 975 | 4034 | NR |
| 460 | 32712 | NR | 590 | 147039 | NR | 720 | 9416 | NR | 850 | 2608 | NR | 980 | 3922 | NR |
| 465 | 25296 | NR | 595 | 147365 | NR | 725 | 8333 | NR | 855 | 2605 | NR | 985 | 1909 | NR |
| 470 | 19318 | NR | 600 | 145800 | NR | 730 | 7134 | NR | 860 | 1765 | NR | 990 | 3617 | NR |
| 475 | 17265 | NR | 605 | 141363 | NR | 735 | 6437 | NR | 865 | 2581 | NR | 995 | 4767 | NR |
| 480 | 18260 | NR | 610 | 134199 | NR | 740 | 5834 | NR | 870 | 3016 | NR | 1000 | 2528 | NR |
| 485 | 20845 | NR | 615 | 127683 | NR | 745 | 5500 | NR | 875 | 3952 | NR | | | |

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Peachtree City, GA 30269

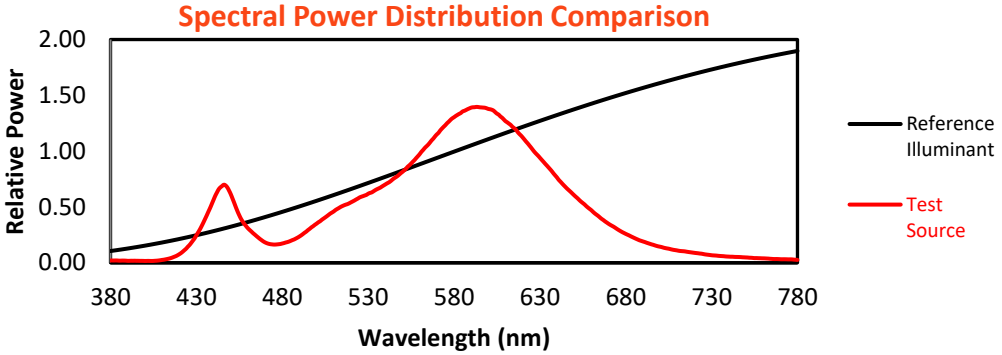
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## TM-30-18

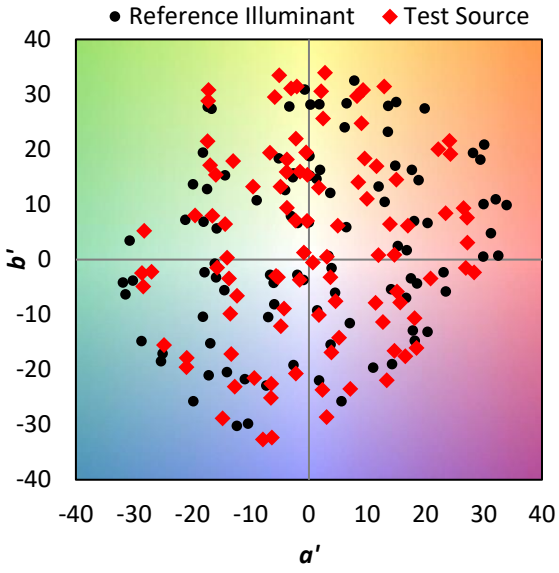
### Summary

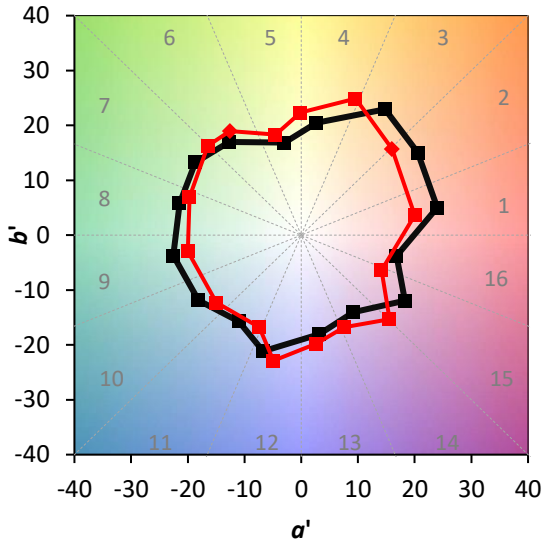
$R_f$ = 75.7
$R_g$ = 93.9
CIE $R_a$ = 71.8
$R_9$ = -38.3

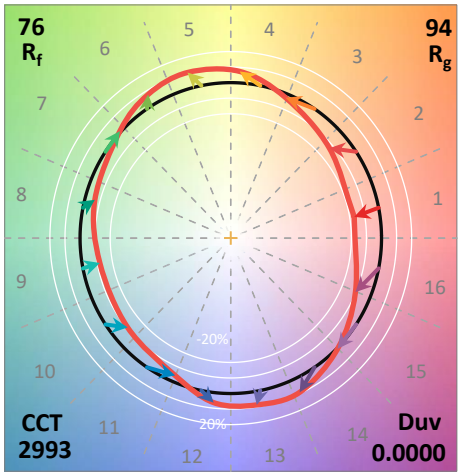
### Spectral Power Distribution Comparison

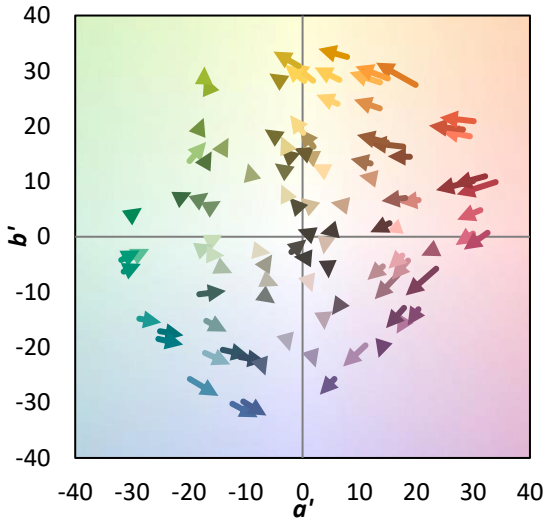



### Color Vector Graphics



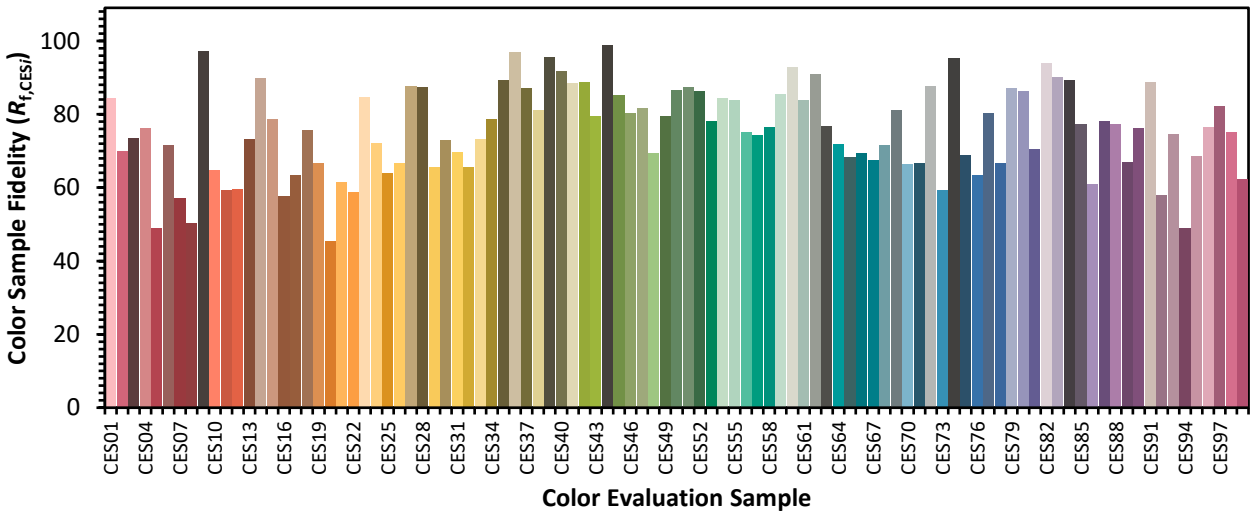
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 67 | CES51 = 87 | CES76 = 63 |
| CES02 = 63 | CES27 = 88 | CES52 = 86 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 66 | CES54 = 84 | CES79 = 87 |
| CES05 = 49 | CES30 = 73 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 70 | CES56 = 75 | CES81 = 71 |
| CES07 = 41 | CES32 = 65 | CES57 = 74 | CES82 = 94 |
| CES08 = 40 | CES33 = 73 | CES58 = 76 | CES83 = 90 |
| CES09 = 29 | CES34 = 79 | CES59 = 85 | CES84 = 89 |
| CES10 = 76 | CES35 = 89 | CES60 = 93 | CES85 = 77 |
| CES11 = 59 | CES36 = 97 | CES61 = 84 | CES86 = 61 |
| CES12 = 65 | CES37 = 87 | CES62 = 91 | CES87 = 78 |
| CES13 = 43 | CES38 = 81 | CES63 = 77 | CES88 = 77 |
| CES14 = 74 | CES39 = 95 | CES64 = 72 | CES89 = 67 |
| CES15 = 71 | CES40 = 92 | CES65 = 68 | CES90 = 76 |
| CES16 = 47 | CES41 = 88 | CES66 = 69 | CES91 = 89 |
| CES17 = 50 | CES42 = 89 | CES67 = 67 | CES92 = 58 |
| CES18 = 56 | CES43 = 79 | CES68 = 72 | CES93 = 74 |
| CES19 = 73 | CES44 = 99 | CES69 = 81 | CES94 = 49 |
| CES20 = 66 | CES45 = 85 | CES70 = 66 | CES95 = 68 |
| CES21 = 87 | CES46 = 80 | CES71 = 67 | CES96 = 76 |
| CES22 = 79 | CES47 = 82 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 69 | CES73 = 59 | CES98 = 75 |
| CES24 = 91 | CES49 = 80 | CES74 = 95 | CES99 = 62 |
| CES25 = 73 | CES50 = 87 | CES75 = 69 | |

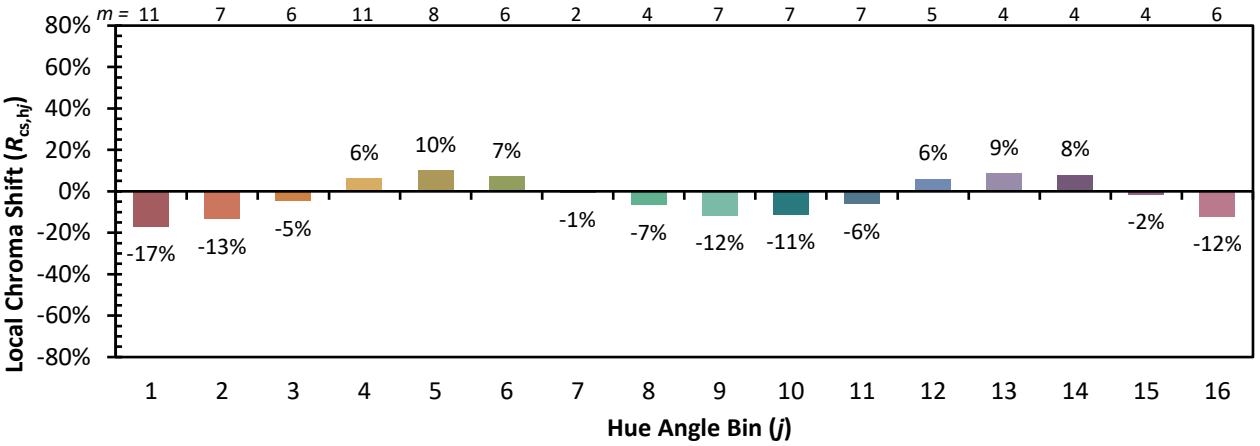


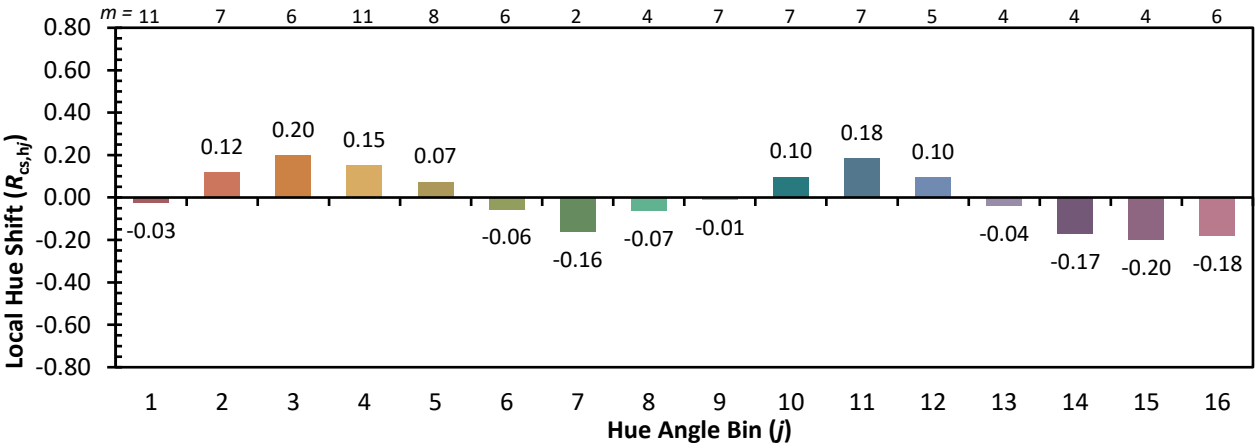
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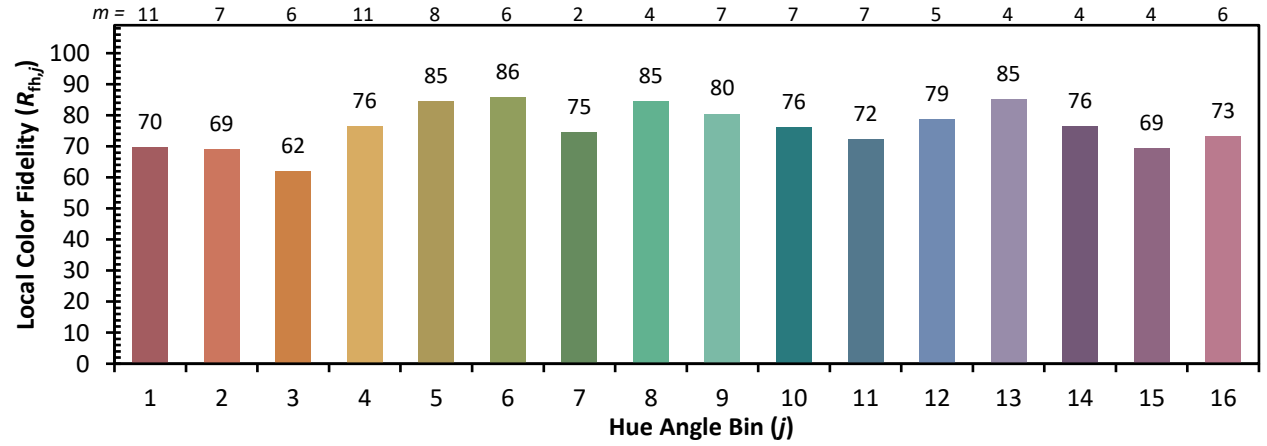
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## Color Rendition by Hue-Angle Bin



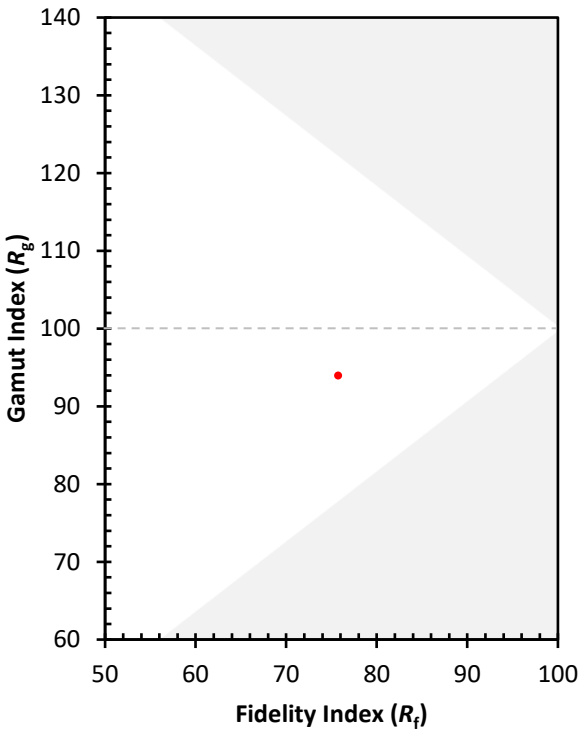



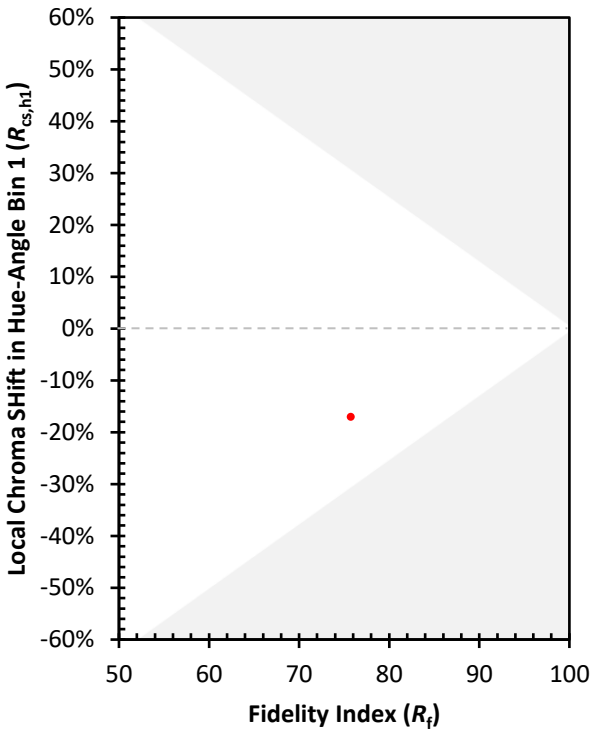
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### Measure Comparisons




(END OF REPORT)