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

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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: P1201945

Luminaire Tested: GWC-SB1C-760-U-SL3

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: | P1201945 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB1C-760-U-SL3 |
| Description: | GALLEON WALL LUMINAIRE |
| | (1) 70 CRI, 5700K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL LIGHT ELIMINATOR OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 7785 lumens |
| Efficiency: | N/A |
| Efficacy: | 143.1 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Medium |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 54.4 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.437 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.993 |
| Total Harmonic Distortion (THDi): | 9.314 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

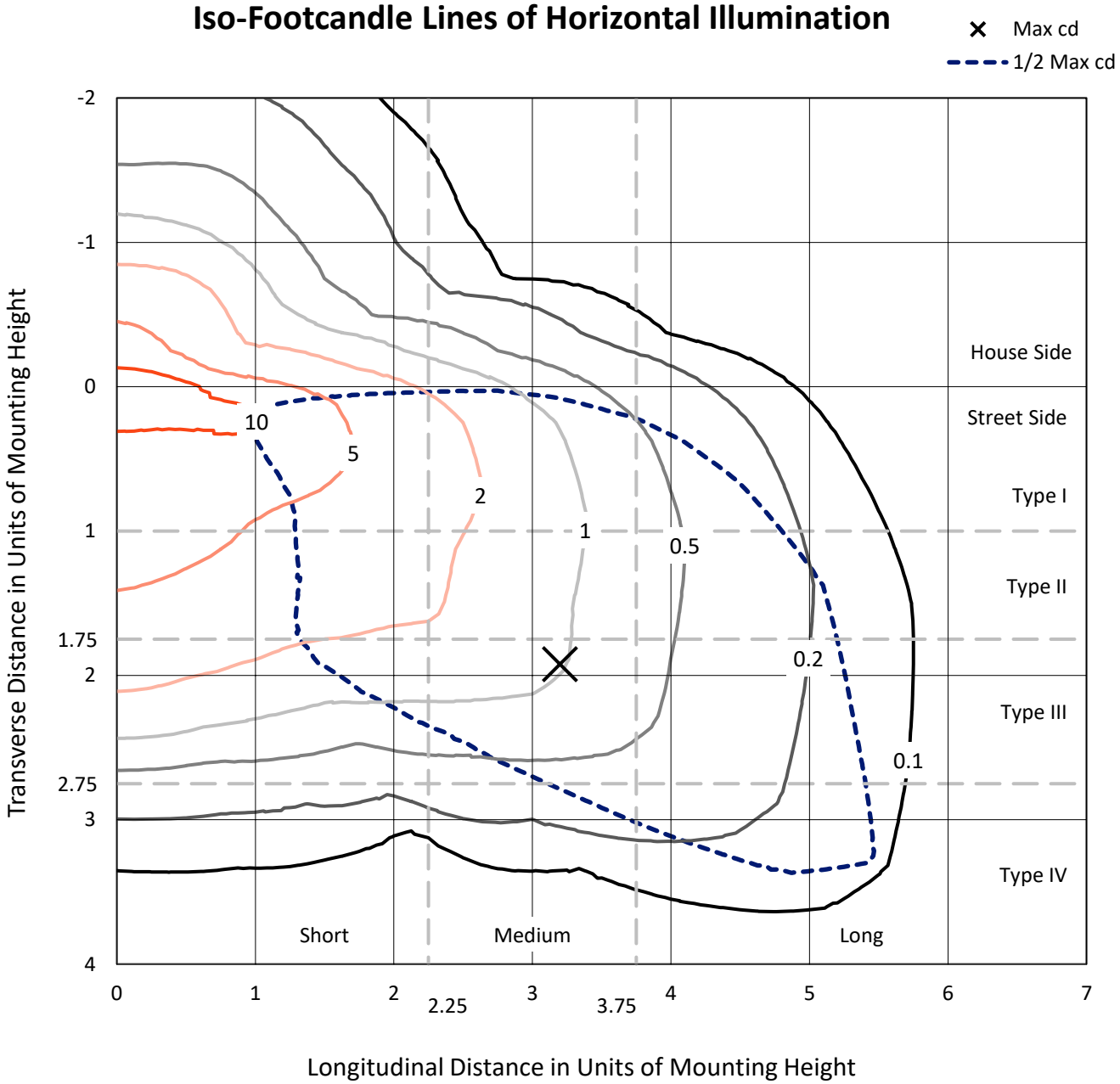


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REPORT NUMBER: P1201945
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## Iso-Footcandle Lines of Horizontal Illumination



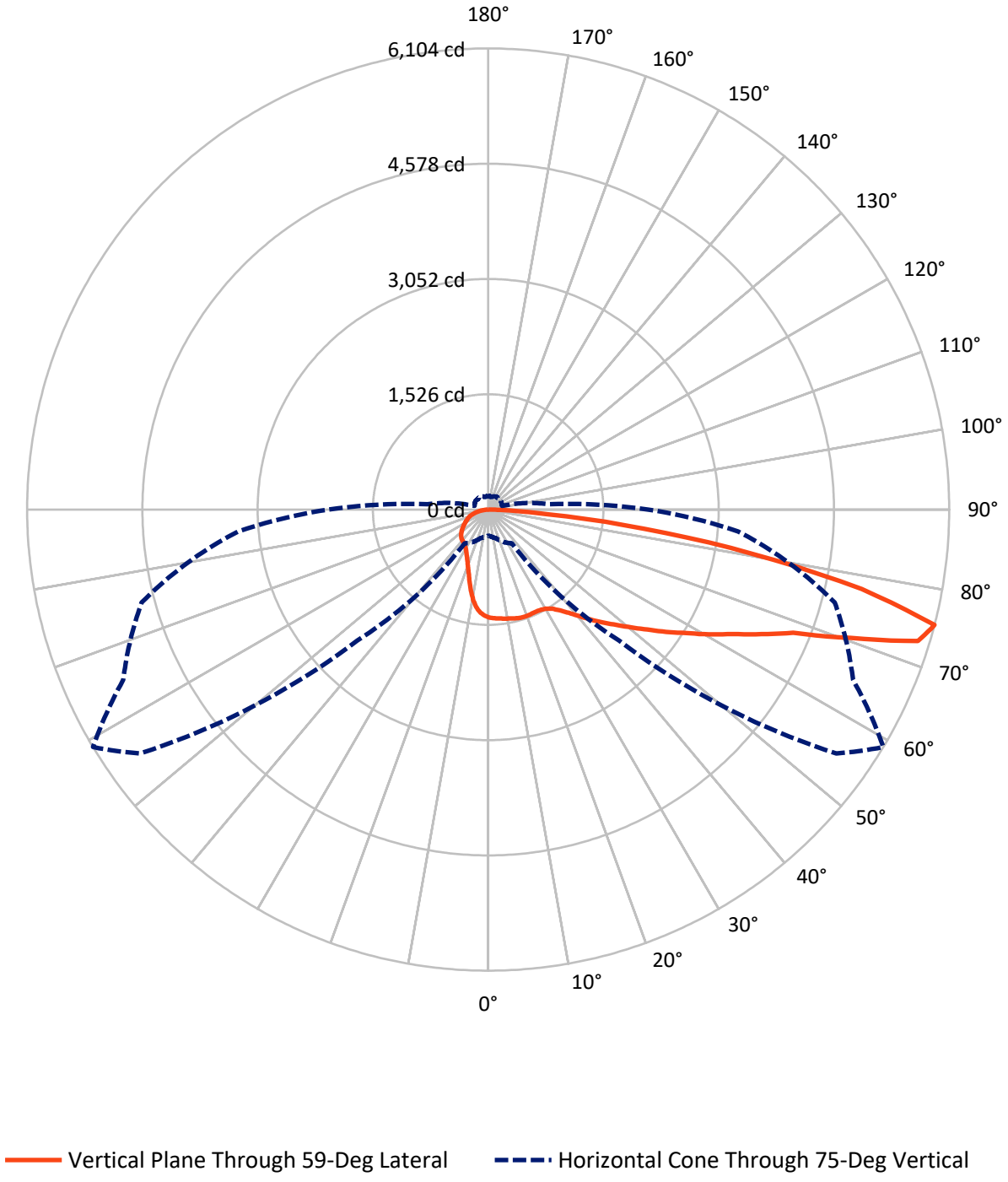

Based on 10 foot mounting height. Maximum calculated value = 11.7 fc
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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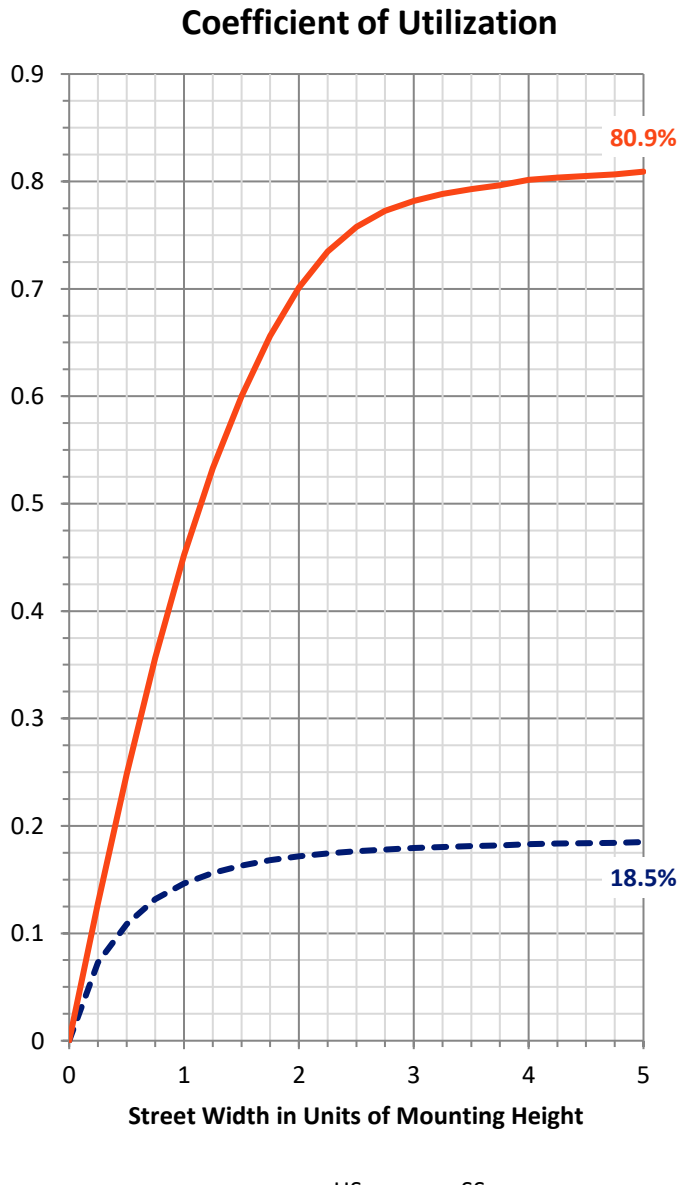
REPORT NUMBER: P1201945
CATALOG NUMBER: GWC-SB1C-760-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1460.1 | 0.0 | 1460.1 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| **Street Side** | Lumens | 6324.9 | 0.0 | 6324.9 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| **Total** | Lumens | 7785.0 | 0.0 | 7785.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 128.1 | 1.6 |
| 10°-20° | 327.5 | 4.2 |
| 20°-30° | 497.4 | 6.4 |
| 30°-40° | 739.4 | 9.5 |
| 40°-50° | 1099.7 | 14.1 |
| 50°-60° | 1492.7 | 19.2 |
| 60°-70° | 1822.3 | 23.4 |
| 70°-80° | 1430.1 | 18.4 |
| 80°-90° | 247.7 | 3.2 |
| 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° | 7785.0 | 100.0 |
| 0°-180° | 7785.0 | 100.0 |



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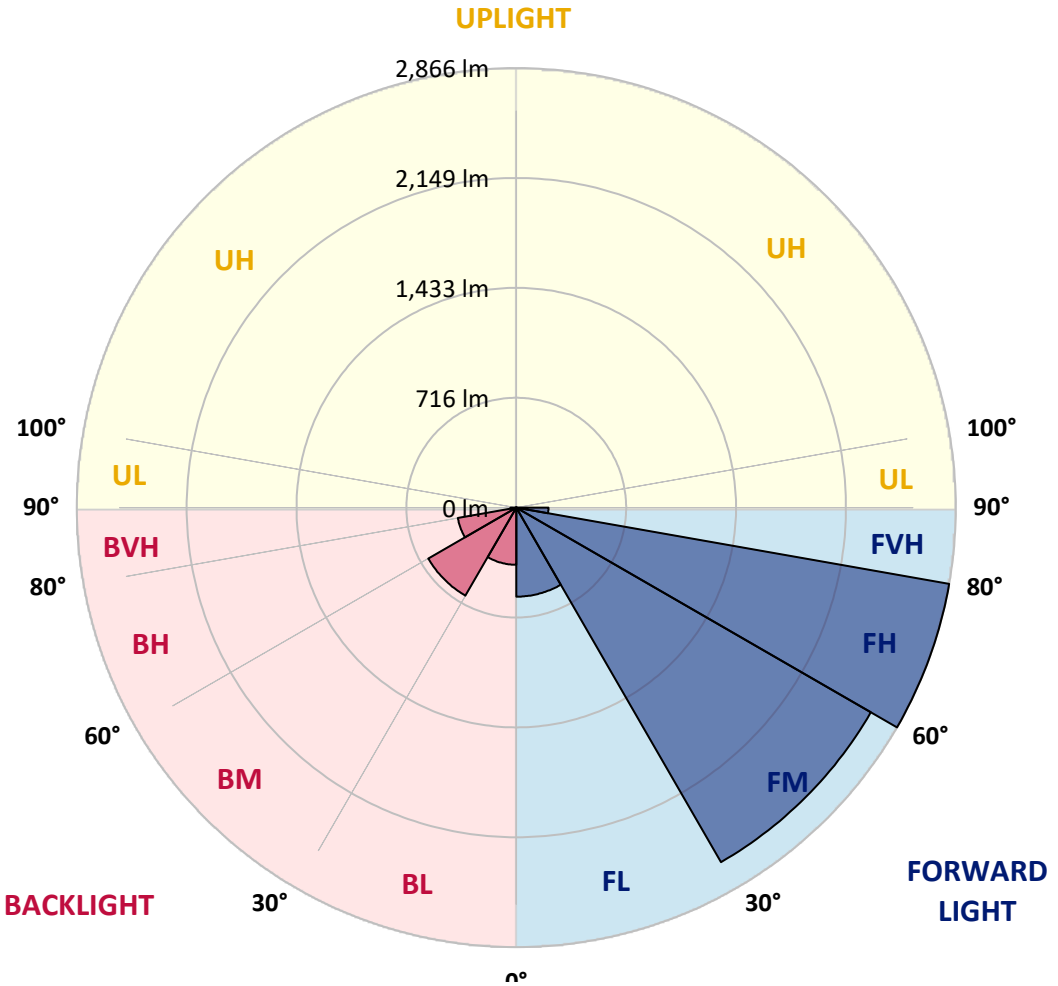
Scaled Data Report

REPORT NUMBER: P1201945
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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°) | 580.5 | 7.5 | | | |
| FM | (30°-60°) | 2669.0 | 34.3 | | | |
| FH | (60°-80°) | 2865.6 | 36.8 | | | G2/5000 |
| FVH | (80°-90°) | 209.8 | 2.7 | | | G2/225 |
| BL | (0°-30°) | 372.6 | 4.8 | B1/500 | | |
| BM | (30°-60°) | 662.8 | 8.5 | B1/1000 | | |
| BH | (60°-80°) | 386.9 | 5.0 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 37.9 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G2**
Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | *1428.9* | 1428.9 | 1428.9 | 1428.9 |
| 2.5° | 1441.1 | 1436.0 | 1441.1 | 1439.0 | 1438.1 | 1436.5 | 1436.9 | *1439.8* | 1438.1 | 1440.2 | 1433.1 |
| 5° | 1431.4 | 1428.5 | 1433.5 | 1432.3 | 1437.7 | 1438.6 | 1444.0 | *1447.3* | 1449.4 | 1449.9 | 1444.4 |
| 7.5° | 1415.5 | 1412.6 | 1419.7 | 1425.6 | 1437.3 | 1440.6 | 1452.0 | *1457.4* | 1460.3 | 1465.4 | 1457.4 |
| 10° | 1357.3 | 1356.0 | 1373.6 | 1395.8 | 1423.5 | 1440.6 | 1457.8 | *1467.0* | 1471.6 | 1485.0 | 1475.8 |
| 12.5° | 1254.3 | 1256.0 | 1279.0 | 1321.7 | 1377.0 | 1432.3 | 1464.5 | *1477.9* | 1485.0 | 1501.8 | 1497.6 |
| 15° | 1155.9 | 1155.4 | 1180.6 | 1226.2 | 1303.7 | 1395.4 | 1467.9 | *1490.9* | 1503.0 | 1527.8 | 1524.4 |
| 17.5° | 1098.9 | 1097.2 | 1114.8 | 1149.6 | 1221.6 | 1338.9 | 1459.5 | *1498.0* | 1524.0 | 1555.0 | 1552.0 |
| 20° | 1088.4 | 1085.1 | 1094.3 | 1111.5 | 1162.6 | 1276.9 | 1437.7 | *1498.0* | 1540.7 | 1580.9 | 1579.3 |
| 22.5° | 1126.6 | 1121.1 | 1117.3 | 1115.2 | 1137.9 | 1225.8 | 1413.0 | *1493.0* | 1565.4 | 1618.2 | 1615.3 |
| 25° | 1203.2 | 1194.8 | 1175.6 | 1156.7 | 1150.0 | 1202.8 | 1391.2 | *1491.7* | 1602.3 | 1668.5 | 1657.6 |
| 27.5° | 1327.2 | 1316.7 | 1277.7 | 1232.5 | 1191.9 | 1214.5 | 1381.6 | *1499.3* | 1642.9 | 1721.7 | 1699.9 |
| 30° | 1480.8 | 1469.5 | 1420.5 | 1351.0 | 1278.2 | 1258.1 | 1393.7 | *1521.5* | 1694.9 | 1792.4 | 1749.7 |
| 32.5° | 1618.6 | 1606.1 | 1564.2 | 1493.4 | 1395.0 | 1333.4 | 1432.3 | *1563.8* | 1776.5 | 1890.8 | 1824.7 |
| 35° | 1740.9 | 1726.3 | 1688.6 | 1623.2 | 1538.2 | 1439.4 | 1501.8 | *1638.7* | 1892.5 | 2050.8 | 1926.4 |
| 37.5° | 1860.7 | 1843.5 | 1802.5 | 1733.4 | 1673.9 | 1580.5 | 1597.7 | *1735.1* | 2046.6 | 2245.1 | 2061.3 |
| 40° | 1994.7 | 1970.0 | 1920.2 | 1851.9 | 1794.1 | 1745.9 | 1723.7 | *1853.2* | 2203.3 | 2462.1 | 2229.7 |
| 42.5° | 2124.5 | 2101.1 | 2041.6 | 1983.4 | 1910.9 | 1897.1 | 1869.9 | *1991.4* | 2374.6 | 2700.4 | 2400.5 |
| 45° | 2264.4 | 2236.4 | 2164.3 | 2090.6 | 2045.0 | 1997.6 | 2011.5 | *2129.6* | 2542.5 | 2943.3 | 2579.8 |
| 47.5° | 2395.5 | 2364.1 | 2279.1 | 2197.0 | 2171.9 | 2082.2 | 2141.3 | *2281.6* | 2717.1 | 3189.5 | 2757.3 |
| 50° | 2466.3 | 2435.3 | 2364.5 | 2290.4 | 2270.7 | 2186.5 | 2282.0 | *2448.7* | 2900.1 | 3434.9 | 2927.8 |
| 52.5° | 2525.3 | 2491.8 | 2399.3 | 2358.2 | 2352.4 | 2300.0 | 2455.4 | *2639.6* | 3083.1 | 3651.9 | 3092.4 |
| 55° | 2588.1 | 2550.9 | 2432.8 | 2395.9 | 2422.7 | 2427.3 | 2661.0 | *2856.2* | 3276.6 | 3863.4 | 3247.7 |
| 57.5° | 2660.6 | 2613.3 | 2465.0 | 2427.7 | 2491.4 | 2576.4 | 2897.2 | *3080.6* | 3466.8 | 4059.4 | 3385.9 |
| 60° | 2728.9 | 2681.1 | 2527.0 | 2478.4 | 2565.5 | 2749.4 | 3168.2 | *3352.4* | 3682.0 | 4234.0 | 3516.6 |
| 62.5° | 2742.3 | 2702.9 | 2576.4 | 2576.0 | 2666.0 | 2951.2 | 3489.0 | *3626.7* | 3870.1 | 4406.5 | 3633.9 |
| 65° | 2510.2 | 2485.5 | 2410.6 | 2572.2 | 2810.1 | 3241.9 | 3846.2 | *3977.7* | 4109.2 | 4557.3 | 3736.9 |
| 67.5° | 1910.5 | 1913.9 | 1908.4 | 2220.4 | 2693.7 | 3659.4 | 4363.4 | *4353.3* | 4404.4 | 4726.5 | 3855.4 |
| 70° | 873.6 | 893.3 | 1021.4 | 1532.8 | 2158.0 | 3707.6 | 5218.6 | *5088.3* | 4775.1 | 4945.5 | 3958.0 |
| 72.5° | 472.0 | 487.1 | 539.4 | 742.5 | 1297.4 | 3296.3 | 5857.6 | *5950.2* | 5268.0 | 5092.9 | 3845.4 |
| 75° | *346.3* | *354.7* | *391.2* | *472.0* | *544.8* | *2449.9* | *5628.6* | *6103.5* | *5329.6* | *4749.1* | *3320.6* |
| 77.5° | 259.2 | 263.0 | 292.7 | 374.0 | 278.9 | 1291.6 | 4497.4 | *5054.8* | 4562.3 | 3901.9 | 2452.9 |
| 80° | 188.0 | 192.2 | 214.4 | 280.6 | 195.6 | 472.4 | 3088.2 | *3548.0* | 3124.6 | 2487.2 | 1222.5 |
| 82.5° | 129.8 | 131.5 | 141.1 | 191.0 | 136.5 | 183.4 | 1752.2 | *2080.6* | 1744.3 | 872.8 | 330.0 |
| 85° | 78.3 | 80.4 | 84.6 | 111.4 | 77.5 | 87.1 | 756.3 | *782.3* | 521.4 | 208.6 | 102.6 |
| 87.5° | 32.2 | 34.3 | 37.7 | 46.9 | 30.6 | 24.3 | 124.8 | *156.6* | 97.6 | 61.1 | 31.8 |
| 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: P1201945
CATALOG NUMBER: GWC-SB1C-760-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 | 1428.9 |
| 2.5° | 1431.0 | 1428.1 | 1420.1 | 1409.2 | 1399.2 | 1386.6 | 1381.2 | 1376.6 | 1372.4 | 1364.4 | 1360.7 |
| 5° | 1439.8 | 1431.9 | 1410.5 | 1382.9 | 1351.4 | 1317.1 | 1283.6 | 1260.6 | 1240.9 | 1226.2 | 1214.1 |
| 7.5° | 1453.2 | 1438.1 | 1399.2 | 1342.6 | 1270.6 | 1196.9 | 1130.3 | 1083.0 | 1047.4 | 1034.4 | 1011.8 |
| 10° | 1467.0 | 1449.0 | 1381.2 | 1281.5 | 1157.1 | 1043.6 | 955.3 | 906.7 | 878.2 | 869.0 | 854.8 |
| 12.5° | 1483.4 | 1457.0 | 1353.1 | 1196.5 | 1030.2 | 905.8 | 828.8 | 800.3 | 785.7 | 780.6 | 781.9 |
| 15° | 1507.2 | 1463.7 | 1310.8 | 1090.1 | 909.2 | 805.3 | 755.5 | 735.8 | 728.3 | 727.9 | 729.5 |
| 17.5° | 1525.2 | 1464.9 | 1245.1 | 976.2 | 816.2 | 744.6 | 703.6 | 696.0 | 701.1 | 708.6 | 711.5 |
| 20° | 1545.3 | 1453.6 | 1158.8 | 872.3 | 750.9 | 691.4 | 674.3 | 679.3 | 691.4 | 702.3 | 706.1 |
| 22.5° | 1559.6 | 1433.1 | 1054.5 | 791.5 | 694.4 | 660.9 | 660.0 | 670.5 | 677.2 | 682.6 | 685.6 |
| 25° | 1572.1 | 1398.3 | 944.0 | 723.7 | 647.9 | 642.4 | 651.6 | 648.3 | 643.7 | 648.3 | 651.2 |
| 27.5° | 1581.4 | 1343.5 | 845.1 | 664.2 | 615.2 | 629.9 | 624.4 | 616.9 | 616.5 | 619.0 | 623.2 |
| 30° | 1578.4 | 1270.2 | 763.9 | 607.7 | 592.2 | 606.4 | 593.4 | 592.2 | 590.9 | 592.2 | 596.8 |
| 32.5° | 1578.4 | 1186.9 | 701.5 | 568.7 | 577.5 | 572.1 | 570.8 | 567.9 | 562.9 | 562.4 | 567.9 |
| 35° | 1587.2 | 1103.5 | 647.9 | 547.8 | 565.4 | 552.4 | 553.2 | 546.1 | 535.6 | 530.6 | 535.6 |
| 37.5° | 1605.2 | 1036.5 | 594.7 | 537.7 | 544.0 | 543.6 | 540.2 | 528.1 | 509.7 | 493.8 | 499.2 |
| 40° | 1648.8 | 1016.8 | 558.3 | 533.1 | 534.0 | 539.0 | 530.2 | 506.7 | 464.9 | 438.9 | 442.2 |
| 42.5° | 1717.0 | 1049.9 | 550.3 | 521.8 | 527.3 | 532.3 | 515.1 | 460.7 | 430.9 | 415.4 | 415.4 |
| 45° | 1803.7 | 1107.7 | 567.5 | 505.5 | 511.3 | 520.1 | 469.0 | 443.1 | 429.7 | 430.1 | 432.2 |
| 47.5° | 1913.5 | 1168.4 | 599.3 | 491.2 | 488.3 | 493.3 | 438.5 | 422.6 | 404.1 | 408.7 | 420.5 |
| 50° | 2040.4 | 1230.0 | 629.4 | 472.0 | 462.8 | 446.4 | 418.8 | 403.7 | 380.3 | 369.4 | 372.3 |
| 52.5° | 2177.7 | 1289.5 | 641.6 | 448.5 | 435.1 | 416.3 | 405.4 | 387.0 | 358.5 | 340.5 | 340.1 |
| 55° | 2308.0 | 1343.5 | 628.2 | 420.5 | 407.5 | 392.8 | 391.2 | 379.8 | 349.3 | 324.1 | 324.1 |
| 57.5° | 2431.1 | 1388.7 | 594.7 | 392.0 | 379.4 | 370.6 | 381.9 | 376.5 | 338.0 | 305.7 | 304.0 |
| 60° | 2535.4 | 1419.7 | 546.1 | 363.1 | 354.3 | 349.7 | 366.9 | 365.2 | 322.1 | 286.0 | 284.8 |
| 62.5° | 2618.3 | 1431.9 | 492.5 | 335.5 | 333.4 | 325.0 | 345.9 | 345.9 | 301.9 | 266.8 | 265.5 |
| 65° | 2683.2 | 1420.1 | 438.1 | 308.2 | 312.4 | 299.9 | 320.4 | 317.9 | 280.6 | 249.6 | 247.9 |
| 67.5° | 2740.6 | 1381.6 | 377.8 | 281.4 | 291.1 | 275.1 | 293.6 | 287.7 | 257.1 | 232.4 | 230.8 |
| 70° | 2766.1 | 1292.0 | 309.1 | 254.6 | 266.4 | 250.9 | 266.8 | 255.9 | 230.8 | 214.0 | 210.7 |
| 72.5° | 2560.9 | 1073.8 | 243.3 | 226.6 | 236.6 | 224.1 | 237.9 | 225.3 | 202.3 | 194.7 | 188.5 |
| 75° | *2118.7* | *805.8* | *187.2* | *196.0* | *203.5* | *193.9* | *203.1* | *193.9* | *173.0* | *178.4* | *162.9* |
| 77.5° | 1538.6 | 544.0 | 143.2 | 163.7 | 167.1 | 162.1 | 170.0 | 159.6 | 140.7 | 139.5 | 133.2 |
| 80° | 765.1 | 318.7 | 112.2 | 129.4 | 128.2 | 124.8 | 134.0 | 129.0 | 113.1 | 119.8 | 118.5 |
| 82.5° | 221.5 | 136.5 | 81.7 | 90.9 | 88.4 | 89.2 | 95.9 | 98.4 | 147.4 | 146.2 | 149.5 |
| 85° | 69.5 | 53.6 | 49.0 | 50.7 | 48.2 | 49.4 | 56.5 | 112.2 | 103.9 | 60.7 | 65.8 |
| 87.5° | 18.0 | 18.4 | 12.1 | 13.0 | 13.4 | 15.9 | 18.0 | 68.3 | 32.7 | 21.4 | 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 |


HS
SS

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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

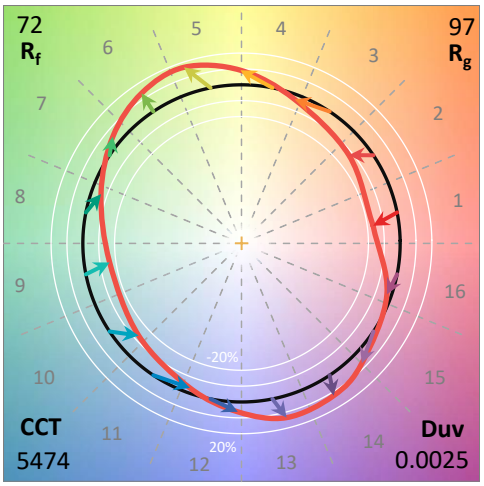
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-760-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 5474 | CRI (Ra): | 71.7 | | |
| CIE u': | 0.2052 | R1: | 70.6 | R9: | -27.1 |
| CIE v': | 0.4804 | R2: | 74.6 | R10: | 40.8 |
| Duv: | 0.0025 | R3: | 78.3 | R11: | 74.6 |
| CIE x: | 0.3330 | R4: | 73.8 | R12: | 50.4 |
| CIE y: | 0.3466 | R5: | 72.4 | R13: | 70.0 |
| CIE z: | 0.3204 | R6: | 67.5 | R14: | 87.8 |
| Peak Wavelength (nm): | 442 | R7: | 77.5 | | |
| Dominant Wavelength (nm): | 554 | R8: | 58.9 | | |
| Purity: | 4.1 | | | | |

| | |
|---|---|
| Rf: | 72.1 |
| Rg: | 97.2 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 240M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 24.6/31% |
| Sphere Temperature (°C): | 25.9 |

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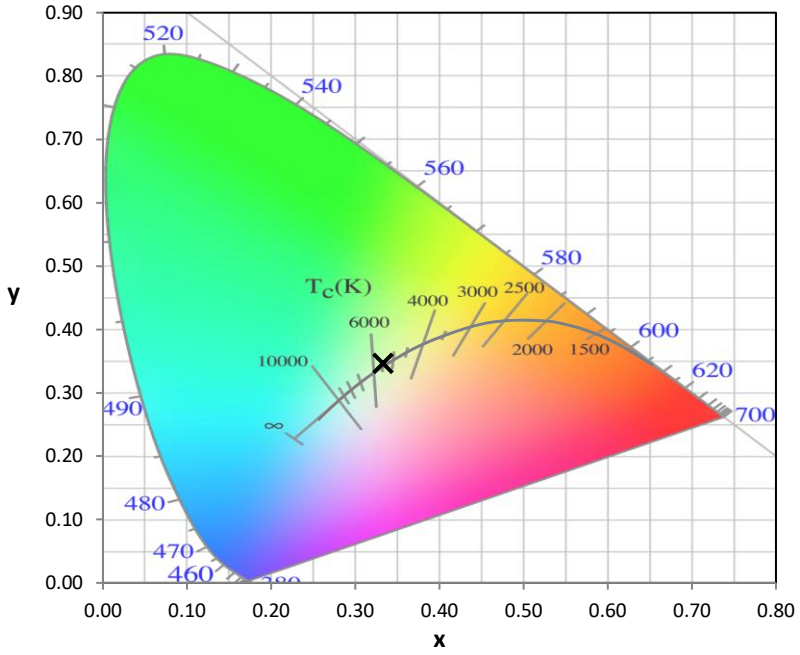
REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

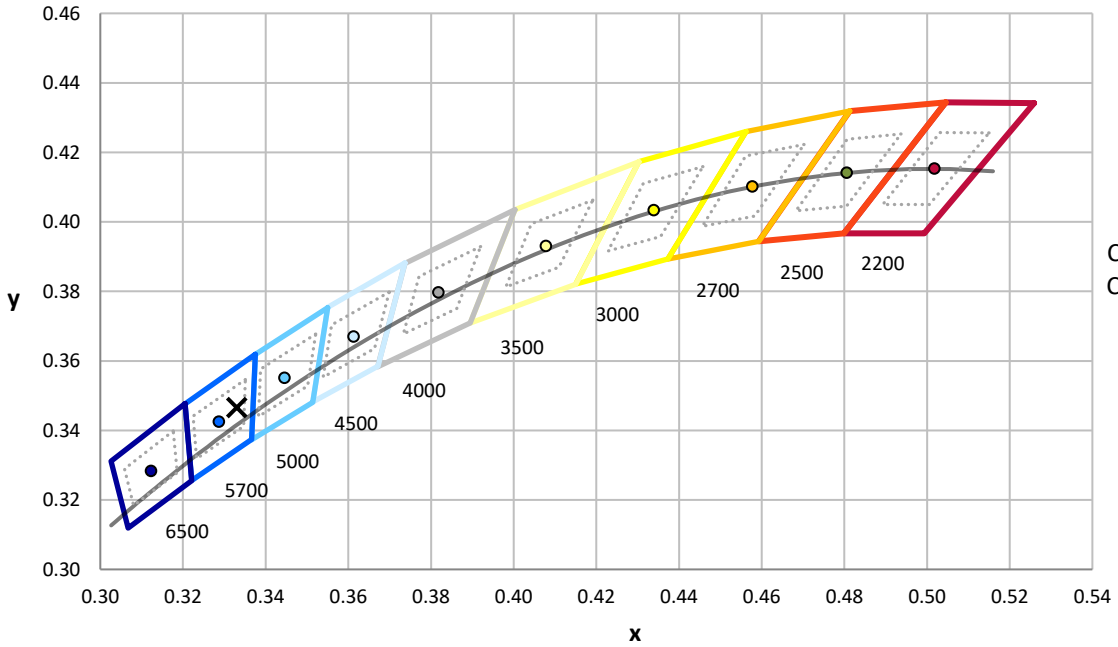
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-9-R4

## CIE 1931 Chromaticity Diagram




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



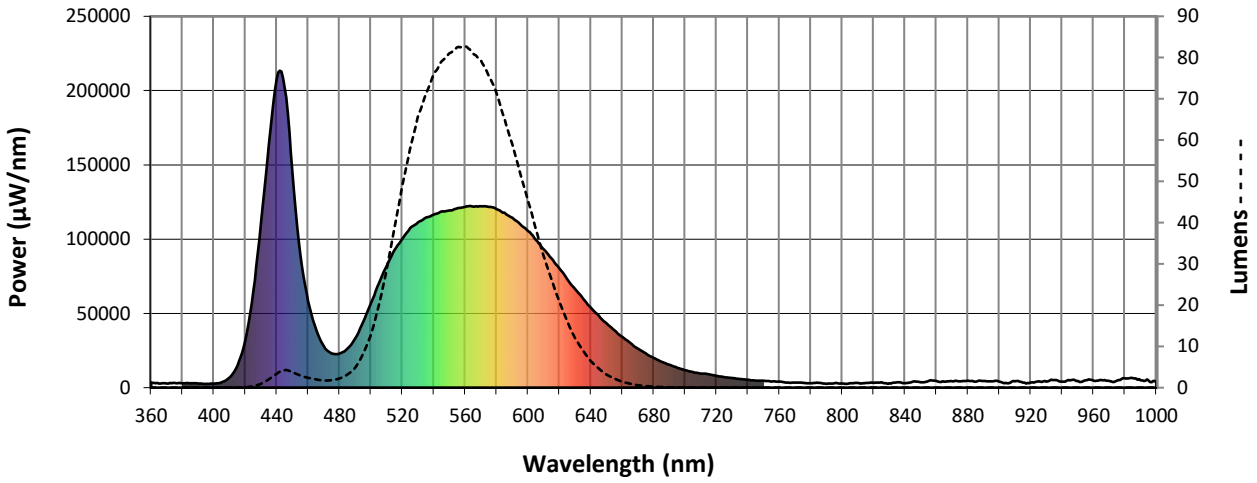

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



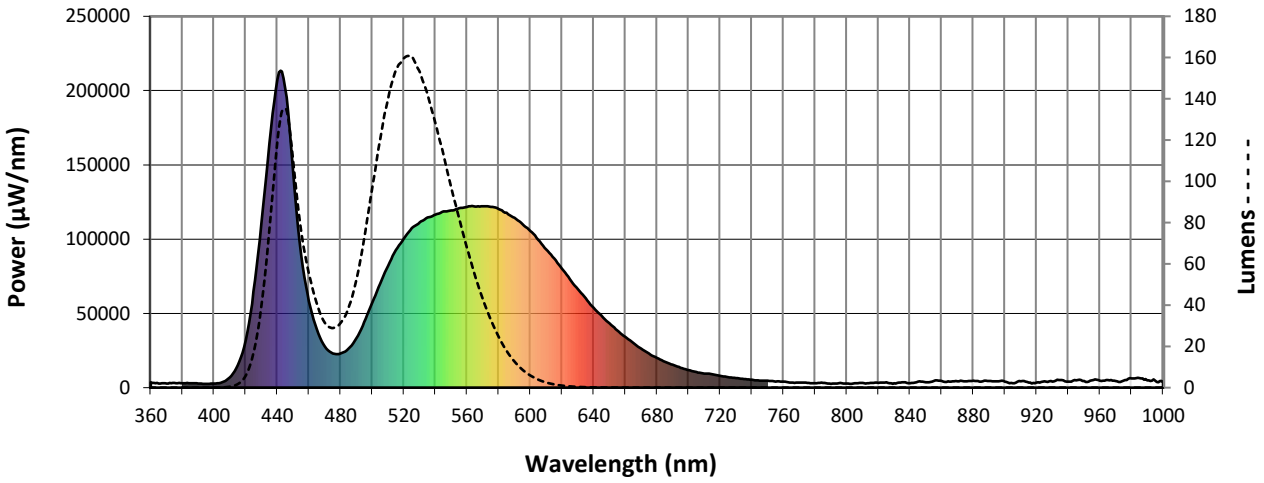

**Photopic Lumens: 7459.9**

| 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 | 3540 | 0.0 | 490 | 33363 | 4.7 | 620 | 80193 | 20.9 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 8.0 | 625 | 73091 | 16.1 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 12.6 | 630 | 66269 | 12.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 19.6 | 635 | 60012 | 9.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 28.2 | 640 | 53914 | 6.4 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 38.4 | 645 | 48385 | 4.7 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 48.6 | 650 | 43219 | 3.2 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 57.7 | 655 | 38562 | 2.2 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 65.6 | 660 | 34110 | 1.4 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.0 | 535 | 114505 | 71.0 | 665 | 30085 | 1.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.0 | 540 | 116408 | 75.8 | 670 | 26205 | 0.6 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 0.0 | 545 | 118700 | 79.0 | 675 | 22906 | 0.4 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 0.1 | 550 | 119209 | 81.0 | 680 | 20058 | 0.2 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 0.3 | 555 | 120742 | 82.5 | 685 | 17413 | 0.1 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 0.9 | 560 | 121594 | 82.6 | 690 | 15447 | 0.1 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 1.9 | 565 | 121913 | 81.1 | 695 | 13398 | 0.1 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 3.3 | 570 | 122147 | 79.4 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 4.2 | 575 | 121605 | 75.7 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 3.8 | 580 | 120248 | 71.5 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 3.0 | 585 | 117717 | 65.4 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 2.4 | 590 | 114359 | 59.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 2.0 | 595 | 109974 | 52.1 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 1.7 | 600 | 105269 | 45.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 1.8 | 605 | 99453 | 38.5 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 2.2 | 610 | 92921 | 31.9 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 3.1 | 615 | 86989 | 26.3 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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## Scotopic Flux vs. Wavelength



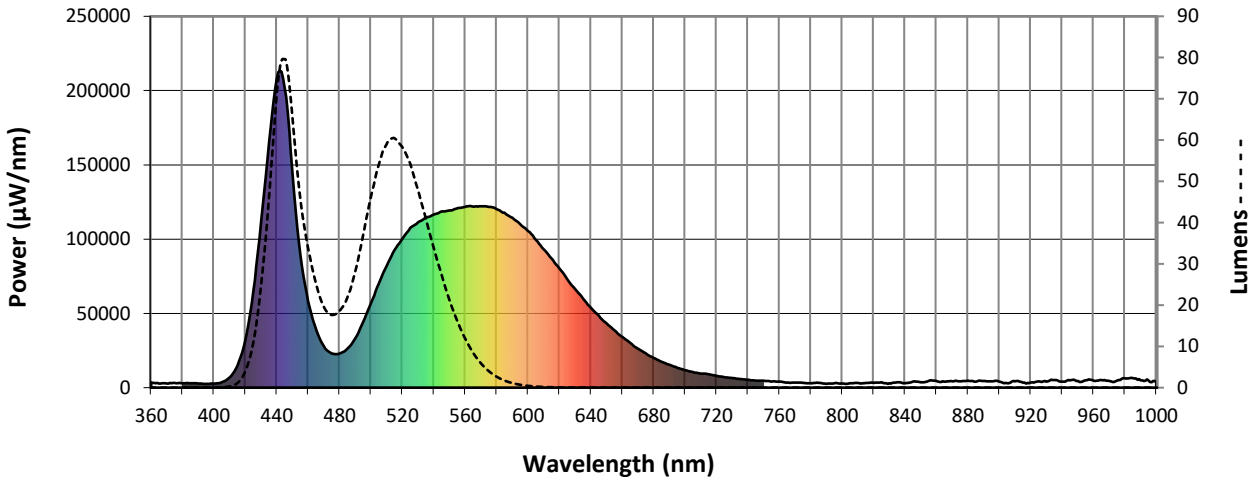

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| 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 | 3540 | 0.0 | 490 | 33363 | 27.8 | 620 | 80193 | 0.1 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 36.5 | 625 | 73091 | 0.0 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 45.8 | 630 | 66269 | 0.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 53.7 | 635 | 60012 | 0.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 58.9 | 640 | 53914 | 0.0 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 60.5 | 645 | 48385 | 0.0 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 58.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 54.5 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 48.1 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 41.2 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.3 | 540 | 116408 | 34.1 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.0 | 545 | 118700 | 27.6 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 3.6 | 550 | 119209 | 21.4 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 10.1 | 555 | 120742 | 16.3 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 23.4 | 560 | 121594 | 12.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 43.9 | 565 | 121913 | 8.6 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 69.4 | 570 | 122147 | 6.0 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 79.6 | 575 | 121605 | 4.0 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 67.0 | 580 | 120248 | 2.7 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 46.9 | 585 | 117717 | 1.7 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 34.4 | 590 | 114359 | 1.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 25.7 | 595 | 109974 | 0.7 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 19.8 | 600 | 105269 | 0.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 17.6 | 605 | 99453 | 0.3 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 18.5 | 610 | 92921 | 0.2 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 21.6 | 615 | 86989 | 0.1 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 5527.6** **M/P: 0.74**

| 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 | 3540 | 0.0 | 490 | 33363 | 51.4 | 620 | 80193 | 1.0 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 71.4 | 625 | 73091 | 0.6 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 95.4 | 630 | 66269 | 0.4 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 119.1 | 635 | 60012 | 0.2 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 138.9 | 640 | 53914 | 0.1 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 153.5 | 645 | 48385 | 0.1 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 159.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 160.7 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 153.5 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 142.7 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.4 | 540 | 116408 | 128.6 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.5 | 545 | 118700 | 113.8 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 5.3 | 550 | 119209 | 97.5 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 15.8 | 555 | 120742 | 82.5 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 37.8 | 560 | 121594 | 68.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 73.6 | 565 | 121913 | 54.7 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 116.1 | 570 | 122147 | 43.1 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 135.1 | 575 | 121605 | 33.1 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 112.7 | 580 | 120248 | 24.8 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 78.3 | 585 | 117717 | 18.0 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 56.3 | 590 | 114359 | 12.7 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 41.5 | 595 | 109974 | 8.8 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 31.9 | 600 | 105269 | 5.9 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 28.9 | 605 | 99453 | 3.9 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 31.1 | 610 | 92921 | 2.5 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 38.0 | 615 | 86989 | 1.6 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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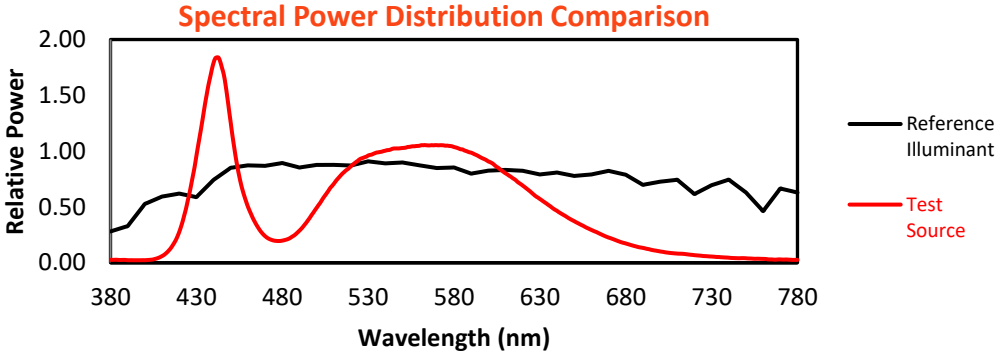
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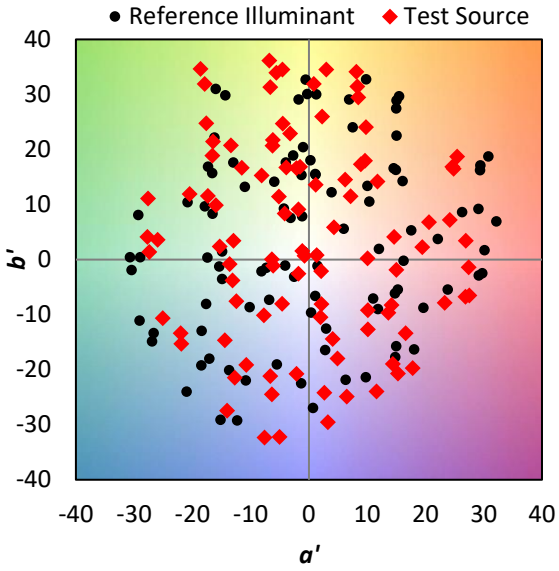
## Summary

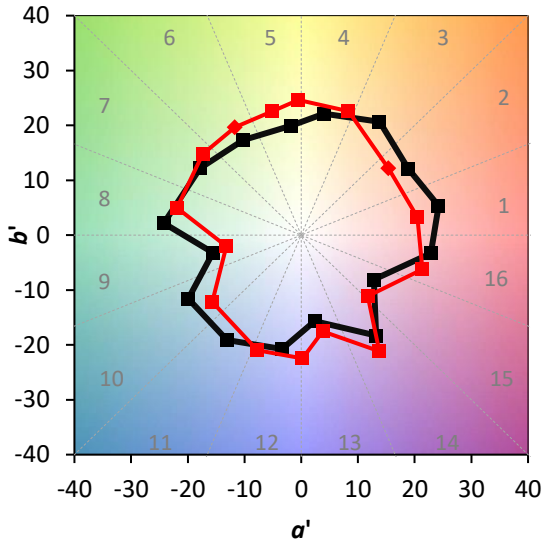
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

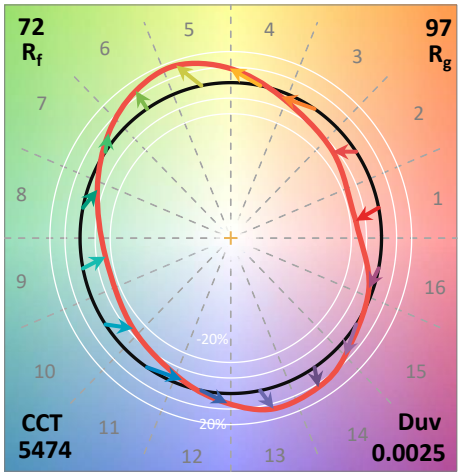
## Spectral Power Distribution Comparison

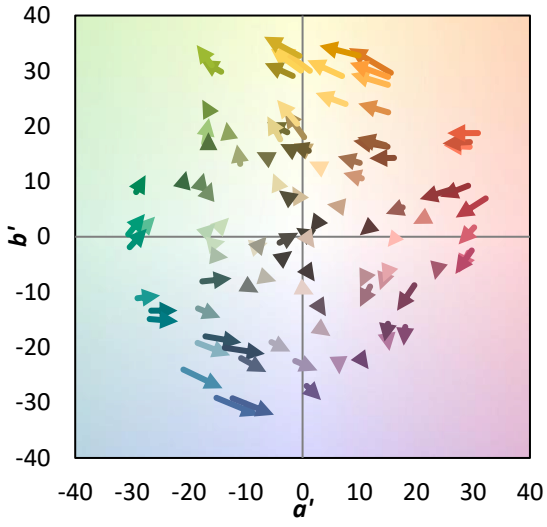



## Color Vector Graphics



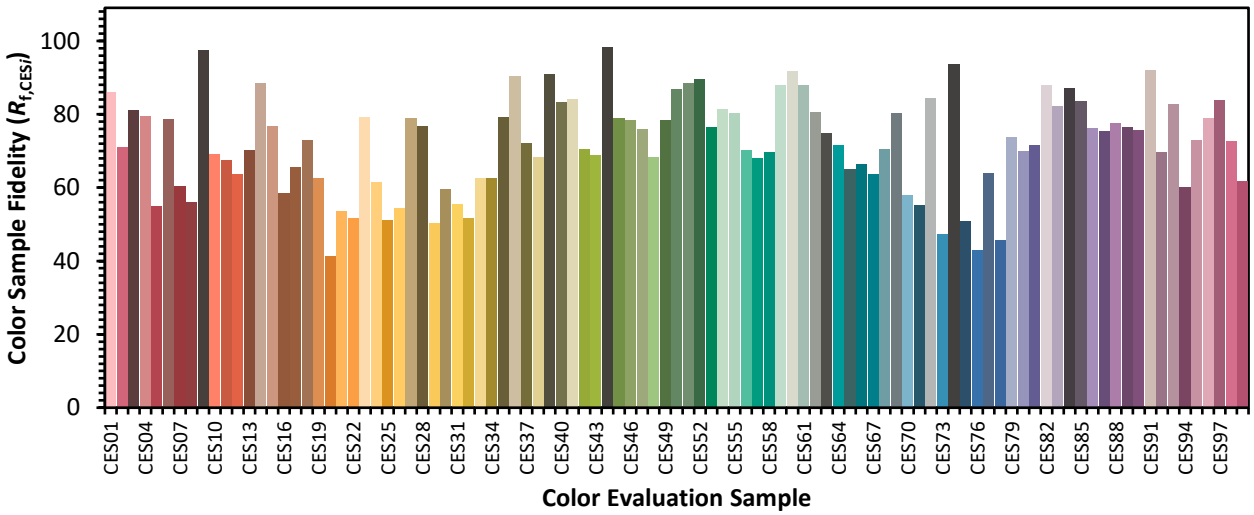
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 54 | CES51 = 88 | CES76 = 43 |
| CES02 = 59 | CES27 = 79 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 50 | CES54 = 81 | CES79 = 74 |
| CES05 = 46 | CES30 = 59 | CES55 = 80 | CES80 = 70 |
| CES06 = 50 | CES31 = 55 | CES56 = 70 | CES81 = 71 |
| CES07 = 38 | CES32 = 52 | CES57 = 68 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 82 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 84 |
| CES11 = 55 | CES36 = 90 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 72 | CES62 = 81 | CES87 = 75 |
| CES13 = 41 | CES38 = 68 | CES63 = 75 | CES88 = 77 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 84 | CES66 = 66 | CES91 = 92 |
| CES17 = 48 | CES42 = 70 | CES67 = 64 | CES92 = 70 |
| CES18 = 55 | CES43 = 69 | CES68 = 71 | CES93 = 83 |
| CES19 = 70 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 73 |
| CES21 = 85 | CES46 = 78 | CES71 = 55 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 68 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 78 | CES74 = 94 | CES99 = 62 |
| CES25 = 71 | CES50 = 87 | CES75 = 51 | |

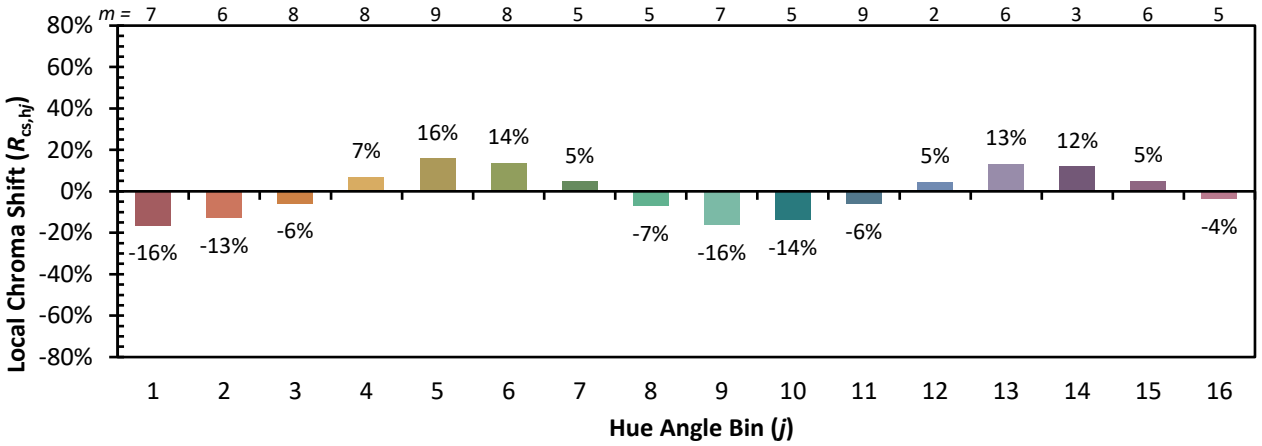


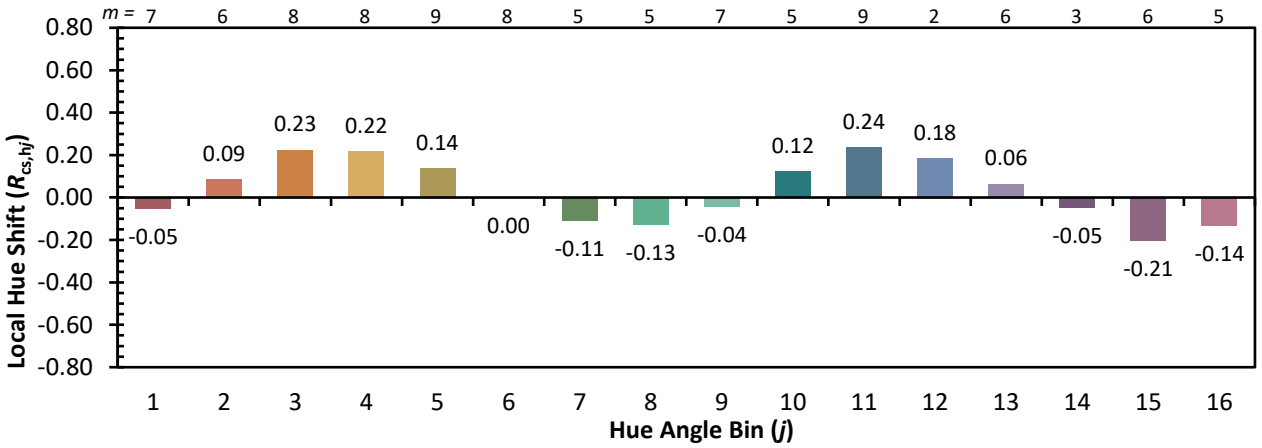
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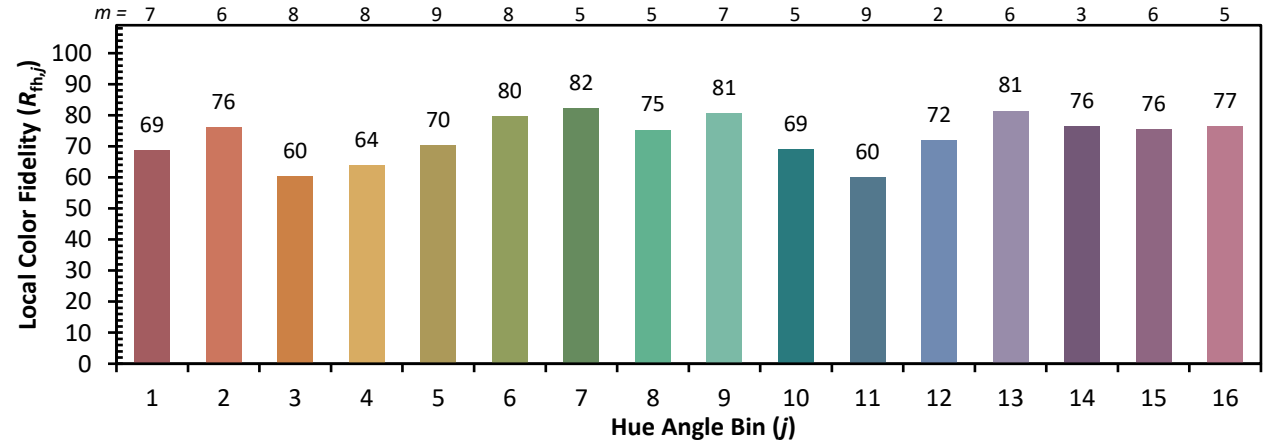
REPORT NUMBER: SP1-1908-441-9-R4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



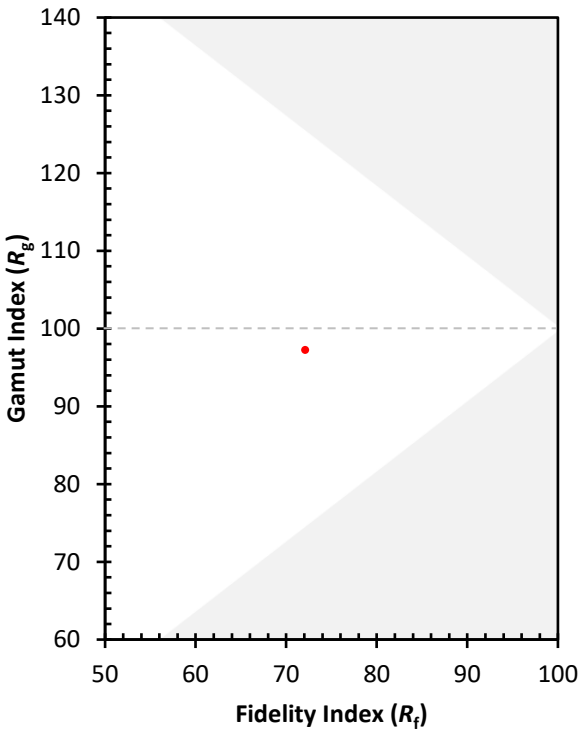



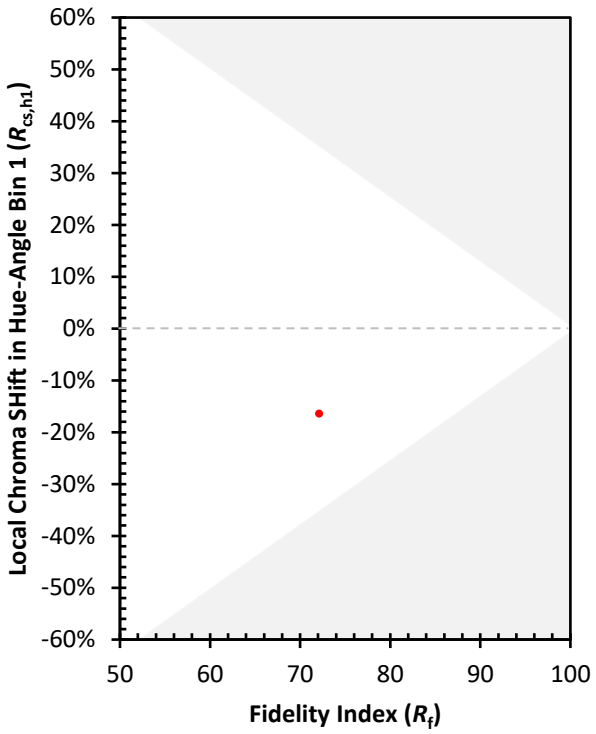
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### Measure Comparisons




(END OF REPORT)