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: P1197331

Luminaire Tested: GPC-SB1A-730-U-T4FT

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: | P1197331 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB1A-730-U-T4FT |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD THROW OPT |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 4457 lumens |
| Efficiency: | N/A |
| Efficacy: | 144.2 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 30.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.263 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.995 |
| Total Harmonic Distortion (THDi): | 6.356 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

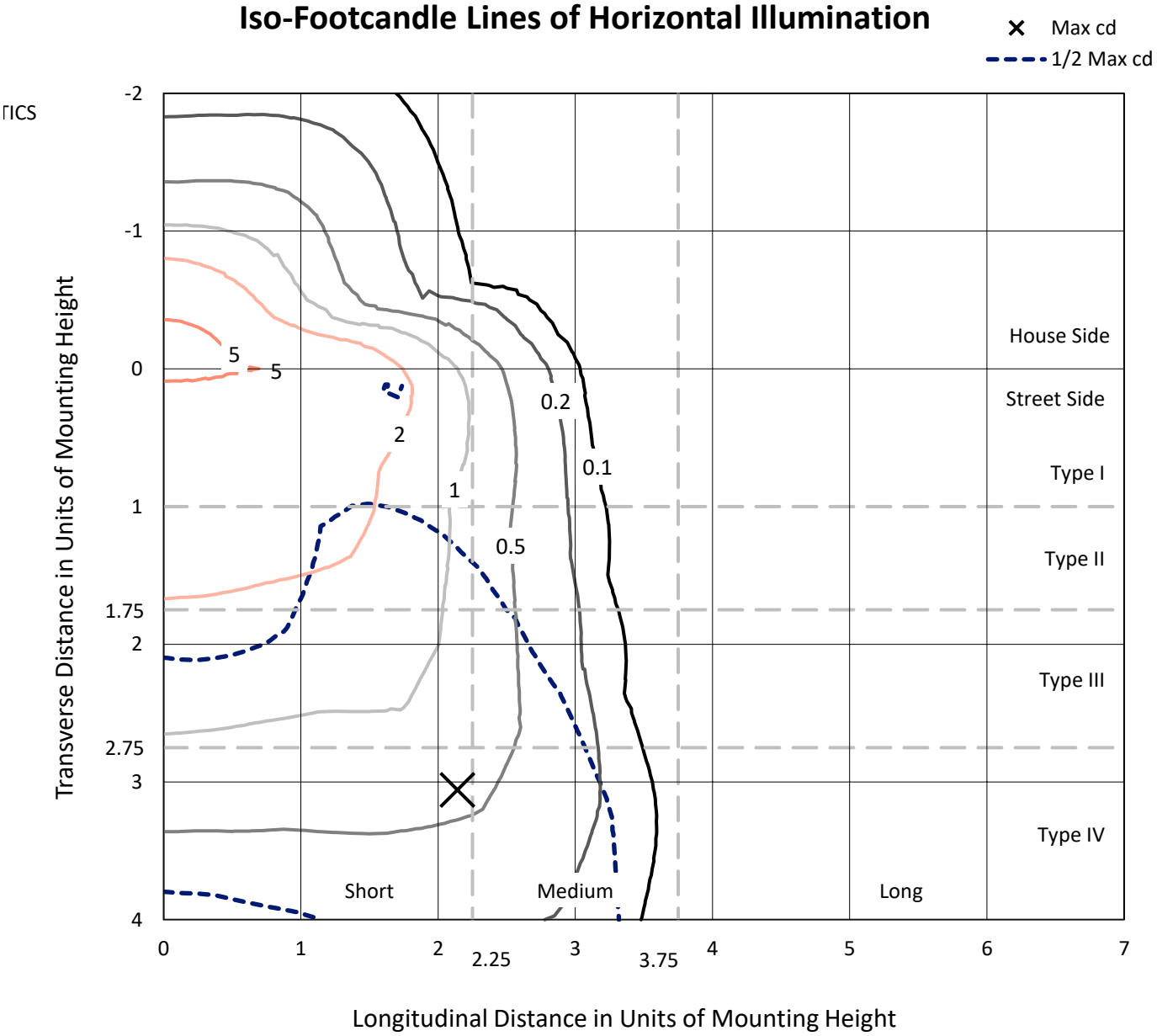


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Scaled Data Report

REPORT NUMBER: P1197331
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## Iso-Footcandle Lines of Horizontal Illumination



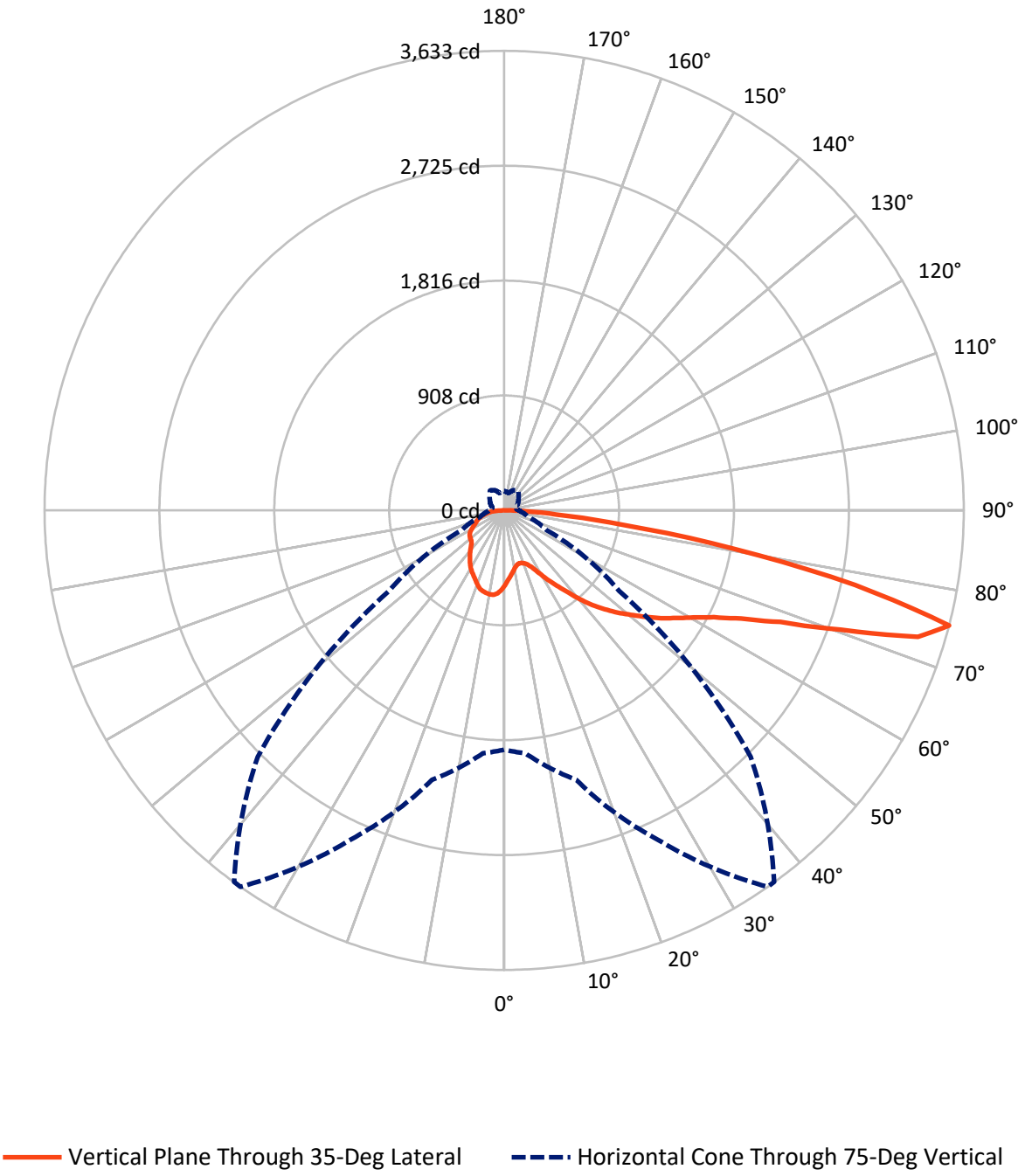

Based on 10 foot mounting height. Maximum calculated value = 6.6 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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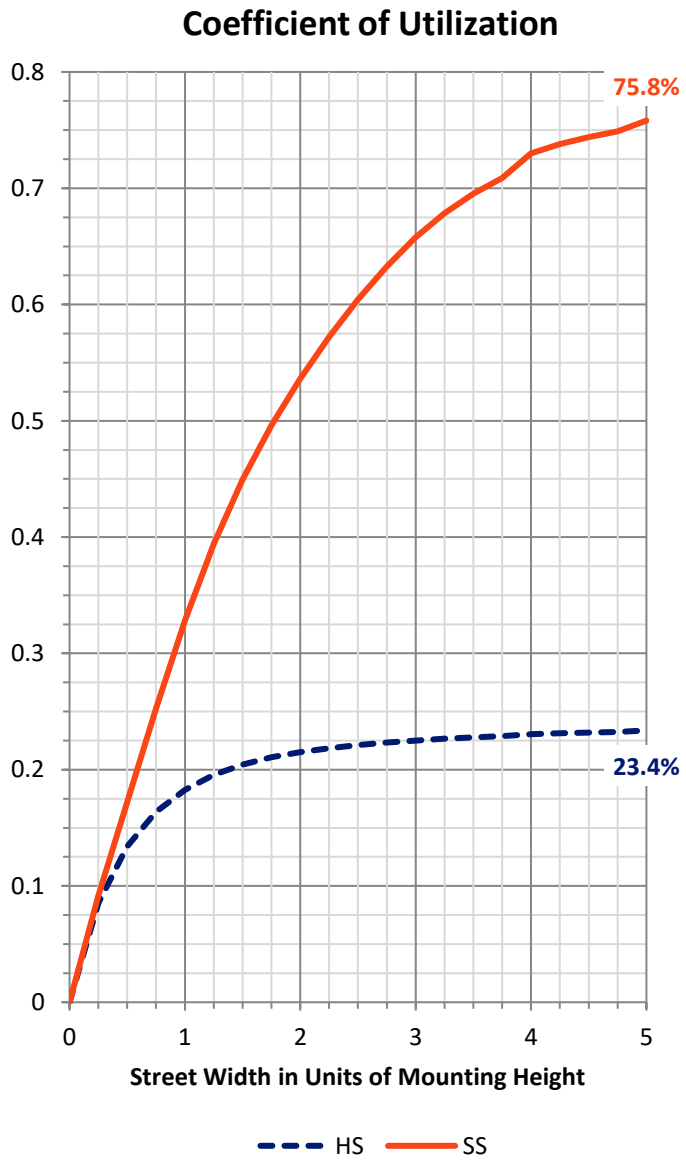
REPORT NUMBER: P1197331
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1060.7 | 0.0 | 1060.7 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| **Street Side** | Lumens | 3396.3 | 0.0 | 3396.3 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| **Total** | Lumens | 4457.0 | 0.0 | 4457.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 56.2 | 1.3 |
| 10°-20° | 162.2 | 3.6 |
| 20°-30° | 272.4 | 6.1 |
| 30°-40° | 423.3 | 9.5 |
| 40°-50° | 628.3 | 14.1 |
| 50°-60° | 867.4 | 19.5 |
| 60°-70° | 1052.4 | 23.6 |
| 70°-80° | 869.7 | 19.5 |
| 80°-90° | 125.1 | 2.8 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 4457.0 | 100.0 |
| 0°-180° | 4457.0 | 100.0 |



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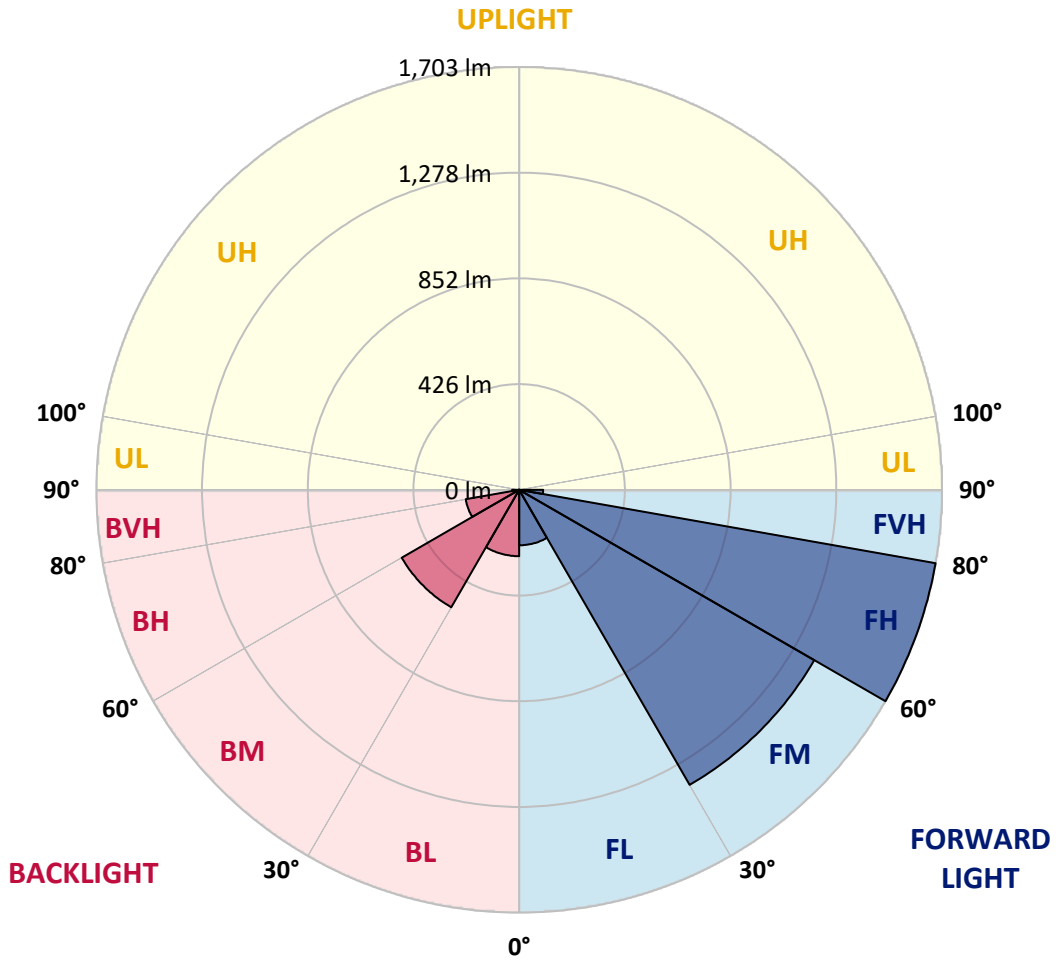
Scaled Data Report

REPORT NUMBER: P1197331
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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°) | 223.5 | 5.0 | | | |
| FM | (30°-60°) | 1372.5 | 30.8 | | | |
| FH | (60°-80°) | 1703.4 | 38.2 | | | G1/1800 |
| FVH | (80°-90°) | 96.9 | 2.2 | | | G1/100 |
| BL | (0°-30°) | 267.3 | 6.0 | B1/500 | | |
| BM | (30°-60°) | 546.5 | 12.3 | B1/1000 | | |
| BH | (60°-80°) | 218.7 | 4.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 28.2 | 0.6 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G1**
Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 |
| 2.5° | 547.7 | 551.0 | 552.5 | 551.8 | 555.4 | 554.9 | 560.0 | 566.2 | 574.9 | 583.3 | 595.6 |
| 5° | 505.5 | 509.1 | 512.2 | 515.1 | 522.1 | 524.3 | 532.2 | 544.3 | 560.2 | 576.3 | 596.6 |
| 7.5° | 466.2 | 469.4 | 474.2 | 479.5 | 491.3 | 493.5 | 506.7 | 525.5 | 547.7 | 571.3 | 599.2 |
| 10° | 434.2 | 437.3 | 442.4 | 448.4 | 463.1 | 465.7 | 482.6 | 507.7 | 536.6 | 566.5 | 602.1 |
| 12.5° | 420.4 | 421.4 | 424.3 | 430.3 | 443.1 | 444.8 | 463.3 | 492.0 | 525.7 | 562.8 | 606.5 |
| 15° | 419.7 | 421.7 | 421.9 | 425.0 | 435.6 | 436.3 | 453.5 | 481.9 | 519.0 | 562.1 | 613.0 |
| 17.5° | 427.0 | 428.4 | 426.2 | 428.2 | 437.1 | 438.3 | 451.8 | 477.1 | 516.8 | 565.3 | 624.0 |
| 20° | 446.2 | 447.4 | 440.9 | 438.3 | 444.8 | 445.7 | 459.0 | 480.2 | 519.0 | 571.8 | 639.2 |
| 22.5° | 487.2 | 487.9 | 472.0 | 461.2 | 461.6 | 462.1 | 473.7 | 493.0 | 527.4 | 583.6 | 658.5 |
| 25° | 551.0 | 550.6 | 525.3 | 504.3 | 492.2 | 489.6 | 497.3 | 513.7 | 541.6 | 599.2 | 683.3 |
| 27.5° | 625.7 | 622.1 | 596.8 | 565.5 | 539.2 | 535.4 | 533.7 | 540.7 | 561.9 | 619.9 | 713.7 |
| 30° | 710.1 | 706.7 | 679.5 | 638.5 | 602.1 | 595.9 | 580.0 | 576.3 | 592.0 | 648.1 | 755.8 |
| 32.5° | 802.6 | 800.4 | 767.9 | 718.3 | 669.6 | 662.4 | 635.6 | 626.0 | 638.3 | 690.8 | 814.6 |
| 35° | 880.2 | 878.2 | 851.3 | 800.2 | 740.7 | 731.7 | 704.5 | 693.7 | 699.9 | 745.5 | 891.5 |
| 37.5° | 950.3 | 949.3 | 926.2 | 885.9 | 824.5 | 813.7 | 783.1 | 779.5 | 778.2 | 817.5 | 984.7 |
| 40° | 1015.3 | 1012.9 | 988.8 | 967.6 | 922.1 | 912.2 | 885.2 | 882.1 | 872.9 | 906.2 | 1090.3 |
| 42.5° | 1087.4 | 1081.1 | 1046.2 | 1036.3 | 1024.0 | 1015.8 | 999.7 | 1000.2 | 979.9 | 1006.2 | 1202.1 |
| 45° | 1146.2 | 1142.6 | 1106.7 | 1100.9 | 1114.1 | 1110.7 | 1124.7 | 1128.3 | 1089.1 | 1111.0 | 1318.2 |
| 47.5° | 1209.3 | 1205.9 | 1175.6 | 1171.5 | 1207.4 | 1208.3 | 1257.7 | 1258.9 | 1195.6 | 1219.9 | 1434.6 |
| 50° | 1287.1 | 1282.3 | 1252.2 | 1257.2 | 1297.5 | 1301.1 | 1391.4 | 1383.3 | 1293.6 | 1330.5 | 1550.0 |
| 52.5° | 1338.4 | 1341.3 | 1334.8 | 1343.0 | 1398.0 | 1401.3 | 1523.0 | 1502.0 | 1390.7 | 1439.6 | 1663.2 |
| 55° | 1376.3 | 1382.1 | 1402.3 | 1421.1 | 1504.0 | 1507.3 | 1647.1 | 1615.0 | 1471.2 | 1540.8 | 1769.7 |
| 57.5° | 1424.9 | 1416.7 | 1454.6 | 1491.2 | 1604.7 | 1613.6 | 1767.8 | 1723.9 | 1542.5 | 1628.1 | 1842.7 |
| 60° | 1494.8 | 1489.0 | 1518.4 | 1572.6 | 1717.4 | 1731.7 | 1895.5 | 1822.0 | 1594.8 | 1697.2 | 1857.0 |
| 62.5° | 1636.5 | 1622.0 | 1626.6 | 1674.6 | 1859.6 | 1878.4 | 2039.6 | 1907.5 | 1620.8 | 1724.2 | 1780.8 |
| 65° | 1848.3 | 1823.5 | 1800.3 | 1833.6 | 2059.8 | 2078.4 | 2202.2 | 1974.8 | 1611.2 | 1671.9 | 1578.7 |
| 67.5° | 2115.0 | 2090.4 | 2062.0 | 2093.3 | 2354.7 | 2369.4 | 2402.9 | 2012.6 | 1535.3 | 1470.5 | 1221.3 |
| 70° | 2335.0 | 2325.8 | 2359.8 | 2488.7 | 2825.8 | 2826.3 | 2660.3 | 1981.3 | 1327.4 | 1042.6 | 706.7 |
| 72.5° | 2305.8 | 2300.3 | 2479.3 | 2877.8 | 3419.5 | 3406.7 | 2903.8 | 1744.2 | 894.1 | 470.3 | 264.8 |
| 75° | 1891.6 | 1927.5 | 2204.9 | 2870.8 | 3632.7 | 3631.0 | 2754.7 | 1108.8 | 369.8 | 194.9 | 136.9 |
| 77.5° | 1014.4 | 1071.2 | 1431.4 | 2119.6 | 2835.9 | 2878.6 | 1936.7 | 387.9 | 158.8 | 124.8 | 94.7 |
| 80° | 330.8 | 380.4 | 570.6 | 1079.2 | 1842.7 | 1834.8 | 830.0 | 152.3 | 108.7 | 88.4 | 65.5 |
| 82.5° | 140.5 | 146.3 | 254.9 | 509.6 | 945.7 | 931.0 | 264.3 | 87.5 | 76.4 | 60.5 | 40.5 |
| 85° | 54.9 | 61.4 | 112.5 | 235.6 | 409.6 | 400.7 | 95.4 | 43.4 | 48.9 | 39.5 | 24.1 |
| 87.5° | 18.1 | 21.9 | 40.2 | 80.7 | 127.5 | 122.9 | 23.4 | 14.9 | 21.2 | 18.1 | 8.7 |
| 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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**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 |
| 2.5° | 599.0 | 602.8 | 607.4 | 614.2 | 619.9 | 624.8 | 629.8 | 633.0 | 634.2 | 637.8 | 637.5 |
| 5° | 603.3 | 611.8 | 623.1 | 634.2 | 645.0 | 651.5 | 657.3 | 660.2 | 662.8 | 664.8 | 665.2 |
| 7.5° | 610.6 | 621.4 | 639.2 | 653.7 | 662.8 | 668.1 | 672.0 | 671.0 | 672.0 | 672.5 | 673.2 |
| 10° | 616.8 | 632.0 | 653.2 | 666.9 | 673.9 | 674.2 | 673.2 | 669.8 | 668.1 | 668.4 | 668.9 |
| 12.5° | 624.3 | 641.2 | 664.0 | 675.6 | 677.5 | 672.2 | 668.1 | 662.4 | 660.2 | 659.2 | 658.7 |
| 15° | 634.4 | 653.7 | 675.8 | 680.2 | 675.4 | 668.6 | 661.6 | 652.2 | 647.4 | 643.6 | 644.8 |
| 17.5° | 646.7 | 667.9 | 685.0 | 681.9 | 671.5 | 660.4 | 649.1 | 634.9 | 625.0 | 620.9 | 621.2 |
| 20° | 663.8 | 682.8 | 692.0 | 678.3 | 662.6 | 645.7 | 626.5 | 609.1 | 599.9 | 595.9 | 595.4 |
| 22.5° | 684.5 | 702.8 | 698.7 | 672.0 | 649.8 | 622.8 | 598.7 | 586.0 | 581.4 | 578.5 | 579.0 |
| 25° | 709.3 | 725.0 | 703.6 | 662.8 | 628.9 | 592.5 | 573.9 | 569.8 | 567.7 | 565.5 | 565.5 |
| 27.5° | 741.6 | 750.1 | 707.2 | 649.3 | 596.1 | 560.2 | 553.4 | 554.2 | 553.4 | 549.8 | 550.6 |
| 30° | 784.3 | 782.6 | 710.5 | 627.4 | 558.5 | 531.0 | 531.5 | 534.7 | 535.1 | 532.7 | 533.9 |
| 32.5° | 840.4 | 823.3 | 712.2 | 599.0 | 522.6 | 505.5 | 506.0 | 509.4 | 511.8 | 507.7 | 509.6 |
| 35° | 908.4 | 870.8 | 709.6 | 563.3 | 494.9 | 481.2 | 477.5 | 478.5 | 479.2 | 475.4 | 478.0 |
| 37.5° | 987.6 | 924.0 | 697.8 | 523.8 | 472.0 | 457.3 | 449.6 | 443.1 | 439.2 | 435.6 | 438.0 |
| 40° | 1074.6 | 982.1 | 676.1 | 485.3 | 446.5 | 432.0 | 420.4 | 408.2 | 395.1 | 390.3 | 392.5 |
| 42.5° | 1165.7 | 1041.8 | 649.8 | 448.4 | 417.1 | 405.3 | 393.0 | 375.1 | 355.6 | 345.8 | 347.0 |
| 45° | 1260.1 | 1103.0 | 624.0 | 412.0 | 387.0 | 381.9 | 367.7 | 346.2 | 325.0 | 312.5 | 311.5 |
| 47.5° | 1352.7 | 1160.9 | 586.2 | 375.4 | 358.8 | 364.3 | 353.2 | 333.5 | 309.9 | 290.1 | 287.9 |
| 50° | 1441.1 | 1215.1 | 524.3 | 338.3 | 335.9 | 359.0 | 348.4 | 320.0 | 293.0 | 267.7 | 265.5 |
| 52.5° | 1528.8 | 1258.9 | 445.0 | 304.6 | 323.6 | 357.6 | 342.1 | 310.8 | 277.8 | 251.3 | 248.4 |
| 55° | 1603.2 | 1281.6 | 368.6 | 275.6 | 305.8 | 345.3 | 334.7 | 300.0 | 256.4 | 228.2 | 225.8 |
| 57.5° | 1645.6 | 1263.3 | 305.0 | 247.2 | 281.2 | 325.0 | 321.9 | 276.8 | 230.8 | 209.1 | 206.2 |
| 60° | 1627.3 | 1189.1 | 253.0 | 222.4 | 257.8 | 303.1 | 299.7 | 254.0 | 211.3 | 190.8 | 187.9 |
| 62.5° | 1526.4 | 1047.6 | 211.8 | 200.7 | 236.6 | 280.7 | 277.6 | 236.4 | 196.4 | 176.6 | 173.5 |
| 65° | 1323.0 | 852.2 | 179.7 | 182.6 | 215.2 | 253.7 | 258.3 | 221.7 | 184.6 | 165.3 | 162.2 |
| 67.5° | 1009.1 | 617.3 | 154.7 | 167.0 | 194.2 | 227.2 | 240.5 | 211.1 | 174.7 | 156.4 | 153.5 |
| 70° | 575.1 | 350.6 | 133.5 | 151.8 | 175.6 | 202.6 | 226.7 | 202.6 | 164.1 | 148.9 | 147.0 |
| 72.5° | 218.1 | 161.0 | 115.4 | 136.6 | 157.8 | 181.9 | 211.5 | 189.4 | 151.8 | 140.5 | 138.5 |
| 75° | *116.4* | *98.1* | *97.1* | *118.8* | *137.3* | *161.7* | *192.5* | *176.4* | *142.6* | *148.4* | *153.2* |
| 77.5° | 79.3 | 69.4 | 81.2 | 101.7 | 114.9 | 139.3 | 172.3 | 156.6 | 123.6 | 123.1 | 113.5 |
| 80° | 54.9 | 49.2 | 66.0 | 81.9 | 88.9 | 117.1 | 150.3 | 134.4 | 100.7 | 94.0 | 89.9 |
| 82.5° | 33.0 | 32.0 | 49.4 | 61.2 | 62.9 | 90.4 | 124.6 | 112.8 | 82.4 | 71.8 | 72.3 |
| 85° | 18.1 | 19.0 | 31.6 | 35.9 | 36.6 | 63.1 | 97.6 | 87.2 | 63.4 | 53.2 | 53.7 |
| 87.5° | 5.1 | 6.5 | 11.6 | 14.2 | 17.6 | 32.8 | 58.1 | 51.8 | 31.8 | 22.2 | 22.2 |
| 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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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

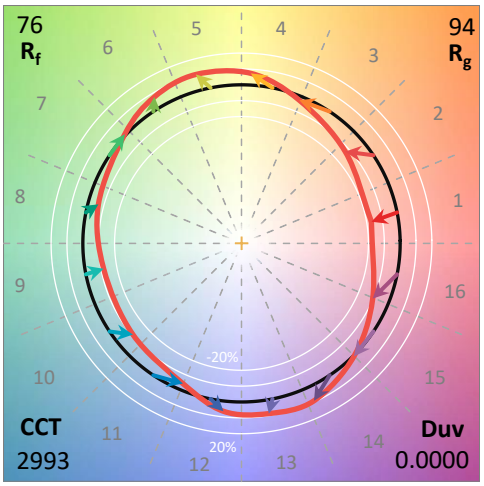
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-2-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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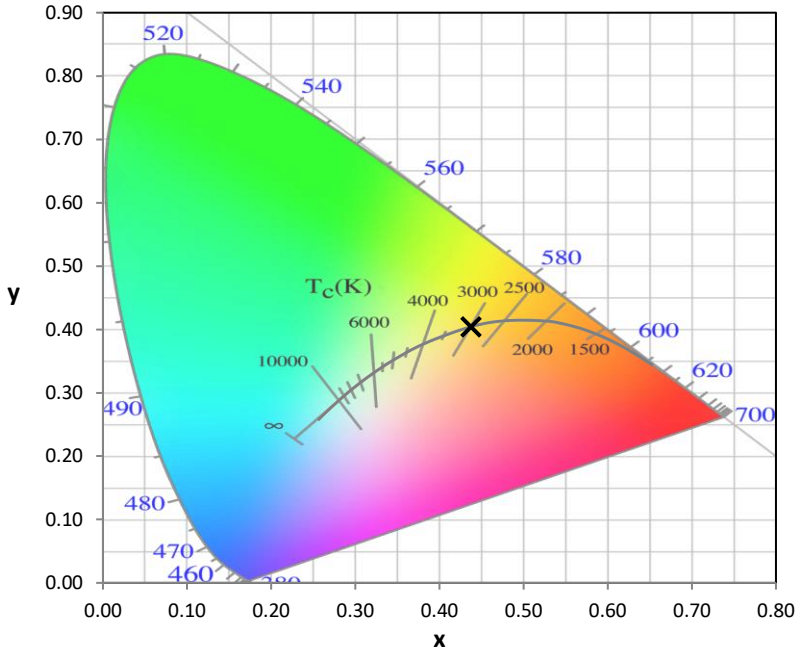
REPORT NUMBER: SP1-1908-441-2-R4

| 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 |

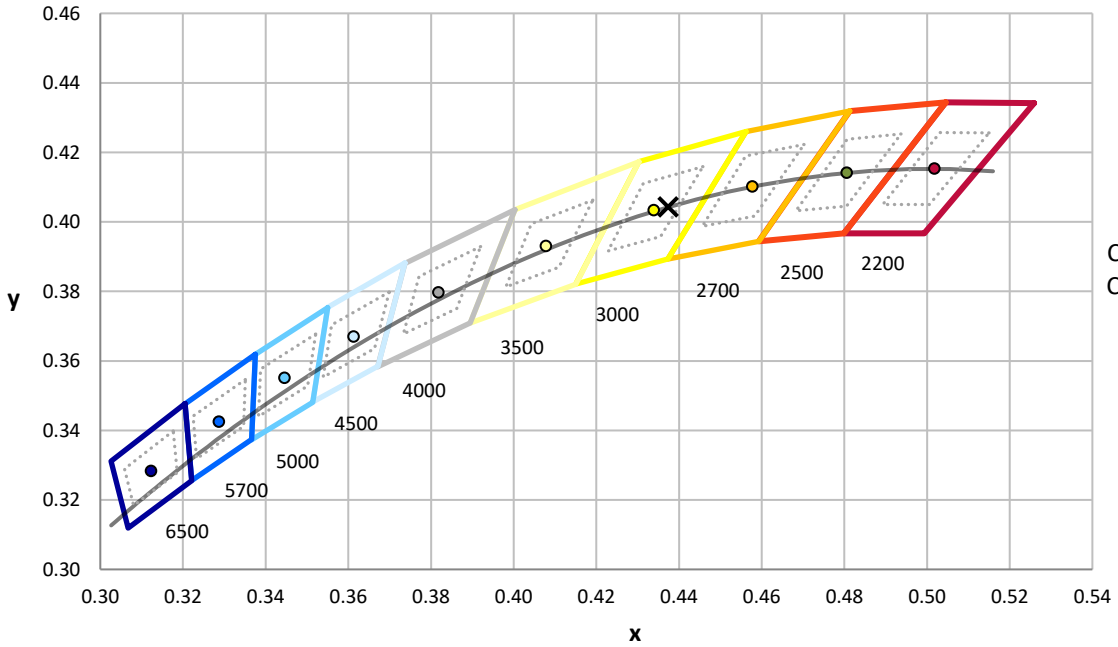
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1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



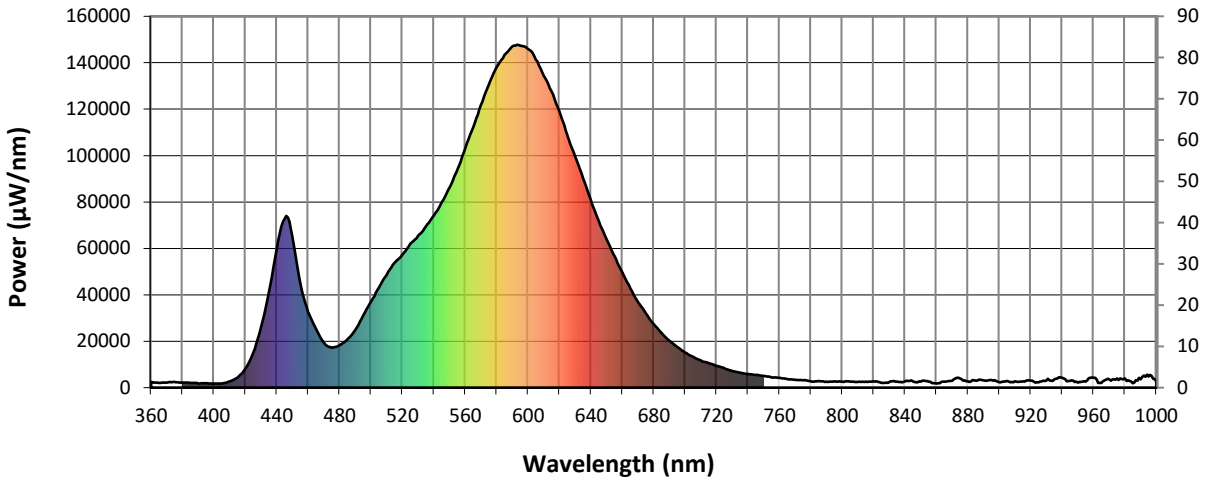

CCT = 2993K
CIE x = 0.4374
CIE y = 0.4043
Duv = 0.0000

Point lies inside the ANSI 3000K 4-step quadrangle

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## Photopic Flux vs. Wavelength



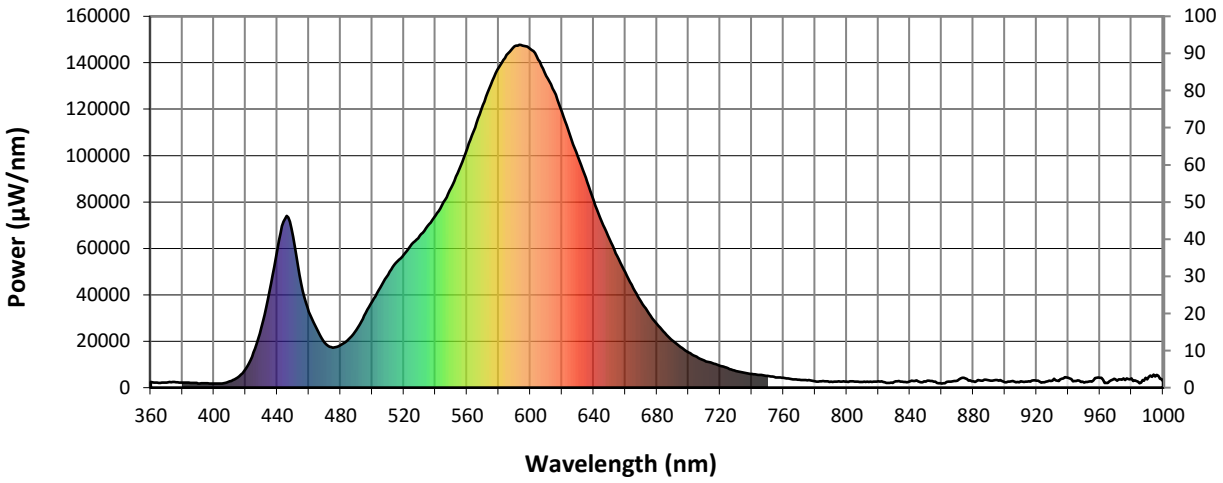

######

| 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



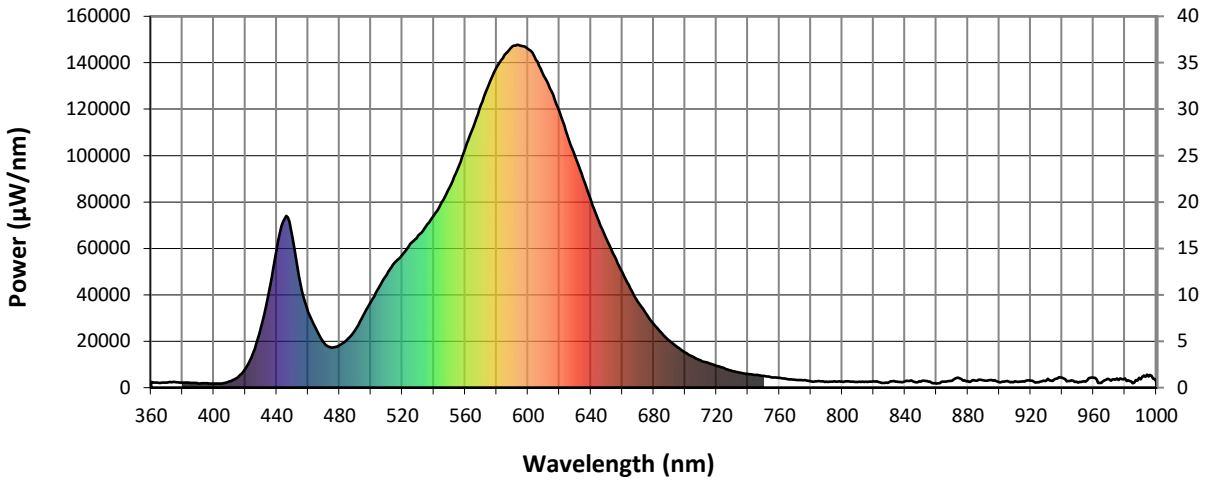

**Scotopic Lumens: 8494.8** **S/P: 1.23**

| 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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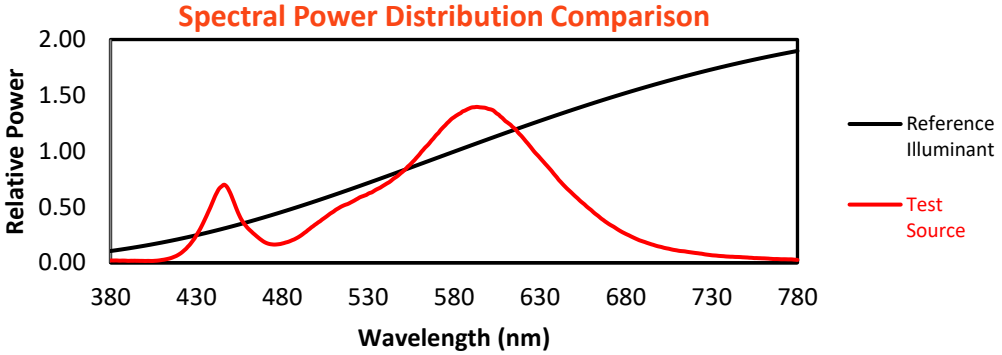
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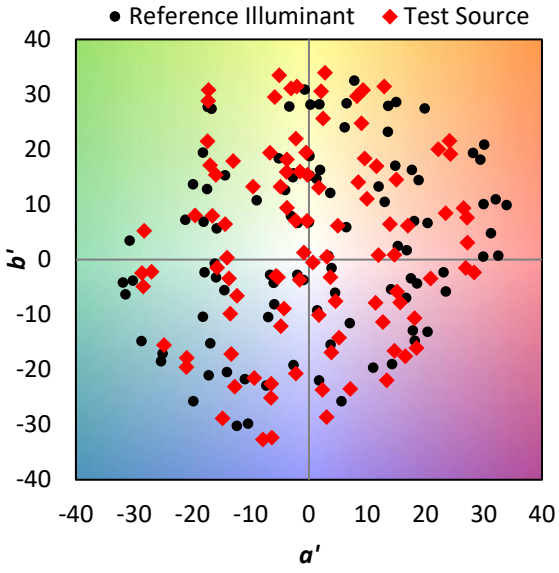
## Summary

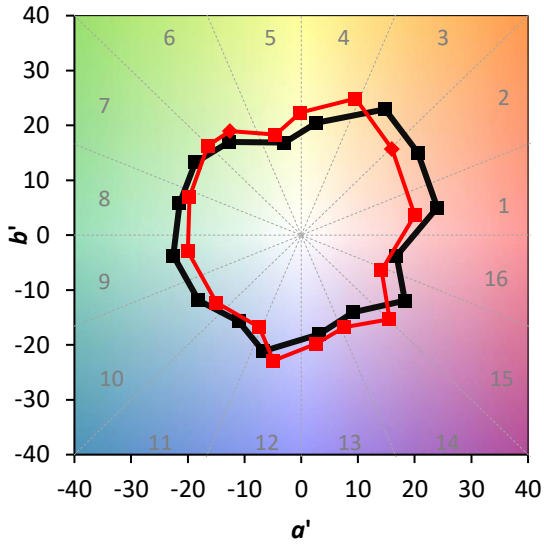
$R_f$ = 75.7
$R_g$ = 93.9
CIE $R_a$ = 71.8
$R_9$ = -38.3

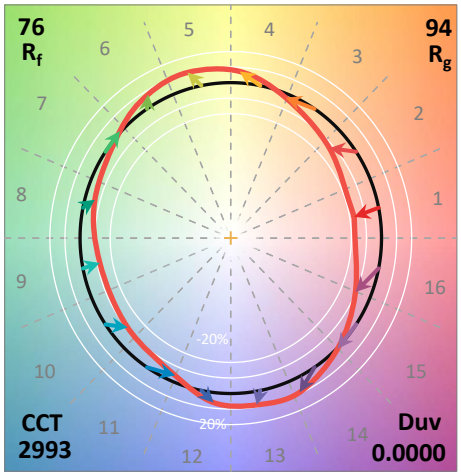
## Spectral Power Distribution Comparison

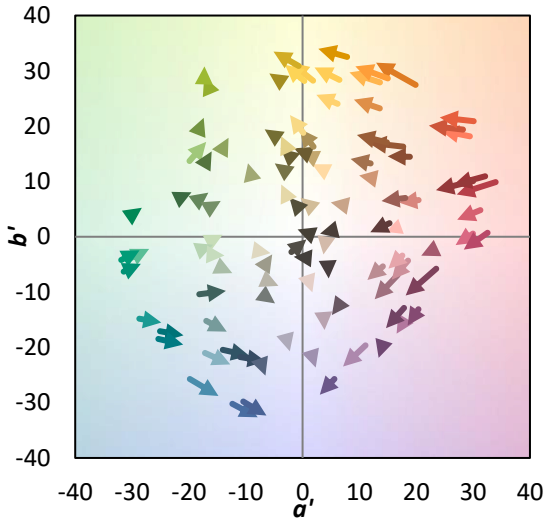



## Color Vector Graphics



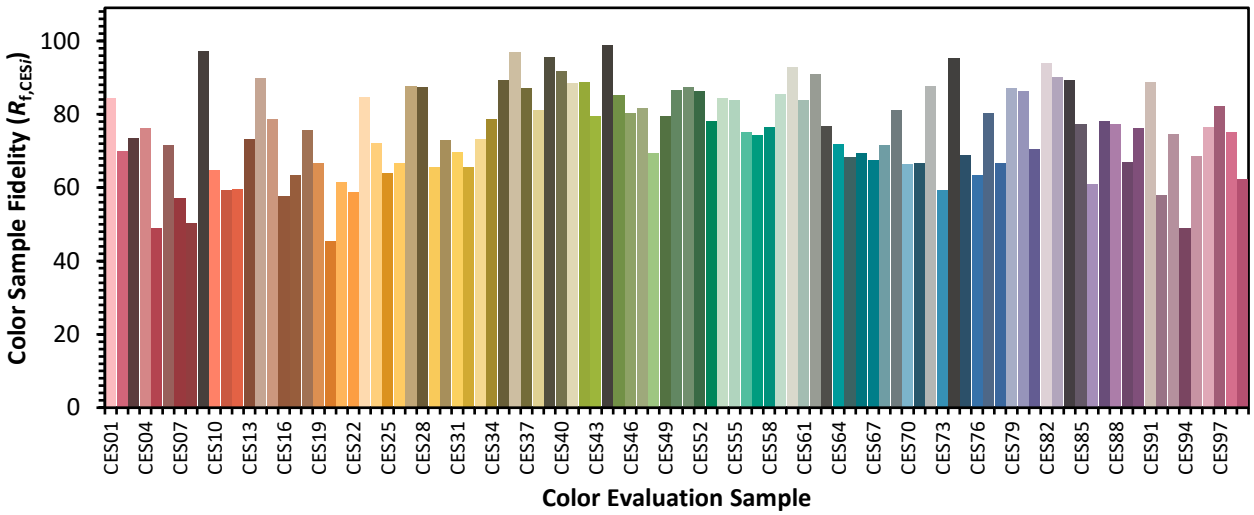
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Peachtree City, GA 30269

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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 | |

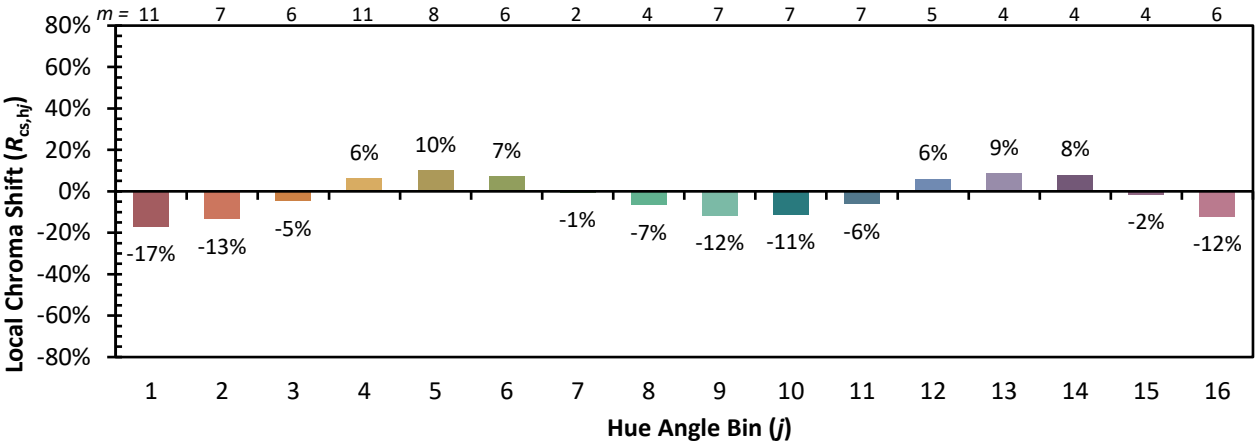


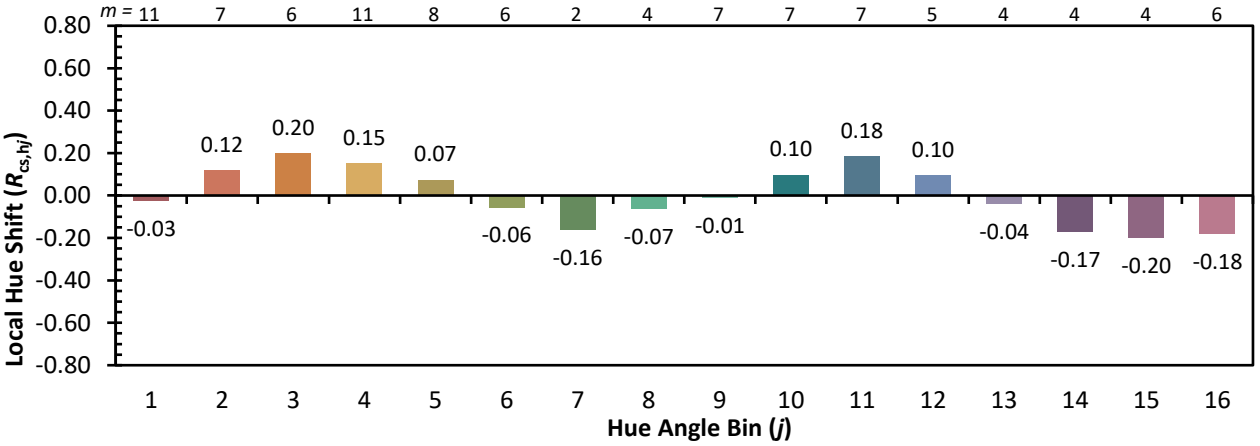
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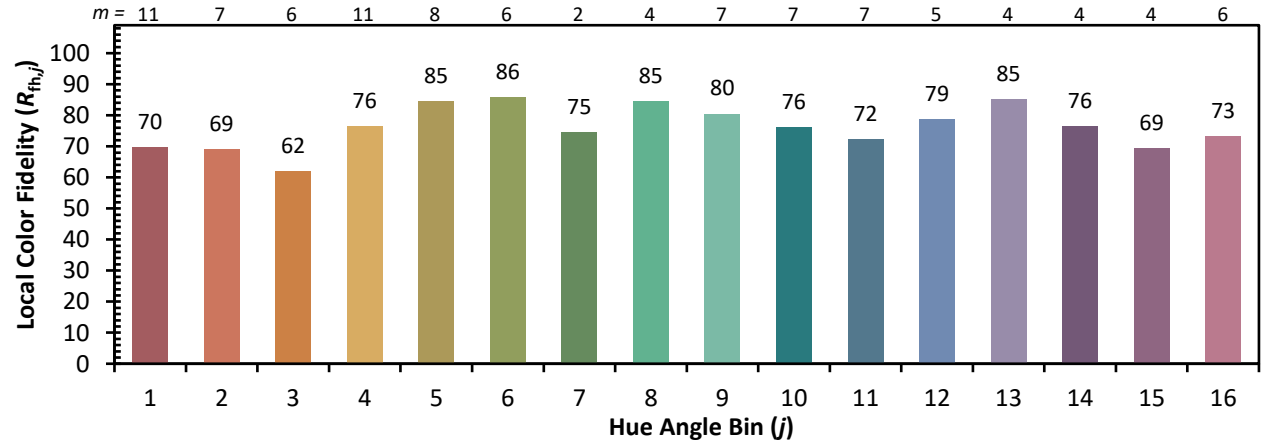
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## Color Rendition by Hue-Angle Bin



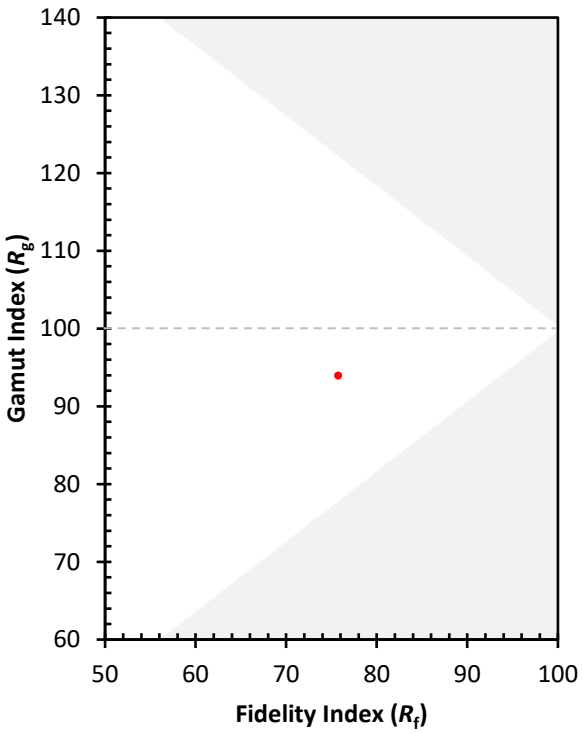



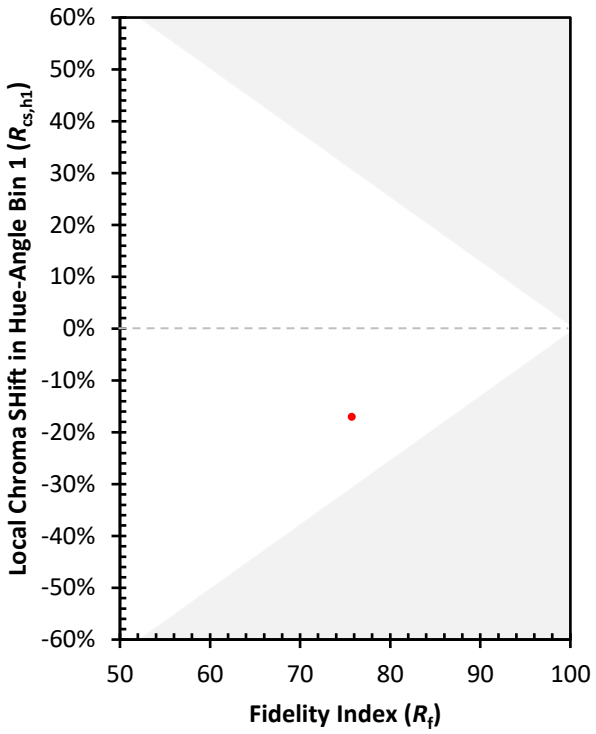
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### Measure Comparisons




(END OF REPORT)