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: P1201153

Luminaire Tested: GWC-SB1A-740-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: | P1201153 |
| | 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-SB1A-740-U-SL3 |
| Description: | GALLEON WALL LUMINAIRE |
| | (1) 70 CRI, 4000K, 350mA 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: | 4663 lumens |
| Efficiency: | N/A |
| Efficacy: | 150.9 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): | 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 |

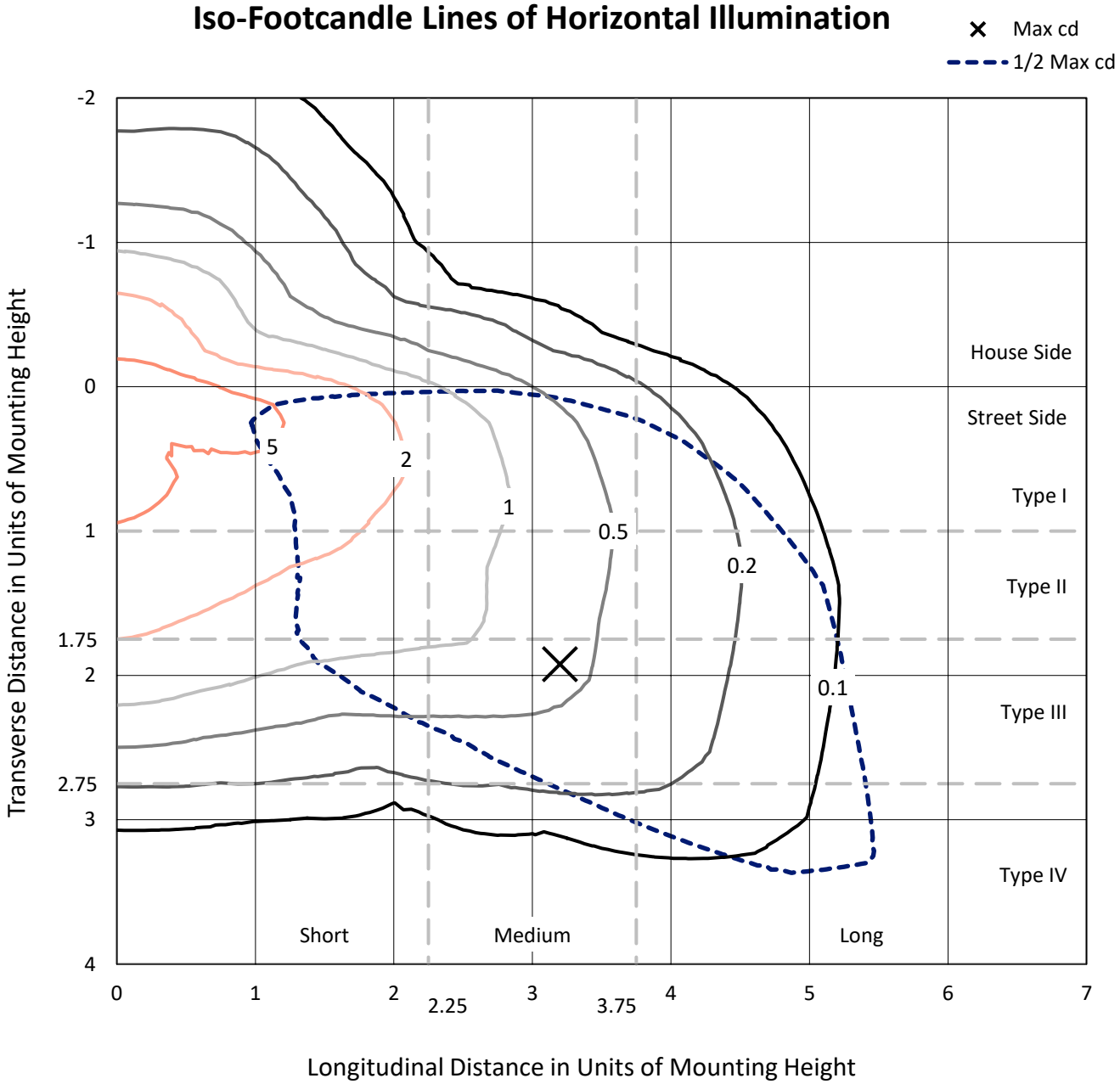


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Scaled Data Report

REPORT NUMBER: P1201153
CATALOG NUMBER: GWC-SB1A-740-U-SL3

## Iso-Footcandle Lines of Horizontal Illumination



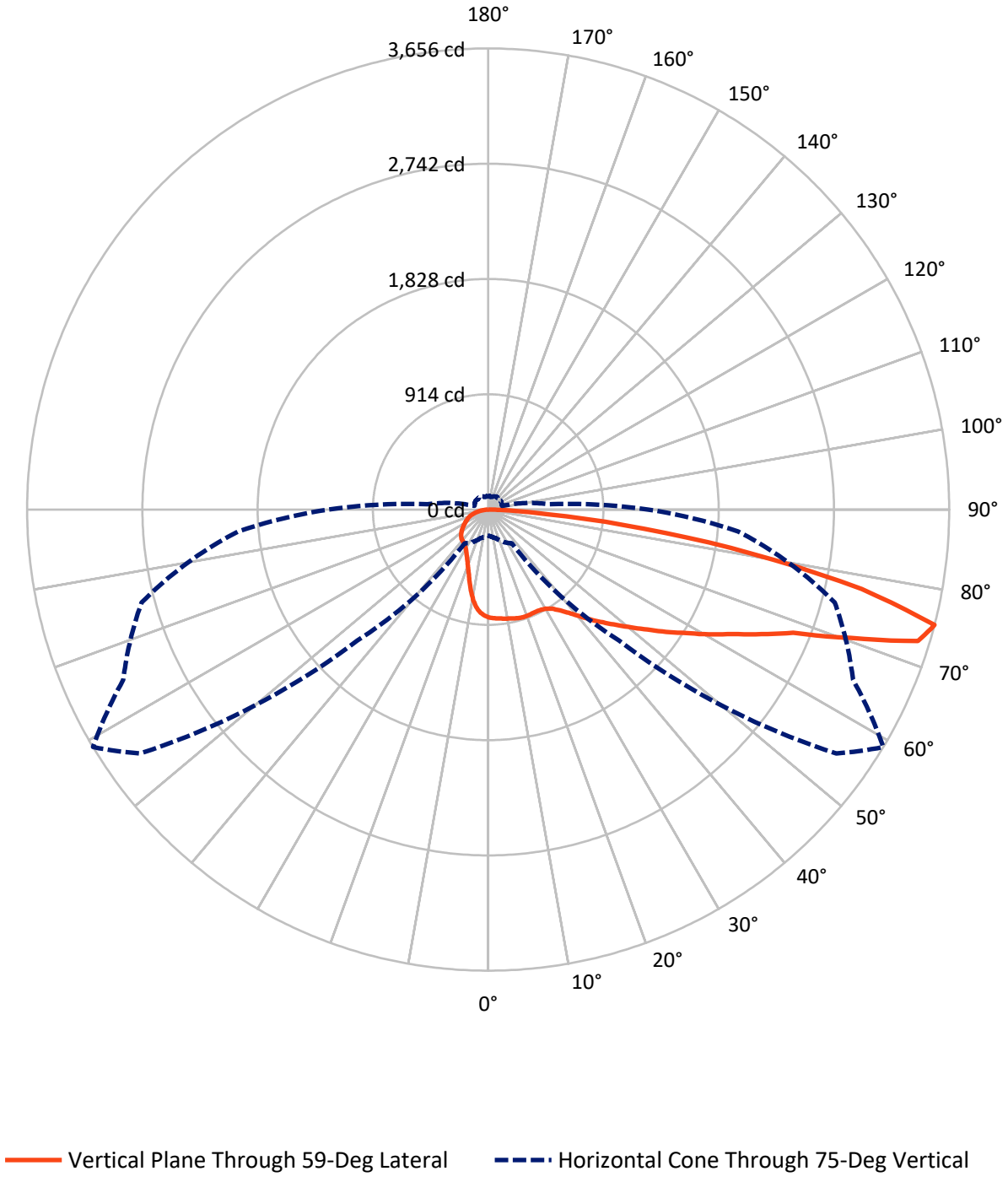

Based on 10 foot mounting height. Maximum calculated value = 7 fc
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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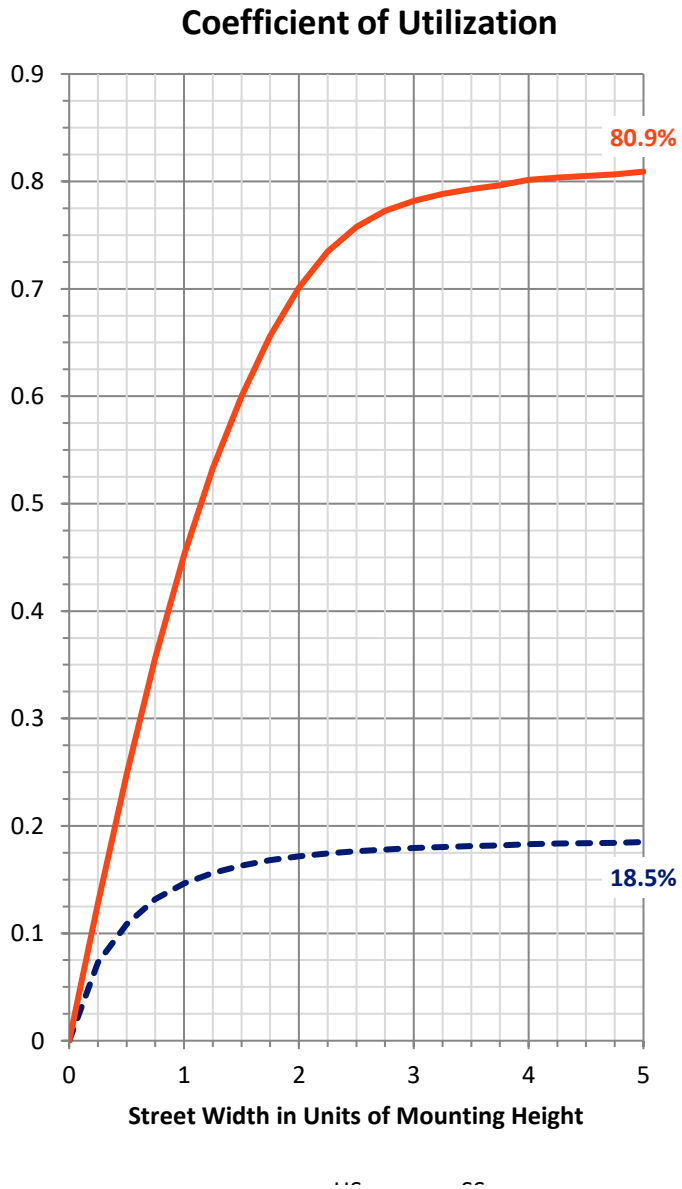
REPORT NUMBER: P1201153
CATALOG NUMBER: GWC-SB1A-740-U-SL3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 874.6 | 0.0 | 874.6 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| **Street Side** | Lumens | 3788.4 | 0.0 | 3788.4 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| **Total** | Lumens | 4663.0 | 0.0 | 4663.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 76.7 | 1.6 |
| 10°-20° | 196.2 | 4.2 |
| 20°-30° | 298.0 | 6.4 |
| 30°-40° | 442.9 | 9.5 |
| 40°-50° | 658.7 | 14.1 |
| 50°-60° | 894.1 | 19.2 |
| 60°-70° | 1091.5 | 23.4 |
| 70°-80° | 856.6 | 18.4 |
| 80°-90° | 148.4 | 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° | 4663.0 | 100.0 |
| 0°-180° | 4663.0 | 100.0 |



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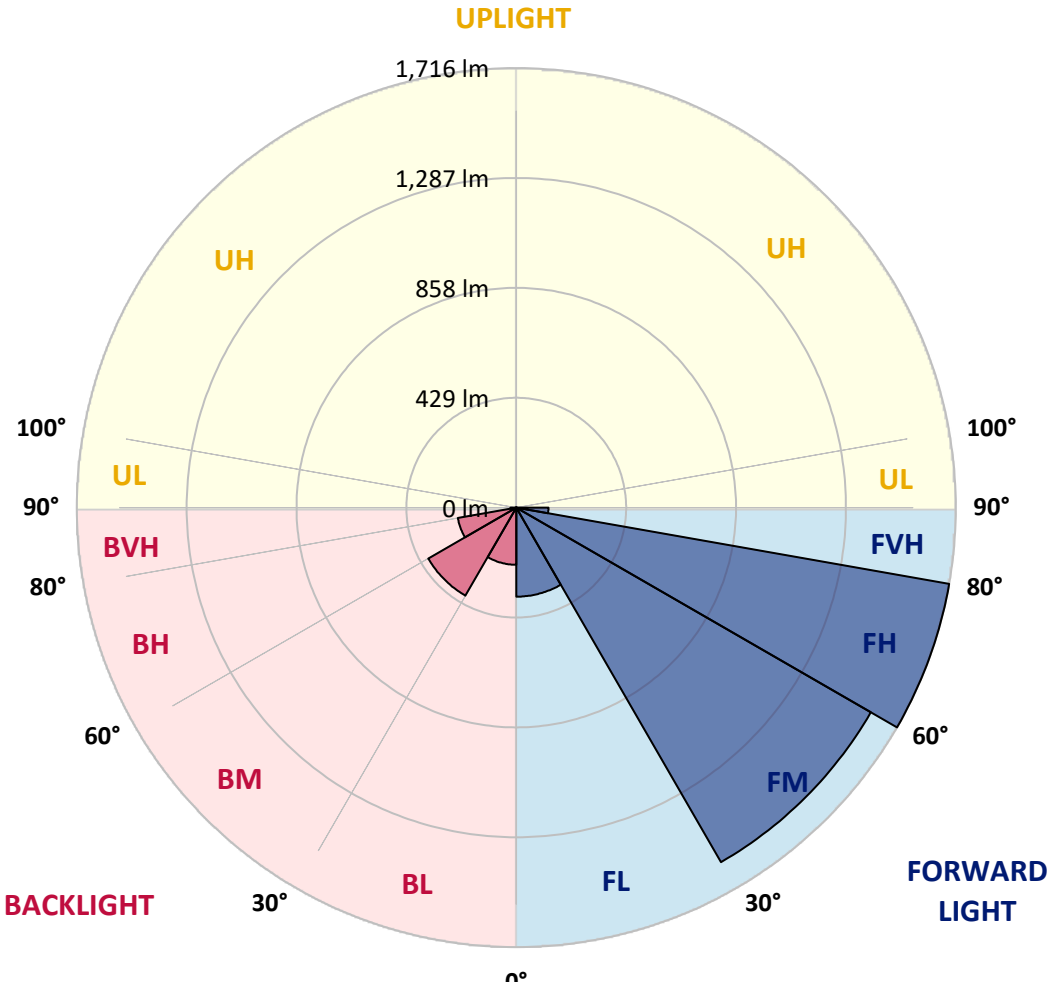
Scaled Data Report

REPORT NUMBER: P1201153
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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°) | 347.7 | 7.5 | | | |
| FM | (30°-60°) | 1598.7 | 34.3 | | | |
| FH | (60°-80°) | 1716.4 | 36.8 | | | G1/1800 |
| FVH | (80°-90°) | 125.7 | 2.7 | | | G2/225 |
| BL | (0°-30°) | 223.2 | 4.8 | B1/500 | | |
| BM | (30°-60°) | 397.0 | 8.5 | B1/1000 | | |
| BH | (60°-80°) | 231.7 | 5.0 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 22.7 | 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° | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | *855.9* | 855.9 | 855.9 | 855.9 |
| 2.5° | 863.2 | 860.1 | 863.2 | 861.9 | 861.4 | 860.4 | 860.6 | *862.4* | 861.4 | 862.7 | 858.4 |
| 5° | 857.4 | 855.6 | 858.6 | 857.9 | 861.2 | 861.7 | 864.9 | *866.9* | 868.2 | 868.4 | 865.2 |
| 7.5° | 847.9 | 846.1 | 850.4 | 853.9 | 860.9 | 862.9 | 869.7 | *872.9* | 874.7 | 877.7 | 872.9 |
| 10° | 813.0 | 812.2 | 822.8 | 836.1 | 852.6 | 862.9 | 873.2 | *878.7* | 881.5 | 889.5 | 884.0 |
| 12.5° | 751.3 | 752.3 | 766.1 | 791.7 | 824.8 | 857.9 | 877.2 | *885.2* | 889.5 | 899.5 | 897.0 |
| 15° | 692.3 | 692.1 | 707.1 | 734.5 | 780.9 | 835.8 | 879.2 | *893.0* | 900.3 | 915.1 | 913.1 |
| 17.5° | 658.2 | 657.2 | 667.7 | 688.6 | 731.7 | 802.0 | 874.2 | *897.3* | 912.8 | 931.4 | 929.6 |
| 20° | 651.9 | 649.9 | 655.5 | 665.7 | 696.3 | 764.8 | 861.2 | *897.3* | 922.9 | 946.9 | 945.9 |
| 22.5° | 674.8 | 671.5 | 669.3 | 668.0 | 681.5 | 734.2 | 846.4 | *894.3* | 937.7 | 969.3 | 967.5 |
| 25° | 720.7 | 715.7 | 704.1 | 692.8 | 688.8 | 720.4 | 833.3 | *893.5* | 959.7 | 999.4 | 992.8 |
| 27.5° | 794.9 | 788.7 | 765.3 | 738.2 | 713.9 | 727.5 | 827.5 | *898.0* | 984.1 | 1031.2 | 1018.2 |
| 30° | 887.0 | 880.2 | 850.9 | 809.2 | 765.6 | 753.5 | 834.8 | *911.3* | 1015.2 | 1073.6 | 1048.0 |
| 32.5° | 969.5 | 962.0 | 936.9 | 894.5 | 835.6 | 798.7 | 857.9 | *936.7* | 1064.1 | 1132.6 | 1092.9 |
| 35° | 1042.8 | 1034.0 | 1011.4 | 972.3 | 921.4 | 862.2 | 899.5 | *981.6* | 1133.6 | 1228.4 | 1153.9 |
| 37.5° | 1114.5 | 1104.2 | 1079.6 | 1038.2 | 1002.6 | 946.7 | 957.0 | *1039.3* | 1225.9 | 1344.8 | 1234.7 |
| 40° | 1194.8 | 1180.0 | 1150.1 | 1109.2 | 1074.6 | 1045.8 | 1032.5 | *1110.0* | 1319.7 | 1474.7 | 1335.5 |
| 42.5° | 1272.5 | 1258.5 | 1222.9 | 1188.0 | 1144.6 | 1136.3 | 1120.0 | *1192.8* | 1422.3 | 1617.4 | 1437.8 |
| 45° | 1356.3 | 1339.5 | 1296.4 | 1252.2 | 1224.9 | 1196.5 | 1204.8 | *1275.5* | 1522.9 | 1762.9 | 1545.2 |
| 47.5° | 1434.8 | 1416.0 | 1365.1 | 1315.9 | 1300.9 | 1247.2 | 1282.6 | *1366.6* | 1627.5 | 1910.4 | 1651.6 |
| 50° | 1477.2 | 1458.7 | 1416.3 | 1371.9 | 1360.1 | 1309.7 | 1366.9 | *1466.7* | 1737.1 | 2057.4 | 1753.7 |
| 52.5° | 1512.6 | 1492.5 | 1437.1 | 1412.5 | 1409.0 | 1377.6 | 1470.7 | *1581.1* | 1846.7 | 2187.4 | 1852.2 |
| 55° | 1550.2 | 1527.9 | 1457.2 | 1435.1 | 1451.1 | 1453.9 | 1593.9 | *1710.8* | 1962.6 | 2314.0 | 1945.3 |
| 57.5° | 1593.6 | 1565.3 | 1476.5 | 1454.1 | 1492.3 | 1543.2 | 1735.3 | *1845.2* | 2076.5 | 2431.4 | 2028.1 |
| 60° | 1634.5 | 1605.9 | 1513.6 | 1484.5 | 1536.7 | 1646.8 | 1897.6 | *2008.0* | 2205.4 | 2536.0 | 2106.3 |
| 62.5° | 1642.5 | 1619.0 | 1543.2 | 1542.9 | 1596.9 | 1767.7 | 2089.8 | *2172.3* | 2318.1 | 2639.4 | 2176.6 |
| 65° | 1503.6 | 1488.8 | 1443.9 | 1540.7 | 1683.2 | 1941.8 | 2303.8 | *2382.5* | 2461.3 | 2729.7 | 2238.3 |
| 67.5° | 1144.4 | 1146.4 | 1143.1 | 1330.0 | 1613.4 | 2191.9 | 2613.6 | *2607.5* | 2638.1 | 2831.0 | 2309.3 |
| 70° | 523.3 | 535.1 | 611.8 | 918.1 | 1292.6 | 2220.7 | 3125.8 | *3047.8* | 2860.1 | 2962.2 | 2370.7 |
| 72.5° | 282.7 | 291.7 | 323.1 | 444.7 | 777.1 | 1974.4 | 3508.6 | *3564.0* | 3155.4 | 3050.5 | 2303.3 |
| 75° | *207.4* | *212.5* | *234.3* | *282.7* | *326.3* | *1467.4* | *3371.4* | *3655.8* | *3192.3* | *2844.6* | *1989.0* |
| 77.5° | 155.3 | 157.5 | 175.3 | 224.0 | 167.1 | 773.6 | 2693.8 | *3027.7* | 2732.7 | 2337.1 | 1469.2 |
| 80° | 112.6 | 115.1 | 128.4 | 168.1 | 117.1 | 283.0 | 1849.7 | *2125.2* | 1871.6 | 1489.8 | 732.2 |
| 82.5° | 77.8 | 78.8 | 84.5 | 114.4 | 81.8 | 109.9 | 1049.5 | *1246.2* | 1044.8 | 522.8 | 197.7 |
| 85° | 46.9 | 48.2 | 50.7 | 66.7 | 46.4 | 52.2 | 453.0 | *468.6* | 312.3 | 124.9 | 61.5 |
| 87.5° | 19.3 | 20.6 | 22.6 | 28.1 | 18.3 | 14.5 | 74.8 | *93.8* | 58.4 | 36.6 | 19.1 |
| 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: P1201153
CATALOG NUMBER: GWC-SB1A-740-U-SL3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 | 855.9 |
| 2.5° | 857.1 | 855.4 | 850.6 | 844.1 | 838.1 | 830.5 | 827.3 | 824.5 | 822.0 | 817.3 | 815.0 |
| 5° | 862.4 | 857.6 | 844.8 | 828.3 | 809.5 | 788.9 | 768.8 | 755.0 | 743.3 | 734.5 | 727.2 |
| 7.5° | 870.4 | 861.4 | 838.1 | 804.2 | 761.1 | 716.9 | 677.0 | 648.7 | 627.4 | 619.6 | 606.0 |
| 10° | 878.7 | 867.9 | 827.3 | 767.6 | 693.1 | 625.1 | 572.2 | 543.1 | 526.0 | 520.5 | 512.0 |
| 12.5° | 888.5 | 872.7 | 810.5 | 716.7 | 617.1 | 542.6 | 496.4 | 479.4 | 470.6 | 467.6 | 468.3 |
| 15° | 902.8 | 876.7 | 785.1 | 652.9 | 544.6 | 482.4 | 452.5 | 440.7 | 436.2 | 436.0 | 437.0 |
| 17.5° | 913.6 | 877.5 | 745.8 | 584.7 | 488.9 | 446.0 | 421.4 | 416.9 | 419.9 | 424.4 | 426.2 |
| 20° | 925.6 | 870.7 | 694.1 | 522.5 | 449.8 | 414.1 | 403.9 | 406.9 | 414.1 | 420.7 | 422.9 |
| 22.5° | 934.1 | 858.4 | 631.6 | 474.1 | 415.9 | 395.8 | 395.3 | 401.6 | 405.6 | 408.9 | 410.6 |
| 25° | 941.7 | 837.6 | 565.4 | 433.5 | 388.1 | 384.8 | 390.3 | 388.3 | 385.5 | 388.3 | 390.1 |
| 27.5° | 947.2 | 804.7 | 506.2 | 397.8 | 368.5 | 377.3 | 374.0 | 369.5 | 369.2 | 370.7 | 373.3 |
| 30° | 945.4 | 760.8 | 457.5 | 364.0 | 354.7 | 363.2 | 355.4 | 354.7 | 353.9 | 354.7 | 357.5 |
| 32.5° | 945.4 | 710.9 | 420.2 | 340.6 | 345.9 | 342.7 | 341.9 | 340.1 | 337.1 | 336.9 | 340.1 |
| 35° | 950.7 | 661.0 | 388.1 | 328.1 | 338.6 | 330.9 | 331.4 | 327.1 | 320.8 | 317.8 | 320.8 |
| 37.5° | 961.5 | 620.8 | 356.2 | 322.1 | 325.8 | 325.6 | 323.6 | 316.3 | 305.3 | 295.7 | 299.0 |
| 40° | 987.6 | 609.1 | 334.4 | 319.3 | 319.8 | 322.8 | 317.6 | 303.5 | 278.4 | 262.9 | 264.9 |
| 42.5° | 1028.5 | 628.9 | 329.6 | 312.6 | 315.8 | 318.8 | 308.5 | 275.9 | 258.1 | 248.8 | 248.8 |
| 45° | 1080.4 | 663.5 | 339.9 | 302.8 | 306.3 | 311.5 | 280.9 | 265.4 | 257.4 | 257.6 | 258.9 |
| 47.5° | 1146.1 | 699.9 | 359.0 | 294.2 | 292.5 | 295.5 | 262.6 | 253.1 | 242.1 | 244.8 | 251.8 |
| 50° | 1222.1 | 736.7 | 377.0 | 282.7 | 277.2 | 267.4 | 250.8 | 241.8 | 227.8 | 221.2 | 223.0 |
| 52.5° | 1304.4 | 772.4 | 384.3 | 268.7 | 260.6 | 249.3 | 242.8 | 231.8 | 214.7 | 203.9 | 203.7 |
| 55° | 1382.4 | 804.7 | 376.3 | 251.8 | 244.1 | 235.3 | 234.3 | 227.5 | 209.2 | 194.2 | 194.2 |
| 57.5° | 1456.2 | 831.8 | 356.2 | 234.8 | 227.3 | 222.0 | 228.8 | 225.5 | 202.4 | 183.1 | 182.1 |
| 60° | 1518.6 | 850.4 | 327.1 | 217.5 | 212.2 | 209.5 | 219.7 | 218.7 | 192.9 | 171.3 | 170.6 |
| 62.5° | 1568.3 | 857.6 | 295.0 | 200.9 | 199.7 | 194.7 | 207.2 | 207.2 | 180.9 | 159.8 | 159.0 |
| 65° | 1607.2 | 850.6 | 262.4 | 184.6 | 187.1 | 179.6 | 191.9 | 190.4 | 168.1 | 149.5 | 148.5 |
| 67.5° | 1641.5 | 827.5 | 226.3 | 168.6 | 174.3 | 164.8 | 175.8 | 172.3 | 154.0 | 139.2 | 138.2 |
| 70° | 1656.8 | 773.9 | 185.1 | 152.5 | 159.5 | 150.3 | 159.8 | 153.3 | 138.2 | 128.2 | 126.2 |
| 72.5° | 1533.9 | 643.2 | 145.7 | 135.7 | 141.7 | 134.2 | 142.5 | 135.0 | 121.2 | 116.6 | 112.9 |
| 75° | *1269.0* | *482.6* | *112.1* | *117.4* | *121.9* | *116.1* | *121.7* | *116.1* | *103.6* | *106.9* | *97.6* |
| 77.5° | 921.6 | 325.8 | 85.8 | 98.1 | 100.1 | 97.1 | 101.8 | 95.6 | 84.3 | 83.5 | 79.8 |
| 80° | 458.3 | 190.9 | 67.2 | 77.5 | 76.8 | 74.8 | 80.3 | 77.3 | 67.7 | 71.7 | 71.0 |
| 82.5° | 132.7 | 81.8 | 48.9 | 54.4 | 52.9 | 53.4 | 57.4 | 58.9 | 88.3 | 87.5 | 89.6 |
| 85° | 41.6 | 32.1 | 29.3 | 30.4 | 28.8 | 29.6 | 33.9 | 67.2 | 62.2 | 36.4 | 39.4 |
| 87.5° | 10.8 | 11.0 | 7.3 | 7.8 | 8.0 | 9.5 | 10.8 | 40.9 | 19.6 | 12.8 | 13.5 |
| 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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Peachtree City, GA 30269

# LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-3-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-740-U-5WQ

Data in this report applies to families of products SA1C-740-U-5WQ

Data valid for all products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

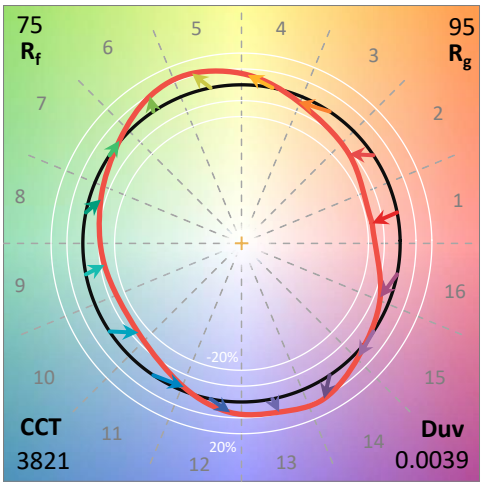
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-3-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 11/05/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-740-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-3-R3. TO UPDATE THE CATALOG INFORMATION.***TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 4000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 3821 | CRI (Ra): | 72.3 | | |
| CIE u': | 0.2264 | R1: | 68.5 | R9: | -33.5 |
| CIE v': | 0.5098 | R2: | 78.5 | R10: | 50.8 |
| Duv: | 0.0039 | R3: | 88.2 | R11: | 69.2 |
| CIE x: | 0.3918 | R4: | 72.2 | R12: | 48.9 |
| CIE y: | 0.3921 | R5: | 69.0 | R13: | 69.8 |
| CIE z: | 0.2161 | R6: | 71.0 | R14: | 93.4 |
| Peak Wavelength (nm): | 585 | R7: | 80.4 | | |
| Dominant Wavelength (nm): | 577 | R8: | 50.4 | | |
| Purity: | 35.4 | | | | |

| | |
|---|---|
| Rf: | 75.5 |
| Rg: | 94.8 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 67M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.0./44% |
| Sphere Temperature (°C): | 25.7 |

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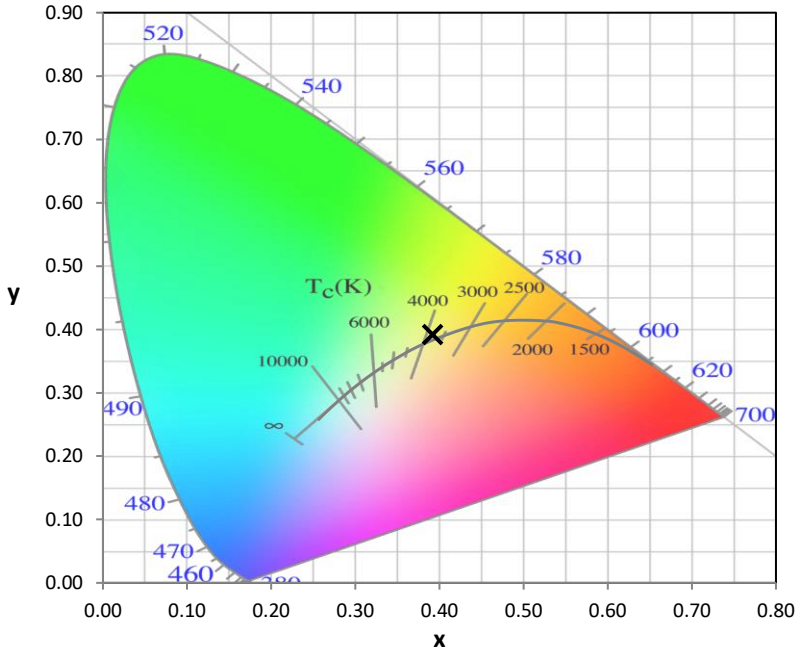
REPORT NUMBER: SP1-1908-441-3-R4

| 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 |

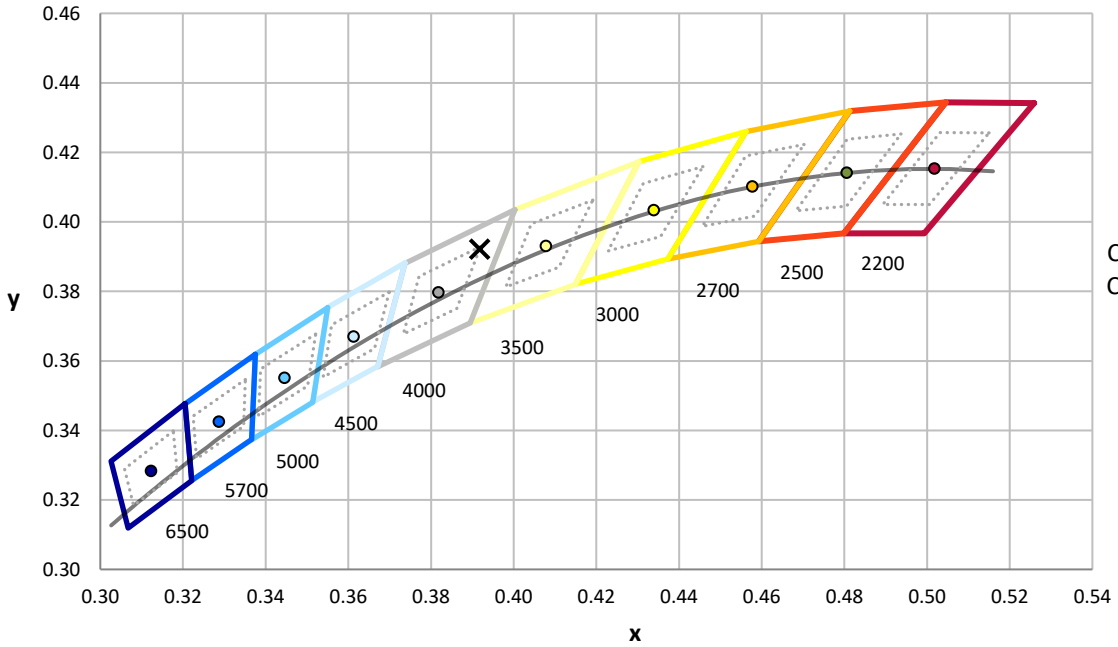
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Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-3-R4

## CIE 1931 Chromaticity Diagram




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



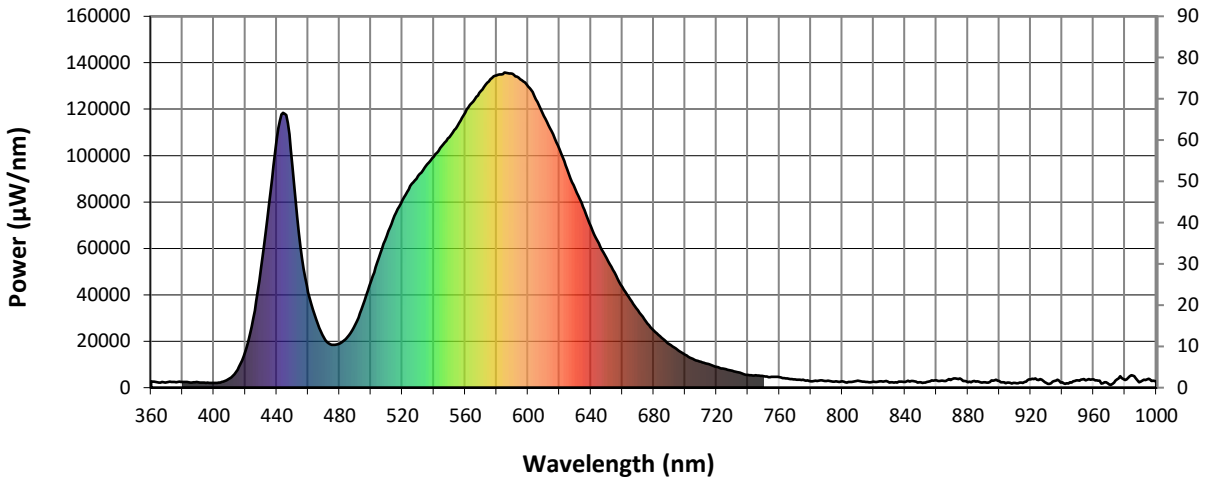

CCT = 3821K
CIE x = 0.3918
CIE y = 0.3921
Duv = 0.0039

Point lies inside the ANSI 4000K 7-step quadrangle

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## Photopic Flux vs. Wavelength



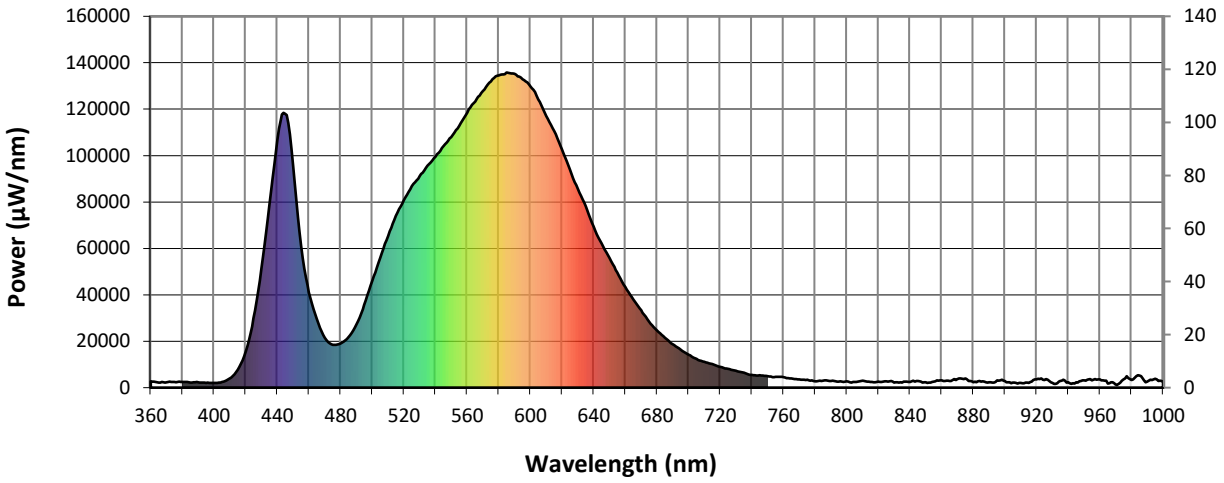

######

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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## Scotopic Flux vs. Wavelength



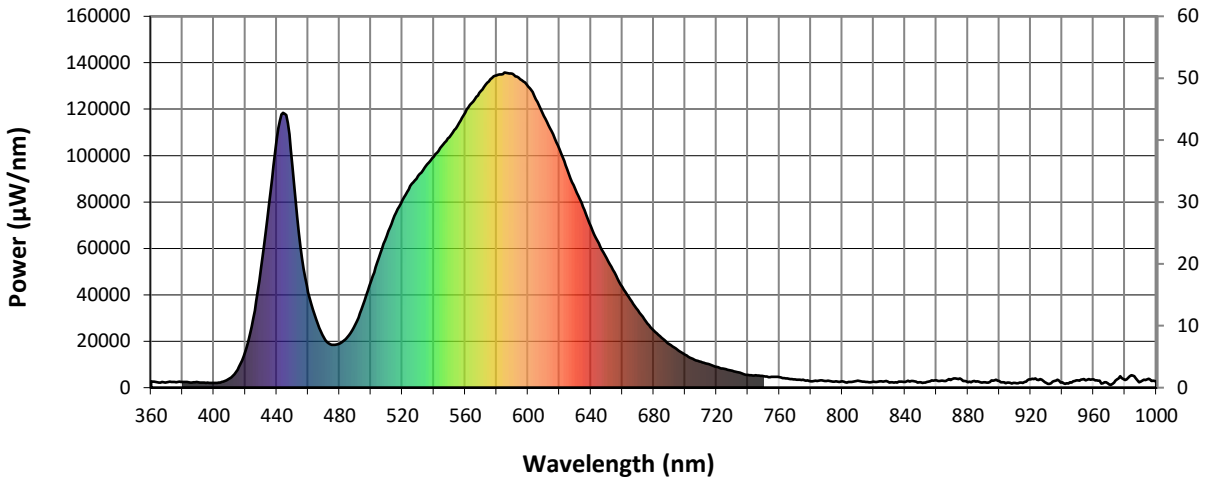

**Scotopic Lumens: 10930.8** **S/P: 1.47**

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 4115.9** **M/P: 0.55**

| 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 | 2662 | NR | 490 | 27227 | NR | 620 | 102725 | NR | 750 | 4998 | NR | 880 | 2294 | NR |
| 365 | 2227 | NR | 495 | 35672 | NR | 625 | 94018 | NR | 755 | 4638 | NR | 885 | 2526 | NR |
| 370 | 2351 | NR | 500 | 45857 | NR | 630 | 85530 | NR | 760 | 4579 | NR | 890 | 2275 | NR |
| 375 | 2487 | NR | 505 | 55772 | NR | 635 | 77990 | NR | 765 | 3952 | NR | 895 | 3151 | NR |
| 380 | 2507 | NR | 510 | 65358 | NR | 640 | 69405 | NR | 770 | 3495 | NR | 900 | 2915 | NR |
| 385 | 2244 | NR | 515 | 73945 | NR | 645 | 62112 | NR | 775 | 3353 | NR | 905 | 2197 | NR |
| 390 | 2299 | NR | 520 | 80747 | NR | 650 | 55830 | NR | 780 | 2778 | NR | 910 | 2048 | NR |
| 395 | 2056 | NR | 525 | 86794 | NR | 655 | 49542 | NR | 785 | 2954 | NR | 915 | 2045 | NR |
| 400 | 2025 | NR | 530 | 91185 | NR | 660 | 43371 | NR | 790 | 2859 | NR | 920 | 3527 | NR |
| 405 | 2414 | NR | 535 | 95640 | NR | 665 | 38089 | NR | 795 | 2638 | NR | 925 | 3296 | NR |
| 410 | 3944 | NR | 540 | 99533 | NR | 670 | 33284 | NR | 800 | 2710 | NR | 930 | 2096 | NR |
| 415 | 7705 | NR | 545 | 104097 | NR | 675 | 28574 | NR | 805 | 2390 | NR | 935 | 2810 | NR |
| 420 | 15513 | NR | 550 | 107982 | NR | 680 | 24590 | NR | 810 | 2947 | NR | 940 | 2304 | NR |
| 425 | 29927 | NR | 555 | 112790 | NR | 685 | 21480 | NR | 815 | 2387 | NR | 945 | 2250 | NR |
| 430 | 51389 | NR | 560 | 118428 | NR | 690 | 18698 | NR | 820 | 2557 | NR | 950 | 3082 | NR |
| 435 | 78905 | NR | 565 | 123208 | NR | 695 | 16372 | NR | 825 | 2693 | NR | 955 | 3173 | NR |
| 440 | 106921 | NR | 570 | 127740 | NR | 700 | 14200 | NR | 830 | 2208 | NR | 960 | 3569 | NR |
| 445 | 118008 | NR | 575 | 131879 | NR | 705 | 12325 | NR | 835 | 2160 | NR | 965 | 1744 | NR |
| 450 | 95722 | NR | 580 | 134489 | NR | 710 | 11122 | NR | 840 | 2493 | NR | 970 | 1283 | NR |
| 455 | 61053 | NR | 585 | 135793 | NR | 715 | 10157 | NR | 845 | 2809 | NR | 975 | 3622 | NR |
| 460 | 41109 | NR | 590 | 135243 | NR | 720 | 8957 | NR | 850 | 2287 | NR | 980 | 3346 | NR |
| 465 | 29591 | NR | 595 | 132928 | NR | 725 | 8084 | NR | 855 | 2564 | NR | 985 | 5229 | NR |
| 470 | 21545 | NR | 600 | 129738 | NR | 730 | 7241 | NR | 860 | 3166 | NR | 990 | 2613 | NR |
| 475 | 18425 | NR | 605 | 124239 | NR | 735 | 6387 | NR | 865 | 2867 | NR | 995 | 3838 | NR |
| 480 | 19056 | NR | 610 | 116984 | NR | 740 | 5430 | NR | 870 | 3742 | NR | 1000 | 2626 | NR |
| 485 | 21740 | NR | 615 | 110543 | NR | 745 | 5284 | NR | 875 | 3912 | NR | | | |

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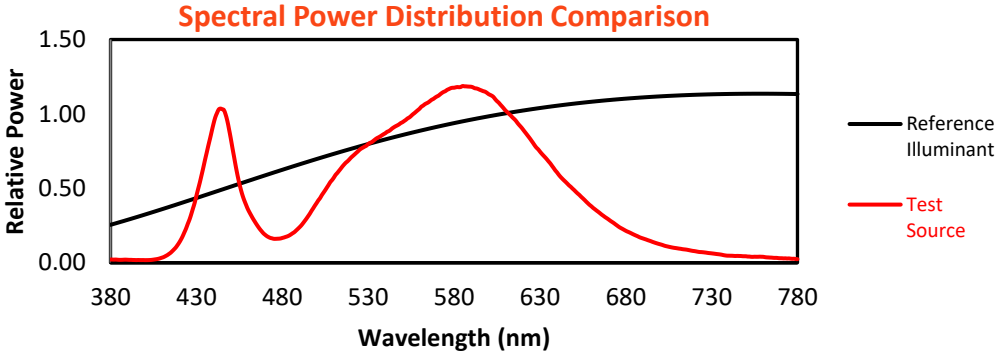
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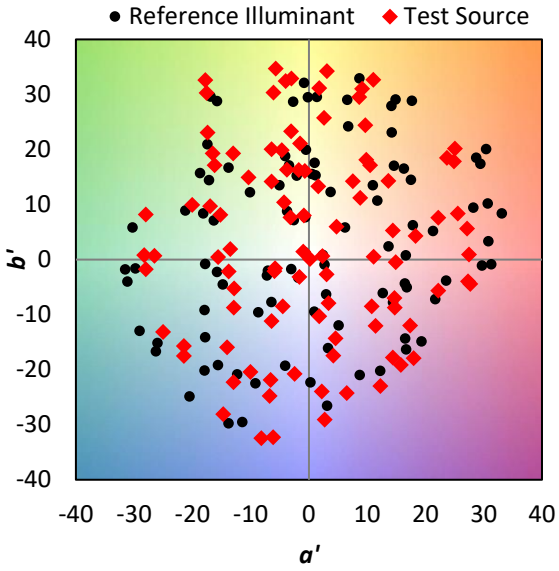
## Summary

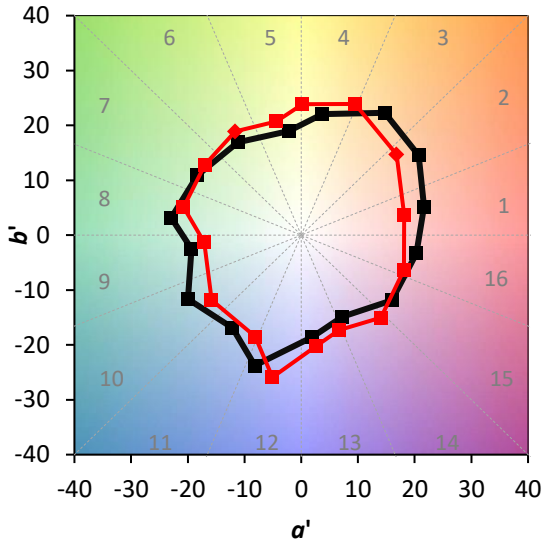
$R_f$ = 75.5
$R_g$ = 94.8
CIE $R_a$ = 72.3
$R_9$ = -33.5

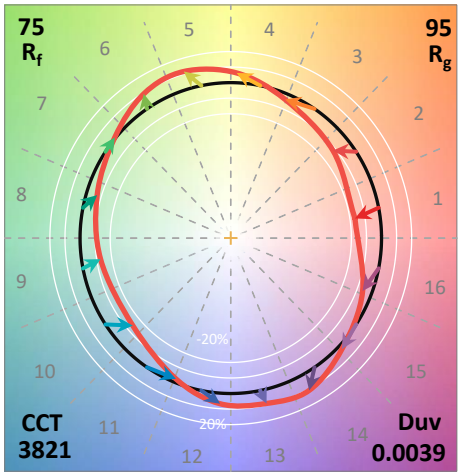
## Spectral Power Distribution Comparison

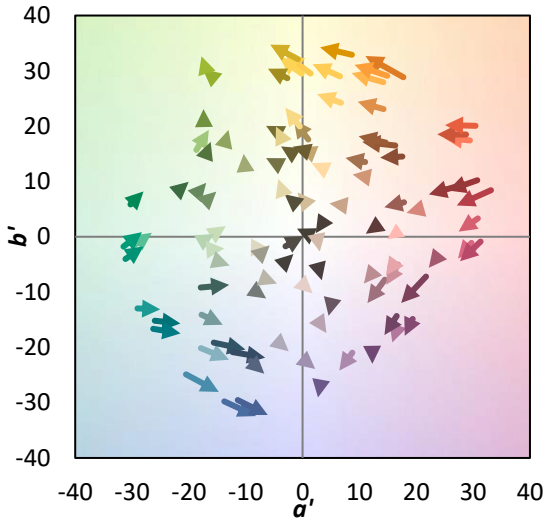



## Color Vector Graphics



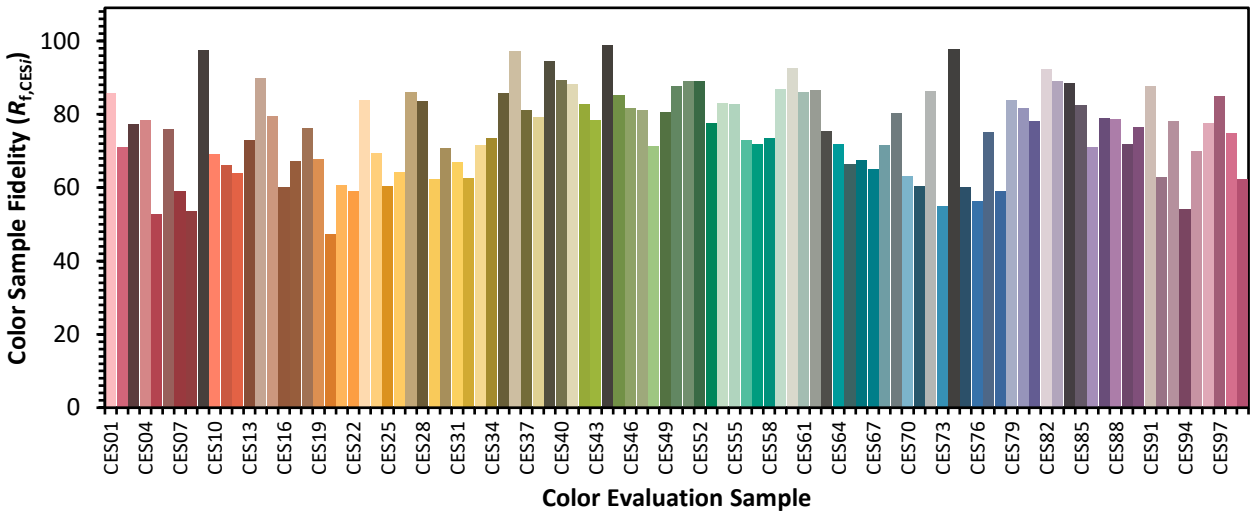
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Peachtree City, GA 30269

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 64 | CES51 = 89 | CES76 = 56 |
| CES02 = 61 | CES27 = 86 | CES52 = 89 | CES77 = 75 |
| CES03 = 30 | CES28 = 83 | CES53 = 78 | CES78 = 59 |
| CES04 = 70 | CES29 = 62 | CES54 = 83 | CES79 = 84 |
| CES05 = 47 | CES30 = 71 | CES55 = 83 | CES80 = 82 |
| CES06 = 50 | CES31 = 67 | CES56 = 73 | CES81 = 78 |
| CES07 = 40 | CES32 = 63 | CES57 = 72 | CES82 = 92 |
| CES08 = 39 | CES33 = 72 | CES58 = 73 | CES83 = 89 |
| CES09 = 29 | CES34 = 73 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 86 | CES60 = 92 | CES85 = 83 |
| CES11 = 57 | CES36 = 97 | CES61 = 86 | CES86 = 71 |
| CES12 = 63 | CES37 = 81 | CES62 = 87 | CES87 = 79 |
| CES13 = 42 | CES38 = 79 | CES63 = 75 | CES88 = 79 |
| CES14 = 74 | CES39 = 94 | CES64 = 72 | CES89 = 72 |
| CES15 = 71 | CES40 = 89 | CES65 = 66 | CES90 = 77 |
| CES16 = 46 | CES41 = 88 | CES66 = 67 | CES91 = 88 |
| CES17 = 49 | CES42 = 83 | CES67 = 65 | CES92 = 63 |
| CES18 = 56 | CES43 = 78 | CES68 = 71 | CES93 = 78 |
| CES19 = 72 | CES44 = 99 | CES69 = 80 | CES94 = 54 |
| CES20 = 65 | CES45 = 85 | CES70 = 63 | CES95 = 70 |
| CES21 = 86 | CES46 = 82 | CES71 = 60 | CES96 = 78 |
| CES22 = 78 | CES47 = 81 | CES72 = 86 | CES97 = 85 |
| CES23 = 92 | CES48 = 71 | CES73 = 55 | CES98 = 75 |
| CES24 = 91 | CES49 = 81 | CES74 = 98 | CES99 = 62 |
| CES25 = 72 | CES50 = 88 | CES75 = 60 | |

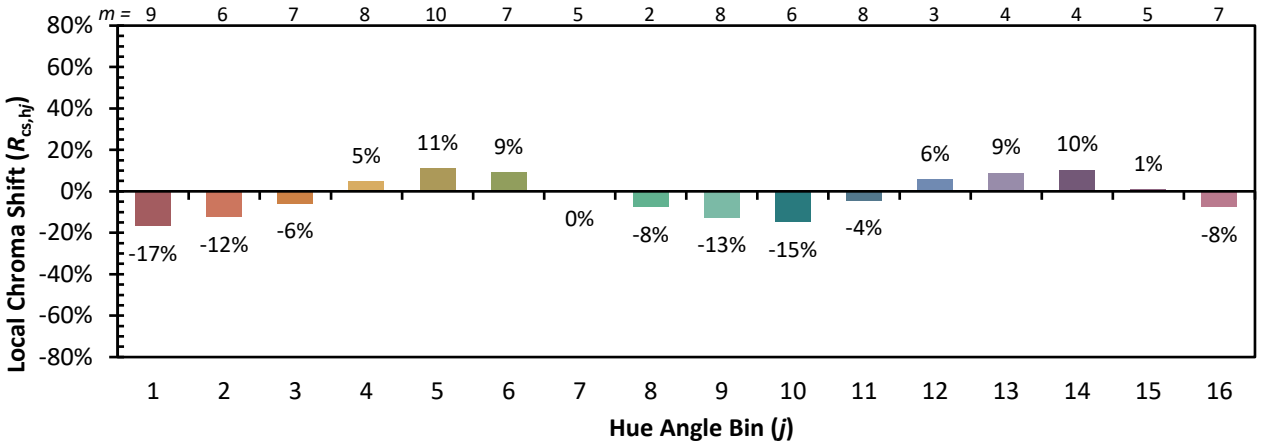


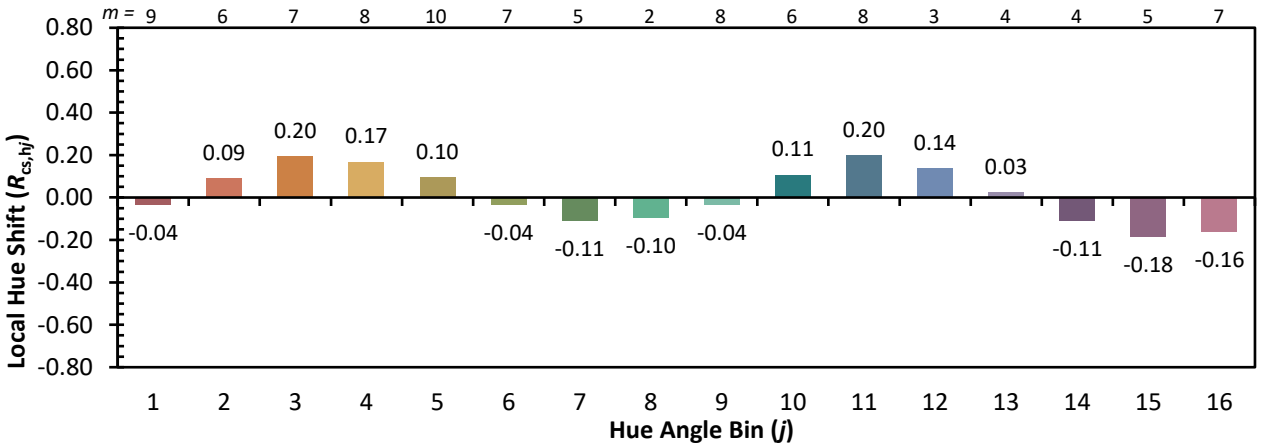
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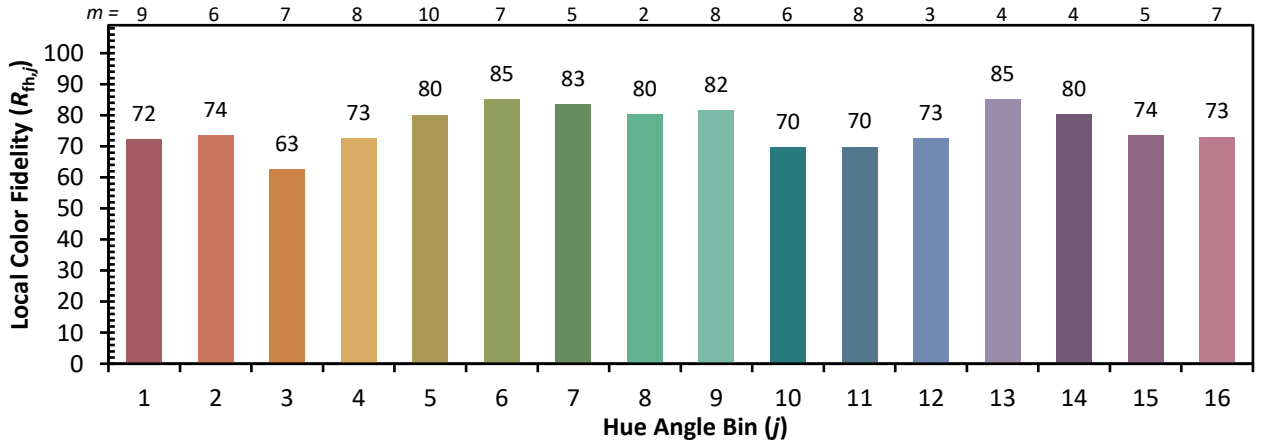
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### Color Rendition by Hue-Angle Bin



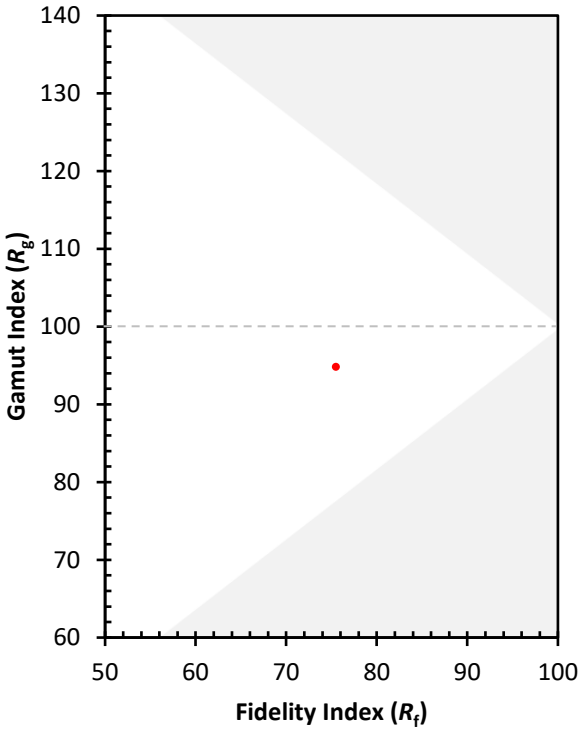



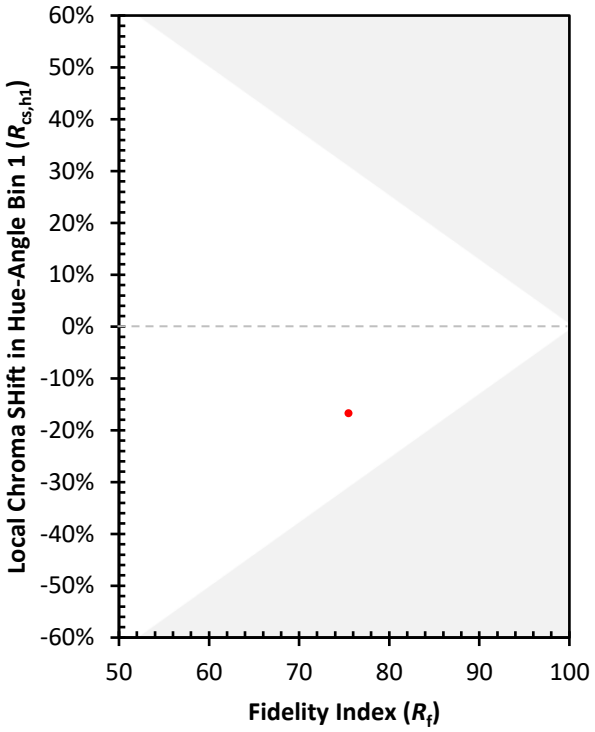
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### Measure Comparisons




(END OF REPORT)