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: P1201106

Luminaire Tested: GWC-SB1A-730-U-SL2-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: | P1201106 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB1A-730-U-SL2-HSS |
| Description: | GALLEON WALL LUMINAIRE |
| | (1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 3655 lumens |
| Efficiency: | N/A |
| Efficacy: | 118.3 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B0 - 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 |

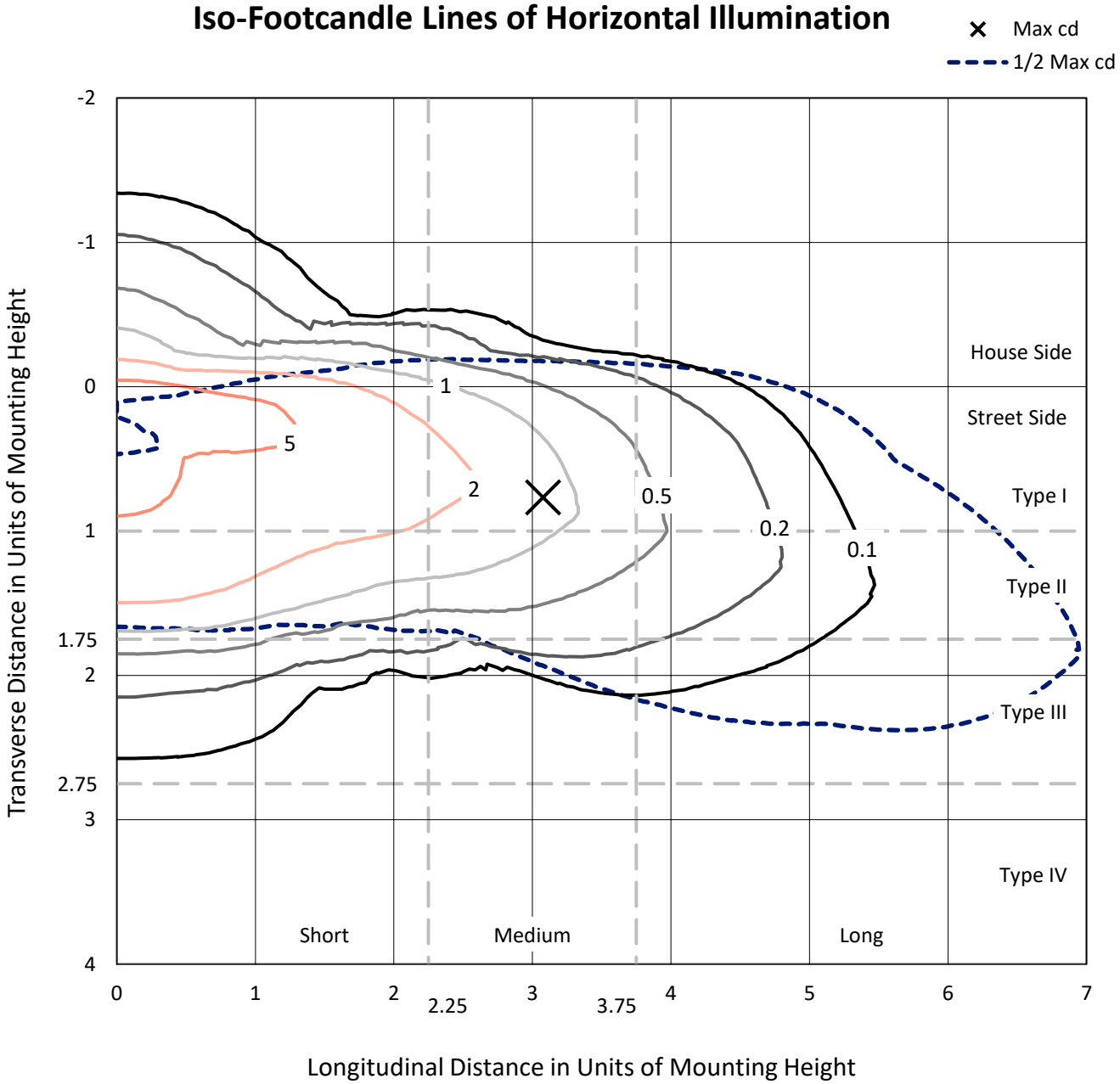


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REPORT NUMBER: P1201106
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## Iso-Footcandle Lines of Horizontal Illumination



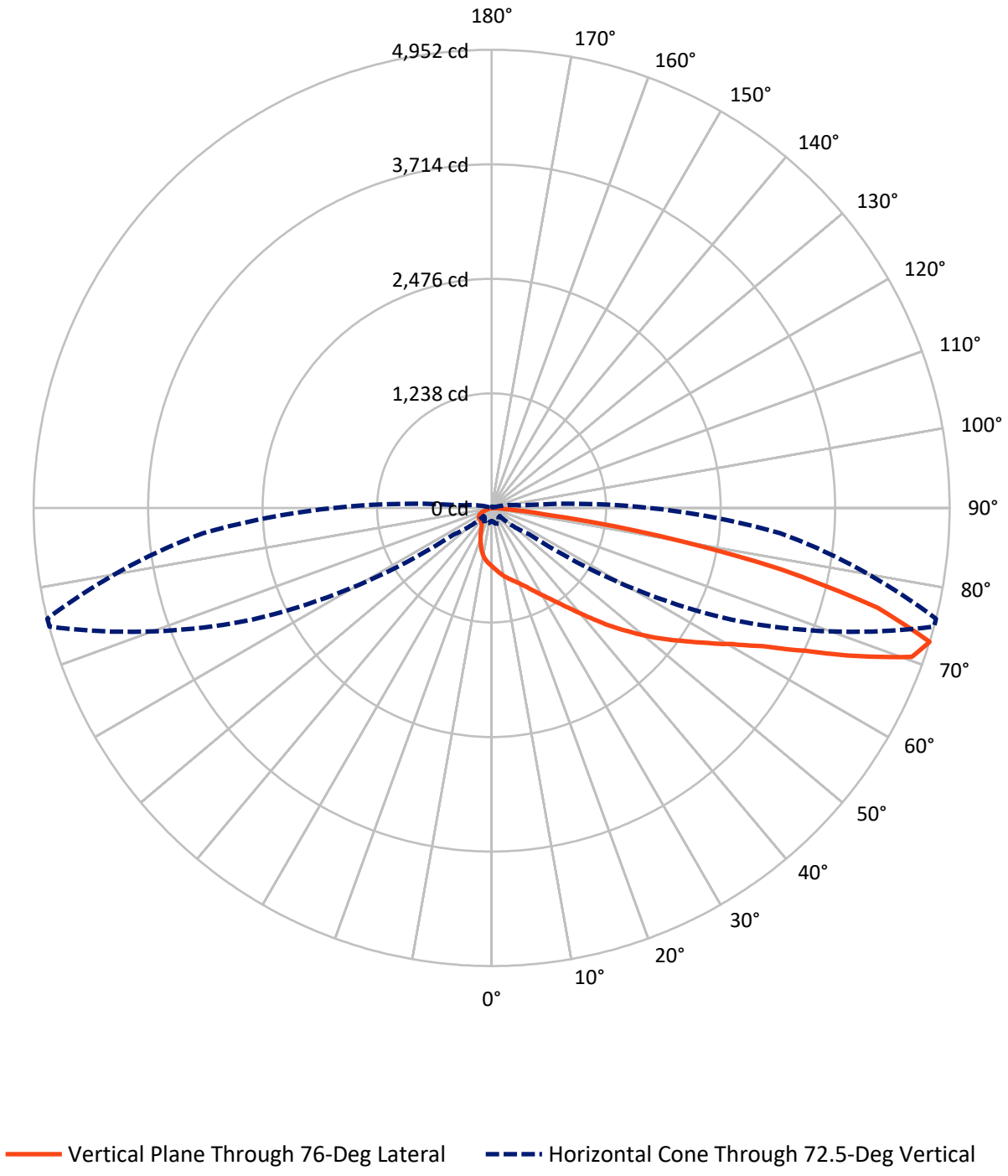

Based on 10 foot mounting height. Maximum calculated value = 5.5 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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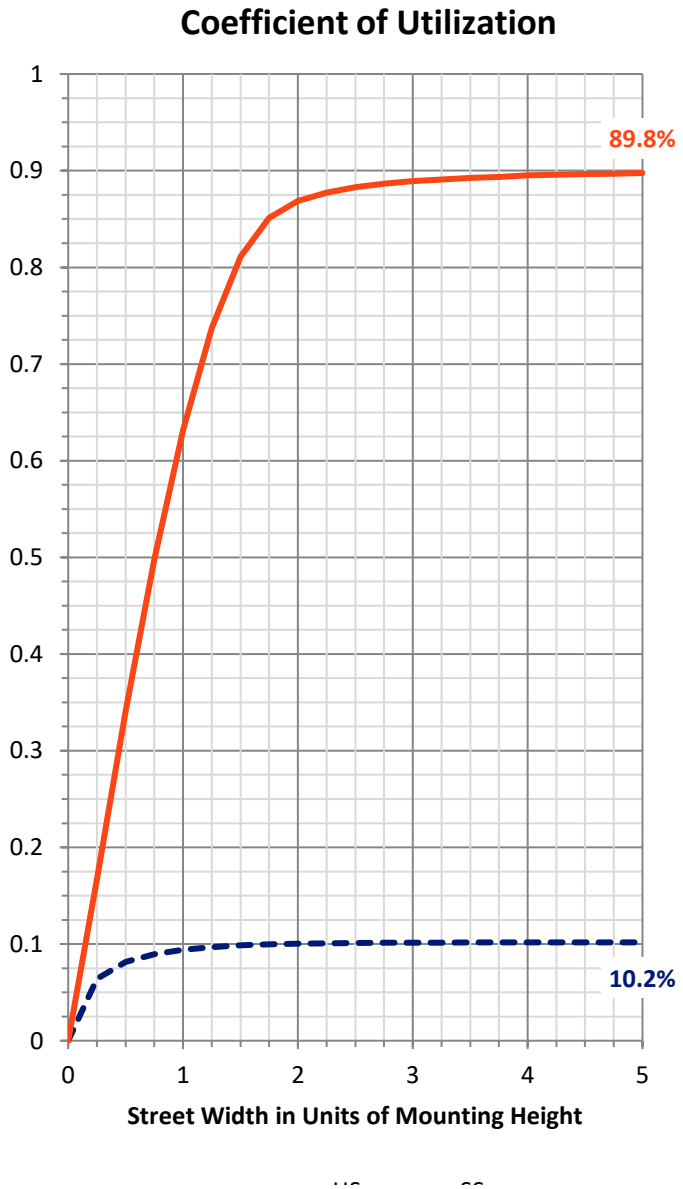
REPORT NUMBER: P1201106
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 374.1 | 0.0 | 374.1 |
| | % Fixture | 10.2 | 0.0 | 10.2 |
| **Street Side** | Lumens | 3280.9 | 0.0 | 3280.9 |
| | % Fixture | 89.8 | 0.0 | 89.8 |
| **Total** | Lumens | 3655.0 | 0.0 | 3655.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 57.4 | 1.6 |
| 10°-20° | 154.0 | 4.2 |
| 20°-30° | 243.8 | 6.7 |
| 30°-40° | 377.2 | 10.3 |
| 40°-50° | 572.9 | 15.7 |
| 50°-60° | 789.7 | 21.6 |
| 60°-70° | 834.3 | 22.8 |
| 70°-80° | 572.4 | 15.7 |
| 80°-90° | 53.3 | 1.5 |
| 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° | 3655.0 | 100.0 |
| 0°-180° | 3655.0 | 100.0 |



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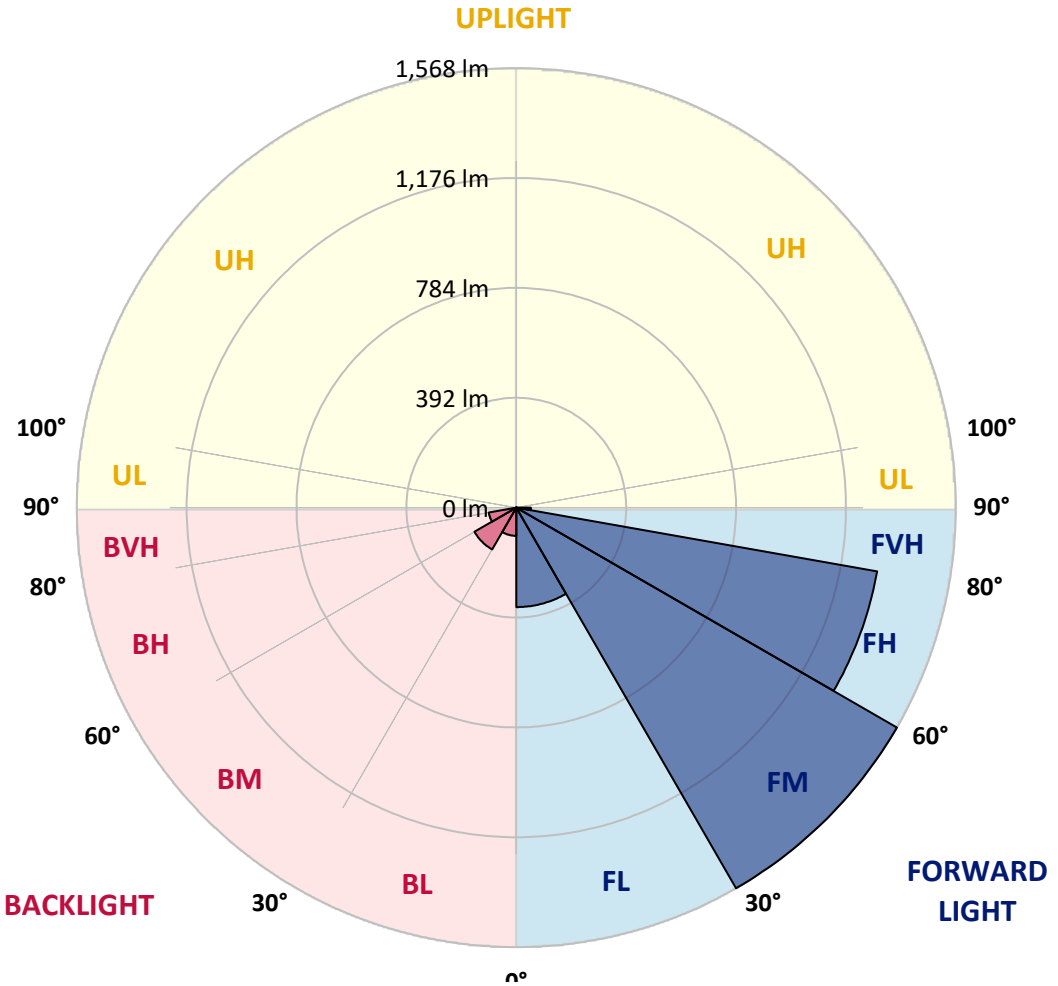
Scaled Data Report

REPORT NUMBER: P1201106
CATALOG NUMBER: GWC-SB1A-730-U-SL2-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 354.7 | 9.7 | | | |
| FM | (30°-60°) | 1567.6 | 42.9 | | | |
| FH | (60°-80°) | 1306.8 | 35.8 | | | G1/1800 |
| FVH | (80°-90°) | 51.8 | 1.4 | | | G1/100 |
| BL | (0°-30°) | 100.6 | 2.8 | B0/110 | | |
| BM | (30°-60°) | 172.2 | 4.7 | B0/220 | | |
| BH | (60°-80°) | 99.9 | 2.7 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.4 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B0-U0-G1**
Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | *631.6* | 631.6 |
| 2.5° | 734.3 | 724.6 | 726.5 | 716.7 | 712.2 | 701.3 | 689.9 | 675.0 | 658.4 | *658.4* | 642.3 |
| 5° | 811.6 | 805.4 | 805.4 | 794.0 | 785.3 | 768.2 | 747.8 | 721.5 | 690.2 | *687.1* | 656.5 |
| 7.5° | 859.0 | 855.2 | 857.6 | 850.9 | 843.8 | 826.0 | 801.8 | 767.5 | 723.1 | *719.3* | 673.3 |
| 10° | 868.2 | 868.0 | 874.6 | 876.5 | 881.3 | 872.3 | 850.7 | 811.1 | 755.6 | *750.2* | 687.8 |
| 12.5° | 832.4 | 827.9 | 844.3 | 863.5 | 890.5 | 902.6 | 891.5 | 850.9 | 785.3 | *777.7* | 701.3 |
| 15° | 773.6 | 774.6 | 790.2 | 819.9 | 864.9 | 908.1 | 922.5 | 889.8 | 815.4 | *806.4* | 714.1 |
| 17.5° | 740.0 | 736.4 | 749.9 | 776.5 | 826.3 | 887.2 | 937.0 | 926.1 | 847.4 | *837.2* | 727.2 |
| 20° | 735.9 | 735.7 | 738.8 | 750.9 | 788.8 | 857.3 | 935.3 | 961.4 | 885.1 | *873.2* | 745.9 |
| 22.5° | 763.9 | 763.4 | 760.8 | 758.5 | 768.9 | 828.2 | 928.2 | 995.1 | 930.1 | *917.3* | 772.4 |
| 25° | 806.8 | 806.1 | 802.1 | 787.6 | 777.4 | 812.5 | 921.6 | 1026.4 | 983.5 | *969.2* | 804.7 |
| 27.5° | 859.2 | 858.8 | 851.4 | 829.6 | 803.3 | 813.9 | 918.3 | 1058.6 | 1045.1 | *1031.1* | 841.9 |
| 30° | 923.5 | 922.5 | 907.4 | 876.5 | 842.2 | 836.5 | 922.8 | 1094.9 | 1109.4 | *1098.7* | 884.8 |
| 32.5° | 1004.1 | 1001.5 | 981.6 | 935.1 | 887.0 | 866.6 | 931.3 | 1132.1 | 1185.5 | *1175.5* | 942.2 |
| 35° | 1066.4 | 1062.4 | 1050.8 | 1009.8 | 938.9 | 903.6 | 951.2 | 1176.2 | 1277.0 | *1268.2* | 1015.5 |
| 37.5° | 1120.0 | 1116.0 | 1106.5 | 1072.8 | 1013.3 | 950.7 | 983.2 | 1235.0 | 1385.1 | *1380.8* | 1104.9 |
| 40° | 1177.9 | 1171.2 | 1166.7 | 1130.7 | 1076.9 | 1018.8 | 1029.0 | 1303.8 | 1509.6 | *1510.0* | 1212.3 |
| 42.5° | 1222.5 | 1219.8 | 1220.3 | 1192.6 | 1138.3 | 1099.4 | 1089.7 | 1381.3 | 1658.7 | *1663.2* | 1341.5 |
| 45° | 1260.6 | 1258.5 | 1267.3 | 1247.8 | 1200.2 | 1152.3 | 1160.8 | 1469.0 | 1821.8 | *1831.1* | 1486.1 |
| 47.5° | 1290.0 | 1292.4 | 1305.0 | 1292.4 | 1264.4 | 1189.5 | 1223.9 | 1563.6 | 1993.2 | *1994.4* | 1635.5 |
| 50° | 1319.4 | 1320.4 | 1341.2 | 1335.1 | 1323.7 | 1236.7 | 1282.0 | 1669.4 | 2173.9 | *2176.0* | 1775.1 |
| 52.5° | 1328.7 | 1327.2 | 1360.4 | 1375.6 | 1376.1 | 1295.0 | 1357.1 | 1784.6 | 2351.0 | *2357.9* | 1918.8 |
| 55° | 1281.3 | 1285.3 | 1338.9 | 1400.5 | 1424.9 | 1375.6 | 1458.6 | 1930.4 | 2539.7 | *2542.6* | 2061.0 |
| 57.5° | 1049.4 | 1071.7 | 1190.2 | 1333.2 | 1456.5 | 1491.1 | 1604.4 | 2100.9 | 2757.6 | *2755.0* | 2205.2 |
| 60° | 636.8 | 663.4 | 805.2 | 1118.1 | 1353.6 | 1607.0 | 1819.2 | 2365.0 | 2995.7 | *2988.3* | 2351.0 |
| 62.5° | 356.1 | 364.2 | 409.5 | 669.3 | 1029.5 | 1533.3 | 2029.0 | 2704.3 | 3315.3 | *3290.4* | 2494.5 |
| 65° | 262.5 | 265.1 | 275.7 | 327.9 | 506.0 | 1179.3 | 1983.0 | 3109.9 | 3764.3 | *3720.0* | 2666.3 |
| 67.5° | 228.1 | 230.7 | 241.1 | 248.2 | 225.9 | 619.5 | 1633.8 | 3335.0 | 4334.5 | *4276.4* | 2898.9 |
| 70° | 192.0 | 193.5 | 210.3 | 215.0 | 161.7 | 235.7 | 1049.6 | 3265.5 | 4862.3 | *4820.8* | 3148.6 |
| 72.5° | *143.2* | *148.9* | *173.3* | *184.7* | *129.7* | *125.2* | *494.1* | *2855.1* | *4951.7* | *4952.2* | *3131.8* |
| 75° | 97.2 | 102.4 | 130.4 | 152.0 | 100.1 | 87.7 | 199.4 | 2131.9 | 4311.8 | *4311.8* | 2745.3 |
| 77.5° | 66.4 | 70.7 | 90.8 | 119.3 | 75.9 | 60.2 | 103.4 | 1353.1 | 3093.4 | *3202.2* | 1956.7 |
| 80° | 29.4 | 32.0 | 58.6 | 86.5 | 57.6 | 38.9 | 58.6 | 740.9 | 1870.7 | *1847.7* | 767.0 |
| 82.5° | 14.5 | 16.6 | 37.5 | 54.1 | 37.2 | 23.9 | 30.8 | 352.3 | 606.2 | *576.1* | 119.7 |
| 85° | 2.8 | 3.8 | 20.2 | 23.0 | 17.3 | 10.7 | 11.6 | 108.4 | 73.0 | *83.5* | 25.4 |
| 87.5° | 0.0 | 0.0 | 6.2 | 4.3 | 1.9 | 2.4 | 2.4 | 9.7 | 5.7 | *6.6* | 6.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 |

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REPORT NUMBER: P1201106
CATALOG NUMBER: GWC-SB1A-730-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 | 631.6 |
| 2.5° | 633.7 | 625.0 | 605.8 | 586.8 | 567.4 | 549.6 | 537.3 | 524.9 | 517.3 | 514.0 | 514.5 |
| 5° | 638.7 | 620.9 | 580.6 | 538.4 | 496.7 | 455.9 | 425.3 | 396.7 | 387.6 | 372.7 | 373.7 |
| 7.5° | 646.6 | 617.6 | 554.1 | 483.0 | 415.1 | 355.4 | 312.3 | 277.9 | 264.1 | 250.8 | 250.6 |
| 10° | 651.8 | 611.5 | 519.0 | 423.9 | 332.2 | 265.1 | 223.8 | 198.9 | 189.9 | 181.9 | 181.6 |
| 12.5° | 653.9 | 600.1 | 478.7 | 357.8 | 258.4 | 202.0 | 177.3 | 165.7 | 162.6 | 159.8 | 159.8 |
| 15° | 655.8 | 588.9 | 433.6 | 294.0 | 204.1 | 169.0 | 159.3 | 155.5 | 153.4 | 151.5 | 151.5 |
| 17.5° | 657.5 | 574.7 | 382.2 | 239.0 | 172.4 | 155.8 | 151.0 | 147.0 | 145.3 | 143.2 | 143.2 |
| 20° | 663.1 | 561.0 | 336.2 | 197.3 | 155.1 | 146.3 | 141.1 | 136.8 | 135.4 | 134.0 | 134.2 |
| 22.5° | 673.8 | 549.8 | 291.6 | 169.0 | 144.6 | 136.6 | 129.9 | 125.2 | 124.2 | 123.3 | 122.6 |
| 25° | 686.6 | 536.1 | 249.7 | 150.8 | 134.4 | 125.4 | 118.1 | 114.0 | 113.1 | 113.3 | 112.9 |
| 27.5° | 703.0 | 520.9 | 213.6 | 139.2 | 125.4 | 115.0 | 106.7 | 103.6 | 104.1 | 105.0 | 104.6 |
| 30° | 721.0 | 506.9 | 185.4 | 131.1 | 117.4 | 105.7 | 97.4 | 95.3 | 97.0 | 98.4 | 97.9 |
| 32.5° | 747.8 | 494.6 | 165.7 | 124.7 | 110.2 | 98.2 | 91.5 | 88.9 | 90.8 | 92.7 | 92.2 |
| 35° | 784.3 | 488.4 | 154.6 | 119.3 | 104.1 | 92.2 | 85.6 | 83.7 | 85.6 | 86.1 | 85.8 |
| 37.5° | 829.1 | 487.9 | 149.8 | 114.8 | 98.4 | 87.3 | 79.9 | 79.2 | 80.6 | 80.8 | 80.4 |
| 40° | 887.0 | 491.0 | 146.3 | 111.4 | 92.5 | 81.6 | 74.7 | 74.0 | 74.4 | 76.1 | 75.9 |
| 42.5° | 960.2 | 503.8 | 141.3 | 107.2 | 86.1 | 75.9 | 70.4 | 68.8 | 68.5 | 70.4 | 70.2 |
| 45° | 1052.2 | 532.0 | 134.7 | 100.3 | 80.4 | 71.1 | 65.7 | 63.8 | 63.1 | 63.5 | 64.3 |
| 47.5° | 1152.5 | 566.7 | 128.0 | 93.9 | 76.3 | 67.3 | 61.9 | 59.5 | 58.3 | 58.3 | 58.3 |
| 50° | 1249.7 | 605.8 | 123.5 | 87.3 | 73.5 | 63.8 | 57.9 | 55.5 | 53.6 | 53.1 | 52.9 |
| 52.5° | 1346.0 | 644.2 | 120.0 | 80.6 | 70.2 | 59.3 | 54.1 | 51.4 | 49.3 | 48.4 | 47.9 |
| 55° | 1433.7 | 680.7 | 113.8 | 74.2 | 65.9 | 54.5 | 50.3 | 47.7 | 45.0 | 43.4 | 42.7 |
| 57.5° | 1517.9 | 711.0 | 102.4 | 67.6 | 59.3 | 50.0 | 46.2 | 43.4 | 40.3 | 38.2 | 37.2 |
| 60° | 1594.5 | 726.7 | 88.2 | 60.5 | 52.6 | 45.3 | 41.7 | 39.1 | 35.1 | 31.5 | 30.6 |
| 62.5° | 1652.8 | 720.5 | 72.8 | 52.4 | 45.8 | 41.0 | 36.5 | 33.9 | 29.2 | 24.9 | 23.2 |
| 65° | 1712.5 | 686.9 | 58.1 | 43.9 | 40.1 | 35.3 | 30.6 | 28.0 | 22.5 | 18.0 | 16.8 |
| 67.5° | 1790.1 | 615.0 | 45.8 | 36.5 | 34.6 | 28.0 | 23.9 | 22.3 | 18.5 | 14.2 | 13.3 |
| 70° | 1839.8 | 477.7 | 35.6 | 29.6 | 28.5 | 20.4 | 18.5 | 18.3 | 14.7 | 10.9 | 9.7 |
| 72.5° | *1703.3* | *313.2* | *27.3* | *22.5* | *20.4* | *13.3* | *14.2* | *14.2* | *10.7* | *7.3* | *6.4* |
| 75° | 1421.8 | 183.3 | 19.7 | 16.1 | 11.6 | 8.5 | 9.7 | 9.7 | 6.6 | 3.6 | 2.8 |
| 77.5° | 1015.5 | 97.7 | 13.0 | 10.0 | 5.9 | 3.8 | 5.2 | 5.0 | 2.1 | 0.2 | 0.0 |
| 80° | 388.4 | 33.7 | 6.2 | 4.0 | 1.7 | 0.7 | 0.5 | 0.2 | 0.2 | 0.0 | 0.0 |
| 82.5° | 59.3 | 8.8 | 1.2 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 10.7 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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

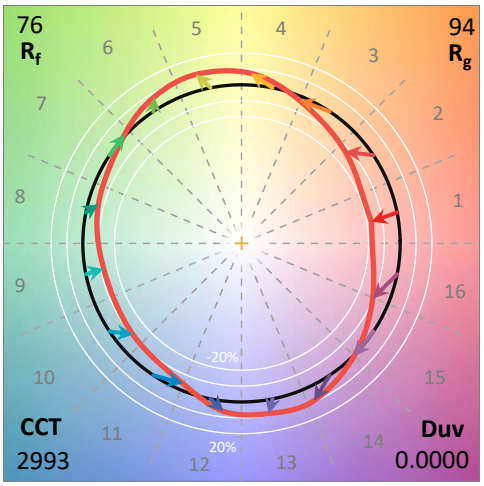
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-2-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON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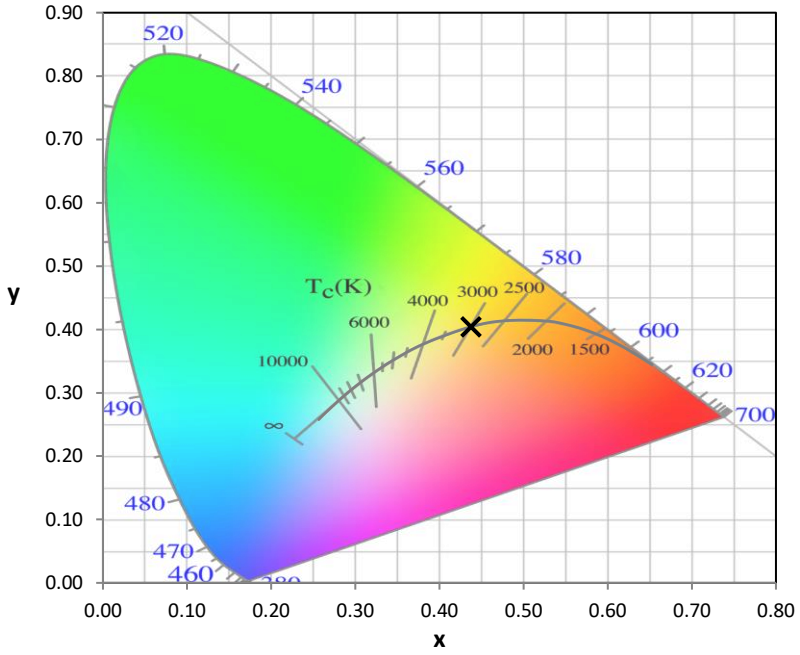
REPORT NUMBER: SP1-1908-441-2-R4

| 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 |

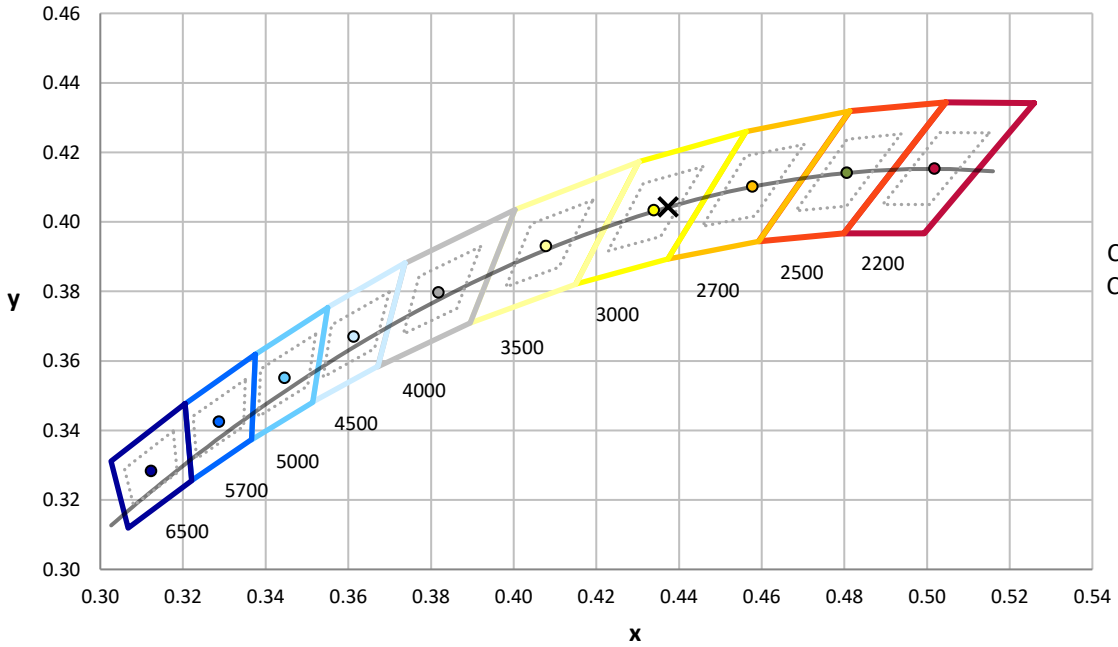
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



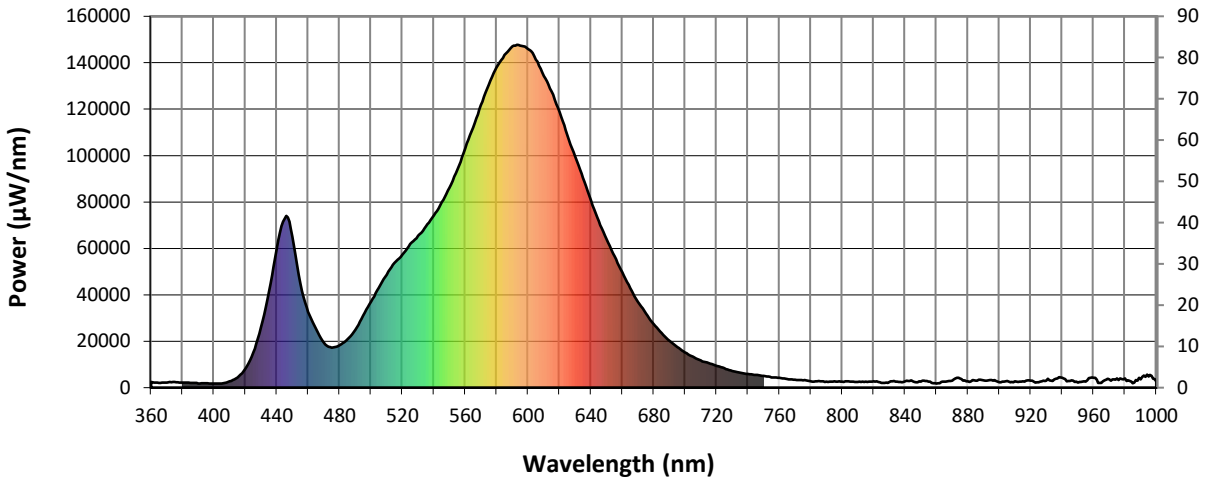

CCT = 2993K
CIE x = 0.4374
CIE y = 0.4043
Duv = 0.0000

Point lies inside the ANSI 3000K 4-step quadrangle

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Peachtree City, GA 30269

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

## Photopic Flux vs. Wavelength



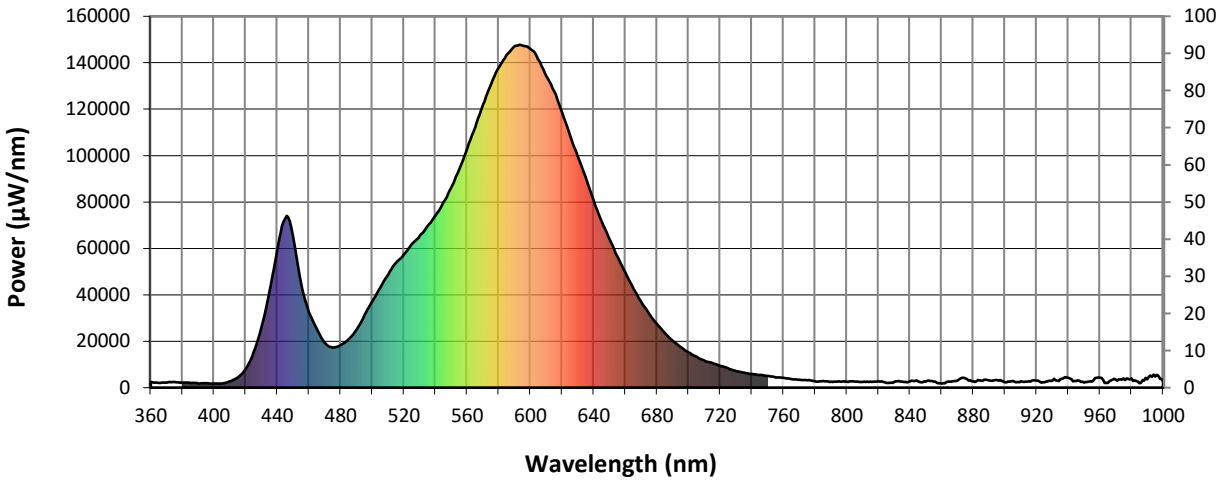

######

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

## Scotopic Flux vs. Wavelength



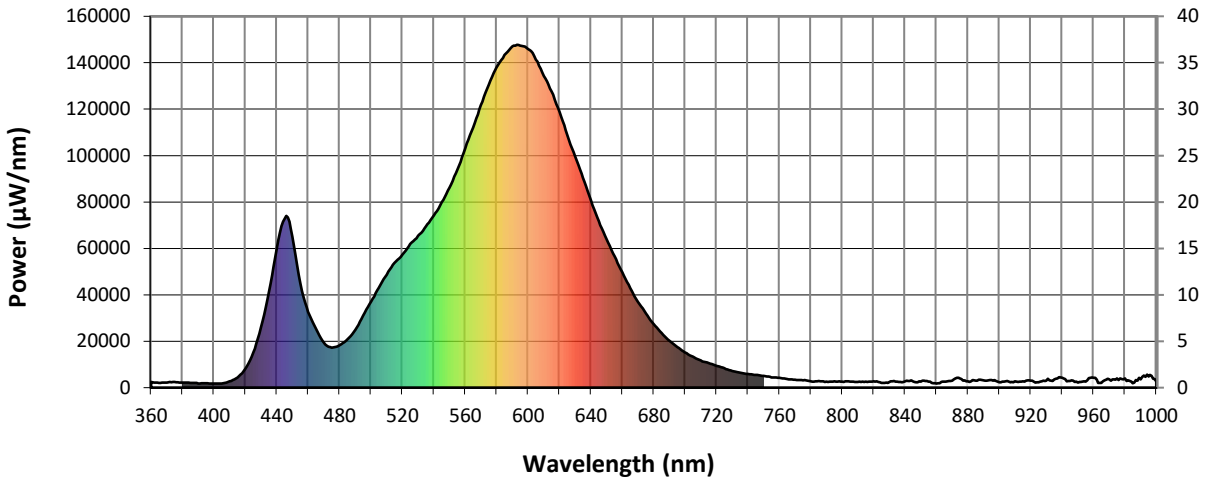

**Scotopic Lumens: 8494.8** **S/P: 1.23**

| 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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1121 Highway 74 South
Peachtree City, GA 30269

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

## 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

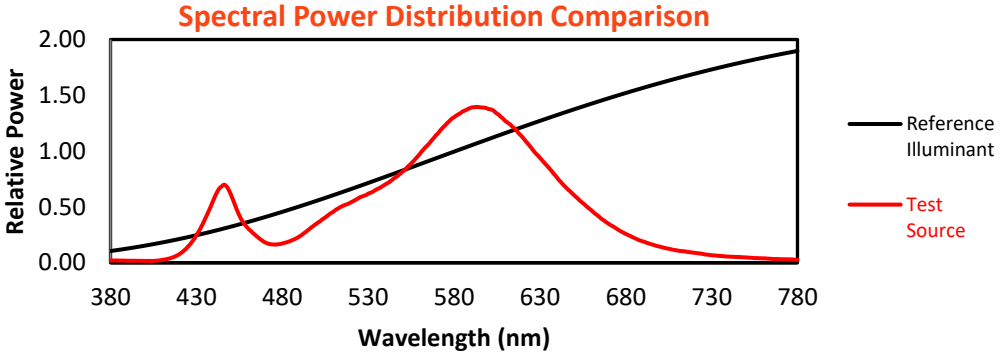
REPORT NUMBER: SP1-1908-441-2-R4

## TM-30-18

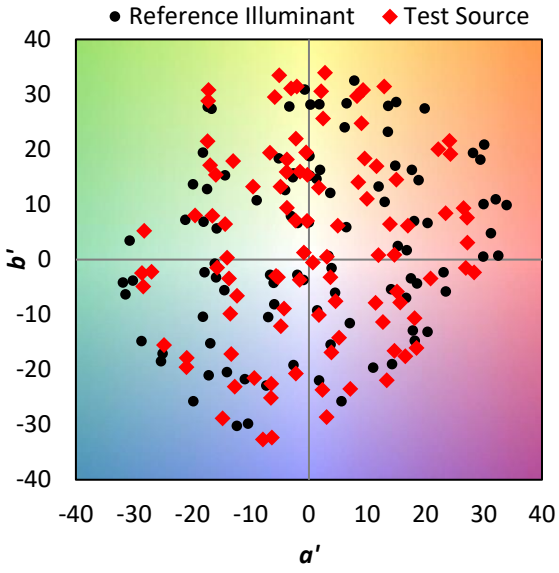
### Summary

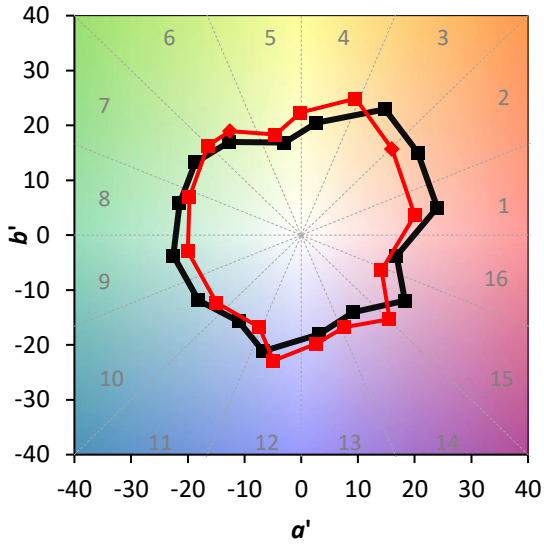
$R_f$ = 75.7
$R_g$ = 93.9
CIE $R_a$ = 71.8
$R_9$ = -38.3

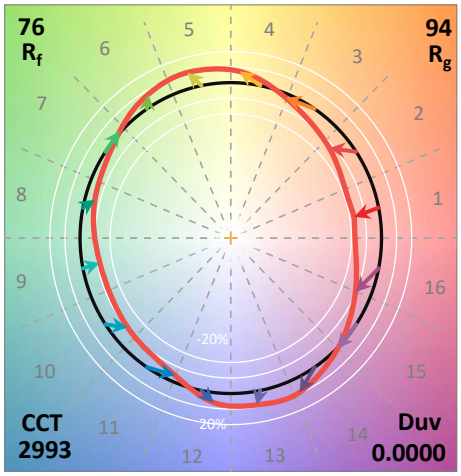
### Spectral Power Distribution Comparison

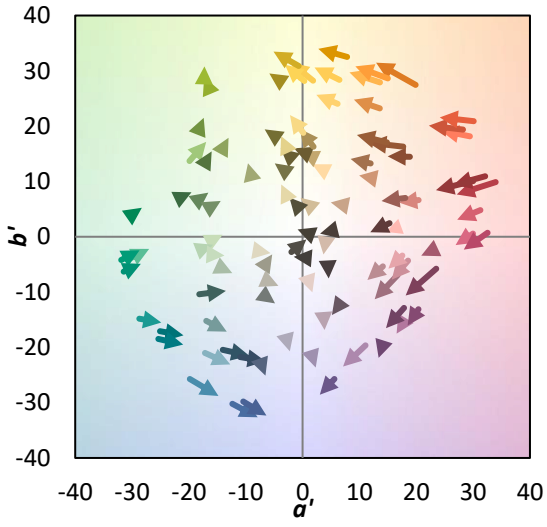



### Color Vector Graphics



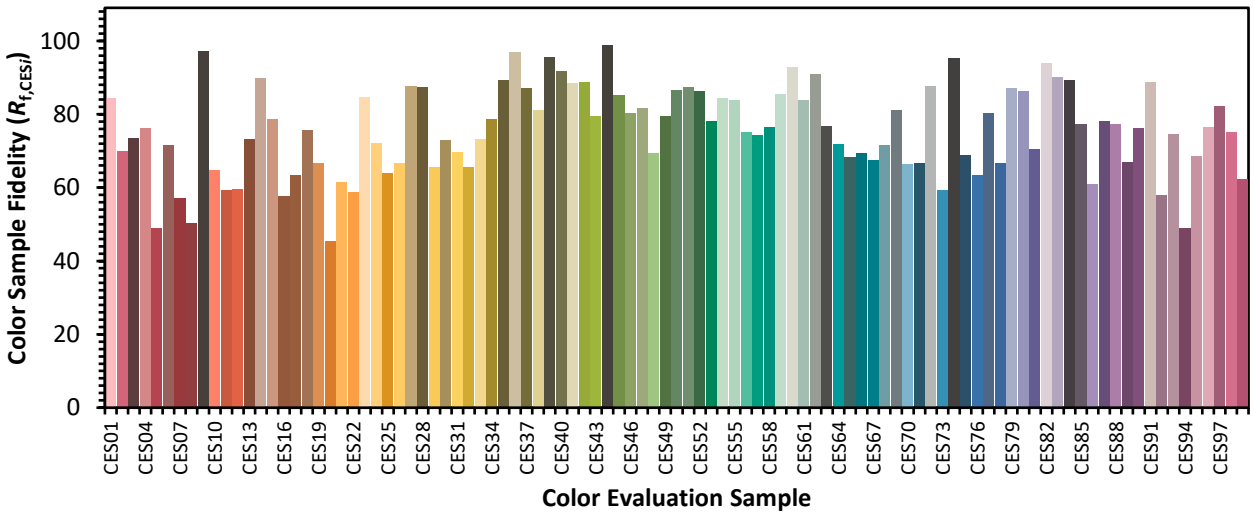
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1121 Highway 74 South
Peachtree City, GA 30269

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

## TM-30-18

### 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 | |

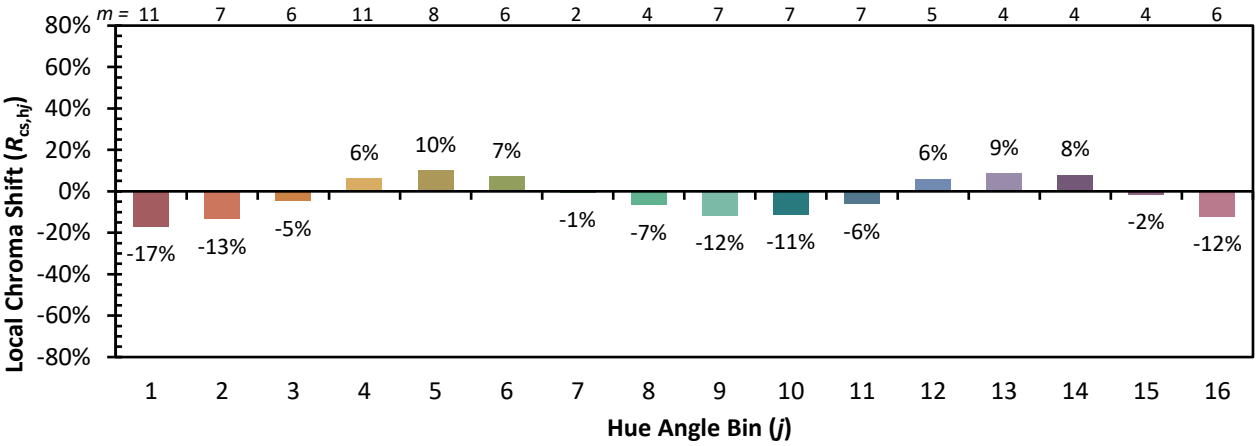


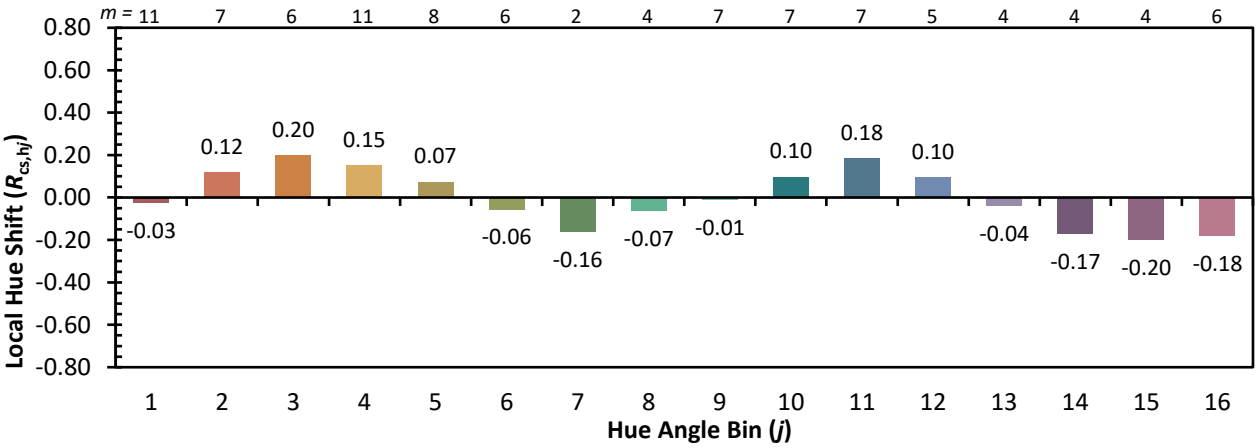
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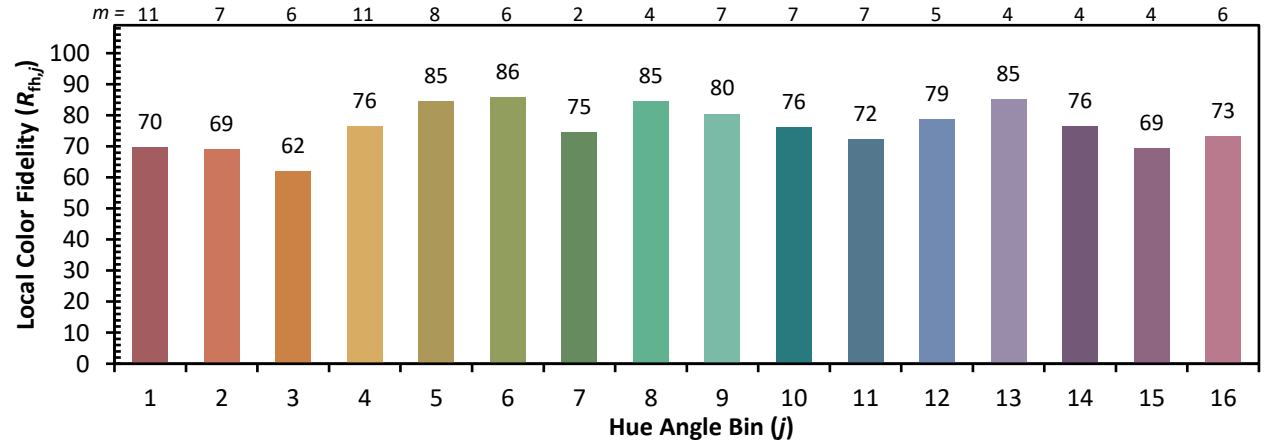
REPORT NUMBER: SP1-1908-441-2-R4

# TM-30-18

## Color Rendition by Hue-Angle Bin



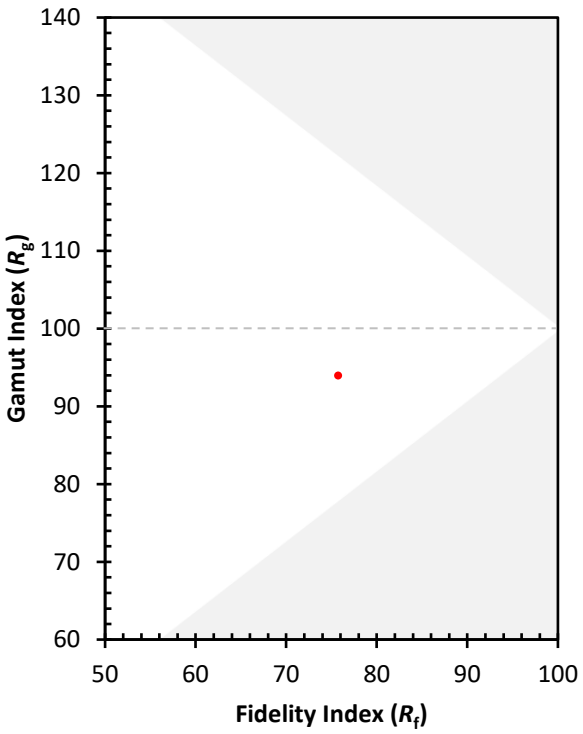



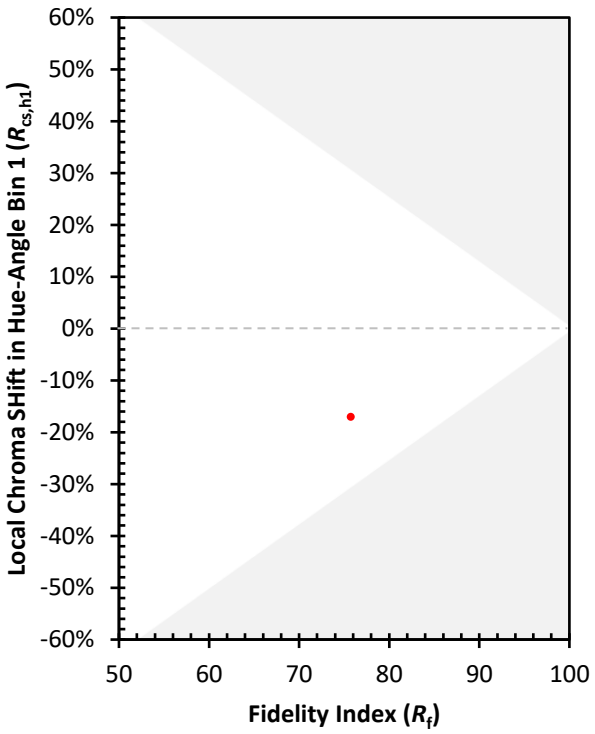
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REPORT NUMBER: SP1-1908-441-2-R4

## TM-30-18

### Measure Comparisons




(END OF REPORT)