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

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1121 Highway 74 South
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: P1199198

Luminaire Tested: GPC-SB2A-727-U-T2-HSS

Issue Date: 10/30/2025

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1199198 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2A-727-U-T2-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 6075 lumens |
| Efficiency: | N/A |
| Efficacy: | 106.0 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 57.3 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.484 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.038 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

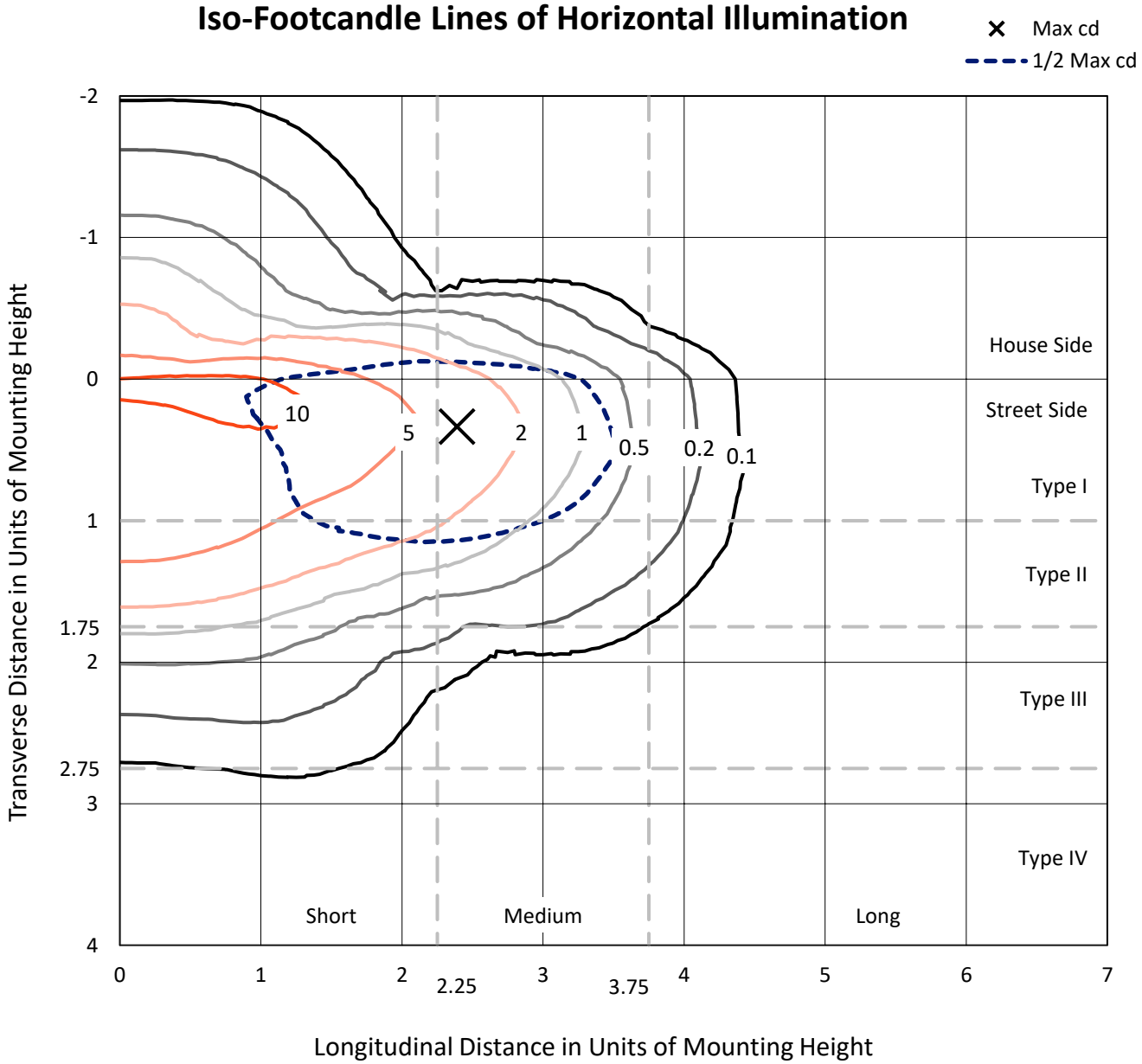


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REPORT NUMBER: P1199198
CATALOG NUMBER: GPC-SB2A-727-U-T2-HSS

## Iso-Footcandle Lines of Horizontal Illumination



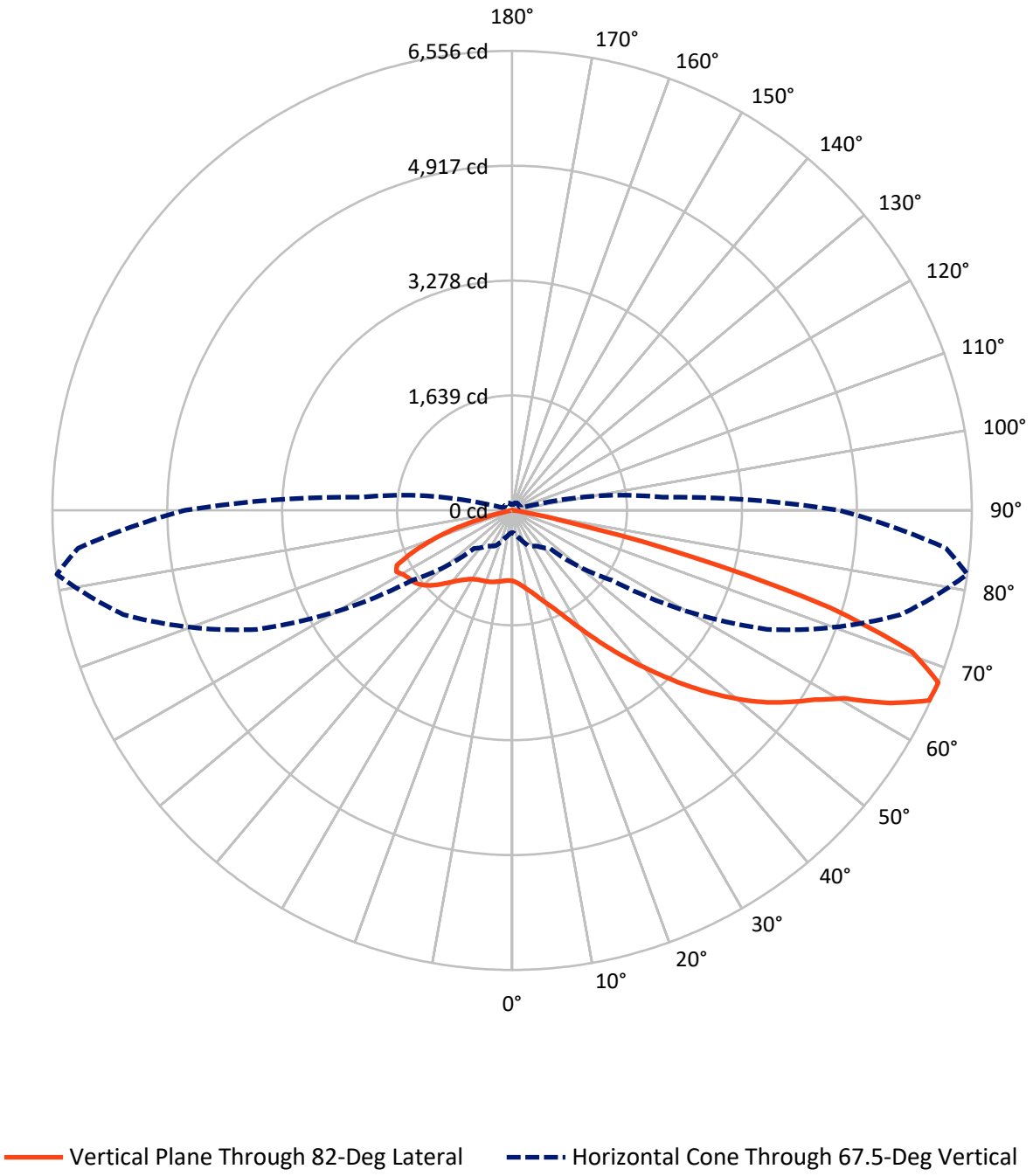

Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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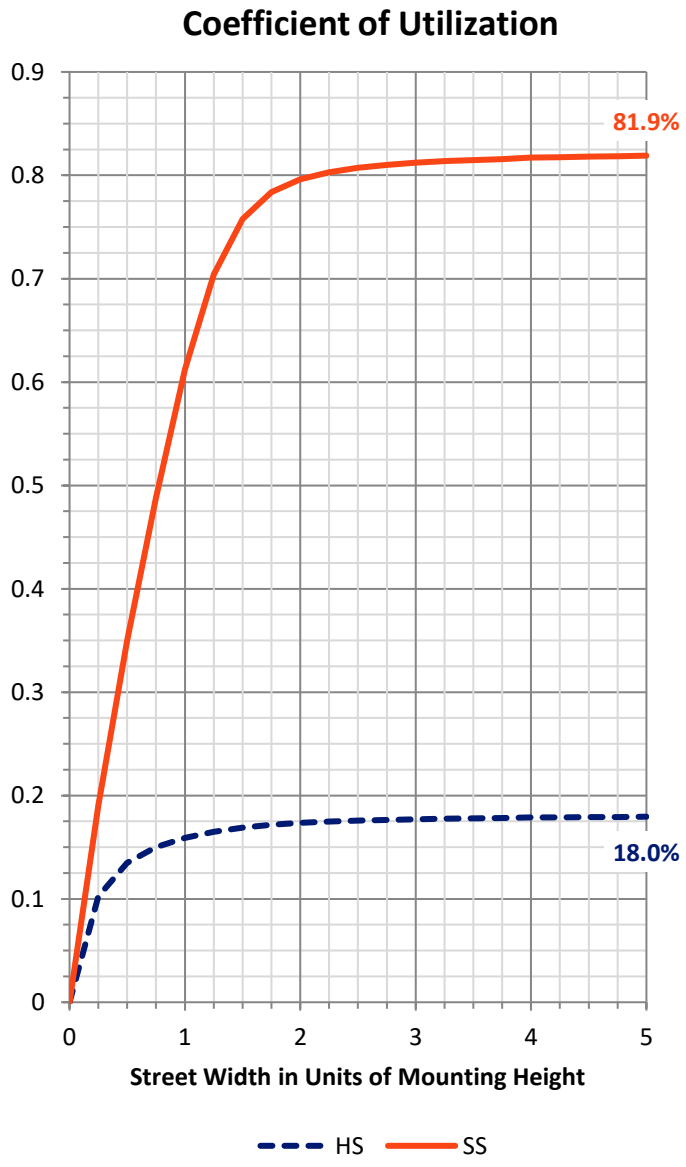
REPORT NUMBER: P1199198
CATALOG NUMBER: GPC-SB2A-727-U-T2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1100.4 | 0.0 | 1100.4 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| **Street Side** | Lumens | 4974.6 | 0.0 | 4974.6 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| **Total** | Lumens | 6075.0 | 0.0 | 6075.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 89.7 | 1.5 |
| 10°-20° | 233.0 | 3.8 |
| 20°-30° | 373.2 | 6.1 |
| 30°-40° | 659.9 | 10.9 |
| 40°-50° | 1156.3 | 19.0 |
| 50°-60° | 1542.1 | 25.4 |
| 60°-70° | 1435.6 | 23.6 |
| 70°-80° | 551.0 | 9.1 |
| 80°-90° | 34.2 | 0.6 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 6075.0 | 100.0 |
| 0°-180° | 6075.0 | 100.0 |



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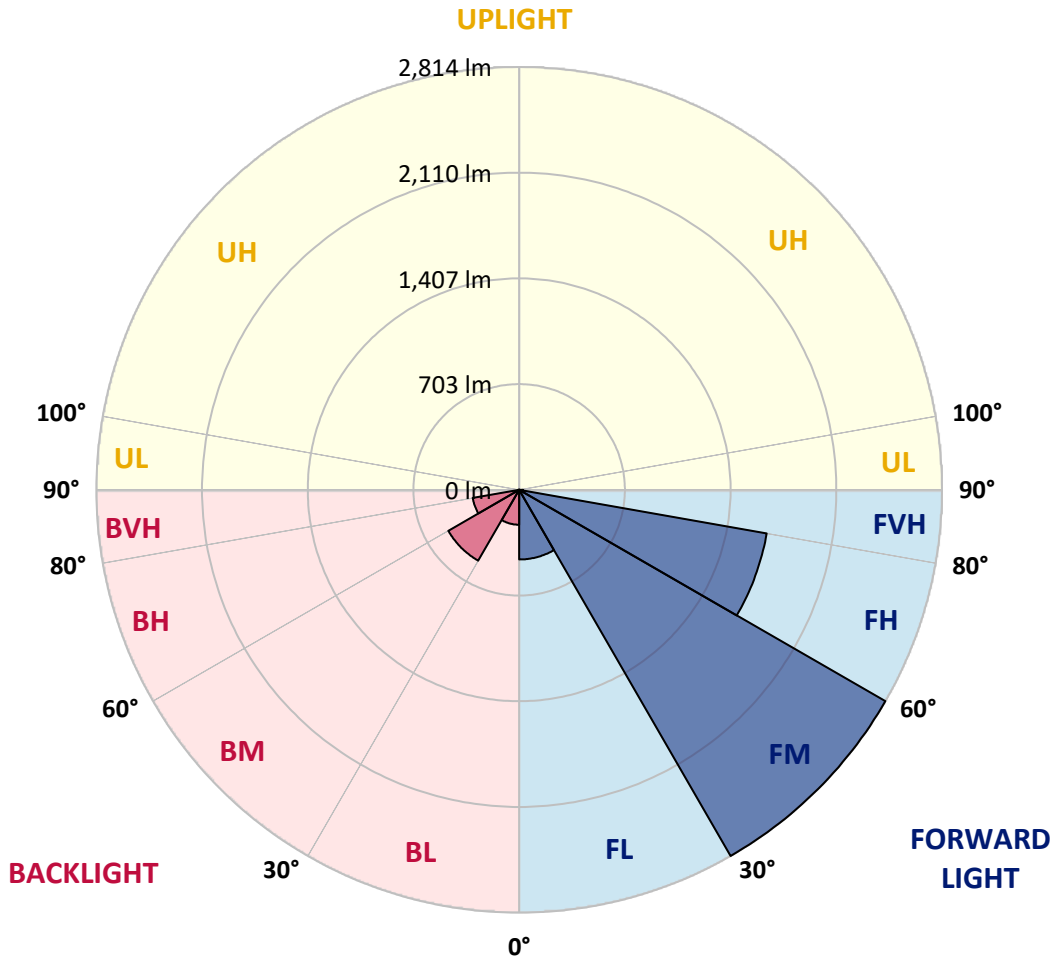
Scaled Data Report

REPORT NUMBER: P1199198
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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°) | 463.5 | 7.6 | | | |
| FM | (30°-60°) | 2813.7 | 46.3 | | | |
| FH | (60°-80°) | 1672.5 | 27.5 | | | G1/1800 |
| FVH | (80°-90°) | 24.9 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 232.4 | 3.8 | B1/500 | | |
| BM | (30°-60°) | 544.6 | 9.0 | B1/1000 | | |
| BH | (60°-80°) | 314.1 | 5.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 9.3 | 0.2 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G1**
Type II Medium



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REPORT NUMBER: P1199198
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | *1006.4* | 1006.4 |
| 2.5° | 1063.7 | 1069.8 | 1066.3 | 1064.6 | 1061.5 | 1057.2 | 1053.7 | 1042.7 | 1031.4 | *1023.9* | 1021.3 |
| 5° | 1085.2 | 1091.3 | 1090.8 | 1092.6 | 1094.8 | 1096.1 | 1095.2 | 1083.0 | 1066.8 | *1054.1* | 1046.7 |
| 7.5° | 1066.8 | 1073.8 | 1079.5 | 1088.2 | 1103.5 | 1119.7 | 1127.6 | 1125.0 | 1108.3 | *1090.8* | 1081.7 |
| 10° | 1014.7 | 1022.2 | 1035.7 | 1056.3 | 1088.7 | 1123.6 | 1152.9 | 1166.5 | 1156.0 | *1136.8* | 1124.1 |
| 12.5° | 919.4 | 926.8 | 953.5 | 998.1 | 1052.3 | 1113.1 | 1169.1 | 1205.4 | 1208.1 | *1188.8* | 1173.9 |
| 15° | 812.2 | 819.7 | 848.1 | 904.1 | 986.7 | 1084.3 | 1177.9 | 1246.5 | 1269.7 | *1253.1* | 1235.2 |
| 17.5° | 745.7 | 752.3 | 773.7 | 818.8 | 904.9 | 1026.5 | 1174.8 | 1290.3 | 1343.2 | *1330.1* | 1308.7 |
| 20° | 725.6 | 731.3 | 741.4 | 772.9 | 844.6 | 966.6 | 1154.7 | 1331.4 | 1422.4 | *1414.9* | 1390.9 |
| 22.5° | 747.1 | 752.3 | 755.4 | 769.4 | 814.4 | 927.3 | 1129.3 | 1373.4 | 1514.2 | *1515.1* | 1485.8 |
| 25° | 796.5 | 801.7 | 798.2 | 807.0 | 826.7 | 915.0 | 1119.7 | 1422.8 | 1629.7 | *1639.3* | 1606.1 |
| 27.5° | 877.8 | 878.3 | 870.0 | 869.5 | 872.6 | 933.4 | 1129.8 | 1475.7 | 1775.3 | *1793.3* | 1752.2 |
| 30° | 1041.0 | 1034.4 | 1002.5 | 967.9 | 952.2 | 988.5 | 1157.8 | 1538.3 | 1947.2 | *1979.2* | 1927.6 |
| 32.5° | 1292.5 | 1282.8 | 1224.2 | 1141.6 | 1058.5 | 1077.3 | 1208.1 | 1609.6 | 2134.4 | *2192.2* | 2129.2 |
| 35° | 1565.4 | 1562.8 | 1501.5 | 1378.6 | 1233.4 | 1203.7 | 1289.8 | 1703.2 | 2338.7 | *2430.5* | 2355.8 |
| 37.5° | 1819.1 | 1817.8 | 1782.8 | 1638.0 | 1461.3 | 1379.9 | 1421.1 | 1825.6 | 2557.4 | *2690.4* | 2602.0 |
| 40° | 2050.9 | 2054.8 | 2019.8 | 1890.4 | 1712.4 | 1606.1 | 1599.5 | 1977.0 | 2800.6 | *2973.3* | 2868.4 |
| 42.5° | 2251.2 | 2255.6 | 2220.2 | 2124.4 | 1960.4 | 1856.3 | 1818.6 | 2162.4 | 3038.1 | *3277.3* | 3153.1 |
| 45° | 2387.2 | 2414.4 | 2409.1 | 2332.6 | 2214.9 | 2106.9 | 2082.0 | 2395.1 | 3308.8 | *3599.7* | 3454.0 |
| 47.5° | 2425.7 | 2450.7 | 2490.0 | 2500.5 | 2428.8 | 2322.5 | 2352.3 | 2675.5 | 3582.6 | *3922.5* | 3756.7 |
| 50° | 2330.8 | 2354.0 | 2435.8 | 2544.7 | 2594.6 | 2561.8 | 2615.1 | 2976.0 | 3863.0 | *4244.4* | 4053.7 |
| 52.5° | 2143.6 | 2167.2 | 2270.5 | 2442.8 | 2646.2 | 2749.4 | 2878.9 | 3272.1 | 4134.6 | *4549.2* | 4334.9 |
| 55° | 1872.9 | 1897.8 | 2030.3 | 2225.4 | 2547.8 | 2826.8 | 3098.9 | 3567.7 | 4383.5 | *4823.5* | 4588.6 |
| 57.5° | 1504.6 | 1523.0 | 1660.7 | 1933.7 | 2300.2 | 2749.8 | 3261.1 | 3890.5 | 4617.9 | *5092.9* | 4840.1 |
| 60° | 980.6 | 996.8 | 1156.9 | 1461.3 | 1889.9 | 2492.7 | 3293.5 | 4250.5 | 4929.3 | *5443.3* | 5179.1 |
| 62.5° | 652.1 | 663.1 | 758.0 | 981.5 | 1331.0 | 1998.8 | 3104.1 | 4537.9 | 5386.0 | *6053.0* | 5760.4 |
| 65° | 447.4 | 458.4 | 553.3 | 709.0 | 859.9 | 1322.2 | 2559.6 | 4499.8 | 5799.7 | *6537.1* | 6191.2 |
| 67.5° | *319.3* | *328.5* | *409.0* | *555.9* | *622.4* | *768.0* | *1735.1* | *4013.4* | *5740.2* | *6555.5* | *6214.4* |
| 70° | 228.8 | 234.0 | 300.5 | 433.0 | 494.7 | 461.4 | 964.9 | 3069.6 | 5026.0 | *6053.4* | 5741.1 |
| 72.5° | 160.1 | 161.8 | 208.6 | 329.8 | 398.5 | 336.8 | 459.3 | 2046.5 | 3801.3 | *4751.3* | 4450.8 |
| 75° | 108.5 | 110.7 | 140.4 | 241.9 | 319.7 | 257.2 | 243.2 | 1097.4 | 2231.5 | *2630.0* | 2357.5 |
| 77.5° | 66.5 | 67.4 | 90.5 | 165.3 | 239.2 | 195.9 | 156.6 | 464.9 | 863.4 | *847.7* | 722.6 |
| 80° | 37.6 | 37.6 | 57.7 | 102.8 | 163.1 | 126.4 | 109.8 | 197.7 | 273.4 | *240.1* | 211.7 |
| 82.5° | 21.0 | 21.4 | 42.0 | 63.9 | 108.0 | 74.8 | 60.4 | 91.4 | 118.1 | *104.5* | 91.0 |
| 85° | 8.7 | 9.6 | 25.8 | 30.2 | 51.6 | 37.2 | 24.5 | 38.5 | 43.7 | *38.9* | 28.4 |
| 87.5° | 0.9 | 1.3 | 7.9 | 5.7 | 6.1 | 7.4 | 3.5 | 7.4 | 6.1 | *6.1* | 4.4 |
| 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: P1199198
CATALOG NUMBER: GPC-SB2A-727-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 | 1006.4 |
| 2.5° | 1013.0 | 1006.4 | 989.8 | 970.6 | 945.2 | 932.9 | 916.3 | 904.9 | 895.3 | 896.2 | 887.5 |
| 5° | 1032.7 | 1016.0 | 978.9 | 932.5 | 874.8 | 833.7 | 789.9 | 759.7 | 735.2 | 730.0 | 718.2 |
| 7.5° | 1059.8 | 1033.5 | 968.4 | 884.8 | 787.3 | 713.4 | 647.3 | 604.9 | 574.7 | 565.1 | 555.5 |
| 10° | 1094.8 | 1056.7 | 954.8 | 824.9 | 684.5 | 590.5 | 519.6 | 486.4 | 465.8 | 458.8 | 453.6 |
| 12.5° | 1135.5 | 1083.4 | 936.9 | 751.9 | 578.7 | 488.1 | 443.1 | 426.4 | 419.9 | 417.7 | 416.4 |
| 15° | 1186.6 | 1116.6 | 909.8 | 665.3 | 489.0 | 425.6 | 406.3 | 404.1 | 405.0 | 404.1 | 403.7 |
| 17.5° | 1247.4 | 1152.9 | 865.6 | 576.0 | 428.6 | 393.6 | 386.6 | 388.4 | 390.6 | 390.1 | 389.3 |
| 20° | 1313.9 | 1188.8 | 809.2 | 496.9 | 387.5 | 370.9 | 367.0 | 368.7 | 370.5 | 369.6 | 369.2 |
| 22.5° | 1389.6 | 1227.3 | 746.6 | 435.2 | 360.0 | 349.9 | 345.5 | 346.0 | 346.0 | 344.2 | 343.3 |
| 25° | 1480.1 | 1269.7 | 681.0 | 391.5 | 339.0 | 331.1 | 325.9 | 324.1 | 321.5 | 316.2 | 315.4 |
| 27.5° | 1588.1 | 1314.8 | 618.0 | 360.8 | 322.4 | 314.9 | 308.8 | 304.4 | 297.9 | 289.1 | 288.2 |
| 30° | 1709.7 | 1369.5 | 564.7 | 341.6 | 309.2 | 301.8 | 294.8 | 288.2 | 278.6 | 267.7 | 266.8 |
| 32.5° | 1852.8 | 1428.1 | 525.7 | 328.9 | 297.4 | 289.5 | 281.2 | 273.4 | 262.9 | 251.9 | 252.4 |
| 35° | 2023.3 | 1498.9 | 503.0 | 320.2 | 288.2 | 277.7 | 268.6 | 259.8 | 251.9 | 242.3 | 241.4 |
| 37.5° | 2208.4 | 1574.1 | 496.0 | 315.8 | 282.1 | 265.9 | 255.4 | 249.3 | 248.4 | 242.7 | 242.3 |
| 40° | 2410.9 | 1663.4 | 501.2 | 313.2 | 275.6 | 254.6 | 243.2 | 241.9 | 244.1 | 234.0 | 234.4 |
| 42.5° | 2625.2 | 1769.2 | 510.0 | 310.1 | 266.4 | 243.2 | 232.3 | 232.3 | 230.5 | 216.5 | 216.5 |
| 45° | 2857.0 | 1891.3 | 518.7 | 302.7 | 255.4 | 231.8 | 223.5 | 220.4 | 213.0 | 199.4 | 199.0 |
| 47.5° | 3090.6 | 2015.5 | 525.3 | 289.1 | 242.3 | 222.2 | 214.8 | 207.8 | 196.8 | 184.6 | 184.1 |
| 50° | 3312.3 | 2127.0 | 518.3 | 269.0 | 227.4 | 213.0 | 205.1 | 195.5 | 183.7 | 175.4 | 174.1 |
| 52.5° | 3510.4 | 2223.7 | 488.6 | 245.4 | 211.7 | 203.4 | 196.4 | 186.3 | 176.7 | 168.0 | 167.1 |
| 55° | 3682.8 | 2302.0 | 436.1 | 223.1 | 197.7 | 195.1 | 188.1 | 175.4 | 162.3 | 154.8 | 154.0 |
| 57.5° | 3848.1 | 2361.4 | 370.5 | 204.7 | 185.0 | 185.9 | 175.4 | 164.0 | 151.8 | 143.9 | 143.0 |
| 60° | 4068.1 | 2441.0 | 304.0 | 187.6 | 171.5 | 174.1 | 162.7 | 154.4 | 139.1 | 129.0 | 127.7 |
| 62.5° | 4419.8 | 2564.8 | 241.4 | 166.6 | 155.7 | 156.6 | 151.8 | 141.7 | 123.3 | 111.5 | 110.7 |
| 65° | 4698.8 | 2519.3 | 190.3 | 143.9 | 137.8 | 139.1 | 139.1 | 128.2 | 108.5 | 94.9 | 93.6 |
| 67.5° | *4667.3* | *2157.2* | *151.8* | *121.6* | *120.7* | *121.6* | *124.7* | *115.5* | *96.2* | *85.3* | *83.5* |
| 70° | 4299.5 | 1715.9 | 121.6 | 101.0 | 105.0 | 102.8 | 111.5 | 105.4 | 86.6 | 75.7 | 74.4 |
| 72.5° | 3508.3 | 1236.0 | 92.7 | 83.5 | 80.5 | 84.0 | 100.6 | 94.9 | 72.2 | 59.9 | 58.6 |
| 75° | 2050.0 | 659.6 | 69.1 | 66.0 | 58.2 | 70.0 | 89.2 | 80.9 | 55.1 | 44.2 | 42.9 |
| 77.5° | 667.4 | 230.1 | 50.7 | 48.5 | 43.3 | 56.4 | 76.1 | 68.2 | 45.1 | 35.0 | 33.7 |
| 80° | 178.9 | 69.5 | 34.6 | 31.9 | 28.0 | 42.0 | 60.4 | 54.2 | 32.4 | 22.7 | 22.3 |
| 82.5° | 71.7 | 29.3 | 20.1 | 17.9 | 15.3 | 28.9 | 47.7 | 43.7 | 24.1 | 14.4 | 14.4 |
| 85° | 23.2 | 9.6 | 7.4 | 5.7 | 7.0 | 17.9 | 28.4 | 29.7 | 17.1 | 7.4 | 5.7 |
| 87.5° | 3.1 | 1.3 | 1.3 | 1.7 | 1.3 | 3.1 | 8.7 | 8.3 | 4.8 | 0.9 | 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 |

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

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-1-R4

Test Date: 08/20/2019

Luminaire Tested: SA1C-727-U-5WQ

Data in this report applies to products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

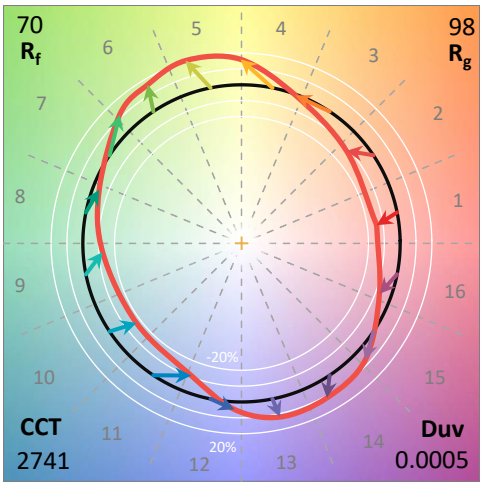
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-727-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-1-R3. TO UPDATE THE CATALOG NUMBER.***TESTED IN SITU. (1) 70 CRI, 2700K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 2741 | CRI (Ra): | 71.5 | | |
| CIE u': | 0.2605 | R1: | 69.2 | R9: | -16.1 |
| CIE v': | 0.5272 | R2: | 79.4 | R10: | 51.4 |
| Duv: | 0.0005 | R3: | 87.8 | R11: | 63.1 |
| CIE x: | 0.4573 | R4: | 69.4 | R12: | 42.0 |
| CIE y: | 0.4113 | R5: | 66.4 | R13: | 70.2 |
| CIE z: | 0.1313 | R6: | 69.8 | R14: | 92.4 |
| Peak Wavelength (nm): | 602 | R7: | 79.8 | | |
| Dominant Wavelength (nm): | 583 | R8: | 50.1 | | |
| Purity: | 61.2 | | | | |

| | |
|---|---|
| Rf: | 69.9 |
| Rg: | 98.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 56M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.3./42% |
| Sphere Temperature (°C): | 25.7 |

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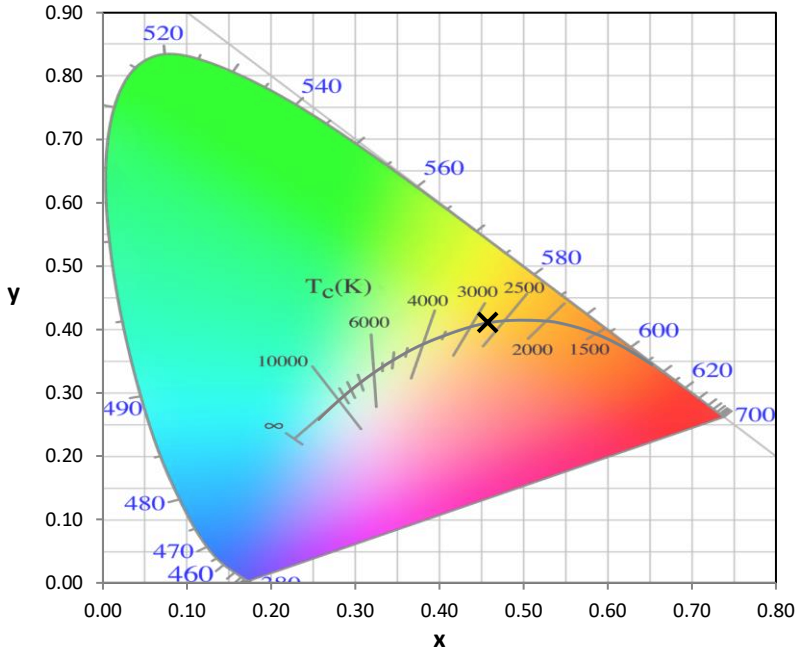
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

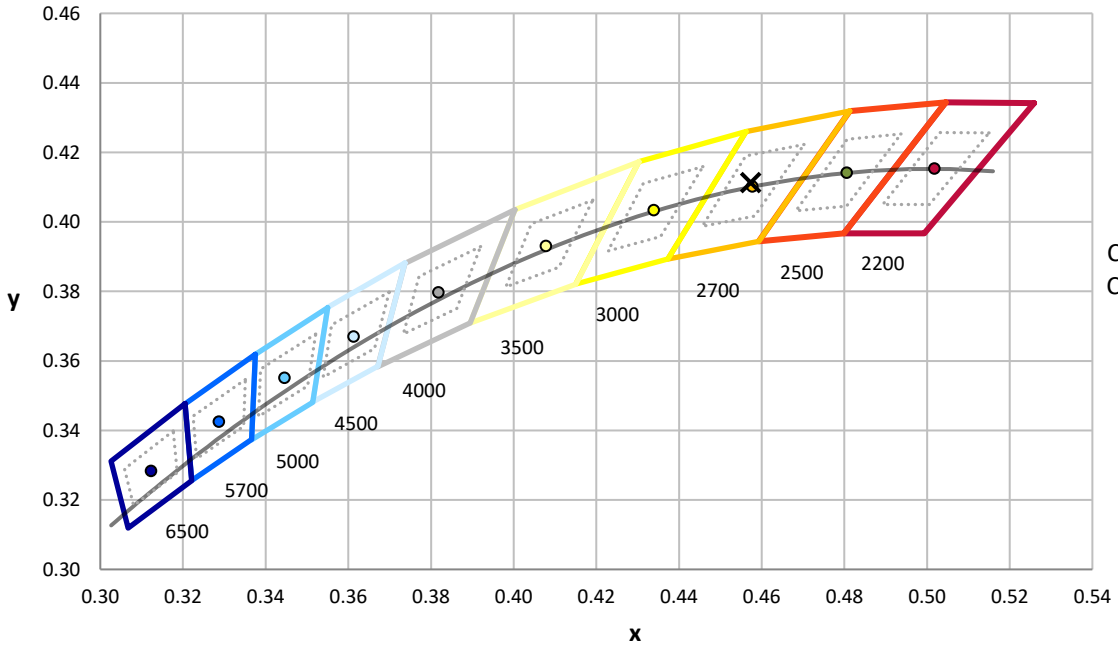
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Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## CIE 1931 Chromaticity Diagram




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



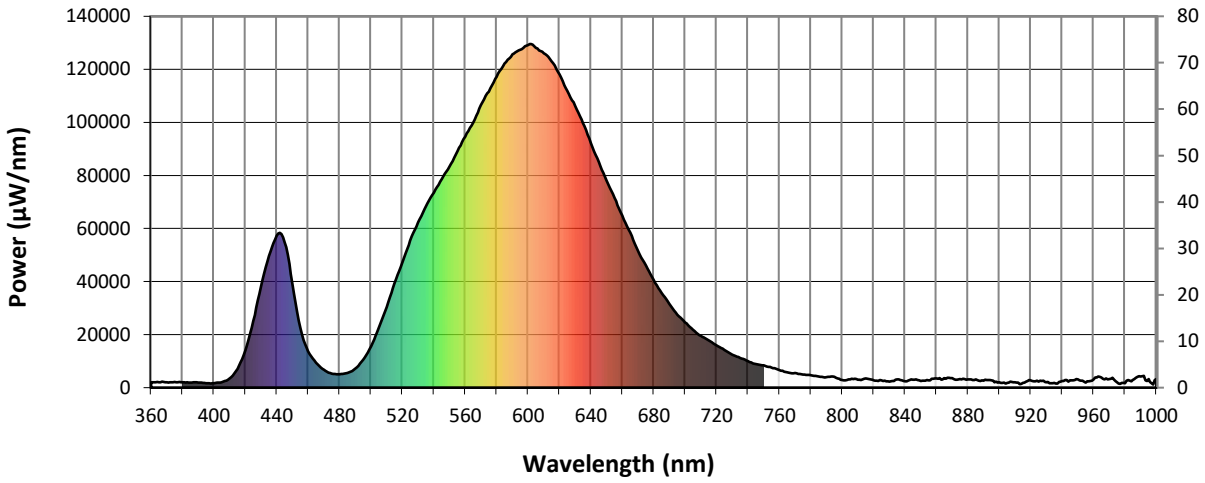

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## Photopic Flux vs. Wavelength



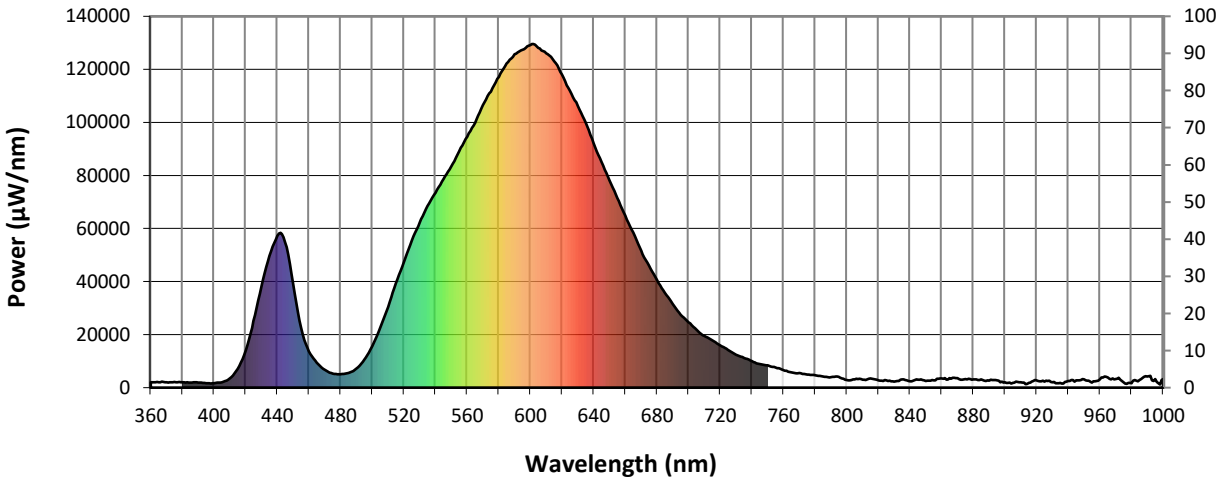

######

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## Scotopic Flux vs. Wavelength



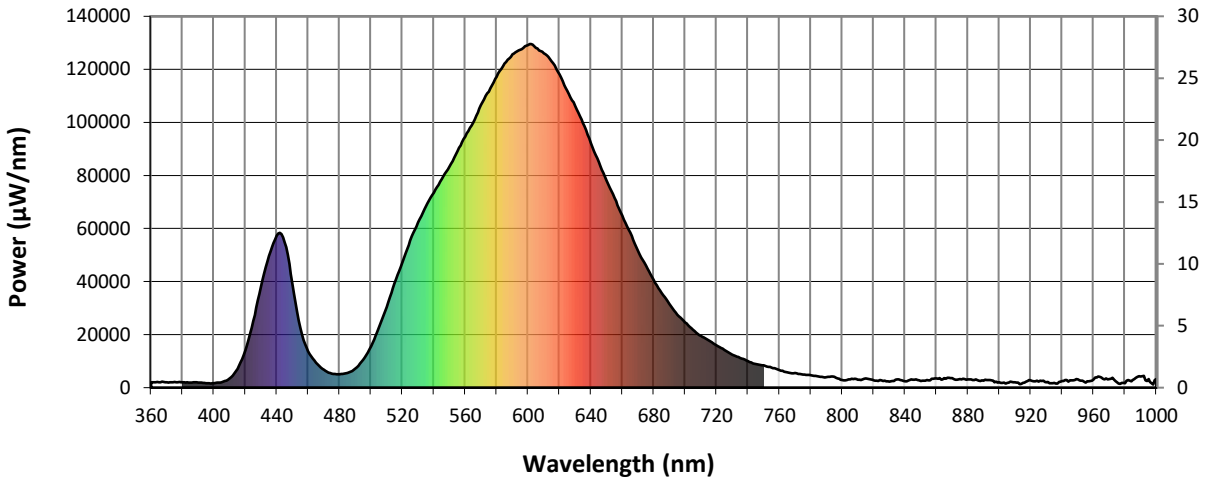

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 2145.7** **M/P: 0.35**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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Peachtree City, GA 30269

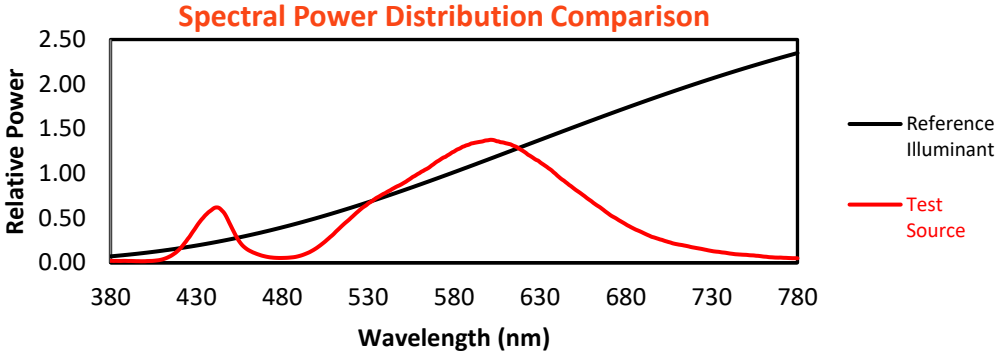
REPORT NUMBER: SP1-1908-441-1-R4

# TM-30-18

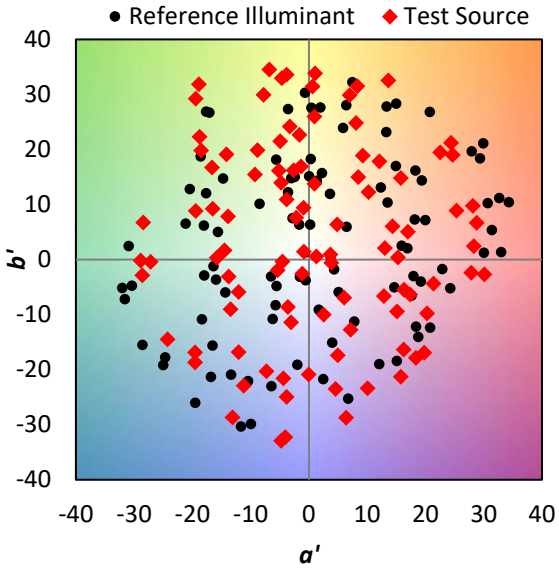
## Summary

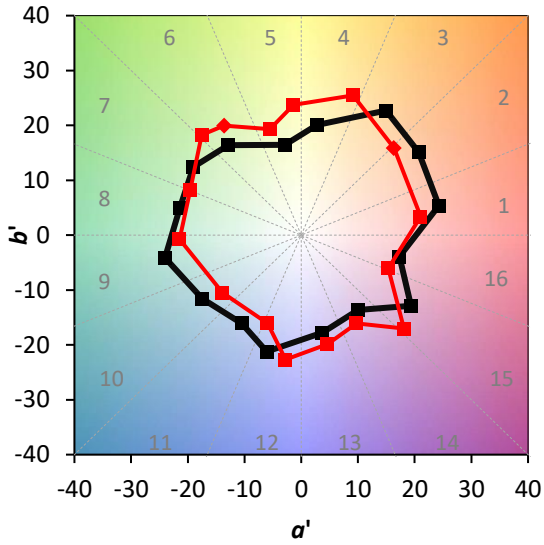
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

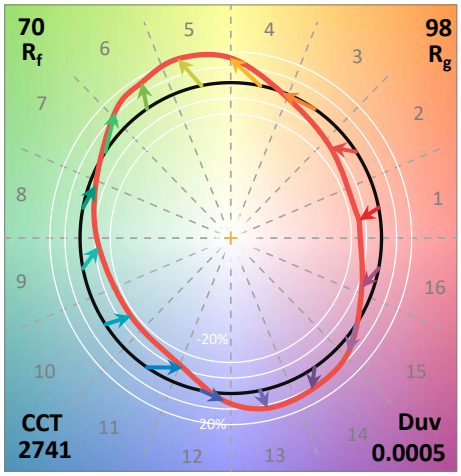
## Spectral Power Distribution Comparison

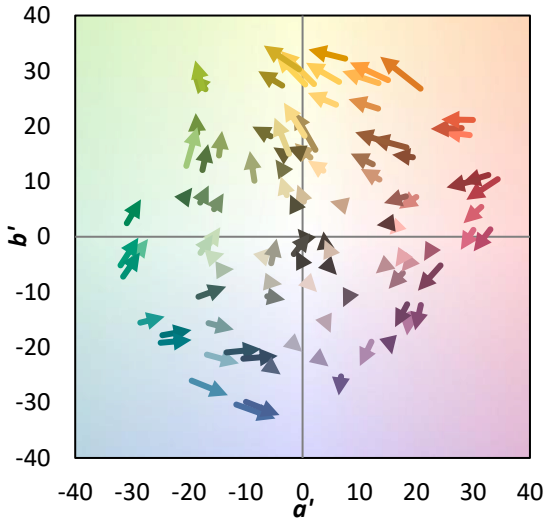



## Color Vector Graphics



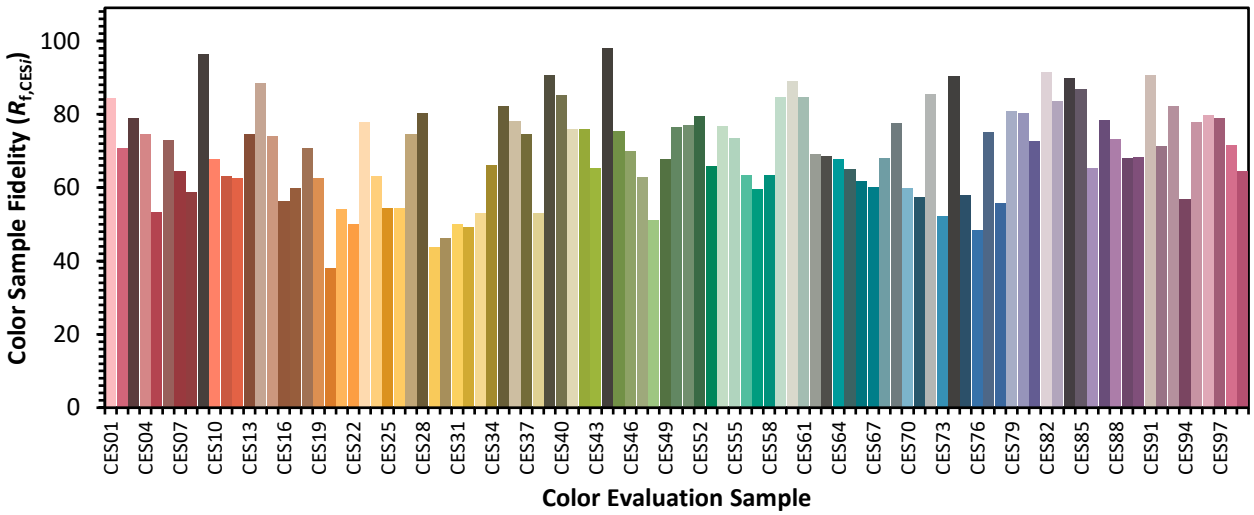
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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 54 | CES51 = 77 | CES76 = 48 |
| CES02 = 63 | CES27 = 74 | CES52 = 80 | CES77 = 75 |
| CES03 = 31 | CES28 = 80 | CES53 = 66 | CES78 = 56 |
| CES04 = 71 | CES29 = 44 | CES54 = 77 | CES79 = 81 |
| CES05 = 50 | CES30 = 46 | CES55 = 74 | CES80 = 80 |
| CES06 = 52 | CES31 = 50 | CES56 = 63 | CES81 = 73 |
| CES07 = 42 | CES32 = 49 | CES57 = 60 | CES82 = 91 |
| CES08 = 41 | CES33 = 53 | CES58 = 63 | CES83 = 84 |
| CES09 = 29 | CES34 = 66 | CES59 = 85 | CES84 = 90 |
| CES10 = 77 | CES35 = 82 | CES60 = 89 | CES85 = 87 |
| CES11 = 60 | CES36 = 78 | CES61 = 85 | CES86 = 65 |
| CES12 = 66 | CES37 = 75 | CES62 = 69 | CES87 = 78 |
| CES13 = 43 | CES38 = 53 | CES63 = 68 | CES88 = 73 |
| CES14 = 74 | CES39 = 91 | CES64 = 68 | CES89 = 68 |
| CES15 = 71 | CES40 = 85 | CES65 = 65 | CES90 = 68 |
| CES16 = 48 | CES41 = 76 | CES66 = 62 | CES91 = 91 |
| CES17 = 50 | CES42 = 76 | CES67 = 60 | CES92 = 71 |
| CES18 = 57 | CES43 = 65 | CES68 = 68 | CES93 = 82 |
| CES19 = 73 | CES44 = 98 | CES69 = 77 | CES94 = 57 |
| CES20 = 67 | CES45 = 75 | CES70 = 60 | CES95 = 78 |
| CES21 = 88 | CES46 = 70 | CES71 = 57 | CES96 = 80 |
| CES22 = 80 | CES47 = 63 | CES72 = 86 | CES97 = 79 |
| CES23 = 92 | CES48 = 51 | CES73 = 52 | CES98 = 71 |
| CES24 = 91 | CES49 = 68 | CES74 = 90 | CES99 = 64 |
| CES25 = 73 | CES50 = 77 | CES75 = 58 | |

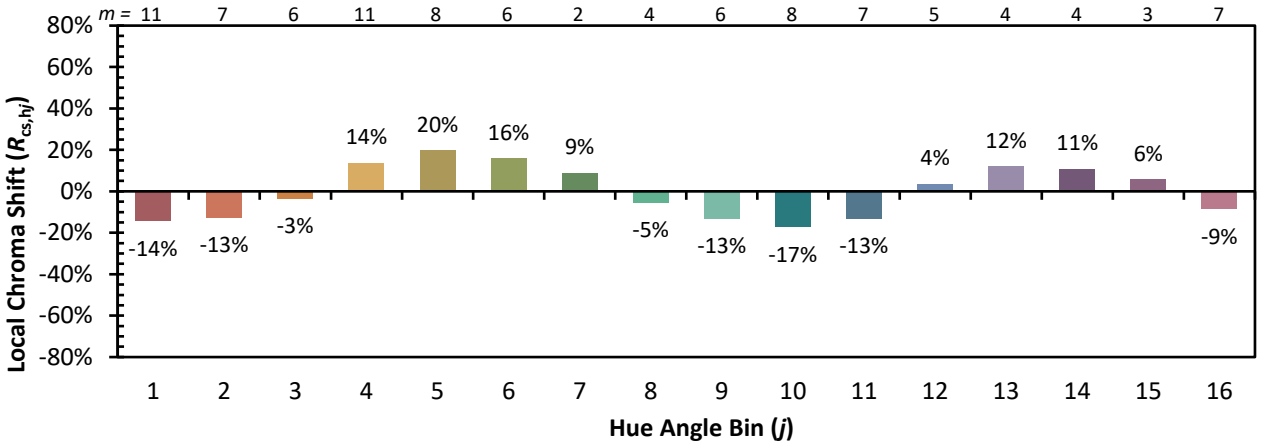


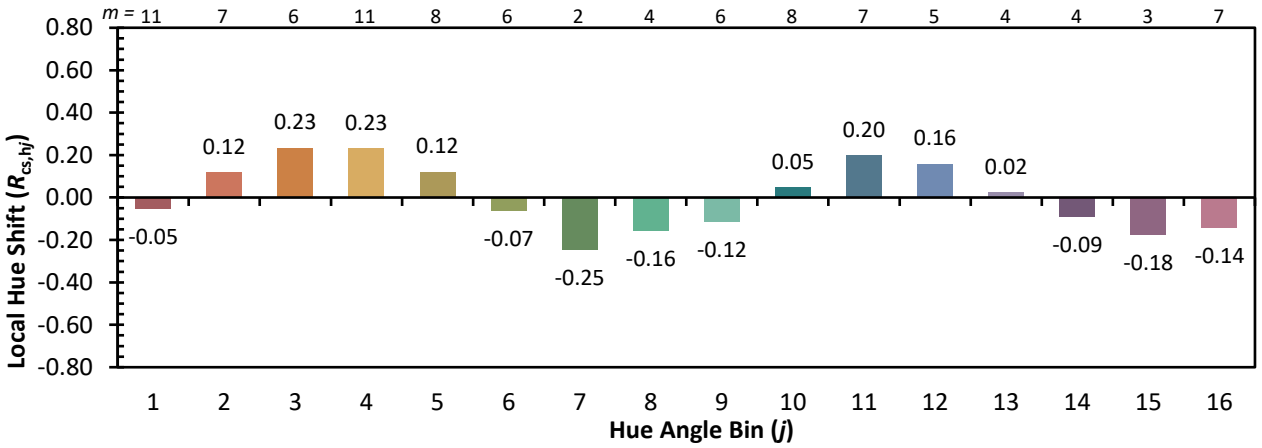
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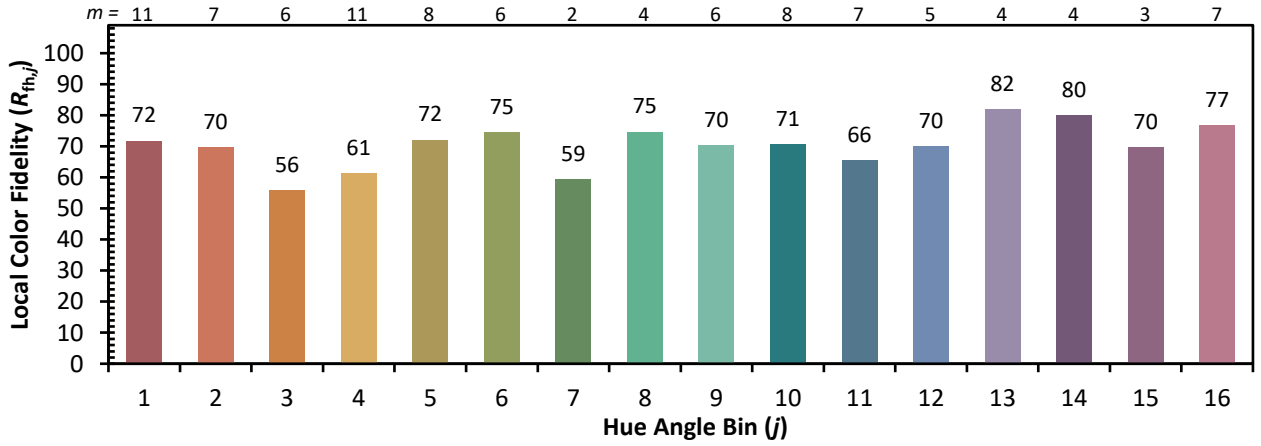
REPORT NUMBER: SP1-1908-441-1-R4

## TM-30-18

### Color Rendition by Hue-Angle Bin



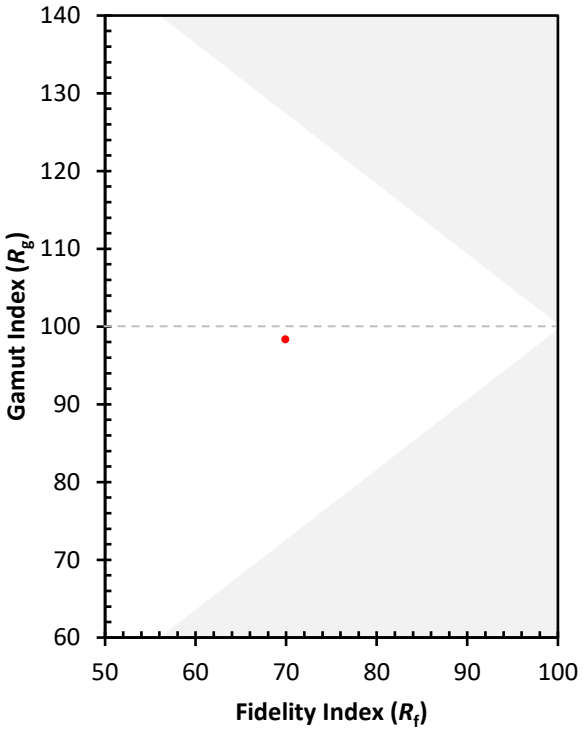



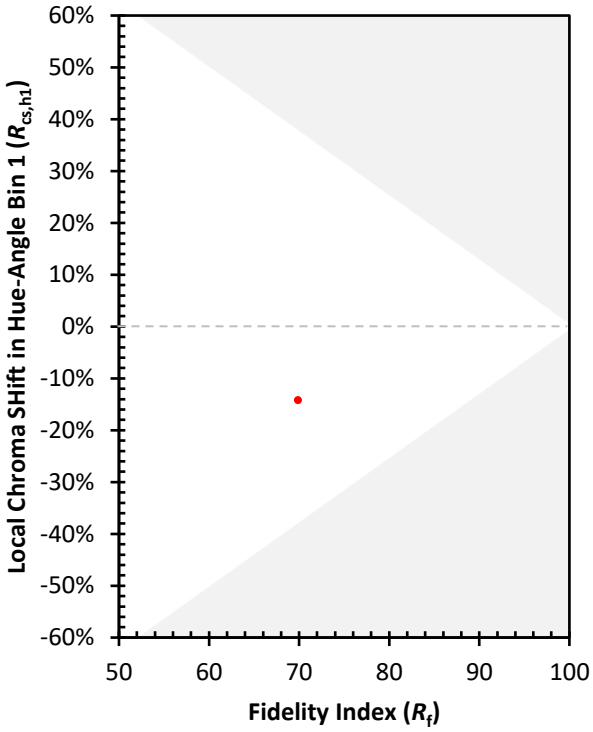
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REPORT NUMBER: SP1-1908-441-1-R4

## TM-30-18

### Measure Comparisons




(END OF REPORT)