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: P1197761

Luminaire Tested: GPC-SB1B-727-U-SL2

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: | P1197761 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB1B-727-U-SL2 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 5219 lumens |
| Efficiency: | N/A |
| Efficacy: | 131.1 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 39.8 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.33 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.996 |
| Total Harmonic Distortion (THDi): | 5.305 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

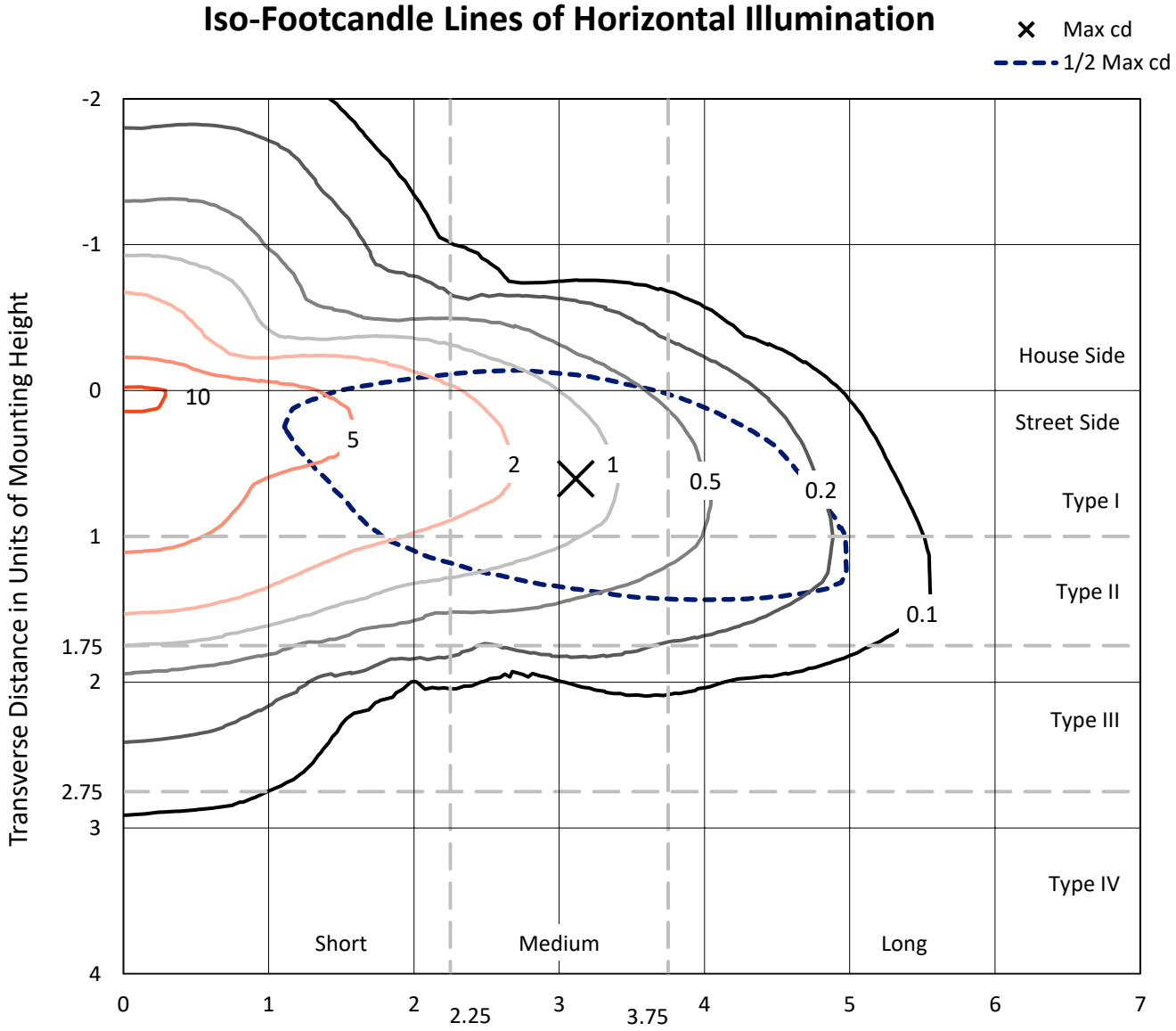


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Scaled Data Report

REPORT NUMBER: P1197761
CATALOG NUMBER: GPC-SB1B-727-U-SL2

## Iso-Footcandle Lines of Horizontal Illumination



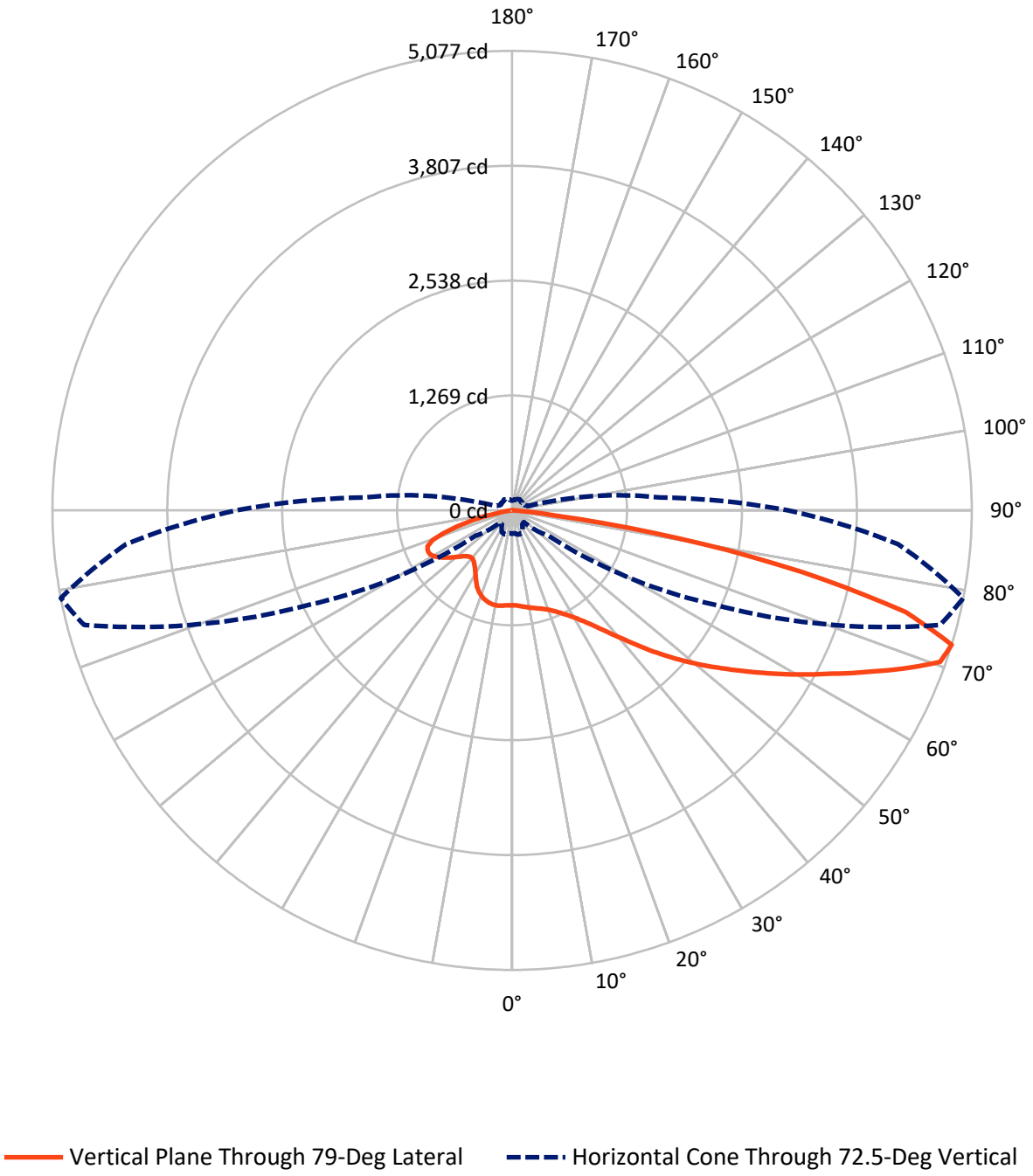

Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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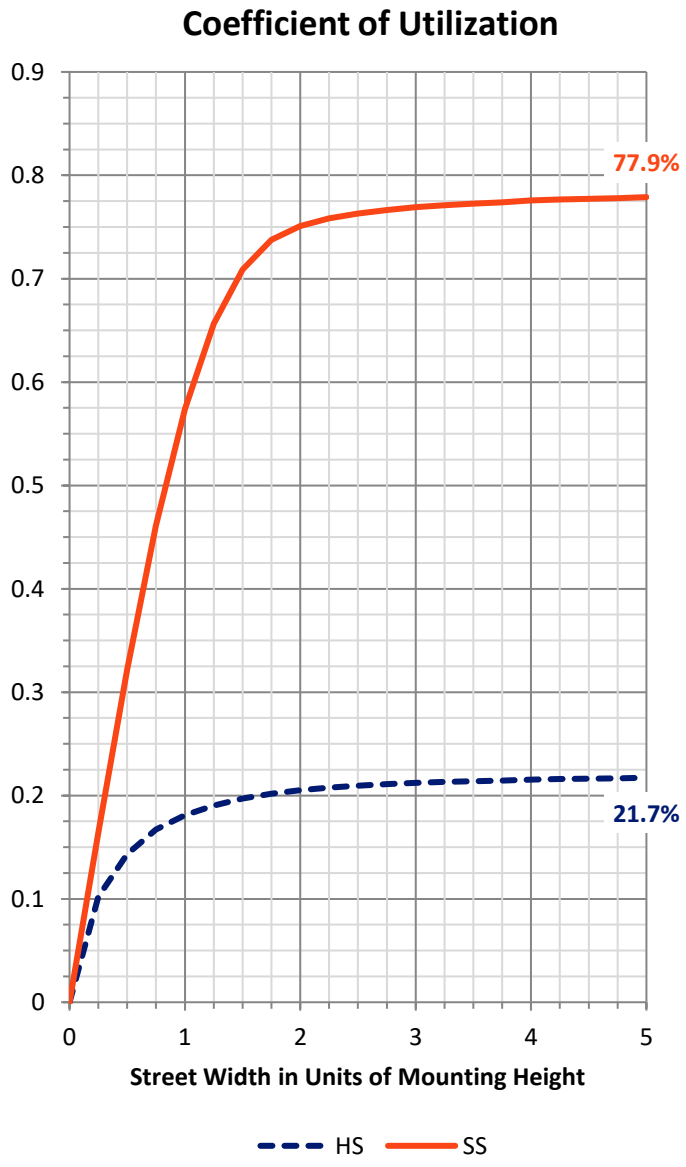
REPORT NUMBER: P1197761
CATALOG NUMBER: GPC-SB1B-727-U-SL2

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1148.5 | 0.0 | 1148.5 |
| | % Fixture | 22.0 | 0.0 | 22.0 |
| **Street Side** | Lumens | 4070.5 | 0.0 | 4070.5 |
| | % Fixture | 78.0 | 0.0 | 78.0 |
| **Total** | Lumens | 5219.0 | 0.0 | 5219.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 95.1 | 1.8 |
| 10°-20° | 248.6 | 4.8 |
| 20°-30° | 401.2 | 7.7 |
| 30°-40° | 602.1 | 11.5 |
| 40°-50° | 854.2 | 16.4 |
| 50°-60° | 1078.7 | 20.7 |
| 60°-70° | 1095.6 | 21.0 |
| 70°-80° | 746.7 | 14.3 |
| 80°-90° | 96.9 | 1.9 |
| 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° | 5219.0 | 100.0 |
| 0°-180° | 5219.0 | 100.0 |



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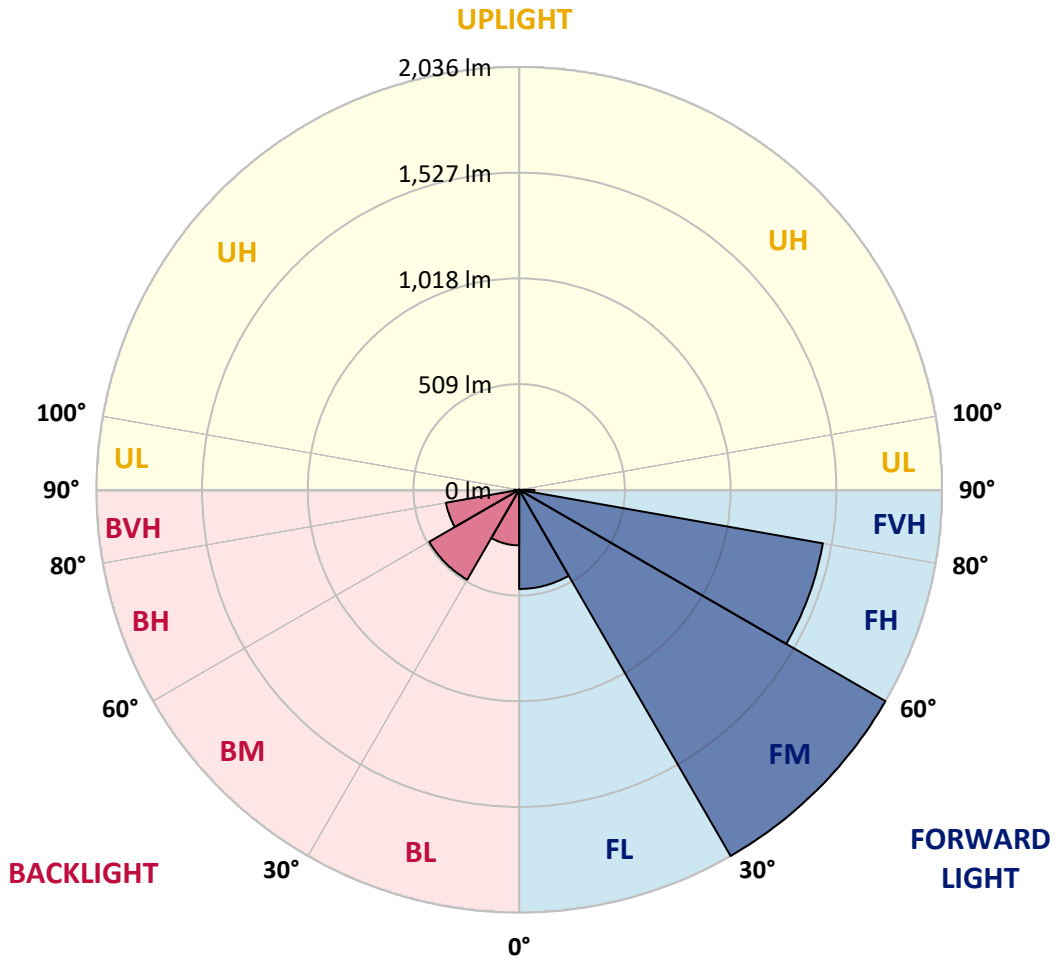
Scaled Data Report

REPORT NUMBER: P1197761
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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°) | 477.4 | 9.1 | | | |
| FM | (30°-60°) | 2035.5 | 39.0 | | | |
| FH | (60°-80°) | 1484.6 | 28.4 | | | G1/1800 |
| FVH | (80°-90°) | 73.0 | 1.4 | | | G1/100 |
| BL | (0°-30°) | 267.5 | 5.1 | B1/500 | | |
| BM | (30°-60°) | 499.5 | 9.6 | B1/1000 | | |
| BH | (60°-80°) | 357.6 | 6.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 23.9 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

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



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | *1047.7* | 1047.7 |
| 2.5° | 1048.2 | 1043.2 | 1046.3 | 1045.2 | 1046.6 | 1048.2 | 1048.8 | 1049.6 | 1052.4 | *1052.1* | 1051.8 |
| 5° | 1046.0 | 1041.0 | 1045.2 | 1043.8 | 1047.4 | 1051.3 | 1054.6 | 1057.6 | 1062.0 | *1064.0* | 1061.2 |
| 7.5° | 1041.3 | 1038.0 | 1042.1 | 1046.3 | 1052.9 | 1058.7 | 1063.4 | 1070.3 | 1076.7 | *1077.8* | 1079.7 |
| 10° | 1014.0 | 1011.5 | 1021.2 | 1031.9 | 1050.1 | 1065.9 | 1076.1 | 1084.1 | 1091.0 | *1092.1* | 1094.9 |
| 12.5° | 985.6 | 982.5 | 993.3 | 1007.9 | 1037.5 | 1065.9 | 1087.4 | 1097.9 | 1104.0 | *1107.6* | 1111.7 |
| 15° | 980.9 | 978.4 | 984.4 | 997.1 | 1021.7 | 1058.4 | 1095.1 | 1114.5 | 1119.7 | *1123.9* | 1125.5 |
| 17.5° | 1003.5 | 998.8 | 1001.3 | 1005.7 | 1020.1 | 1051.5 | 1101.2 | 1133.2 | 1141.3 | *1145.7* | 1145.7 |
| 20° | 1055.9 | 1049.3 | 1045.5 | 1036.6 | 1034.1 | 1052.6 | 1100.7 | 1155.9 | 1166.4 | *1171.9* | 1173.3 |
| 22.5° | 1125.8 | 1121.4 | 1113.1 | 1090.7 | 1066.4 | 1066.2 | 1111.2 | 1184.9 | 1204.5 | *1209.7* | 1206.4 |
| 25° | 1210.3 | 1203.6 | 1193.2 | 1162.8 | 1116.1 | 1092.9 | 1128.8 | 1221.9 | 1254.7 | *1256.1* | 1246.4 |
| 27.5° | 1307.4 | 1297.5 | 1283.1 | 1243.1 | 1180.2 | 1134.9 | 1155.9 | 1264.4 | 1312.4 | *1311.9* | 1292.0 |
| 30° | 1409.9 | 1399.9 | 1384.7 | 1336.2 | 1256.9 | 1191.5 | 1193.4 | 1310.2 | 1380.9 | *1377.8* | 1343.9 |
| 32.5° | 1484.7 | 1477.2 | 1474.2 | 1436.6 | 1345.3 | 1258.3 | 1236.5 | 1361.0 | 1465.4 | *1462.6* | 1415.1 |
| 35° | 1542.1 | 1532.4 | 1536.0 | 1517.0 | 1441.6 | 1333.1 | 1289.2 | 1421.5 | 1568.0 | *1567.8* | 1508.7 |
| 37.5° | 1599.0 | 1590.4 | 1593.4 | 1580.7 | 1530.8 | 1428.1 | 1353.5 | 1495.4 | 1695.3 | *1701.4* | 1621.9 |
| 40° | 1650.9 | 1641.8 | 1653.9 | 1642.0 | 1600.1 | 1529.1 | 1426.7 | 1579.1 | 1842.7 | *1854.3* | 1758.8 |
| 42.5° | 1682.1 | 1674.9 | 1695.0 | 1695.3 | 1660.3 | 1614.4 | 1507.0 | 1671.3 | 2013.3 | *2039.3* | 1927.2 |
| 45° | 1692.8 | 1690.3 | 1720.7 | 1727.1 | 1713.5 | 1663.8 | 1579.4 | 1771.8 | 2197.2 | *2243.6* | 2119.1 |
| 47.5° | 1681.2 | 1676.5 | 1718.5 | 1742.0 | 1752.7 | 1687.0 | 1639.3 | 1880.6 | 2384.9 | *2452.8* | 2328.3 |
| 50° | 1622.7 | 1613.6 | 1676.0 | 1725.4 | 1763.8 | 1702.2 | 1699.7 | 2006.2 | 2598.3 | *2672.6* | 2538.7 |
| 52.5° | 1517.5 | 1510.6 | 1581.6 | 1667.4 | 1739.5 | 1709.7 | 1767.6 | 2143.4 | 2801.0 | *2897.0* | 2754.3 |
| 55° | 1383.1 | 1374.0 | 1452.1 | 1564.2 | 1679.0 | 1707.2 | 1835.6 | 2296.9 | 3040.0 | *3137.5* | 2977.1 |
| 57.5° | 1170.0 | 1151.7 | 1250.6 | 1383.1 | 1580.5 | 1704.1 | 1906.2 | 2449.5 | 3283.0 | *3399.7* | 3214.8 |
| 60° | 859.1 | 832.1 | 953.3 | 1110.3 | 1387.8 | 1674.6 | 1993.7 | 2620.7 | 3574.5 | *3679.7* | 3474.3 |
| 62.5° | 500.2 | 484.5 | 563.7 | 710.3 | 1046.0 | 1500.7 | 2042.9 | 2819.7 | 3861.0 | *3971.5* | 3729.4 |
| 65° | 388.4 | 384.0 | 390.9 | 402.2 | 582.2 | 1123.6 | 1891.3 | 3013.8 | 4225.4 | *4302.7* | 3995.2 |
| 67.5° | 355.3 | 352.0 | 355.0 | 333.8 | 295.4 | 625.8 | 1496.3 | 3062.9 | 4615.8 | *4662.7* | 4227.9 |
| 70° | 315.8 | 312.0 | 321.9 | 303.7 | 232.4 | 284.6 | 966.8 | 2884.6 | 4926.4 | *5014.4* | 4404.9 |
| 72.5° | *257.3* | *252.9* | *276.1* | *267.8* | *195.7* | *182.8* | *485.6* | *2460.8* | *4893.8* | *5076.5* | *4278.2* |
| 75° | 197.7 | 195.2 | 222.8 | 229.7 | 159.6 | 143.8 | 233.0 | 1829.2 | 4306.6 | *4490.7* | 3687.1 |
| 77.5° | 153.5 | 151.6 | 165.6 | 190.8 | 128.6 | 111.5 | 143.3 | 1160.3 | 3245.4 | *3277.7* | 2540.9 |
| 80° | 115.1 | 109.6 | 122.6 | 147.7 | 100.2 | 81.4 | 97.2 | 676.6 | 2051.4 | *1859.6* | 1105.9 |
| 82.5° | 72.1 | 69.3 | 80.1 | 98.6 | 70.7 | 56.0 | 63.2 | 373.8 | 822.1 | *484.2* | 213.4 |
| 85° | 41.1 | 40.0 | 43.6 | 56.3 | 38.4 | 32.3 | 36.2 | 165.1 | 150.2 | *103.2* | 64.3 |
| 87.5° | 16.6 | 16.0 | 19.9 | 25.1 | 14.1 | 11.9 | 12.7 | 39.8 | 33.1 | *30.6* | 21.3 |
| 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: P1197761
CATALOG NUMBER: GPC-SB1B-727-U-SL2

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 | 1047.7 |
| 2.5° | 1050.7 | 1050.7 | 1046.8 | 1040.8 | 1033.9 | 1029.4 | 1022.3 | 1020.3 | 1012.9 | 1010.7 | 1014.3 |
| 5° | 1063.4 | 1061.2 | 1049.3 | 1032.2 | 1008.7 | 987.2 | 963.5 | 948.6 | 927.6 | 920.1 | 925.6 |
| 7.5° | 1079.4 | 1073.3 | 1052.9 | 1015.4 | 966.2 | 917.9 | 867.7 | 829.6 | 793.1 | 780.2 | 781.8 |
| 10° | 1094.0 | 1085.5 | 1050.7 | 985.0 | 900.0 | 816.3 | 736.3 | 680.2 | 637.7 | 620.3 | 624.2 |
| 12.5° | 1108.7 | 1092.9 | 1036.1 | 934.5 | 805.8 | 692.4 | 607.1 | 563.4 | 537.2 | 516.2 | 523.1 |
| 15° | 1122.5 | 1100.4 | 1013.4 | 866.8 | 702.6 | 587.5 | 524.5 | 489.7 | 468.8 | 455.0 | 457.4 |
| 17.5° | 1138.5 | 1106.7 | 979.5 | 781.0 | 604.3 | 514.9 | 463.5 | 442.5 | 438.4 | 436.7 | 437.8 |
| 20° | 1160.9 | 1112.5 | 934.8 | 684.9 | 532.0 | 456.9 | 430.4 | 428.5 | 428.2 | 427.3 | 430.1 |
| 22.5° | 1184.9 | 1119.4 | 875.7 | 597.7 | 470.4 | 420.7 | 416.0 | 412.2 | 409.7 | 409.4 | 412.4 |
| 25° | 1213.3 | 1121.6 | 801.7 | 526.2 | 418.0 | 403.6 | 398.1 | 392.3 | 390.6 | 390.6 | 392.3 |
| 27.5° | 1240.9 | 1114.2 | 715.6 | 464.1 | 388.4 | 387.9 | 380.7 | 378.8 | 378.5 | 379.3 | 381.5 |
| 30° | 1268.5 | 1100.1 | 630.0 | 406.6 | 371.3 | 371.3 | 368.8 | 370.2 | 371.3 | 374.1 | 376.0 |
| 32.5° | 1305.8 | 1085.2 | 558.5 | 364.1 | 356.4 | 353.6 | 356.1 | 358.9 | 360.0 | 363.6 | 366.6 |
| 35° | 1360.4 | 1074.7 | 501.6 | 340.9 | 340.9 | 337.4 | 338.7 | 338.2 | 335.7 | 334.0 | 337.9 |
| 37.5° | 1432.8 | 1074.2 | 454.7 | 330.2 | 328.0 | 327.4 | 327.7 | 324.1 | 314.4 | 302.8 | 303.1 |
| 40° | 1519.7 | 1089.1 | 418.5 | 322.7 | 321.1 | 324.4 | 322.7 | 313.1 | 286.6 | 266.4 | 265.9 |
| 42.5° | 1636.5 | 1131.6 | 395.3 | 313.6 | 318.6 | 322.7 | 316.1 | 282.7 | 264.7 | 251.2 | 250.7 |
| 45° | 1774.0 | 1200.6 | 383.5 | 303.9 | 313.9 | 318.9 | 286.8 | 272.2 | 257.8 | 241.6 | 240.5 |
| 47.5° | 1929.7 | 1287.6 | 380.7 | 294.8 | 303.4 | 306.4 | 274.4 | 267.8 | 251.5 | 233.8 | 232.4 |
| 50° | 2099.2 | 1390.5 | 388.1 | 284.1 | 288.2 | 277.7 | 270.3 | 264.2 | 247.4 | 230.0 | 228.0 |
| 52.5° | 2274.5 | 1504.0 | 403.1 | 269.4 | 273.0 | 261.4 | 268.6 | 263.4 | 244.9 | 221.4 | 219.7 |
| 55° | 2446.8 | 1618.3 | 417.4 | 252.3 | 257.6 | 246.8 | 263.9 | 260.1 | 233.6 | 207.0 | 205.7 |
| 57.5° | 2621.8 | 1732.0 | 431.5 | 237.1 | 242.7 | 232.7 | 256.5 | 251.2 | 220.9 | 193.8 | 193.2 |
| 60° | 2803.7 | 1842.5 | 438.1 | 222.5 | 226.4 | 219.7 | 245.1 | 236.0 | 206.5 | 180.3 | 179.4 |
| 62.5° | 2974.0 | 1934.4 | 427.3 | 207.9 | 210.4 | 207.6 | 230.2 | 218.1 | 192.1 | 165.1 | 164.8 |
| 65° | 3144.9 | 1989.0 | 394.2 | 193.5 | 194.1 | 192.7 | 209.3 | 198.8 | 175.3 | 151.8 | 150.2 |
| 67.5° | 3299.8 | 2019.7 | 341.5 | 178.1 | 176.7 | 176.1 | 189.7 | 177.8 | 159.0 | 138.6 | 136.9 |
| 70° | 3332.7 | 1941.8 | 260.9 | 159.8 | 159.8 | 158.5 | 168.1 | 156.0 | 141.1 | 124.5 | 124.0 |
| 72.5° | *3043.9* | *1633.5* | *185.2* | *139.1* | *141.3* | *138.6* | *146.6* | *136.4* | *122.8* | *111.8* | *108.5* |
| 75° | 2454.5 | 1197.8 | 134.7 | 117.9 | 121.7 | 117.1 | 124.5 | 117.3 | 105.7 | 105.5 | 95.0 |
| 77.5° | 1686.5 | 740.7 | 97.7 | 97.2 | 99.9 | 93.9 | 102.4 | 98.6 | 88.1 | 83.4 | 78.1 |
| 80° | 719.7 | 295.4 | 71.2 | 75.1 | 75.1 | 69.6 | 79.5 | 80.6 | 71.5 | 69.3 | 69.3 |
| 82.5° | 143.3 | 83.9 | 50.0 | 51.6 | 48.6 | 46.9 | 56.3 | 62.4 | 86.1 | 95.8 | 96.1 |
| 85° | 43.1 | 30.9 | 30.1 | 28.2 | 24.8 | 25.1 | 33.1 | 62.7 | 77.3 | 44.2 | 38.1 |
| 87.5° | 11.9 | 7.7 | 8.0 | 6.3 | 5.2 | 6.9 | 11.3 | 47.5 | 26.0 | 11.0 | 9.4 |
| 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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# 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

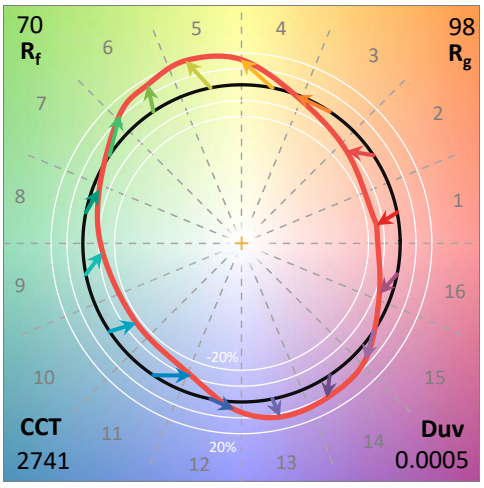
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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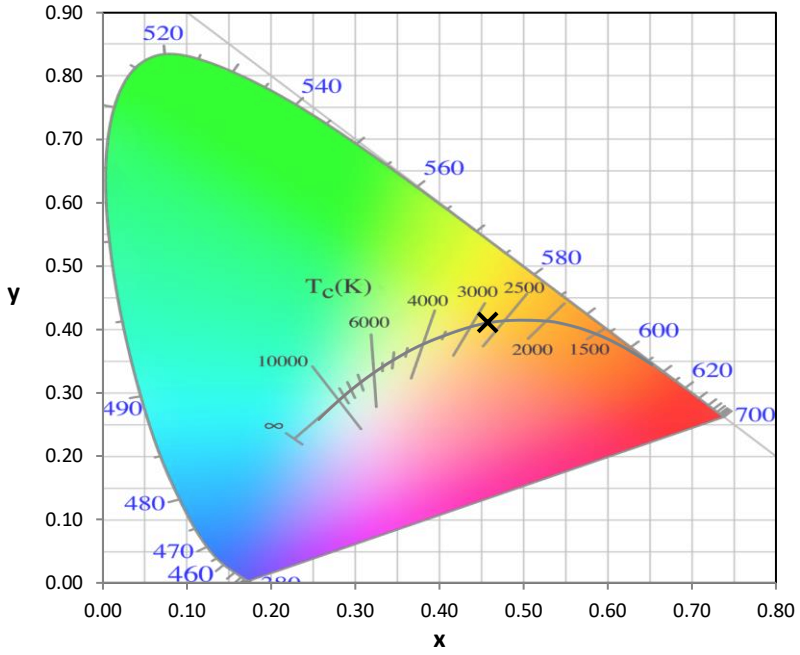
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

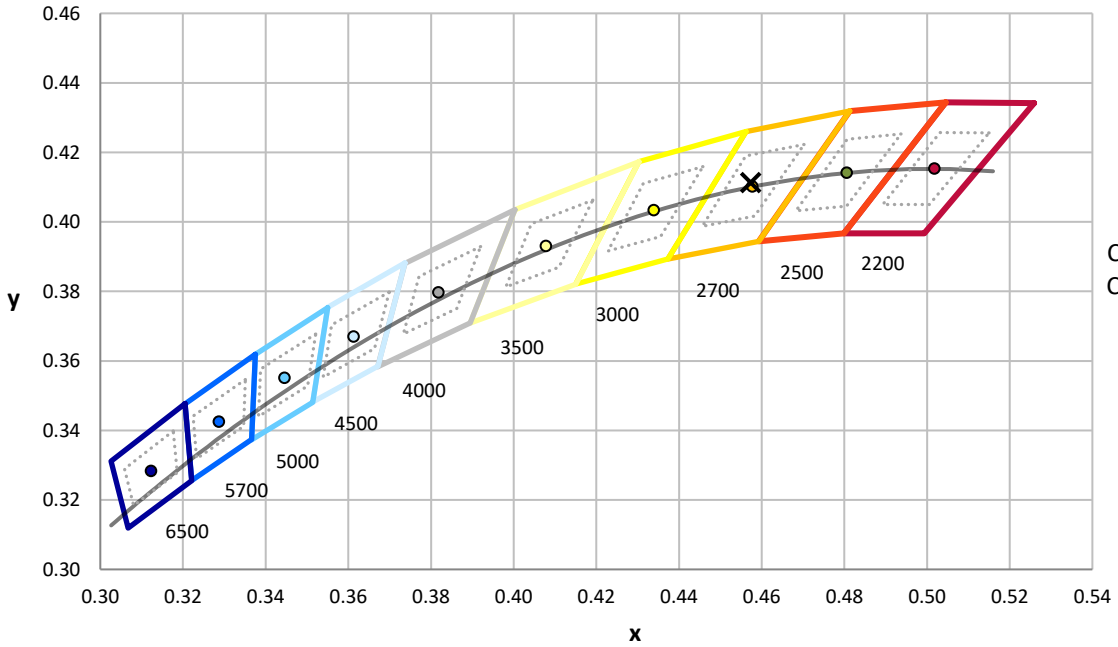
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Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



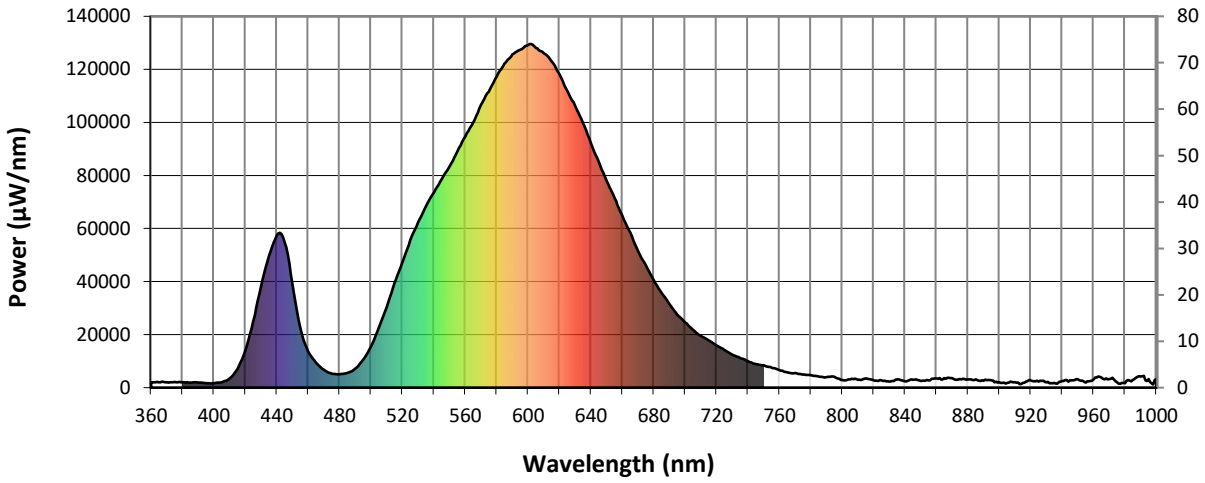

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



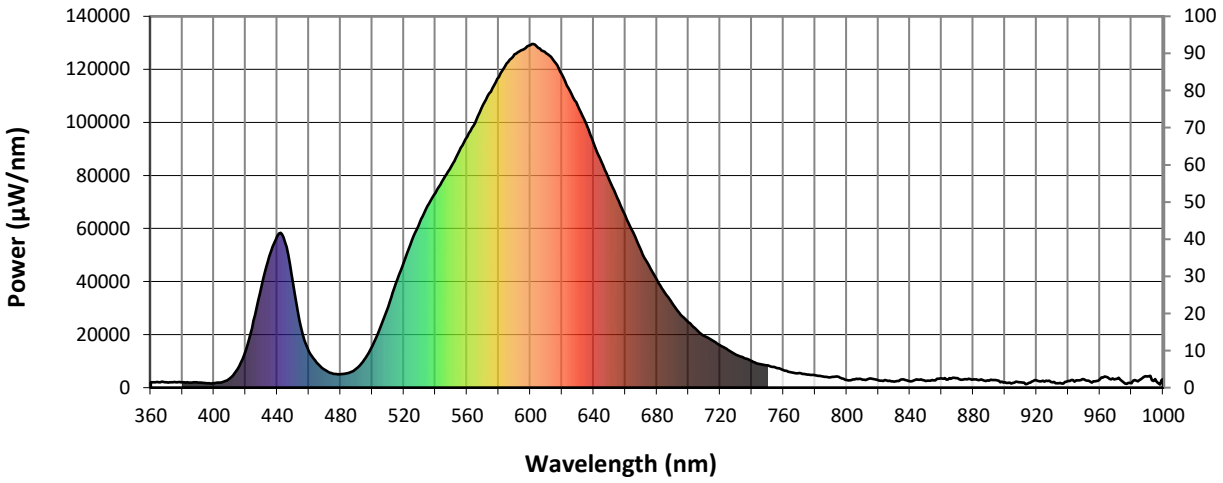

######

| 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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## Scotopic Flux vs. Wavelength



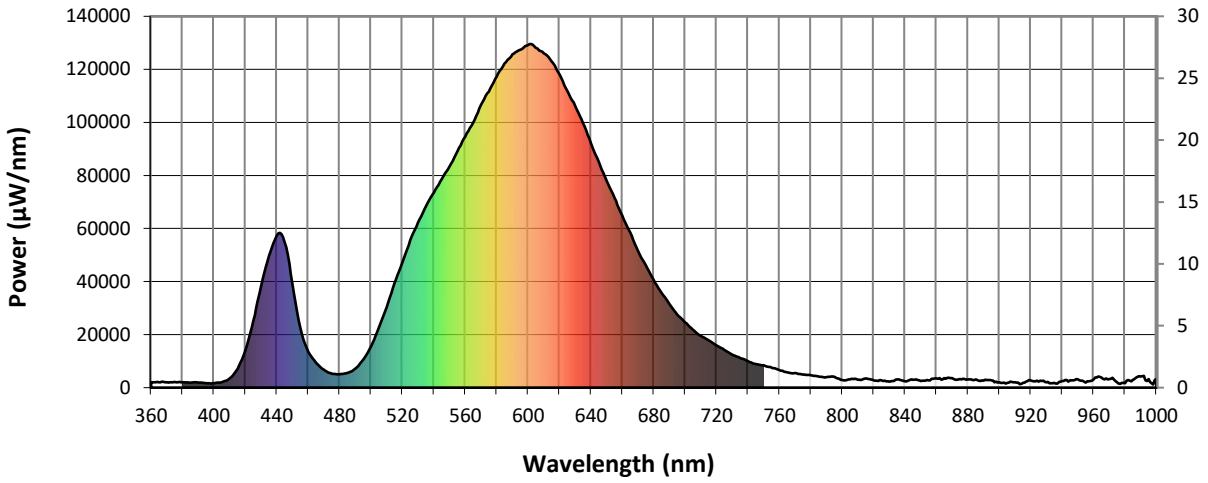

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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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## 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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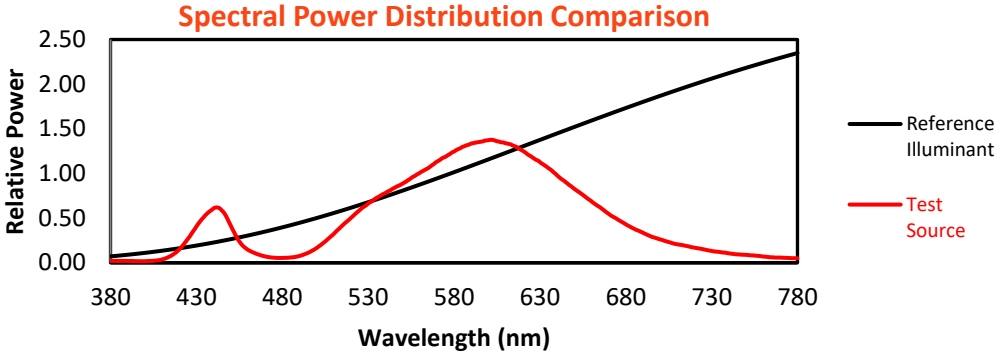
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# TM-30-18

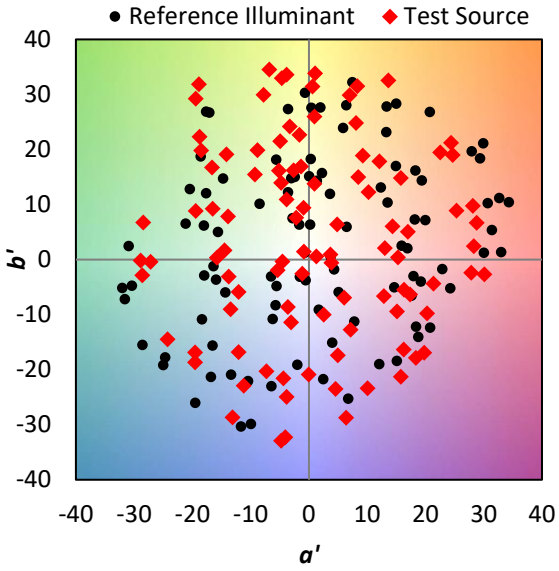
## Summary

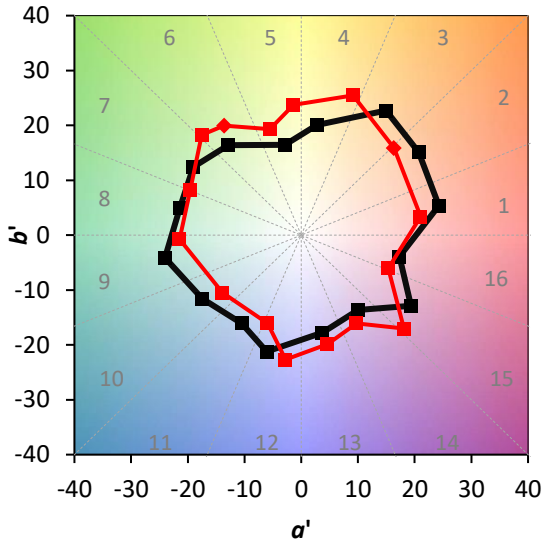
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

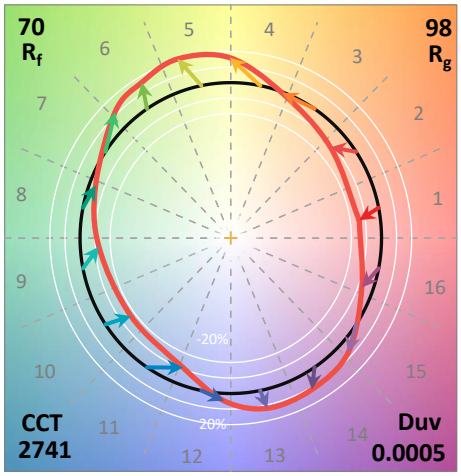
## Spectral Power Distribution Comparison

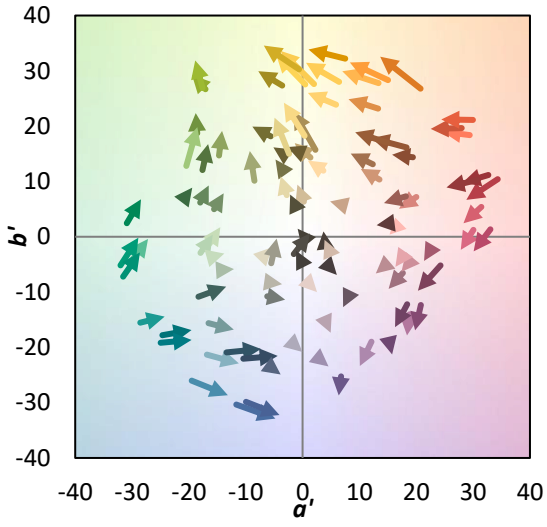



## Color Vector Graphics



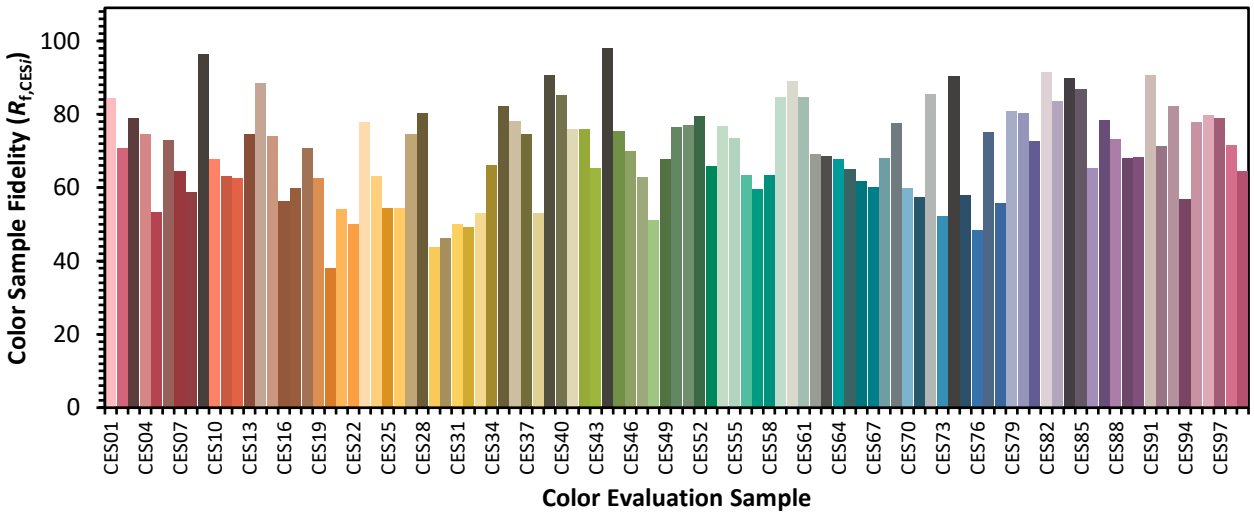
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Peachtree City, GA 30269

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**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 | |

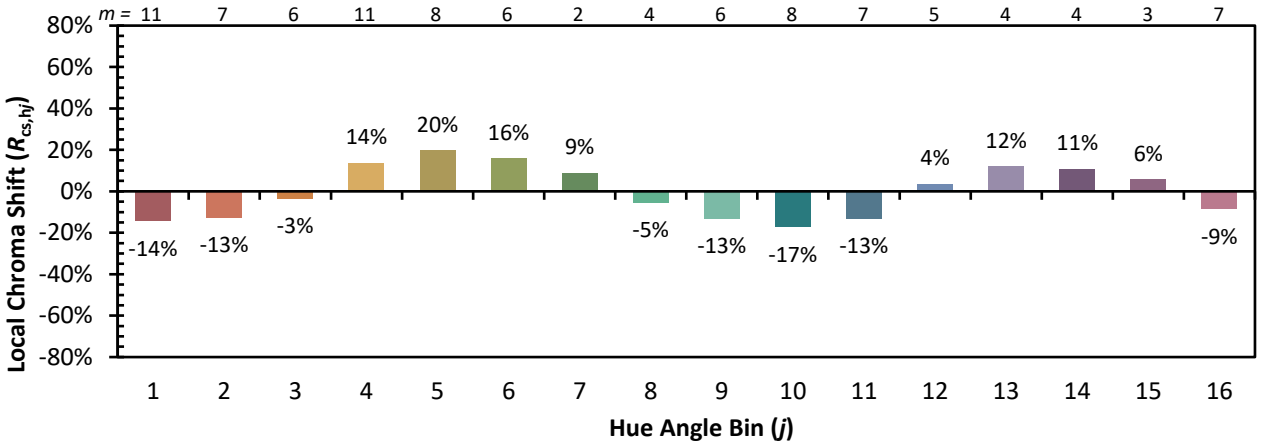


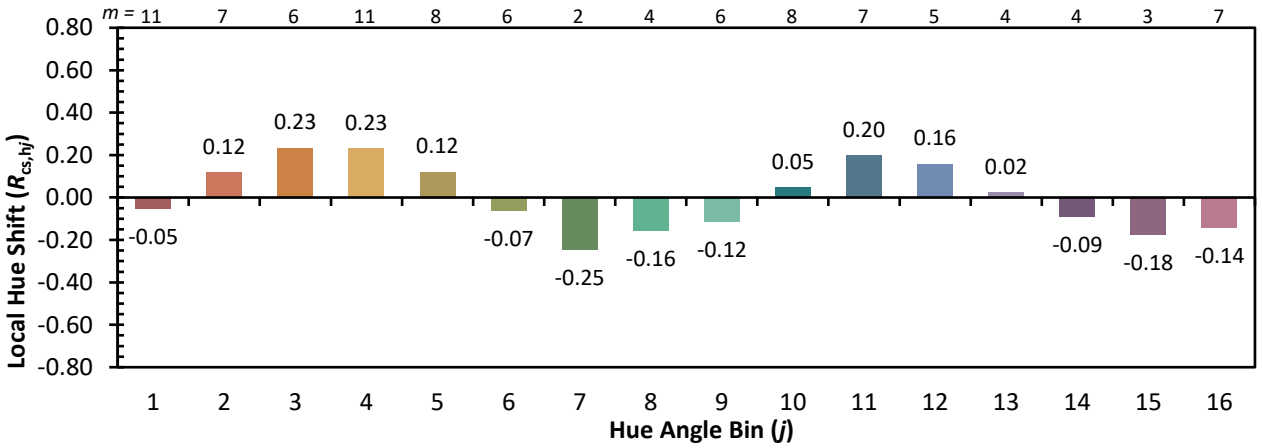
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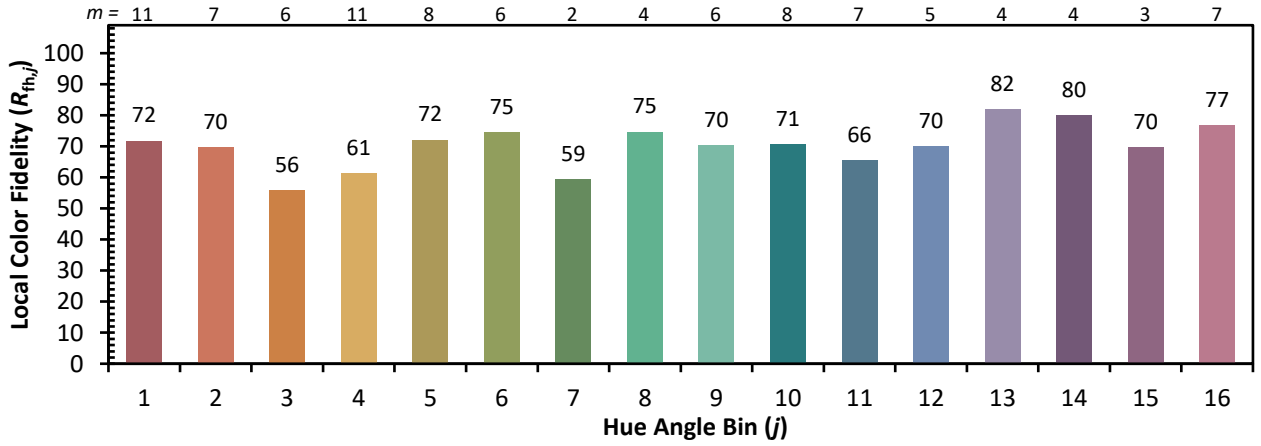
REPORT NUMBER: SP1-1908-441-1-R4

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### Color Rendition by Hue-Angle Bin



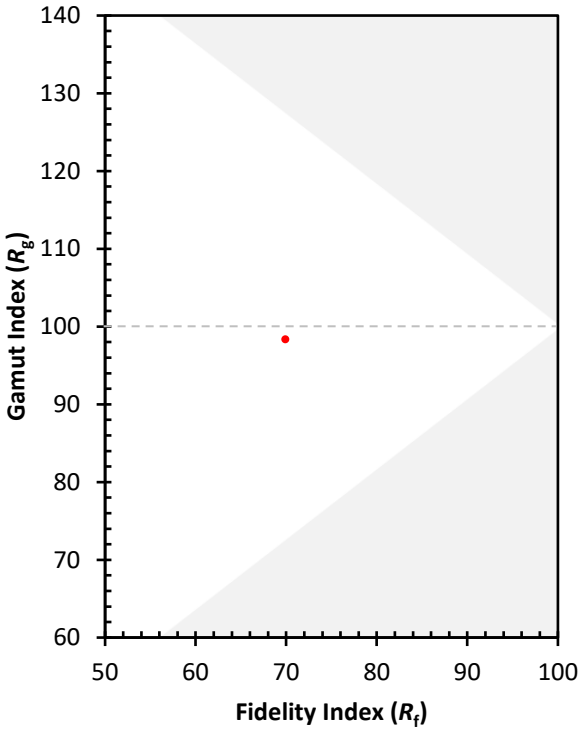



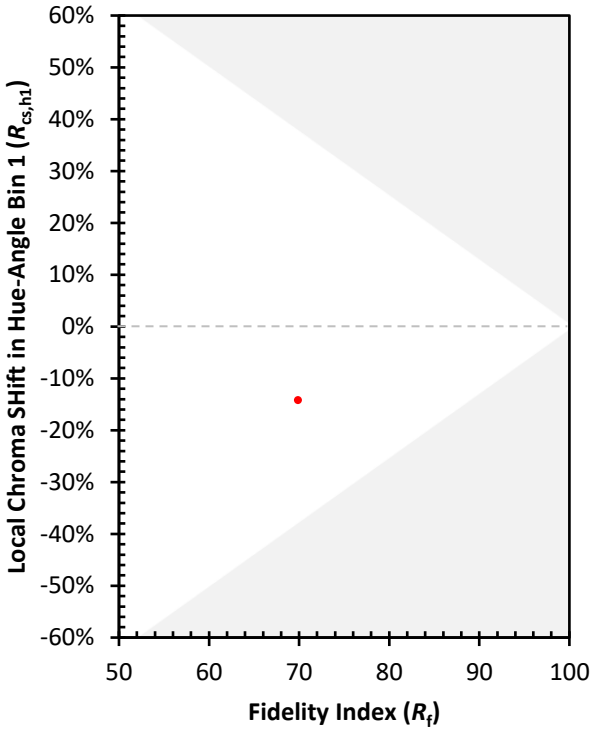
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### Measure Comparisons




(END OF REPORT)