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: P1199668

Luminaire Tested: GPC-SB2B-727-U-SL4-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: | P1199668 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/13/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2B-727-U-SL4-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 7290 lumens |
| Efficiency: | N/A |
| Efficacy: | 98.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 73.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.627 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.988 |
| Total Harmonic Distortion (THDi): | 13.593 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

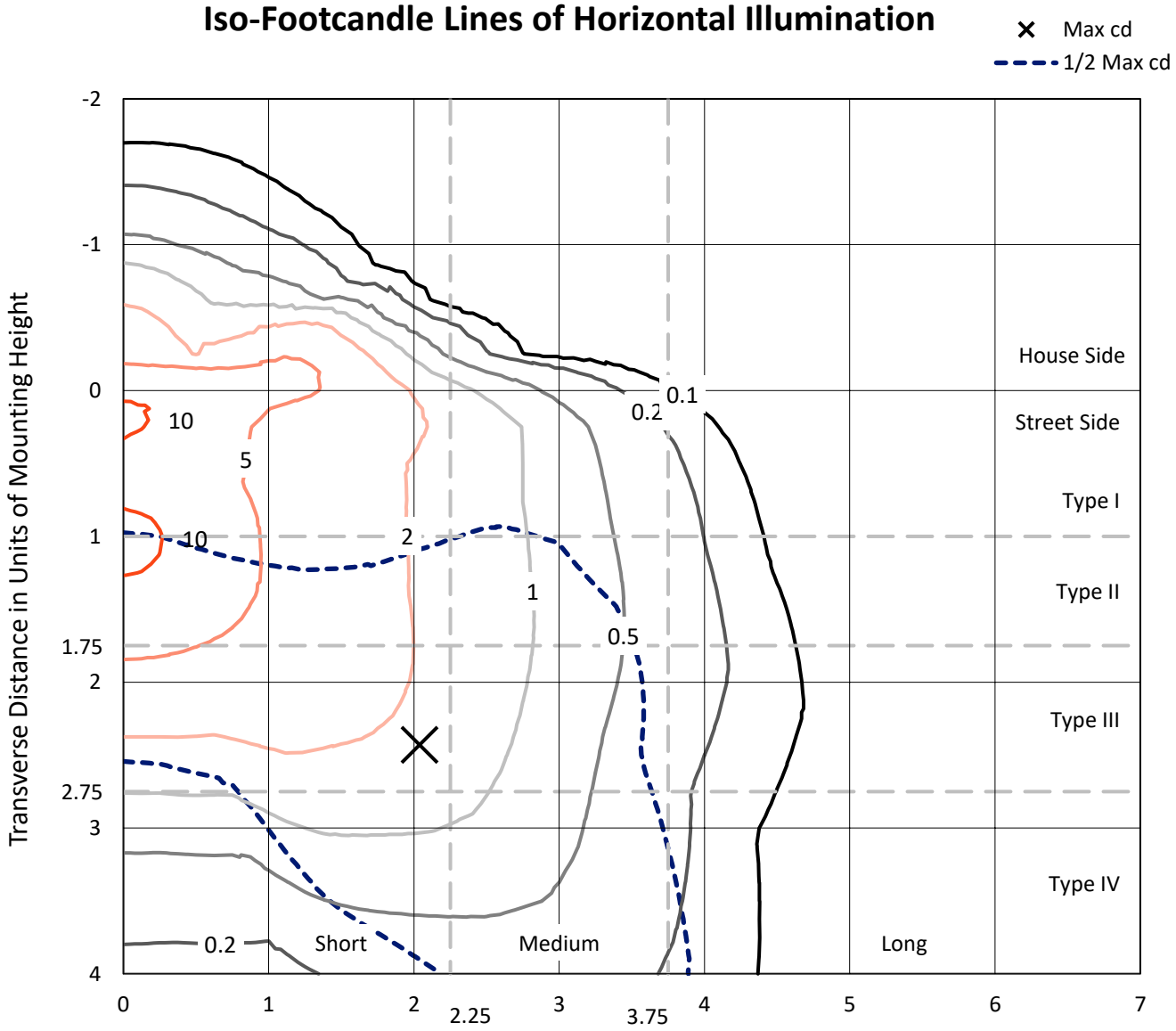


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Scaled Data Report

REPORT NUMBER: P1199668
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## Iso-Footcandle Lines of Horizontal Illumination



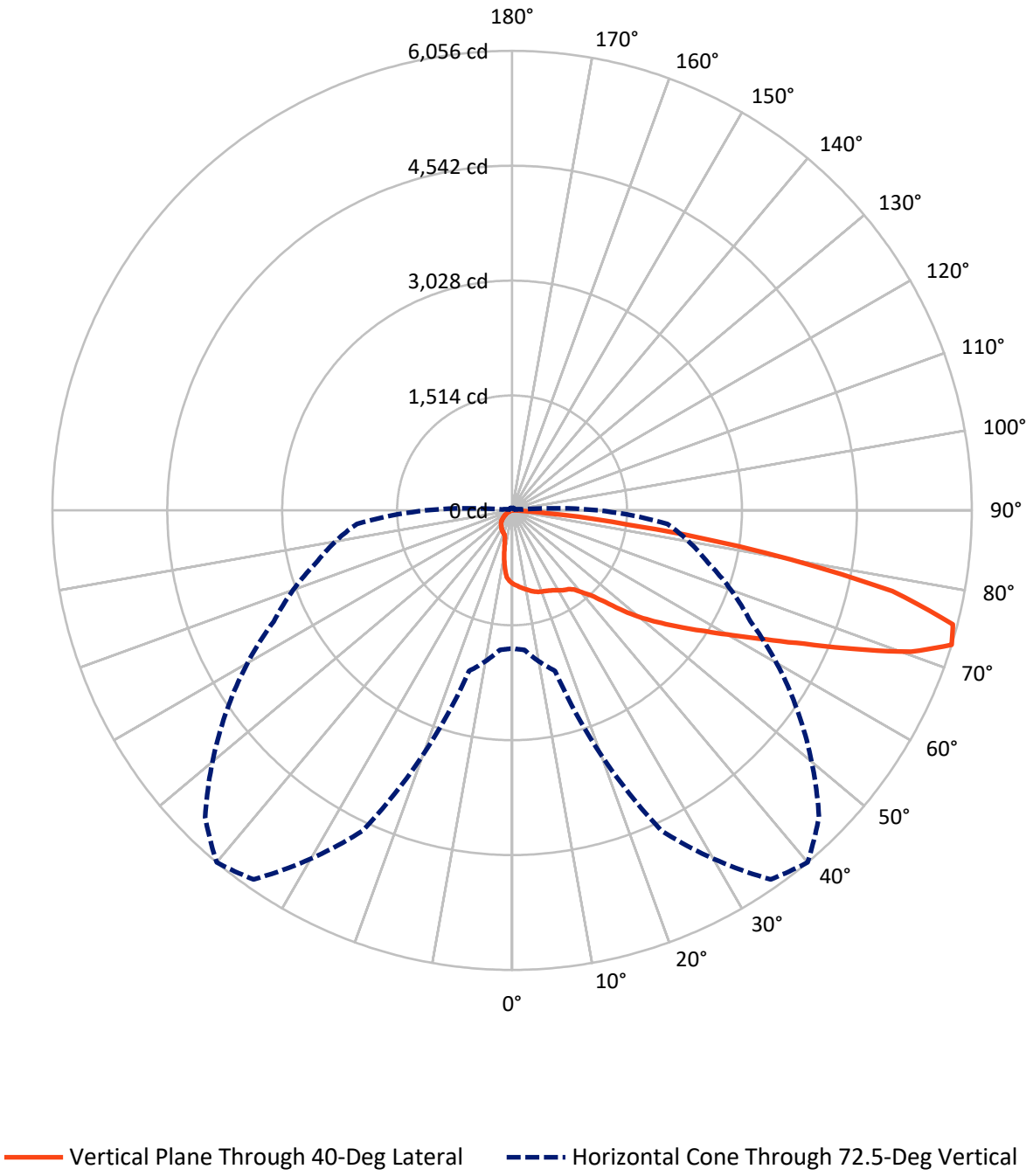

Based on 10 foot mounting height. Maximum calculated value = 11.1 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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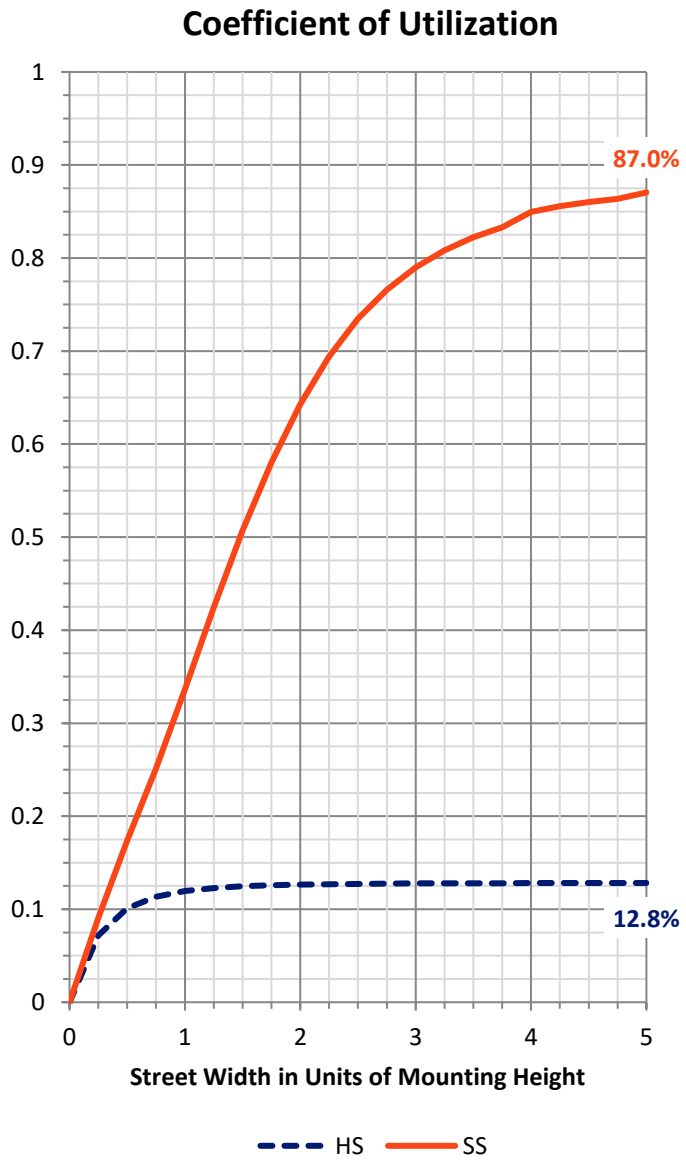
REPORT NUMBER: P1199668
CATALOG NUMBER: GPC-SB2B-727-U-SL4-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 941.4 | 0.0 | 941.4 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| **Street Side** | Lumens | 6348.6 | 0.0 | 6348.6 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| **Total** | Lumens | 7290.0 | 0.0 | 7290.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 88.2 | 1.2 |
| 10°-20° | 239.4 | 3.3 |
| 20°-30° | 387.4 | 5.3 |
| 30°-40° | 571.9 | 7.8 |
| 40°-50° | 962.5 | 13.2 |
| 50°-60° | 1494.5 | 20.5 |
| 60°-70° | 1870.0 | 25.7 |
| 70°-80° | 1531.0 | 21.0 |
| 80°-90° | 145.2 | 2.0 |
| 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° | 7290.0 | 100.0 |
| 0°-180° | 7290.0 | 100.0 |



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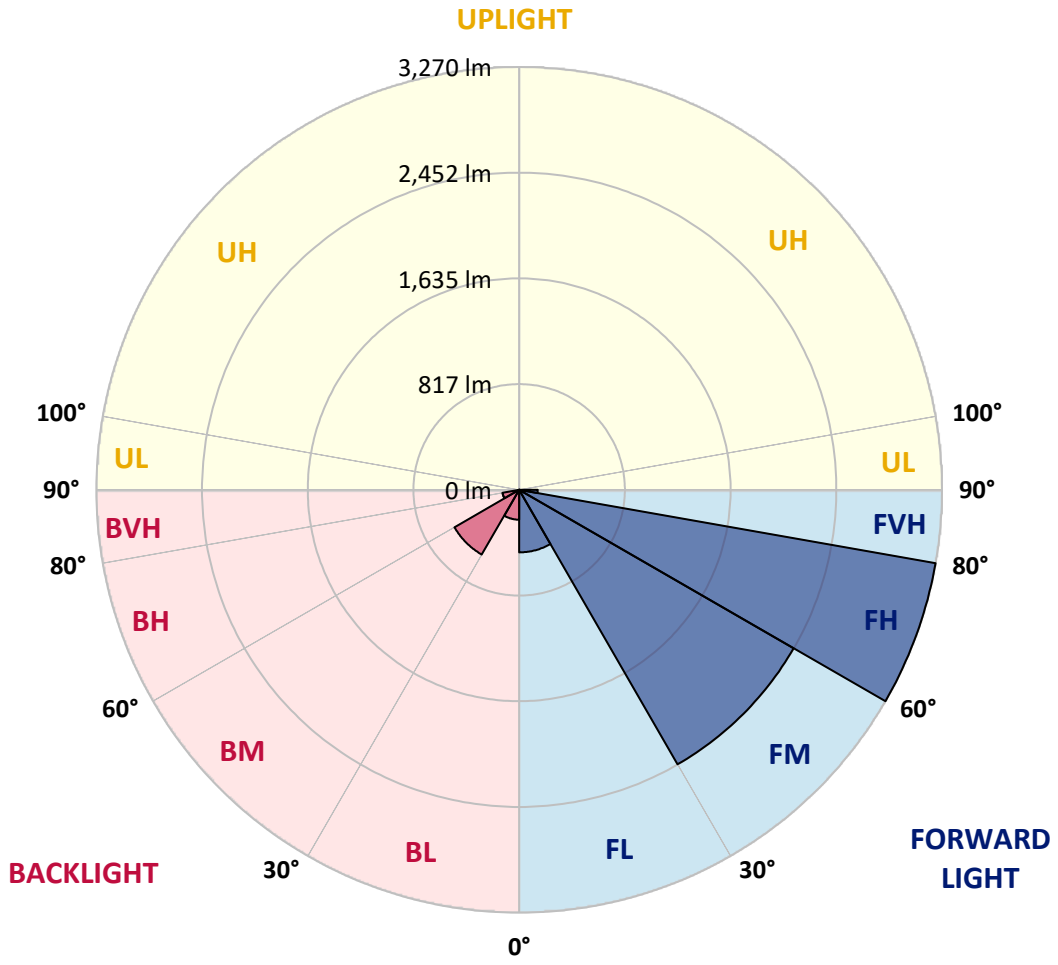
Scaled Data Report

REPORT NUMBER: P1199668
CATALOG NUMBER: GPC-SB2B-727-U-SL4-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 483.8 | 6.6 | | | |
| FM | (30°-60°) | 2450.8 | 33.6 | | | |
| FH | (60°-80°) | 3269.9 | 44.9 | | | G2/5000 |
| FVH | (80°-90°) | 144.1 | 2.0 | | | G2/225 |
| BL | (0°-30°) | 231.1 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 578.1 | 7.9 | B1/1000 | | |
| BH | (60°-80°) | 131.2 | 1.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.1 | 0.0 | | | G0/10 |
| 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 Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 | *965.3* | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 |
| 2.5° | 994.4 | 998.2 | 996.0 | 991.6 | 990.5 | *988.3* | 985.6 | 984.5 | 980.6 | 977.3 | 973.5 |
| 5° | 1022.4 | 1026.2 | 1023.5 | 1017.4 | 1014.7 | *1011.9* | 1008.1 | 1004.8 | 997.1 | 990.0 | 981.2 |
| 7.5° | 1053.1 | 1056.4 | 1053.1 | 1044.3 | 1039.9 | *1036.6* | 1031.1 | 1026.2 | 1017.4 | 1007.0 | 996.0 |
| 10° | 1087.1 | 1089.9 | 1085.0 | 1073.4 | 1066.3 | *1061.3* | 1056.4 | 1050.9 | 1042.7 | 1031.1 | 1018.0 |
| 12.5° | 1119.0 | 1122.3 | 1114.6 | 1100.9 | 1092.6 | *1087.7* | 1082.2 | 1077.8 | 1069.6 | 1058.6 | 1044.9 |
| 15° | 1148.1 | 1153.0 | 1139.9 | 1125.0 | 1115.7 | *1111.9* | 1106.4 | 1103.6 | 1098.1 | 1090.4 | 1077.8 |
| 17.5° | 1170.1 | 1173.4 | 1159.6 | 1142.1 | 1131.6 | *1128.9* | 1125.0 | 1126.7 | 1125.6 | 1121.7 | 1113.5 |
| 20° | 1188.7 | 1190.9 | 1172.8 | 1151.4 | 1139.9 | *1140.4* | 1139.3 | 1144.8 | 1147.0 | 1147.0 | 1146.4 |
| 22.5° | 1211.8 | 1212.3 | 1189.3 | 1162.4 | 1148.6 | *1152.5* | 1154.1 | 1160.2 | 1164.6 | 1169.0 | 1178.8 |
| 25° | 1242.0 | 1240.9 | 1213.4 | 1176.6 | 1164.6 | *1170.1* | 1173.9 | 1176.1 | 1181.0 | 1188.2 | 1210.7 |
| 27.5° | 1287.0 | 1283.7 | 1248.6 | 1199.7 | 1185.4 | *1190.4* | 1197.5 | 1196.4 | 1194.2 | 1199.7 | 1237.6 |
| 30° | 1344.1 | 1339.7 | 1293.0 | 1232.1 | 1218.9 | *1223.3* | 1225.5 | 1215.6 | 1199.7 | 1204.6 | 1261.2 |
| 32.5° | 1434.7 | 1427.0 | 1362.2 | 1268.3 | 1248.0 | *1253.0* | 1250.2 | 1229.9 | 1206.3 | 1211.2 | 1284.8 |
| 35° | 1592.3 | 1573.6 | 1481.9 | 1344.1 | 1281.0 | *1275.5* | 1268.9 | 1249.1 | 1220.0 | 1215.1 | 1304.6 |
| 37.5° | 1927.2 | 1894.3 | 1737.8 | 1491.8 | 1355.6 | *1320.0* | 1299.6 | 1279.9 | 1234.8 | 1215.1 | 1327.1 |
| 40° | 2305.0 | 2271.5 | 2090.8 | 1738.9 | 1479.7 | *1419.3* | 1371.0 | 1316.1 | 1250.2 | 1222.2 | 1362.2 |
| 42.5° | 2699.2 | 2662.4 | 2476.8 | 2045.3 | 1657.1 | *1533.0* | 1442.9 | 1345.2 | 1275.5 | 1244.2 | 1408.9 |
| 45° | 3139.5 | 3093.4 | 2850.7 | 2364.8 | 1914.6 | *1721.9* | 1558.8 | 1405.1 | 1319.4 | 1283.2 | 1472.6 |
| 47.5° | 3604.1 | 3544.2 | 3223.6 | 2675.0 | 2191.9 | *1983.2* | 1770.7 | 1512.1 | 1384.2 | 1341.4 | 1558.8 |
| 50° | 4015.9 | 3956.6 | 3608.5 | 2999.5 | 2451.0 | *2231.9* | 2012.3 | 1660.4 | 1481.4 | 1423.7 | 1674.6 |
| 52.5° | 4311.8 | 4266.8 | 3958.8 | 3334.5 | 2720.6 | *2465.3* | 2231.4 | 1832.8 | 1604.4 | 1529.1 | 1811.4 |
| 55° | 4510.0 | 4468.8 | 4206.9 | 3651.8 | 3034.1 | *2722.3* | 2447.2 | 2020.0 | 1752.6 | 1655.4 | 1962.4 |
| 57.5° | 4630.3 | 4606.6 | 4386.5 | 3935.1 | 3344.9 | *3003.4* | 2694.3 | 2225.9 | 1927.2 | 1804.2 | 2130.9 |
| 60° | 4673.1 | 4653.9 | 4497.9 | 4205.3 | 3720.5 | *3341.1* | 2984.7 | 2458.2 | 2139.2 | 1973.3 | 2303.9 |
| 62.5° | 4558.9 | 4562.7 | 4578.1 | 4525.4 | 4116.3 | *3736.4* | 3332.8 | 2737.1 | 2374.2 | 2165.0 | 2466.4 |
| 65° | 4021.3 | 4053.2 | 4345.3 | 4880.1 | 4640.7 | *4231.6* | 3775.9 | 3077.5 | 2643.2 | 2382.9 | 2595.4 |
| 67.5° | 3329.5 | 3375.6 | 3739.1 | 5087.6 | 5199.6 | *4874.6* | 4393.1 | 3511.3 | 2963.8 | 2604.8 | 2644.3 |
| 70° | 2548.8 | 2598.2 | 3038.5 | 5044.3 | 5722.9 | *5577.4* | 5156.3 | 4063.1 | 3296.0 | 2758.5 | 2519.7 |
| 72.5° | *1819.1* | *1844.3* | *2191.3* | *4658.3* | *5937.6* | *6056.2* | *5718.5* | *4585.8* | *3465.7* | *2673.4* | *2055.1* |
| 75° | 1278.2 | 1273.8 | 1503.9 | 3751.2 | 5603.2 | *5998.0* | 5521.4 | 4303.0 | 3136.3 | 2123.8 | 1267.2 |
| 77.5° | 556.8 | 557.8 | 751.1 | 2278.1 | 4472.1 | *5122.8* | 4589.6 | 2695.4 | 2186.4 | 1125.6 | 534.8 |
| 80° | 144.4 | 148.8 | 275.6 | 907.1 | 2692.6 | *3381.1* | 2799.1 | 1184.9 | 1010.3 | 274.5 | 102.1 |
| 82.5° | 51.1 | 54.4 | 126.8 | 285.0 | 993.3 | *1550.6* | 1246.4 | 378.9 | 263.6 | 78.5 | 27.5 |
| 85° | 14.8 | 17.6 | 68.1 | 87.3 | 205.4 | *438.2* | 302.5 | 73.6 | 64.8 | 40.6 | 7.1 |
| 87.5° | 0.0 | 2.2 | 13.7 | 12.1 | 12.1 | *8.2* | 15.4 | 8.2 | 10.4 | 4.9 | 2.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report

REPORT NUMBER: P1199668
CATALOG NUMBER: GPC-SB2B-727-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 | 965.3 |
| 2.5° | 970.2 | 966.4 | 958.1 | 949.3 | 941.1 | 933.4 | 931.2 | 923.0 | 919.1 | 919.7 | 919.1 |
| 5° | 975.1 | 968.0 | 952.1 | 932.9 | 913.1 | 890.6 | 871.9 | 845.6 | 823.0 | 820.3 | 818.7 |
| 7.5° | 988.3 | 976.8 | 951.0 | 913.6 | 864.2 | 802.2 | 744.5 | 687.4 | 655.0 | 637.5 | 636.4 |
| 10° | 1008.6 | 993.3 | 953.7 | 882.3 | 777.5 | 666.6 | 579.3 | 507.3 | 470.5 | 453.5 | 450.2 |
| 12.5° | 1032.8 | 1015.8 | 958.1 | 829.1 | 665.5 | 520.0 | 425.5 | 381.6 | 373.9 | 372.8 | 372.3 |
| 15° | 1066.8 | 1048.2 | 963.1 | 757.2 | 544.1 | 395.9 | 352.5 | 353.0 | 359.1 | 362.4 | 361.8 |
| 17.5° | 1104.7 | 1086.0 | 955.9 | 669.3 | 424.4 | 338.2 | 337.1 | 342.1 | 350.9 | 354.1 | 353.6 |
| 20° | 1143.2 | 1125.6 | 930.7 | 566.1 | 343.2 | 322.3 | 326.7 | 332.2 | 341.0 | 345.4 | 345.4 |
| 22.5° | 1182.7 | 1167.3 | 890.6 | 456.3 | 309.7 | 310.8 | 316.3 | 321.8 | 331.6 | 336.6 | 336.6 |
| 25° | 1225.0 | 1211.8 | 837.3 | 365.7 | 295.4 | 298.7 | 305.8 | 312.4 | 322.8 | 328.9 | 328.9 |
| 27.5° | 1267.8 | 1257.9 | 776.9 | 305.3 | 282.2 | 286.1 | 294.3 | 303.1 | 313.5 | 320.7 | 321.2 |
| 30° | 1314.5 | 1309.0 | 728.6 | 282.8 | 269.6 | 272.9 | 282.2 | 292.1 | 303.6 | 312.4 | 313.5 |
| 32.5° | 1362.2 | 1361.1 | 705.0 | 299.2 | 258.1 | 260.3 | 268.5 | 278.4 | 292.7 | 303.6 | 304.7 |
| 35° | 1409.4 | 1411.6 | 691.3 | 345.9 | 254.2 | 248.2 | 253.7 | 262.5 | 279.5 | 293.2 | 295.4 |
| 37.5° | 1469.8 | 1475.3 | 690.7 | 396.4 | 263.6 | 236.1 | 239.9 | 246.0 | 260.8 | 276.7 | 279.5 |
| 40° | 1559.9 | 1589.0 | 725.9 | 439.8 | 280.0 | 225.1 | 226.2 | 227.3 | 235.0 | 248.2 | 252.6 |
| 42.5° | 1679.6 | 1764.7 | 852.7 | 469.5 | 286.6 | 215.2 | 211.4 | 205.4 | 204.3 | 211.4 | 215.2 |
| 45° | 1828.4 | 1977.2 | 1075.6 | 485.9 | 280.0 | 204.3 | 193.8 | 177.9 | 171.9 | 176.8 | 176.8 |
| 47.5° | 2003.5 | 2210.0 | 1339.7 | 489.8 | 269.0 | 190.5 | 171.9 | 151.0 | 146.1 | 147.7 | 147.1 |
| 50° | 2174.3 | 2384.6 | 1572.0 | 457.9 | 250.9 | 173.0 | 147.7 | 130.1 | 126.8 | 127.4 | 127.4 |
| 52.5° | 2325.3 | 2444.4 | 1637.9 | 382.7 | 226.8 | 151.5 | 126.8 | 114.8 | 112.6 | 112.6 | 112.0 |
| 55° | 2425.2 | 2379.6 | 1460.5 | 292.7 | 196.6 | 129.6 | 108.7 | 102.7 | 101.6 | 101.0 | 99.9 |
| 57.5° | 2446.1 | 2168.8 | 1103.1 | 211.4 | 153.7 | 109.3 | 96.6 | 93.3 | 91.1 | 88.9 | 87.9 |
| 60° | 2371.4 | 1817.4 | 702.3 | 147.7 | 115.3 | 93.3 | 85.7 | 83.5 | 79.1 | 74.7 | 73.0 |
| 62.5° | 2210.0 | 1372.7 | 388.7 | 102.7 | 92.8 | 79.6 | 75.8 | 73.0 | 64.8 | 57.7 | 55.5 |
| 65° | 1993.1 | 912.5 | 171.9 | 80.2 | 75.8 | 67.0 | 64.8 | 60.9 | 51.1 | 42.8 | 41.2 |
| 67.5° | 1775.1 | 525.5 | 77.4 | 64.2 | 60.9 | 54.9 | 53.3 | 50.5 | 43.4 | 35.7 | 34.6 |
| 70° | 1526.4 | 266.3 | 53.3 | 51.1 | 47.2 | 41.7 | 43.4 | 42.8 | 35.7 | 29.1 | 28.0 |
| 72.5° | *1136.6* | *132.3* | *40.1* | *38.4* | *34.0* | *29.6* | *35.7* | *35.1* | *28.0* | *22.0* | *20.9* |
| 75° | 643.5 | 65.3 | 29.1 | 26.9 | 20.3 | 22.0 | 28.6 | 26.9 | 19.2 | 14.3 | 13.2 |
| 77.5° | 255.3 | 33.5 | 19.2 | 16.5 | 12.1 | 14.8 | 20.9 | 18.1 | 9.9 | 6.0 | 5.5 |
| 80° | 58.7 | 16.5 | 9.9 | 7.1 | 5.5 | 8.8 | 11.0 | 6.6 | 2.7 | 0.5 | 0.0 |
| 82.5° | 16.5 | 7.1 | 3.3 | 2.7 | 2.7 | 3.3 | 2.7 | 1.1 | 0.0 | 0.0 | 0.0 |
| 85° | 5.5 | 3.3 | 1.1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.2 | 1.1 | 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 |

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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

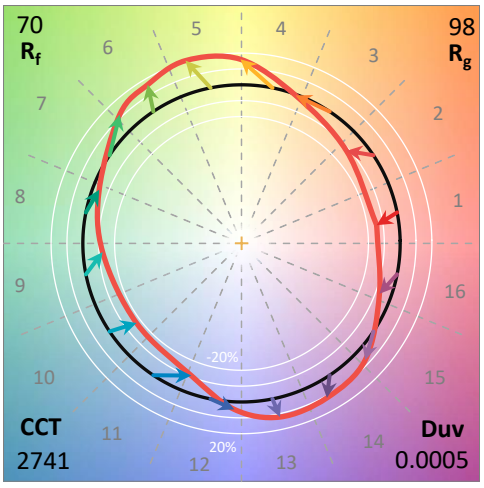
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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1121 Highway 74 South
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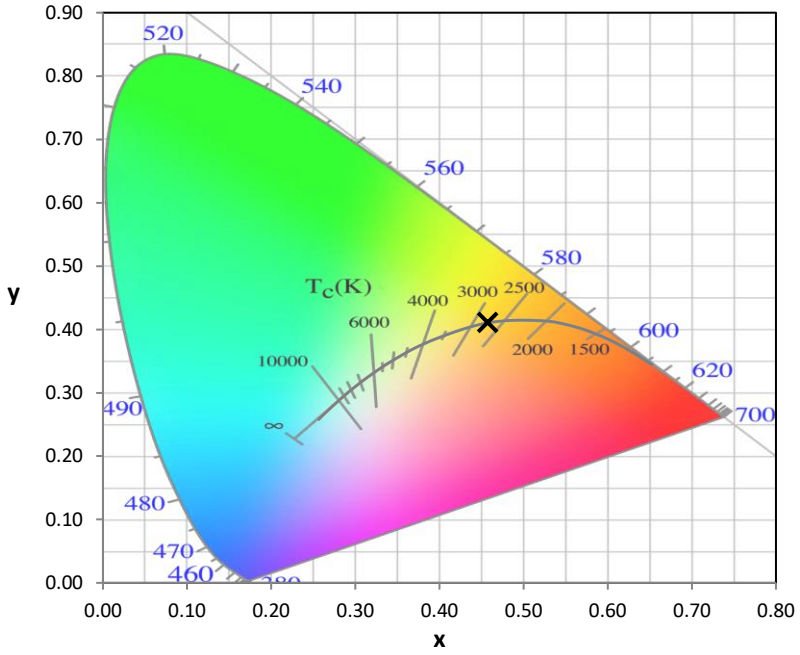
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

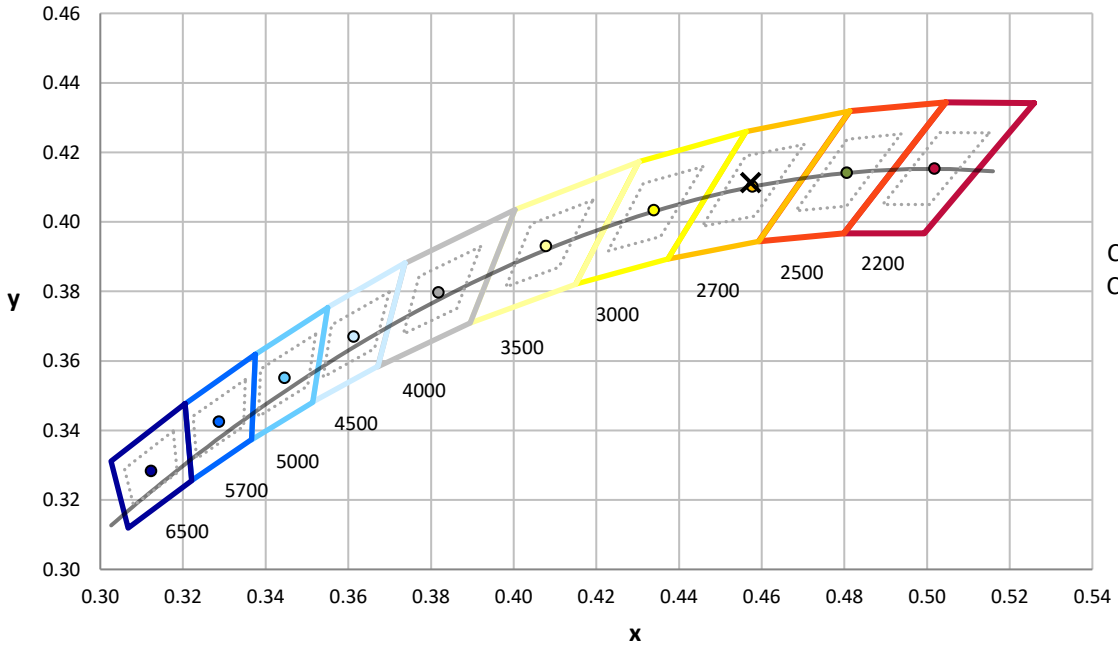
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REPORT NUMBER: SP1-1908-441-1-R4

## CIE 1931 Chromaticity Diagram




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



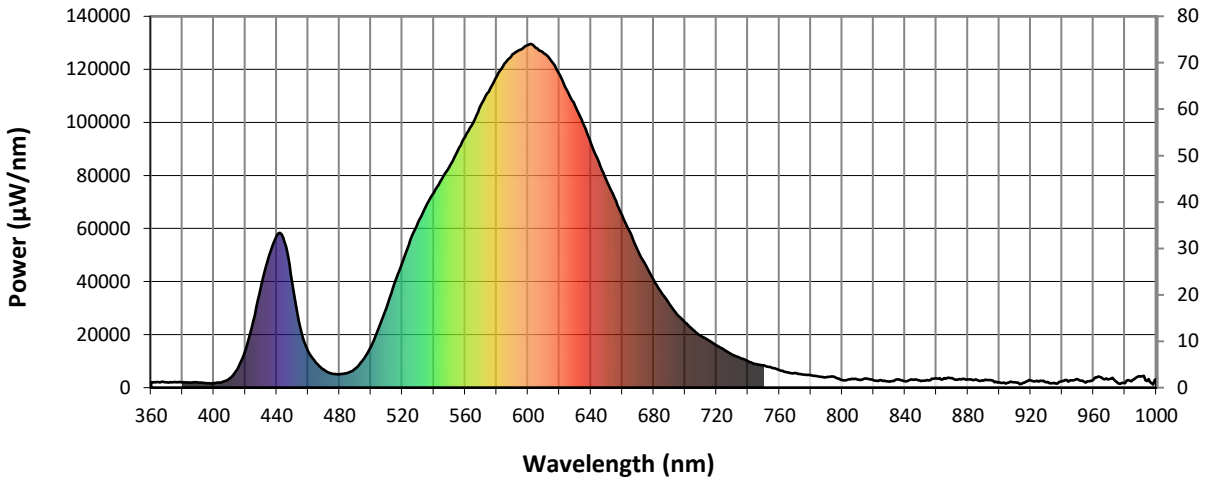

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



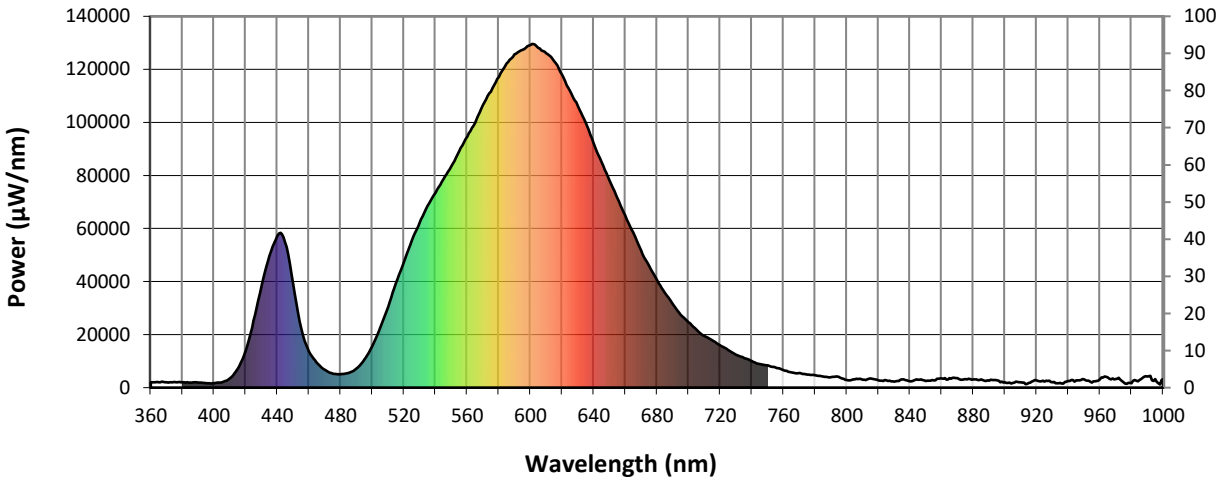

######

| 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



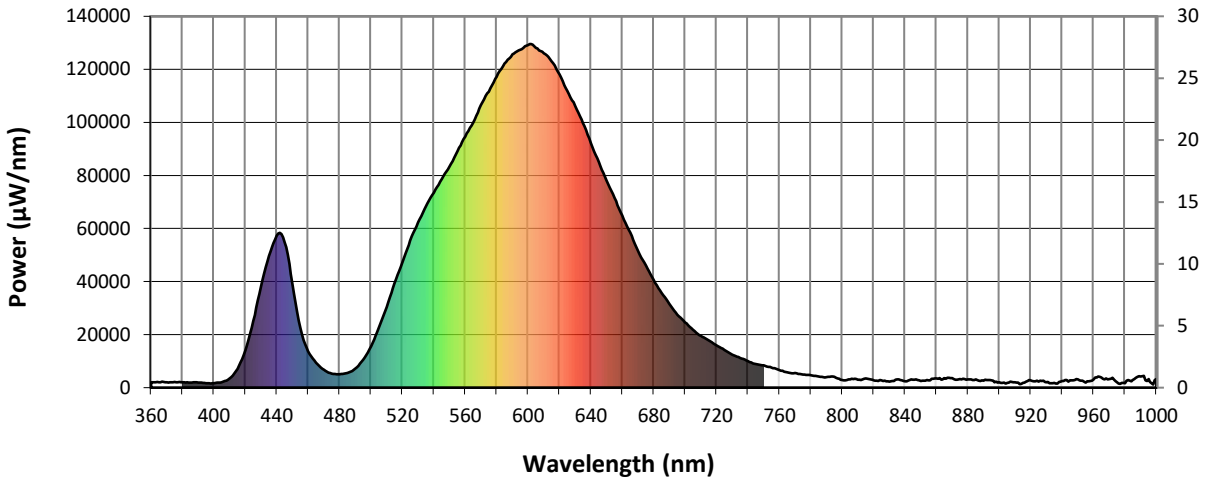

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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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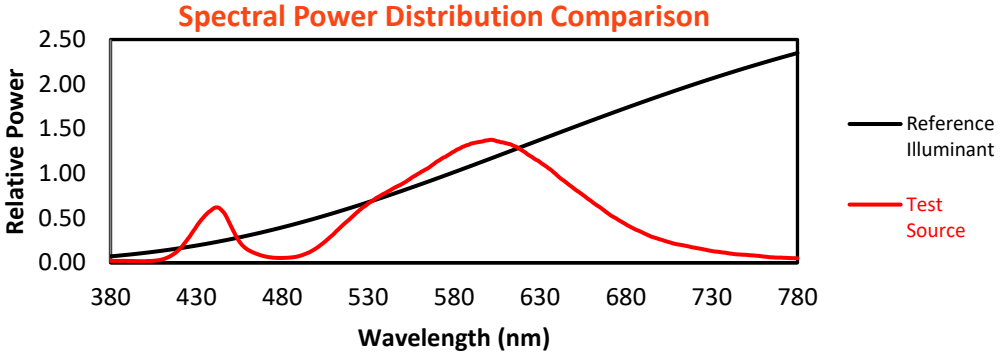
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# TM-30-18

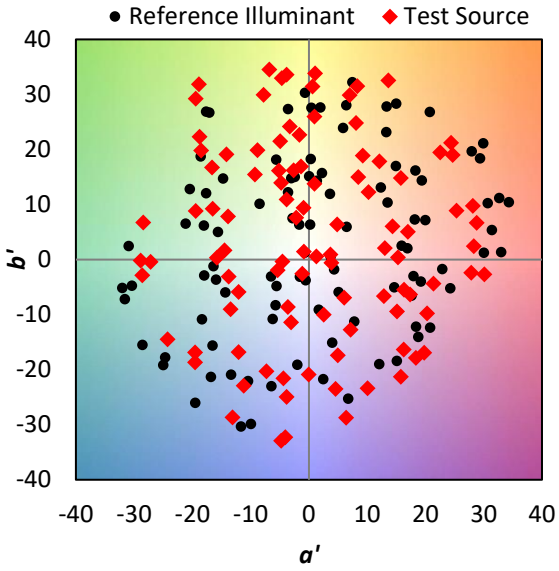
## Summary

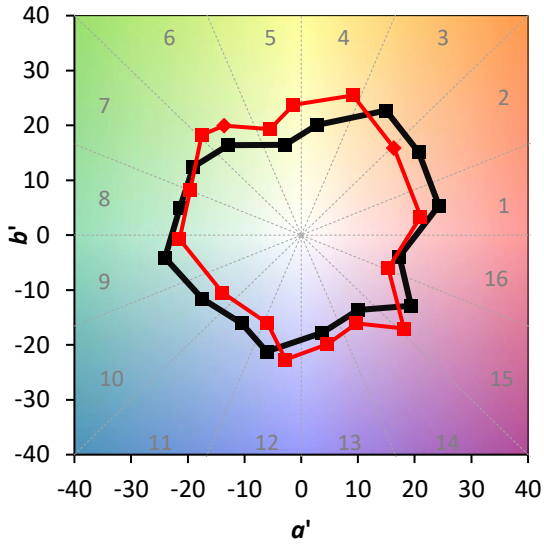
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

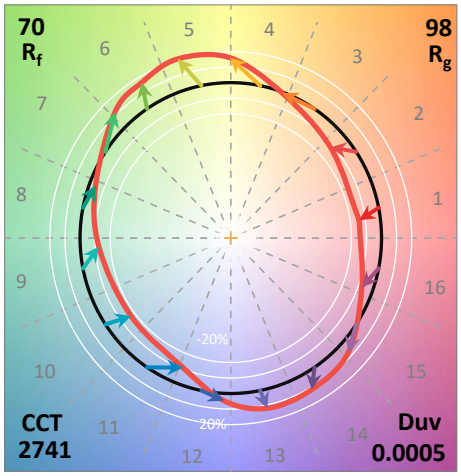
## Spectral Power Distribution Comparison

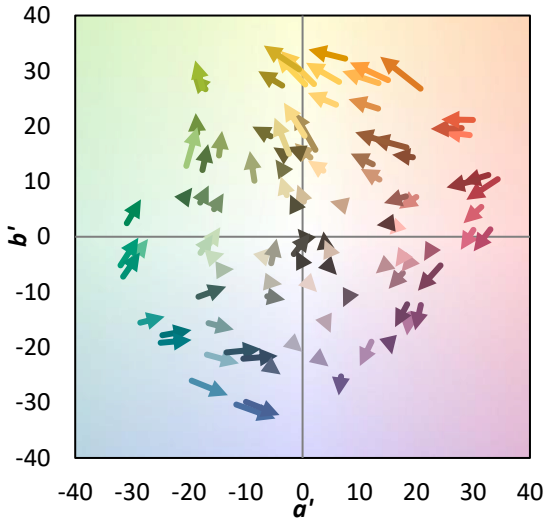



## Color Vector Graphics



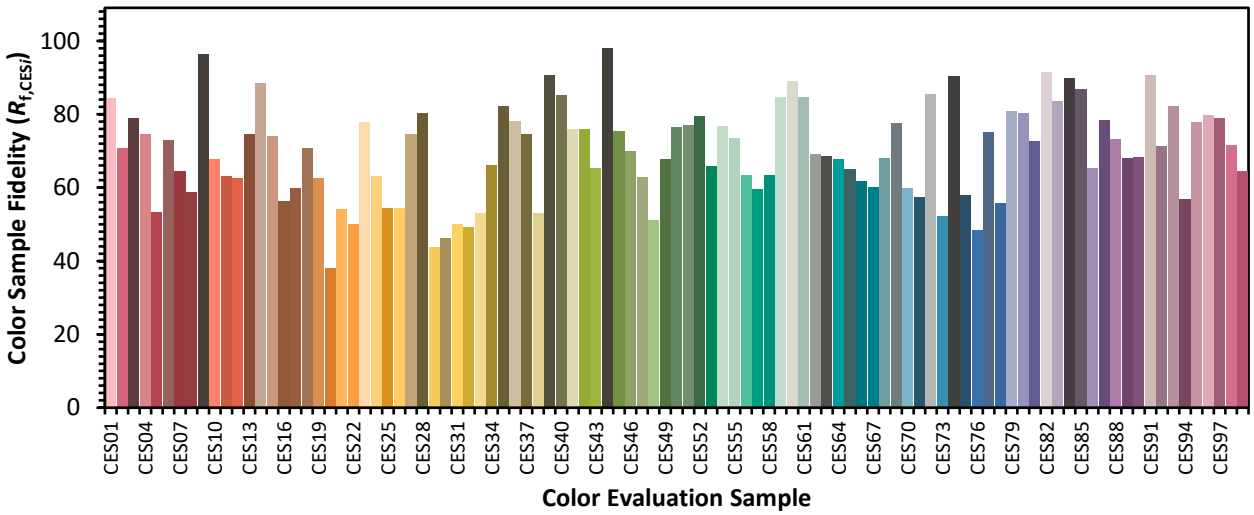
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Peachtree City, GA 30269

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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 | |

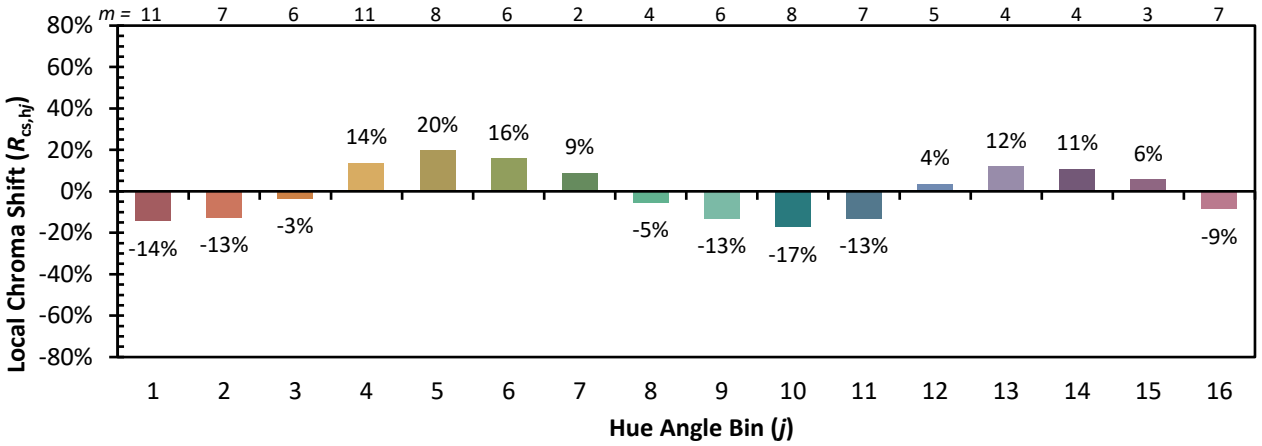


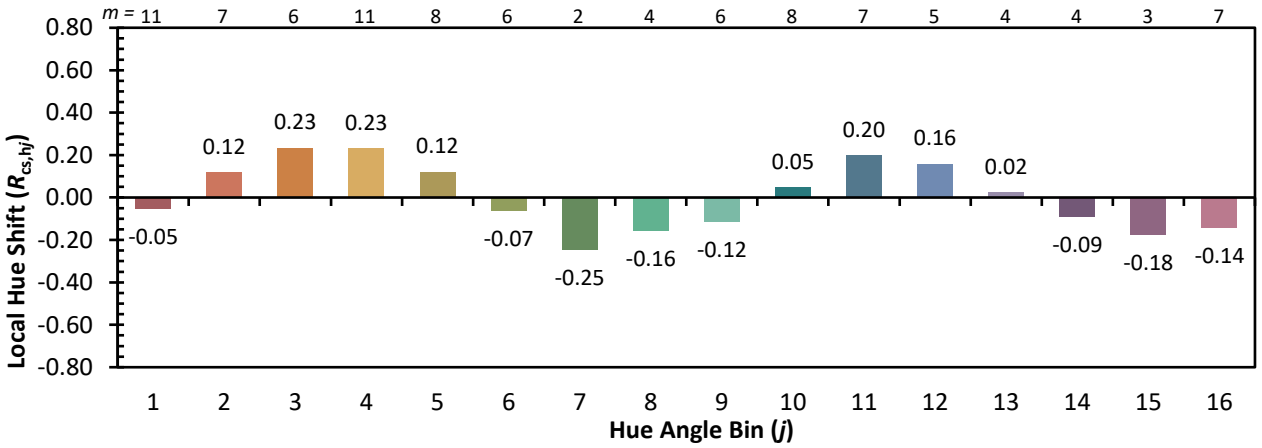
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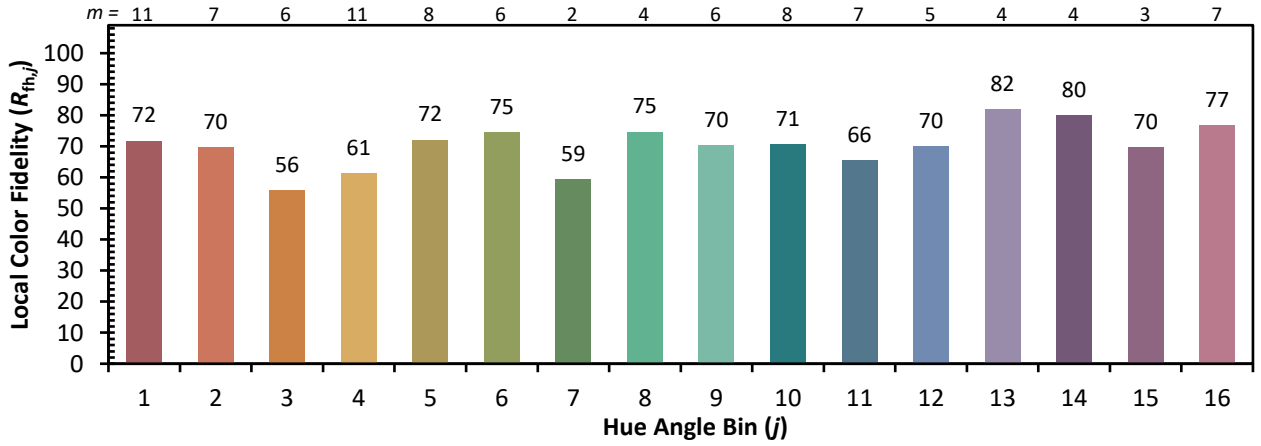
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### Color Rendition by Hue-Angle Bin



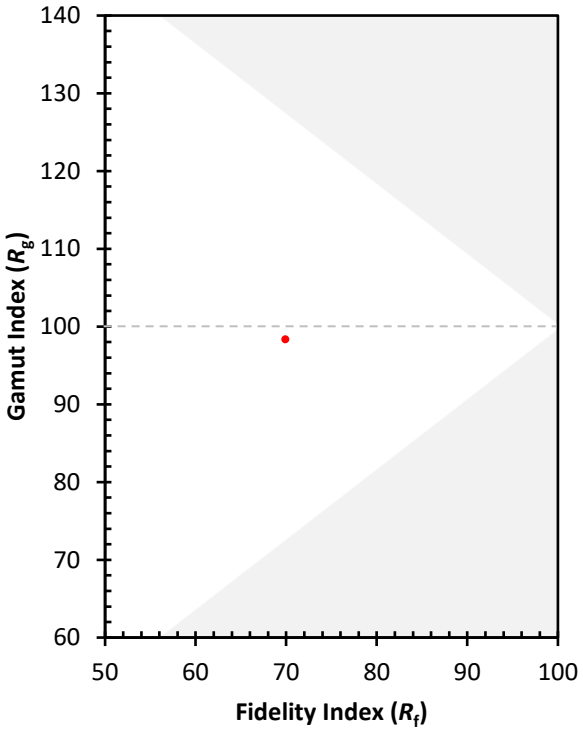



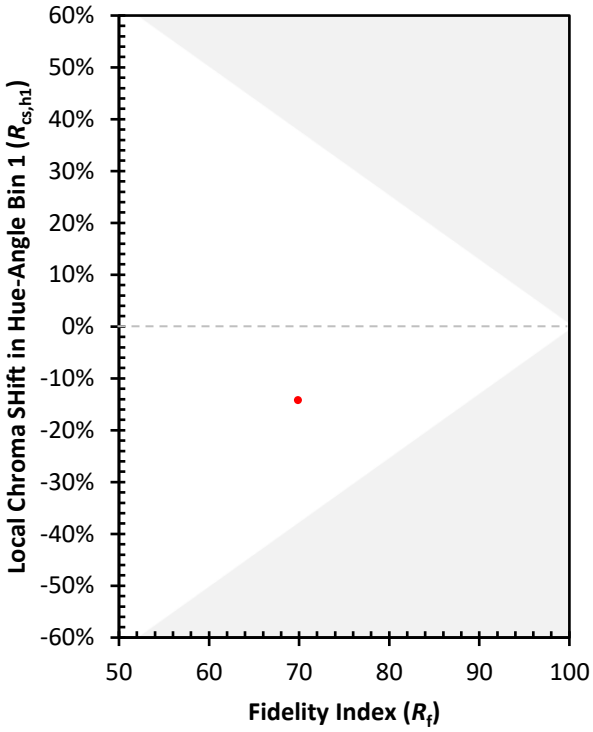
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### Measure Comparisons




(END OF REPORT)