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

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1367242

Luminaire Tested: **GSS-SB1D-727-U-T4W**

Issue Date: 02/18/2026

Report Generated By 670245763

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P1367242 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB1D-727-U-T4W |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 1SQUARE 76W 70CRI 2700K FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC |
| Light Source: | (26) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 8253.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 108.6 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G2 |

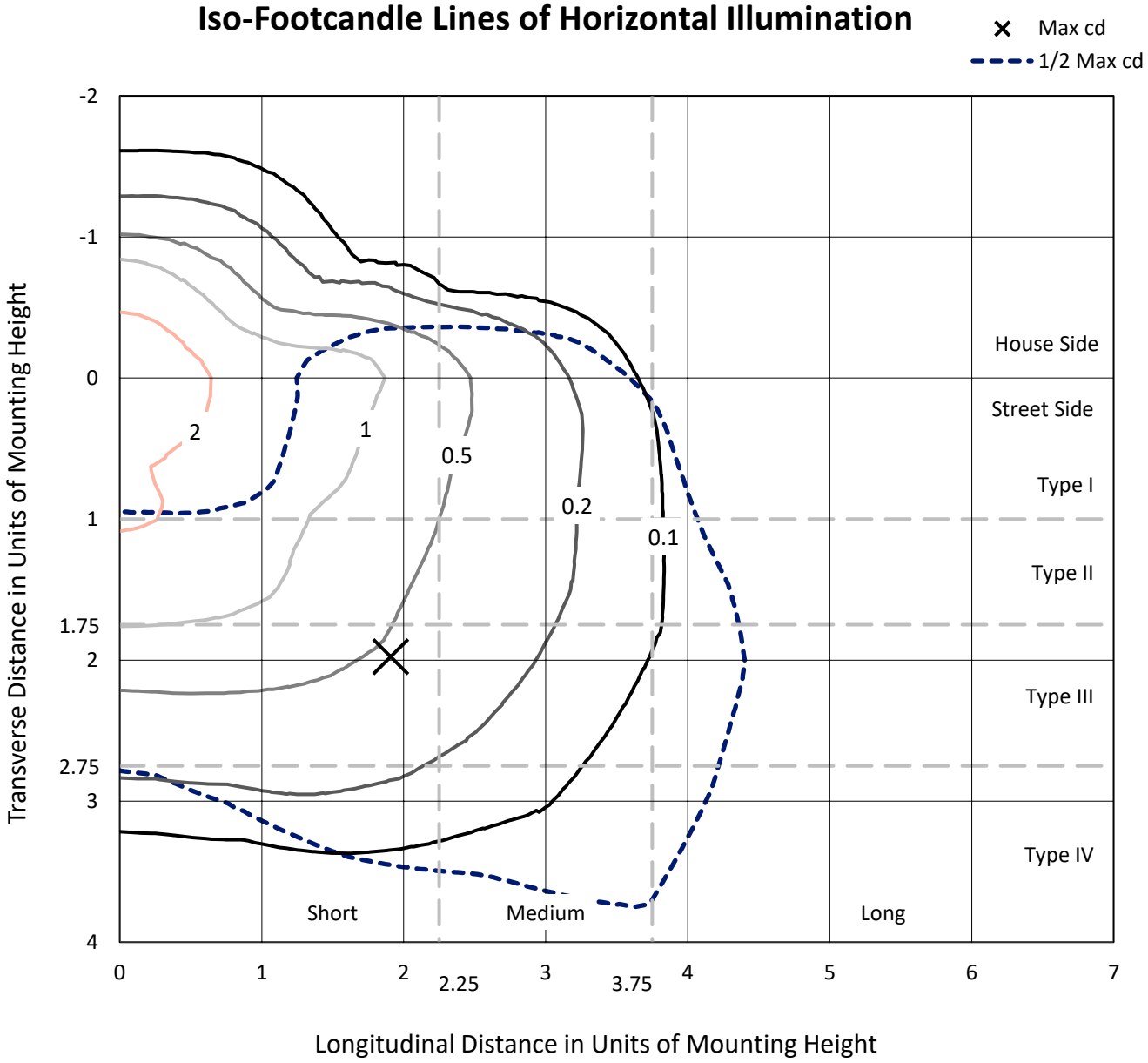
| | |
|---|---|
| Input Watts (W): | 76 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.7% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1367242
CATALOG NUMBER: GSS-SB1D-727-U-T4W

## Iso-Footcandle Lines of Horizontal Illumination



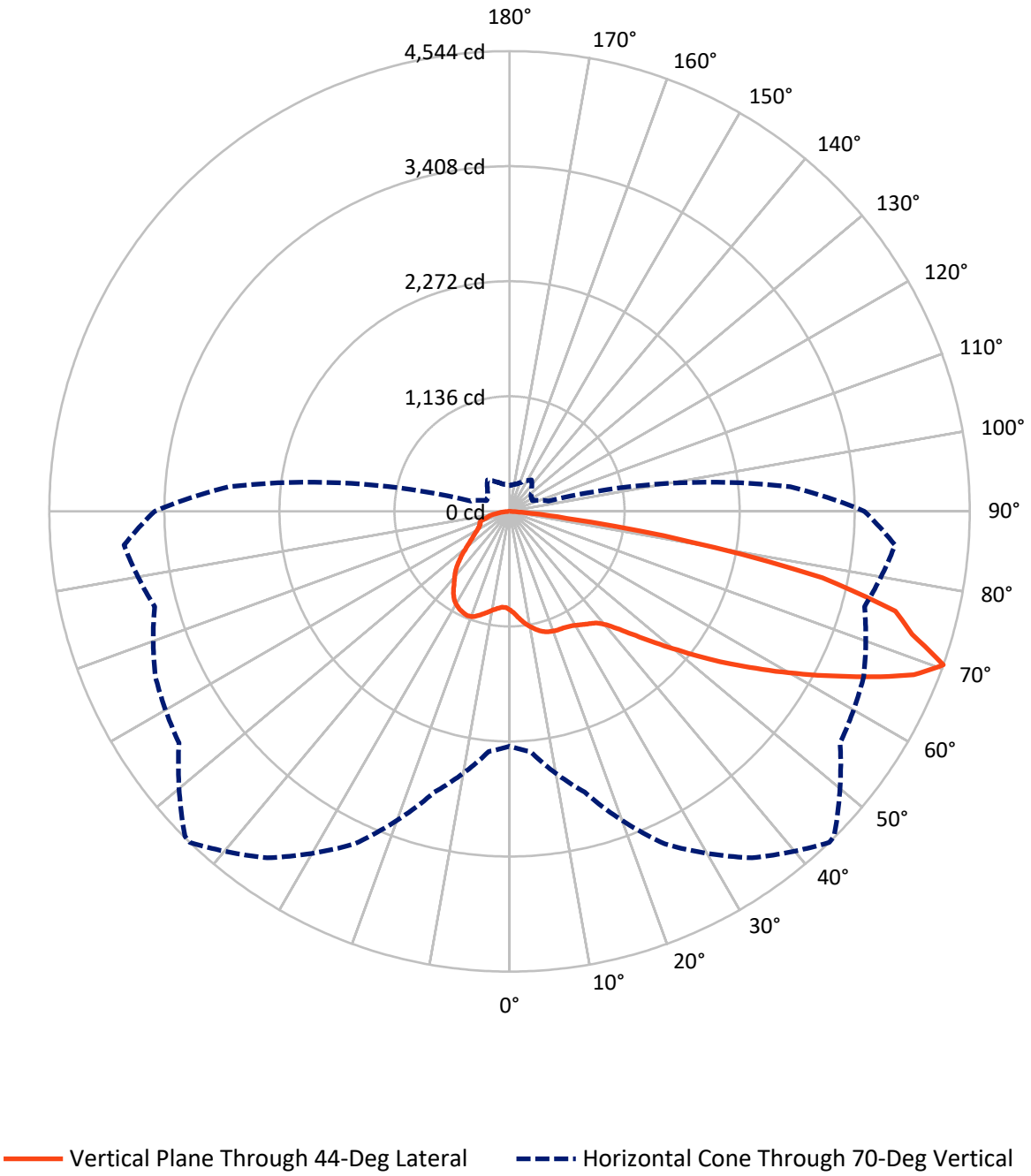

Based on 20 foot mounting height. Maximum calculated value = 3 fc
Type IV - Short - N/A

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REPORT NUMBER: P1367242
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## Luminous Intensity Polar Plot



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Scaled Data Report

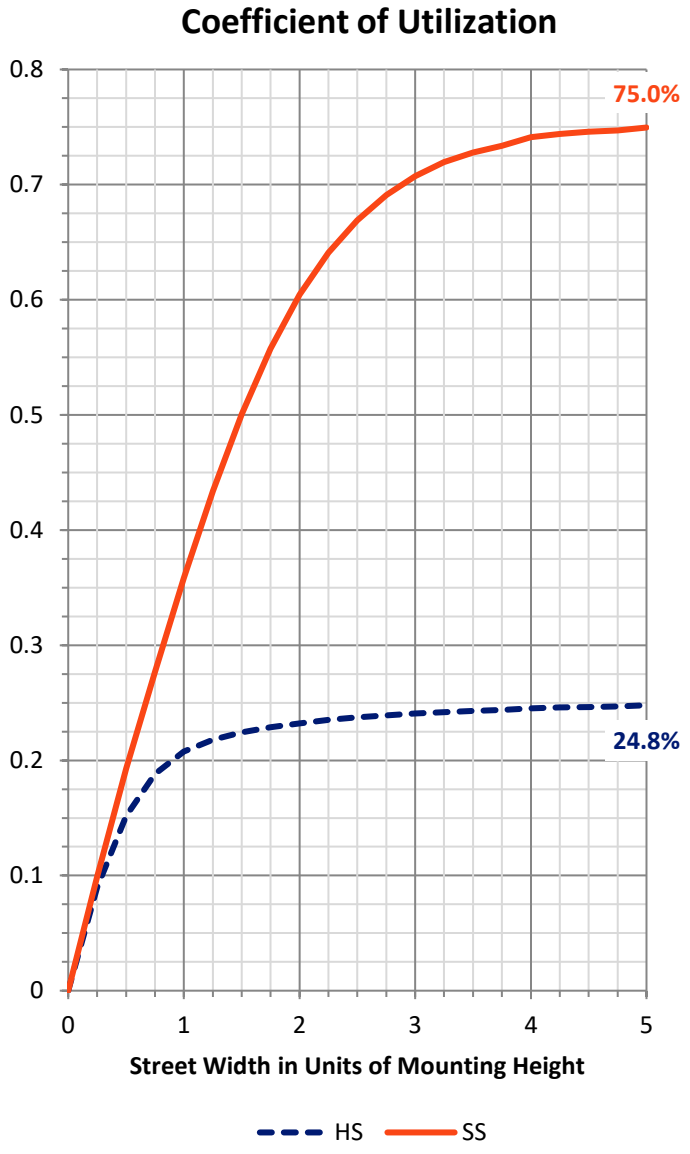
REPORT NUMBER: P1367242
CATALOG NUMBER: GSS-SB1D-727-U-T4W

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2068.1 | 0.0 | 2068.1 |
| | % Fixture | 25.1 | 0.0 | 25.1 |
| **Street Side** | Lumens | 6185.5 | 0.0 | 6185.5 |
| | % Fixture | 74.9 | 0.0 | 74.9 |
| **Total** | Lumens | 8253.6 | 0.0 | 8253.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 98.4 | 1.2 |
| 10°-20° | 323.1 | 3.9 |
| 20°-30° | 556.0 | 6.7 |
| 30°-40° | 783.8 | 9.5 |
| 40°-50° | 1084.6 | 13.1 |
| 50°-60° | 1610.7 | 19.5 |
| 60°-70° | 2152.7 | 26.1 |
| 70°-80° | 1518.5 | 18.4 |
| 80°-90° | 125.7 | 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° | 8253.6 | 100.0 |
| 0°-180° | 8253.6 | 100.0 |



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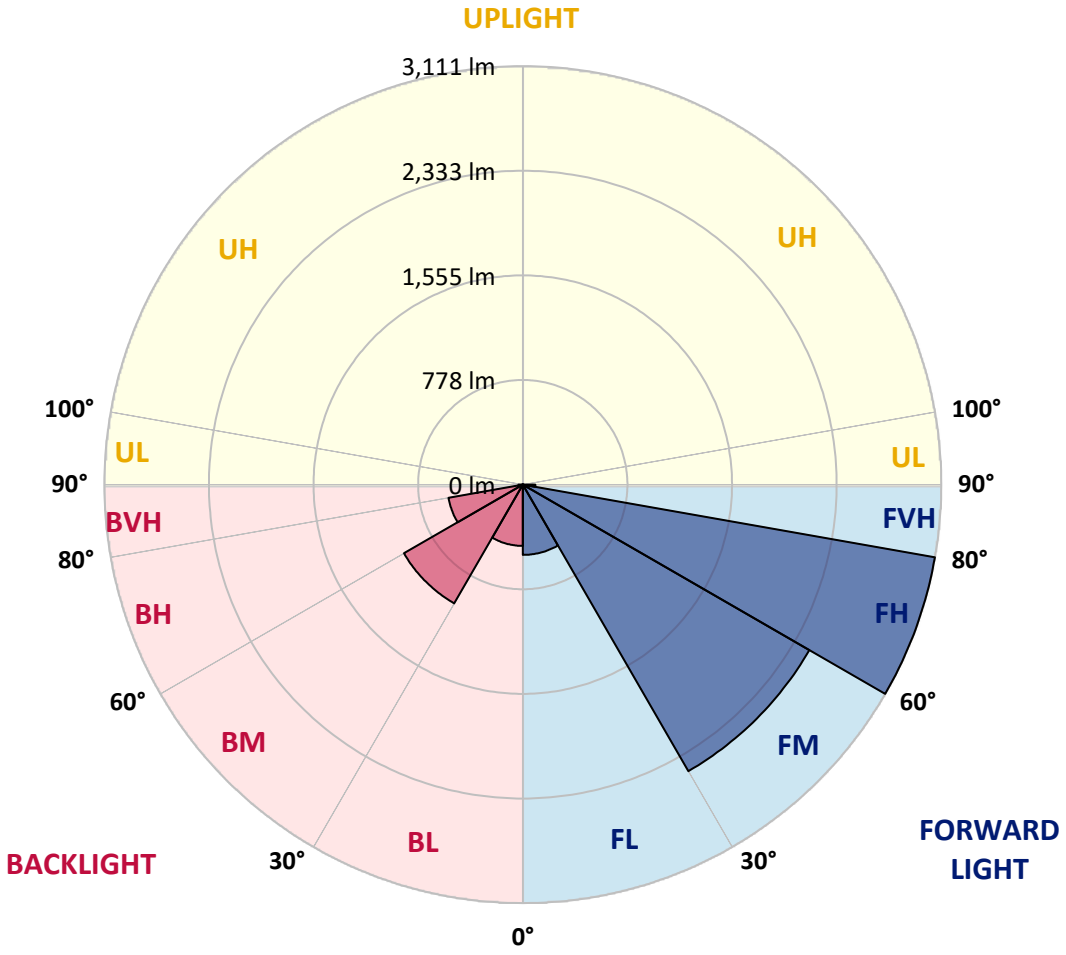
Scaled Data Report

REPORT NUMBER: P1367242
CATALOG NUMBER: GSS-SB1D-727-U-T4W

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 522.3 | 6.3 | | | |
| FM | (30°-60°) | 2459.4 | 29.8 | | | |
| FH | (60°-80°) | 3110.7 | 37.7 | | | G2/5000 |
| FVH | (80°-90°) | 93.1 | 1.1 | | | G1/100 |
| BL | (0°-30°) | 455.2 | 5.5 | B1/500 | | |
| BM | (30°-60°) | 1019.7 | 12.4 | B2/2500 | | |
| BH | (60°-80°) | 560.5 | 6.8 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 32.7 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G2**
Type IV Short



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Scaled Data Report

REPORT NUMBER: P1367242
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 | *975.3* | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 |
| 2.5° | 1047.4 | 1041.4 | 1035.4 | 1033.4 | 1025.4 | *1013.4* | 1013.4 | 1009.4 | 999.3 | 991.3 | 985.3 |
| 5° | 1115.5 | 1117.5 | 1107.5 | 1099.5 | 1087.5 | *1067.4* | 1069.4 | 1051.4 | 1031.4 | 1009.4 | 993.3 |
| 7.5° | 1181.6 | 1181.6 | 1169.6 | 1159.6 | 1143.5 | *1119.5* | 1119.5 | 1091.5 | 1067.4 | 1037.4 | 1015.4 |
| 10° | 1241.7 | 1237.7 | 1221.6 | 1209.6 | 1187.6 | *1161.6* | 1159.6 | 1131.5 | 1101.5 | 1067.4 | 1037.4 |
| 12.5° | 1287.7 | 1287.7 | 1271.7 | 1251.7 | 1227.7 | *1199.6* | 1197.6 | 1167.6 | 1137.5 | 1101.5 | 1065.4 |
| 15° | 1331.8 | 1321.8 | 1307.8 | 1281.7 | 1253.7 | *1231.7* | 1227.7 | 1201.6 | 1171.6 | 1139.5 | 1099.5 |
| 17.5° | 1347.8 | 1343.8 | 1325.8 | 1299.8 | 1273.7 | *1249.7* | 1249.7 | 1225.7 | 1203.6 | 1171.6 | 1131.5 |
| 20° | 1343.8 | 1337.8 | 1321.8 | 1299.8 | 1279.7 | *1259.7* | 1259.7 | 1241.7 | 1229.7 | 1199.6 | 1163.6 |
| 22.5° | 1323.8 | 1317.8 | 1307.8 | 1287.7 | 1277.7 | *1265.7* | 1265.7 | 1255.7 | 1251.7 | 1233.7 | 1199.6 |
| 25° | 1317.8 | 1313.8 | 1299.8 | 1281.7 | 1271.7 | *1269.7* | 1271.7 | 1273.7 | 1277.7 | 1263.7 | 1235.7 |
| 27.5° | 1321.8 | 1321.8 | 1309.8 | 1291.7 | 1279.7 | *1281.7* | 1283.7 | 1295.7 | 1307.8 | 1299.8 | 1275.7 |
| 30° | 1347.8 | 1341.8 | 1333.8 | 1315.8 | 1301.8 | *1303.8* | 1303.8 | 1327.8 | 1339.8 | 1329.8 | 1311.8 |
| 32.5° | 1391.9 | 1385.9 | 1373.9 | 1335.8 | 1321.8 | *1331.8* | 1335.8 | 1355.8 | 1363.8 | 1353.8 | 1345.8 |
| 35° | 1494.0 | 1500.0 | 1460.0 | 1391.9 | 1353.8 | *1361.8* | 1365.8 | 1379.9 | 1389.9 | 1385.9 | 1377.9 |
| 37.5° | 1680.3 | 1682.3 | 1632.2 | 1510.0 | 1421.9 | *1397.9* | 1399.9 | 1419.9 | 1431.9 | 1417.9 | 1411.9 |
| 40° | 1912.6 | 1914.6 | 1844.5 | 1678.3 | 1530.1 | *1470.0* | 1468.0 | 1472.0 | 1490.0 | 1466.0 | 1462.0 |
| 42.5° | 2164.9 | 2136.9 | 2076.8 | 1886.5 | 1690.3 | *1590.1* | 1572.1 | 1560.1 | 1582.1 | 1552.1 | 1532.1 |
| 45° | 2405.2 | 2385.2 | 2303.1 | 2106.8 | 1882.5 | *1748.4* | 1730.3 | 1670.3 | 1706.3 | 1682.3 | 1646.2 |
| 47.5° | 2605.5 | 2589.5 | 2527.4 | 2345.2 | 2100.8 | *1938.6* | 1910.6 | 1816.4 | 1880.5 | 1868.5 | 1824.5 |
| 50° | 2753.7 | 2737.7 | 2695.6 | 2583.5 | 2377.2 | *2150.9* | 2124.9 | 2010.7 | 2076.8 | 2098.8 | 2064.8 |
| 52.5° | 2861.9 | 2857.9 | 2841.8 | 2823.8 | 2657.6 | *2397.2* | 2367.2 | 2225.0 | 2333.1 | 2375.2 | 2365.2 |
| 55° | 3026.1 | 3018.1 | 3024.1 | 3054.1 | 2958.0 | *2659.6* | 2615.5 | 2449.3 | 2597.5 | 2675.6 | 2691.6 |
| 57.5° | 3182.3 | 3182.3 | 3234.4 | 3312.5 | 3300.4 | *2942.0* | 2889.9 | 2711.7 | 2917.9 | 2956.0 | 3032.1 |
| 60° | 3328.5 | 3342.5 | 3414.6 | 3586.8 | 3620.9 | *3248.4* | 3186.3 | 3014.1 | 3222.3 | 3264.4 | 3402.6 |
| 62.5° | 3266.4 | 3300.4 | 3530.8 | 3809.1 | 3921.3 | *3576.8* | 3514.7 | 3346.5 | 3564.8 | 3514.7 | 3638.9 |
| 65° | 2950.0 | 3002.0 | 3358.5 | 3823.2 | 4213.7 | *3937.3* | 3885.2 | 3721.0 | 3753.1 | 3552.8 | 3771.1 |
| 67.5° | 2617.5 | 2693.6 | 3108.2 | 3652.9 | 4289.8 | *4305.8* | 4259.7 | 3951.3 | 3751.1 | 3592.8 | 3905.3 |
| 70° | *2319.1* | *2381.2* | *2869.9* | *3622.9* | *4175.6* | *4544.1* | *4534.1* | *3985.4* | *3859.2* | *3628.9* | *3821.1* |
| 72.5° | 1626.2 | 1712.3 | 2213.0 | 3344.5 | 4209.7 | *4155.6* | 4133.6 | 4223.7 | 3939.3 | 3496.7 | 3386.6 |
| 75° | 584.8 | 618.8 | 1147.5 | 2263.0 | 3346.5 | *3935.3* | 3953.3 | 3913.3 | 3861.2 | 3132.2 | 2545.4 |
| 77.5° | 174.2 | 186.3 | 326.4 | 897.2 | 1876.5 | *3158.3* | 3188.3 | 3082.2 | 2901.9 | 1888.5 | 963.3 |
| 80° | 94.1 | 102.1 | 154.2 | 262.4 | 702.9 | *1782.4* | 1864.5 | 1578.1 | 1045.4 | 498.7 | 216.3 |
| 82.5° | 46.1 | 50.1 | 80.1 | 128.2 | 302.4 | *566.8* | 568.8 | 504.7 | 340.5 | 150.2 | 80.1 |
| 85° | 16.0 | 18.0 | 26.0 | 48.1 | 104.1 | *116.2* | 116.2 | 108.1 | 100.1 | 74.1 | 36.0 |
| 87.5° | 4.0 | 4.0 | 6.0 | 8.0 | 10.0 | *12.0* | 12.0 | 14.0 | 16.0 | 18.0 | 18.0 |
| 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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Scaled Data Report

REPORT NUMBER: P1367242
CATALOG NUMBER: GSS-SB1D-727-U-T4W

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 | 975.3 |
| 2.5° | 981.3 | 973.3 | 967.3 | 961.3 | 957.3 | 949.3 | 947.3 | 947.3 | 945.3 | 947.3 | 945.3 |
| 5° | 987.3 | 975.3 | 965.3 | 957.3 | 953.3 | 949.3 | 949.3 | 951.3 | 949.3 | 951.3 | 949.3 |
| 7.5° | 999.3 | 991.3 | 981.3 | 969.3 | 967.3 | 965.3 | 967.3 | 971.3 | 973.3 | 975.3 | 971.3 |
| 10° | 1023.4 | 1011.4 | 997.3 | 991.3 | 987.3 | 985.3 | 991.3 | 999.3 | 1001.3 | 1005.4 | 1001.3 |
| 12.5° | 1051.4 | 1037.4 | 1027.4 | 1013.4 | 1013.4 | 1015.4 | 1021.4 | 1031.4 | 1037.4 | 1043.4 | 1037.4 |
| 15° | 1083.5 | 1069.4 | 1055.4 | 1043.4 | 1041.4 | 1045.4 | 1055.4 | 1065.4 | 1067.4 | 1069.4 | 1065.4 |
| 17.5° | 1115.5 | 1101.5 | 1083.5 | 1069.4 | 1067.4 | 1077.5 | 1081.5 | 1081.5 | 1077.5 | 1077.5 | 1071.4 |
| 20° | 1147.5 | 1137.5 | 1119.5 | 1093.5 | 1101.5 | 1105.5 | 1093.5 | 1083.5 | 1077.5 | 1075.4 | 1069.4 |
| 22.5° | 1185.6 | 1169.6 | 1149.5 | 1121.5 | 1127.5 | 1111.5 | 1089.5 | 1085.5 | 1079.5 | 1081.5 | 1075.4 |
| 25° | 1221.6 | 1211.6 | 1179.6 | 1143.5 | 1127.5 | 1101.5 | 1087.5 | 1087.5 | 1081.5 | 1085.5 | 1083.5 |
| 27.5° | 1263.7 | 1251.7 | 1207.6 | 1155.6 | 1113.5 | 1085.5 | 1083.5 | 1083.5 | 1073.4 | 1075.4 | 1073.4 |
| 30° | 1305.8 | 1287.7 | 1229.7 | 1145.5 | 1079.5 | 1061.4 | 1067.4 | 1065.4 | 1061.4 | 1067.4 | 1071.4 |
| 32.5° | 1341.8 | 1327.8 | 1241.7 | 1121.5 | 1037.4 | 1029.4 | 1033.4 | 1043.4 | 1053.4 | 1059.4 | 1067.4 |
| 35° | 1379.9 | 1363.8 | 1251.7 | 1079.5 | 991.3 | 979.3 | 977.3 | 1007.4 | 1025.4 | 1035.4 | 1041.4 |
| 37.5° | 1419.9 | 1399.9 | 1257.7 | 1033.4 | 947.3 | 911.2 | 917.2 | 941.3 | 961.3 | 979.3 | 993.3 |
| 40° | 1474.0 | 1454.0 | 1265.7 | 983.3 | 901.2 | 853.1 | 845.1 | 851.1 | 865.2 | 891.2 | 905.2 |
| 42.5° | 1554.1 | 1522.1 | 1265.7 | 919.2 | 835.1 | 801.1 | 773.0 | 751.0 | 743.0 | 759.0 | 767.0 |
| 45° | 1664.2 | 1616.2 | 1257.7 | 853.1 | 759.0 | 735.0 | 688.9 | 652.9 | 620.8 | 604.8 | 600.8 |
| 47.5° | 1846.5 | 1762.4 | 1249.7 | 789.1 | 686.9 | 656.9 | 600.8 | 558.8 | 512.7 | 470.6 | 460.6 |
| 50° | 2090.8 | 1956.6 | 1251.7 | 725.0 | 614.8 | 574.8 | 524.7 | 480.6 | 426.6 | 386.5 | 380.5 |
| 52.5° | 2413.3 | 2229.0 | 1263.7 | 654.9 | 544.7 | 508.7 | 466.6 | 422.6 | 368.5 | 338.5 | 336.5 |
| 55° | 2787.8 | 2557.4 | 1305.8 | 576.8 | 480.6 | 452.6 | 422.6 | 380.5 | 334.5 | 308.4 | 304.4 |
| 57.5° | 3224.3 | 2938.0 | 1389.9 | 494.7 | 422.6 | 412.6 | 388.5 | 348.5 | 310.4 | 284.4 | 280.4 |
| 60° | 3654.9 | 3306.5 | 1454.0 | 422.6 | 376.5 | 376.5 | 354.5 | 324.4 | 272.4 | 250.3 | 246.3 |
| 62.5° | 3855.2 | 3420.6 | 1331.8 | 364.5 | 340.5 | 346.5 | 332.4 | 290.4 | 274.4 | 264.4 | 258.3 |
| 65° | 3903.3 | 3356.5 | 1001.3 | 320.4 | 310.4 | 330.4 | 308.4 | 310.4 | 296.4 | 286.4 | 280.4 |
| 67.5° | 3845.2 | 3174.3 | 640.9 | 282.4 | 288.4 | 310.4 | 340.5 | 342.5 | 296.4 | 274.4 | 270.4 |
| 70° | *3504.7* | *2783.8* | *394.5* | *250.3* | *258.3* | *306.4* | *378.5* | *322.4* | *280.4* | *262.4* | *254.3* |
| 72.5° | 2923.9 | 2297.1 | 276.4 | 220.3 | 220.3 | 290.4 | 340.5 | 302.4 | 258.3 | 248.3 | 238.3 |
| 75° | 2052.8 | 1554.1 | 202.3 | 184.2 | 184.2 | 226.3 | 314.4 | 276.4 | 242.3 | 246.3 | 242.3 |
| 77.5° | 698.9 | 504.7 | 146.2 | 142.2 | 136.2 | 194.3 | 280.4 | 264.4 | 224.3 | 212.3 | 196.3 |
| 80° | 206.3 | 162.2 | 108.1 | 100.1 | 98.1 | 156.2 | 236.3 | 194.3 | 160.2 | 146.2 | 136.2 |
| 82.5° | 80.1 | 72.1 | 70.1 | 64.1 | 62.1 | 104.1 | 156.2 | 134.2 | 120.2 | 100.1 | 98.1 |
| 85° | 32.0 | 32.0 | 36.0 | 36.0 | 32.0 | 56.1 | 94.1 | 74.1 | 70.1 | 62.1 | 60.1 |
| 87.5° | 16.0 | 16.0 | 14.0 | 10.0 | 10.0 | 12.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| 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-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-3

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-727-U-5WQ

Data in this report applies to families of products including GSS-SB1A-727-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

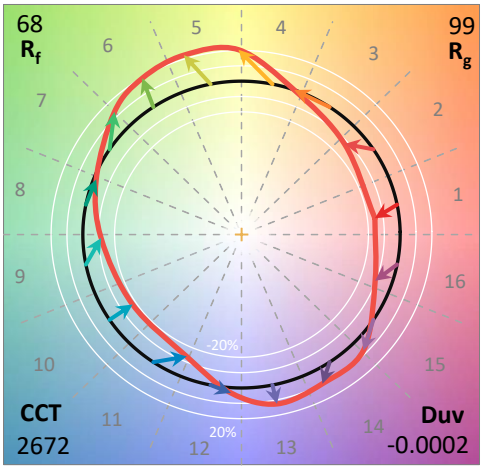
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-3 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/15/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GSS-SB1A-727-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 2700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2672 |
| CIE u': | 0.2638 |
| CIE v': | 0.5276 |
| Duv: | -0.0002 |
| CIE x: | 0.4619 |
| CIE y: | 0.4106 |
| CIE z: | 0.1275 |
| Peak Wavelength (nm): | 601 |
| Dominant Wavelength (nm): | 584 |
| Purity: | 61.88407 |
| Rf: | 67.9 |
| Rg: | 98.6 |

| | |
|---|---|
| CRI (Ra): | 71.1 |
| R1: | 68.3 |
| R2: | 79.8 |
| R3: | 91.2 |
| R4: | 69.4 |
| R5: | 66.5 |
| R6: | 72.6 |
| R7: | 77.0 |
| R8: | 44.1 |
| R9: | -27.8 |
| R10: | 54.4 |
| R11: | 65.8 |
| R12: | 45.6 |
| R13: | 69.8 |
| R14: | 94.5 |
| R15: | 60.1 |




## Test Conditions

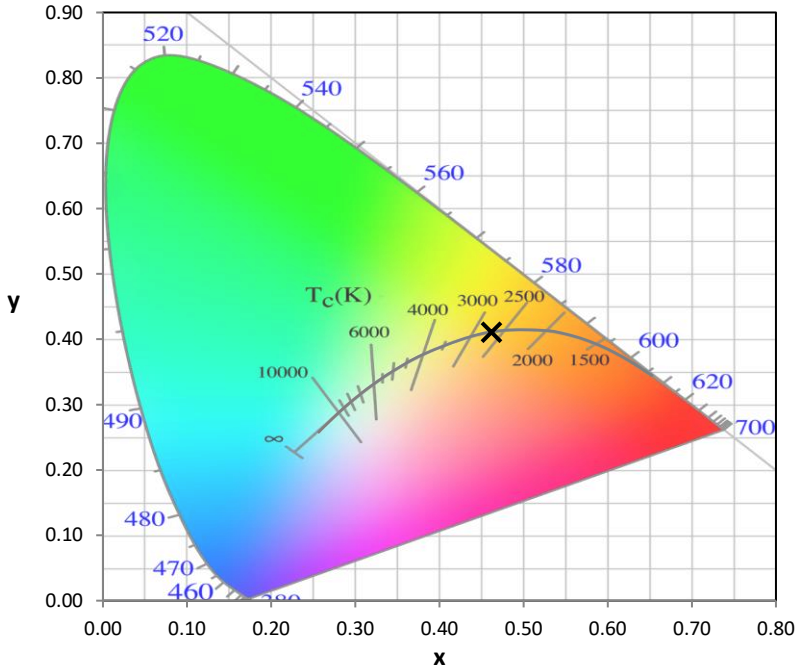
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-3

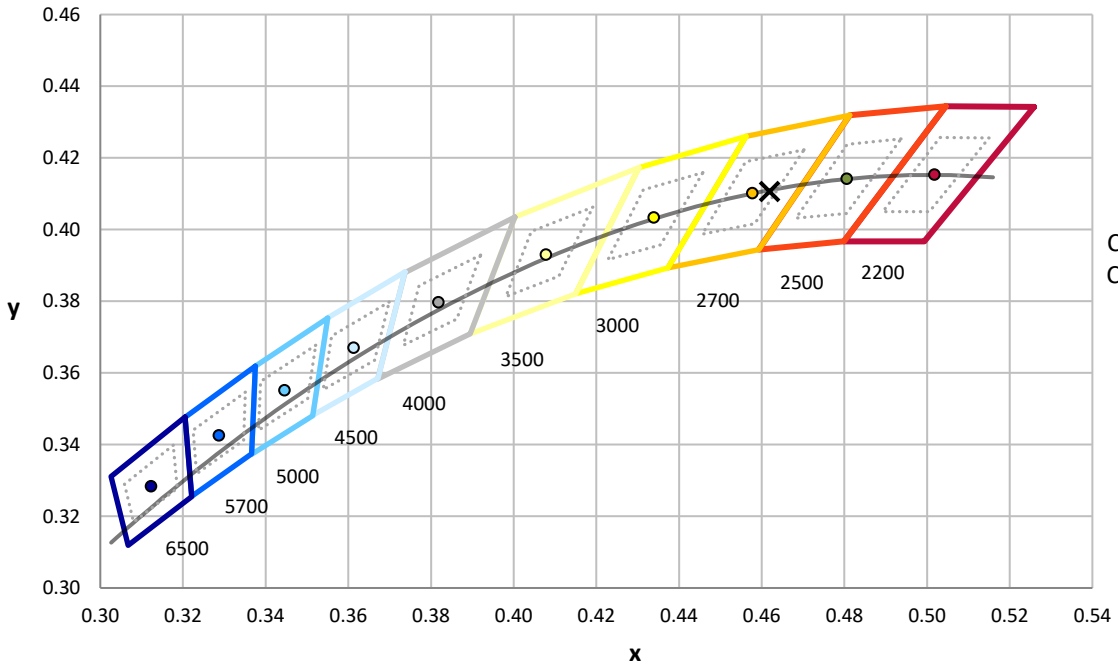
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

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## CIE 1931 Chromaticity Diagram




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

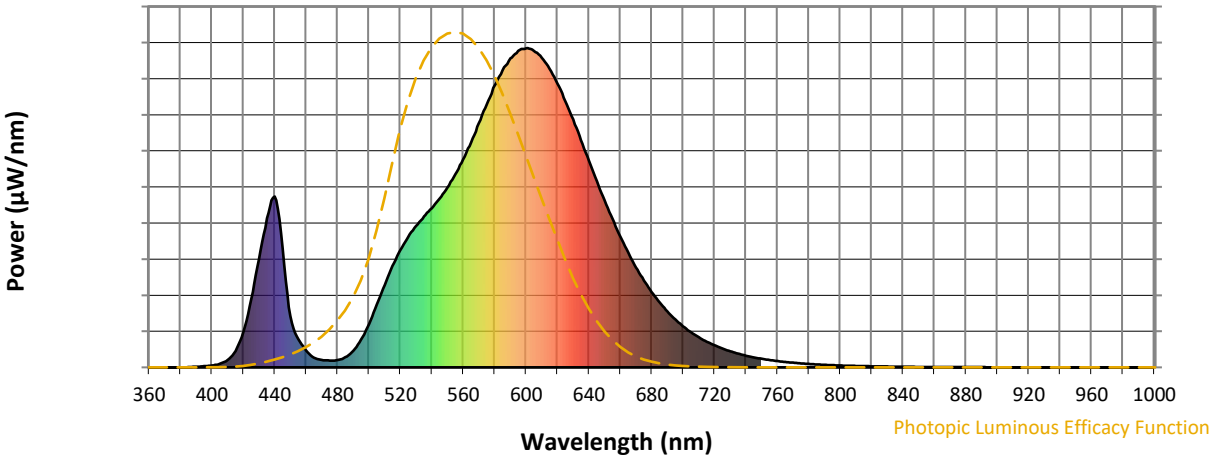



CCT = 2672K
CIE x = 0.4619
CIE y = 0.4106
Duv = -0.0002

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength

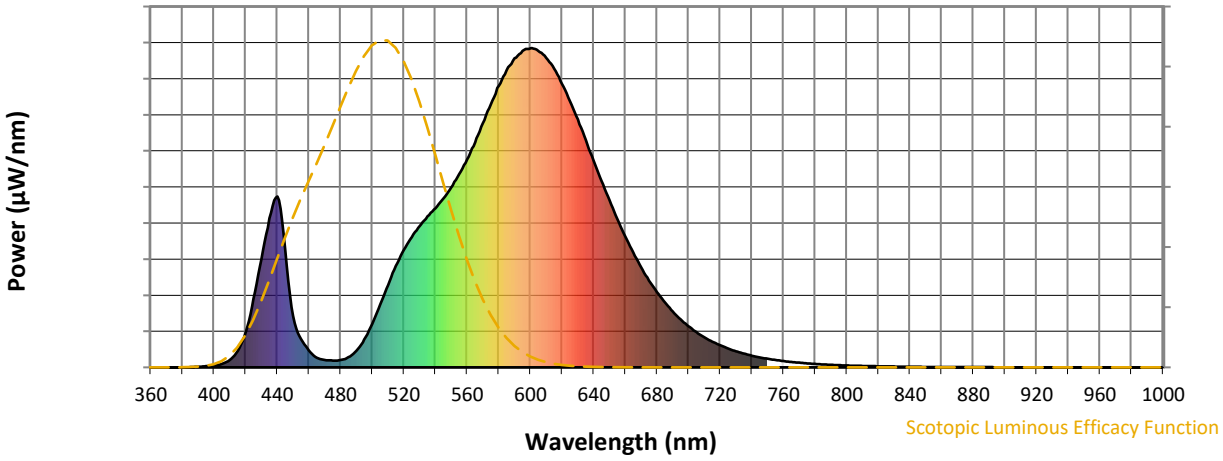



## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

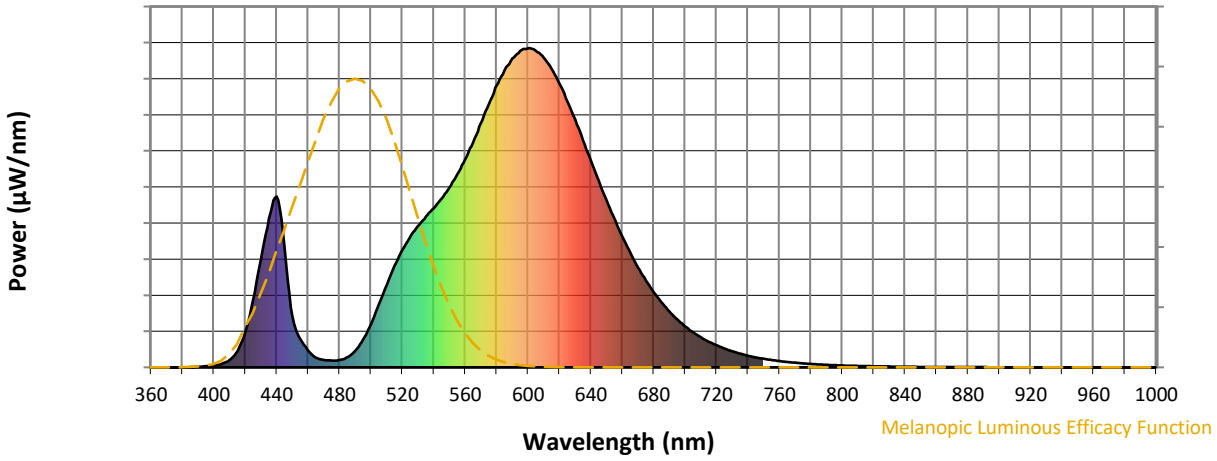



**Scotopic Lumens: NR** **S/P: 1.02**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 1.71**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

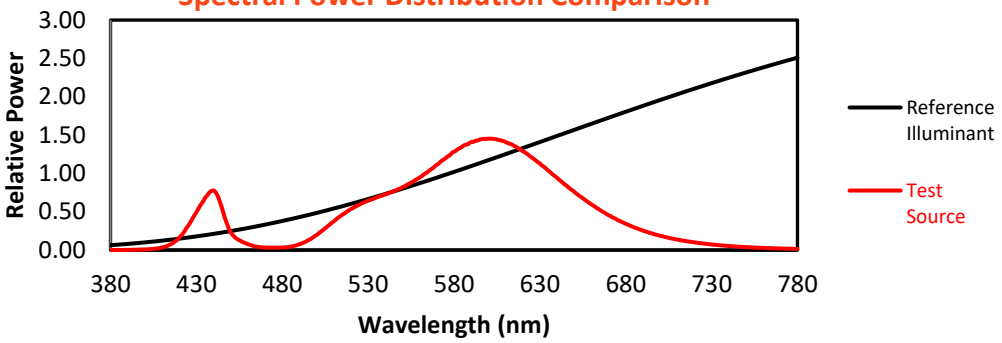
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# TM-30-18

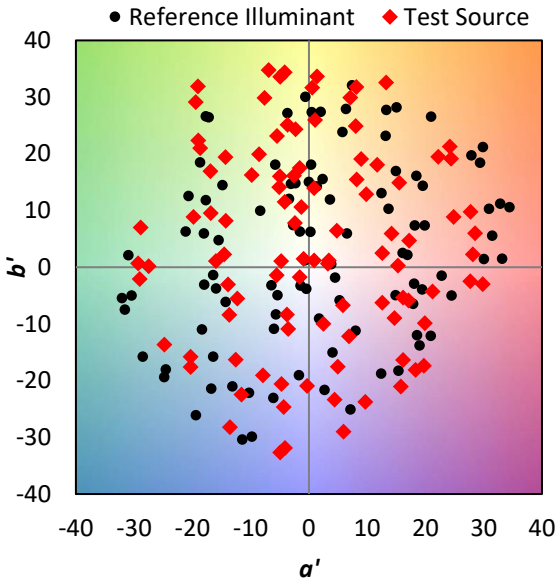
## Summary

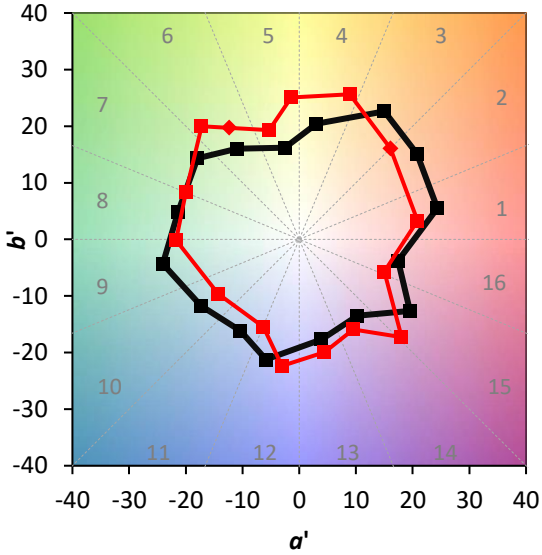
$R_f$ = 67.9
$R_g$ = 98.6
CIE $R_a$ = 71.1
$R_9$ = -27.8

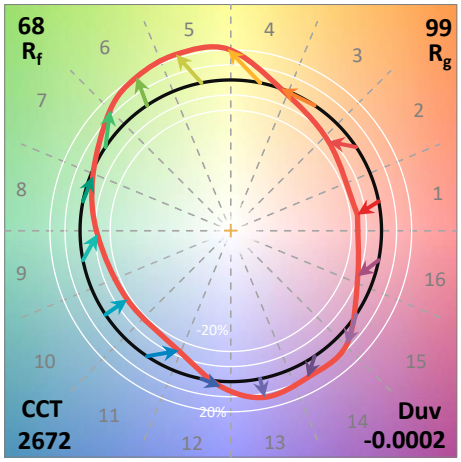
## Spectral Power Distribution Comparison

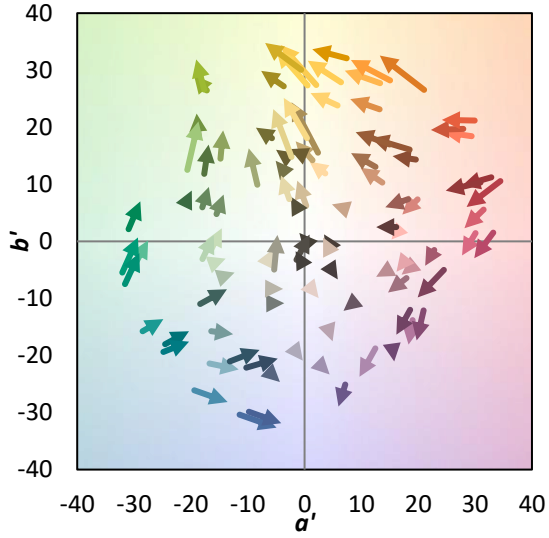



## Color Vector Graphics



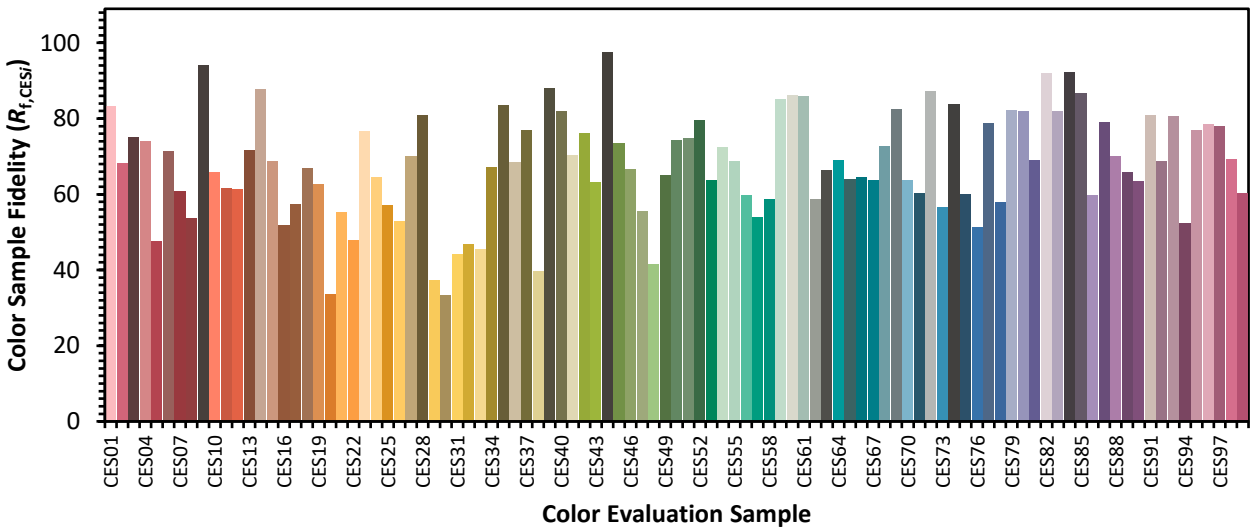



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**Individual Sample Fidelity Index ($R_{f,i}$)**

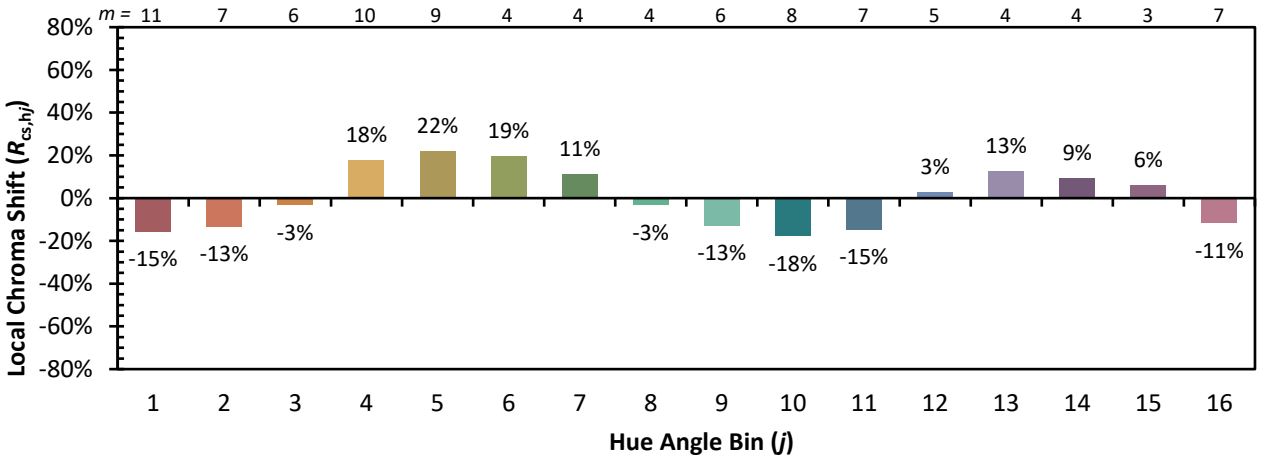
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 53 | CES51 = 75 | CES76 = 51 |
| CES02 = 63 | CES27 = 70 | CES52 = 80 | CES77 = 79 |
| CES03 = 31 | CES28 = 81 | CES53 = 64 | CES78 = 58 |
| CES04 = 71 | CES29 = 37 | CES54 = 73 | CES79 = 82 |
| CES05 = 50 | CES30 = 33 | CES55 = 69 | CES80 = 82 |
| CES06 = 52 | CES31 = 44 | CES56 = 60 | CES81 = 69 |
| CES07 = 42 | CES32 = 47 | CES57 = 54 | CES82 = 92 |
| CES08 = 41 | CES33 = 45 | CES58 = 59 | CES83 = 82 |
| CES09 = 29 | CES34 = 67 | CES59 = 85 | CES84 = 92 |
| CES10 = 77 | CES35 = 84 | CES60 = 86 | CES85 = 87 |
| CES11 = 60 | CES36 = 68 | CES61 = 86 | CES86 = 60 |
| CES12 = 66 | CES37 = 77 | CES62 = 59 | CES87 = 79 |
| CES13 = 44 | CES38 = 40 | CES63 = 66 | CES88 = 70 |
| CES14 = 74 | CES39 = 88 | CES64 = 69 | CES89 = 66 |
| CES15 = 72 | CES40 = 82 | CES65 = 64 | CES90 = 64 |
| CES16 = 48 | CES41 = 70 | CES66 = 65 | CES91 = 81 |
| CES17 = 51 | CES42 = 76 | CES67 = 64 | CES92 = 69 |
| CES18 = 57 | CES43 = 63 | CES68 = 73 | CES93 = 81 |
| CES19 = 73 | CES44 = 97 | CES69 = 83 | CES94 = 53 |
| CES20 = 67 | CES45 = 74 | CES70 = 64 | CES95 = 77 |
| CES21 = 88 | CES46 = 67 | CES71 = 60 | CES96 = 79 |
| CES22 = 80 | CES47 = 55 | CES72 = 87 | CES97 = 78 |
| CES23 = 92 | CES48 = 42 | CES73 = 57 | CES98 = 69 |
| CES24 = 92 | CES49 = 65 | CES74 = 84 | CES99 = 60 |
| CES25 = 73 | CES50 = 74 | CES75 = 60 | |

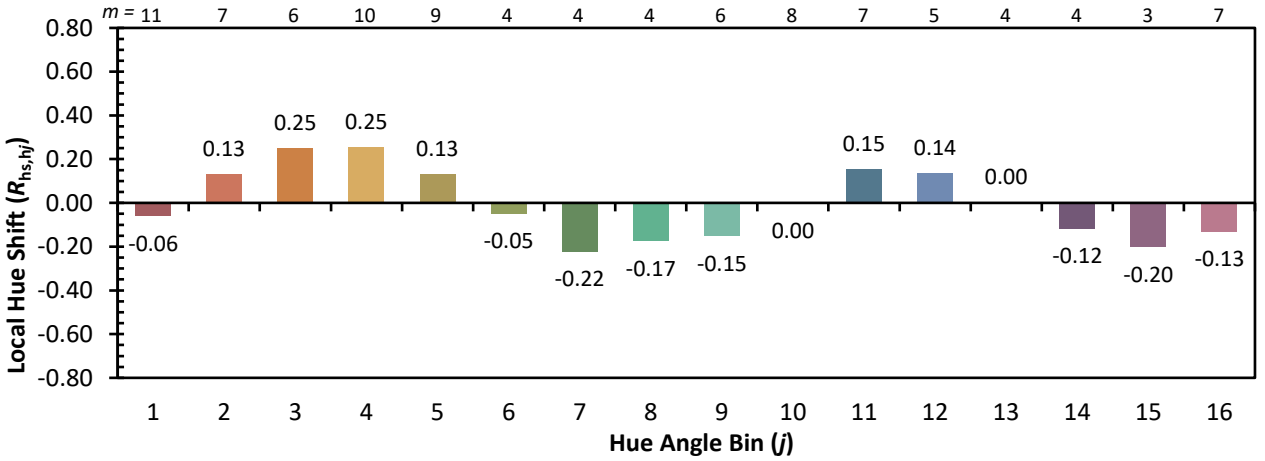


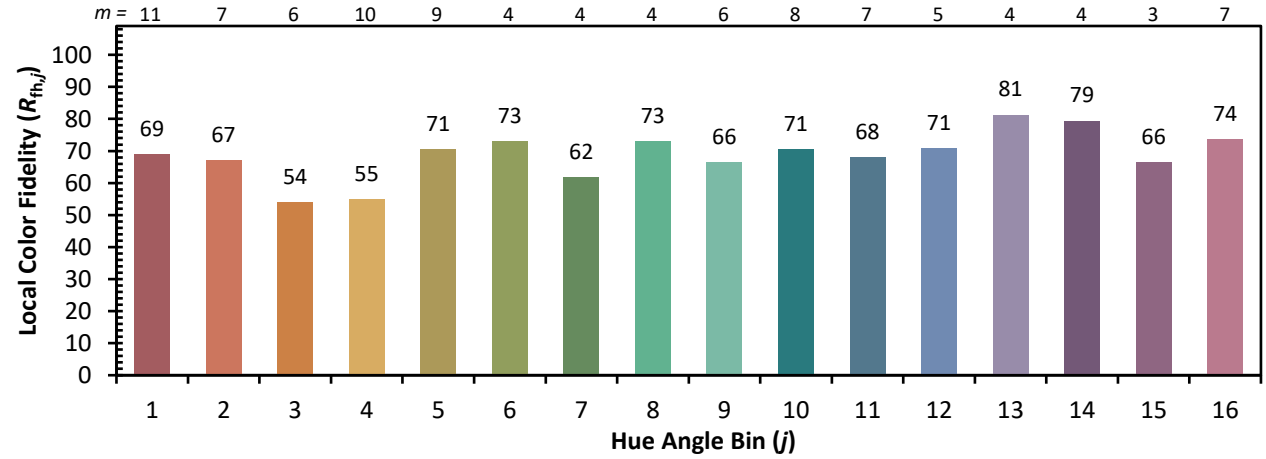
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## Color Rendition by Hue-Angle Bin



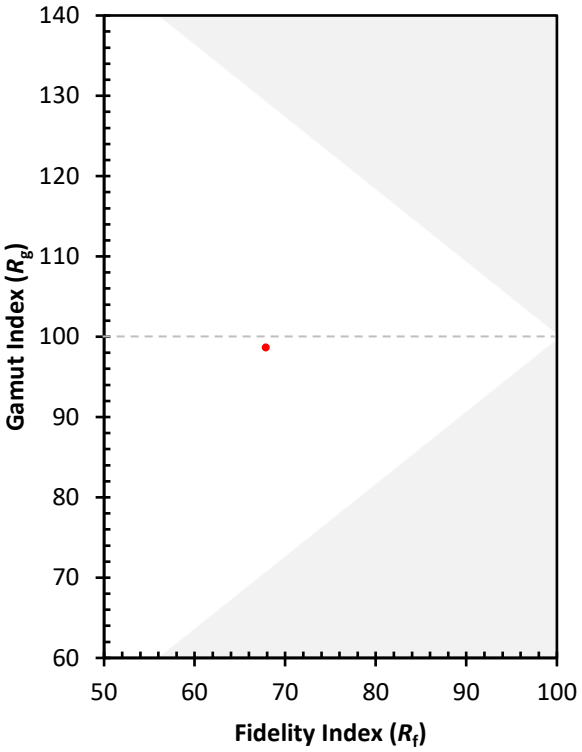



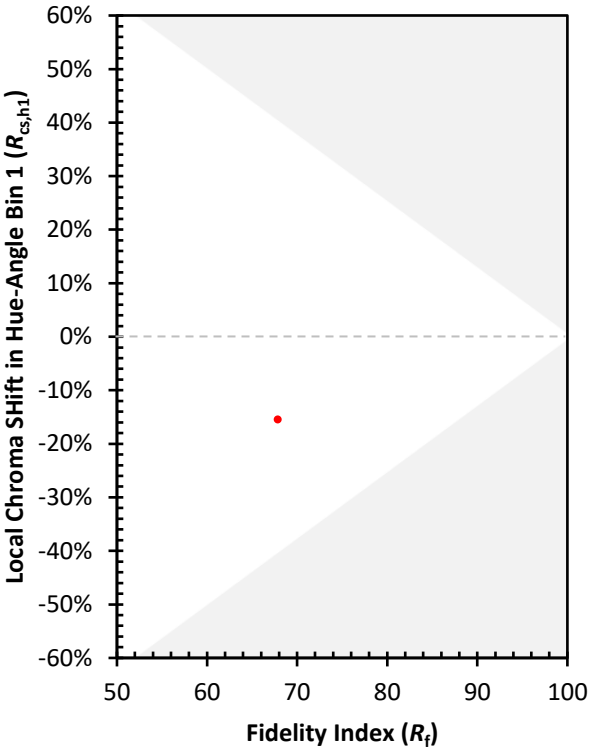



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## Measure Comparisons




(END OF REPORT)