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: P1363016

Luminaire Tested: **GSS-SB1B-727-U-SL2-HSS**

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: | P1363016 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB1B-727-U-SL2-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 1SQUARE 40W 70CRI 2700K FIXTURE w/ TYPE II SPILL CONTROL DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (26) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 3943.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 98.6 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 |

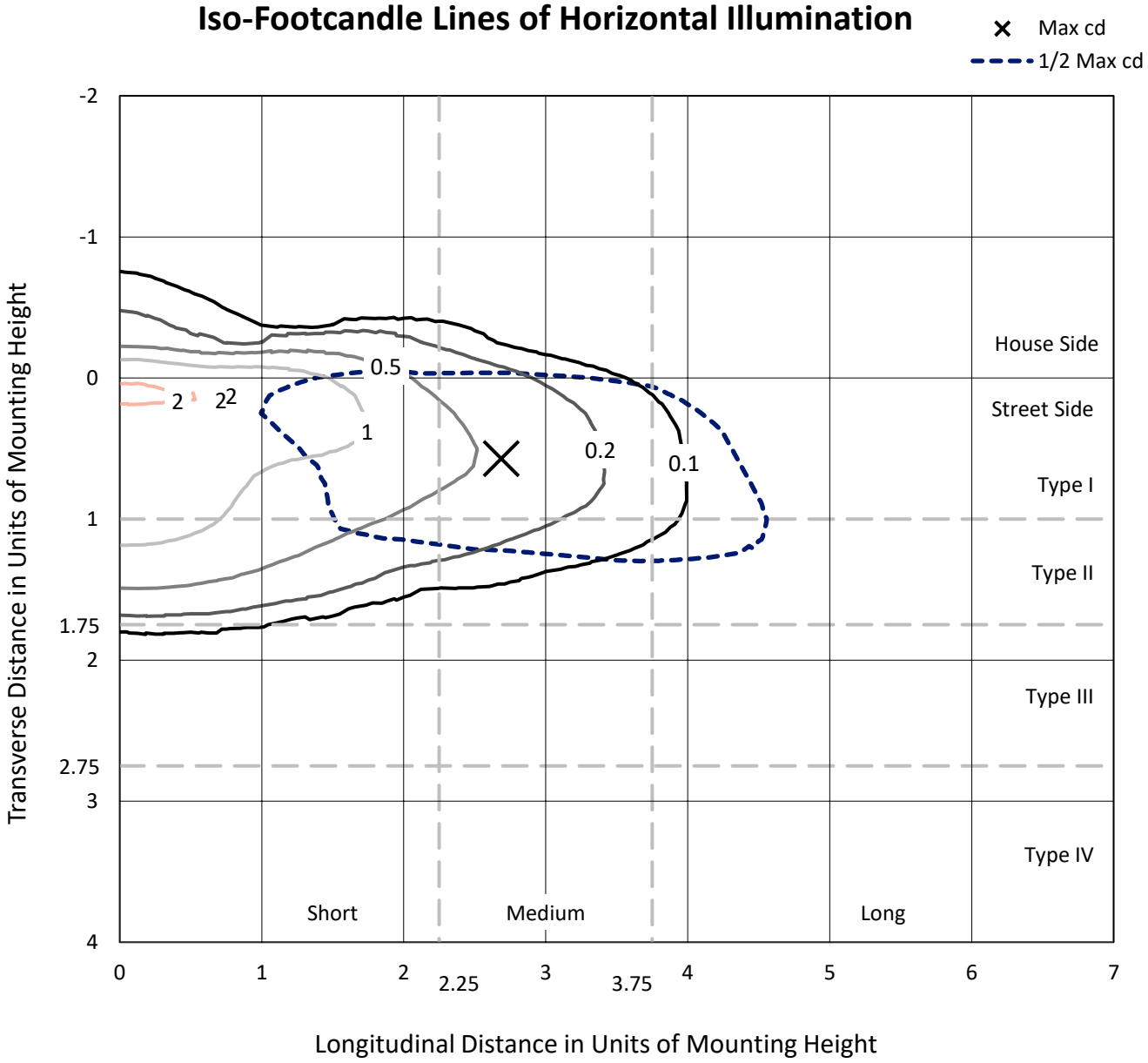
| | |
|---|---|
| Input Watts (W): | 40 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 5.3% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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

Scaled Data Report

REPORT NUMBER: P1363016
CATALOG NUMBER: GSS-SB1B-727-U-SL2-HSS

## Iso-Footcandle Lines of Horizontal Illumination



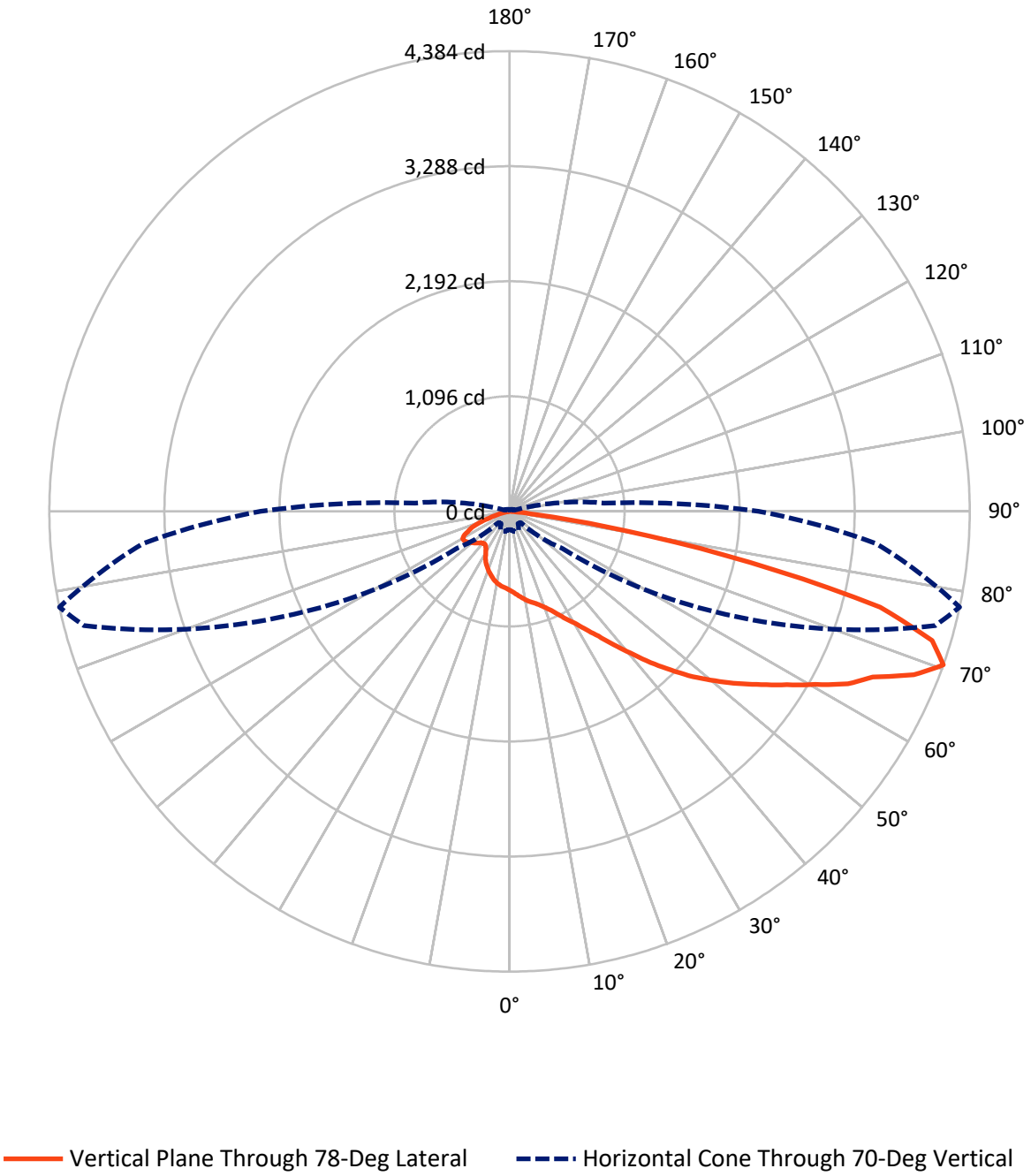

Based on 20 foot mounting height. Maximum calculated value = 2.3 fc
Type II - Medium - N/A

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

Scaled Data Report

REPORT NUMBER: P1363016
CATALOG NUMBER: GSS-SB1B-727-U-SL2-HSS

## Luminous Intensity Polar Plot



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

Scaled Data Report

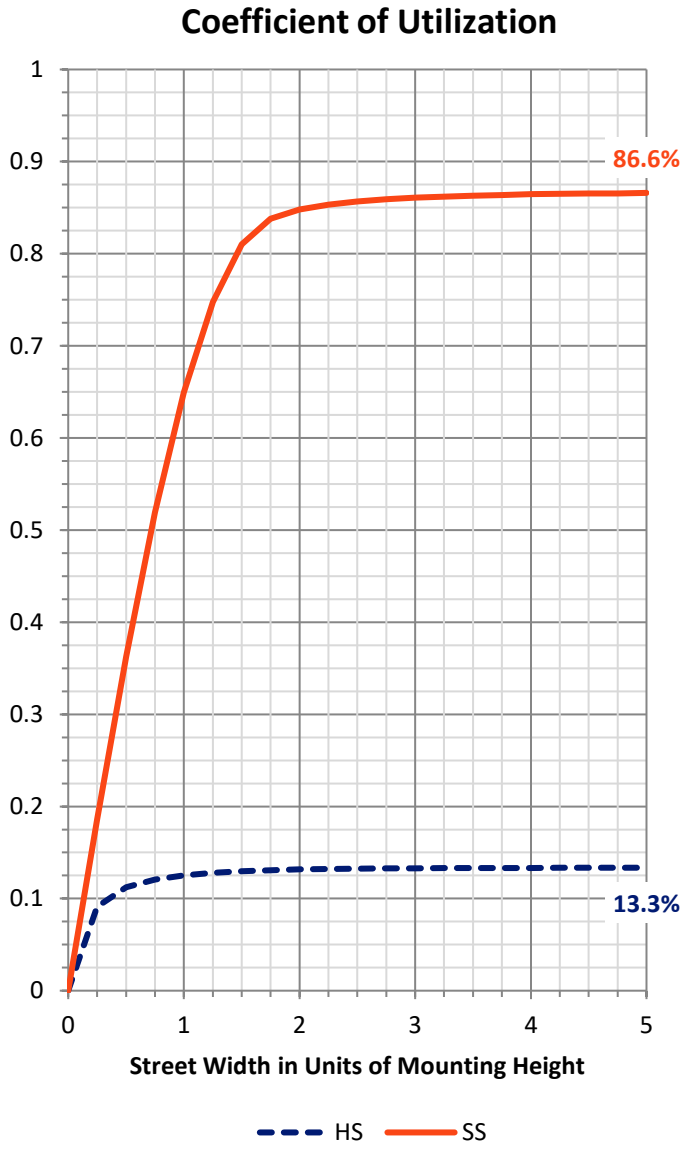
REPORT NUMBER: P1363016
CATALOG NUMBER: GSS-SB1B-727-U-SL2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 530.5 | 0.0 | 530.5 |
| | % Fixture | 13.5 | 0.0 | 13.5 |
| **Street Side** | Lumens | 3413.4 | 0.0 | 3413.4 |
| | % Fixture | 86.5 | 0.0 | 86.5 |
| **Total** | Lumens | 3943.9 | 0.0 | 3943.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 68.8 | 1.7 |
| 10°-20° | 170.3 | 4.3 |
| 20°-30° | 282.5 | 7.2 |
| 30°-40° | 450.3 | 11.4 |
| 40°-50° | 687.3 | 17.4 |
| 50°-60° | 915.1 | 23.2 |
| 60°-70° | 854.2 | 21.7 |
| 70°-80° | 483.1 | 12.2 |
| 80°-90° | 32.4 | 0.8 |
| 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° | 3943.9 | 100.0 |
| 0°-180° | 3943.9 | 100.0 |



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

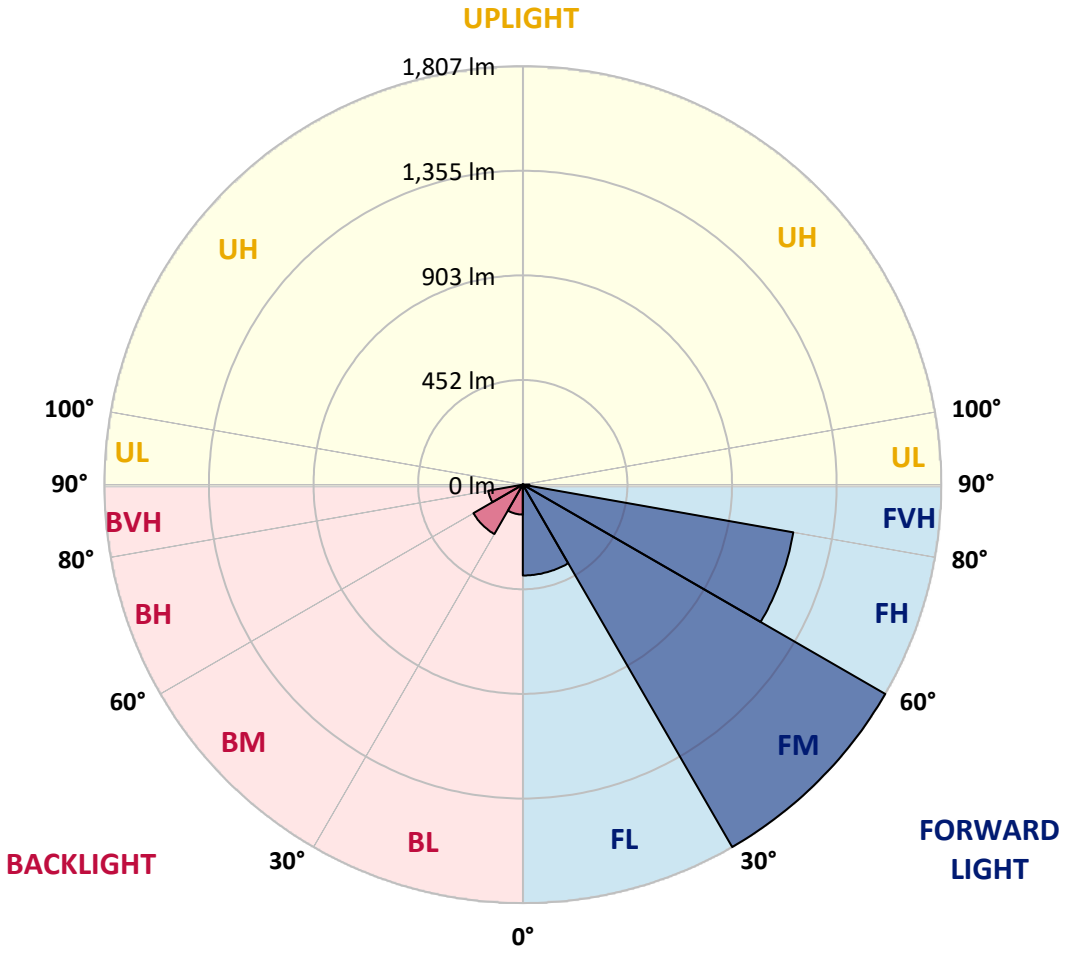
Scaled Data Report

REPORT NUMBER: P1363016
CATALOG NUMBER: GSS-SB1B-727-U-SL2-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 392.2 | 9.9 | | | |
| FM | (30°-60°) | 1806.6 | 45.8 | | | |
| FH | (60°-80°) | 1185.9 | 30.1 | | | G1/1800 |
| FVH | (80°-90°) | 28.8 | 0.7 | | | G1/100 |
| BL | (0°-30°) | 129.4 | 3.3 | B1/500 | | |
| BM | (30°-60°) | 246.0 | 6.2 | B1/1000 | | |
| BH | (60°-80°) | 151.4 | 3.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 3.6 | 0.1 | | | 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



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

Scaled Data Report

REPORT NUMBER: P1363016
CATALOG NUMBER: GSS-SB1B-727-U-SL2-HSS

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 78° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | *753.5* | 753.5 |
| 2.5° | 848.6 | 836.4 | 836.4 | 830.9 | 825.4 | 815.4 | 803.3 | 790.0 | 778.9 | *773.4* | 764.6 |
| 5° | 909.3 | 906.0 | 904.9 | 896.1 | 887.2 | 872.9 | 857.4 | 832.0 | 808.8 | *801.0* | 781.2 |
| 7.5° | 907.1 | 904.9 | 909.3 | 920.4 | 928.1 | 922.6 | 909.3 | 878.4 | 841.9 | *828.7* | 798.8 |
| 10° | 838.6 | 832.0 | 847.5 | 871.8 | 907.1 | 943.6 | 949.1 | 919.3 | 872.9 | *857.4* | 815.4 |
| 12.5° | 776.7 | 776.7 | 784.5 | 806.6 | 850.8 | 916.0 | 966.8 | 956.8 | 903.8 | *885.0* | 829.8 |
| 15° | 769.0 | 763.5 | 765.7 | 775.6 | 806.6 | 870.7 | 955.7 | 985.6 | 932.5 | *907.1* | 843.0 |
| 17.5° | 804.4 | 797.7 | 792.2 | 787.8 | 792.2 | 834.2 | 921.5 | 1009.9 | 966.8 | *939.2* | 860.7 |
| 20° | 859.6 | 859.6 | 845.2 | 827.6 | 813.2 | 820.9 | 893.9 | 1025.3 | 1007.7 | *977.8* | 887.2 |
| 22.5° | 939.2 | 929.2 | 920.4 | 892.8 | 857.4 | 840.8 | 881.7 | 1041.9 | 1064.0 | *1027.5* | 923.7 |
| 25° | 1005.5 | 1008.8 | 998.8 | 964.6 | 914.9 | 878.4 | 891.6 | 1048.5 | 1128.1 | *1091.6* | 969.0 |
| 27.5° | 1080.6 | 1077.3 | 1068.4 | 1034.2 | 976.7 | 924.8 | 919.3 | 1061.8 | 1202.1 | *1163.5* | 1022.0 |
| 30° | 1150.2 | 1150.2 | 1139.1 | 1100.5 | 1041.9 | 985.6 | 960.2 | 1083.9 | 1276.2 | *1240.8* | 1081.7 |
| 32.5° | 1227.5 | 1228.6 | 1206.5 | 1165.7 | 1106.0 | 1041.9 | 1012.1 | 1117.0 | 1367.9 | *1341.3* | 1162.3 |
| 35° | 1290.5 | 1292.7 | 1287.2 | 1243.0 | 1164.6 | 1100.5 | 1066.2 | 1169.0 | 1475.0 | *1459.6* | 1269.5 |
| 37.5° | 1339.1 | 1342.4 | 1331.4 | 1311.5 | 1238.6 | 1156.8 | 1123.7 | 1233.1 | 1604.3 | *1614.2* | 1408.7 |
| 40° | 1395.5 | 1395.5 | 1395.5 | 1365.6 | 1311.5 | 1218.7 | 1182.2 | 1312.6 | 1743.5 | *1774.5* | 1563.4 |
| 42.5° | 1445.2 | 1448.5 | 1454.0 | 1430.8 | 1381.1 | 1307.1 | 1254.1 | 1402.1 | 1899.3 | *1968.9* | 1754.6 |
| 45° | 1470.6 | 1477.2 | 1497.1 | 1487.2 | 1449.6 | 1377.8 | 1330.3 | 1489.4 | 2070.6 | *2156.7* | 1960.1 |
| 47.5° | 1486.1 | 1493.8 | 1520.3 | 1532.5 | 1517.0 | 1431.9 | 1402.1 | 1593.3 | 2234.1 | *2353.4* | 2171.1 |
| 50° | 1498.2 | 1509.3 | 1539.1 | 1562.3 | 1576.7 | 1477.2 | 1472.8 | 1699.3 | 2397.6 | *2537.9* | 2363.4 |
| 52.5° | 1462.9 | 1473.9 | 1530.3 | 1604.3 | 1616.5 | 1545.7 | 1546.8 | 1814.2 | 2563.3 | *2725.8* | 2541.3 |
| 55° | 1336.9 | 1344.7 | 1423.1 | 1572.3 | 1664.0 | 1625.3 | 1647.4 | 1963.4 | 2744.6 | *2912.5* | 2711.4 |
| 57.5° | 951.3 | 998.8 | 1138.0 | 1374.5 | 1605.4 | 1739.1 | 1808.7 | 2128.0 | 2955.6 | *3116.9* | 2883.8 |
| 60° | 395.6 | 429.8 | 564.6 | 981.1 | 1388.8 | 1754.6 | 2030.8 | 2398.7 | 3195.3 | *3348.9* | 3079.3 |
| 62.5° | 257.4 | 260.8 | 274.0 | 421.0 | 881.7 | 1539.1 | 2115.9 | 2782.1 | 3533.4 | *3618.5* | 3186.5 |
| 65° | 229.8 | 234.2 | 240.9 | 261.9 | 324.8 | 1038.6 | 1828.6 | 2911.4 | 3808.6 | *3803.0* | 3125.7 |
| 67.5° | 204.4 | 209.9 | 222.1 | 224.3 | 181.2 | 382.3 | 1228.6 | 2721.3 | 4094.7 | *4154.4* | 3291.5 |
| 70° | *174.6* | *176.8* | *198.9* | *201.1* | *142.5* | *150.3* | *618.7* | *2362.3* | *4200.8* | *4384.2* | *3503.6* |
| 72.5° | 121.5 | 128.2 | 167.9 | 176.8 | 113.8 | 97.2 | 225.4 | 1719.2 | 3904.7 | *4209.6* | 3490.4 |
| 75° | 71.8 | 75.1 | 96.1 | 120.4 | 88.4 | 68.5 | 101.7 | 1057.4 | 3360.0 | *3646.1* | 3105.9 |
| 77.5° | 51.9 | 55.2 | 69.6 | 93.9 | 56.3 | 46.4 | 63.0 | 552.4 | 2333.5 | *2345.7* | 1753.5 |
| 80° | 16.6 | 18.8 | 43.1 | 63.0 | 40.9 | 29.8 | 38.7 | 186.7 | 1178.9 | *1112.6* | 535.9 |
| 82.5° | 8.8 | 8.8 | 26.5 | 33.1 | 25.4 | 18.8 | 22.1 | 77.3 | 377.9 | *242.0* | 85.1 |
| 85° | 4.4 | 4.4 | 11.0 | 13.3 | 9.9 | 8.8 | 11.0 | 27.6 | 39.8 | *36.5* | 24.3 |
| 87.5° | 0.0 | 0.0 | 1.1 | 1.1 | 1.1 | 2.2 | 4.4 | 7.7 | 9.9 | *9.9* | 11.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 |

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

Scaled Data Report

REPORT NUMBER: P1363016
CATALOG NUMBER: GSS-SB1B-727-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 | 753.5 |
| 2.5° | 754.6 | 745.8 | 732.5 | 717.1 | 706.0 | 690.6 | 677.3 | 671.8 | 661.8 | 659.6 | 657.4 |
| 5° | 762.4 | 744.7 | 714.9 | 680.6 | 650.8 | 615.4 | 586.7 | 564.6 | 549.1 | 542.5 | 539.2 |
| 7.5° | 774.5 | 745.8 | 697.2 | 640.8 | 586.7 | 533.7 | 480.6 | 439.7 | 416.5 | 394.4 | 395.6 |
| 10° | 781.2 | 746.9 | 674.0 | 595.5 | 514.9 | 433.1 | 353.6 | 292.8 | 260.8 | 242.0 | 237.6 |
| 12.5° | 786.7 | 741.4 | 647.5 | 539.2 | 424.3 | 307.2 | 227.6 | 187.8 | 171.3 | 169.0 | 167.9 |
| 15° | 790.0 | 734.8 | 614.3 | 474.0 | 321.5 | 207.7 | 169.0 | 158.0 | 153.6 | 152.5 | 152.5 |
| 17.5° | 797.7 | 727.0 | 580.1 | 393.3 | 223.2 | 165.7 | 151.4 | 145.8 | 142.5 | 141.4 | 141.4 |
| 20° | 811.0 | 728.1 | 544.7 | 305.0 | 173.5 | 151.4 | 140.3 | 134.8 | 130.4 | 130.4 | 130.4 |
| 22.5° | 833.1 | 732.5 | 499.4 | 228.7 | 152.5 | 138.1 | 128.2 | 121.5 | 119.3 | 120.4 | 120.4 |
| 25° | 862.9 | 743.6 | 453.0 | 176.8 | 140.3 | 124.9 | 114.9 | 109.4 | 108.3 | 109.4 | 109.4 |
| 27.5° | 900.5 | 755.7 | 395.6 | 152.5 | 129.3 | 113.8 | 103.9 | 100.5 | 99.4 | 101.7 | 101.7 |
| 30° | 941.4 | 770.1 | 327.0 | 140.3 | 119.3 | 105.0 | 96.1 | 92.8 | 92.8 | 96.1 | 96.1 |
| 32.5° | 998.8 | 793.3 | 265.2 | 130.4 | 111.6 | 98.3 | 89.5 | 86.2 | 87.3 | 90.6 | 90.6 |
| 35° | 1076.2 | 823.1 | 217.7 | 123.7 | 106.1 | 92.8 | 85.1 | 80.7 | 81.8 | 82.9 | 84.0 |
| 37.5° | 1176.7 | 864.0 | 187.8 | 119.3 | 100.5 | 89.5 | 79.6 | 76.2 | 76.2 | 77.3 | 77.3 |
| 40° | 1289.4 | 912.6 | 173.5 | 116.0 | 96.1 | 84.0 | 75.1 | 70.7 | 70.7 | 72.9 | 72.9 |
| 42.5° | 1433.0 | 964.6 | 162.4 | 111.6 | 90.6 | 79.6 | 69.6 | 66.3 | 65.2 | 67.4 | 67.4 |
| 45° | 1598.8 | 1039.7 | 155.8 | 107.2 | 85.1 | 74.0 | 65.2 | 60.8 | 59.7 | 60.8 | 61.9 |
| 47.5° | 1766.7 | 1119.3 | 149.2 | 101.7 | 81.8 | 69.6 | 61.9 | 56.3 | 55.2 | 55.2 | 55.2 |
| 50° | 1924.7 | 1198.8 | 144.7 | 95.0 | 78.4 | 65.2 | 57.5 | 53.0 | 50.8 | 50.8 | 50.8 |
| 52.5° | 2066.1 | 1272.8 | 142.5 | 89.5 | 75.1 | 61.9 | 55.2 | 49.7 | 46.4 | 46.4 | 46.4 |
| 55° | 2200.9 | 1344.7 | 139.2 | 82.9 | 71.8 | 57.5 | 51.9 | 46.4 | 43.1 | 42.0 | 42.0 |
| 57.5° | 2336.8 | 1410.9 | 130.4 | 76.2 | 65.2 | 54.1 | 48.6 | 43.1 | 39.8 | 37.6 | 37.6 |
| 60° | 2448.4 | 1451.8 | 117.1 | 68.5 | 57.5 | 49.7 | 45.3 | 39.8 | 35.4 | 32.0 | 32.0 |
| 62.5° | 2456.2 | 1409.8 | 97.2 | 60.8 | 50.8 | 45.3 | 40.9 | 35.4 | 29.8 | 25.4 | 25.4 |
| 65° | 2324.7 | 1264.0 | 77.3 | 50.8 | 45.3 | 39.8 | 34.3 | 29.8 | 24.3 | 19.9 | 18.8 |
| 67.5° | 2354.5 | 1146.9 | 59.7 | 43.1 | 39.8 | 32.0 | 27.6 | 24.3 | 19.9 | 16.6 | 16.6 |
| 70° | *2372.2* | *902.7* | *47.5* | *35.4* | *33.1* | *25.4* | *22.1* | *21.0* | *16.6* | *13.3* | *13.3* |
| 72.5° | 2217.5 | 559.1 | 38.7 | 29.8 | 25.4 | 17.7 | 17.7 | 16.6 | 13.3 | 9.9 | 8.8 |
| 75° | 1955.7 | 333.7 | 29.8 | 23.2 | 17.7 | 13.3 | 13.3 | 12.2 | 8.8 | 6.6 | 6.6 |
| 77.5° | 1182.2 | 175.7 | 23.2 | 17.7 | 12.2 | 9.9 | 8.8 | 7.7 | 5.5 | 4.4 | 3.3 |
| 80° | 365.7 | 61.9 | 17.7 | 12.2 | 8.8 | 7.7 | 5.5 | 3.3 | 2.2 | 2.2 | 1.1 |
| 82.5° | 50.8 | 22.1 | 13.3 | 9.9 | 6.6 | 4.4 | 3.3 | 2.2 | 1.1 | 1.1 | 1.1 |
| 85° | 17.7 | 12.2 | 8.8 | 6.6 | 4.4 | 3.3 | 2.2 | 1.1 | 1.1 | 0.0 | 0.0 |
| 87.5° | 9.9 | 8.8 | 6.6 | 4.4 | 3.3 | 2.2 | 2.2 | 1.1 | 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 |

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

# 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

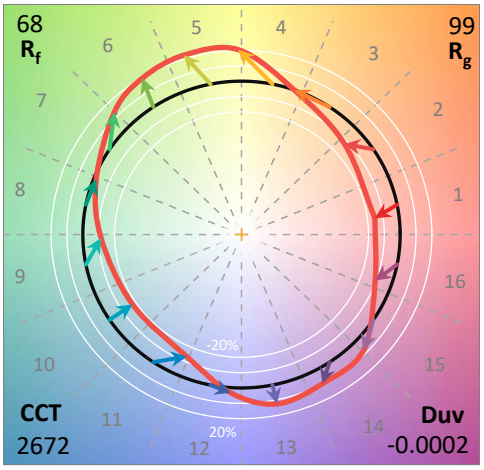
## Test Information

| | |
|---|---|
| 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

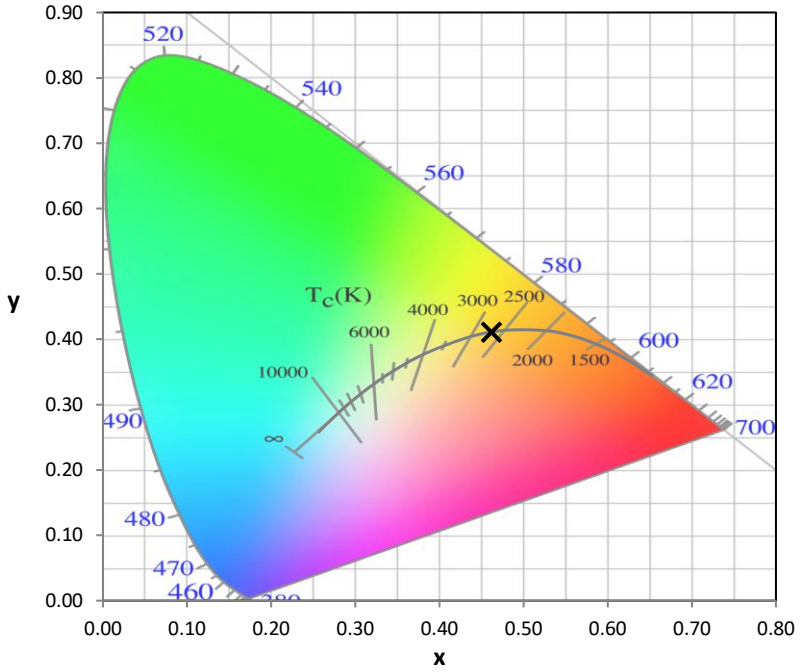
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-3

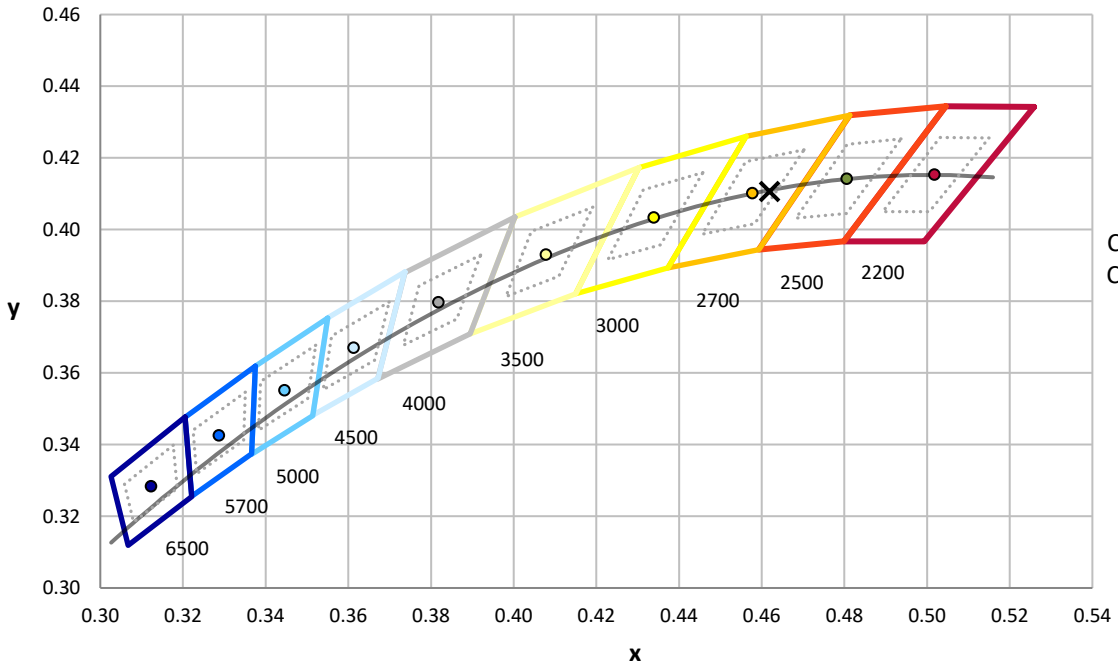
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

REPORT NUMBER: SP1-2407-184-3

## CIE 1931 Chromaticity Diagram




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

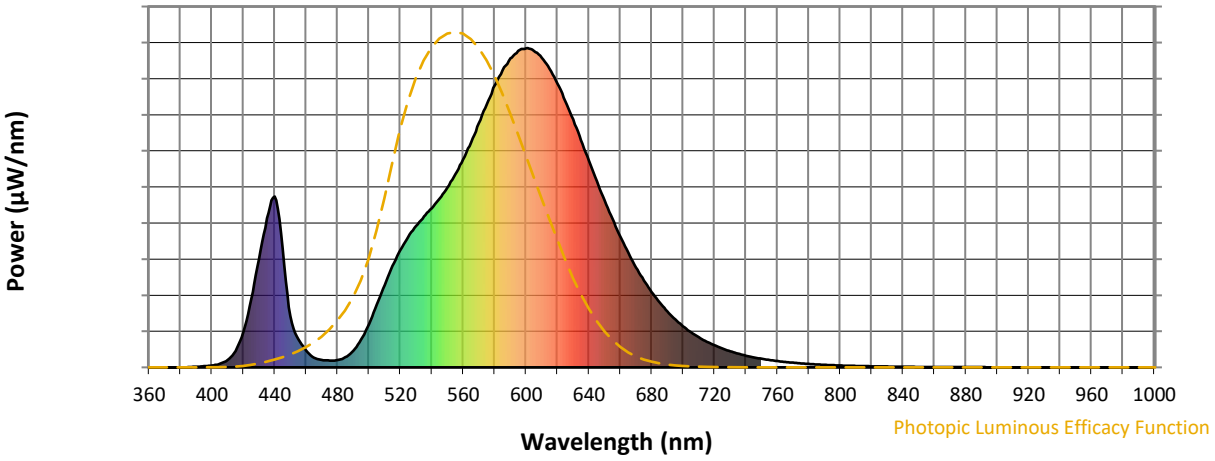



CCT = 2672K
CIE x = 0.4619
CIE y = 0.4106
Duv = -0.0002

Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-3

## Photopic Flux vs. Wavelength

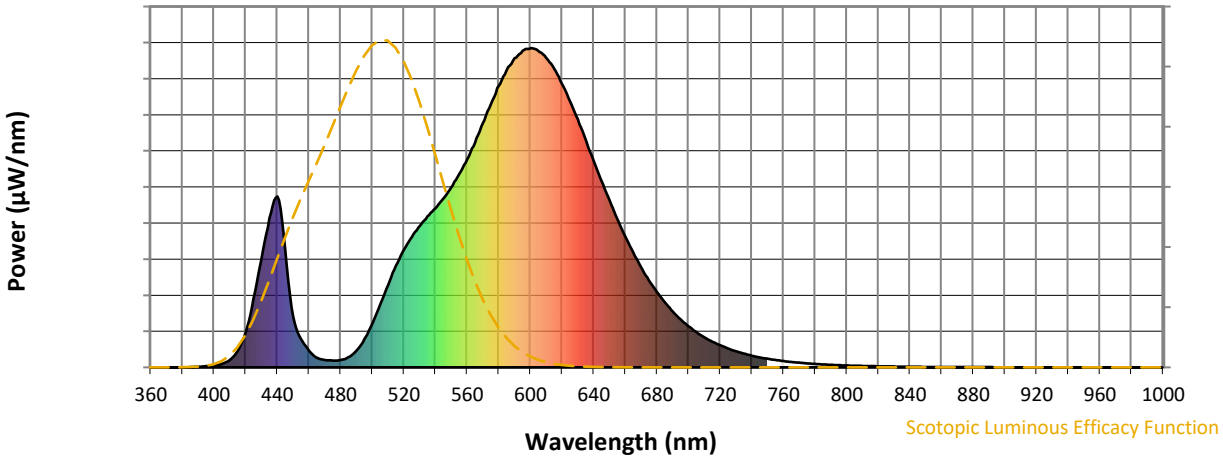



## Photopic Lumens: NR

| 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 | | | |

REPORT NUMBER: SP1-2407-184-3

## Scotopic Flux vs. Wavelength

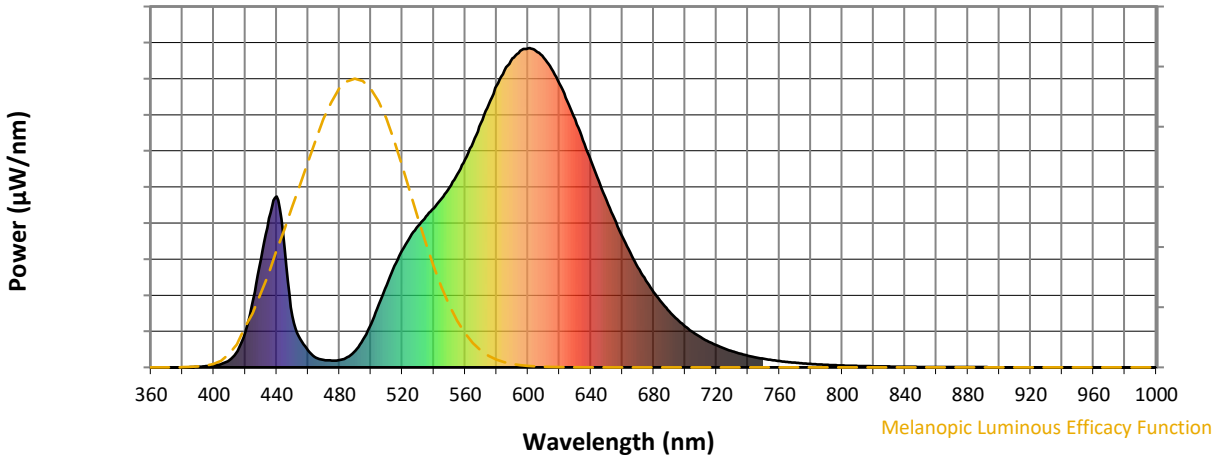



**Scotopic Lumens: NR** **S/P: 1.02**

| 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 | | | |

REPORT NUMBER: SP1-2407-184-3

## 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 | | | |

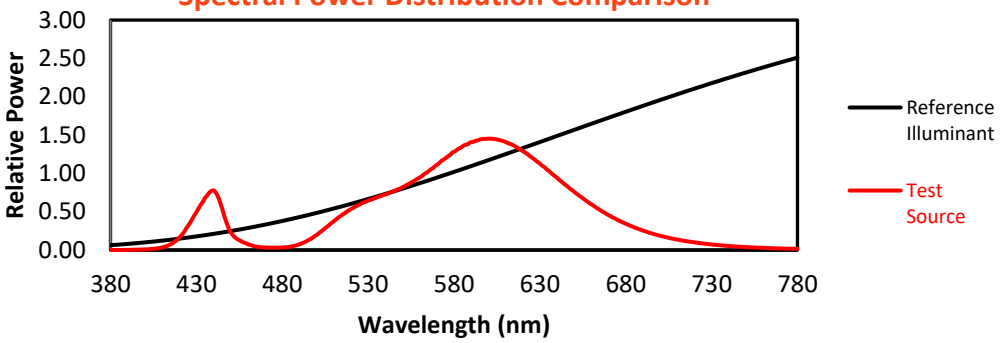
REPORT NUMBER: SP1-2407-184-3

# TM-30-18

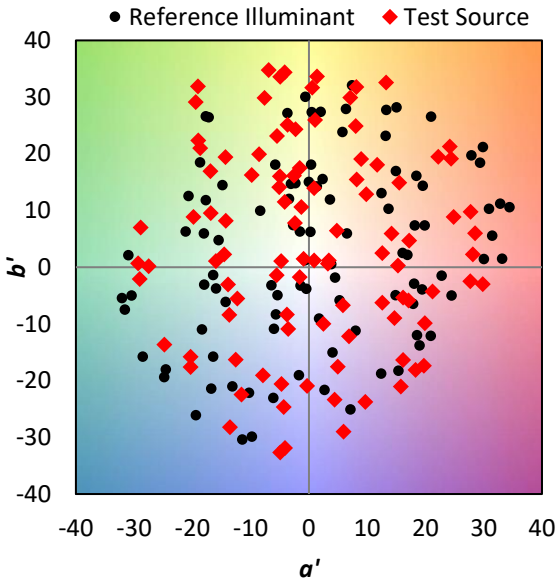
## Summary

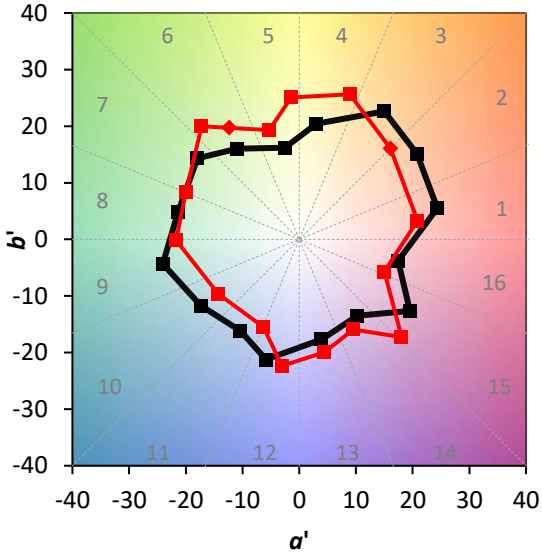
$R_f$ = 67.9
$R_g$ = 98.6
CIE $R_a$ = 71.1
$R_9$ = -27.8

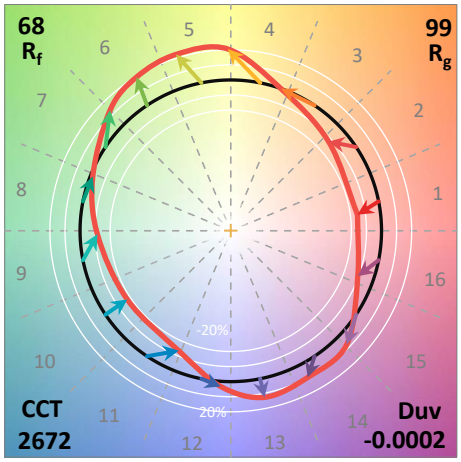
## Spectral Power Distribution Comparison

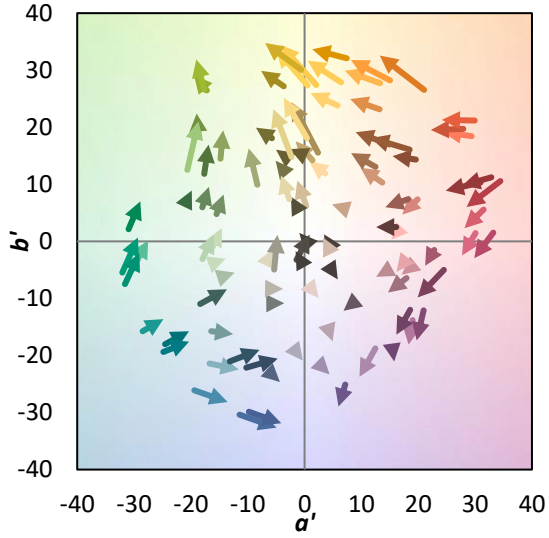



## Color Vector Graphics



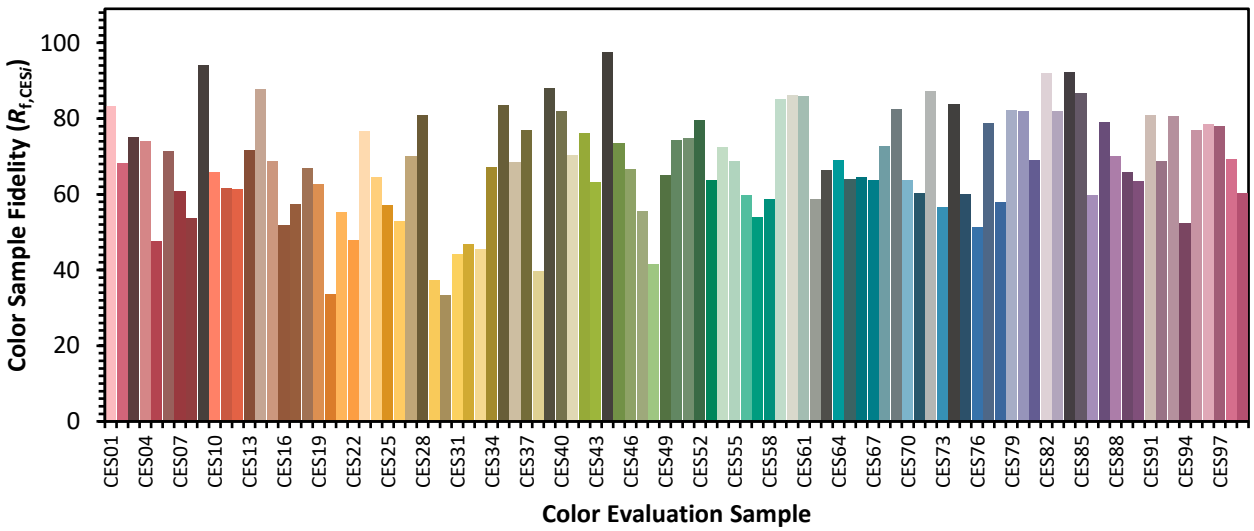



REPORT NUMBER: SP1-2407-184-3

# TM-30-18

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

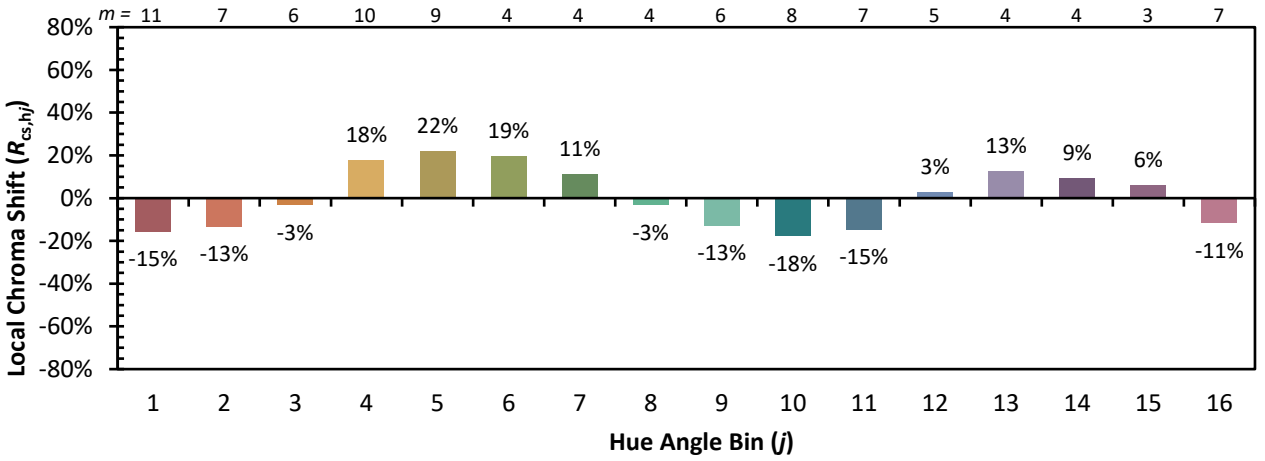
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 53 | CES51 = 75 | CES76 = 51 |
| CES02 = 63 | CES27 = 70 | CES52 = 80 | CES77 = 79 |
| CES03 = 31 | CES28 = 81 | CES53 = 64 | CES78 = 58 |
| CES04 = 71 | CES29 = 37 | CES54 = 73 | CES79 = 82 |
| CES05 = 50 | CES30 = 33 | CES55 = 69 | CES80 = 82 |
| CES06 = 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 | |

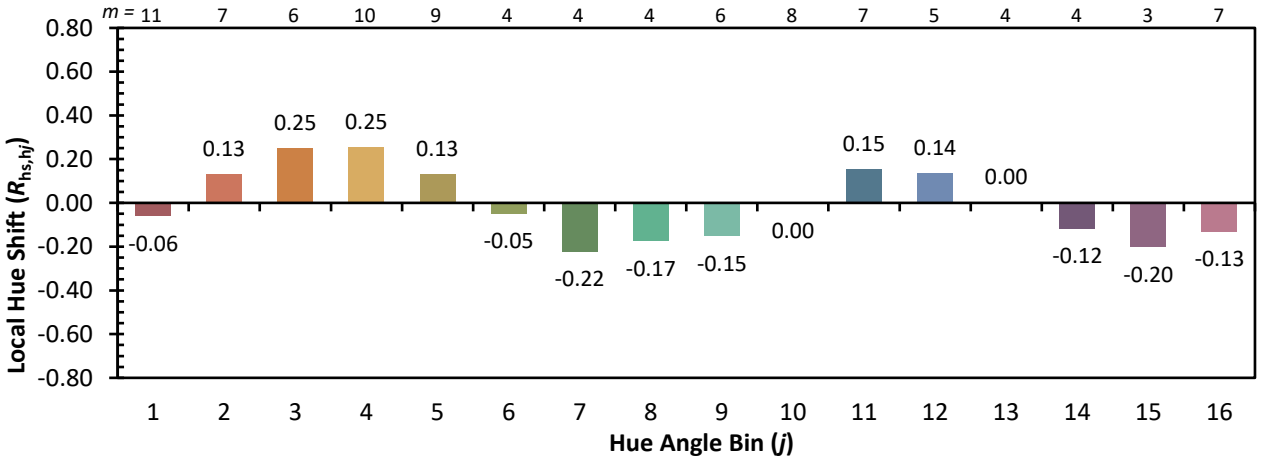


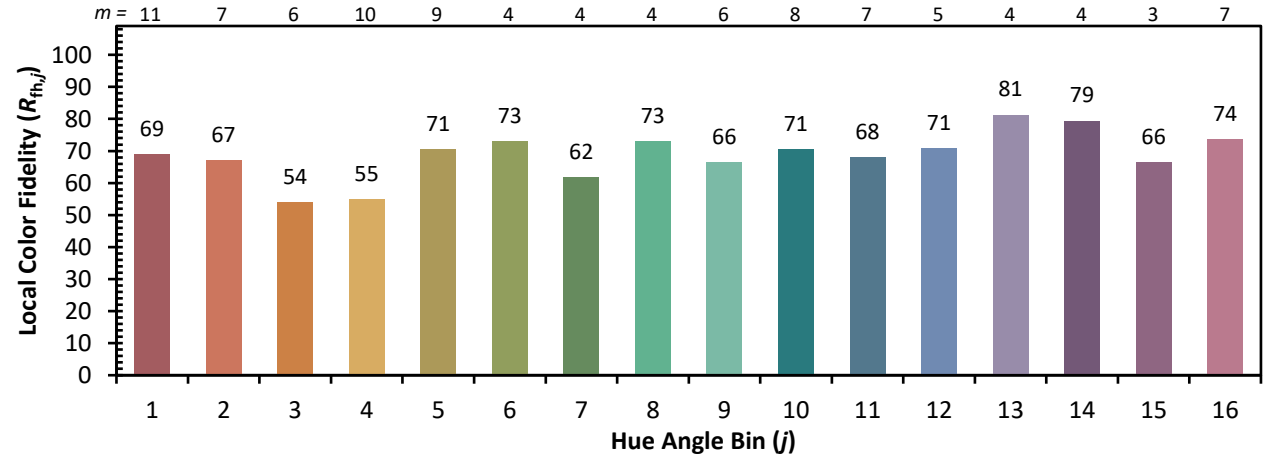
REPORT NUMBER: SP1-2407-184-3

# TM-30-18

## Color Rendition by Hue-Angle Bin



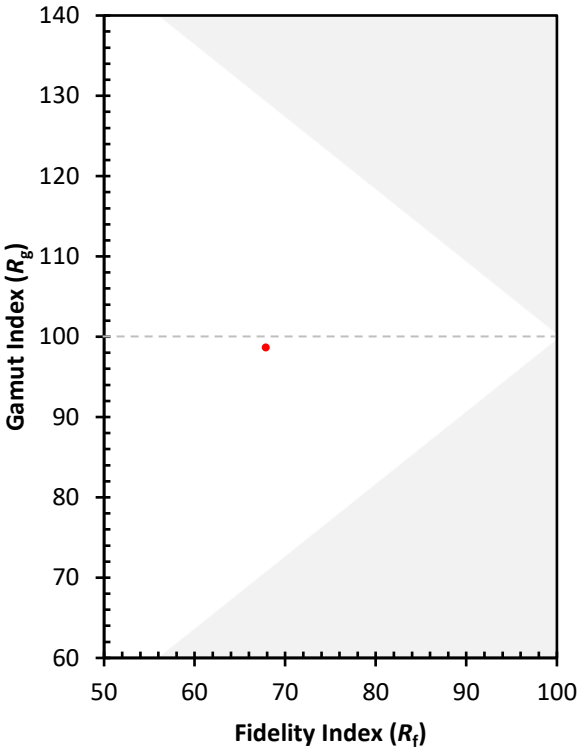



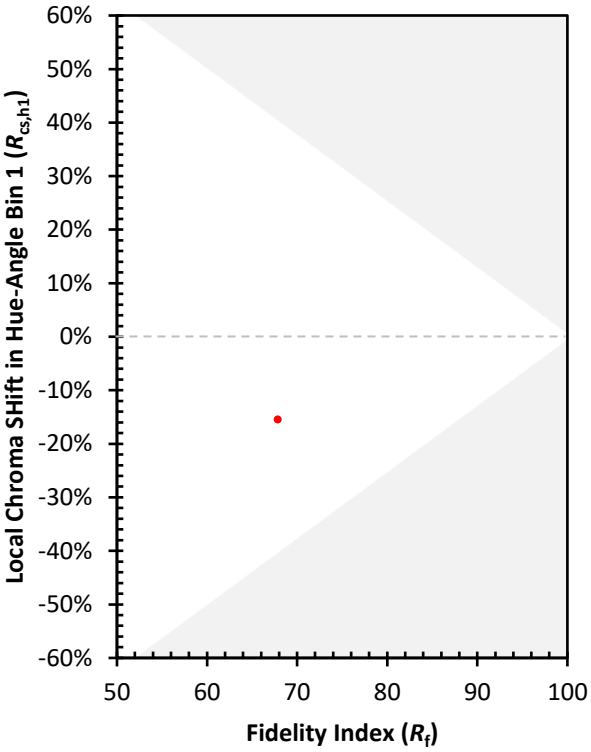



REPORT NUMBER: SP1-2407-184-3

# TM-30-18

## Measure Comparisons




(END OF REPORT)