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: P1360355

Luminaire Tested: **GSS-SB2A-730-U-T3-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: | P1360355 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB2A-730-U-T3-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 2SQUARE 58W 70CRI 3000K FIXTURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (52) 3000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 6034.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 104.0 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B1 - U0 - G2 |

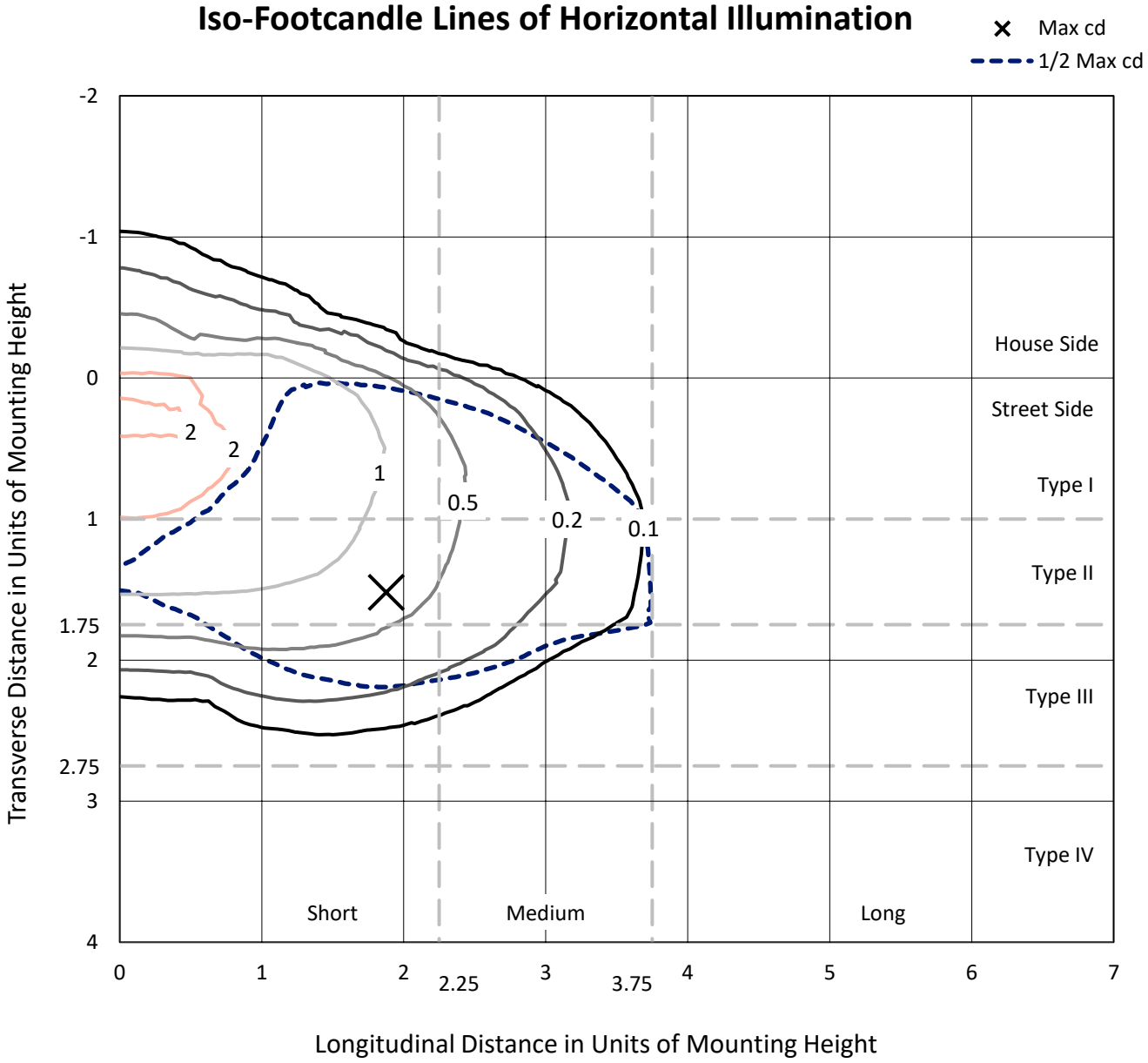
| | |
|---|---|
| Input Watts (W): | 58 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 9.0% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°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: P1360355
CATALOG NUMBER: GSS-SB2A-730-U-T3-HSS

## Iso-Footcandle Lines of Horizontal Illumination



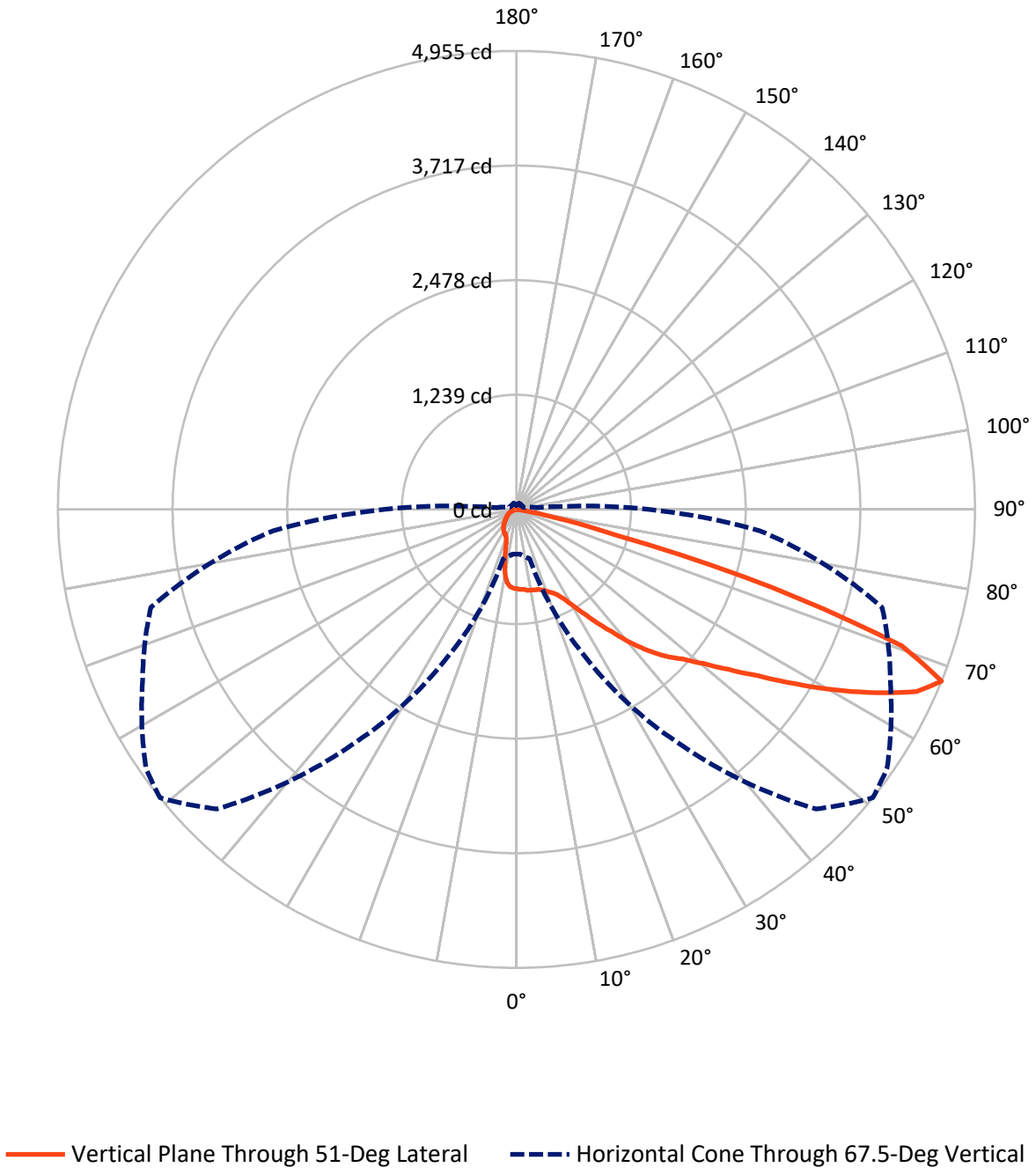

Based on 20 foot mounting height. Maximum calculated value = 2.7 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P1360355
CATALOG NUMBER: GSS-SB2A-730-U-T3-HSS

## Luminous Intensity Polar Plot



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

Scaled Data Report

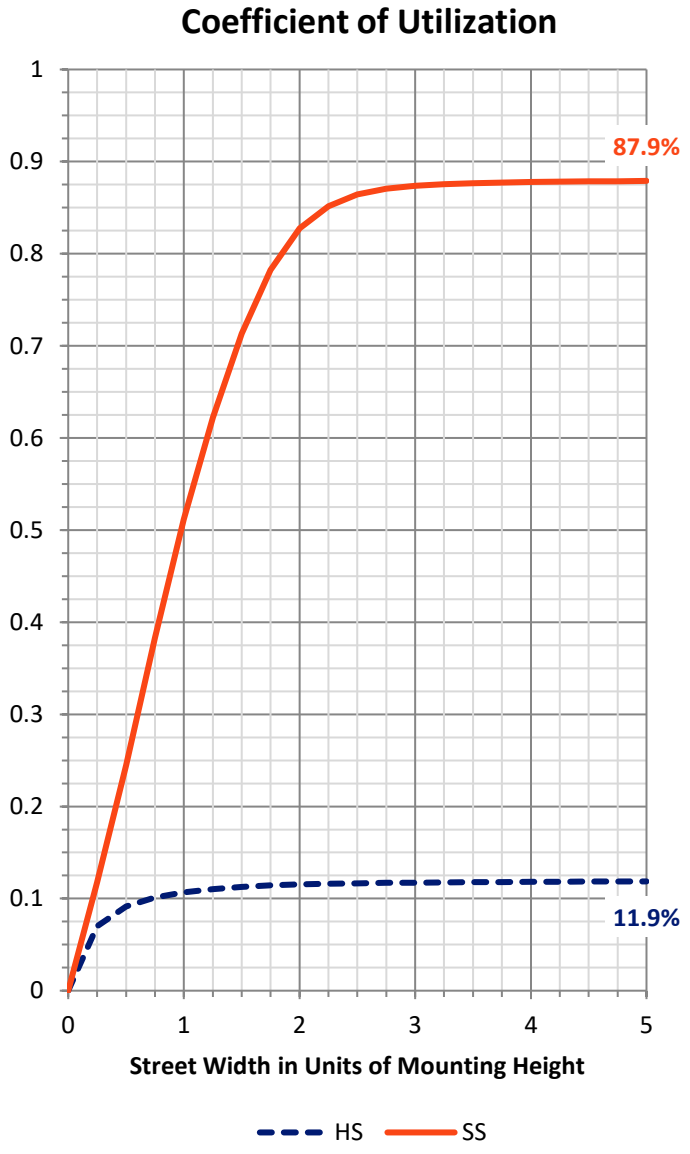
REPORT NUMBER: P1360355
CATALOG NUMBER: GSS-SB2A-730-U-T3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 721.6 | 0.0 | 721.6 |
| | % Fixture | 12.0 | 0.0 | 12.0 |
| **Street Side** | Lumens | 5313.3 | 0.0 | 5313.3 |
| | % Fixture | 88.0 | 0.0 | 88.0 |
| **Total** | Lumens | 6034.9 | 0.0 | 6034.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 78.2 | 1.3 |
| 10°-20° | 201.2 | 3.3 |
| 20°-30° | 358.6 | 5.9 |
| 30°-40° | 641.8 | 10.6 |
| 40°-50° | 1011.0 | 16.8 |
| 50°-60° | 1470.5 | 24.4 |
| 60°-70° | 1600.0 | 26.5 |
| 70°-80° | 646.3 | 10.7 |
| 80°-90° | 27.1 | 0.4 |
| 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° | 6034.9 | 100.0 |
| 0°-180° | 6034.9 | 100.0 |



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

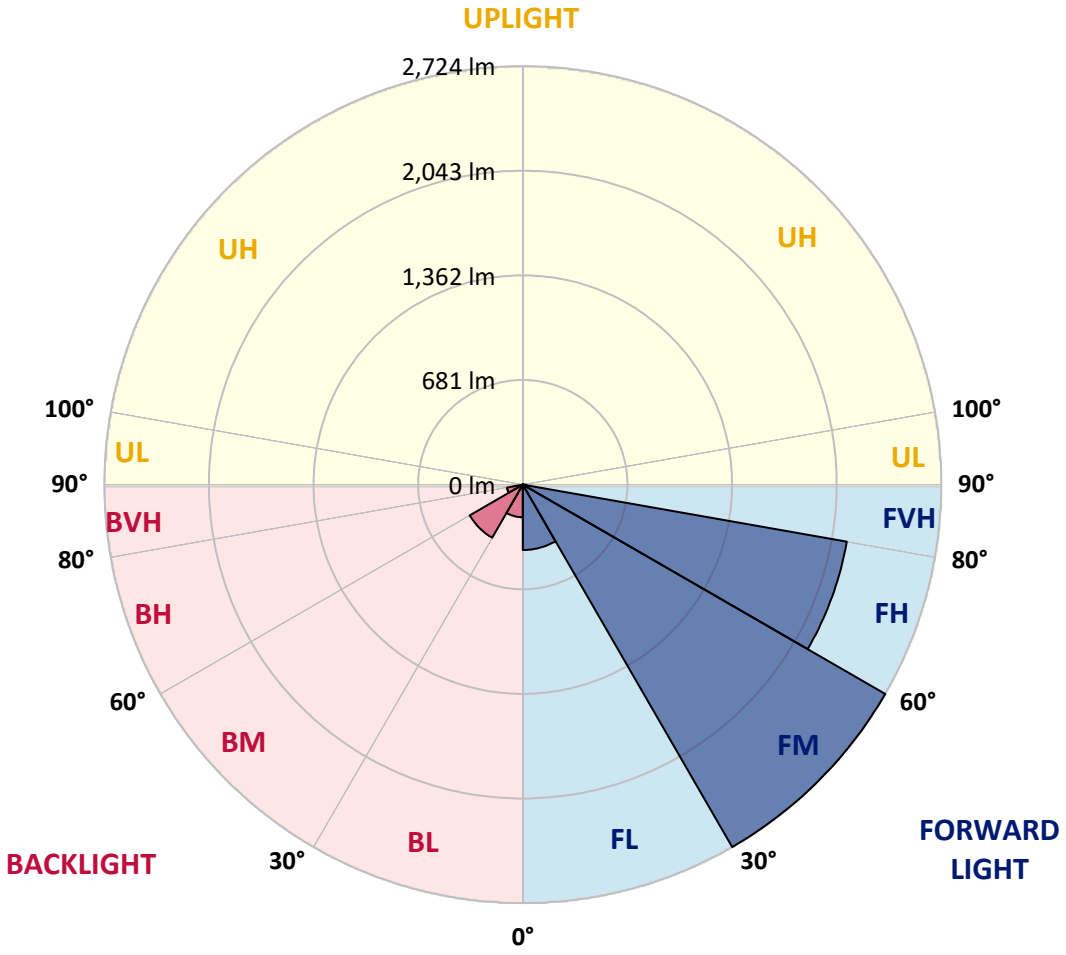
Scaled Data Report

REPORT NUMBER: P1360355
CATALOG NUMBER: GSS-SB2A-730-U-T3-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 425.5 | 7.1 | | | |
| FM | (30°-60°) | 2724.3 | 45.1 | | | |
| FH | (60°-80°) | 2141.4 | 35.5 | | | G2/5000 |
| FVH | (80°-90°) | 22.0 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 212.5 | 3.5 | B1/500 | | |
| BM | (30°-60°) | 399.1 | 6.6 | B1/1000 | | |
| BH | (60°-80°) | 104.9 | 1.7 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 5.1 | 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-G2**
Type III Short



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

Scaled Data Report

REPORT NUMBER: P1360355
CATALOG NUMBER: GSS-SB2A-730-U-T3-HSS

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 51° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | *856.9* | 856.9 | 856.9 | 856.9 | 856.9 |
| 2.5° | 864.2 | 862.4 | 864.2 | 856.9 | 860.6 | 862.4 | *866.0* | 860.6 | 858.7 | 860.6 | 858.7 |
| 5° | 860.6 | 858.7 | 860.6 | 862.4 | 866.0 | 871.4 | *869.6* | 869.6 | 873.2 | 866.0 | 866.0 |
| 7.5° | 829.8 | 828.0 | 838.9 | 842.5 | 856.9 | 869.6 | *884.1* | 878.6 | 885.9 | 884.1 | 878.6 |
| 10° | 791.9 | 786.4 | 797.3 | 817.2 | 838.9 | 871.4 | *885.9* | 889.5 | 905.8 | 913.0 | 909.4 |
| 12.5° | 770.2 | 764.7 | 779.2 | 793.7 | 828.0 | 867.8 | *893.1* | 902.1 | 920.2 | 934.7 | 938.3 |
| 15° | 753.9 | 759.3 | 773.8 | 800.9 | 833.4 | 875.0 | *896.7* | 914.8 | 952.8 | 967.2 | 967.2 |
| 17.5° | 764.7 | 762.9 | 775.6 | 802.7 | 842.5 | 884.1 | *916.6* | 934.7 | 979.9 | 999.8 | 998.0 |
| 20° | 871.4 | 860.6 | 858.7 | 844.3 | 856.9 | 905.8 | *945.5* | 963.6 | 1007.0 | 1034.1 | 1032.3 |
| 22.5° | 1008.8 | 1019.7 | 990.7 | 958.2 | 918.4 | 934.7 | *976.3* | 1001.6 | 1045.0 | 1073.9 | 1063.0 |
| 25° | 1195.0 | 1189.6 | 1169.7 | 1104.6 | 1032.3 | 998.0 | *1019.7* | 1045.0 | 1099.2 | 1122.7 | 1104.6 |
| 27.5° | 1392.1 | 1368.6 | 1343.3 | 1252.9 | 1157.1 | 1093.8 | *1097.4* | 1113.7 | 1176.9 | 1191.4 | 1149.8 |
| 30° | 1603.6 | 1607.2 | 1565.6 | 1442.7 | 1310.7 | 1214.9 | *1207.7* | 1214.9 | 1265.5 | 1263.7 | 1205.9 |
| 32.5° | 1845.9 | 1836.8 | 1797.0 | 1665.1 | 1518.6 | 1361.3 | *1343.3* | 1330.6 | 1352.3 | 1332.4 | 1265.5 |
| 35° | 2015.8 | 2024.8 | 1981.4 | 1894.7 | 1748.2 | 1553.0 | *1509.6* | 1478.9 | 1457.2 | 1435.5 | 1363.1 |
| 37.5° | 2167.7 | 2156.8 | 2131.5 | 2082.7 | 1939.9 | 1760.9 | *1677.7* | 1650.6 | 1603.6 | 1543.9 | 1477.0 |
| 40° | 2202.0 | 2196.6 | 2183.9 | 2185.7 | 2093.5 | 1954.3 | *1894.7* | 1845.9 | 1764.5 | 1715.7 | 1628.9 |
| 42.5° | 2196.6 | 2214.7 | 2218.3 | 2232.7 | 2180.3 | 2146.0 | *2084.5* | 2037.5 | 1961.6 | 1901.9 | 1811.5 |
| 45° | 2225.5 | 2256.2 | 2281.6 | 2294.2 | 2259.9 | 2256.2 | *2263.5* | 2241.8 | 2189.4 | 2127.9 | 2024.8 |
| 47.5° | 2283.4 | 2335.8 | 2375.6 | 2402.7 | 2395.5 | 2455.1 | *2417.2* | 2411.7 | 2433.4 | 2373.8 | 2270.7 |
| 50° | 2391.8 | 2406.3 | 2500.3 | 2540.1 | 2607.0 | 2693.8 | *2619.6* | 2637.7 | 2681.1 | 2686.5 | 2496.7 |
| 52.5° | 2473.2 | 2485.8 | 2579.9 | 2697.4 | 2845.6 | 2941.4 | *2874.5* | 2872.7 | 2950.5 | 2972.2 | 2715.5 |
| 55° | 2494.9 | 2523.8 | 2644.9 | 2849.2 | 3127.7 | 3225.3 | *3178.3* | 3162.0 | 3265.1 | 3303.0 | 2908.9 |
| 57.5° | 2464.2 | 2475.0 | 2648.6 | 2943.2 | 3331.9 | 3543.5 | *3557.9* | 3507.3 | 3601.3 | 3610.4 | 3051.7 |
| 60° | 2131.5 | 2178.5 | 2482.2 | 3002.9 | 3505.5 | 3888.8 | *3964.7* | 3935.8 | 3943.0 | 3926.7 | 3158.4 |
| 62.5° | 1473.4 | 1482.5 | 1929.0 | 2939.6 | 3648.3 | 4237.7 | *4364.2* | 4342.6 | 4281.1 | 4127.4 | 3104.1 |
| 65° | 701.5 | 750.3 | 1035.9 | 2487.7 | 3668.2 | 4503.5 | *4749.3* | 4763.8 | 4478.1 | 4129.2 | 2894.4 |
| 67.5° | *482.7* | *484.5* | *551.4* | *1755.5* | *3111.4* | *4579.4* | *4955.4* | *4888.5* | *4460.1* | *4091.3* | *2637.7* |
| 70° | 305.5 | 283.8 | 318.2 | 1001.6 | 2102.6 | 3595.9 | *4420.3* | 4655.3 | 4384.1 | 3843.6 | 2229.1 |
| 72.5° | 121.1 | 130.2 | 150.1 | 329.0 | 1030.5 | 2048.3 | *2887.2* | 3543.5 | 3953.9 | 3324.7 | 1741.0 |
| 75° | 54.2 | 57.9 | 75.9 | 137.4 | 265.8 | 835.2 | *1117.3* | 1565.6 | 3163.8 | 2625.1 | 1233.0 |
| 77.5° | 36.2 | 38.0 | 48.8 | 79.5 | 121.1 | 233.2 | *408.6* | 479.1 | 1896.5 | 1435.5 | 578.5 |
| 80° | 21.7 | 23.5 | 32.5 | 48.8 | 66.9 | 83.2 | *124.7* | 144.6 | 500.8 | 475.5 | 159.1 |
| 82.5° | 14.5 | 12.7 | 21.7 | 27.1 | 39.8 | 34.3 | *39.8* | 47.0 | 137.4 | 121.1 | 43.4 |
| 85° | 5.4 | 5.4 | 9.0 | 10.8 | 14.5 | 18.1 | *16.3* | 19.9 | 32.5 | 32.5 | 19.9 |
| 87.5° | 0.0 | 0.0 | 1.8 | 1.8 | 5.4 | 7.2 | *9.0* | 9.0 | 12.7 | 12.7 | 10.8 |
| 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: P1360355
CATALOG NUMBER: GSS-SB2A-730-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 | 856.9 |
| 2.5° | 860.6 | 855.1 | 856.9 | 853.3 | 855.1 | 851.5 | 844.3 | 851.5 | 846.1 | 846.1 | 851.5 |
| 5° | 866.0 | 864.2 | 858.7 | 849.7 | 844.3 | 831.6 | 811.7 | 802.7 | 793.7 | 788.2 | 791.9 |
| 7.5° | 884.1 | 876.8 | 867.8 | 846.1 | 817.2 | 779.2 | 739.4 | 694.2 | 659.9 | 656.3 | 643.6 |
| 10° | 907.6 | 900.3 | 880.4 | 831.6 | 772.0 | 663.5 | 576.7 | 517.1 | 480.9 | 457.4 | 448.4 |
| 12.5° | 938.3 | 929.3 | 893.1 | 809.9 | 663.5 | 511.6 | 408.6 | 365.2 | 352.5 | 347.1 | 345.3 |
| 15° | 967.2 | 956.4 | 893.1 | 739.4 | 536.9 | 385.1 | 332.7 | 321.8 | 320.0 | 321.8 | 320.0 |
| 17.5° | 994.3 | 979.9 | 884.1 | 643.6 | 412.2 | 325.4 | 312.8 | 307.3 | 305.5 | 303.7 | 303.7 |
| 20° | 1026.9 | 1003.4 | 858.7 | 538.8 | 339.9 | 309.1 | 303.7 | 296.5 | 296.5 | 289.3 | 291.1 |
| 22.5° | 1057.6 | 1025.1 | 809.9 | 433.9 | 312.8 | 300.1 | 294.7 | 287.5 | 283.8 | 278.4 | 278.4 |
| 25° | 1088.4 | 1046.8 | 752.1 | 359.8 | 296.5 | 291.1 | 285.6 | 278.4 | 269.4 | 262.1 | 262.1 |
| 27.5° | 1133.5 | 1075.7 | 683.4 | 329.0 | 287.5 | 278.4 | 273.0 | 264.0 | 253.1 | 244.1 | 244.1 |
| 30° | 1184.2 | 1115.5 | 627.3 | 323.6 | 283.8 | 262.1 | 253.1 | 238.6 | 231.4 | 224.2 | 224.2 |
| 32.5° | 1245.6 | 1169.7 | 585.8 | 332.7 | 274.8 | 240.4 | 226.0 | 211.5 | 206.1 | 206.1 | 206.1 |
| 35° | 1336.0 | 1249.3 | 540.6 | 334.5 | 264.0 | 218.8 | 195.3 | 180.8 | 180.8 | 188.0 | 188.0 |
| 37.5° | 1457.2 | 1336.0 | 517.1 | 330.8 | 254.9 | 197.1 | 169.9 | 159.1 | 157.3 | 164.5 | 164.5 |
| 40° | 1596.4 | 1431.8 | 526.1 | 318.2 | 242.3 | 175.4 | 150.1 | 141.0 | 139.2 | 141.0 | 142.8 |
| 42.5° | 1748.2 | 1534.9 | 547.8 | 300.1 | 220.6 | 157.3 | 135.6 | 130.2 | 128.4 | 128.4 | 128.4 |
| 45° | 1909.1 | 1605.4 | 569.5 | 282.0 | 198.9 | 142.8 | 126.6 | 122.9 | 121.1 | 121.1 | 121.1 |
| 47.5° | 2062.8 | 1661.5 | 555.0 | 265.8 | 180.8 | 133.8 | 119.3 | 119.3 | 117.5 | 117.5 | 117.5 |
| 50° | 2194.8 | 1656.0 | 493.6 | 249.5 | 160.9 | 126.6 | 115.7 | 113.9 | 113.9 | 112.1 | 112.1 |
| 52.5° | 2268.9 | 1545.7 | 397.7 | 231.4 | 142.8 | 119.3 | 112.1 | 110.3 | 108.5 | 106.7 | 106.7 |
| 55° | 2297.8 | 1399.3 | 309.1 | 204.3 | 130.2 | 113.9 | 108.5 | 106.7 | 103.0 | 101.2 | 99.4 |
| 57.5° | 2247.2 | 1184.2 | 238.6 | 162.7 | 119.3 | 106.7 | 103.0 | 101.2 | 97.6 | 92.2 | 90.4 |
| 60° | 2144.2 | 949.1 | 179.0 | 124.7 | 106.7 | 97.6 | 97.6 | 95.8 | 88.6 | 79.5 | 77.7 |
| 62.5° | 1963.4 | 681.6 | 135.6 | 101.2 | 92.2 | 88.6 | 92.2 | 88.6 | 77.7 | 65.1 | 63.3 |
| 65° | 1708.5 | 421.2 | 104.9 | 86.8 | 81.4 | 77.7 | 83.2 | 79.5 | 66.9 | 52.4 | 48.8 |
| 67.5° | *1428.2* | *215.1* | *81.4* | *74.1* | *68.7* | *65.1* | *70.5* | *70.5* | *57.9* | *43.4* | *41.6* |
| 70° | 1102.8 | 119.3 | 65.1 | 61.5 | 56.0 | 50.6 | 59.7 | 61.5 | 50.6 | 38.0 | 36.2 |
| 72.5° | 819.0 | 75.9 | 52.4 | 50.6 | 43.4 | 36.2 | 48.8 | 52.4 | 43.4 | 28.9 | 27.1 |
| 75° | 535.1 | 59.7 | 39.8 | 39.8 | 30.7 | 28.9 | 41.6 | 45.2 | 38.0 | 21.7 | 21.7 |
| 77.5° | 256.7 | 45.2 | 30.7 | 27.1 | 21.7 | 21.7 | 36.2 | 38.0 | 27.1 | 16.3 | 16.3 |
| 80° | 85.0 | 30.7 | 21.7 | 18.1 | 14.5 | 14.5 | 28.9 | 21.7 | 14.5 | 12.7 | 12.7 |
| 82.5° | 28.9 | 19.9 | 14.5 | 12.7 | 10.8 | 9.0 | 9.0 | 10.8 | 10.8 | 9.0 | 9.0 |
| 85° | 14.5 | 12.7 | 10.8 | 9.0 | 7.2 | 7.2 | 7.2 | 7.2 | 9.0 | 9.0 | 9.0 |
| 87.5° | 9.0 | 9.0 | 7.2 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 7.2 | 3.6 | 3.6 |
| 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: SP1-2407-184-4

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-730-U-5WQ

Data in this report applies to families of products including GSS-SB1A-730-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

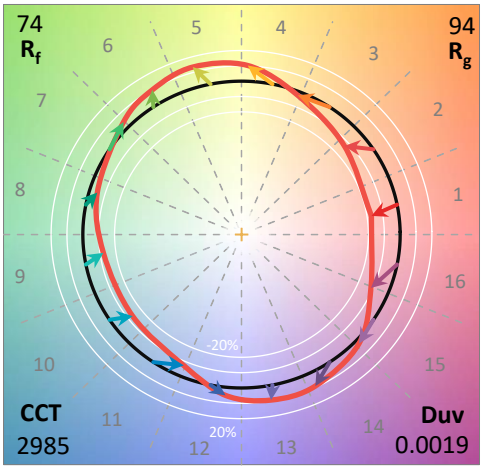
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-4 |
| 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-730-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2985 |
| CIE u': | 0.2504 |
| CIE v': | 0.5243 |
| Duv: | 0.0019 |
| CIE x: | 0.4408 |
| CIE y: | 0.4101 |
| CIE z: | 0.1491 |
| Peak Wavelength (nm): | 595 |
| Dominant Wavelength (nm): | 582 |
| Purity: | 55.41818 |
| Rf: | 73.8 |
| Rg: | 94.4 |

| | |
|---|---|
| CRI (Ra): | 70.8 |
| R1: | 66.3 |
| R2: | 80.6 |
| R3: | 94.5 |
| R4: | 68.2 |
| R5: | 66.5 |
| R6: | 74.7 |
| R7: | 76.2 |
| R8: | 39.6 |
| R9: | -43.2 |
| R10: | 57.6 |
| R11: | 64.8 |
| R12: | 53.5 |
| R13: | 68.7 |
| R14: | 97.0 |
| R15: | 56.4 |




## Test Conditions

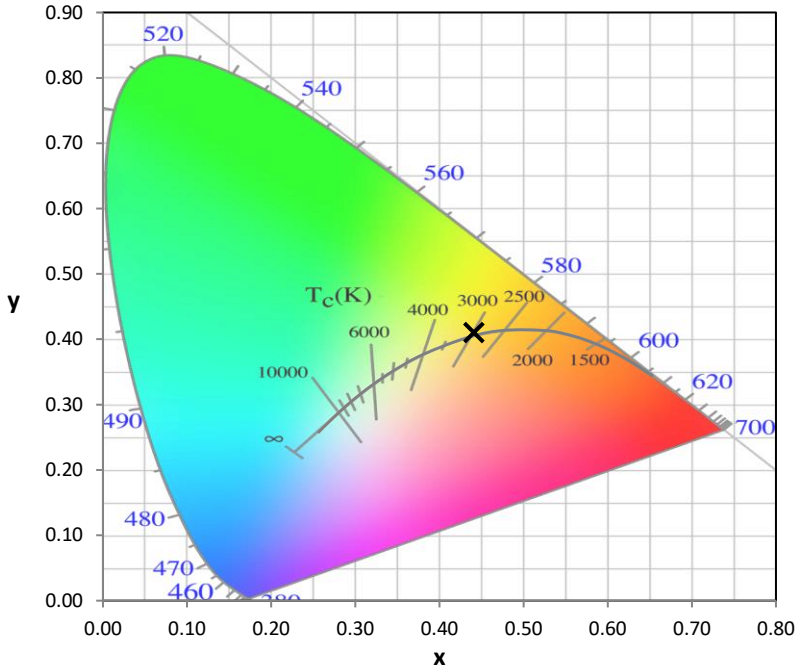
| | |
|---|---|
| Stabilization Time: | 36M |
| Operation Time: | 1H 36M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-4

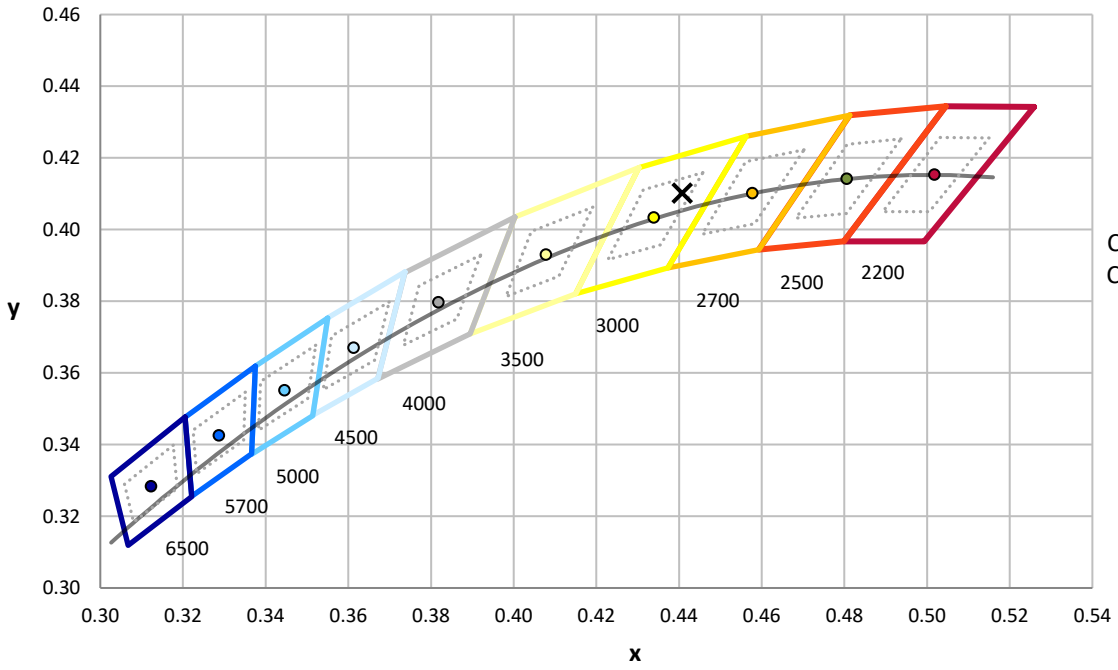
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC 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: SP1-2407-184-4

## CIE 1931 Chromaticity Diagram




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

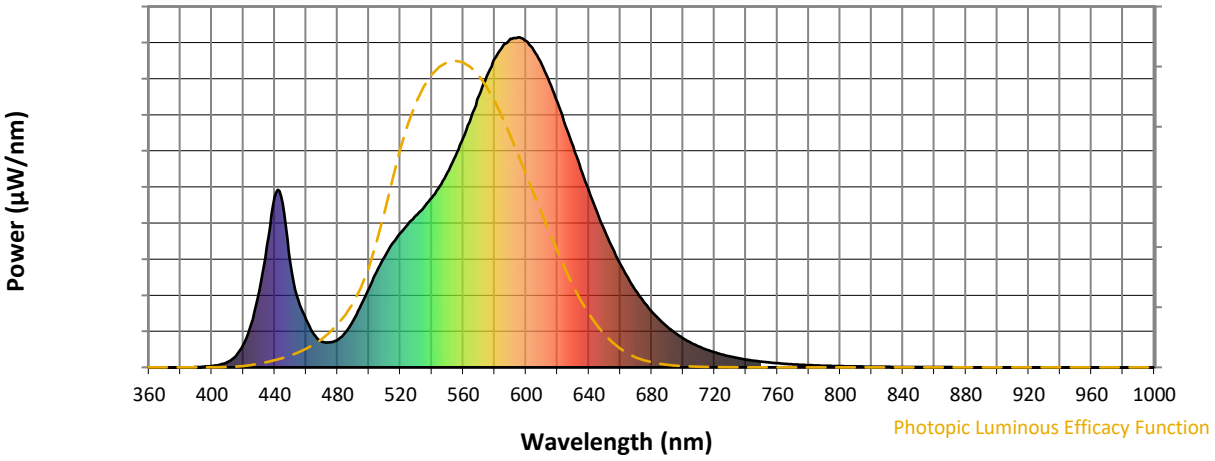



CCT = 2985K
CIE x = 0.4408
CIE y = 0.4101
Duv = 0.0019

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-4

## Photopic Flux vs. Wavelength

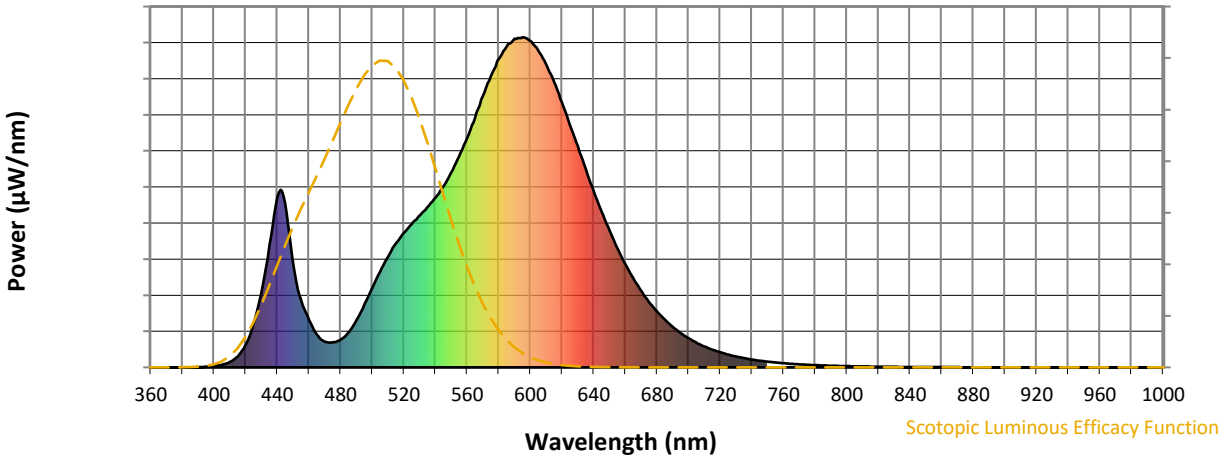



## Photopic Lumens: NR

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-4

## Scotopic Flux vs. Wavelength

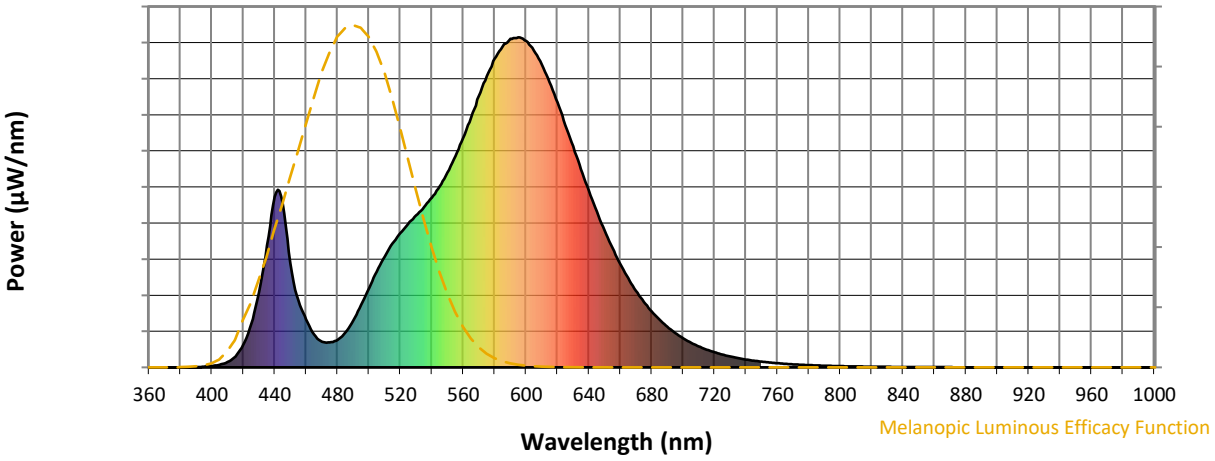



**Scotopic Lumens: NR** **S/P: 1.19**

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-4

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.13**

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

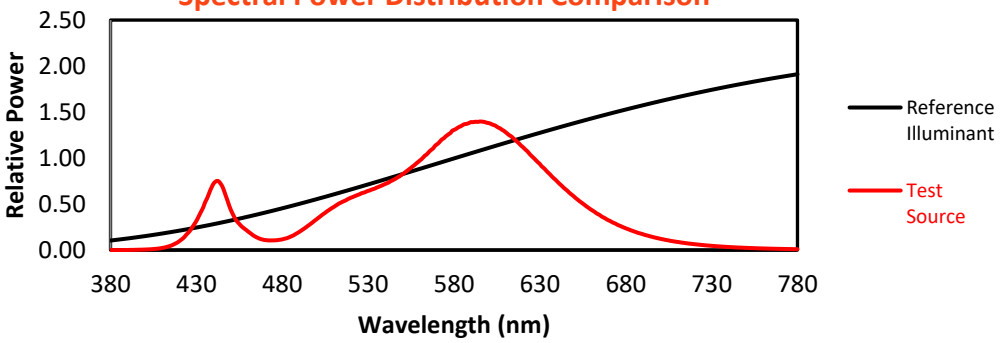
REPORT NUMBER: SP1-2407-184-4

# TM-30-18

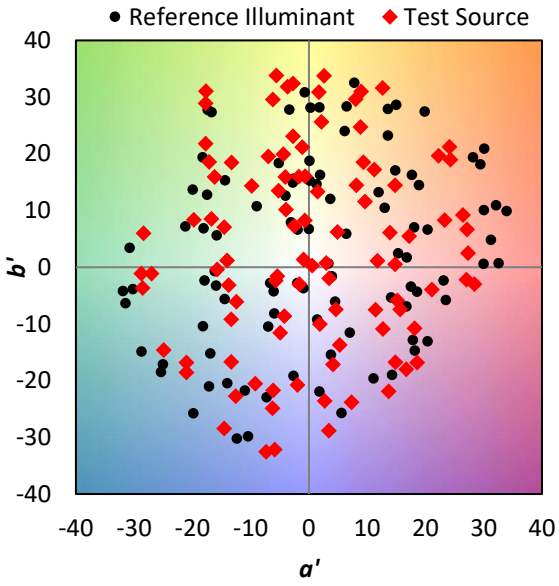
## Summary

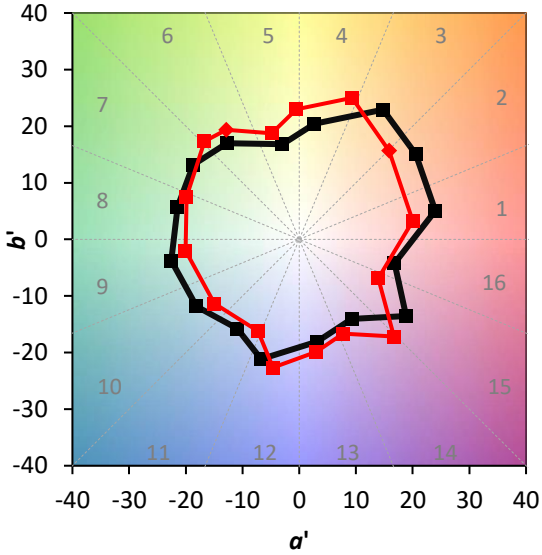
$R_f$ = 73.8
$R_g$ = 94.4
CIE $R_a$ = 70.8
$R_9$ = -43.2

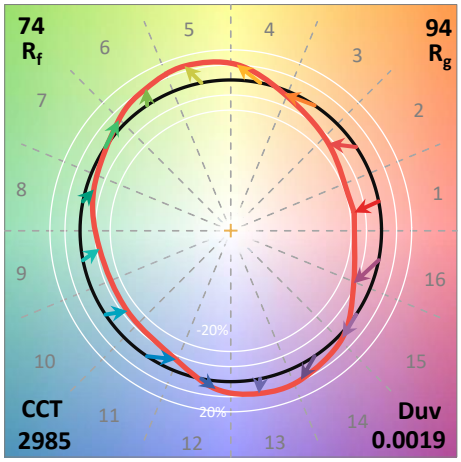
## Spectral Power Distribution Comparison

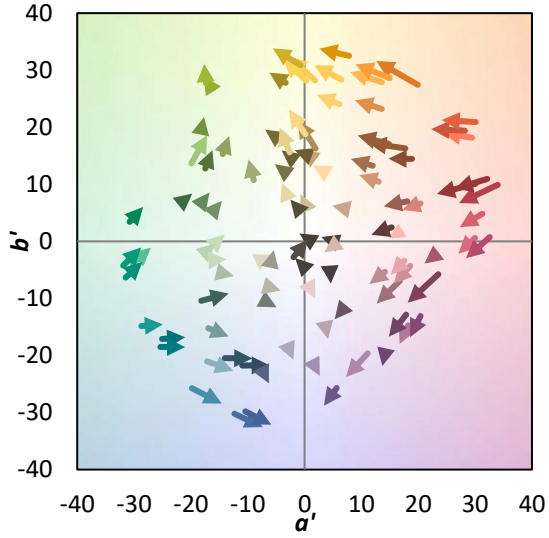



## Color Vector Graphics



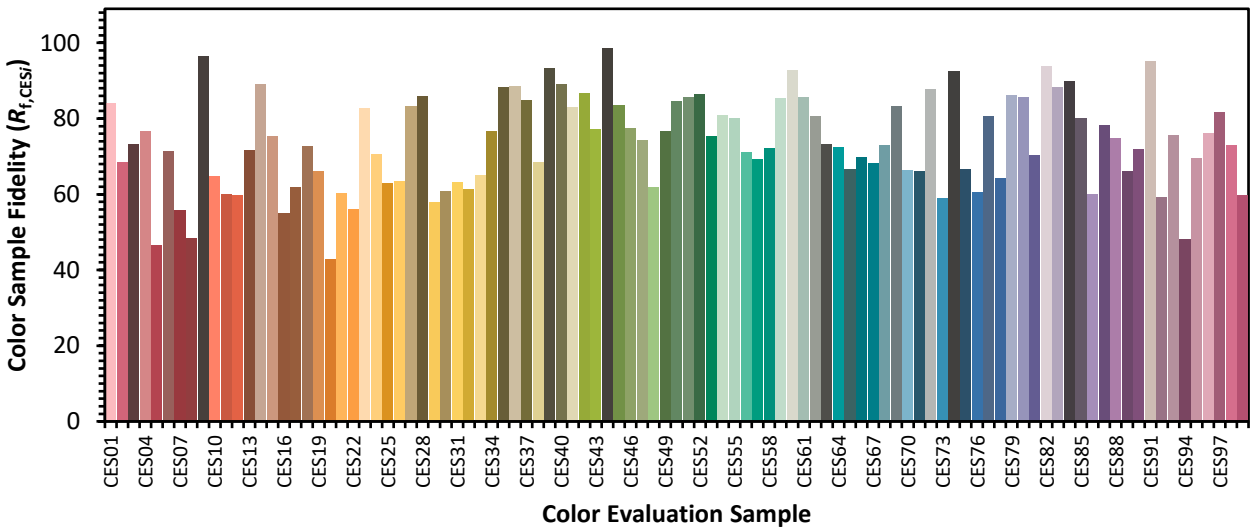



REPORT NUMBER: SP1-2407-184-4

# TM-30-18

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

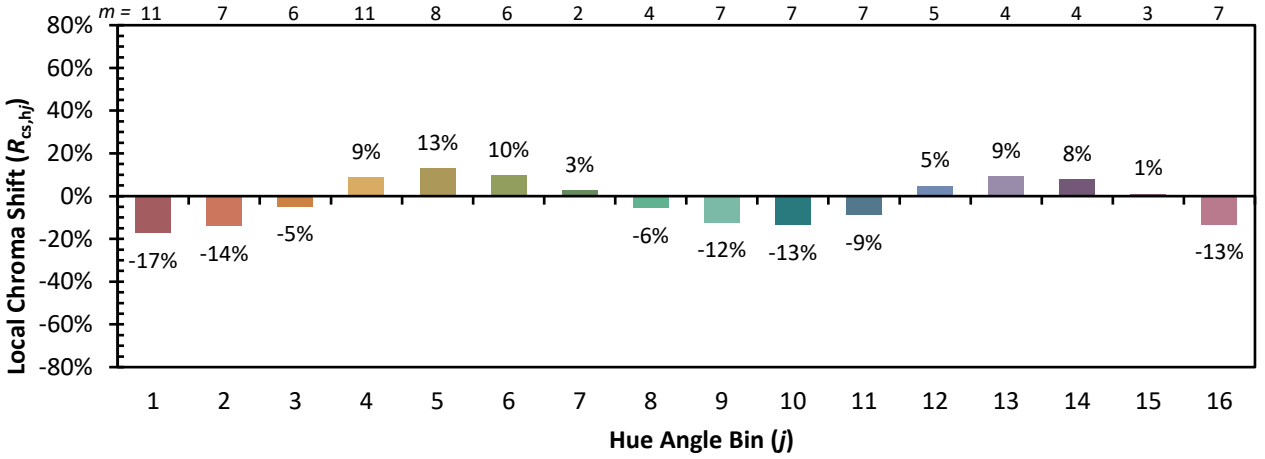
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 63 | CES51 = 86 | CES76 = 61 |
| CES02 = 62 | CES27 = 83 | CES52 = 86 | CES77 = 81 |
| CES03 = 31 | CES28 = 86 | CES53 = 75 | CES78 = 64 |
| CES04 = 71 | CES29 = 58 | CES54 = 81 | CES79 = 86 |
| CES05 = 49 | CES30 = 61 | CES55 = 80 | CES80 = 86 |
| CES06 = 51 | CES31 = 63 | CES56 = 71 | CES81 = 70 |
| CES07 = 41 | CES32 = 61 | CES57 = 69 | CES82 = 94 |
| CES08 = 40 | CES33 = 65 | CES58 = 72 | CES83 = 88 |
| CES09 = 29 | CES34 = 77 | CES59 = 85 | CES84 = 90 |
| CES10 = 76 | CES35 = 88 | CES60 = 93 | CES85 = 80 |
| CES11 = 59 | CES36 = 89 | CES61 = 86 | CES86 = 60 |
| CES12 = 65 | CES37 = 85 | CES62 = 81 | CES87 = 78 |
| CES13 = 43 | CES38 = 69 | CES63 = 73 | CES88 = 75 |
| CES14 = 74 | CES39 = 93 | CES64 = 72 | CES89 = 66 |
| CES15 = 71 | CES40 = 89 | CES65 = 67 | CES90 = 72 |
| CES16 = 47 | CES41 = 83 | CES66 = 70 | CES91 = 95 |
| CES17 = 50 | CES42 = 87 | CES67 = 68 | CES92 = 59 |
| CES18 = 56 | CES43 = 77 | CES68 = 73 | CES93 = 76 |
| CES19 = 73 | CES44 = 99 | CES69 = 83 | CES94 = 48 |
| CES20 = 66 | CES45 = 83 | CES70 = 66 | CES95 = 70 |
| CES21 = 87 | CES46 = 77 | CES71 = 66 | CES96 = 76 |
| CES22 = 79 | CES47 = 74 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 62 | CES73 = 59 | CES98 = 73 |
| CES24 = 91 | CES49 = 77 | CES74 = 93 | CES99 = 60 |
| CES25 = 73 | CES50 = 85 | CES75 = 67 | |

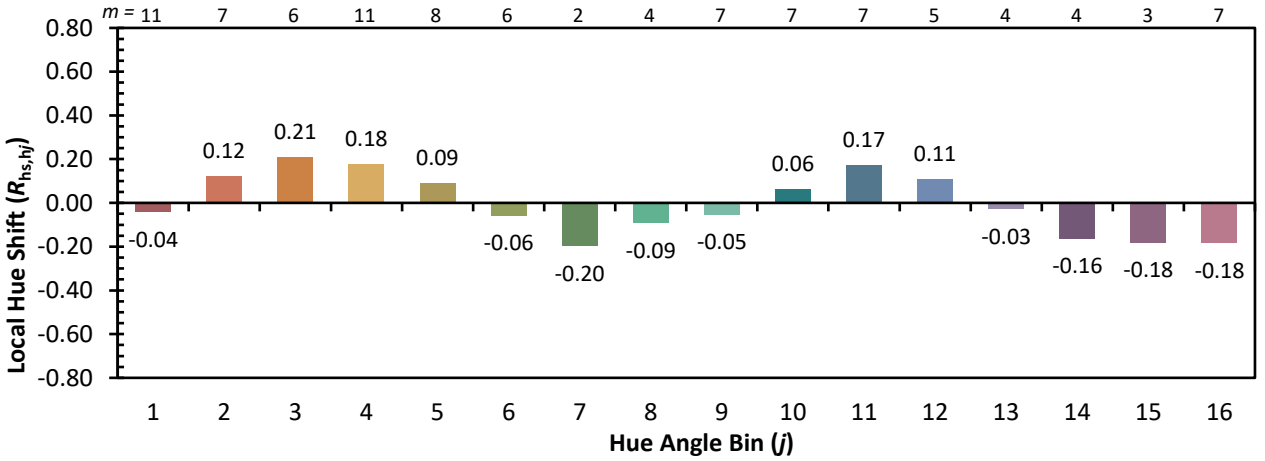


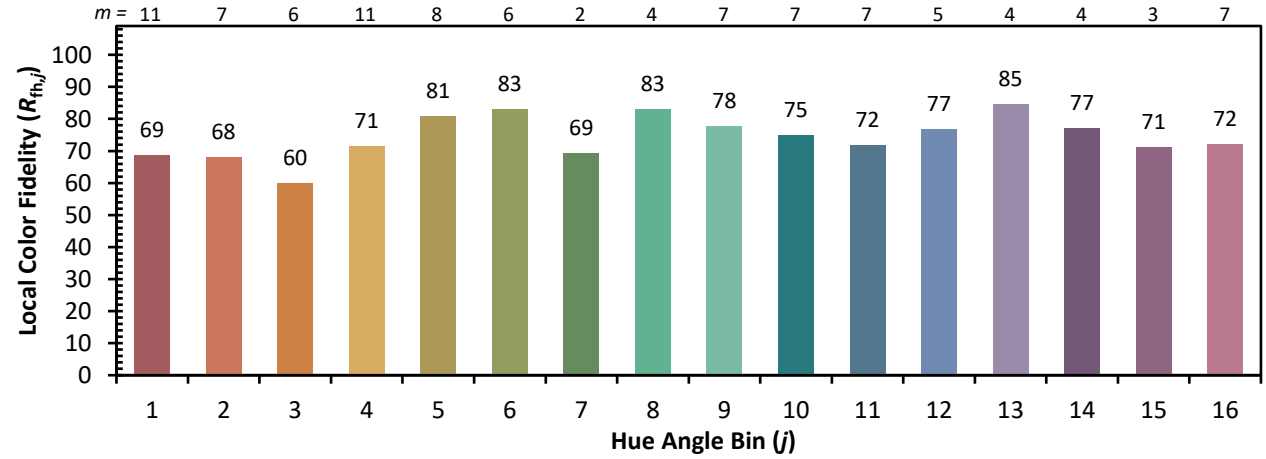
REPORT NUMBER: SP1-2407-184-4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



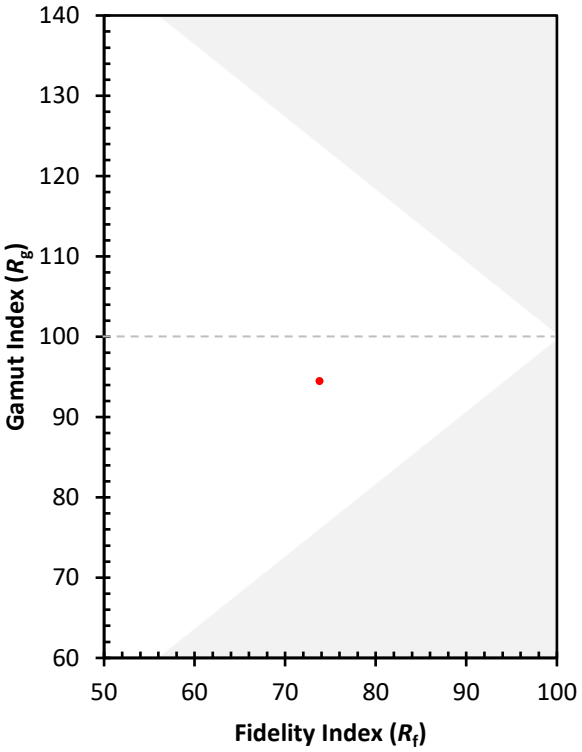



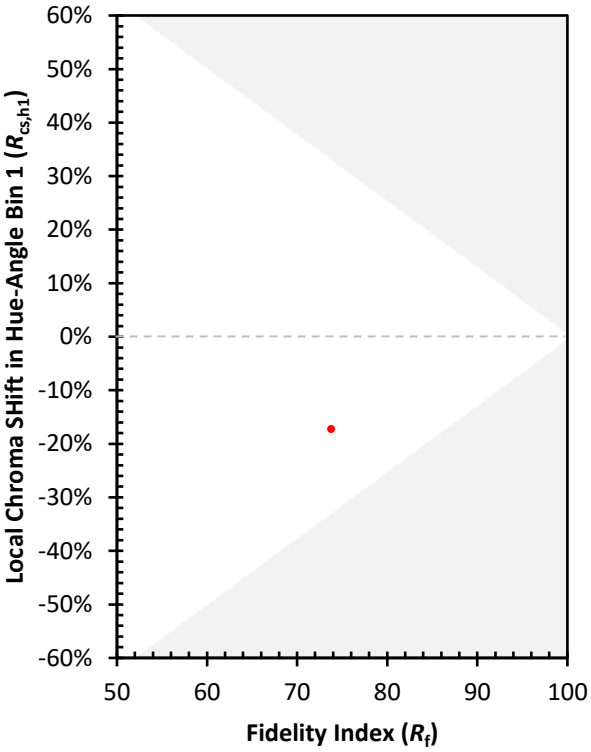



REPORT NUMBER: SP1-2407-184-4

# TM-30-18

## Measure Comparisons




(END OF REPORT)