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: P1366528

Luminaire Tested: **GSS-SB3B-735-U-T3R**

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: | P1366528 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB3B-735-U-T3R |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 3SQUARE 109W 70CRI 3500K FIXTURE w/ TYPE III ROADWAY DISTRIBUTION OPTIC |
| Light Source: | (78) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 15701.1 lumens |
| Efficiency: | N/A |
| Efficacy: | 144.0 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B2 - U0 - G2 |

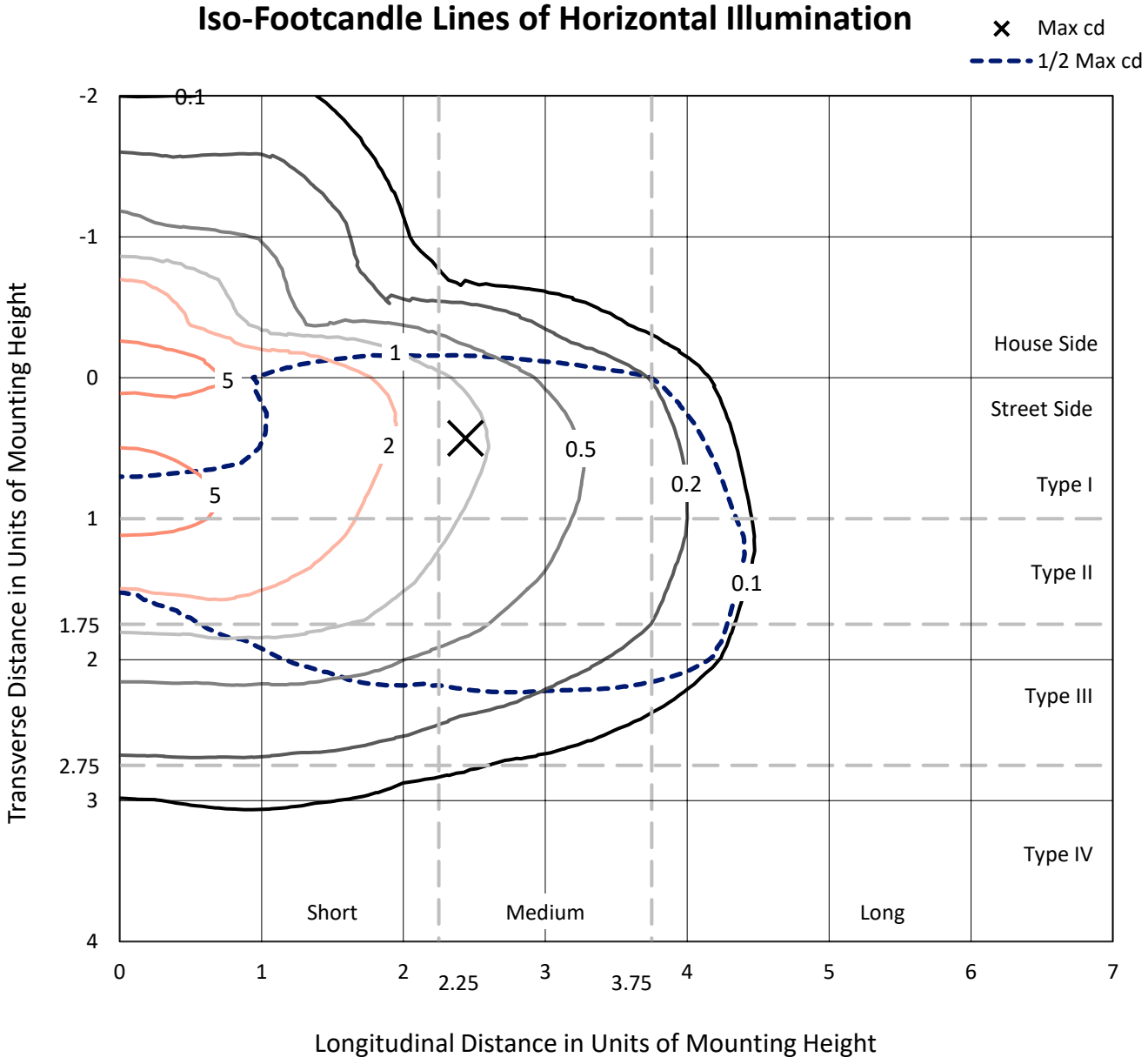
| | |
|---|---|
| Input Watts (W): | 109 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 8.7% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1366528
CATALOG NUMBER: GSS-SB3B-735-U-T3R

## Iso-Footcandle Lines of Horizontal Illumination



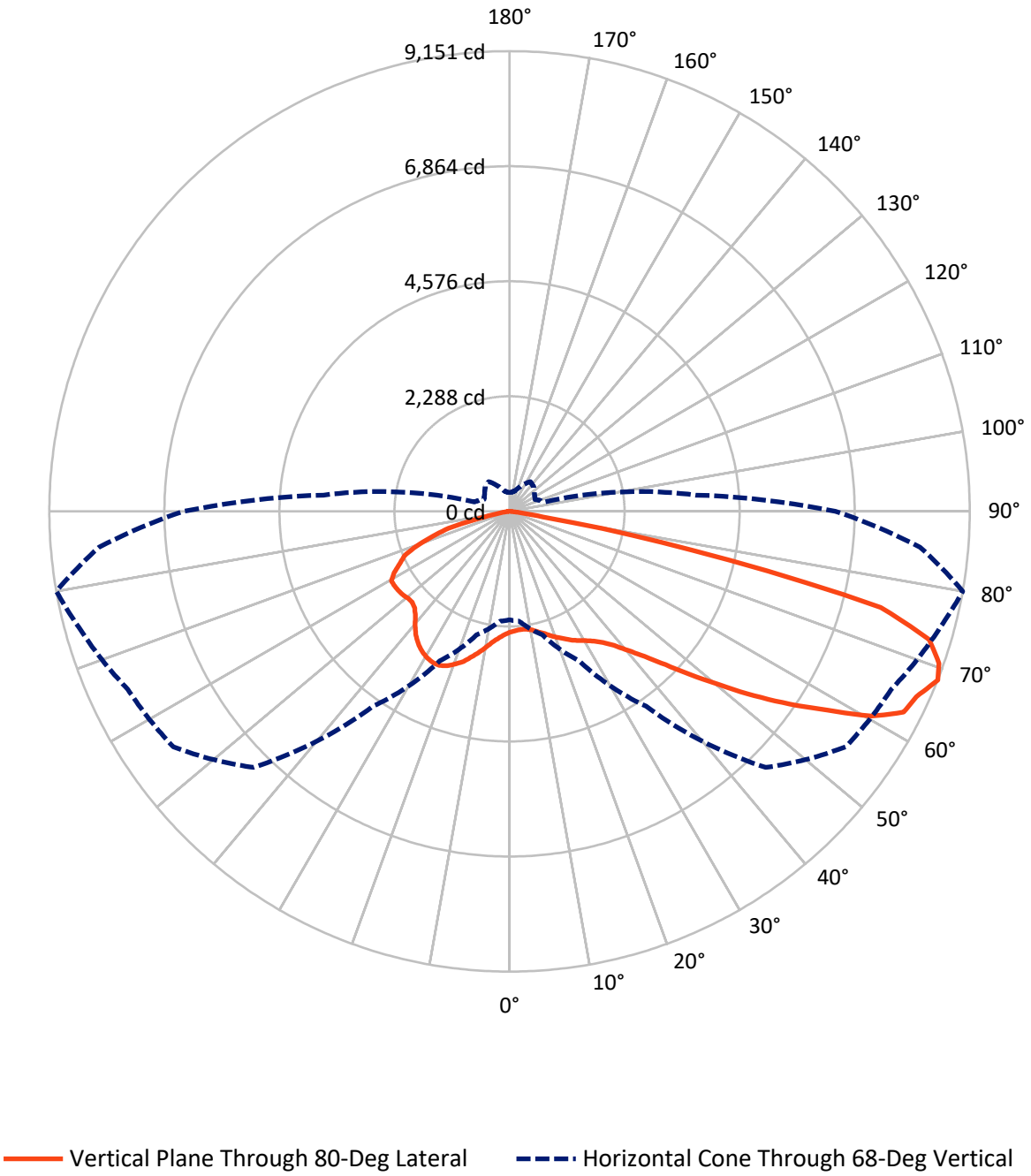

Based on 20 foot mounting height. Maximum calculated value = 6.8 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

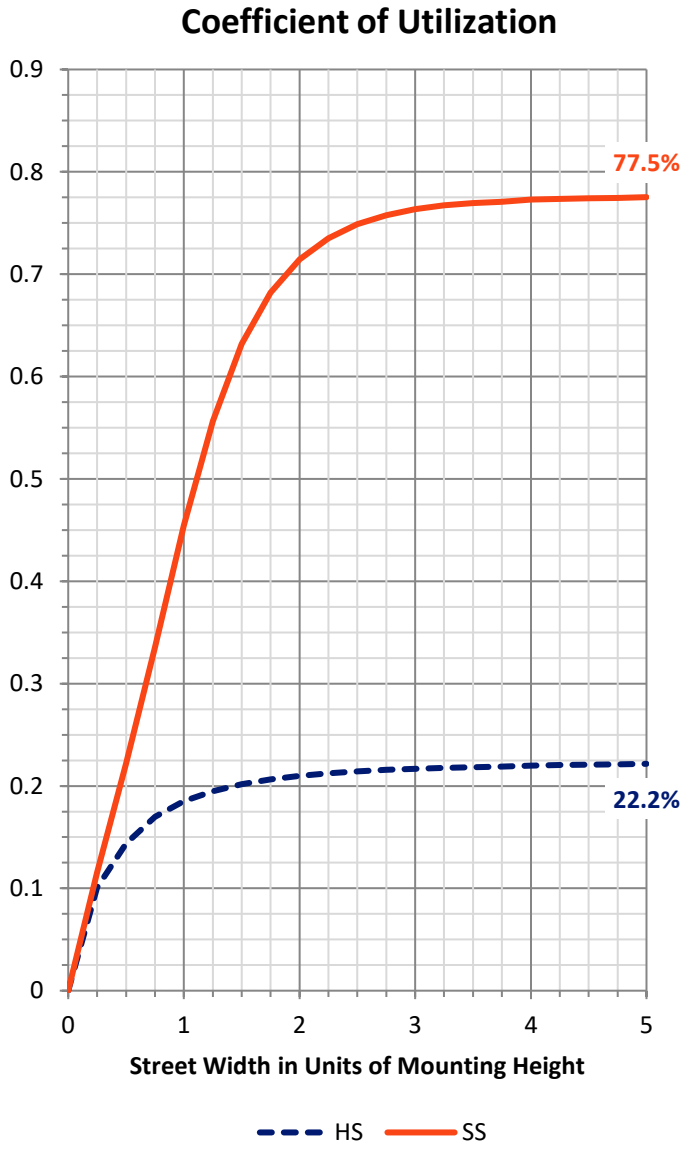
REPORT NUMBER: P1366528
CATALOG NUMBER: GSS-SB3B-735-U-T3R

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3508.6 | 0.0 | 3508.6 |
| | % Fixture | 22.3 | 0.0 | 22.3 |
| **Street Side** | Lumens | 12192.5 | 0.0 | 12192.5 |
| | % Fixture | 77.7 | 0.0 | 77.7 |
| **Total** | Lumens | 15701.1 | 0.0 | 15701.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 232.2 | 1.5 |
| 10°-20° | 662.9 | 4.2 |
| 20°-30° | 1093.0 | 7.0 |
| 30°-40° | 1678.0 | 10.7 |
| 40°-50° | 2590.9 | 16.5 |
| 50°-60° | 3578.7 | 22.8 |
| 60°-70° | 3667.8 | 23.4 |
| 70°-80° | 2077.3 | 13.2 |
| 80°-90° | 120.4 | 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° | 15701.1 | 100.0 |
| 0°-180° | 15701.1 | 100.0 |



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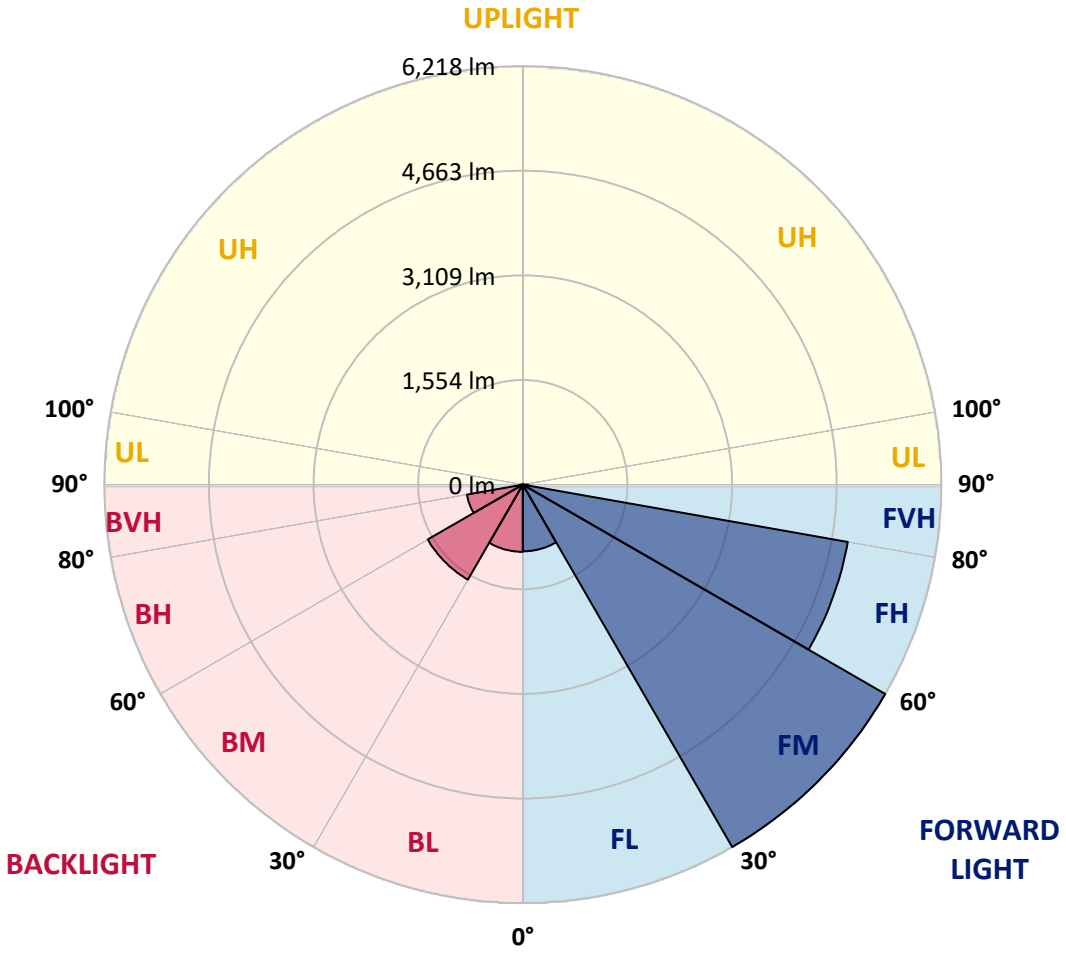
Scaled Data Report

REPORT NUMBER: P1366528
CATALOG NUMBER: GSS-SB3B-735-U-T3R

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 989.9 | 6.3 | | | |
| FM | (30°-60°) | 6217.7 | 39.6 | | | |
| FH | (60°-80°) | 4901.8 | 31.2 | | | G2/5000 |
| FVH | (80°-90°) | 83.0 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 998.1 | 6.4 | B2/1000 | | |
| BM | (30°-60°) | 1629.9 | 10.4 | B2/2500 | | |
| BH | (60°-80°) | 843.2 | 5.4 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 37.4 | 0.2 | | | 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 III Medium



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Scaled Data Report

REPORT NUMBER: P1366528
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | *2398.6* | 2398.6 |
| 2.5° | 2230.2 | 2222.8 | 2219.2 | 2226.5 | 2237.5 | 2259.5 | 2285.1 | 2303.4 | 2347.3 | *2373.0* | 2395.0 |
| 5° | 2113.0 | 2109.3 | 2109.3 | 2127.6 | 2145.9 | 2171.6 | 2208.2 | 2241.1 | 2307.1 | *2358.3* | 2395.0 |
| 7.5° | 1973.8 | 1970.2 | 1970.2 | 2010.4 | 2047.1 | 2105.7 | 2164.2 | 2219.2 | 2299.7 | *2365.7* | 2424.2 |
| 10° | 1827.3 | 1827.3 | 1834.7 | 1885.9 | 1948.2 | 2032.4 | 2131.3 | 2215.5 | 2318.1 | *2395.0* | 2475.5 |
| 12.5° | 1765.1 | 1761.4 | 1765.1 | 1812.7 | 1874.9 | 1988.5 | 2102.0 | 2230.2 | 2354.7 | *2453.5* | 2548.8 |
| 15° | 1779.7 | 1772.4 | 1765.1 | 1805.4 | 1853.0 | 1966.5 | 2102.0 | 2259.5 | 2416.9 | *2512.1* | 2644.0 |
| 17.5° | 1856.6 | 1853.0 | 1831.0 | 1842.0 | 1874.9 | 1977.5 | 2120.3 | 2303.4 | 2479.2 | *2592.7* | 2735.5 |
| 20° | 2006.8 | 1995.8 | 1962.8 | 1944.5 | 1948.2 | 2014.1 | 2153.3 | 2362.0 | 2537.8 | *2673.3* | 2834.4 |
| 22.5° | 2255.8 | 2248.5 | 2193.5 | 2120.3 | 2072.7 | 2091.0 | 2211.9 | 2427.9 | 2618.3 | *2746.5* | 2947.9 |
| 25° | 2585.4 | 2567.1 | 2482.8 | 2365.7 | 2255.8 | 2215.5 | 2285.1 | 2515.8 | 2695.2 | *2834.4* | 3054.1 |
| 27.5° | 2936.9 | 2940.6 | 2863.7 | 2687.9 | 2497.5 | 2362.0 | 2380.3 | 2603.7 | 2783.1 | *2907.6* | 3145.7 |
| 30° | 3347.1 | 3328.8 | 3244.5 | 3061.4 | 2783.1 | 2556.1 | 2479.2 | 2687.9 | 2863.7 | *2980.9* | 3255.5 |
| 32.5° | 3889.1 | 3892.7 | 3742.6 | 3460.6 | 3112.7 | 2794.1 | 2607.3 | 2775.8 | 2955.2 | *3076.1* | 3391.0 |
| 35° | 4544.6 | 4529.9 | 4350.5 | 4009.9 | 3537.5 | 3068.8 | 2772.1 | 2889.3 | 3065.1 | *3200.6* | 3548.5 |
| 37.5° | 5130.5 | 5090.2 | 4984.0 | 4658.1 | 4072.2 | 3442.3 | 2995.5 | 3039.5 | 3237.2 | *3380.0* | 3782.9 |
| 40° | 5654.1 | 5635.8 | 5617.5 | 5368.5 | 4683.7 | 3907.4 | 3288.5 | 3270.2 | 3449.6 | *3636.4* | 4072.2 |
| 42.5° | 6086.3 | 6082.6 | 6089.9 | 6035.0 | 5430.8 | 4489.6 | 3698.6 | 3570.5 | 3749.9 | *3940.3* | 4412.7 |
| 45° | 6401.2 | 6393.9 | 6470.8 | 6584.3 | 6159.5 | 5185.4 | 4182.0 | 3944.0 | 4130.7 | *4346.8* | 4844.8 |
| 47.5° | 6738.1 | 6741.8 | 6848.0 | 7038.4 | 6869.9 | 5877.5 | 4731.3 | 4409.1 | 4577.5 | *4852.2* | 5361.2 |
| 50° | 6869.9 | 6869.9 | 7122.6 | 7393.6 | 7441.2 | 6613.6 | 5386.8 | 4962.0 | 5134.1 | *5427.1* | 5881.2 |
| 52.5° | 6584.3 | 6639.2 | 7082.3 | 7591.3 | 7814.7 | 7294.7 | 6078.9 | 5562.6 | 5709.1 | *6086.3* | 6397.5 |
| 55° | 4987.7 | 5181.7 | 6774.7 | 7496.1 | 7953.9 | 7829.4 | 6767.4 | 6229.1 | 6390.2 | *6763.7* | 6928.5 |
| 57.5° | 4306.5 | 4357.8 | 5313.6 | 7162.9 | 7778.1 | 8118.7 | 7404.6 | 6939.5 | 7086.0 | *7452.2* | 7481.5 |
| 60° | 3786.5 | 3856.1 | 4442.0 | 6598.9 | 7430.2 | 8089.4 | 7935.6 | 7595.0 | 7800.1 | *8265.2* | 8041.8 |
| 62.5° | 3068.8 | 3142.0 | 3636.4 | 5273.3 | 6972.5 | 7884.3 | 8349.4 | 8213.9 | 8408.0 | *8796.1* | 8272.5 |
| 65° | 2702.6 | 2728.2 | 3083.4 | 4042.9 | 6130.2 | 7708.5 | 8561.8 | 8477.5 | 8561.8 | *8887.7* | 8155.3 |
| 67.5° | 2252.1 | 2303.4 | 2647.6 | 3431.3 | 4951.0 | 7335.0 | 8246.8 | 8367.7 | 8785.2 | *9107.4* | 8243.2 |
| 68° | *2156.9* | *2193.5* | *2545.1* | *3281.2* | *4731.3* | *7199.5* | *8162.6* | *8375.0* | *8873.0* | *9151.4* | *8195.6* |
| 70° | 1761.4 | 1812.7 | 2124.0 | 2750.2 | 3966.0 | 5764.0 | 7833.0 | 8517.8 | 8935.3 | *9059.8* | 7935.6 |
| 72.5° | 871.6 | 963.1 | 1464.8 | 1940.9 | 2863.7 | 4167.4 | 6866.3 | 8334.7 | 8807.1 | *8730.2* | 7386.3 |
| 75° | 307.6 | 329.6 | 684.8 | 1051.0 | 1387.9 | 2698.9 | 4855.8 | 7598.7 | 8074.7 | *7624.3* | 6192.5 |
| 77.5° | 219.7 | 238.0 | 388.2 | 531.0 | 571.3 | 1354.9 | 3112.7 | 5024.3 | 4775.3 | *3698.6* | 2819.7 |
| 80° | 172.1 | 186.8 | 289.3 | 296.6 | 285.6 | 476.1 | 1062.0 | 1523.4 | 1073.0 | *673.8* | 487.0 |
| 82.5° | 106.2 | 128.2 | 216.1 | 179.4 | 131.8 | 150.1 | 249.0 | 410.1 | 293.0 | *186.8* | 150.1 |
| 85° | 40.3 | 51.3 | 98.9 | 69.6 | 43.9 | 58.6 | 84.2 | 109.9 | 84.2 | *62.3* | 54.9 |
| 87.5° | 3.7 | 3.7 | 7.3 | 7.3 | 11.0 | 14.6 | 22.0 | 29.3 | 33.0 | *33.0* | 33.0 |
| 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: P1366528
CATALOG NUMBER: GSS-SB3B-735-U-T3R

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 | 2398.6 |
| 2.5° | 2409.6 | 2420.6 | 2468.2 | 2493.8 | 2541.4 | 2578.1 | 2600.0 | 2611.0 | 2622.0 | 2629.3 | 2625.7 |
| 5° | 2435.2 | 2468.2 | 2559.7 | 2629.3 | 2684.3 | 2720.9 | 2739.2 | 2753.8 | 2757.5 | 2764.8 | 2761.2 |
| 7.5° | 2482.8 | 2534.1 | 2673.3 | 2753.8 | 2801.4 | 2816.1 | 2801.4 | 2794.1 | 2783.1 | 2772.1 | 2772.1 |
| 10° | 2559.7 | 2640.3 | 2805.1 | 2863.7 | 2867.4 | 2845.4 | 2797.8 | 2742.8 | 2702.6 | 2687.9 | 2680.6 |
| 12.5° | 2658.6 | 2772.1 | 2940.6 | 2955.2 | 2907.6 | 2805.1 | 2669.6 | 2556.1 | 2482.8 | 2427.9 | 2424.2 |
| 15° | 2779.5 | 2911.3 | 3057.8 | 3013.8 | 2878.3 | 2662.3 | 2438.9 | 2277.8 | 2193.5 | 2145.9 | 2124.0 |
| 17.5° | 2904.0 | 3072.4 | 3164.0 | 3043.1 | 2757.5 | 2405.9 | 2138.6 | 2010.4 | 1933.5 | 1907.9 | 1889.6 |
| 20° | 3043.1 | 3204.3 | 3237.2 | 2999.2 | 2537.8 | 2120.3 | 1878.6 | 1798.0 | 1798.0 | 1790.7 | 1783.4 |
| 22.5° | 3185.9 | 3339.8 | 3277.5 | 2878.3 | 2248.5 | 1838.3 | 1691.8 | 1721.1 | 1772.4 | 1787.1 | 1787.1 |
| 25° | 3317.8 | 3456.9 | 3277.5 | 2662.3 | 1904.2 | 1607.6 | 1618.6 | 1688.2 | 1754.1 | 1790.7 | 1790.7 |
| 27.5° | 3445.9 | 3530.2 | 3211.6 | 2358.3 | 1593.0 | 1490.4 | 1556.4 | 1640.6 | 1746.8 | 1801.7 | 1805.4 |
| 30° | 3574.1 | 3585.1 | 3094.4 | 1970.2 | 1369.6 | 1406.2 | 1483.1 | 1593.0 | 1710.2 | 1779.7 | 1787.1 |
| 32.5° | 3709.6 | 3636.4 | 2929.6 | 1585.6 | 1267.1 | 1325.6 | 1417.2 | 1505.1 | 1596.6 | 1647.9 | 1651.6 |
| 35° | 3863.4 | 3684.0 | 2717.2 | 1289.0 | 1201.1 | 1270.7 | 1340.3 | 1369.6 | 1395.2 | 1424.5 | 1442.8 |
| 37.5° | 4031.9 | 3746.2 | 2438.9 | 1138.9 | 1138.9 | 1219.4 | 1259.7 | 1201.1 | 1193.8 | 1190.2 | 1179.2 |
| 40° | 4218.6 | 3812.2 | 2091.0 | 1062.0 | 1091.3 | 1164.5 | 1131.6 | 1062.0 | 1010.7 | 955.8 | 959.4 |
| 42.5° | 4453.0 | 3896.4 | 1695.5 | 1025.4 | 1058.3 | 1120.6 | 1029.0 | 944.8 | 805.6 | 769.0 | 776.3 |
| 45° | 4720.3 | 4002.6 | 1380.6 | 992.4 | 1032.7 | 1080.3 | 959.4 | 798.3 | 710.4 | 747.0 | 772.7 |
| 47.5° | 5002.3 | 4141.7 | 1153.5 | 966.8 | 1021.7 | 1032.7 | 915.5 | 732.4 | 673.8 | 754.4 | 787.3 |
| 50° | 5335.5 | 4269.9 | 1047.3 | 941.1 | 1018.0 | 1018.0 | 838.6 | 721.4 | 644.5 | 714.1 | 747.0 |
| 52.5° | 5672.5 | 4394.4 | 992.4 | 911.8 | 1007.1 | 1014.4 | 820.3 | 706.8 | 604.2 | 626.2 | 640.9 |
| 55° | 6002.0 | 4464.0 | 963.1 | 871.6 | 996.1 | 996.1 | 827.6 | 681.1 | 563.9 | 563.9 | 571.3 |
| 57.5° | 6335.3 | 4511.6 | 937.5 | 824.0 | 959.4 | 941.1 | 827.6 | 662.8 | 549.3 | 534.7 | 542.0 |
| 60° | 6705.1 | 4540.9 | 911.8 | 769.0 | 908.2 | 875.2 | 824.0 | 648.2 | 531.0 | 509.0 | 512.7 |
| 62.5° | 6763.7 | 4335.8 | 864.2 | 710.4 | 838.6 | 820.3 | 809.3 | 629.9 | 501.7 | 457.8 | 457.8 |
| 65° | 6555.0 | 4028.2 | 805.6 | 637.2 | 747.0 | 765.4 | 780.0 | 607.9 | 472.4 | 421.1 | 424.8 |
| 67.5° | 6533.0 | 3797.5 | 743.4 | 571.3 | 626.2 | 695.8 | 743.4 | 571.3 | 428.5 | 384.5 | 380.8 |
| 68° | *6481.8* | *3713.3* | *725.1* | *556.6* | *604.2* | *681.1* | *721.4* | *556.6* | *421.1* | *377.2* | *377.2* |
| 70° | 6152.2 | 3347.1 | 615.2 | 490.7 | 534.7 | 556.6 | 633.5 | 494.4 | 377.2 | 340.6 | 344.2 |
| 72.5° | 5511.3 | 2728.2 | 472.4 | 399.2 | 428.5 | 428.5 | 549.3 | 457.8 | 344.2 | 311.3 | 311.3 |
| 75° | 4595.8 | 2156.9 | 358.9 | 314.9 | 300.3 | 347.9 | 446.8 | 413.8 | 303.9 | 278.3 | 267.3 |
| 77.5° | 2087.3 | 930.2 | 234.4 | 219.7 | 223.4 | 271.0 | 355.2 | 355.2 | 289.3 | 227.0 | 201.4 |
| 80° | 461.4 | 289.3 | 142.8 | 131.8 | 131.8 | 172.1 | 249.0 | 256.3 | 208.7 | 157.5 | 135.5 |
| 82.5° | 153.8 | 117.2 | 87.9 | 80.6 | 76.9 | 91.6 | 153.8 | 168.5 | 124.5 | 91.6 | 91.6 |
| 85° | 58.6 | 54.9 | 47.6 | 43.9 | 36.6 | 36.6 | 47.6 | 76.9 | 65.9 | 43.9 | 43.9 |
| 87.5° | 29.3 | 29.3 | 25.6 | 18.3 | 14.6 | 11.0 | 7.3 | 7.3 | 7.3 | 11.0 | 7.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-5

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-735-U-5WQ

Data in this report applies to families of products including GSS-SB1A-735-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

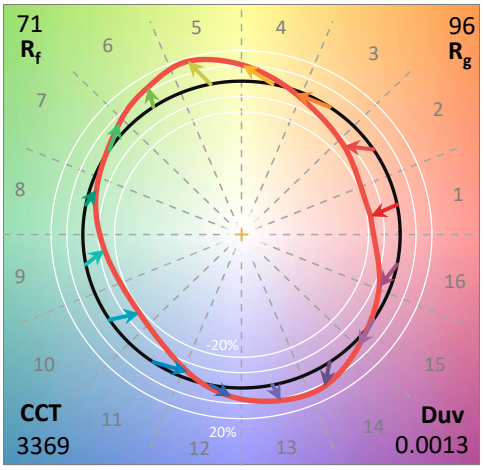
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-5 |
| 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-735-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3500K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3369 |
| CIE u': | 0.2386 |
| CIE v': | 0.5156 |
| Duv: | 0.0013 |
| CIE x: | 0.4143 |
| CIE y: | 0.3980 |
| CIE z: | 0.1877 |
| Peak Wavelength (nm): | 590 |
| Dominant Wavelength (nm): | 580 |
| Purity: | 43.80166 |
| Rf: | 71.4 |
| Rg: | 96 |

| | |
|---|---|
| CRI (Ra): | 70.1 |
| R1: | 66.6 |
| R2: | 77.6 |
| R3: | 88.5 |
| R4: | 69.5 |
| R5: | 66.4 |
| R6: | 69.6 |
| R7: | 77.5 |
| R8: | 44.9 |
| R9: | -40.2 |
| R10: | 49.1 |
| R11: | 66.3 |
| R12: | 45.7 |
| R13: | 68.0 |
| R14: | 93.4 |
| R15: | 57.6 |




## Test Conditions

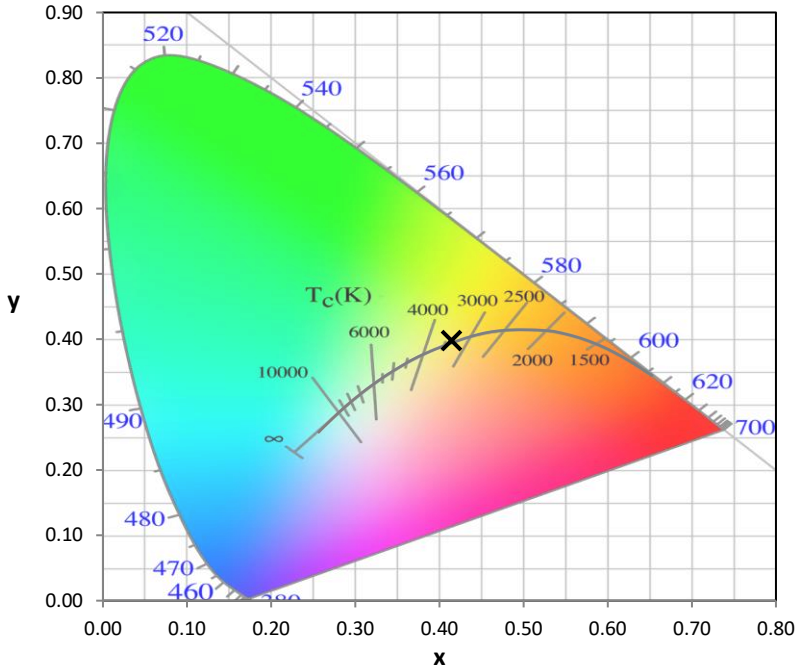
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-5

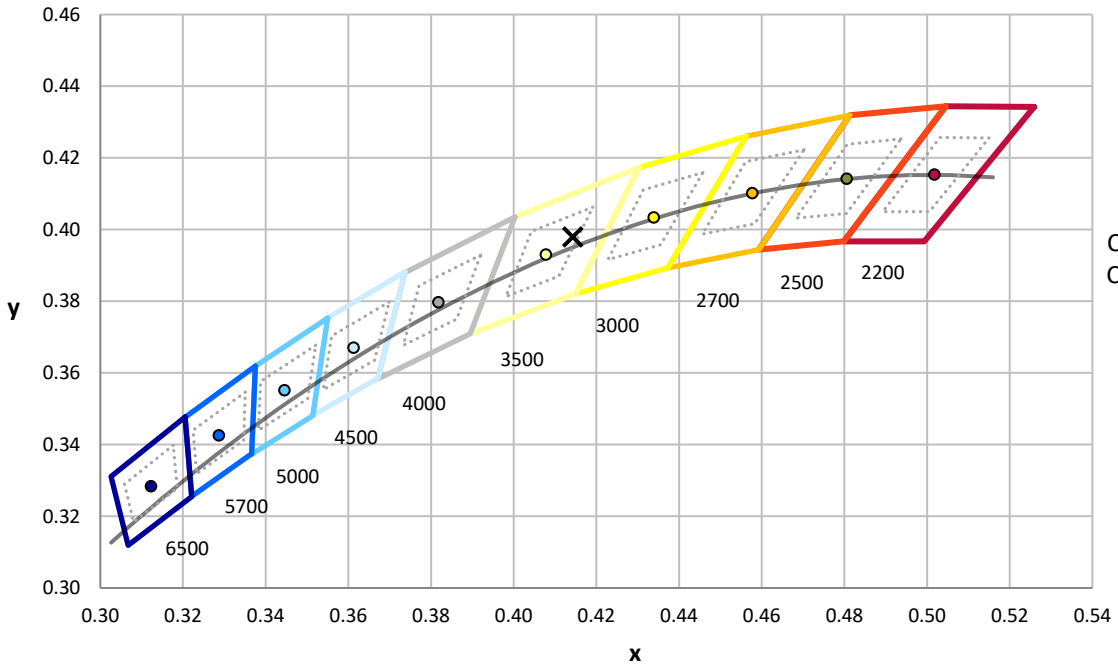
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC 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: SP1-2407-184-5

**CIE 1931 Chromaticity Diagram**




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

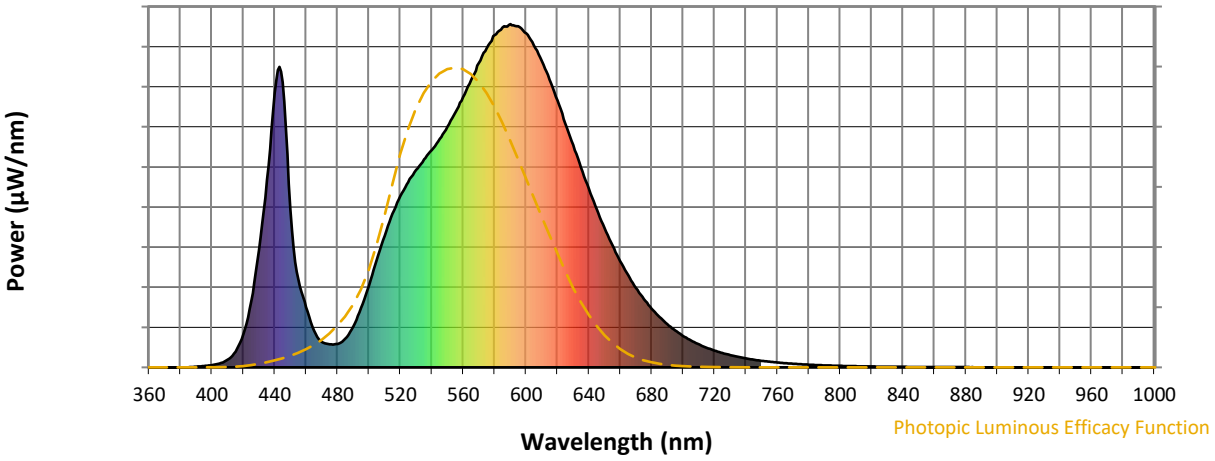



CCT = 3369K
CIE x = 0.4143
CIE y = 0.3980
Duv = 0.0013

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-5

## Photopic Flux vs. Wavelength

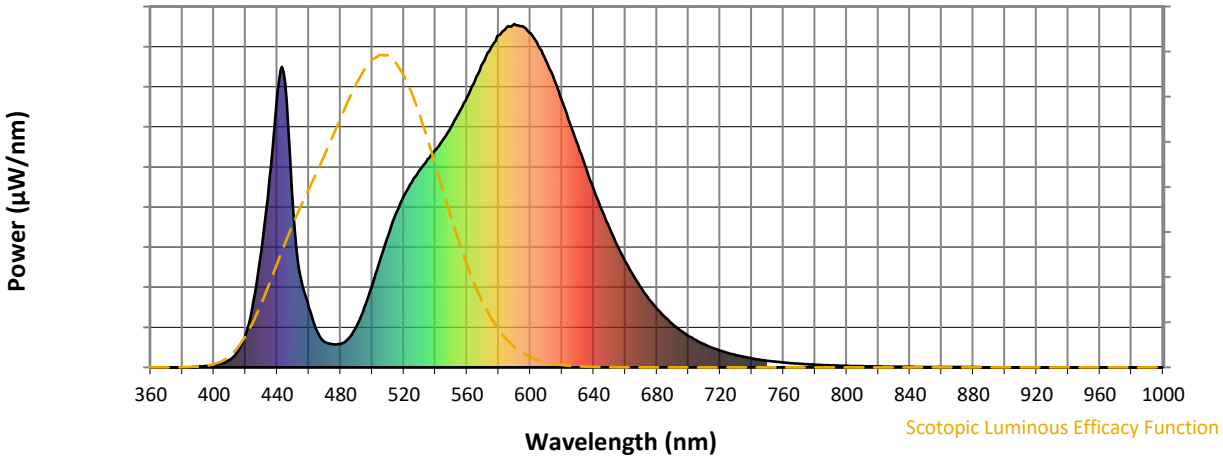



## Photopic Lumens: NR

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-5

## Scotopic Flux vs. Wavelength

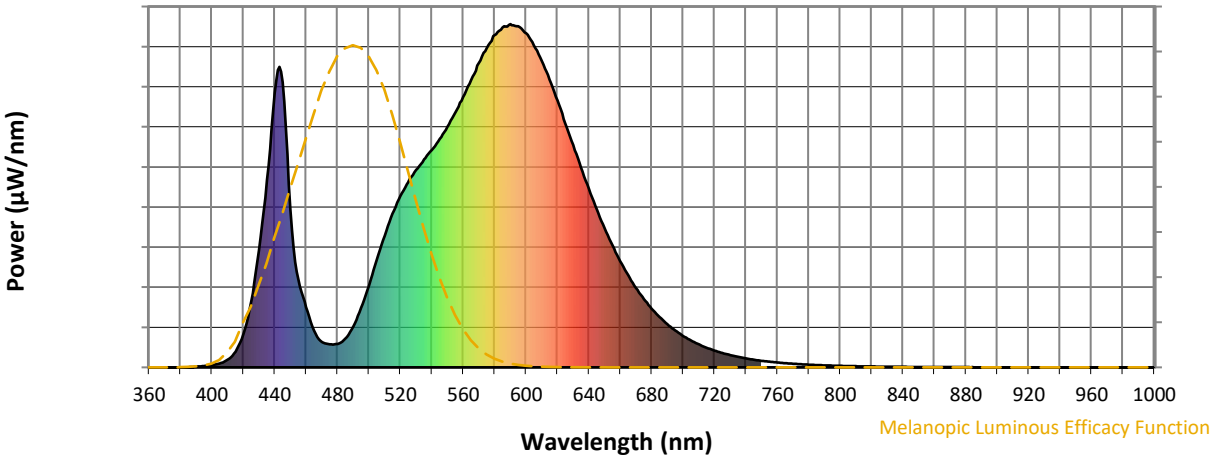



**Scotopic Lumens: NR** **S/P: 1.29**

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-5

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.36**

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

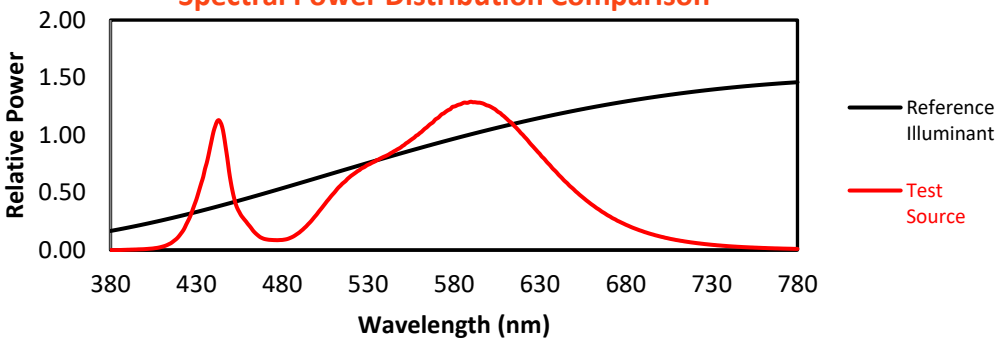
REPORT NUMBER: SP1-2407-184-5

# TM-30-18

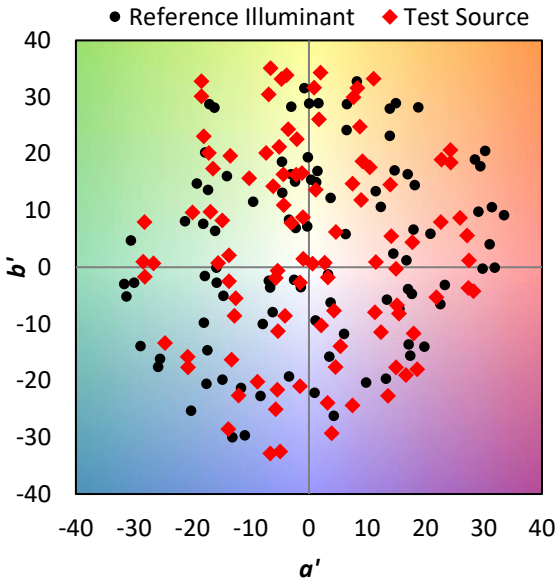
## Summary

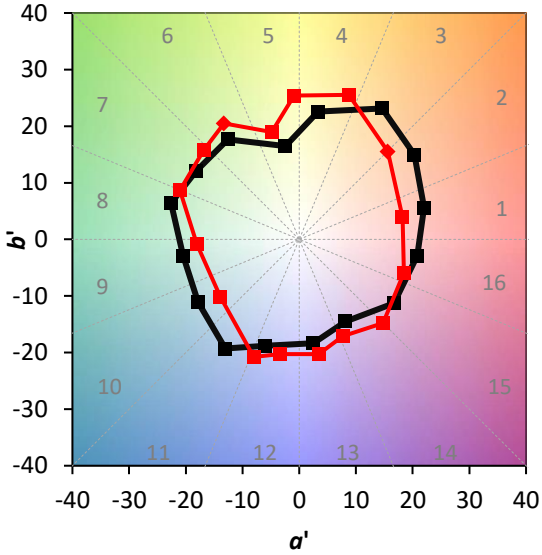
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

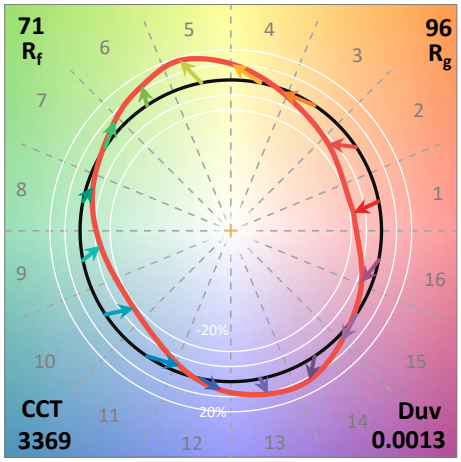
## Spectral Power Distribution Comparison

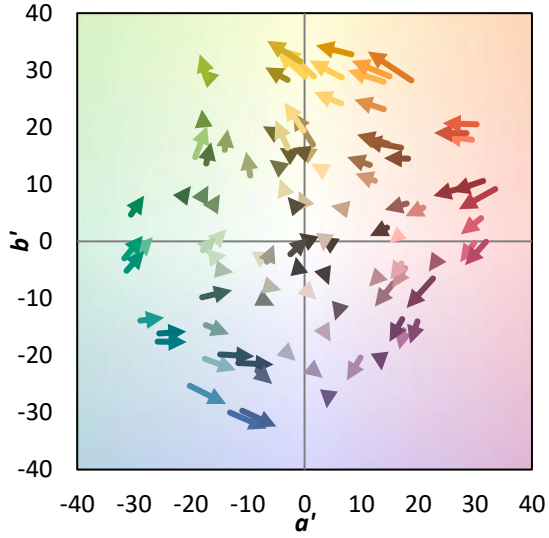



## Color Vector Graphics



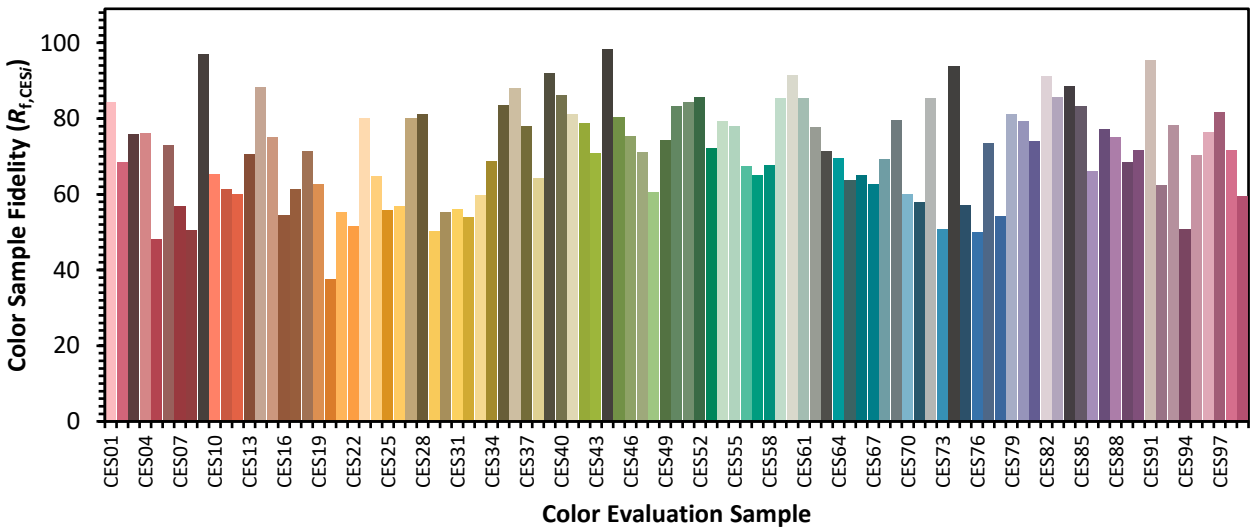



REPORT NUMBER: SP1-2407-184-5

# TM-30-18

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

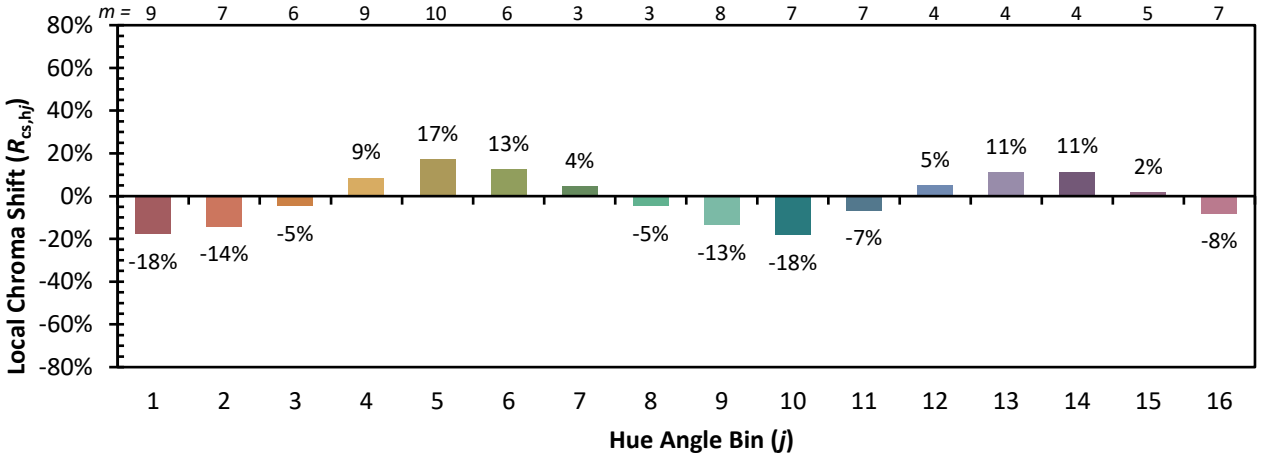
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 57 | CES51 = 84 | CES76 = 50 |
| CES02 = 62 | CES27 = 80 | CES52 = 86 | CES77 = 74 |
| CES03 = 31 | CES28 = 81 | CES53 = 72 | CES78 = 54 |
| CES04 = 70 | CES29 = 50 | CES54 = 79 | CES79 = 81 |
| CES05 = 48 | CES30 = 55 | CES55 = 78 | CES80 = 79 |
| CES06 = 51 | CES31 = 56 | CES56 = 67 | CES81 = 74 |
| CES07 = 40 | CES32 = 54 | CES57 = 65 | CES82 = 91 |
| CES08 = 39 | CES33 = 60 | CES58 = 68 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 85 | CES84 = 89 |
| CES10 = 75 | CES35 = 83 | CES60 = 91 | CES85 = 83 |
| CES11 = 58 | CES36 = 88 | CES61 = 85 | CES86 = 66 |
| CES12 = 64 | CES37 = 78 | CES62 = 78 | CES87 = 77 |
| CES13 = 43 | CES38 = 64 | CES63 = 71 | CES88 = 75 |
| CES14 = 74 | CES39 = 92 | CES64 = 70 | CES89 = 68 |
| CES15 = 71 | CES40 = 86 | CES65 = 64 | CES90 = 72 |
| CES16 = 47 | CES41 = 81 | CES66 = 65 | CES91 = 95 |
| CES17 = 50 | CES42 = 79 | CES67 = 63 | CES92 = 62 |
| CES18 = 56 | CES43 = 71 | CES68 = 69 | CES93 = 78 |
| CES19 = 72 | CES44 = 98 | CES69 = 80 | CES94 = 51 |
| CES20 = 65 | CES45 = 80 | CES70 = 60 | CES95 = 70 |
| CES21 = 87 | CES46 = 75 | CES71 = 58 | CES96 = 76 |
| CES22 = 79 | CES47 = 71 | CES72 = 85 | CES97 = 82 |
| CES23 = 92 | CES48 = 61 | CES73 = 51 | CES98 = 72 |
| CES24 = 91 | CES49 = 74 | CES74 = 94 | CES99 = 60 |
| CES25 = 72 | CES50 = 83 | CES75 = 57 | |

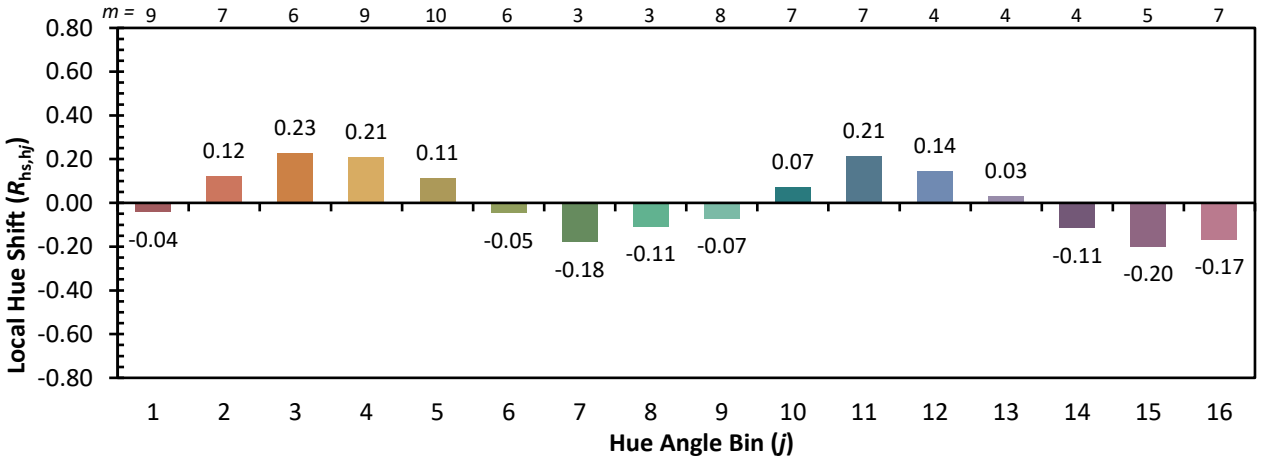


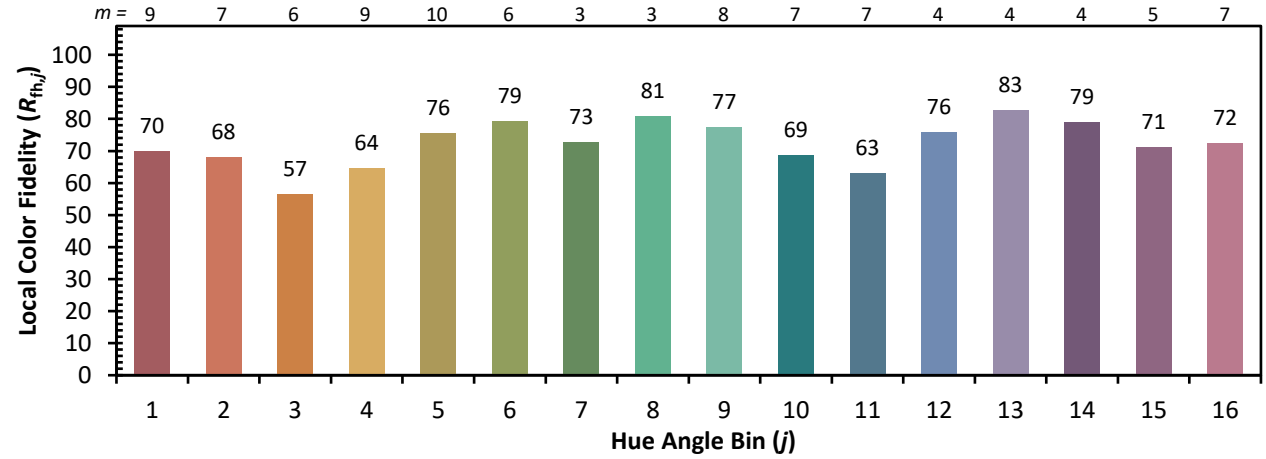
REPORT NUMBER: SP1-2407-184-5

**TM-30-18**

## Color Rendition by Hue-Angle Bin



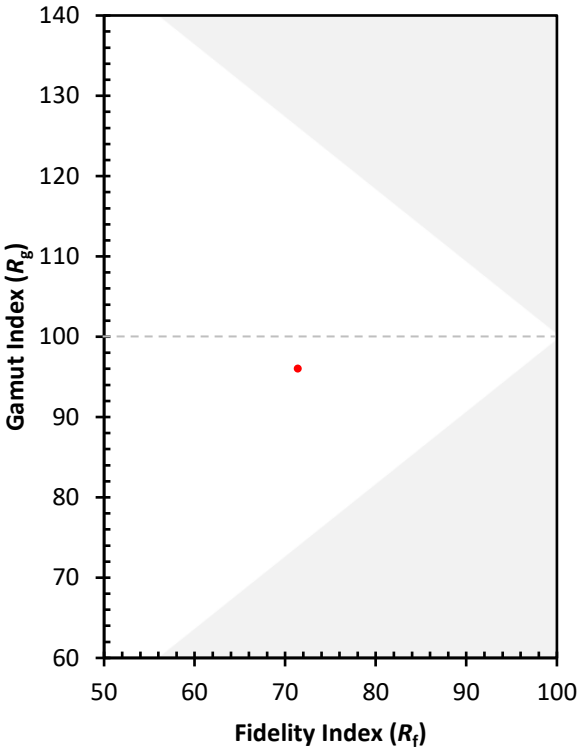



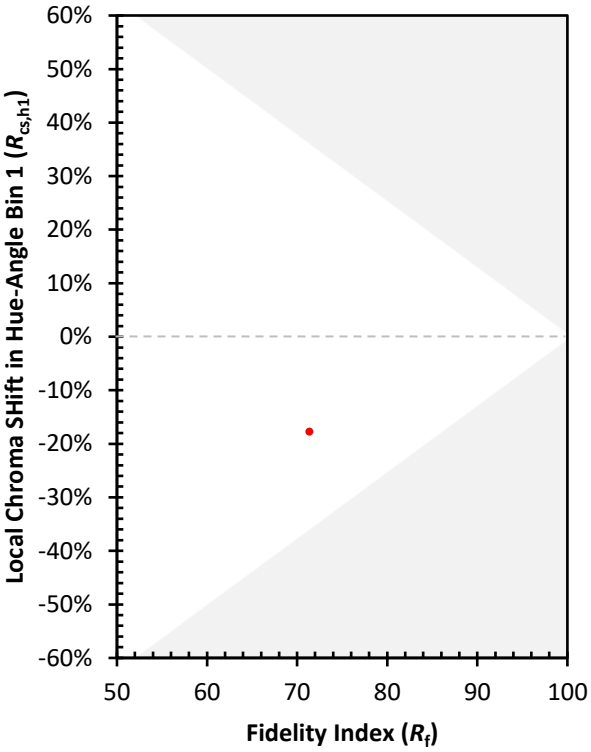



REPORT NUMBER: SP1-2407-184-5

# TM-30-18

## Measure Comparisons




(END OF REPORT)