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: P1360284

Luminaire Tested: **GSS-SB2B-740-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: | P1360284 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB2B-740-U-T3-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 2SQUARE 74W 70CRI 4000K FIXTURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (52) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 8045.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 108.7 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B1 - U0 - G2 |

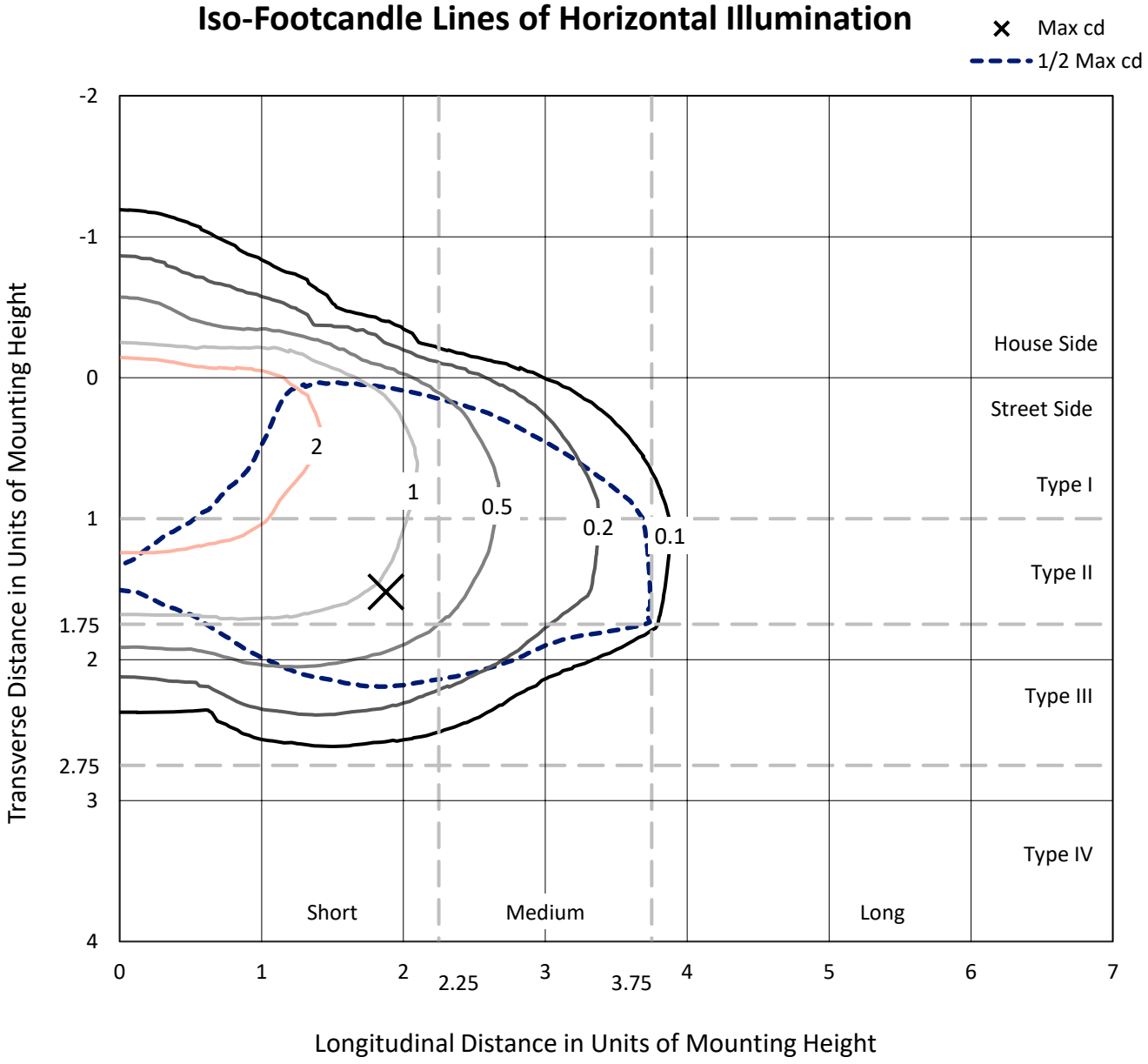
| | |
|---|---|
| Input Watts (W): | 74 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 13.6% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1360284
CATALOG NUMBER: GSS-SB2B-740-U-T3-HSS

## Iso-Footcandle Lines of Horizontal Illumination



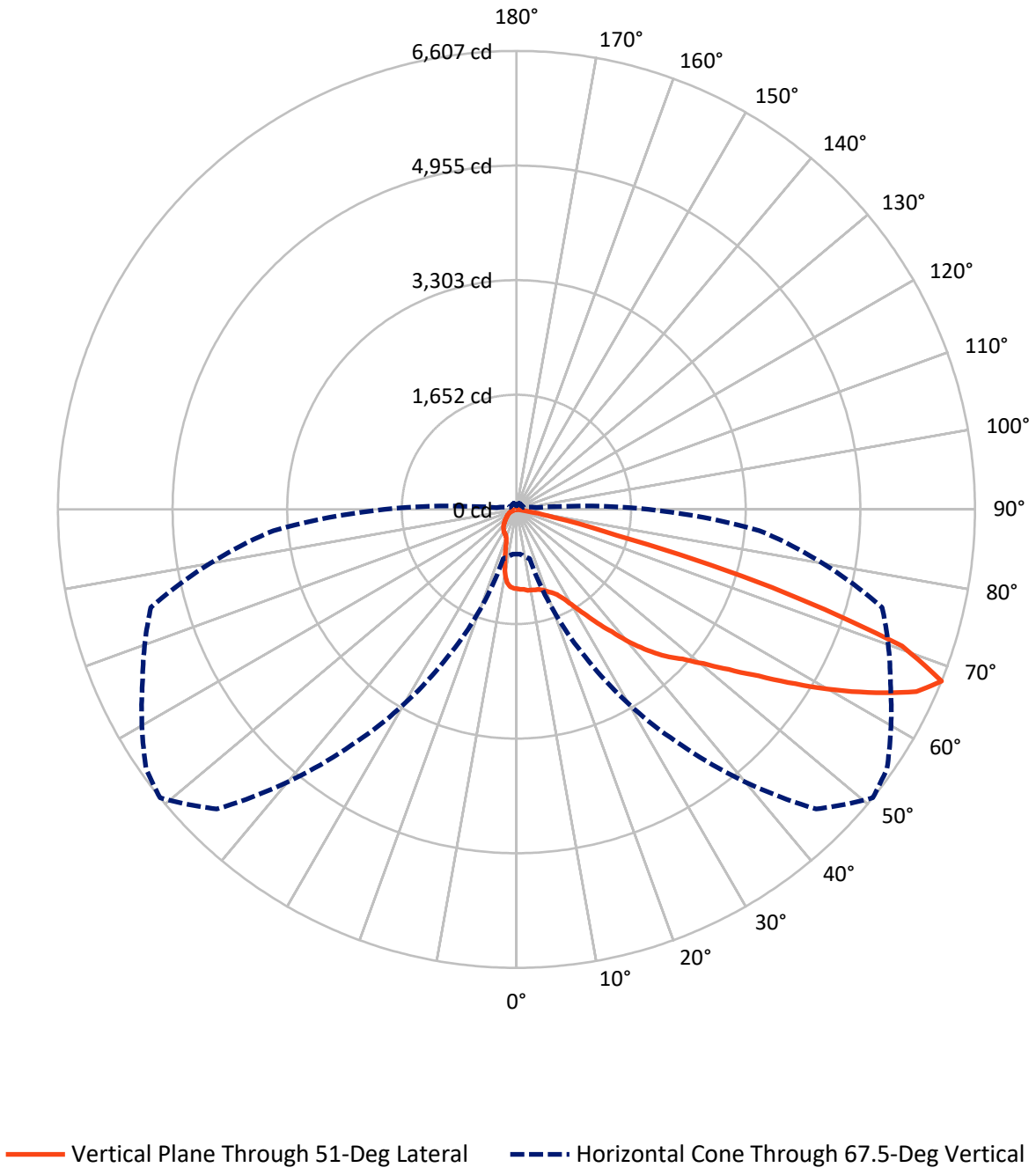

Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
Type III - Short - N/A

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Scaled Data Report

REPORT NUMBER: P1360284
CATALOG NUMBER: GSS-SB2B-740-U-T3-HSS

## Luminous Intensity Polar Plot



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Scaled Data Report

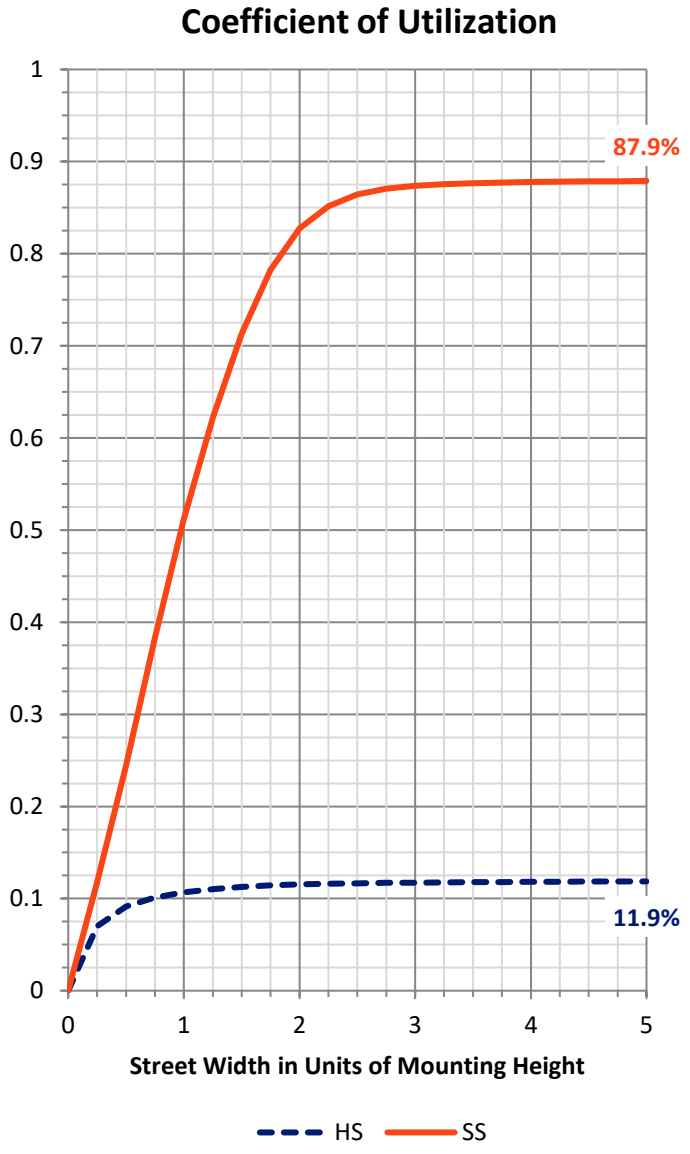
REPORT NUMBER: P1360284
CATALOG NUMBER: GSS-SB2B-740-U-T3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 962.0 | 0.0 | 962.0 |
| | % Fixture | 12.0 | 0.0 | 12.0 |
| **Street Side** | Lumens | 7083.6 | 0.0 | 7083.6 |
| | % Fixture | 88.0 | 0.0 | 88.0 |
| **Total** | Lumens | 8045.6 | 0.0 | 8045.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 104.3 | 1.3 |
| 10°-20° | 268.2 | 3.3 |
| 20°-30° | 478.1 | 5.9 |
| 30°-40° | 855.7 | 10.6 |
| 40°-50° | 1347.9 | 16.8 |
| 50°-60° | 1960.5 | 24.4 |
| 60°-70° | 2133.0 | 26.5 |
| 70°-80° | 861.7 | 10.7 |
| 80°-90° | 36.2 | 0.5 |
| 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° | 8045.6 | 100.0 |
| 0°-180° | 8045.6 | 100.0 |



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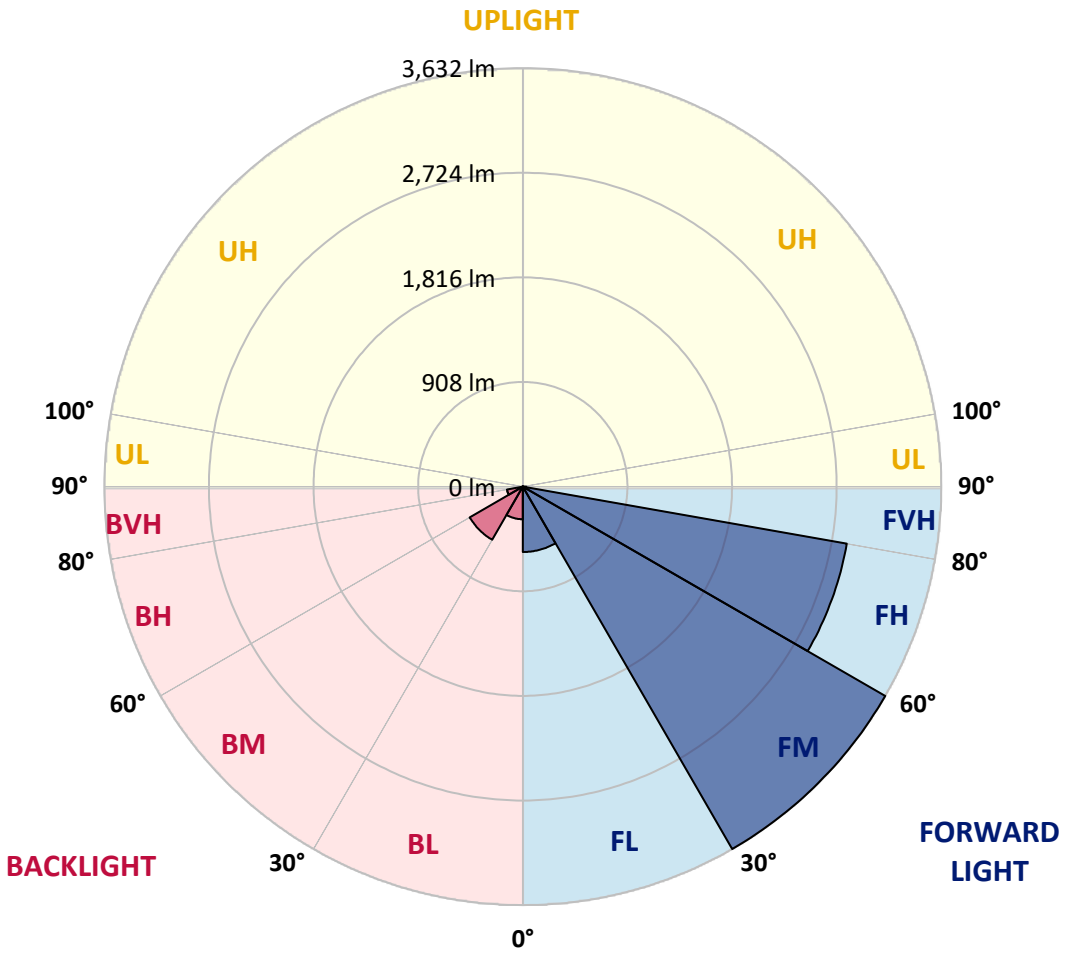
Scaled Data Report

REPORT NUMBER: P1360284
CATALOG NUMBER: GSS-SB2B-740-U-T3-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 567.3 | 7.1 | | | |
| FM | (30°-60°) | 3632.0 | 45.1 | | | |
| FH | (60°-80°) | 2854.9 | 35.5 | | | G2/5000 |
| FVH | (80°-90°) | 29.4 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 283.3 | 3.5 | B1/500 | | |
| BM | (30°-60°) | 532.0 | 6.6 | B1/1000 | | |
| BH | (60°-80°) | 139.8 | 1.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 6.8 | 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



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REPORT NUMBER: P1360284
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 51° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 |
| 2.5° | 1152.1 | 1149.7 | 1152.1 | 1142.5 | 1147.3 | 1149.7 | 1154.5 | 1147.3 | 1144.9 | 1147.3 | 1144.9 |
| 5° | 1147.3 | 1144.9 | 1147.3 | 1149.7 | 1154.5 | 1161.7 | 1159.3 | 1159.3 | 1164.2 | 1154.5 | 1154.5 |
| 7.5° | 1106.3 | 1103.9 | 1118.4 | 1123.2 | 1142.5 | 1159.3 | 1178.6 | 1171.4 | 1181.0 | 1178.6 | 1171.4 |
| 10° | 1055.7 | 1048.5 | 1062.9 | 1089.4 | 1118.4 | 1161.7 | 1181.0 | 1185.8 | 1207.5 | 1217.2 | 1212.4 |
| 12.5° | 1026.8 | 1019.5 | 1038.8 | 1058.1 | 1103.9 | 1156.9 | 1190.7 | 1202.7 | 1226.8 | 1246.1 | 1250.9 |
| 15° | 1005.1 | 1012.3 | 1031.6 | 1067.7 | 1111.1 | 1166.6 | 1195.5 | 1219.6 | 1270.2 | 1289.5 | 1289.5 |
| 17.5° | 1019.5 | 1017.1 | 1034.0 | 1070.2 | 1123.2 | 1178.6 | 1222.0 | 1246.1 | 1306.4 | 1332.9 | 1330.5 |
| 20° | 1161.7 | 1147.3 | 1144.9 | 1125.6 | 1142.5 | 1207.5 | 1260.6 | 1284.7 | 1342.5 | 1378.7 | 1376.3 |
| 22.5° | 1344.9 | 1359.4 | 1320.8 | 1277.4 | 1224.4 | 1246.1 | 1301.5 | 1335.3 | 1393.1 | 1431.7 | 1417.2 |
| 25° | 1593.2 | 1585.9 | 1559.4 | 1472.7 | 1376.3 | 1330.5 | 1359.4 | 1393.1 | 1465.4 | 1496.8 | 1472.7 |
| 27.5° | 1855.9 | 1824.6 | 1790.8 | 1670.3 | 1542.6 | 1458.2 | 1463.0 | 1484.7 | 1569.1 | 1588.4 | 1532.9 |
| 30° | 2137.9 | 2142.7 | 2087.3 | 1923.4 | 1747.4 | 1619.7 | 1610.0 | 1619.7 | 1687.2 | 1684.8 | 1607.6 |
| 32.5° | 2460.9 | 2448.8 | 2395.8 | 2219.8 | 2024.6 | 1814.9 | 1790.8 | 1773.9 | 1802.9 | 1776.4 | 1687.2 |
| 35° | 2687.4 | 2699.5 | 2641.6 | 2525.9 | 2330.7 | 2070.4 | 2012.6 | 1971.6 | 1942.7 | 1913.7 | 1817.3 |
| 37.5° | 2889.9 | 2875.4 | 2841.7 | 2776.6 | 2586.2 | 2347.6 | 2236.7 | 2200.6 | 2137.9 | 2058.4 | 1969.2 |
| 40° | 2935.7 | 2928.5 | 2911.6 | 2914.0 | 2791.1 | 2605.5 | 2525.9 | 2460.9 | 2352.4 | 2287.3 | 2171.6 |
| 42.5° | 2928.5 | 2952.6 | 2957.4 | 2976.7 | 2906.8 | 2861.0 | 2779.0 | 2716.4 | 2615.1 | 2535.6 | 2415.1 |
| 45° | 2967.0 | 3008.0 | 3041.7 | 3058.6 | 3012.8 | 3008.0 | 3017.6 | 2988.7 | 2918.8 | 2836.9 | 2699.5 |
| 47.5° | 3044.1 | 3114.0 | 3167.1 | 3203.2 | 3193.6 | 3273.1 | 3222.5 | 3215.3 | 3244.2 | 3164.7 | 3027.3 |
| 50° | 3188.8 | 3208.0 | 3333.4 | 3386.4 | 3475.6 | 3591.3 | 3492.5 | 3516.6 | 3574.4 | 3581.6 | 3328.6 |
| 52.5° | 3297.2 | 3314.1 | 3439.4 | 3596.1 | 3793.7 | 3921.5 | 3832.3 | 3829.9 | 3933.5 | 3962.4 | 3620.2 |
| 55° | 3326.1 | 3364.7 | 3526.2 | 3798.6 | 4169.7 | 4299.9 | 4237.2 | 4215.5 | 4352.9 | 4403.5 | 3878.1 |
| 57.5° | 3285.2 | 3299.6 | 3531.0 | 3923.9 | 4442.1 | 4724.1 | 4743.4 | 4675.9 | 4801.2 | 4813.3 | 4068.5 |
| 60° | 2841.7 | 2904.4 | 3309.3 | 4003.4 | 4673.5 | 5184.4 | 5285.7 | 5247.1 | 5256.8 | 5235.1 | 4210.7 |
| 62.5° | 1964.4 | 1976.4 | 2571.7 | 3919.1 | 4863.9 | 5649.6 | 5818.3 | 5789.4 | 5707.5 | 5502.6 | 4138.4 |
| 65° | 935.2 | 1000.3 | 1381.1 | 3316.5 | 4890.4 | 6003.9 | 6331.7 | 6351.0 | 5970.2 | 5505.0 | 3858.8 |
| 67.5° | 643.5 | 645.9 | 735.1 | 2340.4 | 4148.0 | 6105.2 | 6606.5 | 6517.3 | 5946.1 | 5454.4 | 3516.6 |
| 70° | 407.3 | 378.4 | 424.2 | 1335.3 | 2803.1 | 4794.0 | 5893.1 | 6206.4 | 5844.9 | 5124.2 | 2971.8 |
| 72.5° | 161.5 | 173.5 | 200.1 | 438.7 | 1373.8 | 2730.8 | 3849.2 | 4724.1 | 5271.2 | 4432.4 | 2321.1 |
| 75° | 72.3 | 77.1 | 101.2 | 183.2 | 354.3 | 1113.5 | 1489.5 | 2087.3 | 4217.9 | 3499.7 | 1643.8 |
| 77.5° | 48.2 | 50.6 | 65.1 | 106.1 | 161.5 | 310.9 | 544.7 | 638.7 | 2528.4 | 1913.7 | 771.3 |
| 80° | 28.9 | 31.3 | 43.4 | 65.1 | 89.2 | 110.9 | 166.3 | 192.8 | 667.6 | 633.9 | 212.1 |
| 82.5° | 19.3 | 16.9 | 28.9 | 36.2 | 53.0 | 45.8 | 53.0 | 62.7 | 183.2 | 161.5 | 57.8 |
| 85° | 7.2 | 7.2 | 12.1 | 14.5 | 19.3 | 24.1 | 21.7 | 26.5 | 43.4 | 43.4 | 26.5 |
| 87.5° | 0.0 | 0.0 | 2.4 | 2.4 | 7.2 | 9.6 | 12.1 | 12.1 | 16.9 | 16.9 | 14.5 |
| 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: P1360284
CATALOG NUMBER: GSS-SB2B-740-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 | 1142.5 |
| 2.5° | 1147.3 | 1140.0 | 1142.5 | 1137.6 | 1140.0 | 1135.2 | 1125.6 | 1135.2 | 1128.0 | 1128.0 | 1135.2 |
| 5° | 1154.5 | 1152.1 | 1144.9 | 1132.8 | 1125.6 | 1108.7 | 1082.2 | 1070.2 | 1058.1 | 1050.9 | 1055.7 |
| 7.5° | 1178.6 | 1169.0 | 1156.9 | 1128.0 | 1089.4 | 1038.8 | 985.8 | 925.5 | 879.7 | 874.9 | 858.0 |
| 10° | 1209.9 | 1200.3 | 1173.8 | 1108.7 | 1029.2 | 884.6 | 768.9 | 689.3 | 641.1 | 609.8 | 597.7 |
| 12.5° | 1250.9 | 1238.9 | 1190.7 | 1079.8 | 884.6 | 682.1 | 544.7 | 486.9 | 470.0 | 462.8 | 460.4 |
| 15° | 1289.5 | 1275.0 | 1190.7 | 985.8 | 715.8 | 513.4 | 443.5 | 429.0 | 426.6 | 429.0 | 426.6 |
| 17.5° | 1325.6 | 1306.4 | 1178.6 | 858.0 | 549.5 | 433.8 | 417.0 | 409.7 | 407.3 | 404.9 | 404.9 |
| 20° | 1369.0 | 1337.7 | 1144.9 | 718.3 | 453.1 | 412.2 | 404.9 | 395.3 | 395.3 | 385.6 | 388.1 |
| 22.5° | 1410.0 | 1366.6 | 1079.8 | 578.5 | 417.0 | 400.1 | 392.9 | 383.2 | 378.4 | 371.2 | 371.2 |
| 25° | 1451.0 | 1395.5 | 1002.7 | 479.6 | 395.3 | 388.1 | 380.8 | 371.2 | 359.1 | 349.5 | 349.5 |
| 27.5° | 1511.2 | 1434.1 | 911.1 | 438.7 | 383.2 | 371.2 | 363.9 | 351.9 | 337.4 | 325.4 | 325.4 |
| 30° | 1578.7 | 1487.1 | 836.4 | 431.4 | 378.4 | 349.5 | 337.4 | 318.2 | 308.5 | 298.9 | 298.9 |
| 32.5° | 1660.7 | 1559.4 | 780.9 | 443.5 | 366.4 | 320.6 | 301.3 | 282.0 | 274.8 | 274.8 | 274.8 |
| 35° | 1781.2 | 1665.5 | 720.7 | 445.9 | 351.9 | 291.6 | 260.3 | 241.0 | 241.0 | 250.7 | 250.7 |
| 37.5° | 1942.7 | 1781.2 | 689.3 | 441.1 | 339.8 | 262.7 | 226.6 | 212.1 | 209.7 | 219.3 | 219.3 |
| 40° | 2128.3 | 1908.9 | 701.4 | 424.2 | 323.0 | 233.8 | 200.1 | 188.0 | 185.6 | 188.0 | 190.4 |
| 42.5° | 2330.7 | 2046.3 | 730.3 | 400.1 | 294.1 | 209.7 | 180.8 | 173.5 | 171.1 | 171.1 | 171.1 |
| 45° | 2545.2 | 2140.3 | 759.2 | 376.0 | 265.1 | 190.4 | 168.7 | 163.9 | 161.5 | 161.5 | 161.5 |
| 47.5° | 2750.1 | 2215.0 | 739.9 | 354.3 | 241.0 | 178.4 | 159.1 | 159.1 | 156.7 | 156.7 | 156.7 |
| 50° | 2926.0 | 2207.8 | 658.0 | 332.6 | 214.5 | 168.7 | 154.3 | 151.8 | 151.8 | 149.4 | 149.4 |
| 52.5° | 3024.9 | 2060.8 | 530.3 | 308.5 | 190.4 | 159.1 | 149.4 | 147.0 | 144.6 | 142.2 | 142.2 |
| 55° | 3063.4 | 1865.5 | 412.2 | 272.4 | 173.5 | 151.8 | 144.6 | 142.2 | 137.4 | 135.0 | 132.6 |
| 57.5° | 2995.9 | 1578.7 | 318.2 | 216.9 | 159.1 | 142.2 | 137.4 | 135.0 | 130.2 | 122.9 | 120.5 |
| 60° | 2858.6 | 1265.4 | 238.6 | 166.3 | 142.2 | 130.2 | 130.2 | 127.7 | 118.1 | 106.1 | 103.6 |
| 62.5° | 2617.5 | 908.7 | 180.8 | 135.0 | 122.9 | 118.1 | 122.9 | 118.1 | 103.6 | 86.8 | 84.4 |
| 65° | 2277.7 | 561.6 | 139.8 | 115.7 | 108.5 | 103.6 | 110.9 | 106.1 | 89.2 | 69.9 | 65.1 |
| 67.5° | *1904.1* | *286.8* | *108.5* | *98.8* | *91.6* | *86.8* | *94.0* | *94.0* | *77.1* | *57.8* | *55.4* |
| 70° | 1470.3 | 159.1 | 86.8 | 81.9 | 74.7 | 67.5 | 79.5 | 81.9 | 67.5 | 50.6 | 48.2 |
| 72.5° | 1091.8 | 101.2 | 69.9 | 67.5 | 57.8 | 48.2 | 65.1 | 69.9 | 57.8 | 38.6 | 36.2 |
| 75° | 713.4 | 79.5 | 53.0 | 53.0 | 41.0 | 38.6 | 55.4 | 60.3 | 50.6 | 28.9 | 28.9 |
| 77.5° | 342.3 | 60.3 | 41.0 | 36.2 | 28.9 | 28.9 | 48.2 | 50.6 | 36.2 | 21.7 | 21.7 |
| 80° | 113.3 | 41.0 | 28.9 | 24.1 | 19.3 | 19.3 | 38.6 | 28.9 | 19.3 | 16.9 | 16.9 |
| 82.5° | 38.6 | 26.5 | 19.3 | 16.9 | 14.5 | 12.1 | 12.1 | 14.5 | 14.5 | 12.1 | 12.1 |
| 85° | 19.3 | 16.9 | 14.5 | 12.1 | 9.6 | 9.6 | 9.6 | 9.6 | 12.1 | 12.1 | 12.1 |
| 87.5° | 12.1 | 12.1 | 9.6 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 9.6 | 4.8 | 4.8 |
| 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

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-1

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-740-U-5WQ

Data in this report applies to families of products including GSS-SB1A-740-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

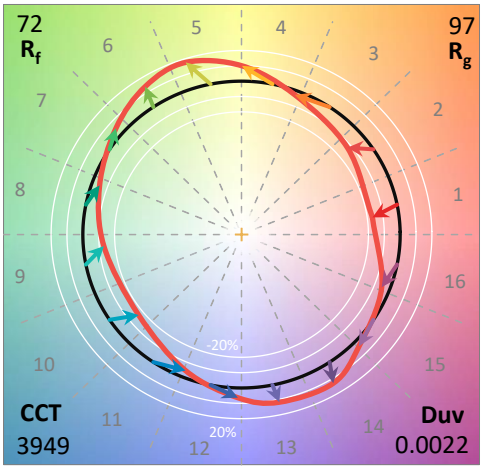
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-1 |
| 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-740-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 4000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3949 |
| CIE u': | 0.2248 |
| CIE v': | 0.5053 |
| Duv: | 0.0022 |
| CIE x: | 0.3844 |
| CIE y: | 0.3840 |
| CIE z: | 0.2316 |
| Peak Wavelength (nm): | 440 |
| Dominant Wavelength (nm): | 578 |
| Purity: | 30.60026 |
| Rf: | 71.8 |
| Rg: | 96.5 |

| | |
|---|---|
| CRI (Ra): | 70.7 |
| R1: | 68.0 |
| R2: | 76.0 |
| R3: | 84.3 |
| R4: | 72.0 |
| R5: | 68.6 |
| R6: | 68.3 |
| R7: | 77.9 |
| R8: | 50.3 |
| R9: | -36.7 |
| R10: | 45.1 |
| R11: | 70.7 |
| R12: | 47.1 |
| R13: | 68.5 |
| R14: | 91.1 |
| R15: | 58.7 |




## Test Conditions

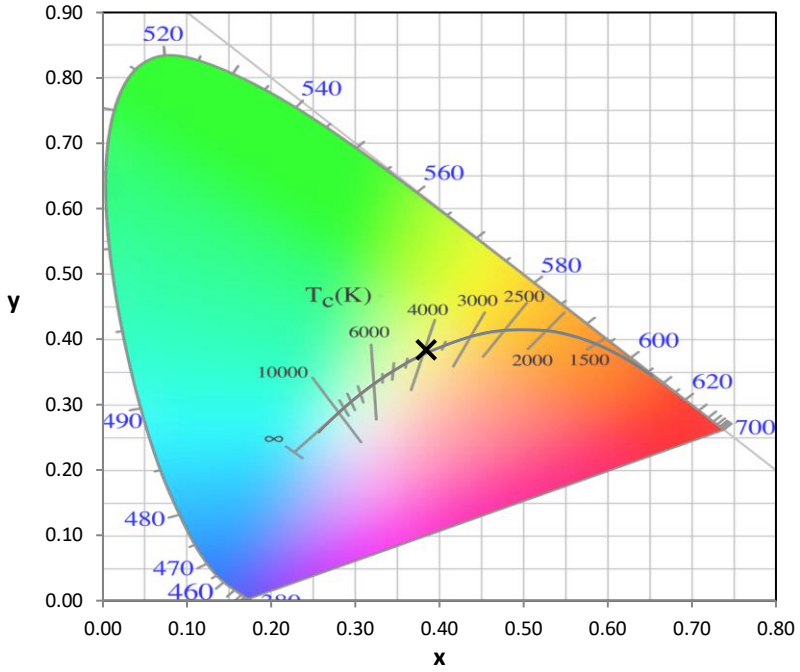
| | |
|---|---|
| Stabilization Time: | 34M |
| Operation Time: | 1H 34M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-1

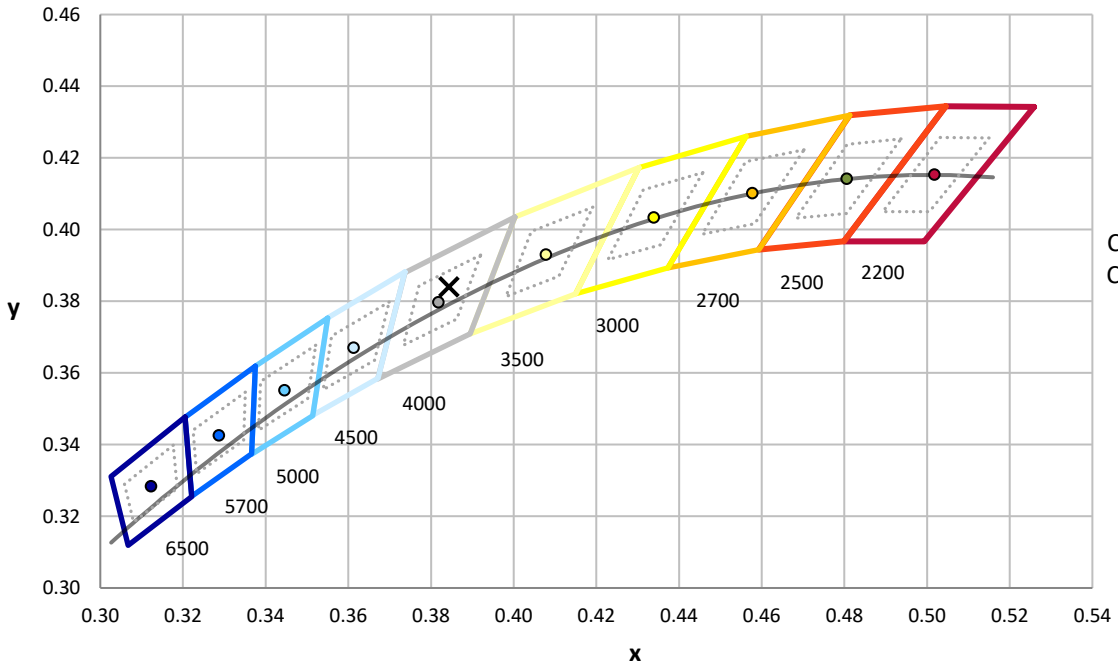
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

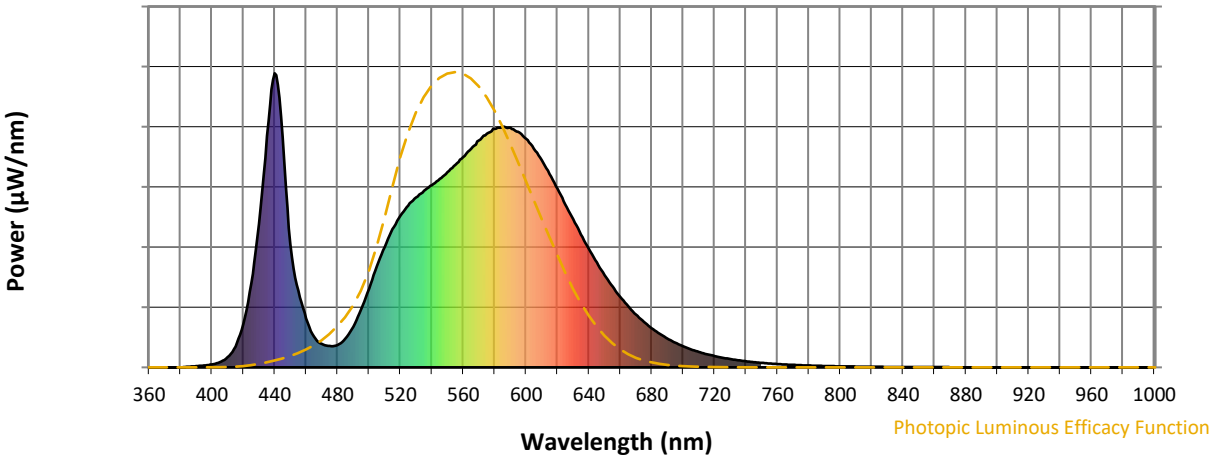



CCT = 3949K
CIE x = 0.3844
CIE y = 0.3840
Duv = 0.0022

Point lies inside the ANSI 4000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

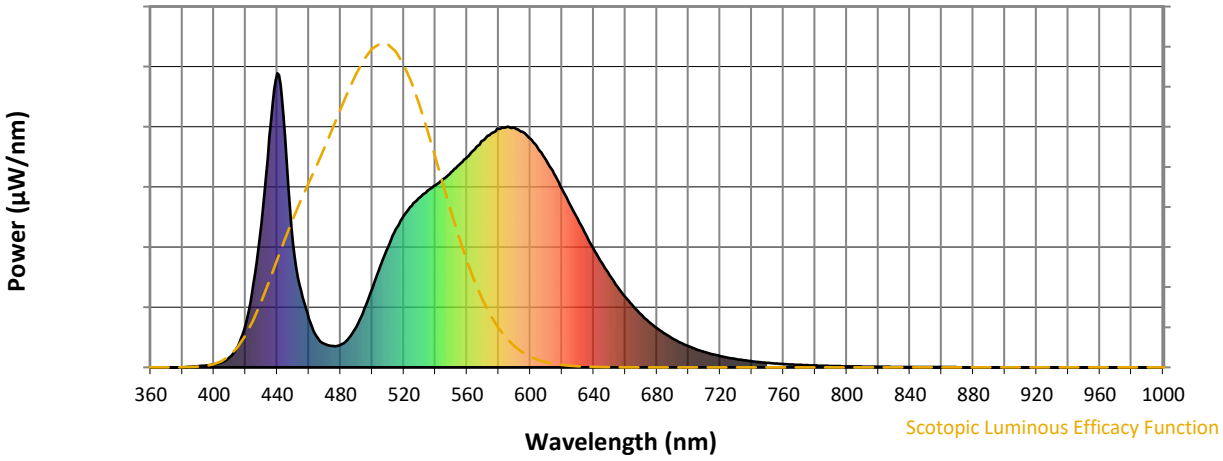



## Photopic Lumens: NR

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

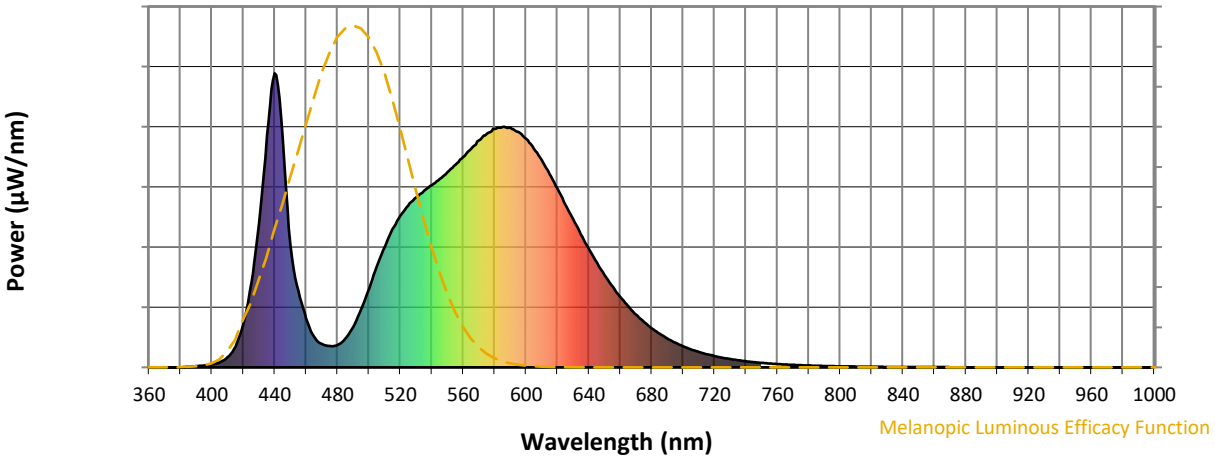



**Scotopic Lumens: NR** **S/P: 1.47**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.78**

| 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 | 139 | NR | 620 | 607 | NR | 750 | 15 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 198 | NR | 625 | 554 | NR | 755 | 13 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 267 | NR | 630 | 504 | NR | 760 | 11 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 452 | NR | 765 | 10 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 410 | NR | 640 | 403 | NR | 770 | 8 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 470 | NR | 645 | 357 | NR | 775 | 7 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 516 | NR | 650 | 314 | NR | 780 | 6 | NR | 910 | 0 | NR |
| 395 | 7 | NR | 525 | 550 | NR | 655 | 275 | NR | 785 | 5 | NR | 915 | 0 | NR |
| 400 | 10 | NR | 530 | 578 | NR | 660 | 240 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 17 | NR | 535 | 601 | NR | 665 | 208 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 35 | NR | 540 | 620 | NR | 670 | 179 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 70 | NR | 545 | 641 | NR | 675 | 155 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 147 | NR | 550 | 664 | NR | 680 | 133 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 285 | NR | 555 | 689 | NR | 685 | 114 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 487 | NR | 560 | 715 | NR | 690 | 98 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 787 | NR | 565 | 743 | NR | 695 | 84 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 1000 | NR | 570 | 771 | NR | 700 | 72 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 783 | NR | 575 | 794 | NR | 705 | 61 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 417 | NR | 580 | 811 | NR | 710 | 52 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 261 | NR | 585 | 817 | NR | 715 | 45 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 167 | NR | 590 | 815 | NR | 720 | 39 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 104 | NR | 595 | 801 | NR | 725 | 33 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 79 | NR | 600 | 777 | NR | 730 | 28 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 73 | NR | 605 | 744 | NR | 735 | 24 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 704 | NR | 740 | 21 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 98 | NR | 615 | 657 | NR | 745 | 18 | NR | 875 | 1 | NR | | | |

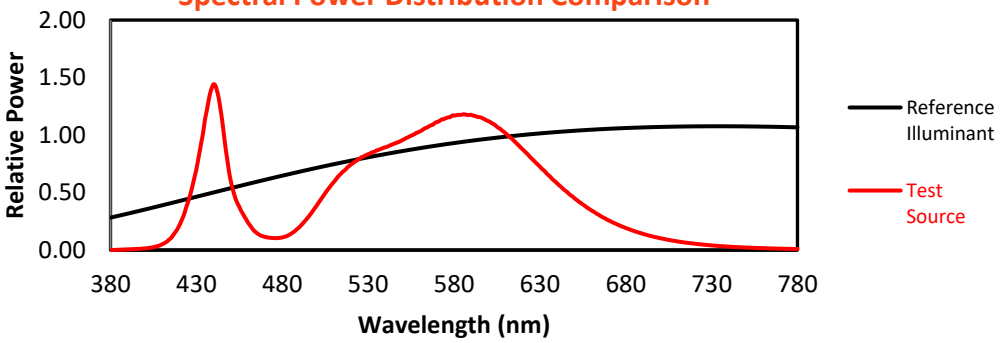
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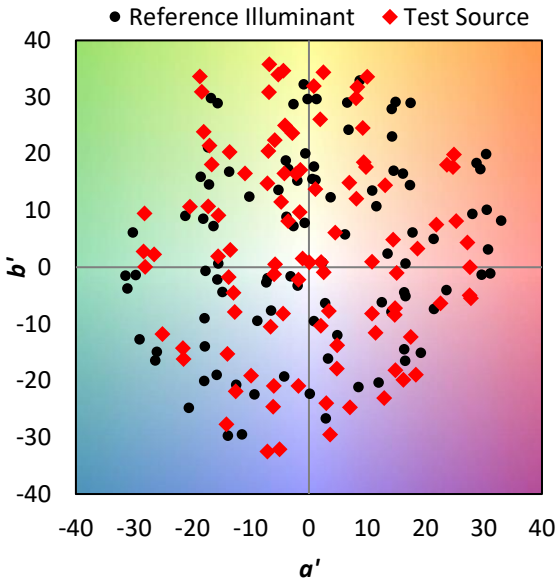
## Summary

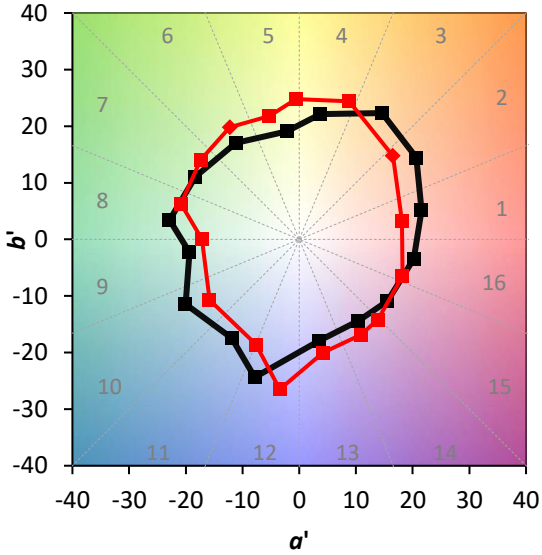
$R_f$ = 71.8
$R_g$ = 96.5
CIE $R_a$ = 70.7
$R_9$ = -36.7

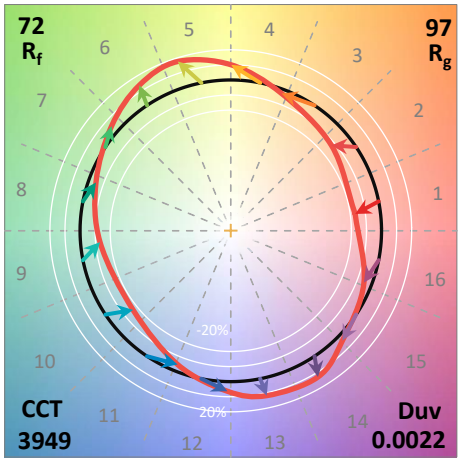
## Spectral Power Distribution Comparison

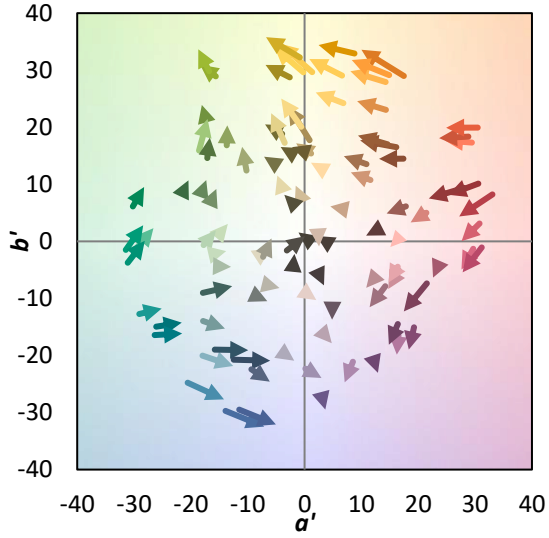



## Color Vector Graphics



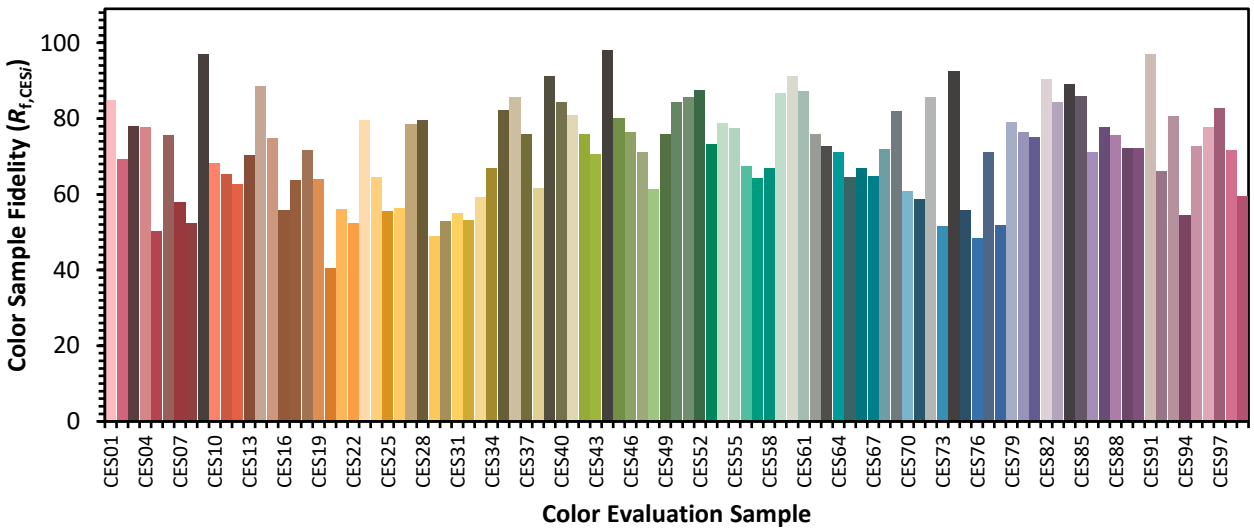



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**Individual Sample Fidelity Index ($R_{f,i}$)**

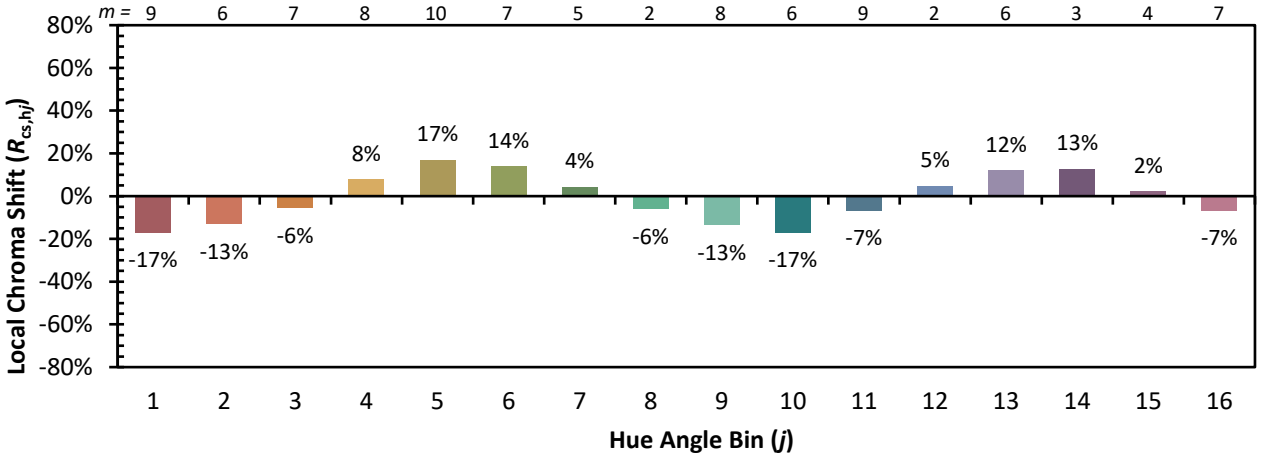
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 56 | CES51 = 86 | CES76 = 48 |
| CES02 = 61 | CES27 = 79 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 80 | CES53 = 73 | CES78 = 52 |
| CES04 = 70 | CES29 = 49 | CES54 = 79 | CES79 = 79 |
| CES05 = 47 | CES30 = 53 | CES55 = 77 | CES80 = 77 |
| CES06 = 50 | CES31 = 55 | CES56 = 67 | CES81 = 75 |
| CES07 = 40 | CES32 = 53 | CES57 = 64 | CES82 = 90 |
| CES08 = 39 | CES33 = 59 | CES58 = 67 | CES83 = 84 |
| CES09 = 29 | CES34 = 67 | CES59 = 87 | CES84 = 89 |
| CES10 = 74 | CES35 = 82 | CES60 = 91 | CES85 = 86 |
| CES11 = 57 | CES36 = 86 | CES61 = 87 | CES86 = 71 |
| CES12 = 63 | CES37 = 76 | CES62 = 76 | CES87 = 78 |
| CES13 = 42 | CES38 = 62 | CES63 = 73 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 71 | CES89 = 72 |
| CES15 = 71 | CES40 = 84 | CES65 = 64 | CES90 = 72 |
| CES16 = 46 | CES41 = 81 | CES66 = 67 | CES91 = 97 |
| CES17 = 49 | CES42 = 76 | CES67 = 65 | CES92 = 66 |
| CES18 = 56 | CES43 = 71 | CES68 = 72 | CES93 = 81 |
| CES19 = 72 | CES44 = 98 | CES69 = 82 | CES94 = 55 |
| CES20 = 65 | CES45 = 80 | CES70 = 61 | CES95 = 73 |
| CES21 = 86 | CES46 = 76 | CES71 = 59 | CES96 = 78 |
| CES22 = 78 | CES47 = 71 | CES72 = 86 | CES97 = 83 |
| CES23 = 92 | CES48 = 61 | CES73 = 52 | CES98 = 72 |
| CES24 = 91 | CES49 = 76 | CES74 = 93 | CES99 = 60 |
| CES25 = 72 | CES50 = 84 | CES75 = 56 | |

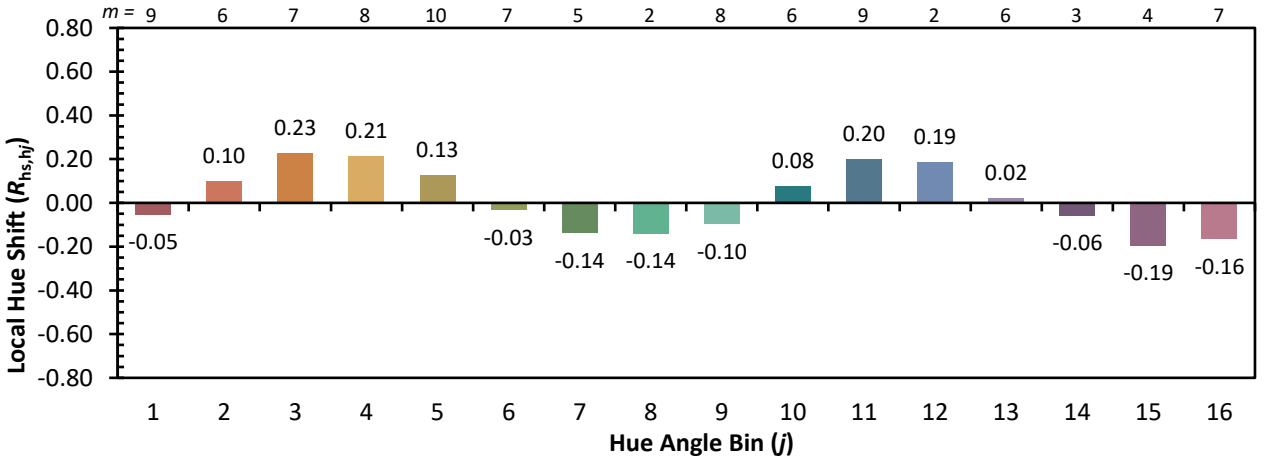


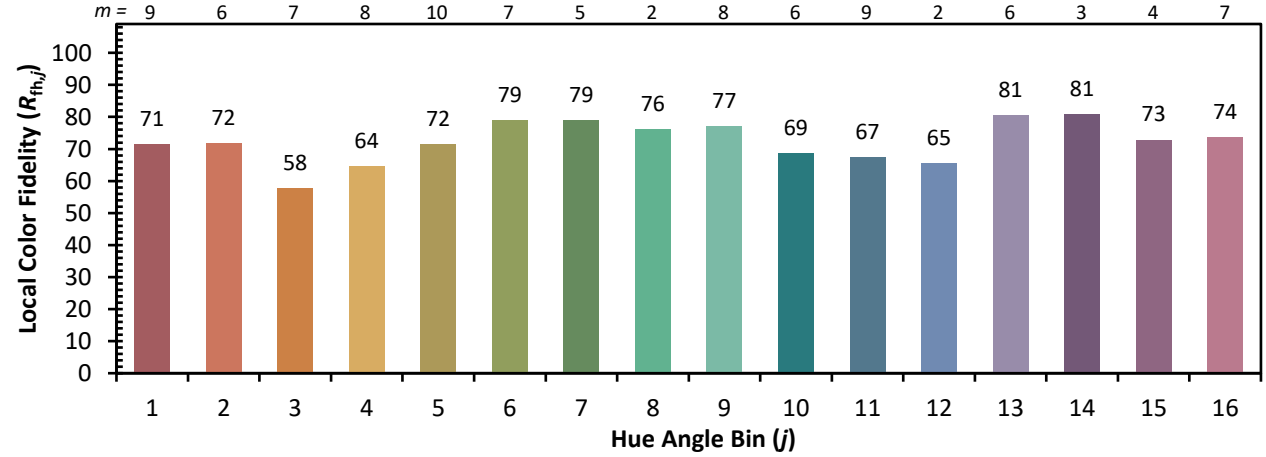
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## Color Rendition by Hue-Angle Bin



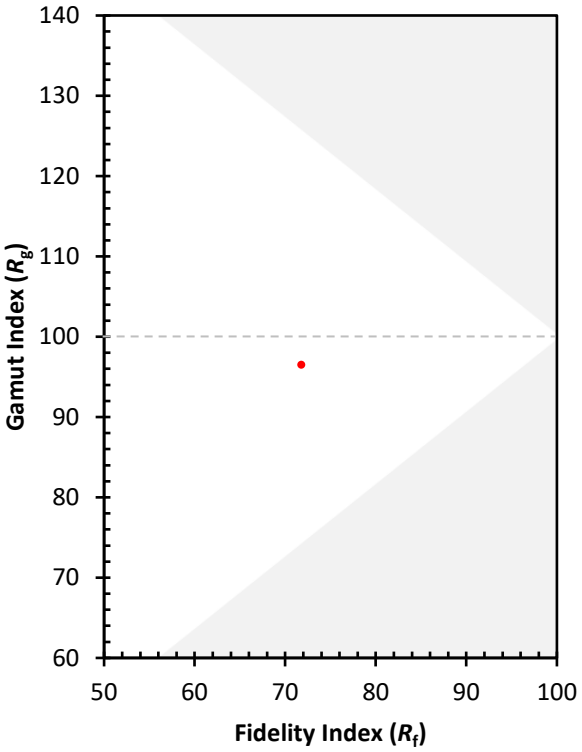



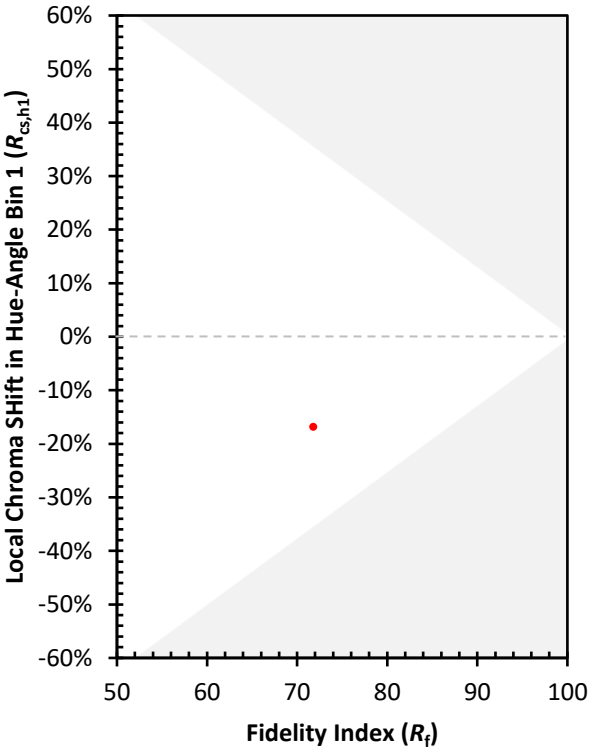



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## Measure Comparisons




(END OF REPORT)