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

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Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P1500699

Luminaire Tested: GSS-SB6C-750-U-T4LG

Issue Date: 07/20/2026

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1500699 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 7/20/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB6C-750-U-T4LG |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 6SQUARE 300W 70CRI 5000K FIXTURE w/ TYPE IV LOW GLARE DISTRIBUTION FIXTURE |
| Light Source: | (156) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 46033.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 153.4 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B4 - U0 - G4 |

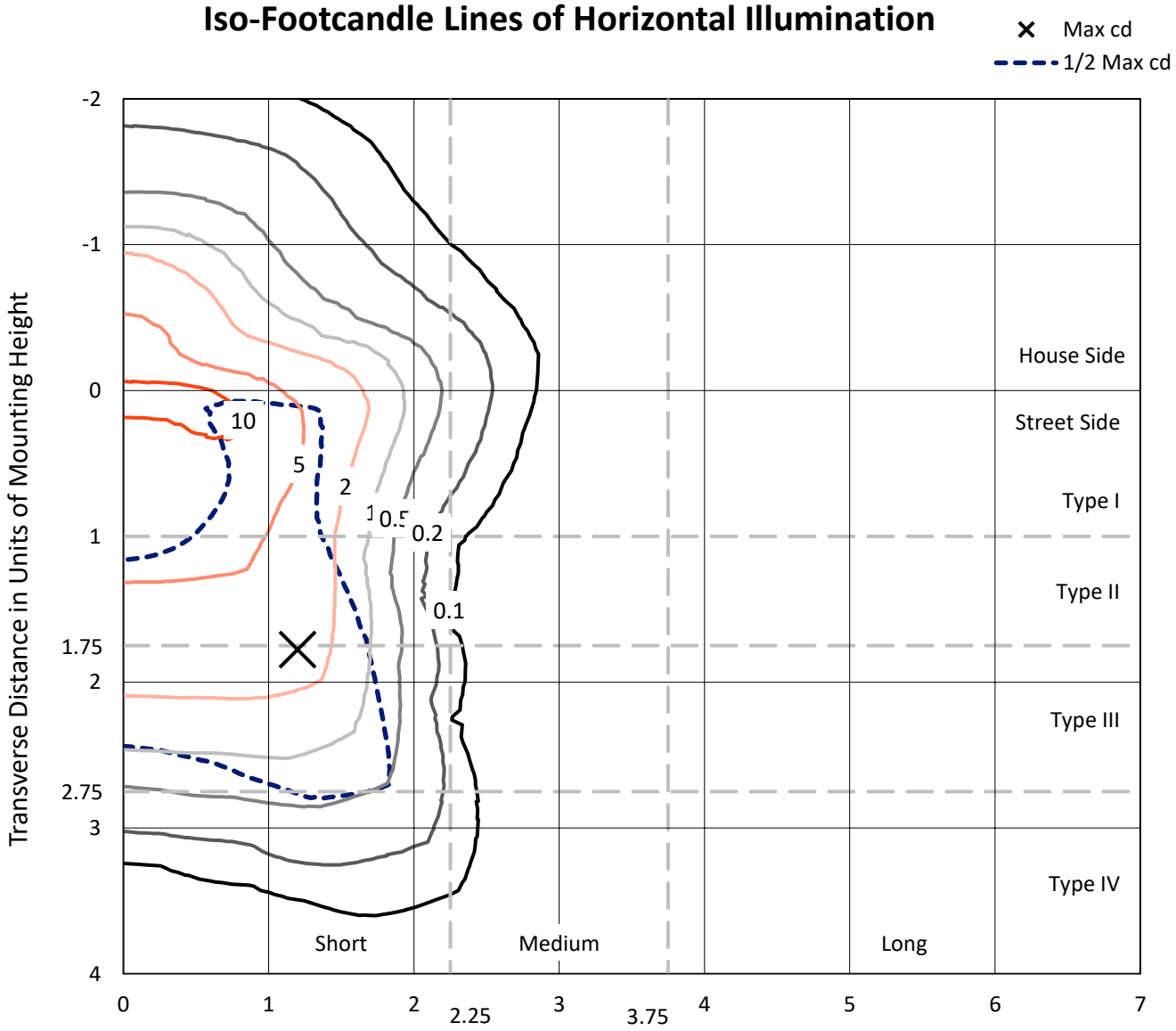
| | |
|---|---|
| Input Watts (W): | 300 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.3% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1500699
CATALOG NUMBER: GSS-SB6C-750-U-T4LG

## Iso-Footcandle Lines of Horizontal Illumination



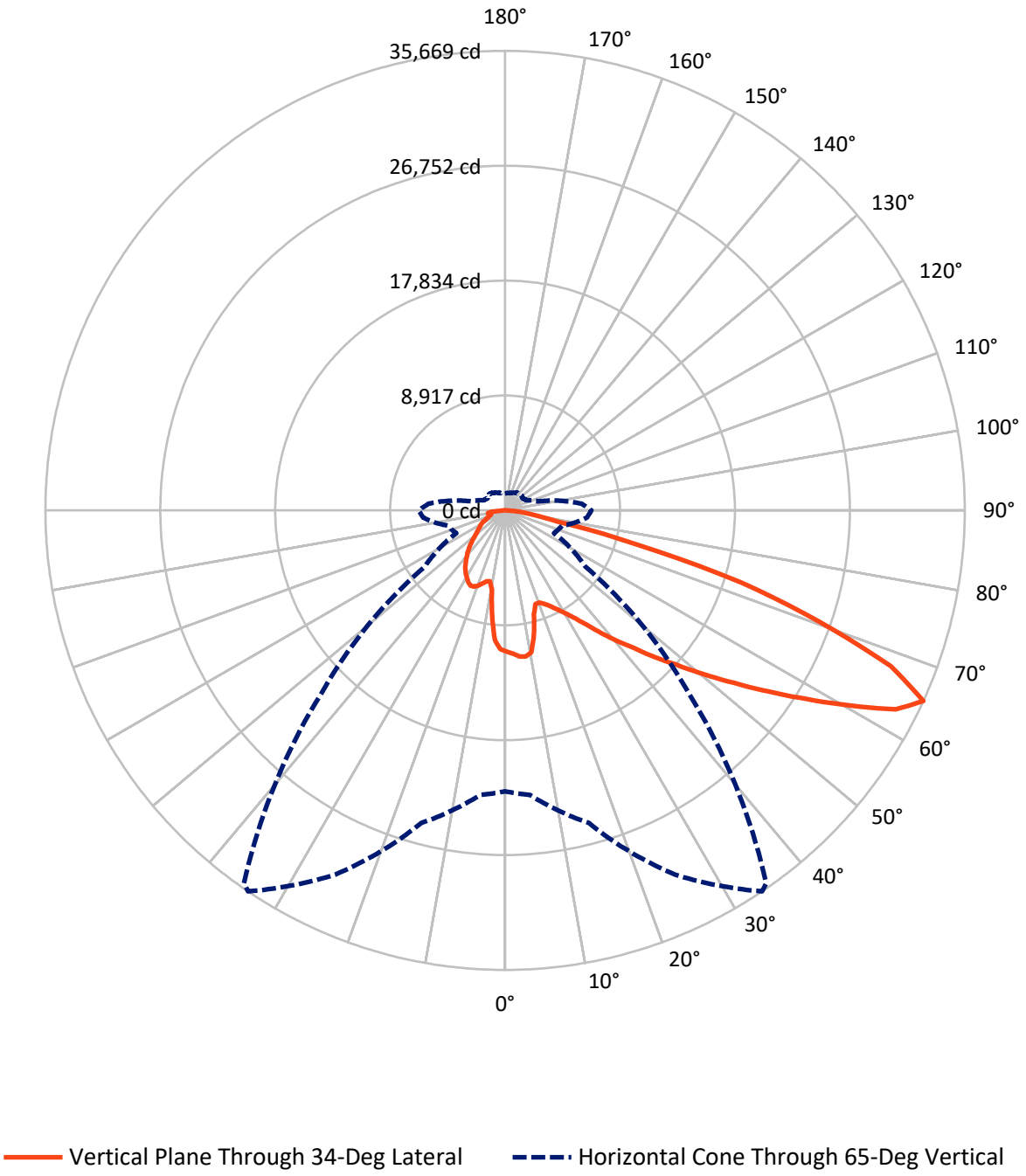

Based on 30 foot mounting height. Maximum calculated value = 12.9 fc
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

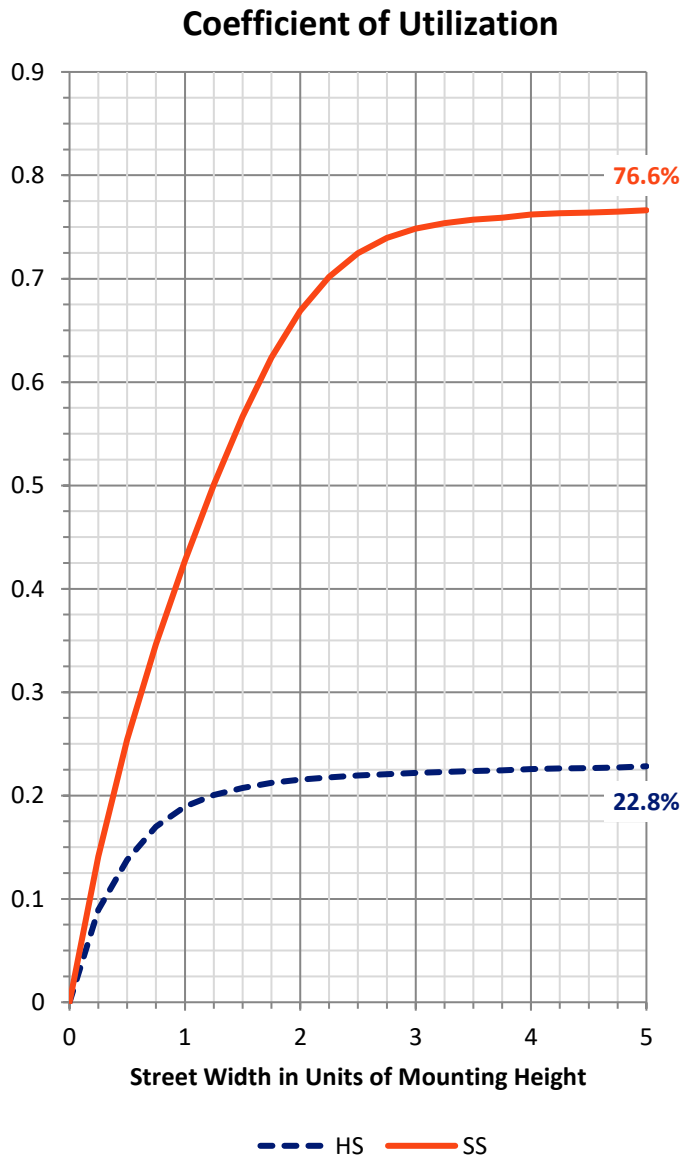
REPORT NUMBER: P1500699
CATALOG NUMBER: GSS-SB6C-750-U-T4LG

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 10709.9 | 0.0 | 10709.9 |
| | % Fixture | 23.3 | 0.0 | 23.3 |
| **Street Side** | Lumens | 35323.3 | 0.0 | 35323.3 |
| | % Fixture | 76.7 | 0.0 | 76.7 |
| **Total** | Lumens | 46033.2 | 0.0 | 46033.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 986.6 | 2.1 |
| 10°-20° | 2483.3 | 5.4 |
| 20°-30° | 4116.4 | 8.9 |
| 30°-40° | 6190.8 | 13.4 |
| 40°-50° | 8673.1 | 18.8 |
| 50°-60° | 10935.3 | 23.8 |
| 60°-70° | 9405.3 | 20.4 |
| 70°-80° | 2796.2 | 6.1 |
| 80°-90° | 446.1 | 1.0 |
| 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° | 46033.2 | 100.0 |
| 0°-180° | 46033.2 | 100.0 |



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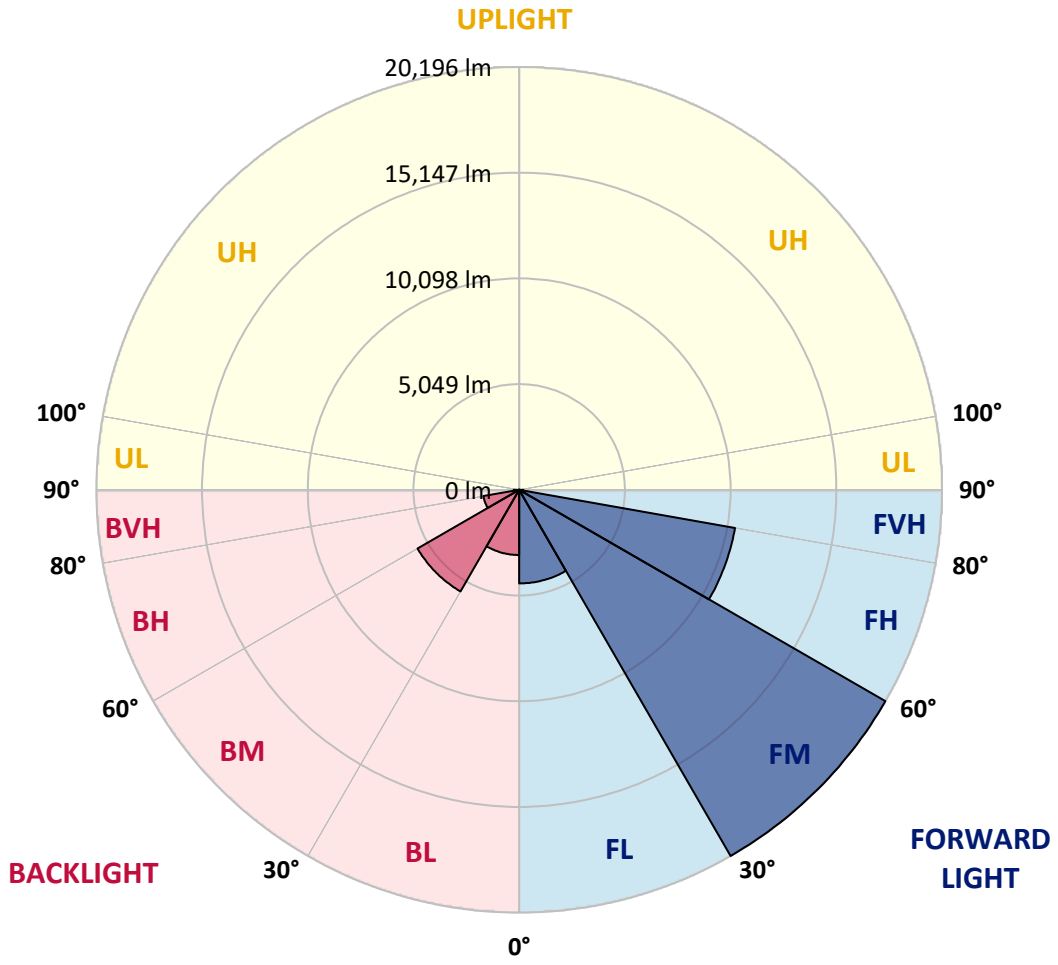
Scaled Data Report

REPORT NUMBER: P1500699
CATALOG NUMBER: GSS-SB6C-750-U-T4LG

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 4470.2 | 9.7 | | | |
| FM | (30°-60°) | 20196.1 | 43.9 | | | |
| FH | (60°-80°) | 10468.2 | 22.7 | | | G4/12000 |
| FVH | (80°-90°) | 188.7 | 0.4 | | | G2/225 |
| BL | (0°-30°) | 3116.1 | 6.8 | B4/5000 | | |
| BM | (30°-60°) | 5603.1 | 12.2 | B4/8500 | | |
| BH | (60°-80°) | 1733.3 | 3.8 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 257.4 | 0.6 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B4-U0-G4**
Type III Short



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REPORT NUMBER: P1500699
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 10944.6 | 10944.6 | 10944.6 | 10944.6 | *10944.6* | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 |
| 2.5° | 11153.1 | 11215.6 | 11142.6 | 11111.4 | *11121.8* | 11132.2 | 11080.1 | 11090.5 | 11028.0 | 11028.0 | 10975.9 |
| 5° | 11392.8 | 11403.2 | 11361.5 | 11392.8 | *11382.4* | 11372.0 | 11372.0 | 11361.5 | 11226.0 | 11194.8 | 11142.6 |
| 7.5° | 11257.3 | 11299.0 | 11319.8 | 11434.5 | *11465.8* | 11528.3 | 11570.0 | 11590.8 | 11486.6 | 11403.2 | 11267.7 |
| 10° | 10016.9 | 10048.2 | 10287.9 | 10809.1 | *11205.2* | 11278.1 | 11663.8 | 11882.7 | 11809.7 | 11768.0 | 11538.7 |
| 12.5° | 8005.2 | 8057.3 | 8328.3 | 9005.8 | *9933.5* | 10131.6 | 11361.5 | 12101.6 | 12268.4 | 12278.8 | 11945.2 |
| 15° | 7140.0 | 7140.0 | 7223.4 | 7609.1 | *8359.6* | 8515.9 | 10329.6 | 12164.1 | 12758.3 | 12831.2 | 12424.7 |
| 17.5° | 6962.8 | 6952.4 | 7004.5 | 7233.9 | *7629.9* | 7723.8 | 9141.3 | 11841.0 | 13342.0 | 13467.1 | 12945.9 |
| 20° | 6952.4 | 6921.2 | 7025.4 | 7286.0 | *7629.9* | 7713.3 | 8588.9 | 11278.1 | 13800.6 | 14196.7 | 13467.1 |
| 22.5° | 6962.8 | 6962.8 | 7108.8 | 7484.0 | *7880.1* | 7953.1 | 8693.1 | 10809.1 | 14175.9 | 14957.6 | 14019.5 |
| 25° | 7077.5 | 7056.7 | 7265.1 | 7723.8 | *8265.8* | 8317.9 | 9120.5 | 10788.2 | 14499.0 | 15812.3 | 14686.6 |
| 27.5° | 7265.1 | 7275.5 | 7557.0 | 8109.4 | *8724.4* | 8828.6 | 9714.6 | 11236.4 | 14895.1 | 16750.4 | 15332.8 |
| 30° | 7661.2 | 7671.6 | 8005.2 | 8568.1 | *9276.8* | 9412.3 | 10402.6 | 11903.5 | 15457.9 | 17761.5 | 16031.2 |
| 32.5° | 8109.4 | 8161.5 | 8568.1 | 9224.7 | *9985.6* | 10058.6 | 11246.9 | 12904.2 | 16302.2 | 18772.6 | 16781.7 |
| 35° | 8859.9 | 8912.0 | 9370.7 | 10058.6 | *10902.9* | 11007.1 | 12278.8 | 14061.2 | 17334.1 | 19794.1 | 17365.4 |
| 37.5° | 9829.3 | 9871.0 | 10319.2 | 11153.1 | *12049.5* | 12153.7 | 13425.4 | 15291.2 | 18376.5 | 20607.1 | 17886.6 |
| 40° | 10986.3 | 11080.1 | 11559.6 | 12372.6 | *13279.4* | 13342.0 | 14676.2 | 16479.4 | 19502.2 | 21170.0 | 18095.1 |
| 42.5° | 12247.5 | 12341.3 | 12831.2 | 13727.6 | *14561.5* | 14749.1 | 16031.2 | 17740.7 | 20419.5 | 21420.1 | 17928.3 |
| 45° | 13863.1 | 13842.3 | 14300.9 | 15239.0 | *16218.8* | 16291.8 | 17480.1 | 18783.0 | 20971.9 | 21211.7 | 17761.5 |
| 47.5° | 15822.8 | 15843.6 | 16135.5 | 16896.4 | *17907.4* | 18074.2 | 18991.5 | 19679.4 | 21295.0 | 21044.9 | 17573.9 |
| 50° | 18032.5 | 18084.6 | 18334.8 | 18887.2 | *19971.3* | 20085.9 | 20356.9 | 20304.8 | 21493.1 | 20690.5 | 17646.8 |
| 52.5° | 20242.3 | 20273.6 | 20607.1 | 21190.8 | *22243.6* | 22327.0 | 21732.8 | 20784.3 | 20753.0 | 19262.5 | 17490.5 |
| 55° | 22056.0 | 22045.5 | 22639.7 | 23536.1 | *24818.2* | 24766.0 | 23087.9 | 20419.5 | 18439.0 | 17042.3 | 16792.1 |
| 57.5° | 23629.9 | 23692.4 | 24463.8 | 26016.9 | *27632.5* | 27590.8 | 24536.7 | 18491.1 | 15061.8 | 14415.6 | 15656.0 |
| 60° | 25047.5 | 25193.4 | 26642.3 | 28966.7 | *30749.1* | 30498.9 | 24797.3 | 15583.0 | 11715.9 | 11288.6 | 13404.5 |
| 62.5° | 24432.5 | 24703.5 | 27027.9 | 31562.1 | *34011.6* | 33459.2 | 23192.1 | 12070.3 | 7932.2 | 7546.6 | 9474.9 |
| 65° | *21805.8* | *22170.6* | *25120.4* | *31186.9* | *35668.9* | *35325.0* | *20273.6* | *7588.2* | *4179.8* | *4586.3* | *6379.1* |
| 67.5° | 18313.9 | 18751.7 | 21941.3 | 28018.2 | *32270.9* | 31530.8 | 15749.8 | 3992.2 | 1949.2 | 3022.8 | 3960.9 |
| 70° | 10037.8 | 11121.8 | 15864.4 | 23827.9 | *25850.1* | 24818.2 | 9110.1 | 1886.6 | 1417.6 | 1886.6 | 2366.1 |
| 72.5° | 3773.3 | 4033.9 | 6879.5 | 16020.8 | *19147.8* | 17876.2 | 3460.6 | 1219.5 | 1188.3 | 1396.7 | 1709.4 |
| 75° | 1813.7 | 1938.8 | 2991.5 | 7286.0 | *10454.7* | 9745.9 | 1699.0 | 906.8 | 1021.5 | 1094.5 | 1240.4 |
| 77.5° | 1084.0 | 1167.4 | 1865.8 | 4231.9 | *4117.3* | 3783.7 | 1042.3 | 698.4 | 823.5 | 781.8 | 729.6 |
| 80° | 646.3 | 719.2 | 1136.2 | 2407.8 | *2480.8* | 2199.3 | 635.8 | 489.9 | 573.3 | 500.3 | 448.2 |
| 82.5° | 375.2 | 406.5 | 594.1 | 1084.0 | *1573.9* | 1448.9 | 364.8 | 291.9 | 416.9 | 333.5 | 250.2 |
| 85° | 187.6 | 198.0 | 271.0 | 469.1 | *781.8* | 594.1 | 156.4 | 135.5 | 198.0 | 145.9 | 83.4 |
| 87.5° | 41.7 | 41.7 | 41.7 | 52.1 | *73.0* | 73.0 | 20.8 | 10.4 | 10.4 | 10.4 | 10.4 |
| 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: P1500699
CATALOG NUMBER: GSS-SB6C-750-U-T4LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 | 10944.6 |
| 2.5° | 10965.4 | 10986.3 | 10913.3 | 10829.9 | 10809.1 | 10746.5 | 10767.4 | 10725.7 | 10663.2 | 10673.6 | 10684.0 |
| 5° | 11069.7 | 11028.0 | 10882.0 | 10694.4 | 10527.7 | 10340.0 | 10121.1 | 9871.0 | 9693.8 | 9620.8 | 9683.4 |
| 7.5° | 11163.5 | 11121.8 | 10871.6 | 10454.7 | 9891.8 | 9110.1 | 8297.0 | 7557.0 | 7046.2 | 6858.6 | 6900.3 |
| 10° | 11424.1 | 11257.3 | 10798.7 | 9891.8 | 8547.2 | 7067.1 | 6243.6 | 5785.0 | 5628.6 | 5545.3 | 5555.7 |
| 12.5° | 11768.0 | 11538.7 | 10663.2 | 8912.0 | 6879.5 | 5941.3 | 5649.5 | 5545.3 | 5493.1 | 5472.3 | 5493.1 |
| 15° | 12185.0 | 11830.6 | 10340.0 | 7682.1 | 6108.1 | 5743.3 | 5680.8 | 5691.2 | 5691.2 | 5701.6 | 5701.6 |
| 17.5° | 12549.8 | 11997.4 | 9756.3 | 6796.1 | 5951.8 | 5847.5 | 5910.1 | 5962.2 | 5962.2 | 5972.6 | 5962.2 |
| 20° | 12883.3 | 12080.7 | 9005.8 | 6420.8 | 5983.0 | 6035.2 | 6181.1 | 6233.2 | 6243.6 | 6233.2 | 6233.2 |
| 22.5° | 13237.7 | 12132.9 | 8255.3 | 6212.4 | 6056.0 | 6212.4 | 6368.7 | 6441.7 | 6462.5 | 6472.9 | 6483.4 |
| 25° | 13581.7 | 12028.6 | 7640.4 | 6045.6 | 6024.7 | 6243.6 | 6420.8 | 6514.6 | 6535.5 | 6535.5 | 6545.9 |
| 27.5° | 13925.7 | 11997.4 | 7223.4 | 5826.7 | 5878.8 | 6056.0 | 6264.5 | 6389.6 | 6472.9 | 6483.4 | 6493.8 |
| 30° | 14321.8 | 11903.5 | 6827.3 | 5534.8 | 5555.7 | 5774.6 | 5993.5 | 6212.4 | 6379.1 | 6452.1 | 6452.1 |
| 32.5° | 14592.8 | 11809.7 | 6472.9 | 5222.1 | 5222.1 | 5451.4 | 5722.5 | 5993.5 | 6233.2 | 6379.1 | 6410.4 |
| 35° | 14853.4 | 11726.3 | 6160.2 | 4909.4 | 4919.9 | 5138.7 | 5420.2 | 5712.0 | 6014.3 | 6191.5 | 6274.9 |
| 37.5° | 14988.9 | 11643.0 | 5941.3 | 4669.7 | 4628.0 | 4857.3 | 5044.9 | 5284.7 | 5607.8 | 5899.7 | 5972.6 |
| 40° | 15020.1 | 11643.0 | 5920.5 | 4502.9 | 4325.7 | 4586.3 | 4669.7 | 4836.5 | 5128.3 | 5441.0 | 5555.7 |
| 42.5° | 14811.7 | 11528.3 | 6024.7 | 4398.7 | 4013.0 | 4200.6 | 4294.4 | 4377.8 | 4565.5 | 4826.0 | 4919.9 |
| 45° | 14561.5 | 11372.0 | 6118.5 | 4252.8 | 3627.3 | 3773.3 | 3919.2 | 3929.6 | 4013.0 | 4075.6 | 4138.1 |
| 47.5° | 14353.0 | 11205.2 | 5951.8 | 3981.7 | 3231.3 | 3335.5 | 3491.8 | 3491.8 | 3450.2 | 3325.1 | 3283.4 |
| 50° | 14519.8 | 11257.3 | 5670.3 | 3596.1 | 2866.4 | 2939.4 | 3106.2 | 3012.4 | 2918.6 | 2658.0 | 2626.7 |
| 52.5° | 14665.8 | 11455.3 | 5336.8 | 3220.8 | 2553.7 | 2626.7 | 2793.5 | 2647.5 | 2459.9 | 2251.5 | 2220.2 |
| 55° | 14426.0 | 11465.8 | 4721.8 | 2803.9 | 2334.8 | 2397.4 | 2553.7 | 2376.5 | 2199.3 | 2074.3 | 2053.4 |
| 57.5° | 13706.8 | 11153.1 | 4075.6 | 2480.8 | 2147.2 | 2209.8 | 2355.7 | 2178.5 | 2011.7 | 2001.3 | 2053.4 |
| 60° | 12122.4 | 10058.6 | 3481.4 | 2272.3 | 1970.0 | 2043.0 | 2188.9 | 2001.3 | 1782.4 | 1688.6 | 1719.9 |
| 62.5° | 9151.8 | 7734.2 | 2981.1 | 2032.6 | 1803.3 | 1897.1 | 2001.3 | 1699.0 | 1511.4 | 1469.7 | 1428.0 |
| 65° | *6691.8* | *5941.3* | *2678.8* | *1844.9* | *1646.9* | *1761.6* | *1678.2* | *1511.4* | *1386.3* | *1344.6* | *1323.8* |
| 67.5° | 4325.7 | 4033.9 | 2303.6 | 1667.7 | 1501.0 | 1594.8 | 1480.1 | 1396.7 | 1261.2 | 1240.4 | 1271.7 |
| 70° | 2647.5 | 2741.4 | 1928.3 | 1469.7 | 1355.0 | 1334.2 | 1355.0 | 1271.7 | 1125.7 | 1157.0 | 1198.7 |
| 72.5° | 1876.2 | 2022.1 | 1657.3 | 1282.1 | 1157.0 | 1115.3 | 1209.1 | 1157.0 | 1052.8 | 1084.0 | 1125.7 |
| 75° | 1344.6 | 1501.0 | 1365.5 | 1052.8 | 979.8 | 959.0 | 1125.7 | 1157.0 | 1084.0 | 1104.9 | 1136.2 |
| 77.5° | 792.2 | 959.0 | 969.4 | 813.0 | 740.1 | 854.7 | 1198.7 | 1334.2 | 1282.1 | 1219.5 | 1188.3 |
| 80° | 510.7 | 573.3 | 687.9 | 521.2 | 521.2 | 740.1 | 1313.4 | 1626.1 | 1396.7 | 1240.4 | 1219.5 |
| 82.5° | 260.6 | 302.3 | 448.2 | 333.5 | 312.7 | 552.4 | 1292.5 | 1553.1 | 1542.7 | 1375.9 | 1344.6 |
| 85° | 73.0 | 93.8 | 208.5 | 145.9 | 125.1 | 291.9 | 969.4 | 1167.4 | 1042.3 | 760.9 | 771.3 |
| 87.5° | 10.4 | 10.4 | 0.0 | 0.0 | 10.4 | 41.7 | 114.7 | 20.8 | 20.8 | 20.8 | 20.8 |
| 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: SP1-2407-184-6

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-750-U-5WQ

Data in this report applies to families of products including GSS-SB1A-750-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

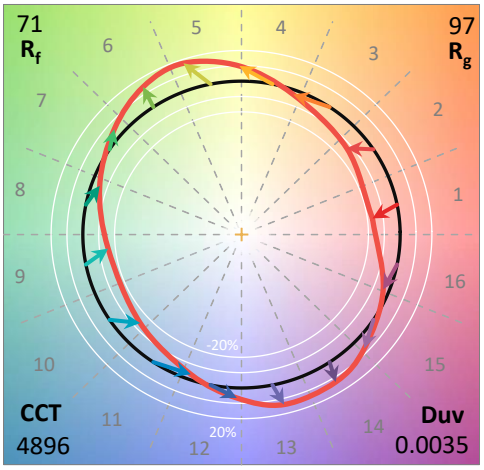
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-6 |
| 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-750-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 5000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 4896 |
| CIE u': | 0.2101 |
| CIE v': | 0.4901 |
| Duv: | 0.0035 |
| CIE x: | 0.3489 |
| CIE y: | 0.3618 |
| CIE z: | 0.2893 |
| Peak Wavelength (nm): | 443 |
| Dominant Wavelength (nm): | 570 |
| Purity: | 13.25435 |
| Rf: | 70.7 |
| Rg: | 96.8 |

| | |
|---|---|
| CRI (Ra): | 70.2 |
| R1: | 68.1 |
| R2: | 73.9 |
| R3: | 79.4 |
| R4: | 72.1 |
| R5: | 69.2 |
| R6: | 65.7 |
| R7: | 78.1 |
| R8: | 55.3 |
| R9: | -35.1 |
| R10: | 39.3 |
| R11: | 71.1 |
| R12: | 43.8 |
| R13: | 68.1 |
| R14: | 88.4 |
| R15: | 59.7 |




## Test Conditions

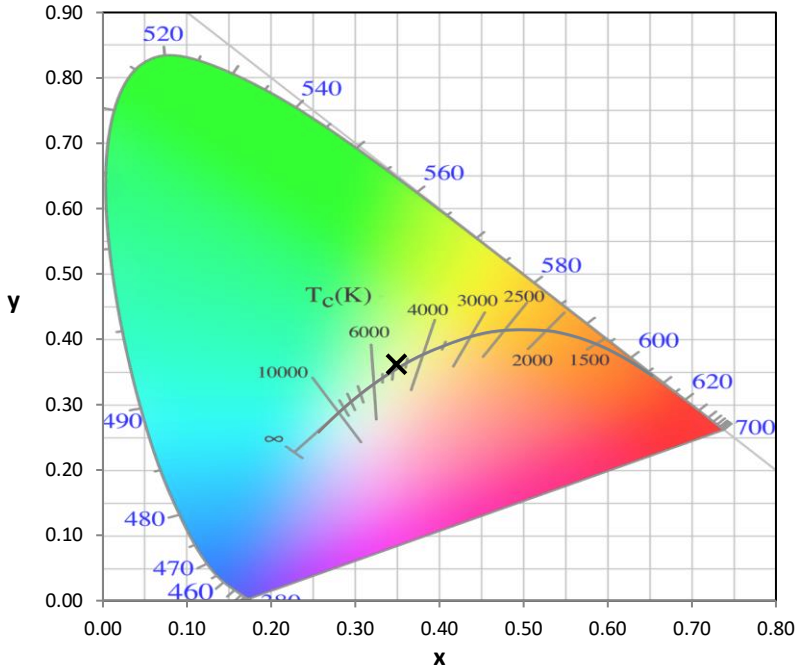
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

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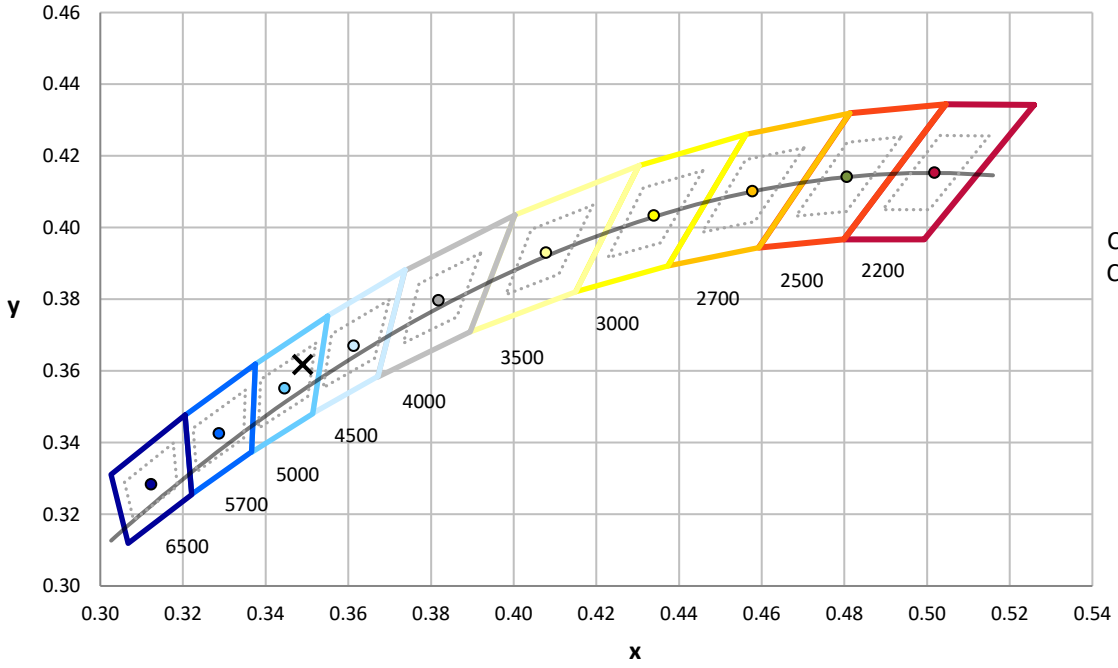
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

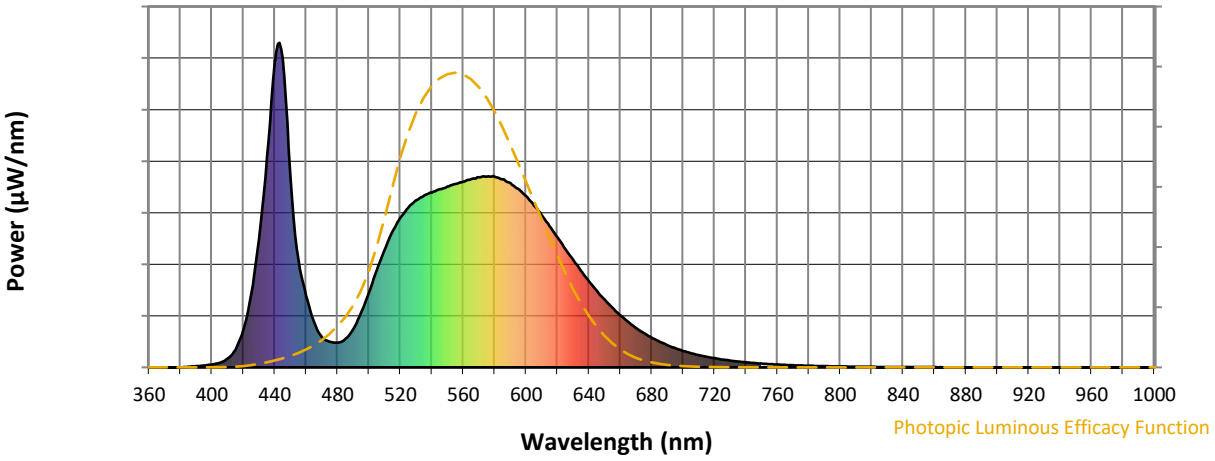



CCT = 4896K
CIE x = 0.3489
CIE y = 0.3618
Duv = 0.0035

Point lies inside the ANSI 5000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

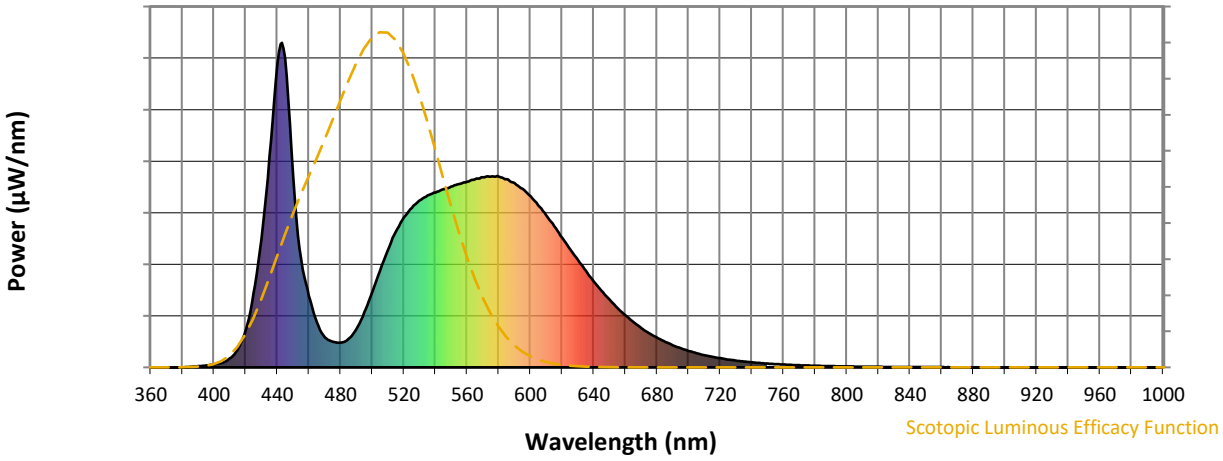



## Photopic Lumens: NR

| 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 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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## Scotopic Flux vs. Wavelength

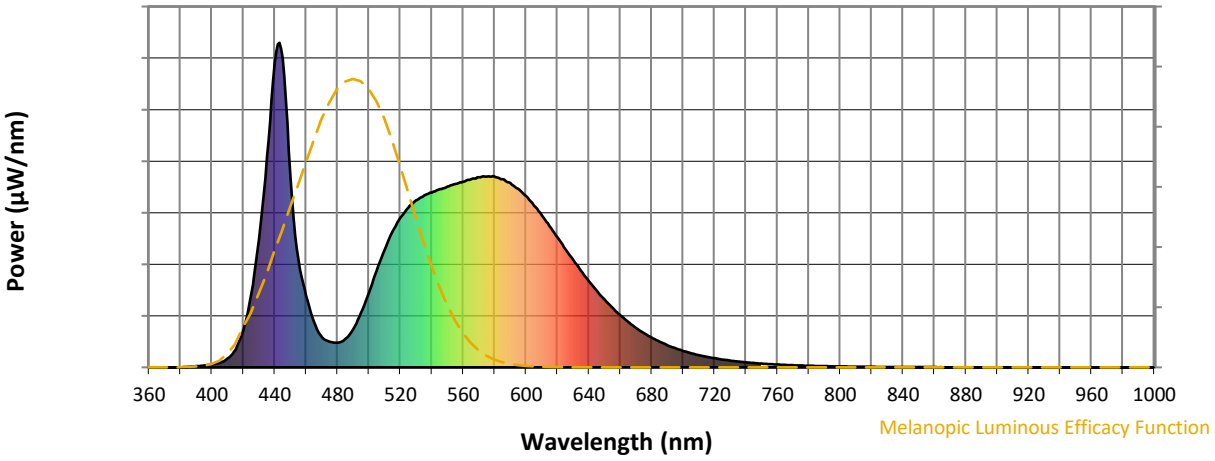



**Scotopic Lumens: NR** **S/P: 1.7**

| 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 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.37**

| 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 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

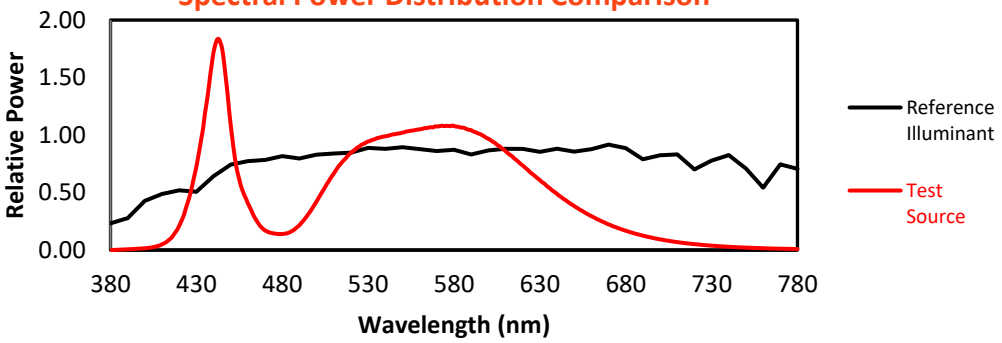
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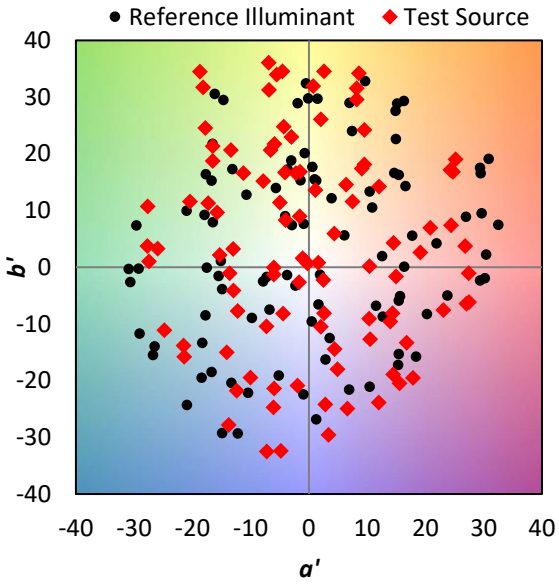
## Summary

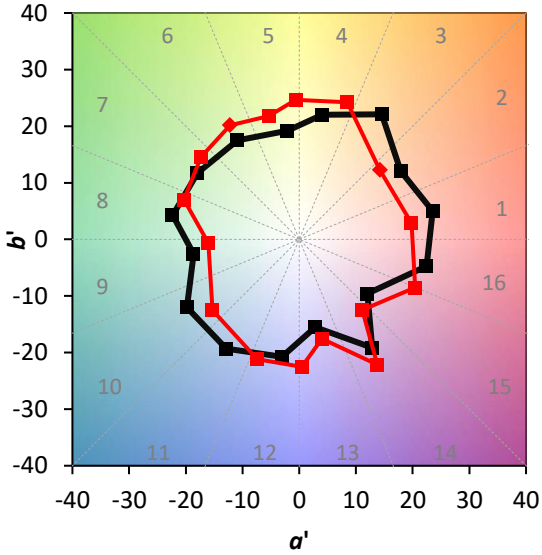
$R_f$ = 70.7
$R_g$ = 96.8
CIE $R_a$ = 70.2
$R_9$ = -35.1

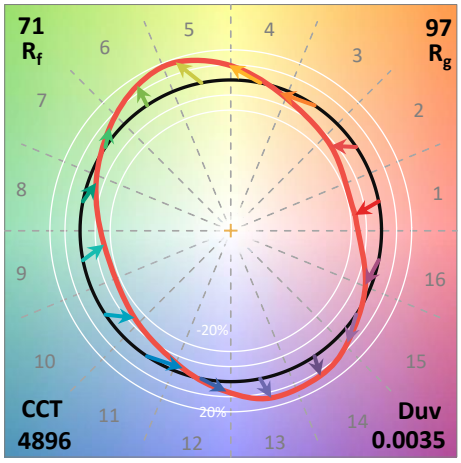
## Spectral Power Distribution Comparison

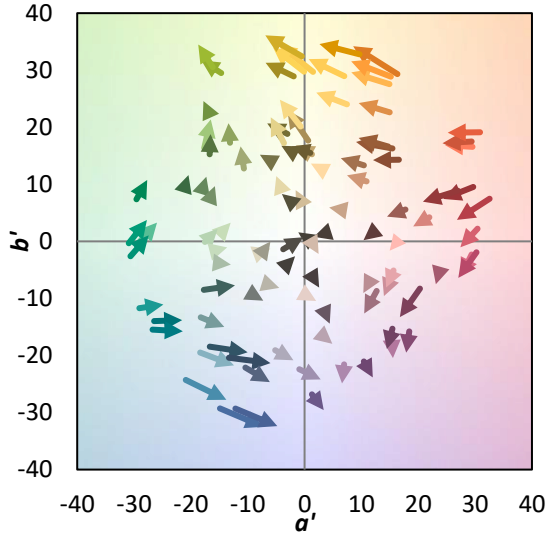



## Color Vector Graphics



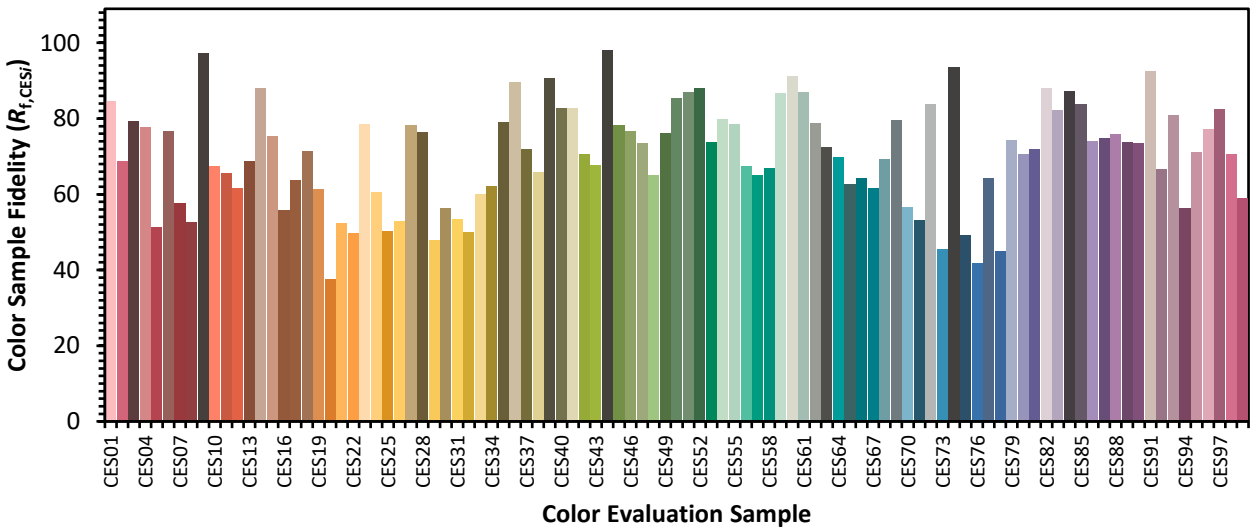



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## Individual Sample Fidelity Index ($R_{f,i}$)

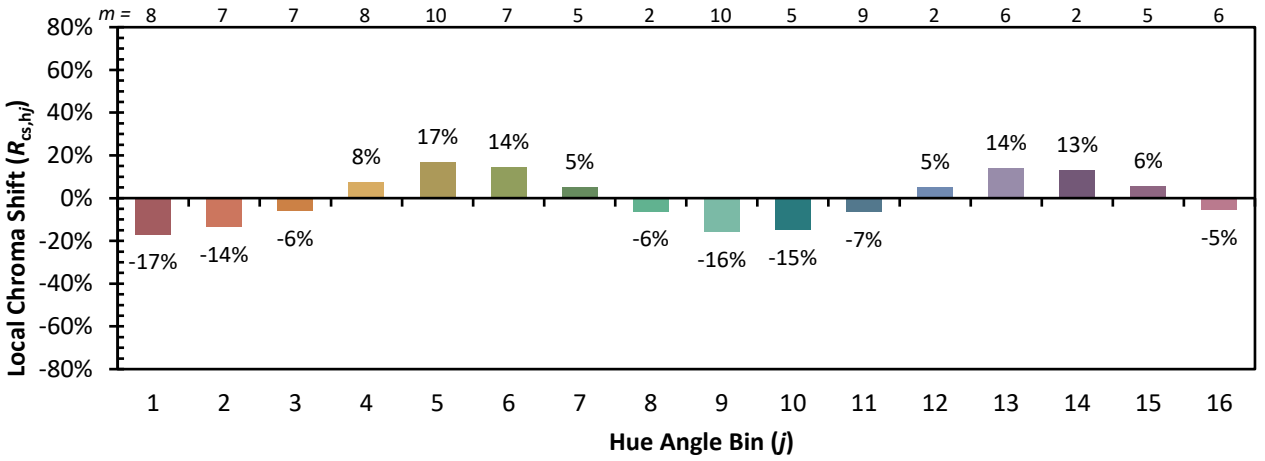
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 53 | CES51 = 87 | CES76 = 42 |
| CES02 = 59 | CES27 = 78 | CES52 = 88 | CES77 = 64 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 45 |
| CES04 = 69 | CES29 = 48 | CES54 = 80 | CES79 = 74 |
| CES05 = 46 | CES30 = 56 | CES55 = 79 | CES80 = 71 |
| CES06 = 50 | CES31 = 54 | CES56 = 68 | CES81 = 72 |
| CES07 = 39 | CES32 = 50 | CES57 = 65 | CES82 = 88 |
| CES08 = 38 | CES33 = 60 | CES58 = 67 | CES83 = 82 |
| CES09 = 29 | CES34 = 62 | CES59 = 87 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 91 | CES85 = 84 |
| CES11 = 56 | CES36 = 90 | CES61 = 87 | CES86 = 74 |
| CES12 = 61 | CES37 = 72 | CES62 = 79 | CES87 = 75 |
| CES13 = 41 | CES38 = 66 | CES63 = 72 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 70 | CES89 = 74 |
| CES15 = 70 | CES40 = 83 | CES65 = 63 | CES90 = 73 |
| CES16 = 46 | CES41 = 83 | CES66 = 64 | CES91 = 92 |
| CES17 = 49 | CES42 = 70 | CES67 = 62 | CES92 = 67 |
| CES18 = 55 | CES43 = 68 | CES68 = 69 | CES93 = 81 |
| CES19 = 71 | CES44 = 98 | CES69 = 80 | CES94 = 56 |
| CES20 = 64 | CES45 = 78 | CES70 = 56 | CES95 = 71 |
| CES21 = 85 | CES46 = 77 | CES71 = 53 | CES96 = 77 |
| CES22 = 77 | CES47 = 73 | CES72 = 84 | CES97 = 82 |
| CES23 = 91 | CES48 = 65 | CES73 = 46 | CES98 = 71 |
| CES24 = 90 | CES49 = 76 | CES74 = 94 | CES99 = 59 |
| CES25 = 71 | CES50 = 85 | CES75 = 49 | |

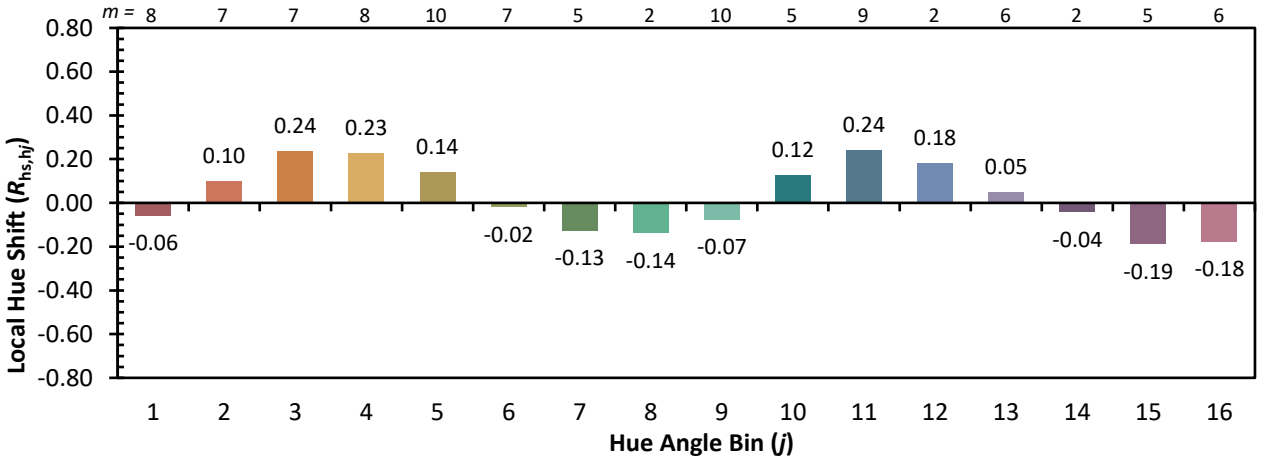


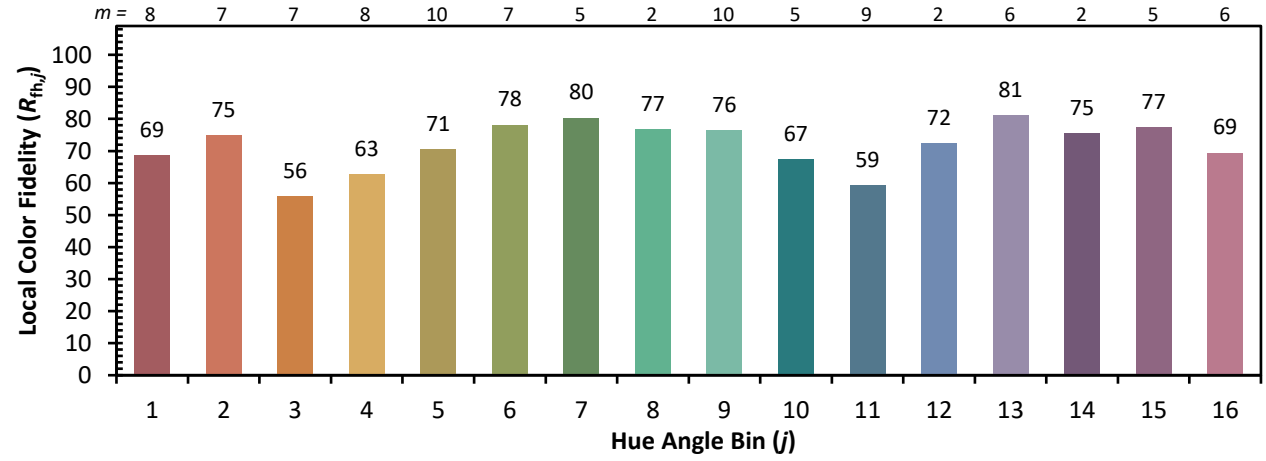
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## Color Rendition by Hue-Angle Bin



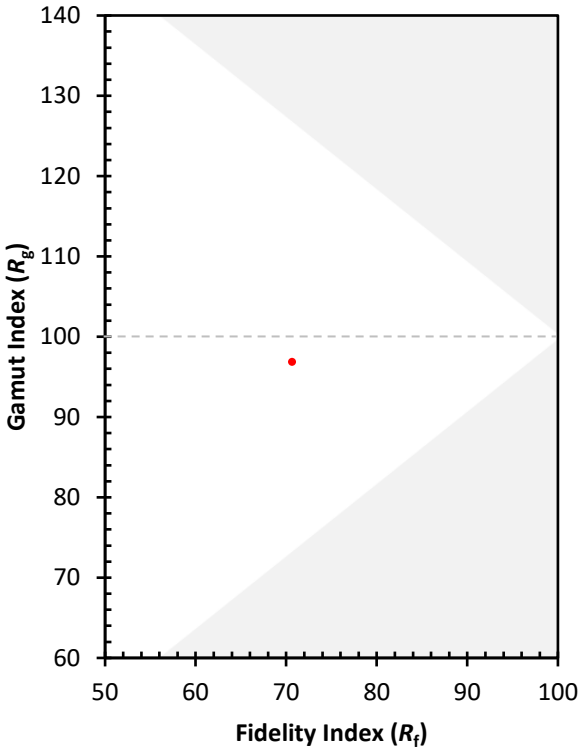



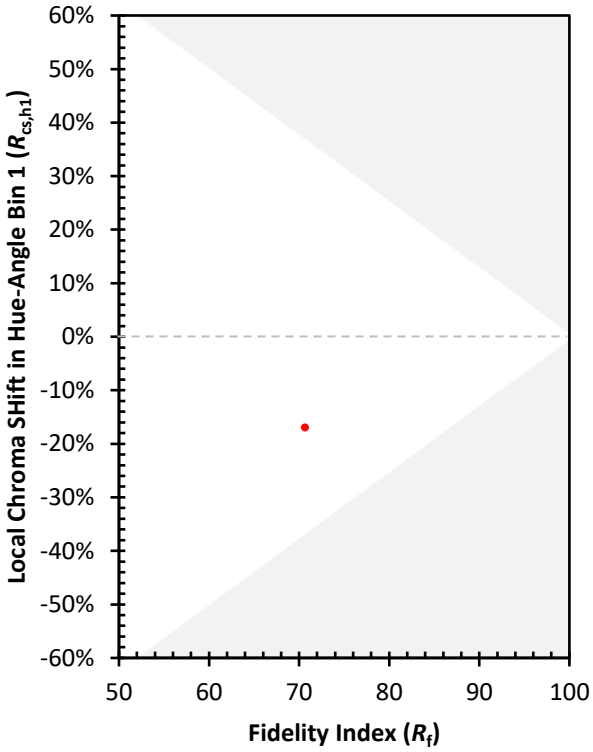



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## Measure Comparisons




(END OF REPORT)