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: P1358065

Luminaire Tested: **GSS-SB5C-730-U-T4FT-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: | P1358065 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB5C-730-U-T4FT-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 5SQUARE 252W 70CRI 3000K FIXTURE w/ TYPE IV FORWARD THROW DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (130) 3000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 25037.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 99.4 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B2 - U0 - G4 |

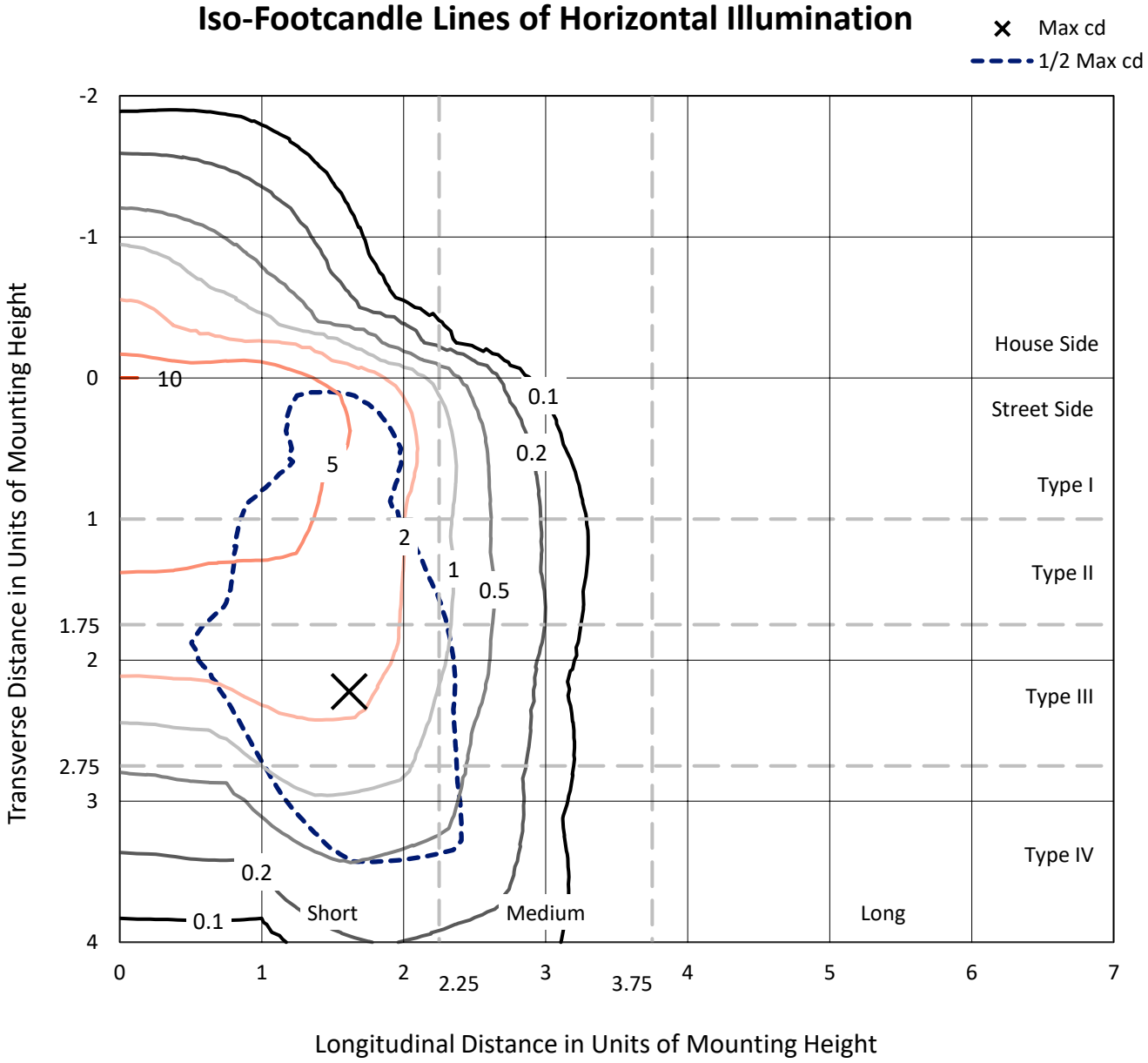
| | |
|---|---|
| Input Watts (W): | 252 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 7.9% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1358065
CATALOG NUMBER: GSS-SB5C-730-U-T4FT-HSS

## Iso-Footcandle Lines of Horizontal Illumination



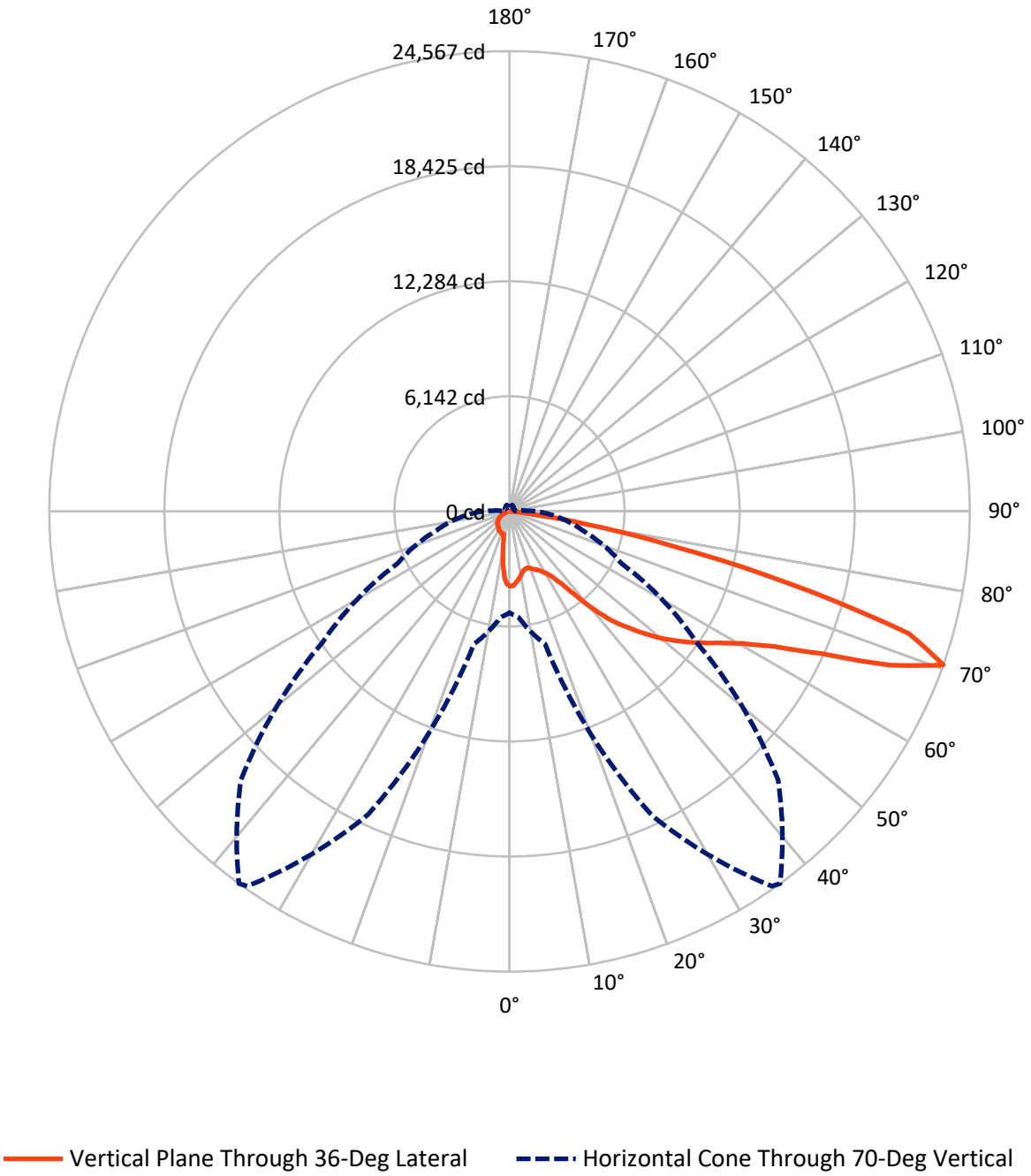

Based on 20 foot mounting height. Maximum calculated value = 10 fc
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

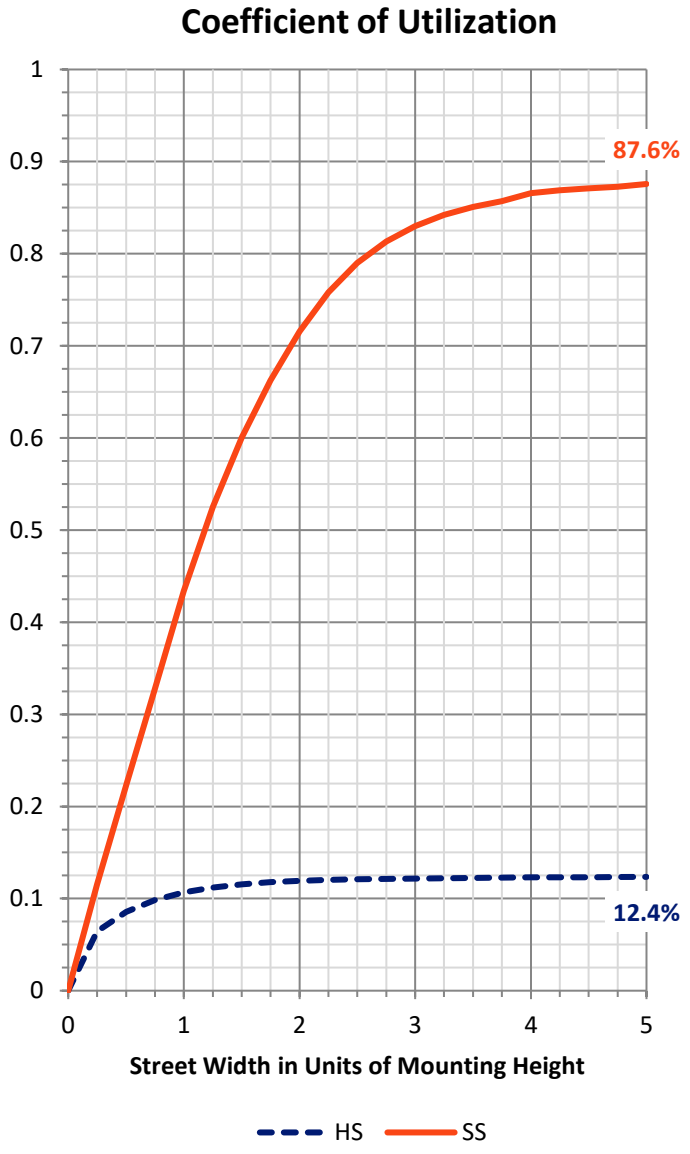
REPORT NUMBER: P1358065
CATALOG NUMBER: GSS-SB5C-730-U-T4FT-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3118.8 | 0.0 | 3118.8 |
| | % Fixture | 12.5 | 0.0 | 12.5 |
| **Street Side** | Lumens | 21919.2 | 0.0 | 21919.2 |
| | % Fixture | 87.5 | 0.0 | 87.5 |
| **Total** | Lumens | 25037.9 | 0.0 | 25037.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 337.6 | 1.3 |
| 10°-20° | 798.1 | 3.2 |
| 20°-30° | 1303.6 | 5.2 |
| 30°-40° | 2330.0 | 9.3 |
| 40°-50° | 4171.5 | 16.7 |
| 50°-60° | 6058.1 | 24.2 |
| 60°-70° | 6756.3 | 27.0 |
| 70°-80° | 3110.0 | 12.4 |
| 80°-90° | 172.7 | 0.7 |
| 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° | 25037.9 | 100.0 |
| 0°-180° | 25037.9 | 100.0 |



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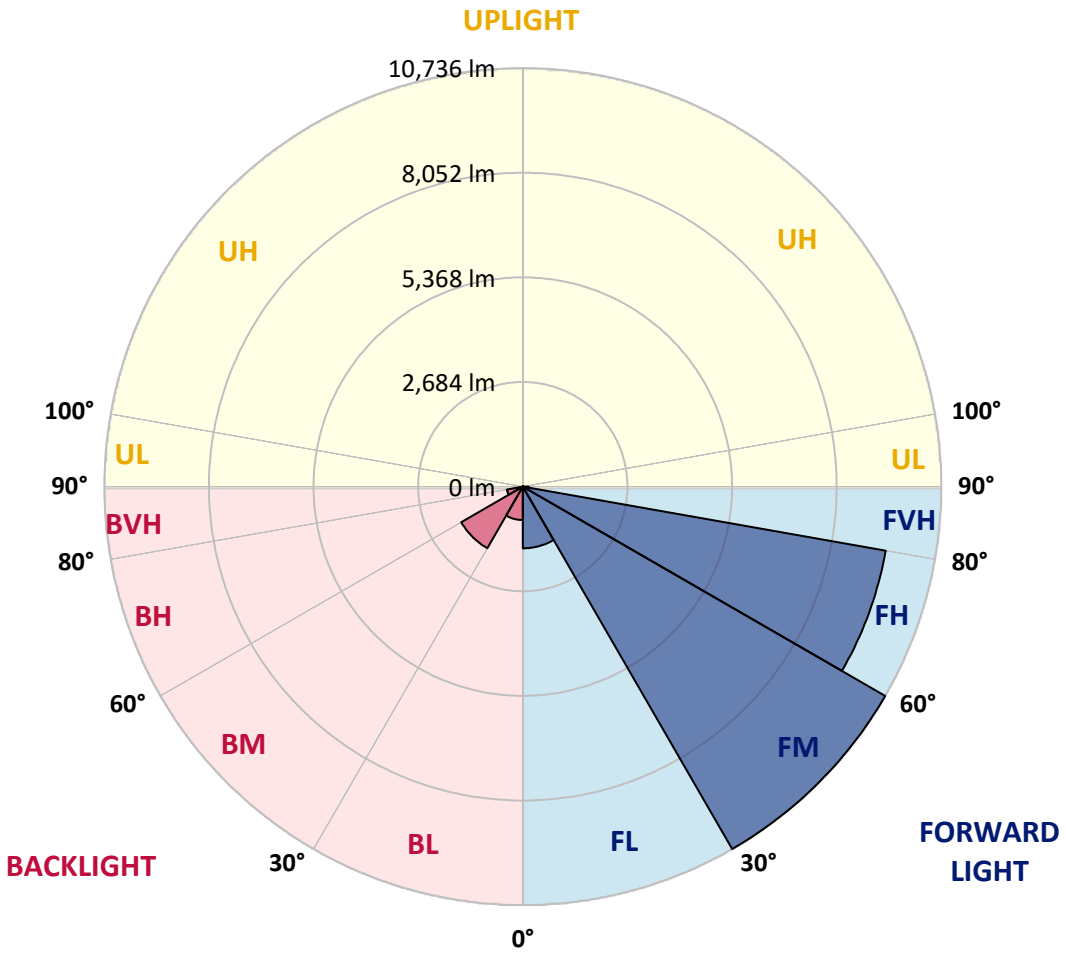
Scaled Data Report

REPORT NUMBER: P1358065
CATALOG NUMBER: GSS-SB5C-730-U-T4FT-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1582.5 | 6.3 | | | |
| FM | (30°-60°) | 10736.3 | 42.9 | | | |
| FH | (60°-80°) | 9452.7 | 37.8 | | | G4/12000 |
| FVH | (80°-90°) | 147.6 | 0.6 | | | G2/225 |
| BL | (0°-30°) | 856.9 | 3.4 | B2/1000 | | |
| BM | (30°-60°) | 1823.2 | 7.3 | B2/2500 | | |
| BH | (60°-80°) | 413.5 | 1.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 25.1 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G4**
Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 | *4000.2* | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 |
| 2.5° | 3953.1 | 3937.4 | 3937.4 | 3953.1 | 3992.4 | *3968.8* | 3953.1 | 3976.7 | 3984.5 | 4008.1 | 4016.0 |
| 5° | 3717.3 | 3725.2 | 3701.6 | 3756.6 | 3795.9 | *3803.8* | 3858.8 | 3929.5 | 3968.8 | 4047.4 | 4055.3 |
| 7.5° | 3410.8 | 3442.2 | 3458.0 | 3536.6 | 3615.1 | *3623.0* | 3725.2 | 3835.2 | 3953.1 | 4063.1 | 4118.1 |
| 10° | 3167.2 | 3175.0 | 3190.8 | 3277.2 | 3418.7 | *3434.4* | 3575.9 | 3756.6 | 3929.5 | 4110.3 | 4173.1 |
| 12.5° | 3010.0 | 3025.7 | 3025.7 | 3096.5 | 3237.9 | *3253.6* | 3418.7 | 3662.3 | 3913.8 | 4126.0 | 4243.9 |
| 15° | 3010.0 | 2994.3 | 2994.3 | 3049.3 | 3159.3 | *3175.0* | 3332.2 | 3591.6 | 3874.5 | 4173.1 | 4361.8 |
| 17.5° | 3025.7 | 3033.6 | 3017.9 | 3057.2 | 3151.5 | *3167.2* | 3308.6 | 3552.3 | 3882.4 | 4243.9 | 4456.1 |
| 20° | 3088.6 | 3088.6 | 3072.9 | 3135.7 | 3222.2 | *3245.8* | 3363.7 | 3568.0 | 3913.8 | 4346.0 | 4589.7 |
| 22.5° | 3175.0 | 3151.5 | 3143.6 | 3214.3 | 3324.4 | *3363.7* | 3465.8 | 3646.6 | 3960.9 | 4471.8 | 4731.1 |
| 25° | 3300.8 | 3277.2 | 3261.5 | 3340.1 | 3442.2 | *3458.0* | 3638.7 | 3780.2 | 4086.7 | 4636.8 | 4966.9 |
| 27.5° | 3536.6 | 3505.1 | 3426.5 | 3481.5 | 3607.3 | *3623.0* | 3803.8 | 3976.7 | 4259.6 | 4825.4 | 5234.1 |
| 30° | 4259.6 | 4212.4 | 3984.5 | 3756.6 | 3803.8 | *3827.3* | 4008.1 | 4228.1 | 4495.4 | 5116.2 | 5634.9 |
| 32.5° | 5116.2 | 5131.9 | 4841.2 | 4408.9 | 4126.0 | *4133.8* | 4251.7 | 4558.2 | 4841.2 | 5524.9 | 6130.0 |
| 35° | 6216.5 | 6169.3 | 5776.4 | 5273.4 | 4739.0 | *4715.4* | 4684.0 | 5021.9 | 5344.1 | 6035.7 | 6750.9 |
| 37.5° | 7269.6 | 7253.9 | 6931.6 | 6302.9 | 5682.1 | *5587.8* | 5367.7 | 5634.9 | 5933.6 | 6680.2 | 7442.5 |
| 40° | 8055.5 | 7976.9 | 7788.3 | 7371.8 | 6845.2 | *6790.2* | 6326.5 | 6389.4 | 6672.3 | 7544.7 | 8165.5 |
| 42.5° | 8566.3 | 8550.6 | 8330.6 | 8204.8 | 7961.2 | *7937.6* | 7387.5 | 7418.9 | 7576.1 | 8527.0 | 9014.3 |
| 45° | 9069.3 | 9030.0 | 8841.4 | 8762.8 | 8778.5 | *8833.5* | 8754.9 | 8574.2 | 8692.1 | 9619.4 | 9925.9 |
| 47.5° | 9572.3 | 9478.0 | 9336.5 | 9367.9 | 9698.0 | *9768.8* | 10028.1 | 9886.6 | 9737.3 | 10869.0 | 10782.6 |
| 50° | 9760.9 | 9768.8 | 9808.0 | 9996.7 | 10538.9 | *10704.0* | 11309.1 | 11026.2 | 10790.4 | 12181.5 | 11772.8 |
| 52.5° | 9831.6 | 9870.9 | 10138.1 | 10468.2 | 11332.7 | *11537.0* | 12715.9 | 12362.2 | 11709.9 | 13454.6 | 12417.2 |
| 55° | 9910.2 | 9886.6 | 10421.1 | 10845.4 | 12165.8 | *12385.8* | 14004.8 | 13431.1 | 12574.4 | 14413.4 | 12967.4 |
| 57.5° | 10311.0 | 10318.9 | 10735.4 | 11191.2 | 12943.8 | *13242.4* | 15183.6 | 14468.4 | 13053.8 | 15136.5 | 13124.6 |
| 60° | 10947.6 | 11096.9 | 11379.9 | 11875.0 | 13871.2 | *14295.5* | 16346.7 | 15222.9 | 13541.1 | 15152.2 | 12440.8 |
| 62.5° | 11317.0 | 11403.4 | 12205.0 | 13171.7 | 15458.7 | *15883.1* | 17580.6 | 15812.3 | 13289.6 | 13753.3 | 10688.3 |
| 65° | 10043.8 | 10114.5 | 11914.3 | 15136.5 | 17934.3 | *18287.9* | 18940.2 | 15859.5 | 11961.4 | 11427.0 | 8299.1 |
| 67.5° | 7497.5 | 7686.1 | 9831.6 | 17203.4 | 21730.2 | *21903.1* | 20590.6 | 14696.4 | 9831.6 | 7992.6 | 4872.6 |
| 70° | *5407.0* | *5689.9* | *7332.5* | *17840.0* | *24425.8* | *24567.3* | *20276.3* | *12189.3* | *6617.3* | *4102.4* | *2294.8* |
| 72.5° | 3913.8 | 4063.1 | 5234.1 | 16731.8 | 22987.6 | *22280.3* | 14303.4 | 7623.2 | 3489.4 | 2090.5 | 1053.1 |
| 75° | 2703.5 | 2813.5 | 3332.2 | 12590.1 | 15663.0 | *15521.6* | 7214.6 | 2766.4 | 1697.5 | 1210.3 | 636.6 |
| 77.5° | 1116.0 | 1116.0 | 1493.2 | 7088.8 | 8762.8 | *8904.3* | 3277.2 | 754.5 | 895.9 | 699.5 | 369.4 |
| 80° | 361.5 | 361.5 | 597.3 | 2514.9 | 4055.3 | *4102.4* | 1178.9 | 369.4 | 479.4 | 424.4 | 196.5 |
| 82.5° | 133.6 | 125.7 | 306.5 | 833.1 | 1006.0 | *1068.8* | 322.2 | 180.8 | 290.8 | 251.5 | 94.3 |
| 85° | 47.2 | 47.2 | 110.0 | 172.9 | 188.6 | *165.0* | 86.4 | 86.4 | 141.5 | 117.9 | 39.3 |
| 87.5° | 0.0 | 0.0 | 7.9 | 15.7 | 23.6 | *23.6* | 23.6 | 23.6 | 31.4 | 23.6 | 23.6 |
| 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: P1358065
CATALOG NUMBER: GSS-SB5C-730-U-T4FT-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 | 4000.2 |
| 2.5° | 4000.2 | 4016.0 | 3984.5 | 3953.1 | 3945.2 | 3905.9 | 3882.4 | 3850.9 | 3843.1 | 3835.2 | 3850.9 |
| 5° | 4047.4 | 4047.4 | 3968.8 | 3882.4 | 3780.2 | 3638.7 | 3489.4 | 3355.8 | 3300.8 | 3237.9 | 3245.8 |
| 7.5° | 4102.4 | 4063.1 | 3945.2 | 3717.3 | 3410.8 | 3072.9 | 2789.9 | 2577.8 | 2452.0 | 2342.0 | 2373.4 |
| 10° | 4149.6 | 4110.3 | 3866.6 | 3426.5 | 2915.7 | 2459.9 | 2051.2 | 1815.4 | 1666.1 | 1579.7 | 1619.0 |
| 12.5° | 4220.3 | 4141.7 | 3733.0 | 3057.2 | 2357.7 | 1799.7 | 1485.4 | 1359.6 | 1320.3 | 1296.7 | 1296.7 |
| 15° | 4298.9 | 4165.3 | 3528.7 | 2640.6 | 1823.3 | 1359.6 | 1273.2 | 1273.2 | 1281.0 | 1281.0 | 1288.9 |
| 17.5° | 4377.5 | 4173.1 | 3308.6 | 2161.2 | 1414.6 | 1241.7 | 1249.6 | 1257.4 | 1273.2 | 1257.4 | 1257.4 |
| 20° | 4471.8 | 4228.1 | 3025.7 | 1736.8 | 1241.7 | 1218.1 | 1226.0 | 1241.7 | 1257.4 | 1241.7 | 1249.6 |
| 22.5° | 4629.0 | 4283.2 | 2782.1 | 1461.8 | 1218.1 | 1202.4 | 1202.4 | 1226.0 | 1233.9 | 1210.3 | 1218.1 |
| 25° | 4809.7 | 4353.9 | 2522.7 | 1351.8 | 1233.9 | 1178.9 | 1194.6 | 1210.3 | 1218.1 | 1202.4 | 1202.4 |
| 27.5° | 5037.6 | 4471.8 | 2271.3 | 1351.8 | 1249.6 | 1163.1 | 1171.0 | 1194.6 | 1210.3 | 1186.7 | 1202.4 |
| 30° | 5367.7 | 4613.2 | 2114.1 | 1391.0 | 1265.3 | 1131.7 | 1139.6 | 1171.0 | 1194.6 | 1178.9 | 1186.7 |
| 32.5° | 5776.4 | 4856.9 | 1980.5 | 1422.5 | 1257.4 | 1100.3 | 1092.4 | 1139.6 | 1178.9 | 1171.0 | 1186.7 |
| 35° | 6279.4 | 5139.8 | 1894.0 | 1453.9 | 1241.7 | 1076.7 | 1045.2 | 1108.1 | 1171.0 | 1171.0 | 1178.9 |
| 37.5° | 6782.3 | 5438.4 | 1933.3 | 1446.1 | 1202.4 | 1061.0 | 1006.0 | 1061.0 | 1131.7 | 1155.3 | 1171.0 |
| 40° | 7379.6 | 5768.5 | 2027.6 | 1398.9 | 1178.9 | 1013.8 | 974.5 | 1013.8 | 1084.5 | 1123.8 | 1139.6 |
| 42.5° | 7914.0 | 6082.9 | 2121.9 | 1343.9 | 1147.4 | 966.7 | 943.1 | 974.5 | 1013.8 | 1053.1 | 1076.7 |
| 45° | 8542.7 | 6326.5 | 2090.5 | 1281.0 | 1116.0 | 927.4 | 919.5 | 927.4 | 943.1 | 958.8 | 974.5 |
| 47.5° | 8990.7 | 6405.1 | 1949.0 | 1226.0 | 1045.2 | 895.9 | 880.2 | 872.4 | 856.6 | 856.6 | 864.5 |
| 50° | 9478.0 | 6185.0 | 1666.1 | 1163.1 | 943.1 | 856.6 | 825.2 | 801.6 | 778.0 | 762.3 | 770.2 |
| 52.5° | 9690.2 | 5619.2 | 1398.9 | 1053.1 | 825.2 | 801.6 | 762.3 | 730.9 | 699.5 | 691.6 | 683.7 |
| 55° | 9603.7 | 4841.2 | 1155.3 | 888.1 | 738.7 | 738.7 | 699.5 | 668.0 | 636.6 | 613.0 | 605.1 |
| 57.5° | 9273.6 | 4039.5 | 927.4 | 660.2 | 652.3 | 668.0 | 636.6 | 605.1 | 573.7 | 542.3 | 542.3 |
| 60° | 8503.5 | 3096.5 | 715.2 | 534.4 | 565.8 | 589.4 | 581.6 | 558.0 | 503.0 | 455.8 | 455.8 |
| 62.5° | 7175.3 | 2098.4 | 510.8 | 432.2 | 479.4 | 518.7 | 526.6 | 503.0 | 440.1 | 385.1 | 377.2 |
| 65° | 5454.2 | 1233.9 | 393.0 | 369.4 | 408.7 | 448.0 | 463.7 | 440.1 | 369.4 | 306.5 | 290.8 |
| 67.5° | 3316.5 | 668.0 | 306.5 | 314.4 | 353.7 | 377.2 | 400.8 | 385.1 | 322.2 | 259.3 | 251.5 |
| 70° | *1414.6* | *337.9* | *251.5* | *259.3* | *282.9* | *290.8* | *337.9* | *345.8* | *290.8* | *227.9* | *220.1* |
| 72.5° | 652.3 | 251.5 | 204.3 | 220.1 | 212.2 | 220.1 | 290.8 | 306.5 | 251.5 | 180.8 | 180.8 |
| 75° | 377.2 | 188.6 | 157.2 | 172.9 | 141.5 | 165.0 | 235.8 | 251.5 | 212.2 | 149.3 | 141.5 |
| 77.5° | 204.3 | 133.6 | 110.0 | 117.9 | 102.2 | 125.7 | 188.6 | 196.5 | 157.2 | 117.9 | 117.9 |
| 80° | 117.9 | 86.4 | 78.6 | 70.7 | 70.7 | 86.4 | 133.6 | 125.7 | 102.2 | 102.2 | 102.2 |
| 82.5° | 62.9 | 47.2 | 47.2 | 47.2 | 47.2 | 55.0 | 70.7 | 78.6 | 86.4 | 86.4 | 86.4 |
| 85° | 31.4 | 23.6 | 23.6 | 23.6 | 31.4 | 39.3 | 55.0 | 62.9 | 70.7 | 70.7 | 70.7 |
| 87.5° | 15.7 | 15.7 | 15.7 | 15.7 | 15.7 | 23.6 | 39.3 | 47.2 | 55.0 | 31.4 | 15.7 |
| 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: SP1-2407-184-4

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

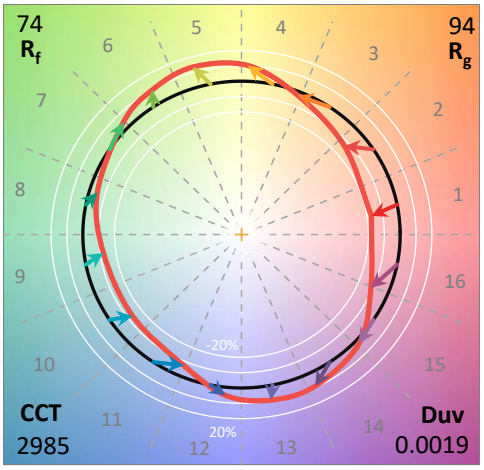
## Test Information

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

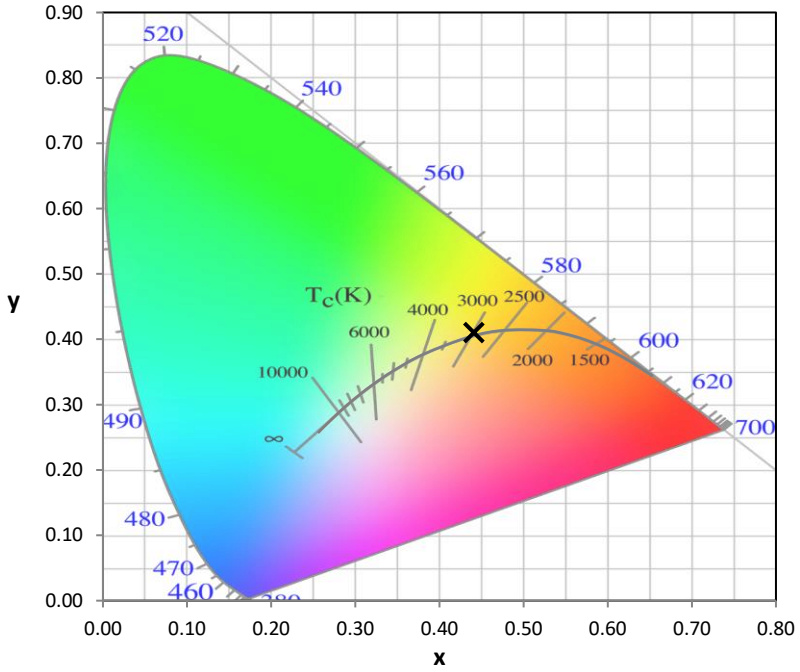
| | |
|---|---|
| Stabilization Time: | 36M |
| Operation Time: | 1H 36M |
| Sphere Temperature (°C): | 25.2 |

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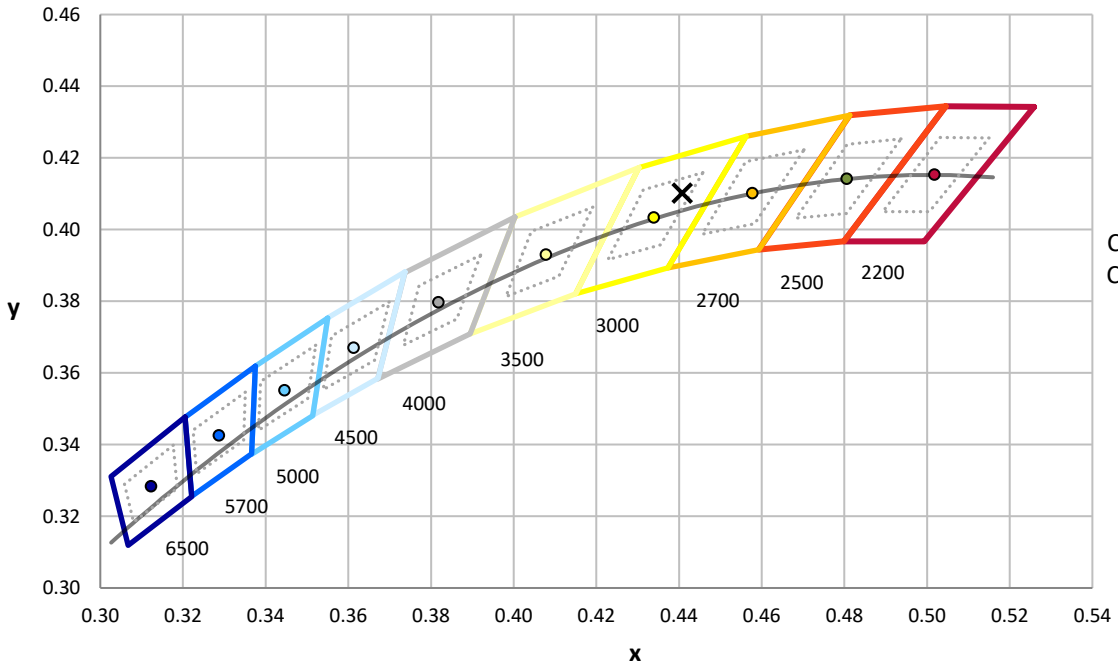
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

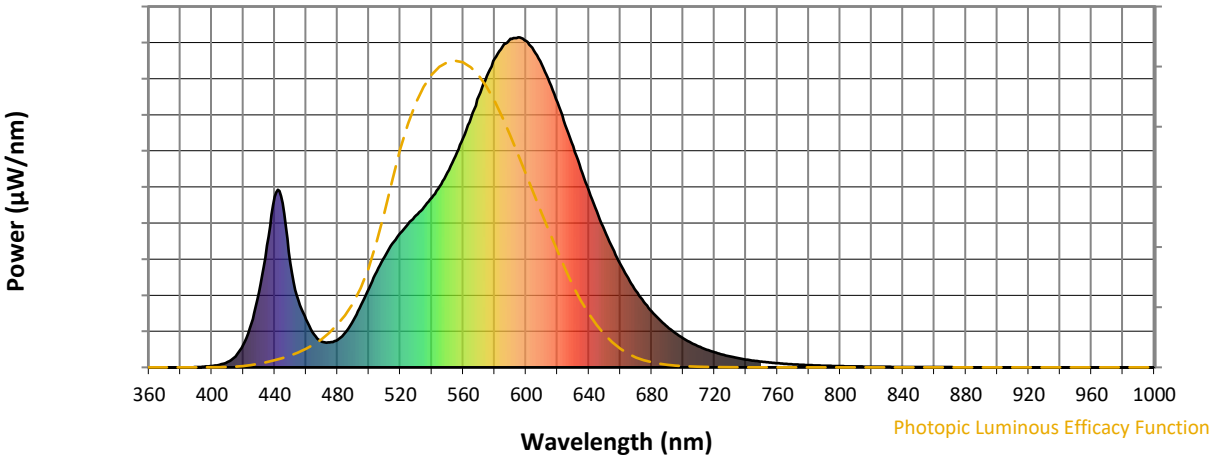



CCT = 2985K
CIE x = 0.4408
CIE y = 0.4101
Duv = 0.0019

Point lies inside the ANSI 3000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

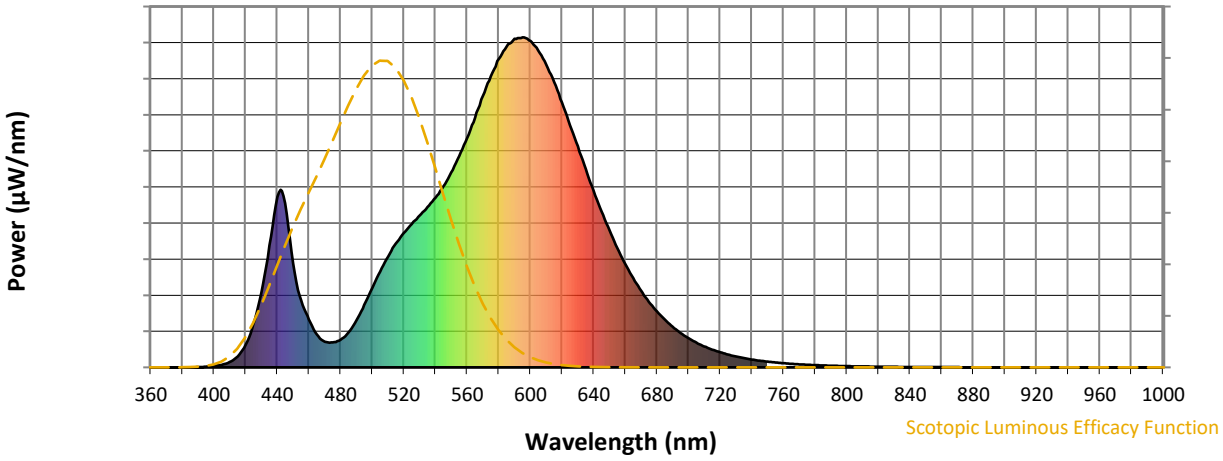



## Photopic Lumens: NR

| 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 | 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 | | | |

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## Scotopic Flux vs. Wavelength

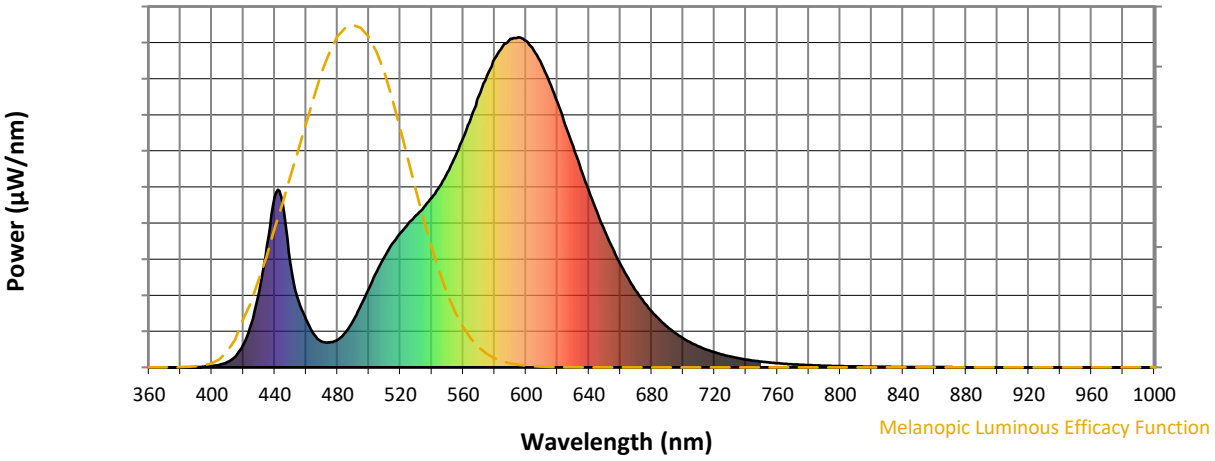



**Scotopic Lumens: NR** **S/P: 1.19**

| 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 | | | |

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## 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 | | | |

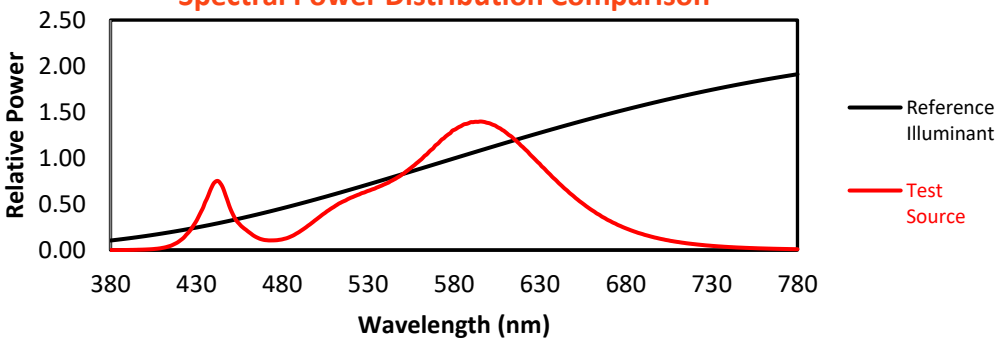
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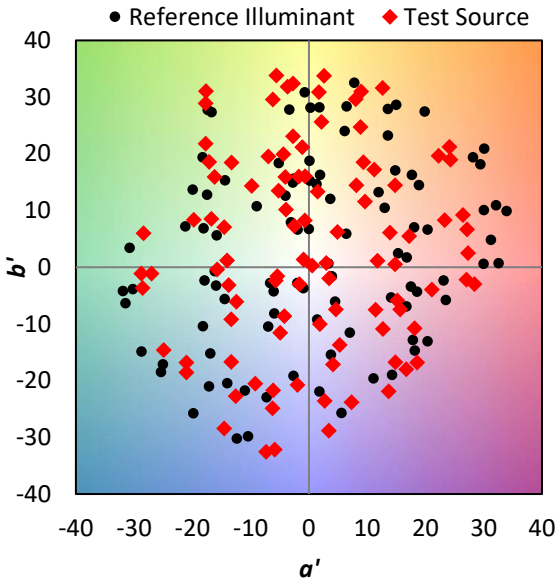
## Summary

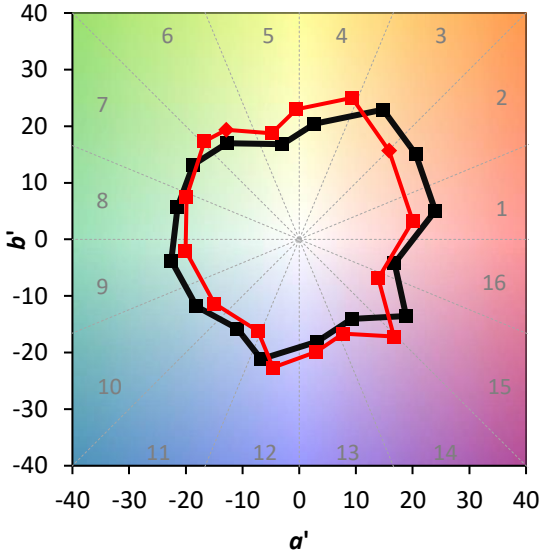
$R_f$ = 73.8
$R_g$ = 94.4
CIE $R_a$ = 70.8
$R_9$ = -43.2

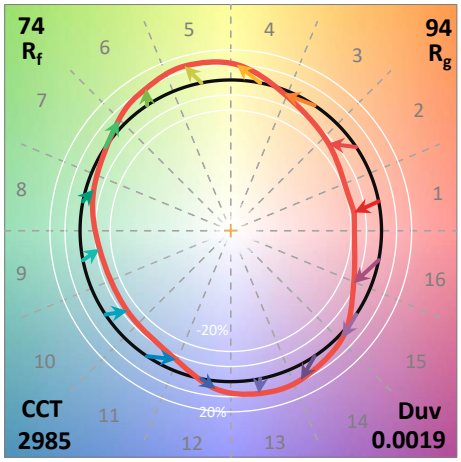
## Spectral Power Distribution Comparison

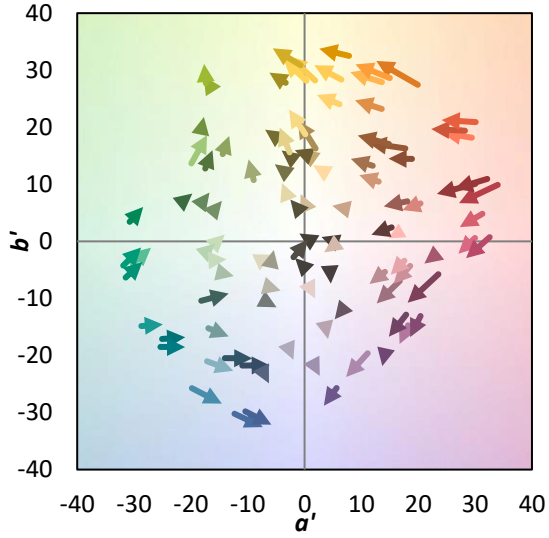



## Color Vector Graphics



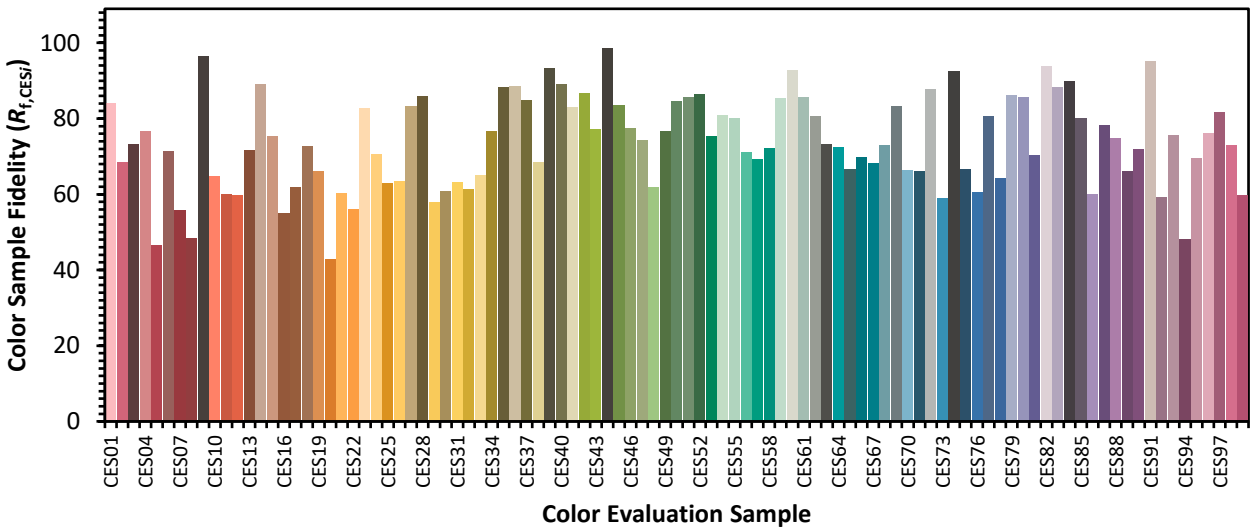



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**Individual Sample Fidelity Index ($R_{f,i}$)**

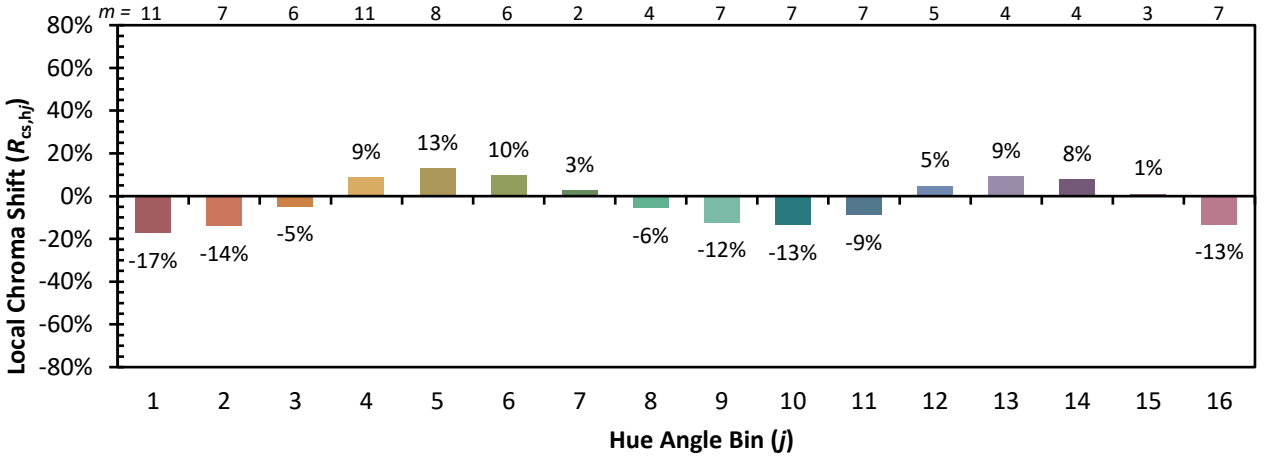
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 63 | CES51 = 86 | CES76 = 61 |
| CES02 = 62 | CES27 = 83 | CES52 = 86 | CES77 = 81 |
| CES03 = 31 | CES28 = 86 | CES53 = 75 | CES78 = 64 |
| CES04 = 71 | CES29 = 58 | CES54 = 81 | CES79 = 86 |
| CES05 = 49 | CES30 = 61 | CES55 = 80 | CES80 = 86 |
| CES06 = 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 | |

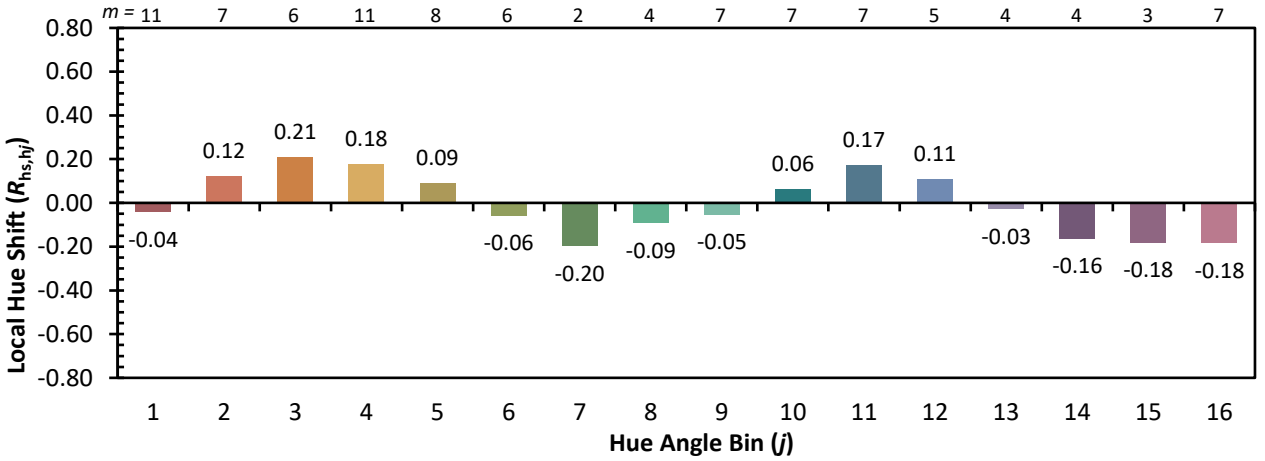


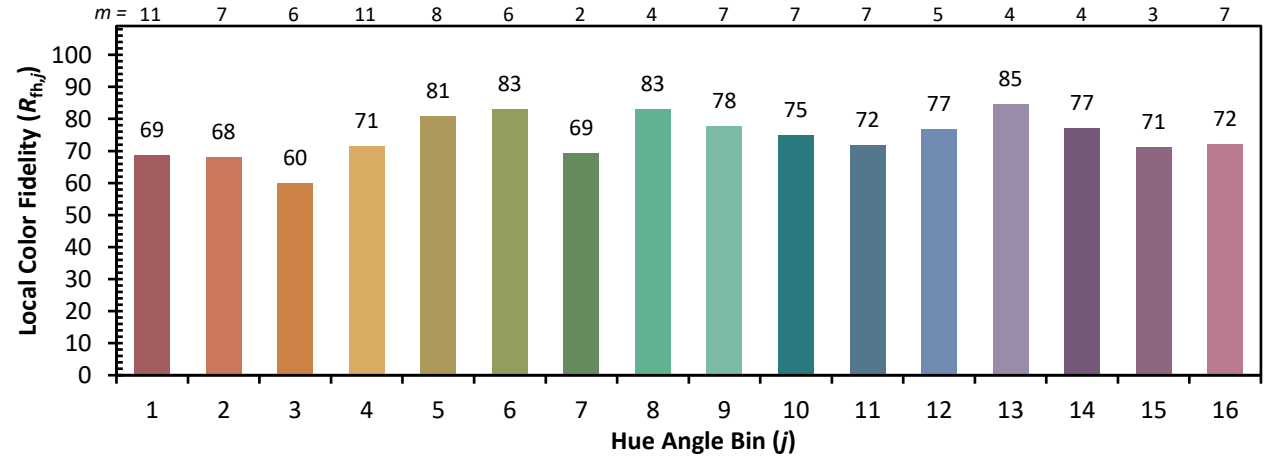
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## Color Rendition by Hue-Angle Bin



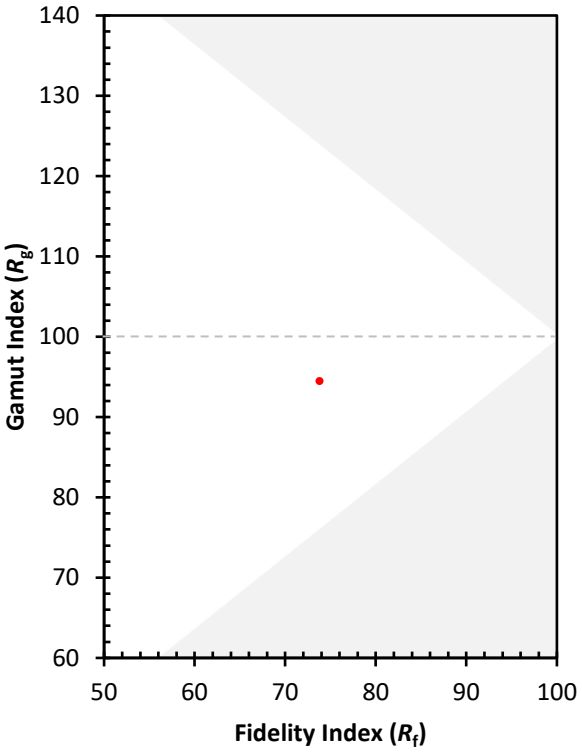



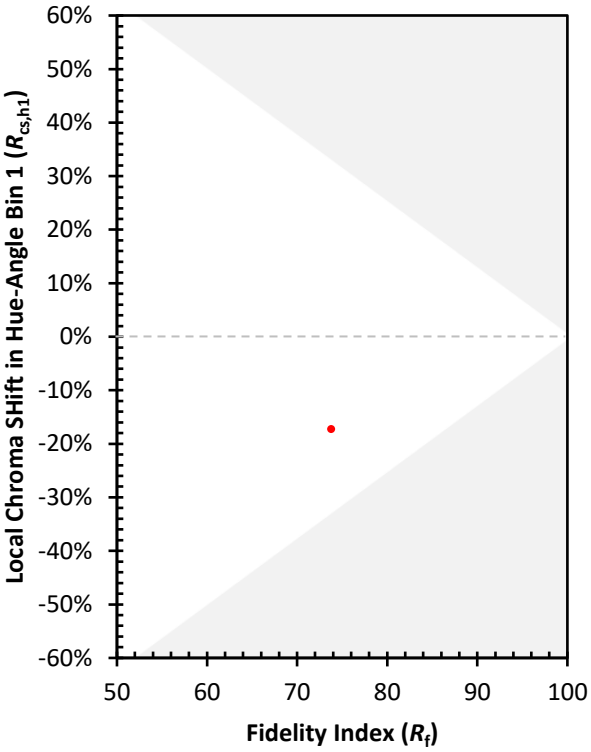



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## Measure Comparisons




(END OF REPORT)