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: P1362985

Luminaire Tested: **GSS-SB5C-740-U-SL2-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: | P1362985 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB5C-740-U-SL2-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 5SQUARE 252W 70CRI 4000K FIXTURE w/ TYPE II SPILL CONTROL DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (130) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 31680.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 125.7 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B3 - U0 - G4 |

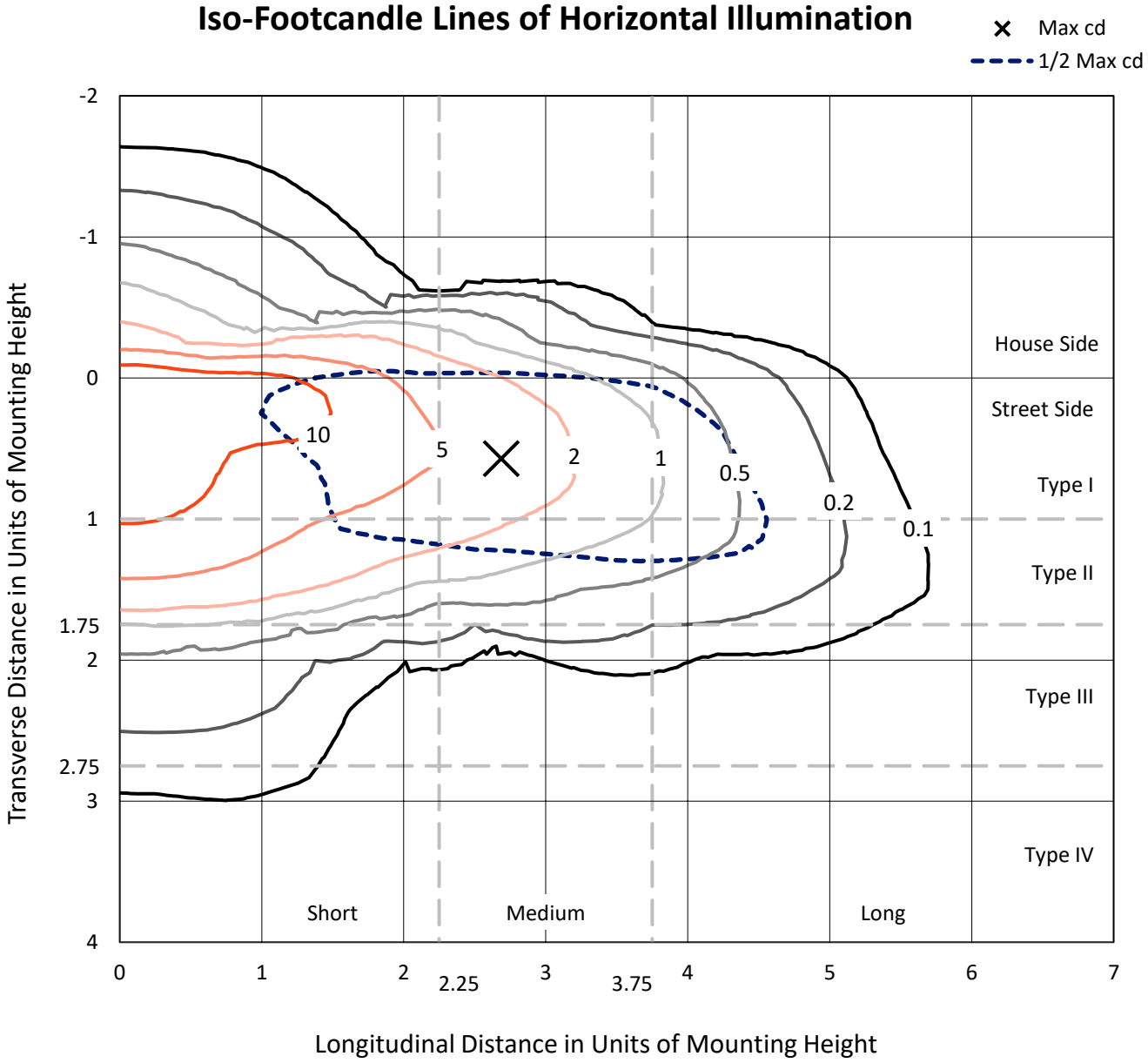
| | |
|---|---|
| Input Watts (W): | 252 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 7.9% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature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

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Scaled Data Report

REPORT NUMBER: P1362985
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## Iso-Footcandle Lines of Horizontal Illumination



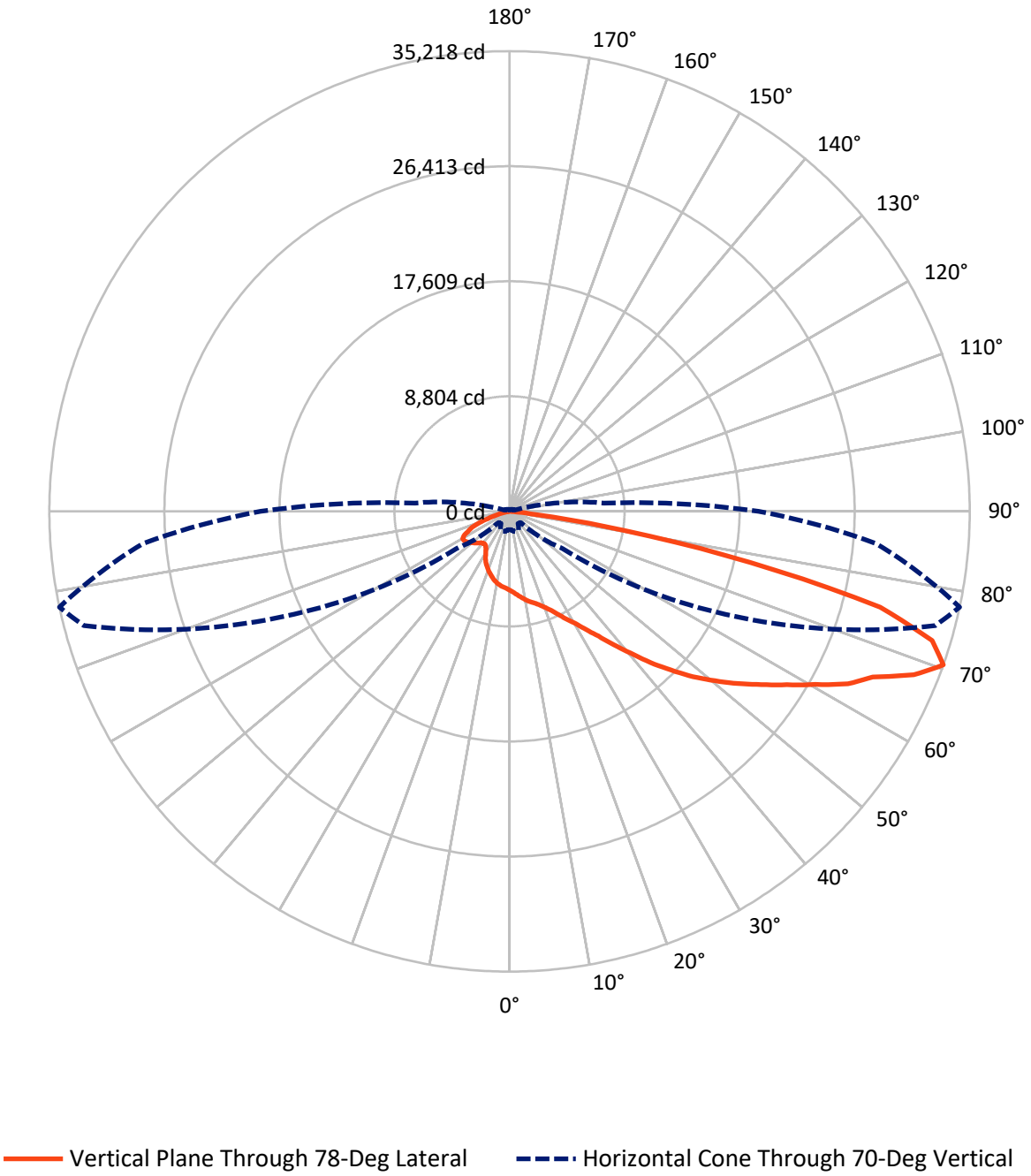

Based on 20 foot mounting height. Maximum calculated value = 18.1 fc
Type II - Medium - N/A

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REPORT NUMBER: P1362985
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## Luminous Intensity Polar Plot



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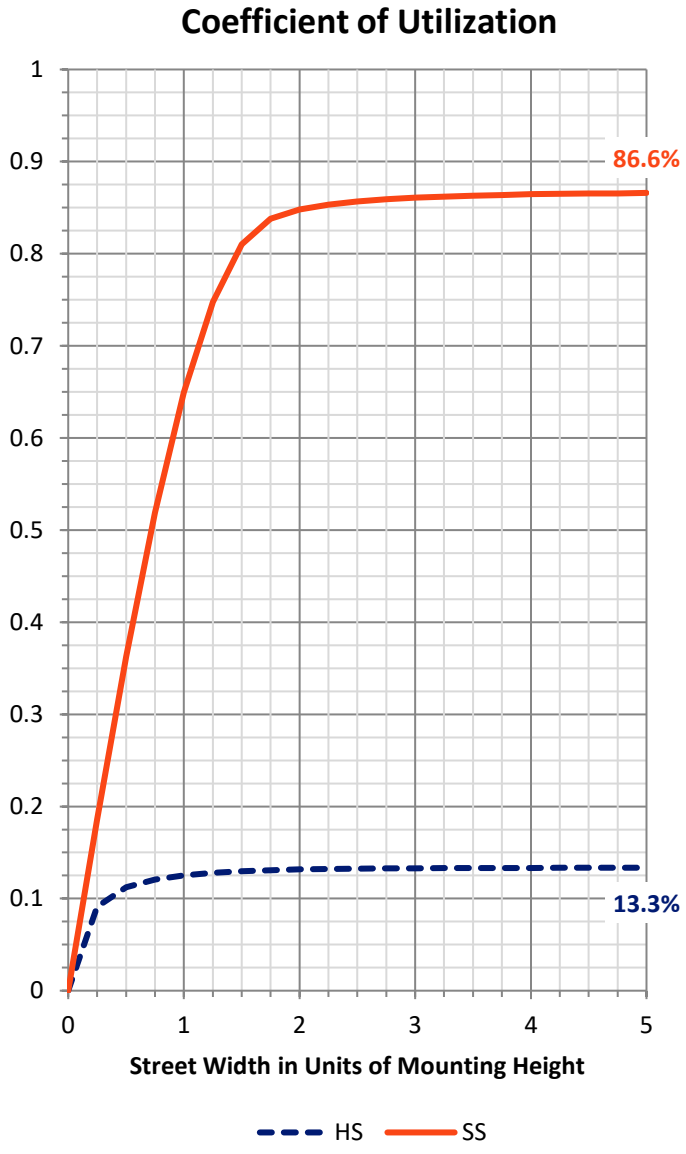
REPORT NUMBER: P1362985
CATALOG NUMBER: GSS-SB5C-740-U-SL2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 4261.2 | 0.0 | 4261.2 |
| | % Fixture | 13.5 | 0.0 | 13.5 |
| **Street Side** | Lumens | 27419.7 | 0.0 | 27419.7 |
| | % Fixture | 86.5 | 0.0 | 86.5 |
| **Total** | Lumens | 31680.9 | 0.0 | 31680.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 552.3 | 1.7 |
| 10°-20° | 1368.0 | 4.3 |
| 20°-30° | 2269.3 | 7.2 |
| 30°-40° | 3617.5 | 11.4 |
| 40°-50° | 5520.6 | 17.4 |
| 50°-60° | 7350.8 | 23.2 |
| 60°-70° | 6861.8 | 21.7 |
| 70°-80° | 3880.4 | 12.2 |
| 80°-90° | 260.2 | 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° | 31680.9 | 100.0 |
| 0°-180° | 31680.9 | 100.0 |



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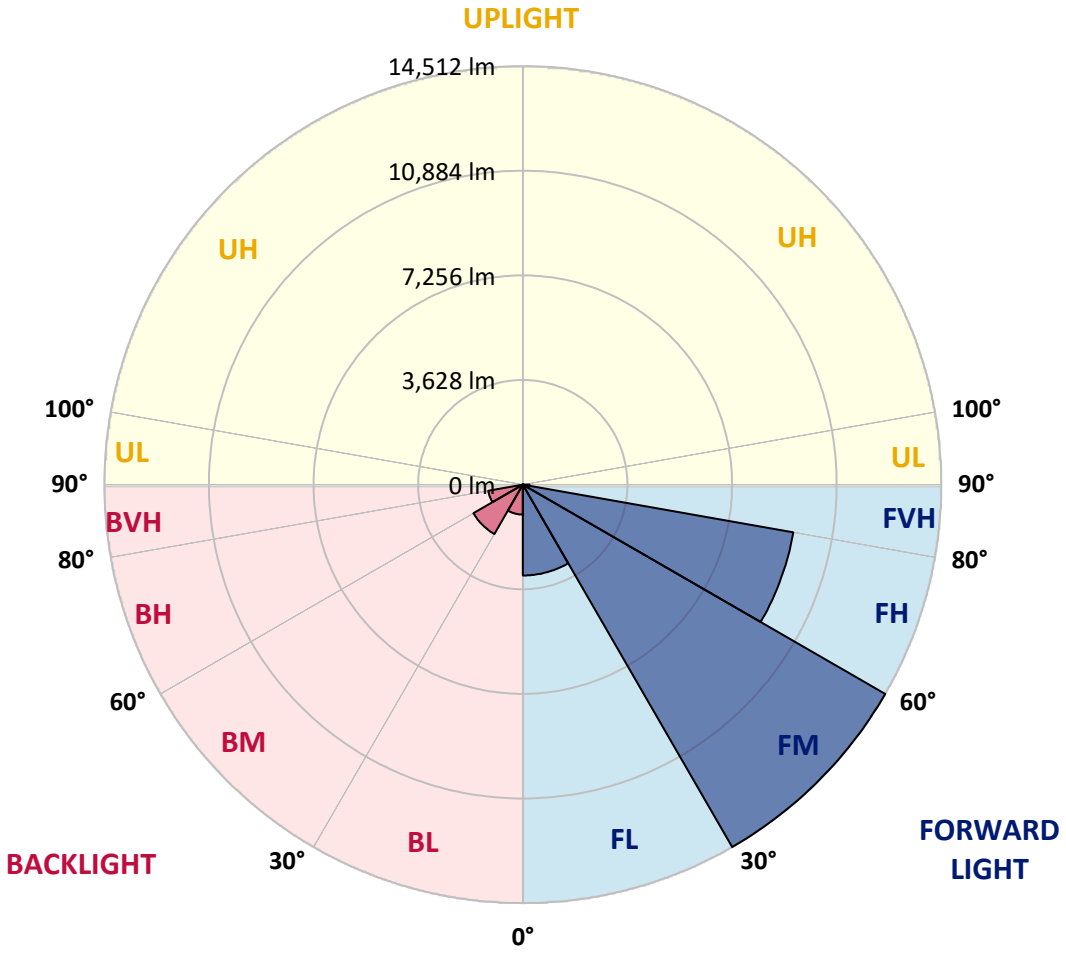
Scaled Data Report

REPORT NUMBER: P1362985
CATALOG NUMBER: GSS-SB5C-740-U-SL2-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 3150.2 | 9.9 | | | |
| FM | (30°-60°) | 14512.5 | 45.8 | | | |
| FH | (60°-80°) | 9525.9 | 30.1 | | | G4/12000 |
| FVH | (80°-90°) | 231.1 | 0.7 | | | G3/500 |
| BL | (0°-30°) | 1039.4 | 3.3 | B3/2500 | | |
| BM | (30°-60°) | 1976.4 | 6.2 | B2/2500 | | |
| BH | (60°-80°) | 1216.3 | 3.8 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 29.1 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G4**
Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 78° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 |
| 2.5° | 6816.3 | 6718.7 | 6718.7 | 6674.3 | 6629.9 | 6550.0 | 6452.4 | 6345.9 | 6257.1 | 6212.8 | 6141.8 |
| 5° | 7304.4 | 7277.8 | 7268.9 | 7197.9 | 7126.9 | 7011.6 | 6887.3 | 6683.2 | 6496.8 | 6434.7 | 6274.9 |
| 7.5° | 7286.7 | 7268.9 | 7304.4 | 7393.2 | 7455.3 | 7410.9 | 7304.4 | 7055.9 | 6763.0 | 6656.5 | 6416.9 |
| 10° | 6736.4 | 6683.2 | 6807.4 | 7002.7 | 7286.7 | 7579.6 | 7624.0 | 7384.3 | 7011.6 | 6887.3 | 6550.0 |
| 12.5° | 6239.4 | 6239.4 | 6301.5 | 6479.0 | 6834.0 | 7357.7 | 7766.0 | 7686.1 | 7260.1 | 7109.2 | 6665.4 |
| 15° | 6177.3 | 6132.9 | 6150.6 | 6230.5 | 6479.0 | 6993.8 | 7677.2 | 7916.8 | 7490.8 | 7286.7 | 6771.9 |
| 17.5° | 6461.3 | 6408.0 | 6363.7 | 6328.1 | 6363.7 | 6700.9 | 7402.1 | 8112.1 | 7766.0 | 7544.1 | 6913.9 |
| 20° | 6905.0 | 6905.0 | 6789.7 | 6647.7 | 6532.3 | 6594.4 | 7180.2 | 8236.4 | 8094.4 | 7854.7 | 7126.9 |
| 22.5° | 7544.1 | 7464.2 | 7393.2 | 7171.3 | 6887.3 | 6754.2 | 7082.6 | 8369.5 | 8547.0 | 8254.1 | 7419.8 |
| 25° | 8076.6 | 8103.2 | 8023.3 | 7748.2 | 7348.8 | 7055.9 | 7162.4 | 8422.7 | 9061.8 | 8768.9 | 7783.7 |
| 27.5° | 8680.1 | 8653.5 | 8582.5 | 8307.4 | 7845.8 | 7428.7 | 7384.3 | 8529.2 | 9656.4 | 9345.8 | 8209.7 |
| 30° | 9239.3 | 9239.3 | 9150.5 | 8839.9 | 8369.5 | 7916.8 | 7712.7 | 8706.8 | 10251.1 | 9967.1 | 8689.0 |
| 32.5° | 9860.6 | 9869.4 | 9691.9 | 9363.5 | 8884.3 | 8369.5 | 8129.9 | 8973.0 | 10987.7 | 10774.7 | 9336.9 |
| 35° | 10366.4 | 10384.2 | 10339.8 | 9984.8 | 9354.7 | 8839.9 | 8564.7 | 9390.2 | 11848.6 | 11724.4 | 10197.8 |
| 37.5° | 10757.0 | 10783.6 | 10694.8 | 10535.1 | 9949.3 | 9292.5 | 9026.3 | 9904.9 | 12887.1 | 12966.9 | 11316.1 |
| 40° | 11209.6 | 11209.6 | 11209.6 | 10970.0 | 10535.1 | 9789.5 | 9496.7 | 10544.0 | 14005.4 | 14253.9 | 12558.7 |
| 42.5° | 11609.0 | 11635.6 | 11680.0 | 11493.6 | 11094.2 | 10499.6 | 10073.6 | 11262.9 | 15256.8 | 15815.9 | 14094.1 |
| 45° | 11813.1 | 11866.4 | 12026.1 | 11946.3 | 11644.5 | 11067.6 | 10686.0 | 11964.0 | 16632.5 | 17324.8 | 15744.9 |
| 47.5° | 11937.4 | 11999.5 | 12212.5 | 12310.2 | 12185.9 | 11502.5 | 11262.9 | 12798.3 | 17946.0 | 18904.6 | 17440.1 |
| 50° | 12035.0 | 12123.8 | 12363.4 | 12549.8 | 12665.2 | 11866.4 | 11830.9 | 13650.3 | 19259.6 | 20386.8 | 18984.4 |
| 52.5° | 11751.0 | 11839.8 | 12292.4 | 12887.1 | 12984.7 | 12416.7 | 12425.5 | 14573.4 | 20590.9 | 21895.6 | 20413.4 |
| 55° | 10739.2 | 10801.3 | 11431.5 | 12629.7 | 13366.3 | 13055.7 | 13233.2 | 15771.6 | 22046.5 | 23395.5 | 21780.2 |
| 57.5° | 7641.7 | 8023.3 | 9141.6 | 11041.0 | 12895.9 | 13969.9 | 14529.0 | 17094.0 | 23741.7 | 25037.5 | 23164.8 |
| 60° | 3177.4 | 3452.5 | 4535.3 | 7881.3 | 11156.4 | 14094.1 | 16313.0 | 19268.5 | 25667.6 | 26901.3 | 24735.7 |
| 62.5° | 2068.0 | 2094.6 | 2201.1 | 3381.5 | 7082.6 | 12363.4 | 16996.4 | 22348.2 | 28383.5 | 29066.9 | 25596.6 |
| 65° | 1846.1 | 1881.6 | 1934.8 | 2103.5 | 2609.4 | 8342.9 | 14688.8 | 23386.6 | 30593.4 | 30549.1 | 25108.5 |
| 67.5° | 1641.9 | 1686.3 | 1784.0 | 1801.7 | 1455.6 | 3070.9 | 9869.4 | 21860.1 | 32892.2 | 33371.4 | 26439.8 |
| 70° | 1402.3 | 1420.1 | 1597.6 | 1615.3 | 1144.9 | 1207.1 | 4970.2 | 18975.6 | 33744.2 | 35217.5 | 28143.8 |
| 72.5° | 976.3 | 1029.5 | 1349.1 | 1420.1 | 914.2 | 781.0 | 1810.6 | 13810.1 | 31365.6 | 33815.2 | 28037.3 |
| 75° | 576.9 | 603.5 | 772.2 | 967.4 | 710.0 | 550.3 | 816.5 | 8493.7 | 26990.0 | 29288.8 | 24948.7 |
| 77.5° | 417.1 | 443.8 | 559.1 | 754.4 | 452.6 | 372.8 | 505.9 | 4437.7 | 18744.8 | 18842.4 | 14085.2 |
| 80° | 133.1 | 150.9 | 346.1 | 505.9 | 328.4 | 239.6 | 310.6 | 1499.9 | 9470.0 | 8937.5 | 4304.6 |
| 82.5° | 71.0 | 71.0 | 213.0 | 266.3 | 204.1 | 150.9 | 177.5 | 621.3 | 3035.4 | 1943.7 | 683.4 |
| 85° | 35.5 | 35.5 | 88.8 | 106.5 | 79.9 | 71.0 | 88.8 | 221.9 | 319.5 | 292.9 | 195.3 |
| 87.5° | 0.0 | 0.0 | 8.9 | 8.9 | 8.9 | 17.8 | 35.5 | 62.1 | 79.9 | 79.9 | 88.8 |
| 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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Scaled Data Report

REPORT NUMBER: P1362985
CATALOG NUMBER: GSS-SB5C-740-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 | 6053.0 |
| 2.5° | 6061.9 | 5990.9 | 5884.4 | 5760.1 | 5671.4 | 5547.1 | 5440.6 | 5396.2 | 5316.4 | 5298.6 | 5280.9 |
| 5° | 6124.0 | 5982.0 | 5742.4 | 5467.2 | 5227.6 | 4943.6 | 4712.8 | 4535.3 | 4411.1 | 4357.8 | 4331.2 |
| 7.5° | 6221.6 | 5990.9 | 5600.4 | 5147.7 | 4712.8 | 4286.8 | 3860.8 | 3532.4 | 3346.0 | 3168.5 | 3177.4 |
| 10° | 6274.9 | 5999.8 | 5414.0 | 4783.8 | 4135.9 | 3479.2 | 2840.1 | 2352.0 | 2094.6 | 1943.7 | 1908.2 |
| 12.5° | 6319.3 | 5955.4 | 5201.0 | 4331.2 | 3408.1 | 2467.4 | 1828.3 | 1508.8 | 1375.7 | 1357.9 | 1349.1 |
| 15° | 6345.9 | 5902.1 | 4934.7 | 3807.5 | 2582.7 | 1668.6 | 1357.9 | 1269.2 | 1233.7 | 1224.8 | 1224.8 |
| 17.5° | 6408.0 | 5840.0 | 4659.6 | 3159.6 | 1792.8 | 1331.3 | 1215.9 | 1171.6 | 1144.9 | 1136.0 | 1136.0 |
| 20° | 6514.5 | 5848.9 | 4375.6 | 2449.6 | 1393.4 | 1215.9 | 1127.2 | 1082.8 | 1047.3 | 1047.3 | 1047.3 |
| 22.5° | 6692.0 | 5884.4 | 4011.7 | 1837.2 | 1224.8 | 1109.4 | 1029.5 | 976.3 | 958.5 | 967.4 | 967.4 |
| 25° | 6931.7 | 5973.1 | 3638.9 | 1420.1 | 1127.2 | 1002.9 | 923.0 | 878.7 | 869.8 | 878.7 | 878.7 |
| 27.5° | 7233.4 | 6070.8 | 3177.4 | 1224.8 | 1038.4 | 914.2 | 834.3 | 807.7 | 798.8 | 816.5 | 816.5 |
| 30° | 7561.8 | 6186.1 | 2627.1 | 1127.2 | 958.5 | 843.2 | 772.2 | 745.5 | 745.5 | 772.2 | 772.2 |
| 32.5° | 8023.3 | 6372.5 | 2130.1 | 1047.3 | 896.4 | 789.9 | 718.9 | 692.3 | 701.2 | 727.8 | 727.8 |
| 35° | 8644.6 | 6612.2 | 1748.5 | 994.0 | 852.0 | 745.5 | 683.4 | 647.9 | 656.8 | 665.7 | 674.5 |
| 37.5° | 9452.3 | 6940.6 | 1508.8 | 958.5 | 807.7 | 718.9 | 639.0 | 612.4 | 612.4 | 621.3 | 621.3 |
| 40° | 10357.6 | 7331.1 | 1393.4 | 931.9 | 772.2 | 674.5 | 603.5 | 568.0 | 568.0 | 585.8 | 585.8 |
| 42.5° | 11511.4 | 7748.2 | 1304.7 | 896.4 | 727.8 | 639.0 | 559.1 | 532.5 | 523.6 | 541.4 | 541.4 |
| 45° | 12842.7 | 8351.7 | 1251.4 | 860.9 | 683.4 | 594.7 | 523.6 | 488.1 | 479.3 | 488.1 | 497.0 |
| 47.5° | 14191.7 | 8990.8 | 1198.2 | 816.5 | 656.8 | 559.1 | 497.0 | 452.6 | 443.8 | 443.8 | 443.8 |
| 50° | 15460.9 | 9629.8 | 1162.7 | 763.3 | 630.2 | 523.6 | 461.5 | 426.0 | 408.3 | 408.3 | 408.3 |
| 52.5° | 16597.0 | 10224.4 | 1144.9 | 718.9 | 603.5 | 497.0 | 443.8 | 399.4 | 372.8 | 372.8 | 372.8 |
| 55° | 17679.8 | 10801.3 | 1118.3 | 665.7 | 576.9 | 461.5 | 417.1 | 372.8 | 346.1 | 337.3 | 337.3 |
| 57.5° | 18771.4 | 11333.9 | 1047.3 | 612.4 | 523.6 | 434.9 | 390.5 | 346.1 | 319.5 | 301.8 | 301.8 |
| 60° | 19667.9 | 11662.3 | 940.8 | 550.3 | 461.5 | 399.4 | 363.9 | 319.5 | 284.0 | 257.4 | 257.4 |
| 62.5° | 19730.0 | 11325.0 | 781.0 | 488.1 | 408.3 | 363.9 | 328.4 | 284.0 | 239.6 | 204.1 | 204.1 |
| 65° | 18673.8 | 10153.4 | 621.3 | 408.3 | 363.9 | 319.5 | 275.1 | 239.6 | 195.3 | 159.8 | 150.9 |
| 67.5° | 18913.4 | 9212.6 | 479.3 | 346.1 | 319.5 | 257.4 | 221.9 | 195.3 | 159.8 | 133.1 | 133.1 |
| 70° | *19055.5* | *7251.2* | *381.6* | *284.0* | *266.3* | *204.1* | *177.5* | *168.6* | *133.1* | *106.5* | *106.5* |
| 72.5° | 17812.9 | 4490.9 | 310.6 | 239.6 | 204.1 | 142.0 | 142.0 | 133.1 | 106.5 | 79.9 | 71.0 |
| 75° | 15709.4 | 2680.4 | 239.6 | 186.4 | 142.0 | 106.5 | 106.5 | 97.6 | 71.0 | 53.3 | 53.3 |
| 77.5° | 9496.7 | 1411.2 | 186.4 | 142.0 | 97.6 | 79.9 | 71.0 | 62.1 | 44.4 | 35.5 | 26.6 |
| 80° | 2937.8 | 497.0 | 142.0 | 97.6 | 71.0 | 62.1 | 44.4 | 26.6 | 17.8 | 17.8 | 8.9 |
| 82.5° | 408.3 | 177.5 | 106.5 | 79.9 | 53.3 | 35.5 | 26.6 | 17.8 | 8.9 | 8.9 | 8.9 |
| 85° | 142.0 | 97.6 | 71.0 | 53.3 | 35.5 | 26.6 | 17.8 | 8.9 | 8.9 | 0.0 | 0.0 |
| 87.5° | 79.9 | 71.0 | 53.3 | 35.5 | 26.6 | 17.8 | 17.8 | 8.9 | 0.0 | 0.0 | 0.0 |
| 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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# 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

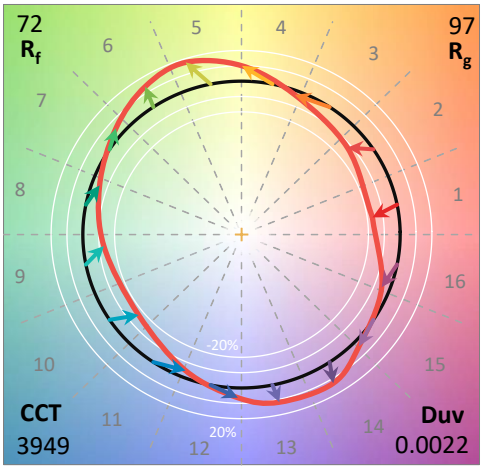
## Test Information

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

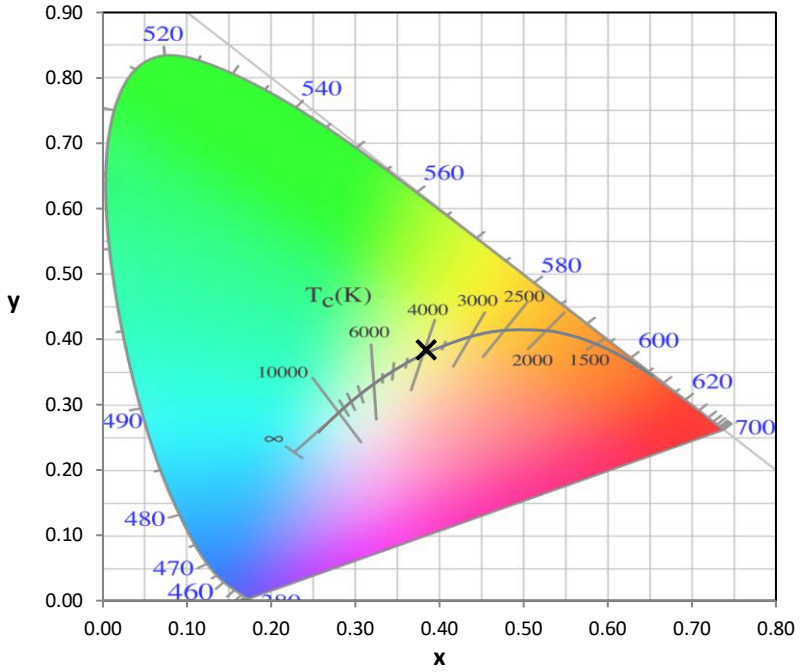
| | |
|---|---|
| Stabilization Time: | 34M |
| Operation Time: | 1H 34M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-1

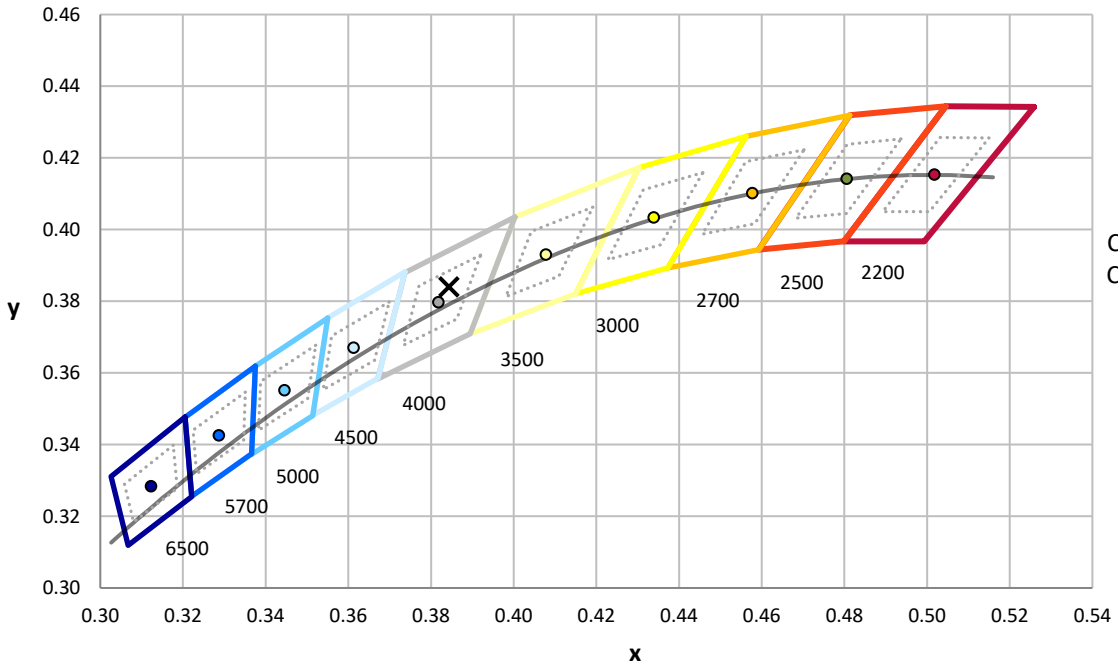
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

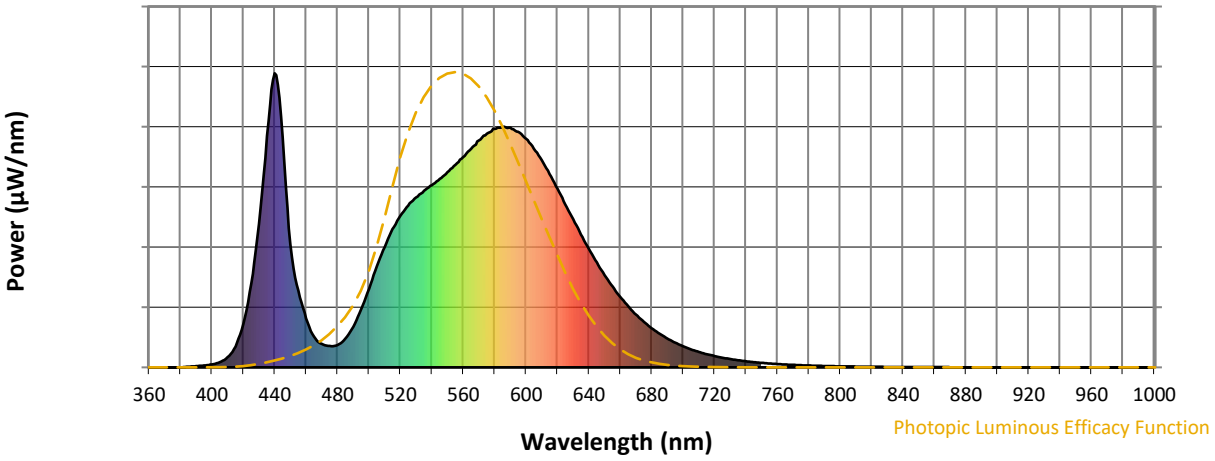



CCT = 3949K
CIE x = 0.3844
CIE y = 0.3840
Duv = 0.0022

Point lies inside the ANSI 4000K 4-step quadrangle

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## Photopic Flux vs. Wavelength

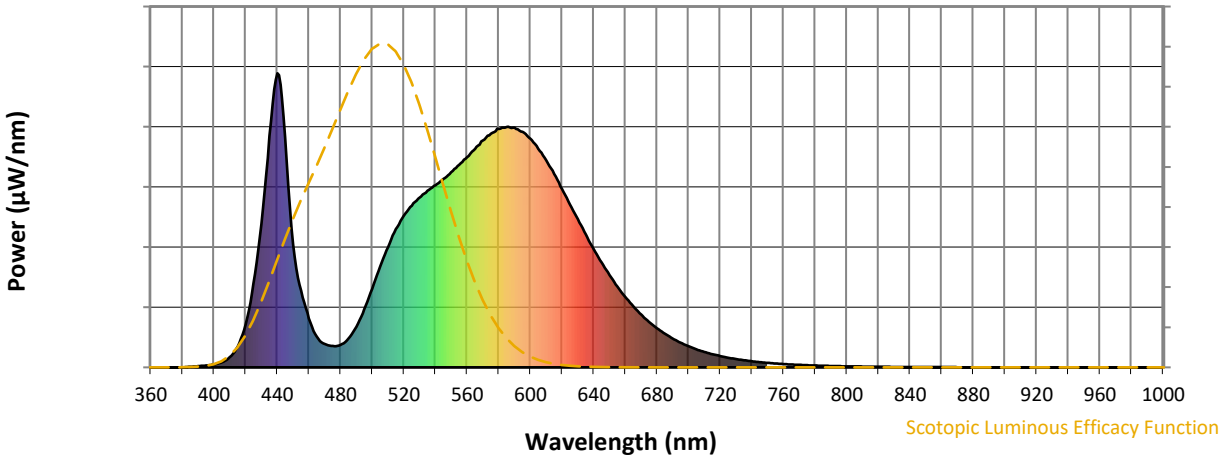



## Photopic Lumens: NR

| 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

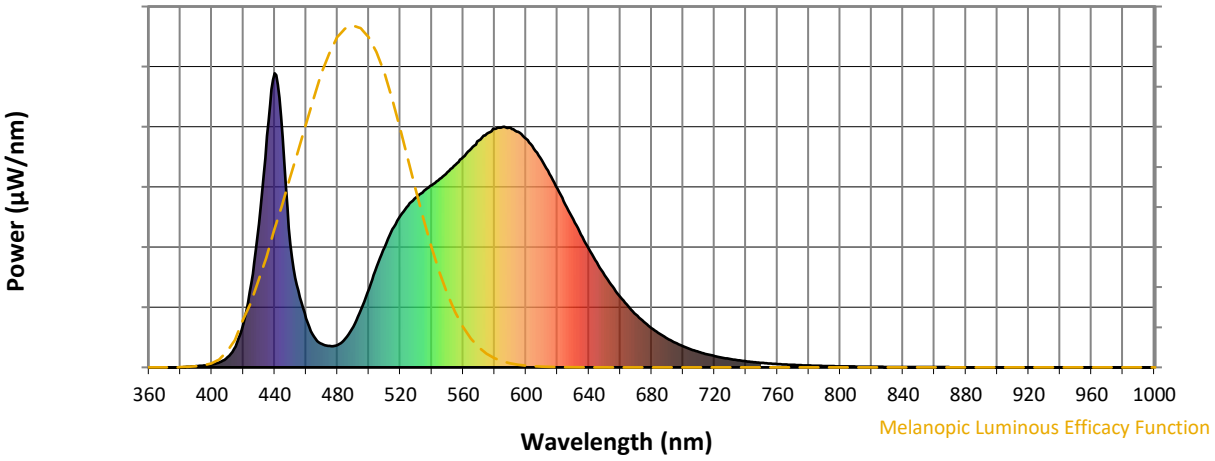



**Scotopic Lumens: NR** **S/P: 1.47**

| 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 | | | |

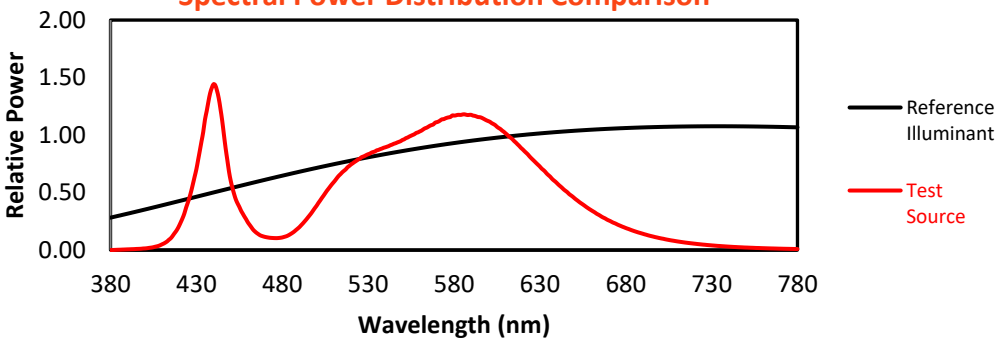
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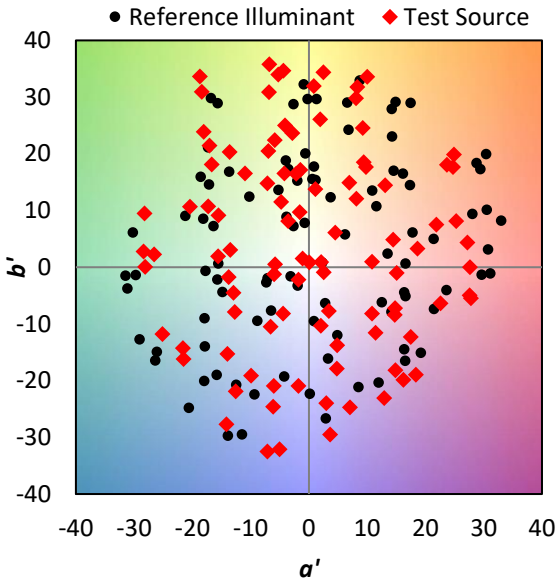
## Summary

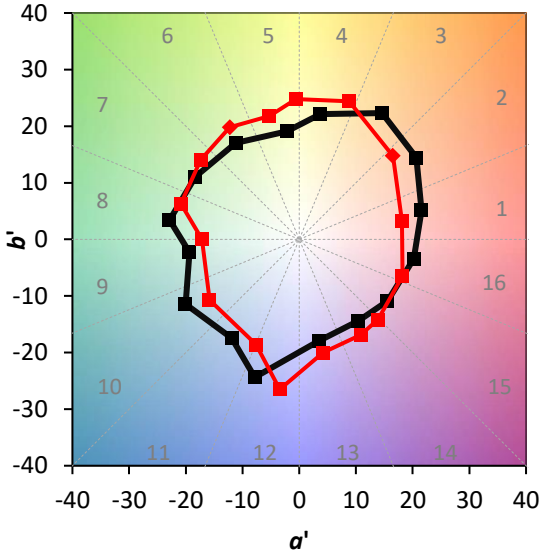
$R_f$ = 71.8
$R_g$ = 96.5
CIE $R_a$ = 70.7
$R_9$ = -36.7

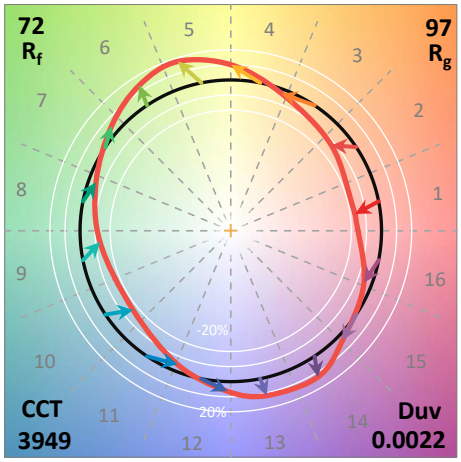
## Spectral Power Distribution Comparison

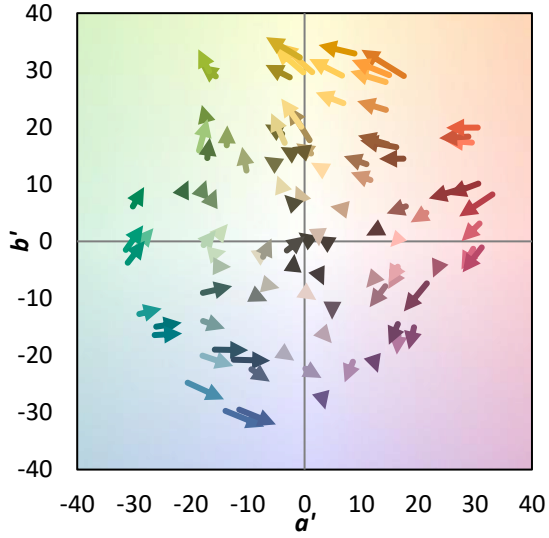



## Color Vector Graphics



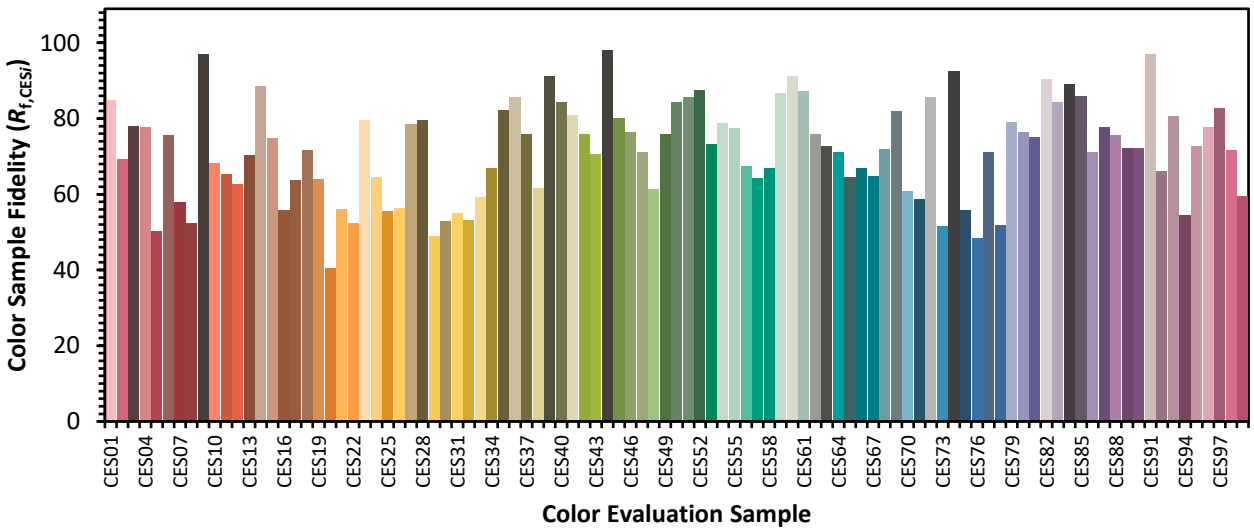



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**Individual Sample Fidelity Index ($R_{f,i}$)**

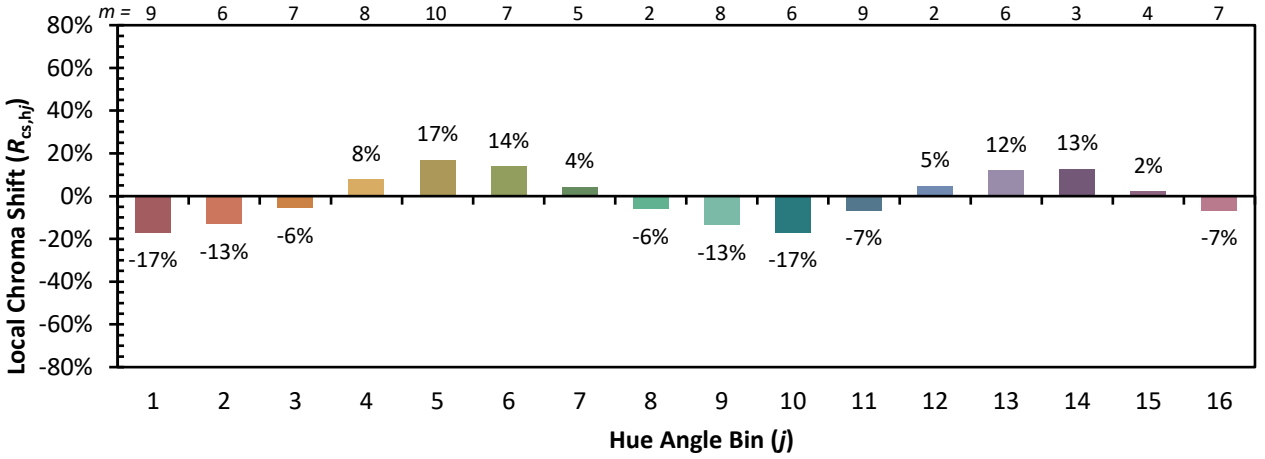
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 56 | CES51 = 86 | CES76 = 48 |
| CES02 = 61 | CES27 = 79 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 80 | CES53 = 73 | CES78 = 52 |
| CES04 = 70 | CES29 = 49 | CES54 = 79 | CES79 = 79 |
| CES05 = 47 | CES30 = 53 | CES55 = 77 | CES80 = 77 |
| CES06 = 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 | |

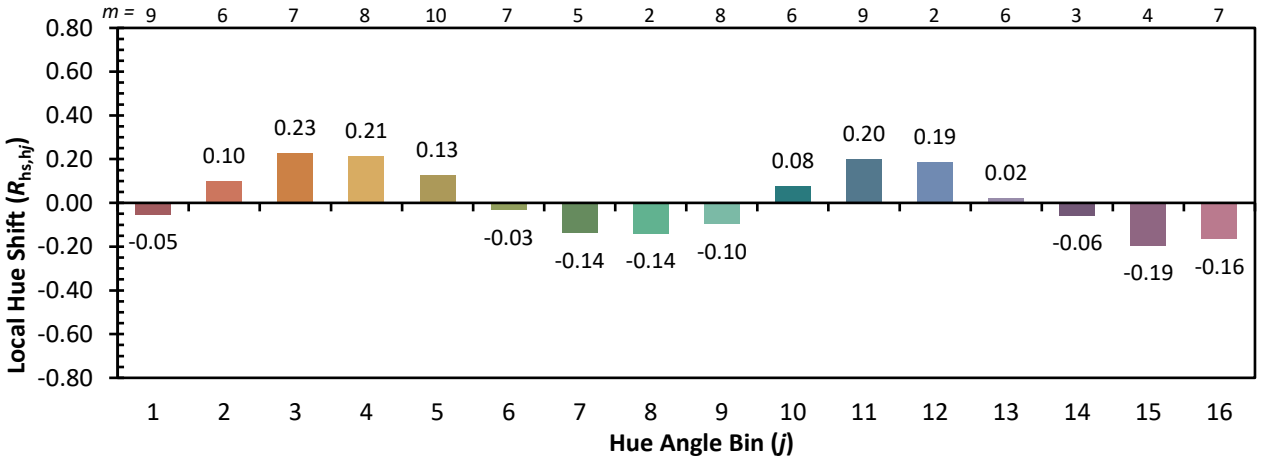


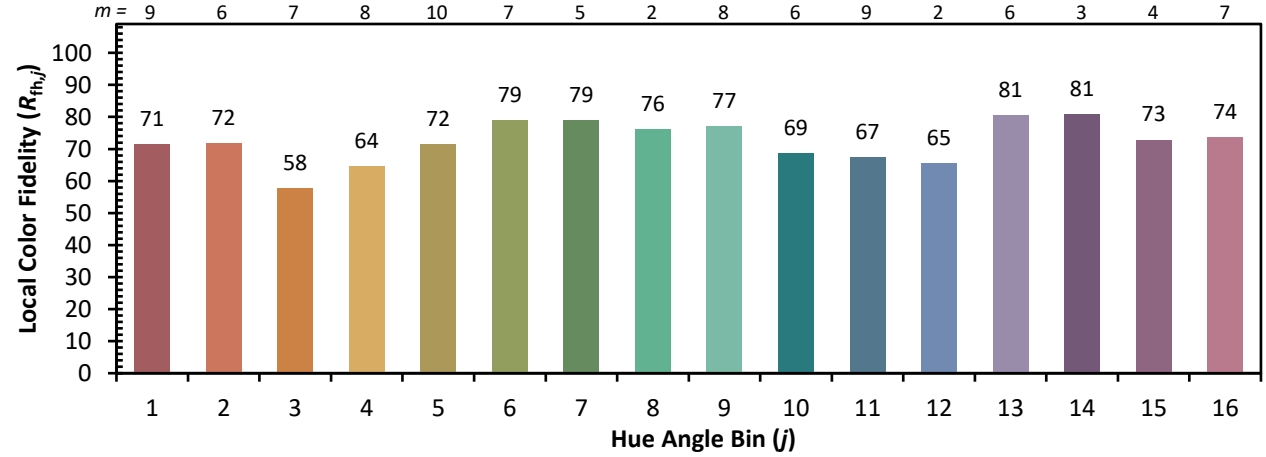
REPORT NUMBER: SP1-2407-184-1

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## Color Rendition by Hue-Angle Bin



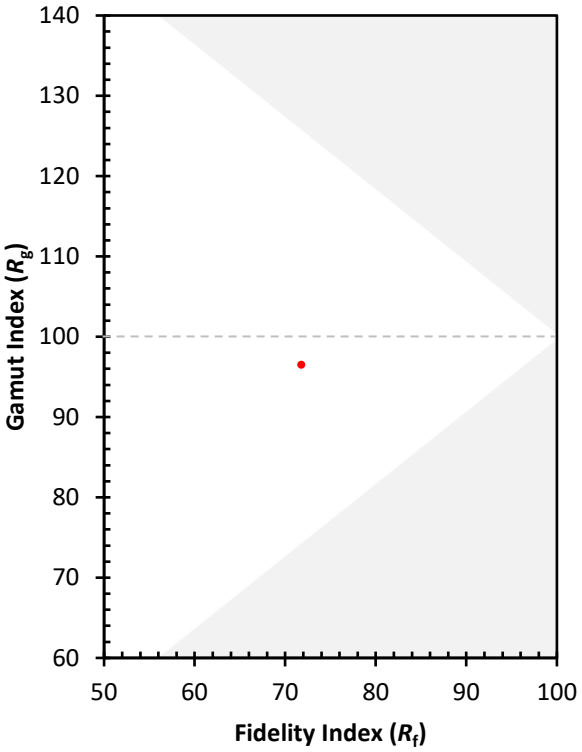



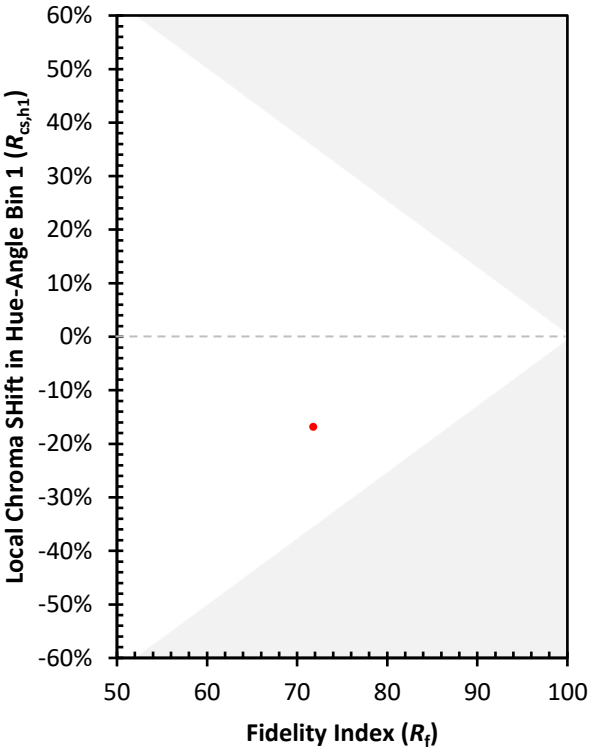



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## Measure Comparisons




(END OF REPORT)