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: P1362628

Luminaire Tested: **GSS-SB6B-722-U-SL2**

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: | P1362628 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB6B-722-U-SL2 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 6SQUARE 219W 70CRI 2200K FIXTURE w/ TYPE II SPILL CONTROL DISTRIBUTION OPTIC |
| Light Source: | (156) 2200K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 26673.1 lumens |
| Efficiency: | N/A |
| Efficacy: | 121.8 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B3 - U0 - G3 |

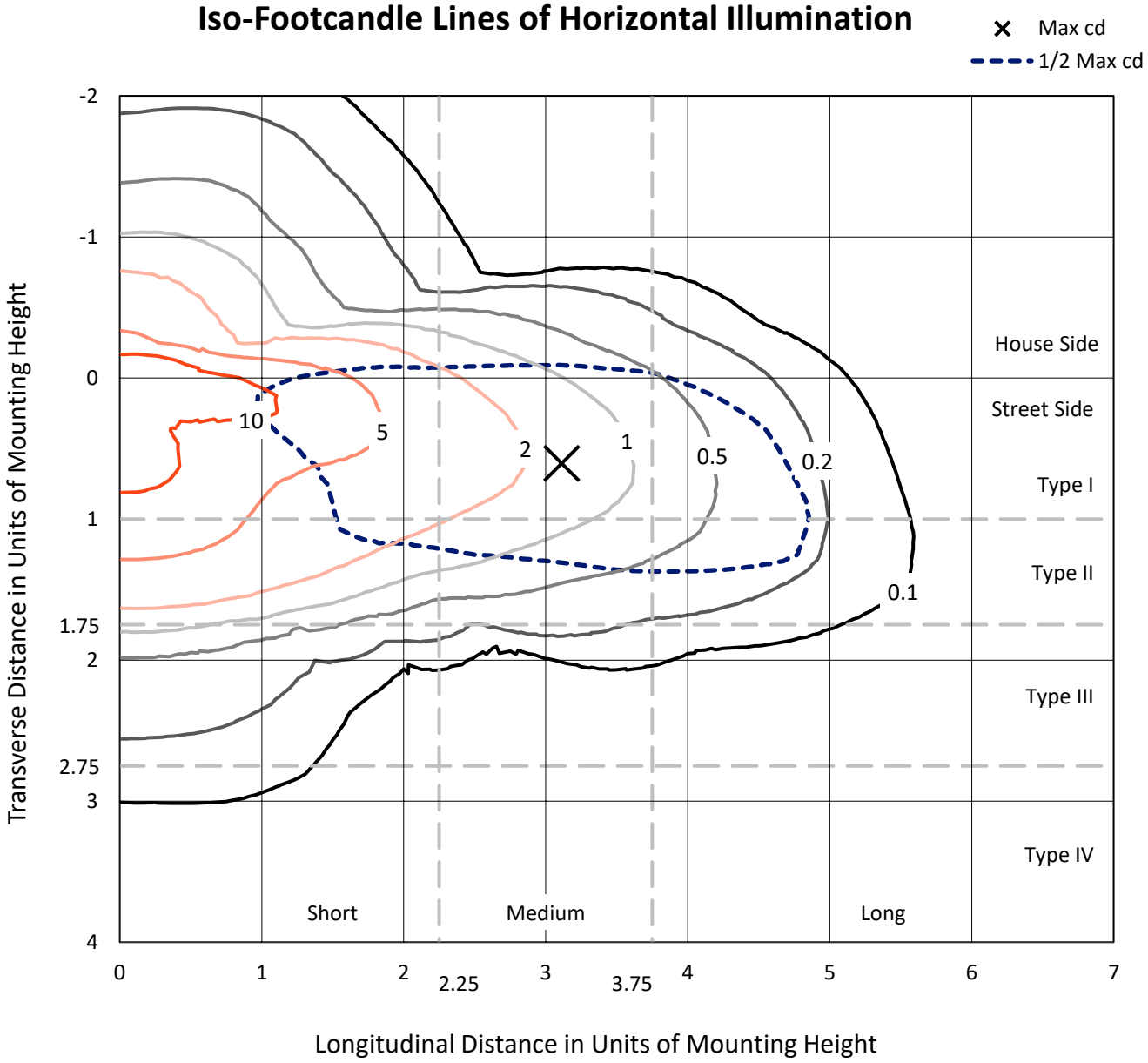
| | |
|---|---|
| Input Watts (W): | 219 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 8.7% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1362628
CATALOG NUMBER: GSS-SB6B-722-U-SL2

## Iso-Footcandle Lines of Horizontal Illumination



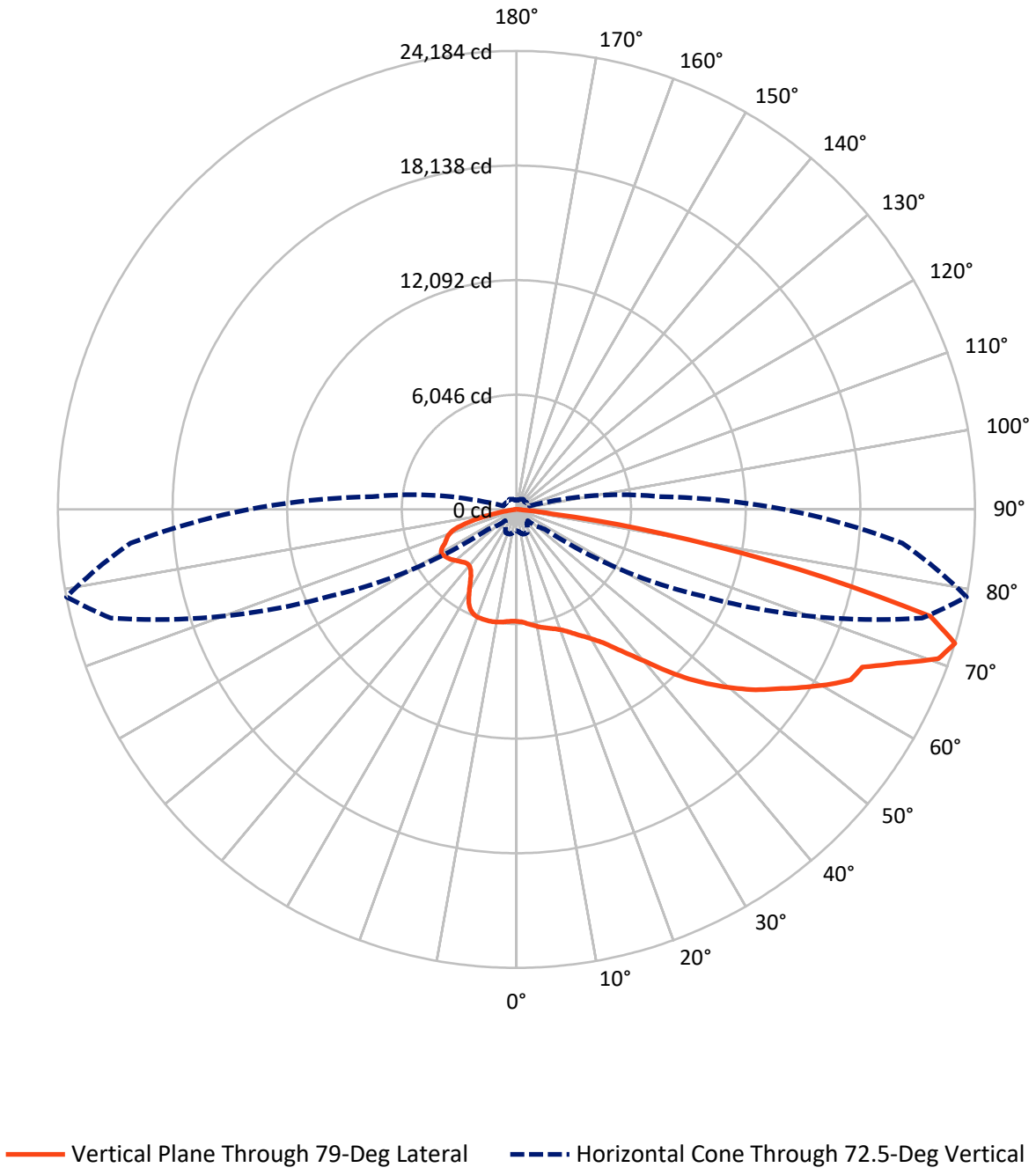

Based on 20 foot mounting height. Maximum calculated value = 14.8 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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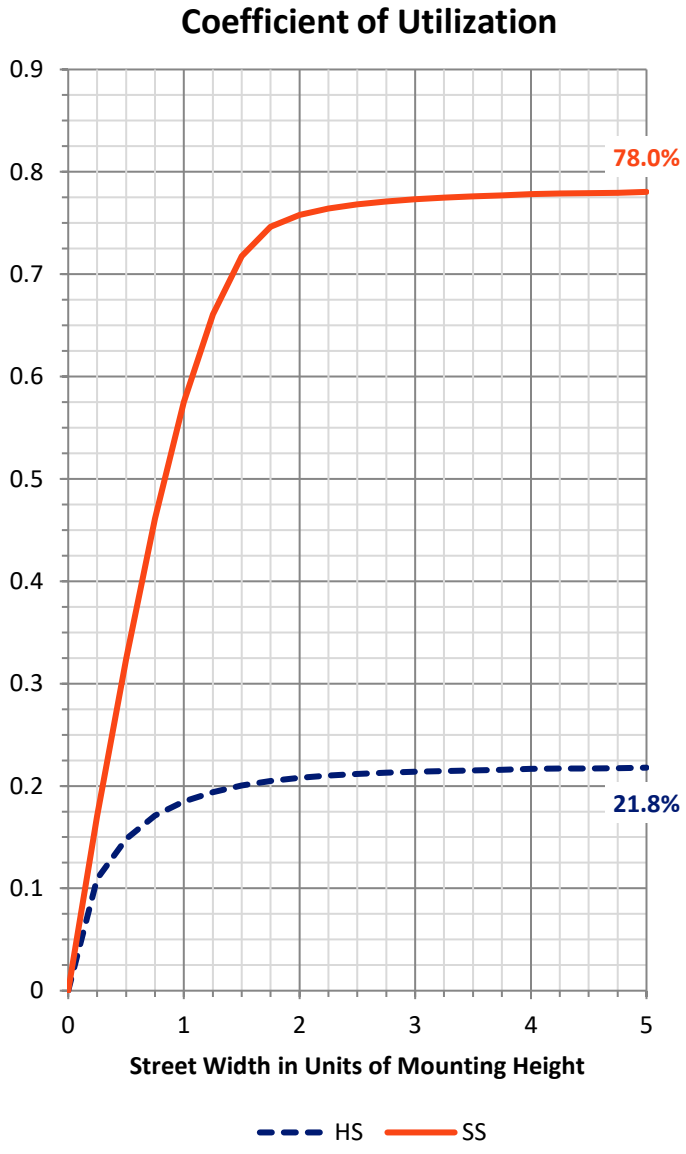
REPORT NUMBER: P1362628
CATALOG NUMBER: GSS-SB6B-722-U-SL2

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 5859.2 | 0.0 | 5859.2 |
| | % Fixture | 22.0 | 0.0 | 22.0 |
| **Street Side** | Lumens | 20813.9 | 0.0 | 20813.9 |
| | % Fixture | 78.0 | 0.0 | 78.0 |
| **Total** | Lumens | 26673.1 | 0.0 | 26673.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 548.4 | 2.1 |
| 10°-20° | 1361.8 | 5.1 |
| 20°-30° | 2144.2 | 8.0 |
| 30°-40° | 3199.8 | 12.0 |
| 40°-50° | 4549.6 | 17.1 |
| 50°-60° | 5747.0 | 21.5 |
| 60°-70° | 5379.3 | 20.2 |
| 70°-80° | 3417.0 | 12.8 |
| 80°-90° | 326.0 | 1.2 |
| 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° | 26673.1 | 100.0 |
| 0°-180° | 26673.1 | 100.0 |



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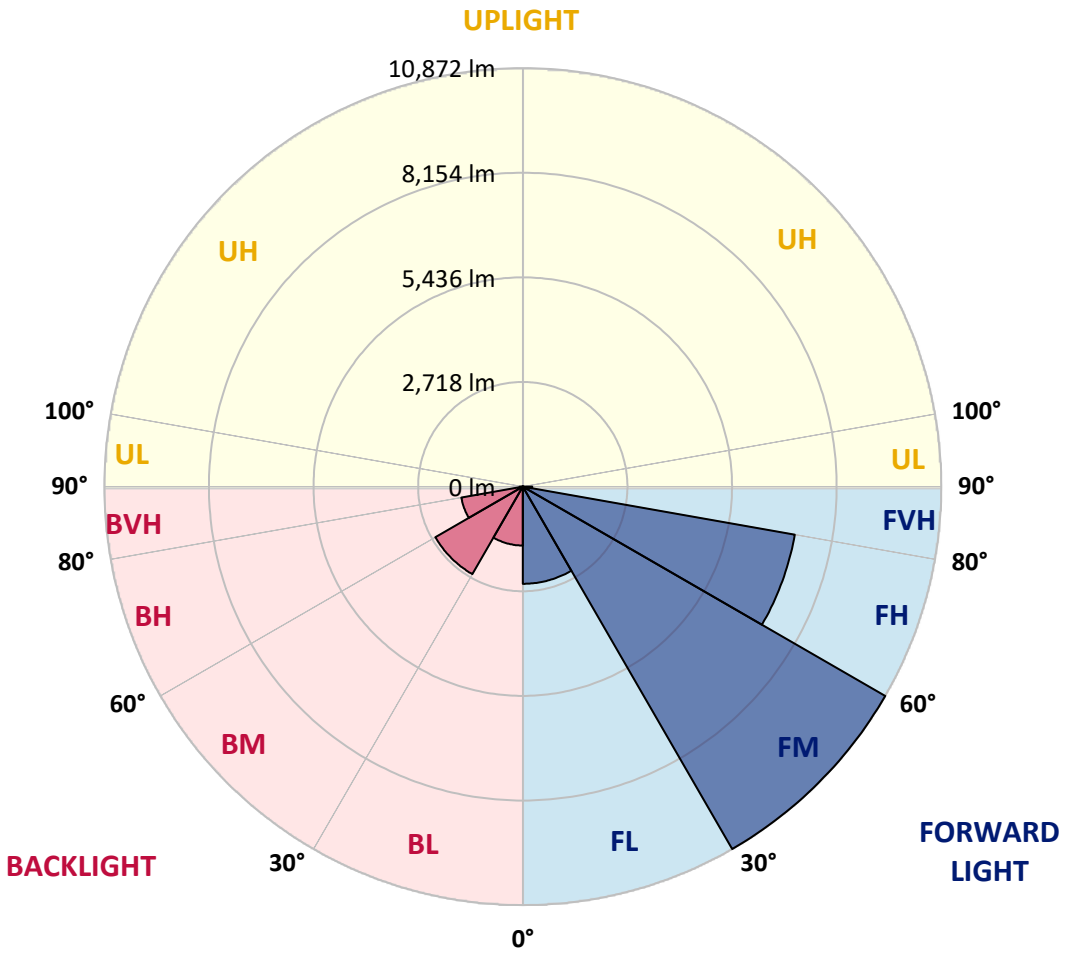
Scaled Data Report

REPORT NUMBER: P1362628
CATALOG NUMBER: GSS-SB6B-722-U-SL2

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2524.7 | 9.5 | | | |
| FM | (30°-60°) | 10872.0 | 40.8 | | | |
| FH | (60°-80°) | 7174.4 | 26.9 | | | G3/7500 |
| FVH | (80°-90°) | 242.8 | 0.9 | | | G3/500 |
| BL | (0°-30°) | 1529.7 | 5.7 | B3/2500 | | |
| BM | (30°-60°) | 2624.4 | 9.8 | B3/5000 | | |
| BH | (60°-80°) | 1621.9 | 6.1 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 83.2 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G3**
Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | *5907.1* | 5907.1 |
| 2.5° | 6045.9 | 6052.2 | 6027.0 | 6027.0 | 6033.3 | 6008.0 | 5976.5 | 5970.2 | 5944.9 | *5944.9* | 5944.9 |
| 5° | 6077.5 | 6077.5 | 6071.1 | 6102.7 | 6115.3 | 6134.3 | 6109.0 | 6090.1 | 6052.2 | *6052.2* | 6001.7 |
| 7.5° | 5743.0 | 5730.4 | 5780.8 | 5926.0 | 6077.5 | 6159.5 | 6210.0 | 6210.0 | 6191.1 | *6159.5* | 6115.3 |
| 10° | 5111.9 | 5130.8 | 5206.5 | 5402.2 | 5679.9 | 6052.2 | 6254.2 | 6336.2 | 6304.6 | *6292.0* | 6216.3 |
| 12.5° | 4777.4 | 4771.1 | 4827.9 | 4973.0 | 5212.9 | 5667.2 | 6165.8 | 6424.6 | 6430.9 | *6399.3* | 6311.0 |
| 15° | 4739.5 | 4720.6 | 4745.8 | 4796.3 | 4954.1 | 5320.1 | 5900.7 | 6456.1 | 6519.2 | *6506.6* | 6405.6 |
| 17.5° | 4954.1 | 4947.8 | 4909.9 | 4897.3 | 4891.0 | 5092.9 | 5642.0 | 6430.9 | 6639.1 | *6626.5* | 6512.9 |
| 20° | 5326.5 | 5294.9 | 5225.5 | 5162.4 | 5029.8 | 5048.8 | 5440.0 | 6399.3 | 6803.2 | *6784.3* | 6670.7 |
| 22.5° | 5724.0 | 5736.7 | 5673.6 | 5522.1 | 5288.6 | 5181.3 | 5376.9 | 6355.1 | 7024.1 | *7011.5* | 6860.0 |
| 25° | 6210.0 | 6197.4 | 6121.6 | 5951.2 | 5642.0 | 5408.5 | 5446.4 | 6342.5 | 7276.5 | *7289.2* | 7106.1 |
| 27.5° | 6708.6 | 6695.9 | 6601.3 | 6386.7 | 6027.0 | 5686.2 | 5604.1 | 6393.0 | 7598.4 | *7592.1* | 7364.9 |
| 30° | 7263.9 | 7270.2 | 7150.3 | 6860.0 | 6424.6 | 6033.3 | 5856.6 | 6525.5 | 7920.3 | *7939.2* | 7661.5 |
| 32.5° | 7762.5 | 7794.0 | 7724.6 | 7453.2 | 6910.5 | 6393.0 | 6165.8 | 6740.1 | 8349.4 | *8381.0* | 8040.2 |
| 35° | 8078.0 | 8097.0 | 8090.7 | 7964.4 | 7428.0 | 6803.2 | 6475.0 | 7011.5 | 8866.9 | *8986.8* | 8545.0 |
| 37.5° | 8381.0 | 8425.1 | 8431.4 | 8336.8 | 7932.9 | 7289.2 | 6841.1 | 7390.1 | 9529.5 | *9725.2* | 9207.7 |
| 40° | 8709.1 | 8696.5 | 8784.9 | 8671.3 | 8387.3 | 7806.7 | 7219.7 | 7819.3 | 10261.6 | *10583.5* | 9983.9 |
| 42.5° | 8904.8 | 8936.3 | 9049.9 | 9024.7 | 8740.7 | 8286.3 | 7648.9 | 8298.9 | 11176.7 | *11650.0* | 10924.3 |
| 45° | 9031.0 | 9062.5 | 9226.6 | 9251.9 | 9100.4 | 8614.5 | 8052.8 | 8759.6 | 12016.1 | *12754.5* | 11934.0 |
| 47.5° | 9075.2 | 9094.1 | 9308.7 | 9409.6 | 9346.5 | 8822.7 | 8368.3 | 9283.4 | 12842.8 | *13795.8* | 12943.8 |
| 50° | 8898.5 | 8967.9 | 9245.6 | 9472.8 | 9516.9 | 8930.0 | 8639.7 | 9838.8 | 13732.6 | *14805.5* | 13959.8 |
| 52.5° | 8627.1 | 8664.9 | 8999.4 | 9485.4 | 9624.2 | 9106.7 | 8974.2 | 10425.7 | 14572.0 | *15815.3* | 14830.8 |
| 55° | 8097.0 | 8172.7 | 8589.2 | 9277.1 | 9687.3 | 9340.2 | 9409.6 | 11088.4 | 15442.9 | *16698.8* | 15777.4 |
| 57.5° | 6595.0 | 6727.5 | 7415.4 | 8387.3 | 9516.9 | 9800.9 | 10059.7 | 11908.8 | 16395.9 | *17721.2* | 16623.1 |
| 60° | 4133.7 | 4310.4 | 5029.8 | 6601.3 | 8551.4 | 10072.3 | 11094.7 | 12975.3 | 17531.8 | *18794.0* | 17563.4 |
| 62.5° | 2240.4 | 2234.1 | 2448.7 | 3376.4 | 6165.8 | 9365.5 | 11984.5 | 14824.4 | 18996.0 | *19791.2* | 18112.5 |
| 65° | 1943.8 | 1943.8 | 1969.0 | 1962.7 | 2663.2 | 6910.5 | 11101.0 | 15928.9 | 20005.7 | *20056.2* | 17645.4 |
| 67.5° | 1748.1 | 1748.1 | 1786.0 | 1691.3 | 1451.5 | 3092.4 | 8122.2 | 15272.5 | 21678.1 | *21646.6* | 18245.0 |
| 70° | 1539.9 | 1546.2 | 1609.3 | 1552.5 | 1167.5 | 1255.9 | 4442.9 | 13909.4 | 22927.7 | *23603.0* | 19437.8 |
| 72.5° | *1129.7* | *1167.5* | *1350.5* | *1350.5* | *959.3* | *845.7* | *1804.9* | *10785.4* | *22145.2* | *24183.6* | *20428.6* |
| 75° | 795.2 | 801.5 | 896.2 | 965.6 | 757.3 | 637.4 | 877.2 | 7219.7 | 20315.0 | *22561.7* | 19545.0 |
| 77.5° | 605.9 | 612.2 | 643.7 | 769.9 | 517.5 | 467.0 | 605.9 | 3944.4 | 14654.0 | *15234.7* | 12678.7 |
| 80° | 403.9 | 397.6 | 441.8 | 542.7 | 366.0 | 315.5 | 391.3 | 1319.0 | 8223.2 | *7844.5* | 5294.9 |
| 82.5° | 202.0 | 208.3 | 239.8 | 284.0 | 214.6 | 189.3 | 227.2 | 681.6 | 3224.9 | *1874.4* | 769.9 |
| 85° | 56.8 | 69.4 | 82.0 | 113.6 | 88.4 | 82.0 | 107.3 | 239.8 | 410.2 | *302.9* | 208.3 |
| 87.5° | 6.3 | 6.3 | 12.6 | 12.6 | 12.6 | 18.9 | 31.6 | 50.5 | 69.4 | *69.4* | 69.4 |
| 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: P1362628
CATALOG NUMBER: GSS-SB6B-722-U-SL2

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 | 5907.1 |
| 2.5° | 5932.3 | 5913.4 | 5888.1 | 5850.3 | 5850.3 | 5806.1 | 5780.8 | 5730.4 | 5749.3 | 5724.0 | 5711.4 |
| 5° | 5989.1 | 5963.9 | 5907.1 | 5843.9 | 5780.8 | 5686.2 | 5610.4 | 5503.2 | 5490.5 | 5465.3 | 5427.4 |
| 7.5° | 6090.1 | 6027.0 | 5957.5 | 5812.4 | 5692.5 | 5477.9 | 5307.5 | 5092.9 | 4973.0 | 4897.3 | 4903.6 |
| 10° | 6191.1 | 6109.0 | 5963.9 | 5774.5 | 5515.8 | 5162.4 | 4720.6 | 4297.8 | 3975.9 | 3792.9 | 3830.8 |
| 12.5° | 6260.5 | 6172.1 | 5976.5 | 5673.6 | 5193.9 | 4487.1 | 3666.7 | 3067.1 | 2833.6 | 2713.7 | 2713.7 |
| 15° | 6329.9 | 6216.3 | 5957.5 | 5459.0 | 4588.1 | 3382.7 | 2732.6 | 2505.5 | 2442.3 | 2404.5 | 2391.9 |
| 17.5° | 6418.2 | 6285.7 | 5900.7 | 5061.4 | 3616.2 | 2644.3 | 2417.1 | 2347.7 | 2347.7 | 2341.4 | 2328.7 |
| 20° | 6525.5 | 6367.8 | 5831.3 | 4430.3 | 2776.8 | 2372.9 | 2309.8 | 2297.2 | 2309.8 | 2303.5 | 2297.2 |
| 22.5° | 6689.6 | 6468.7 | 5654.6 | 3559.4 | 2385.5 | 2246.7 | 2240.4 | 2177.3 | 2189.9 | 2202.5 | 2196.2 |
| 25° | 6897.9 | 6595.0 | 5320.1 | 2720.0 | 2189.9 | 2164.7 | 2101.5 | 2044.8 | 2038.4 | 2044.8 | 2044.8 |
| 27.5° | 7093.5 | 6689.6 | 4777.4 | 2240.4 | 2051.1 | 2044.8 | 1988.0 | 1937.5 | 1937.5 | 1943.8 | 1943.8 |
| 30° | 7308.1 | 6746.4 | 3944.4 | 1994.3 | 1969.0 | 1937.5 | 1918.5 | 1899.6 | 1905.9 | 1924.8 | 1924.8 |
| 32.5° | 7592.1 | 6803.2 | 3130.2 | 1855.4 | 1887.0 | 1842.8 | 1855.4 | 1849.1 | 1861.7 | 1893.3 | 1899.6 |
| 35° | 7939.2 | 6828.5 | 2505.5 | 1773.4 | 1773.4 | 1735.5 | 1741.8 | 1716.6 | 1716.6 | 1735.5 | 1748.1 |
| 37.5° | 8399.9 | 6841.1 | 2107.9 | 1729.2 | 1685.0 | 1666.1 | 1653.5 | 1621.9 | 1577.7 | 1546.2 | 1552.5 |
| 40° | 8898.5 | 6872.6 | 1893.3 | 1697.6 | 1647.2 | 1640.8 | 1615.6 | 1571.4 | 1445.2 | 1344.2 | 1337.9 |
| 42.5° | 9561.1 | 6961.0 | 1786.0 | 1647.2 | 1647.2 | 1647.2 | 1609.3 | 1413.7 | 1312.7 | 1243.3 | 1236.9 |
| 45° | 10230.1 | 7194.5 | 1729.2 | 1603.0 | 1640.8 | 1647.2 | 1476.8 | 1356.9 | 1274.8 | 1199.1 | 1180.1 |
| 47.5° | 10974.8 | 7529.0 | 1704.0 | 1577.7 | 1596.7 | 1609.3 | 1388.4 | 1331.6 | 1236.9 | 1148.6 | 1129.7 |
| 50° | 11713.1 | 7882.4 | 1678.7 | 1533.6 | 1533.6 | 1451.5 | 1369.5 | 1306.4 | 1211.7 | 1117.0 | 1104.4 |
| 52.5° | 12495.7 | 8292.6 | 1653.5 | 1457.8 | 1451.5 | 1363.2 | 1350.5 | 1300.1 | 1199.1 | 1079.2 | 1053.9 |
| 55° | 13177.3 | 8664.9 | 1609.3 | 1369.5 | 1363.2 | 1274.8 | 1337.9 | 1274.8 | 1123.4 | 984.5 | 959.3 |
| 57.5° | 13827.3 | 8967.9 | 1552.5 | 1274.8 | 1287.4 | 1205.4 | 1287.4 | 1224.3 | 1053.9 | 915.1 | 902.5 |
| 60° | 14445.8 | 9283.4 | 1476.8 | 1192.8 | 1192.8 | 1142.3 | 1224.3 | 1142.3 | 984.5 | 845.7 | 826.7 |
| 62.5° | 14628.8 | 9182.4 | 1350.5 | 1104.4 | 1098.1 | 1060.2 | 1142.3 | 1047.6 | 896.2 | 769.9 | 751.0 |
| 65° | 13997.7 | 8664.9 | 1199.1 | 1016.1 | 997.1 | 965.6 | 1022.4 | 934.0 | 795.2 | 694.2 | 687.9 |
| 67.5° | 14086.1 | 8463.0 | 1028.7 | 902.5 | 883.5 | 858.3 | 877.2 | 807.8 | 700.5 | 624.8 | 618.5 |
| 70° | 14199.7 | 8242.1 | 870.9 | 795.2 | 751.0 | 706.8 | 751.0 | 694.2 | 618.5 | 555.4 | 549.1 |
| 72.5° | *14111.3* | *7630.0* | *719.4* | *669.0* | *637.4* | *586.9* | *643.7* | *599.5* | *536.4* | *485.9* | *473.3* |
| 75° | 12836.5 | 6134.3 | 586.9 | 549.1 | 511.2 | 479.6 | 517.5 | 504.9 | 454.4 | 448.1 | 403.9 |
| 77.5° | 8633.4 | 3931.7 | 454.4 | 422.8 | 410.2 | 378.7 | 403.9 | 385.0 | 359.7 | 334.5 | 315.5 |
| 80° | 3742.4 | 1760.8 | 328.2 | 296.6 | 284.0 | 265.1 | 290.3 | 284.0 | 271.4 | 252.4 | 246.1 |
| 82.5° | 536.4 | 416.5 | 220.9 | 202.0 | 170.4 | 157.8 | 170.4 | 183.0 | 265.1 | 321.9 | 315.5 |
| 85° | 151.5 | 126.2 | 107.3 | 94.7 | 75.7 | 63.1 | 69.4 | 113.6 | 151.5 | 94.7 | 82.0 |
| 87.5° | 69.4 | 63.1 | 50.5 | 31.6 | 18.9 | 18.9 | 12.6 | 6.3 | 6.3 | 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: SP1-2407-184-2

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-722-U-5WQ

Data in this report applies to families of products including GSS-SB1A-722-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

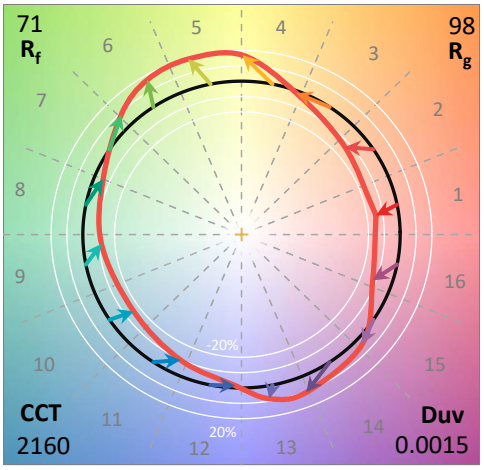
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-2 |
| 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-722-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 2200K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2160 |
| CIE u': | 0.2927 |
| CIE v': | 0.5388 |
| Duv: | 0.0015 |
| CIE x: | 0.5130 |
| CIE y: | 0.4197 |
| CIE z: | 0.0674 |
| Peak Wavelength (nm): | 609 |
| Dominant Wavelength (nm): | 587 |
| Purity: | 79.96089 |
| Rf: | 70.6 |
| Rg: | 97.6 |

| | |
|---|---|
| CRI (Ra): | 71.9 |
| R1: | 68.7 |
| R2: | 82.6 |
| R3: | 95.5 |
| R4: | 66.4 |
| R5: | 65.4 |
| R6: | 75.9 |
| R7: | 77.2 |
| R8: | 43.5 |
| R9: | -17.8 |
| R10: | 60.5 |
| R11: | 60.2 |
| R12: | 48.2 |
| R13: | 70.7 |
| R14: | 96.8 |
| R15: | 61.8 |




## Test Conditions

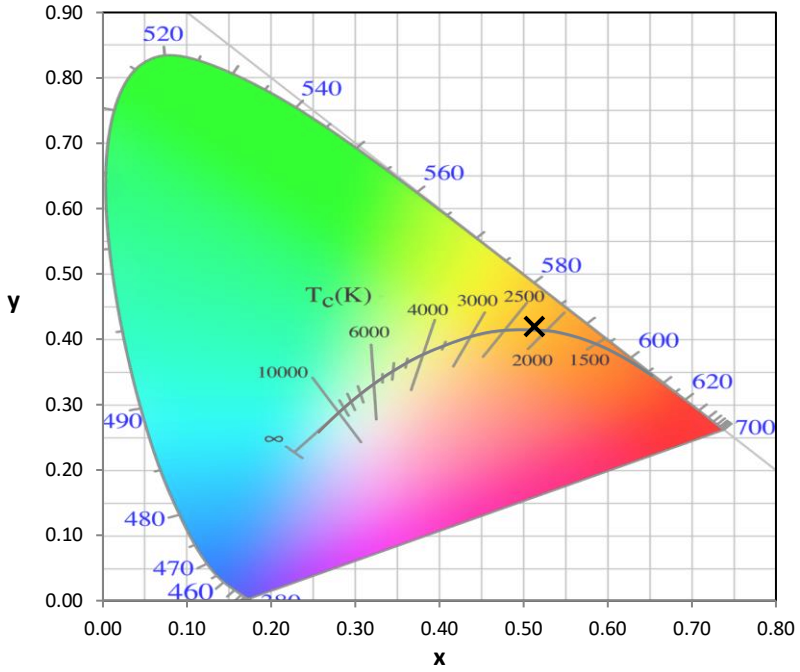
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

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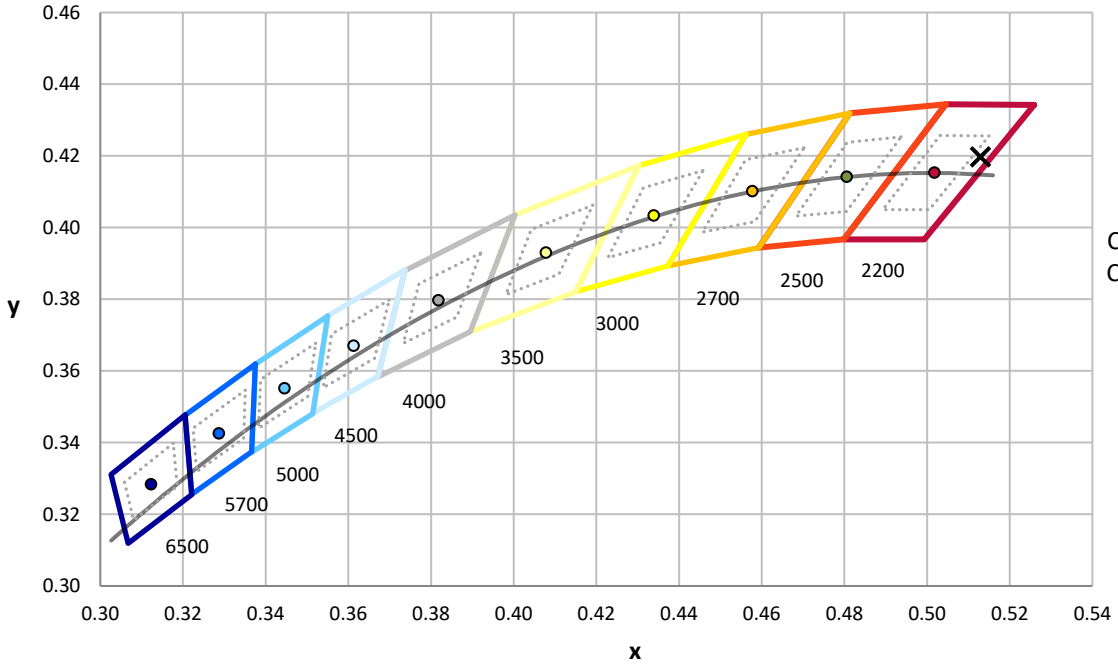
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

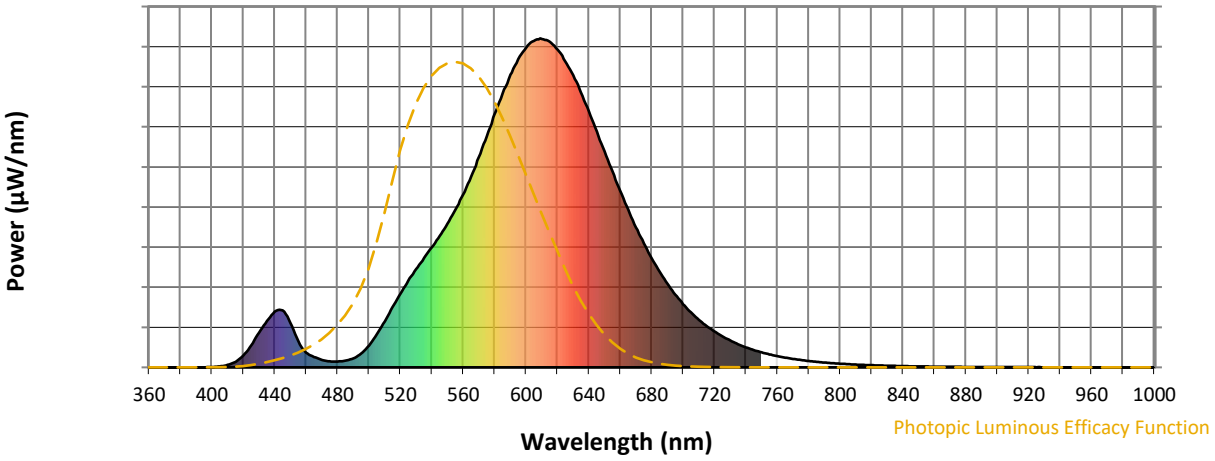



CCT = 2160K
CIE x = 0.5130
CIE y = 0.4197
Duv = 0.0015

Point lies inside the ANSI 2200K 7-step quadrangle

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## Photopic Flux vs. Wavelength

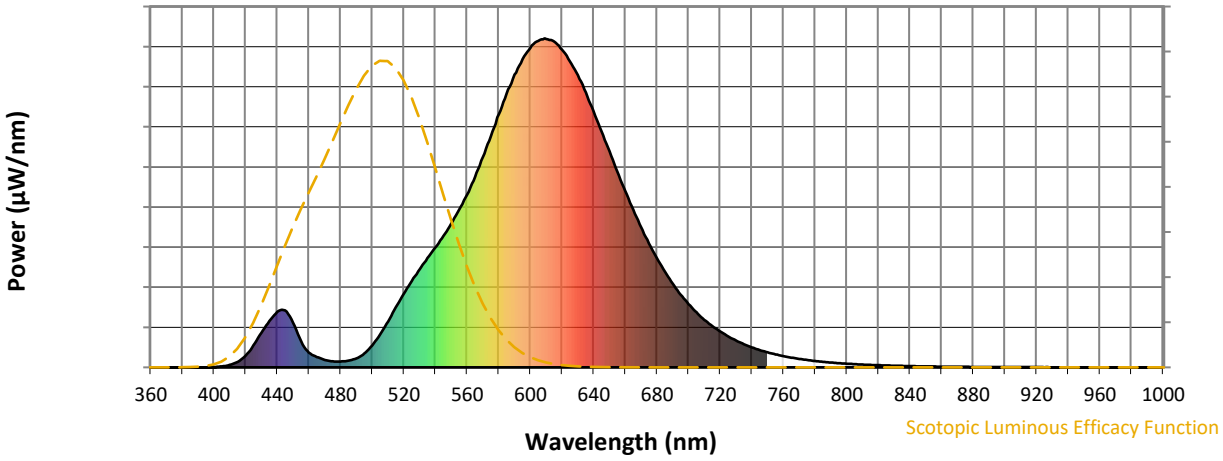



## Photopic Lumens: NR

| 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 | 27 | NR | 620 | 966 | NR | 750 | 46 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 42 | NR | 625 | 930 | NR | 755 | 39 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 67 | NR | 630 | 888 | NR | 760 | 34 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 101 | NR | 635 | 835 | NR | 765 | 30 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 139 | NR | 640 | 778 | NR | 770 | 26 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 183 | NR | 645 | 717 | NR | 775 | 22 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 224 | NR | 650 | 656 | NR | 780 | 19 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 262 | NR | 655 | 595 | NR | 785 | 17 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 299 | NR | 660 | 536 | NR | 790 | 15 | NR | 920 | 1 | NR |
| 405 | 3 | NR | 535 | 332 | NR | 665 | 480 | NR | 795 | 13 | NR | 925 | 1 | NR |
| 410 | 7 | NR | 540 | 365 | NR | 670 | 425 | NR | 800 | 11 | NR | 930 | 1 | NR |
| 415 | 17 | NR | 545 | 400 | NR | 675 | 376 | NR | 805 | 10 | NR | 935 | 0 | NR |
| 420 | 36 | NR | 550 | 437 | NR | 680 | 332 | NR | 810 | 8 | NR | 940 | 0 | NR |
| 425 | 67 | NR | 555 | 479 | NR | 685 | 291 | NR | 815 | 8 | NR | 945 | 0 | NR |
| 430 | 105 | NR | 560 | 525 | NR | 690 | 255 | NR | 820 | 7 | NR | 950 | 0 | NR |
| 435 | 141 | NR | 565 | 579 | NR | 695 | 221 | NR | 825 | 6 | NR | 955 | 0 | NR |
| 440 | 169 | NR | 570 | 639 | NR | 700 | 192 | NR | 830 | 5 | NR | 960 | 0 | NR |
| 445 | 173 | NR | 575 | 703 | NR | 705 | 167 | NR | 835 | 4 | NR | 965 | 0 | NR |
| 450 | 136 | NR | 580 | 769 | NR | 710 | 144 | NR | 840 | 4 | NR | 970 | 0 | NR |
| 455 | 80 | NR | 585 | 832 | NR | 715 | 125 | NR | 845 | 3 | NR | 975 | 0 | NR |
| 460 | 45 | NR | 590 | 890 | NR | 720 | 109 | NR | 850 | 3 | NR | 980 | 0 | NR |
| 465 | 32 | NR | 595 | 937 | NR | 725 | 94 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 972 | NR | 730 | 81 | NR | 860 | 2 | NR | 990 | 0 | NR |
| 475 | 18 | NR | 605 | 992 | NR | 735 | 70 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 18 | NR | 610 | 998 | NR | 740 | 61 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 20 | NR | 615 | 990 | NR | 745 | 53 | NR | 875 | 2 | NR | | | |

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## Scotopic Flux vs. Wavelength

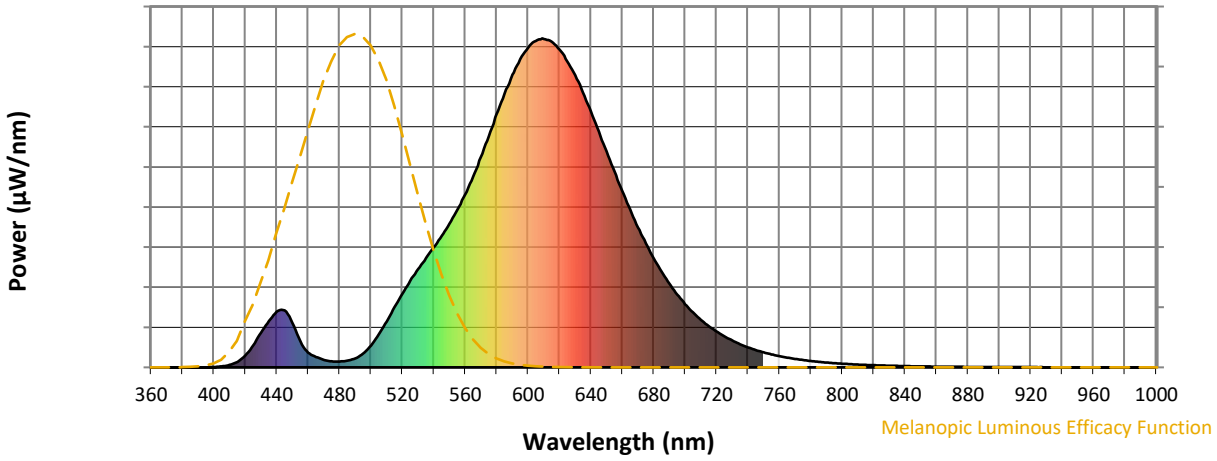



**Scotopic Lumens: NR** **S/P: 0.8**

| 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 | 27 | NR | 620 | 966 | NR | 750 | 46 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 42 | NR | 625 | 930 | NR | 755 | 39 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 67 | NR | 630 | 888 | NR | 760 | 34 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 101 | NR | 635 | 835 | NR | 765 | 30 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 139 | NR | 640 | 778 | NR | 770 | 26 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 183 | NR | 645 | 717 | NR | 775 | 22 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 224 | NR | 650 | 656 | NR | 780 | 19 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 262 | NR | 655 | 595 | NR | 785 | 17 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 299 | NR | 660 | 536 | NR | 790 | 15 | NR | 920 | 1 | NR |
| 405 | 3 | NR | 535 | 332 | NR | 665 | 480 | NR | 795 | 13 | NR | 925 | 1 | NR |
| 410 | 7 | NR | 540 | 365 | NR | 670 | 425 | NR | 800 | 11 | NR | 930 | 1 | NR |
| 415 | 17 | NR | 545 | 400 | NR | 675 | 376 | NR | 805 | 10 | NR | 935 | 0 | NR |
| 420 | 36 | NR | 550 | 437 | NR | 680 | 332 | NR | 810 | 8 | NR | 940 | 0 | NR |
| 425 | 67 | NR | 555 | 479 | NR | 685 | 291 | NR | 815 | 8 | NR | 945 | 0 | NR |
| 430 | 105 | NR | 560 | 525 | NR | 690 | 255 | NR | 820 | 7 | NR | 950 | 0 | NR |
| 435 | 141 | NR | 565 | 579 | NR | 695 | 221 | NR | 825 | 6 | NR | 955 | 0 | NR |
| 440 | 169 | NR | 570 | 639 | NR | 700 | 192 | NR | 830 | 5 | NR | 960 | 0 | NR |
| 445 | 173 | NR | 575 | 703 | NR | 705 | 167 | NR | 835 | 4 | NR | 965 | 0 | NR |
| 450 | 136 | NR | 580 | 769 | NR | 710 | 144 | NR | 840 | 4 | NR | 970 | 0 | NR |
| 455 | 80 | NR | 585 | 832 | NR | 715 | 125 | NR | 845 | 3 | NR | 975 | 0 | NR |
| 460 | 45 | NR | 590 | 890 | NR | 720 | 109 | NR | 850 | 3 | NR | 980 | 0 | NR |
| 465 | 32 | NR | 595 | 937 | NR | 725 | 94 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 972 | NR | 730 | 81 | NR | 860 | 2 | NR | 990 | 0 | NR |
| 475 | 18 | NR | 605 | 992 | NR | 735 | 70 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 18 | NR | 610 | 998 | NR | 740 | 61 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 20 | NR | 615 | 990 | NR | 745 | 53 | NR | 875 | 2 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 1.21**

| 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 | 27 | NR | 620 | 966 | NR | 750 | 46 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 42 | NR | 625 | 930 | NR | 755 | 39 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 67 | NR | 630 | 888 | NR | 760 | 34 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 101 | NR | 635 | 835 | NR | 765 | 30 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 139 | NR | 640 | 778 | NR | 770 | 26 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 183 | NR | 645 | 717 | NR | 775 | 22 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 224 | NR | 650 | 656 | NR | 780 | 19 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 262 | NR | 655 | 595 | NR | 785 | 17 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 299 | NR | 660 | 536 | NR | 790 | 15 | NR | 920 | 1 | NR |
| 405 | 3 | NR | 535 | 332 | NR | 665 | 480 | NR | 795 | 13 | NR | 925 | 1 | NR |
| 410 | 7 | NR | 540 | 365 | NR | 670 | 425 | NR | 800 | 11 | NR | 930 | 1 | NR |
| 415 | 17 | NR | 545 | 400 | NR | 675 | 376 | NR | 805 | 10 | NR | 935 | 0 | NR |
| 420 | 36 | NR | 550 | 437 | NR | 680 | 332 | NR | 810 | 8 | NR | 940 | 0 | NR |
| 425 | 67 | NR | 555 | 479 | NR | 685 | 291 | NR | 815 | 8 | NR | 945 | 0 | NR |
| 430 | 105 | NR | 560 | 525 | NR | 690 | 255 | NR | 820 | 7 | NR | 950 | 0 | NR |
| 435 | 141 | NR | 565 | 579 | NR | 695 | 221 | NR | 825 | 6 | NR | 955 | 0 | NR |
| 440 | 169 | NR | 570 | 639 | NR | 700 | 192 | NR | 830 | 5 | NR | 960 | 0 | NR |
| 445 | 173 | NR | 575 | 703 | NR | 705 | 167 | NR | 835 | 4 | NR | 965 | 0 | NR |
| 450 | 136 | NR | 580 | 769 | NR | 710 | 144 | NR | 840 | 4 | NR | 970 | 0 | NR |
| 455 | 80 | NR | 585 | 832 | NR | 715 | 125 | NR | 845 | 3 | NR | 975 | 0 | NR |
| 460 | 45 | NR | 590 | 890 | NR | 720 | 109 | NR | 850 | 3 | NR | 980 | 0 | NR |
| 465 | 32 | NR | 595 | 937 | NR | 725 | 94 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 972 | NR | 730 | 81 | NR | 860 | 2 | NR | 990 | 0 | NR |
| 475 | 18 | NR | 605 | 992 | NR | 735 | 70 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 18 | NR | 610 | 998 | NR | 740 | 61 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 20 | NR | 615 | 990 | NR | 745 | 53 | NR | 875 | 2 | NR | | | |

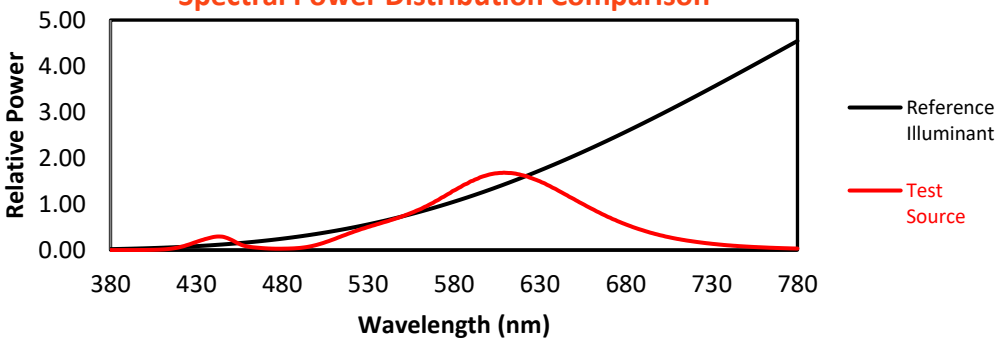
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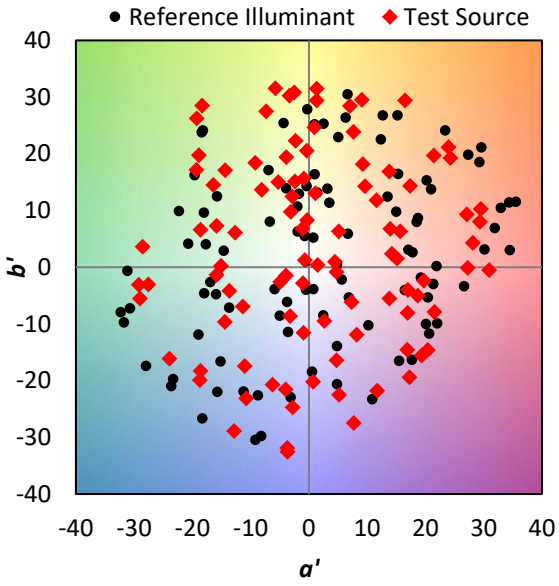
## Summary

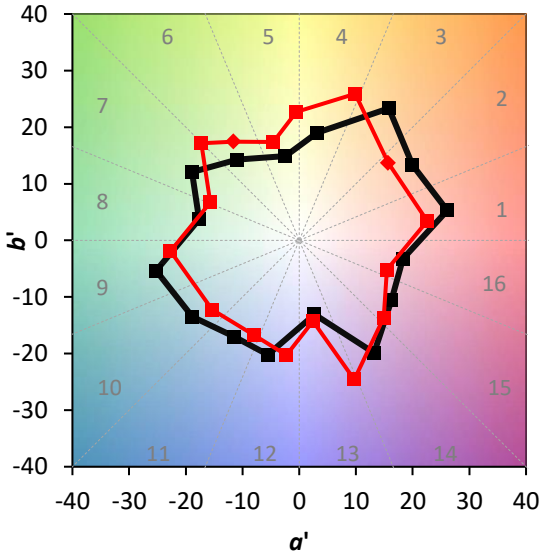
$R_f$ = 70.6
$R_g$ = 97.6
CIE $R_a$ = 71.9
$R_9$ = -17.8

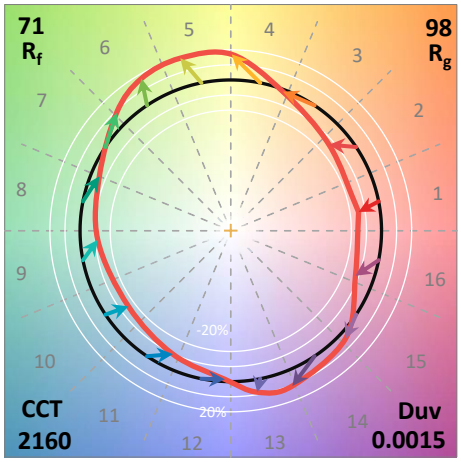
## Spectral Power Distribution Comparison

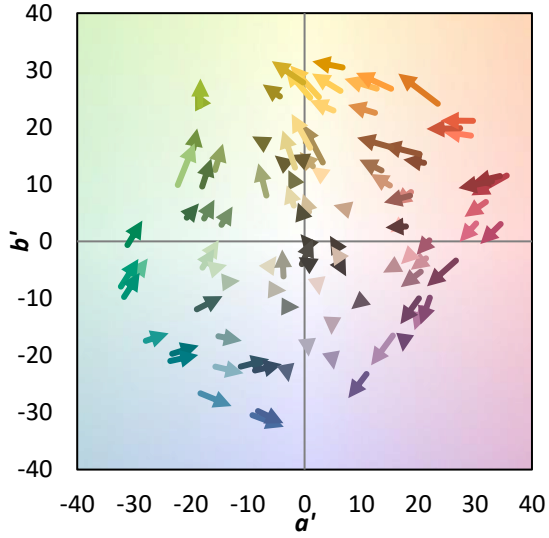



## Color Vector Graphics



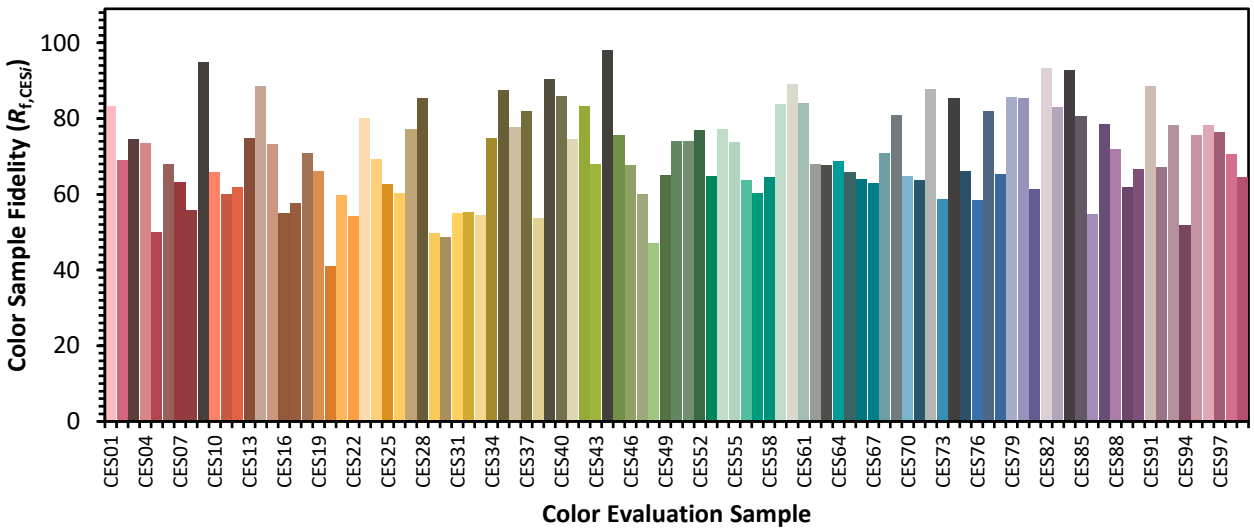



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**Individual Sample Fidelity Index ($R_{f,i}$)**

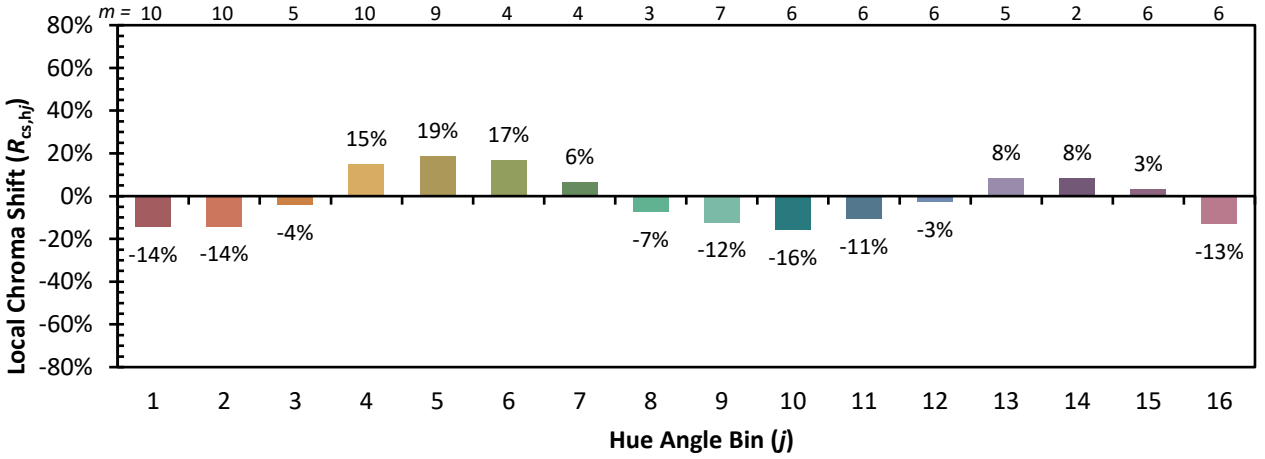
| | | | |
|---|---|---|---|
| CES01 = 87 | CES26 = 60 | CES51 = 74 | CES76 = 58 |
| CES02 = 65 | CES27 = 77 | CES52 = 77 | CES77 = 82 |
| CES03 = 32 | CES28 = 85 | CES53 = 65 | CES78 = 65 |
| CES04 = 72 | CES29 = 50 | CES54 = 77 | CES79 = 86 |
| CES05 = 52 | CES30 = 49 | CES55 = 74 | CES80 = 85 |
| CES06 = 53 | CES31 = 55 | CES56 = 64 | CES81 = 61 |
| CES07 = 44 | CES32 = 55 | CES57 = 60 | CES82 = 93 |
| CES08 = 43 | CES33 = 55 | CES58 = 64 | CES83 = 83 |
| CES09 = 29 | CES34 = 75 | CES59 = 84 | CES84 = 93 |
| CES10 = 79 | CES35 = 88 | CES60 = 89 | CES85 = 81 |
| CES11 = 62 | CES36 = 78 | CES61 = 84 | CES86 = 55 |
| CES12 = 68 | CES37 = 82 | CES62 = 68 | CES87 = 79 |
| CES13 = 45 | CES38 = 54 | CES63 = 68 | CES88 = 72 |
| CES14 = 75 | CES39 = 90 | CES64 = 69 | CES89 = 62 |
| CES15 = 72 | CES40 = 86 | CES65 = 66 | CES90 = 67 |
| CES16 = 49 | CES41 = 75 | CES66 = 64 | CES91 = 89 |
| CES17 = 51 | CES42 = 83 | CES67 = 63 | CES92 = 67 |
| CES18 = 57 | CES43 = 68 | CES68 = 71 | CES93 = 78 |
| CES19 = 74 | CES44 = 98 | CES69 = 81 | CES94 = 52 |
| CES20 = 68 | CES45 = 76 | CES70 = 65 | CES95 = 76 |
| CES21 = 89 | CES46 = 68 | CES71 = 64 | CES96 = 78 |
| CES22 = 81 | CES47 = 60 | CES72 = 88 | CES97 = 76 |
| CES23 = 92 | CES48 = 47 | CES73 = 59 | CES98 = 71 |
| CES24 = 92 | CES49 = 65 | CES74 = 85 | CES99 = 65 |
| CES25 = 74 | CES50 = 74 | CES75 = 66 | |

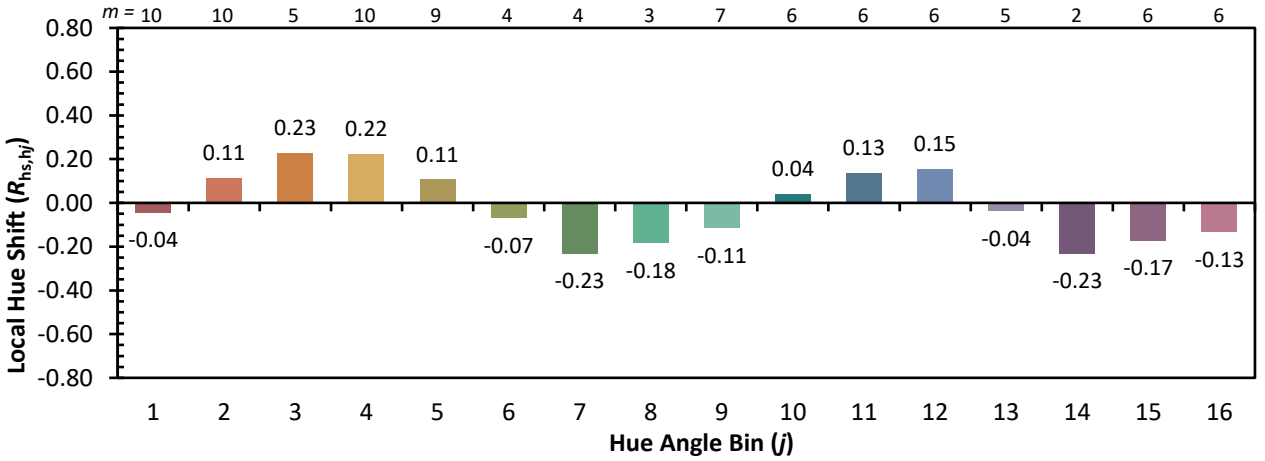


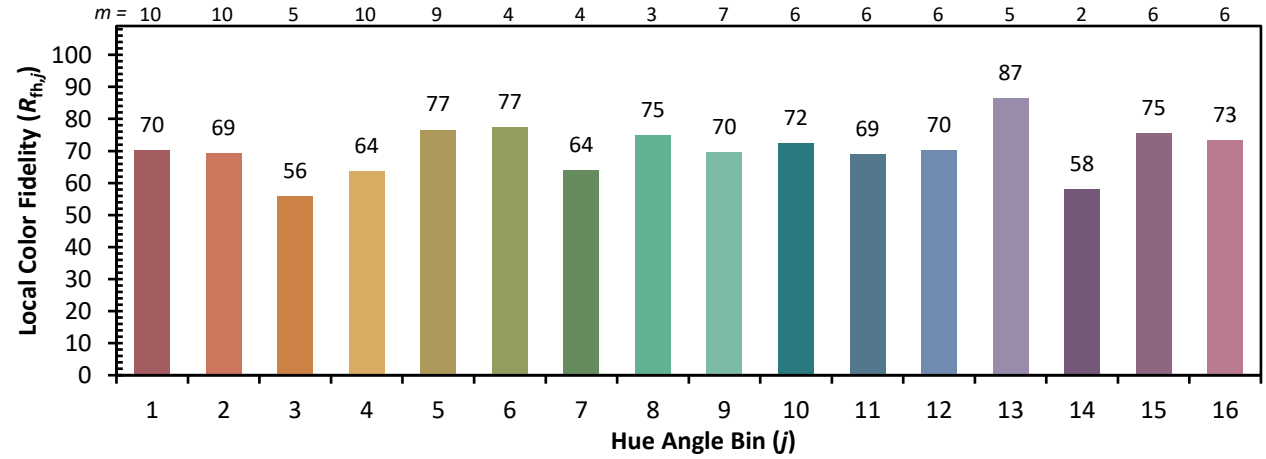
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## Color Rendition by Hue-Angle Bin



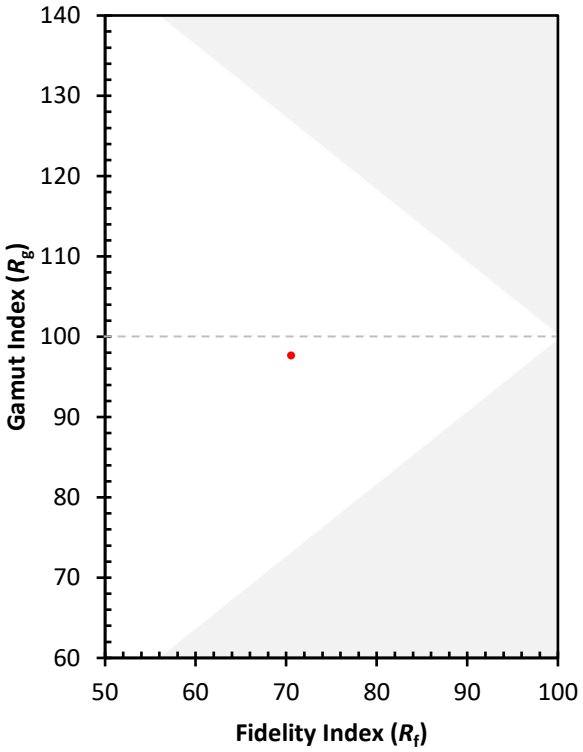



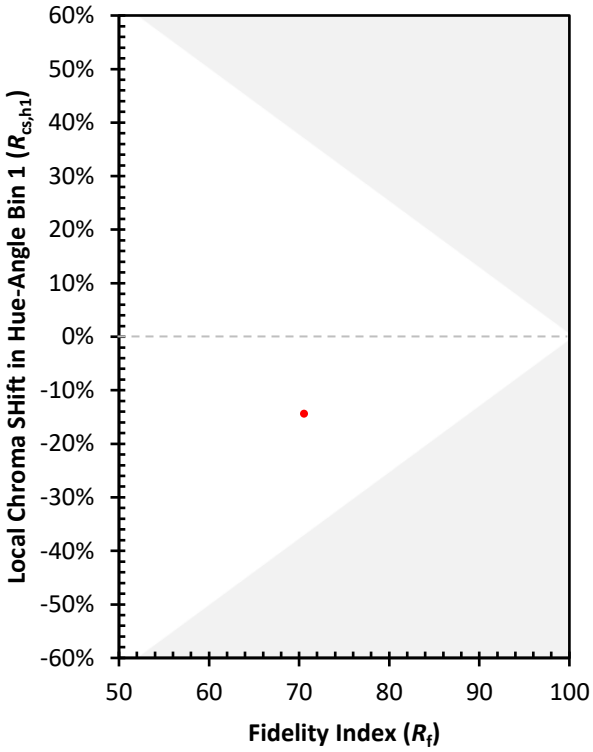



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## Measure Comparisons




(END OF REPORT)