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: P1363080

Luminaire Tested: **GSS-SB5B-735-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: | P1363080 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB5B-735-U-SL2-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 5SQUARE 184W 70CRI 3500K FIXTURE w/ TYPE II SPILL CONTROL DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (130) 3500K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 22702.1 lumens |
| Efficiency: | N/A |
| Efficacy: | 123.4 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B2 - U0 - G3 |

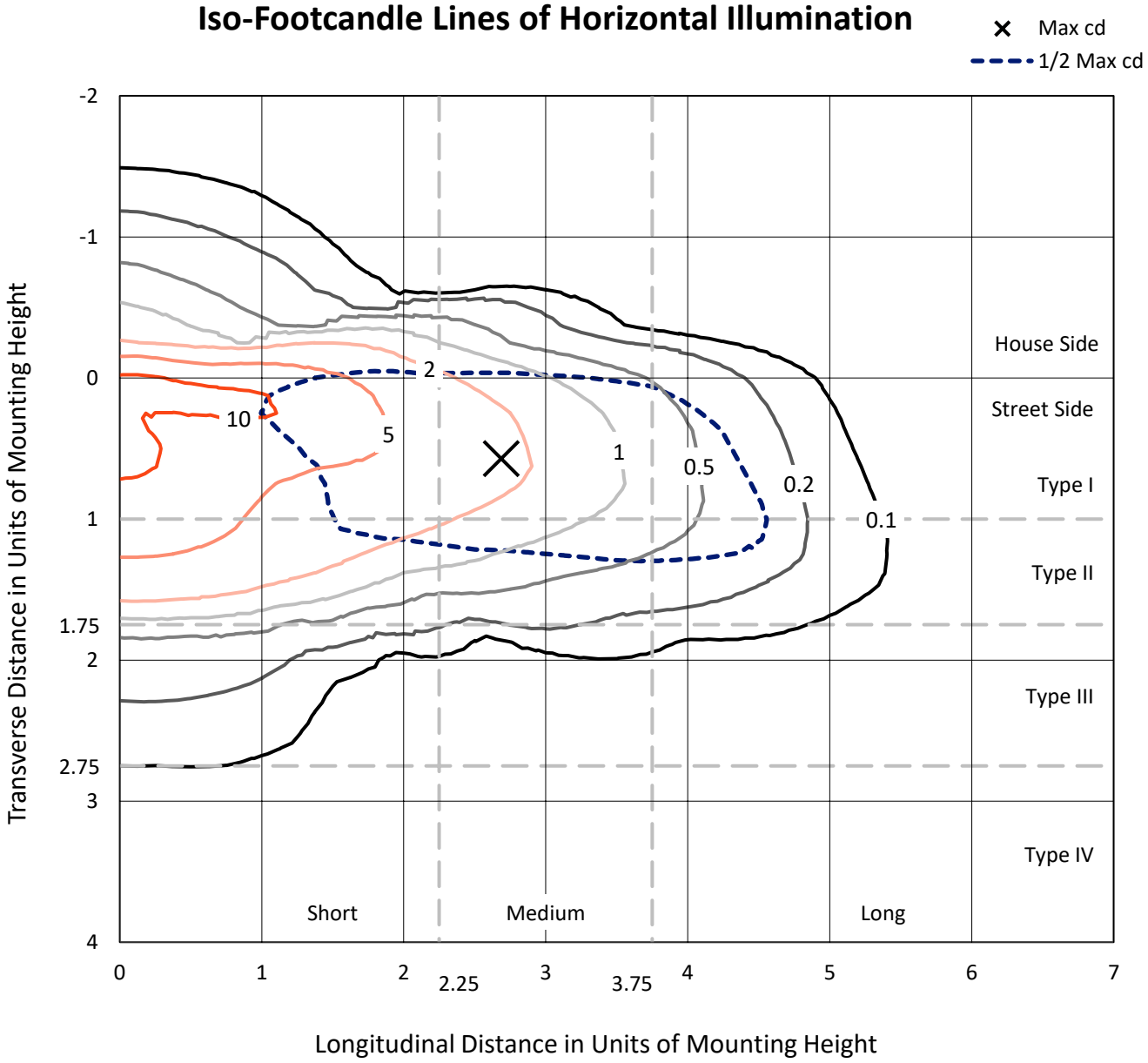
| | |
|---|---|
| Input Watts (W): | 184 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 11.1% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1363080
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## Iso-Footcandle Lines of Horizontal Illumination



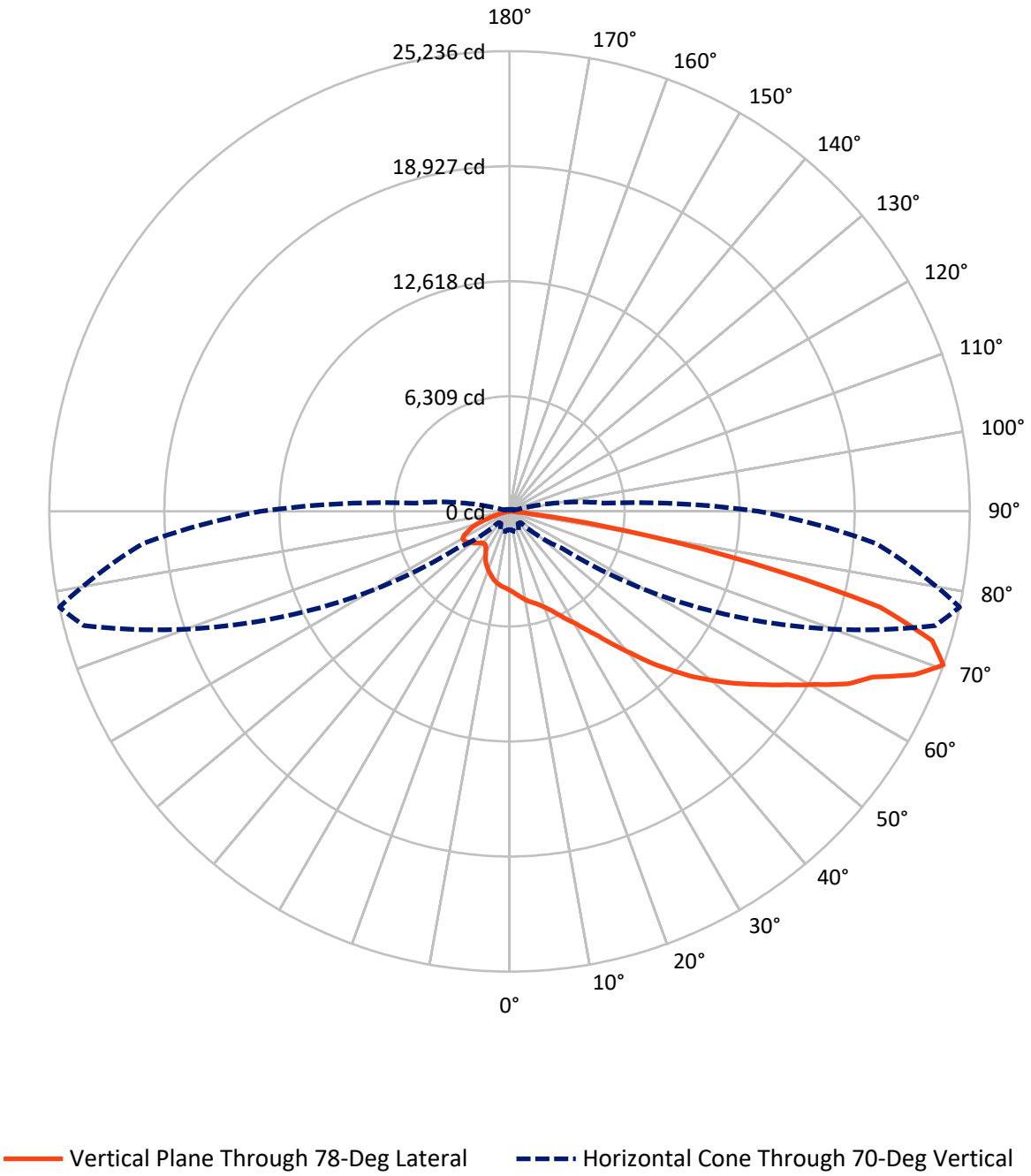

Based on 20 foot mounting height. Maximum calculated value = 13 fc
Type II - Medium - N/A

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REPORT NUMBER: P1363080
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## Luminous Intensity Polar Plot



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Scaled Data Report

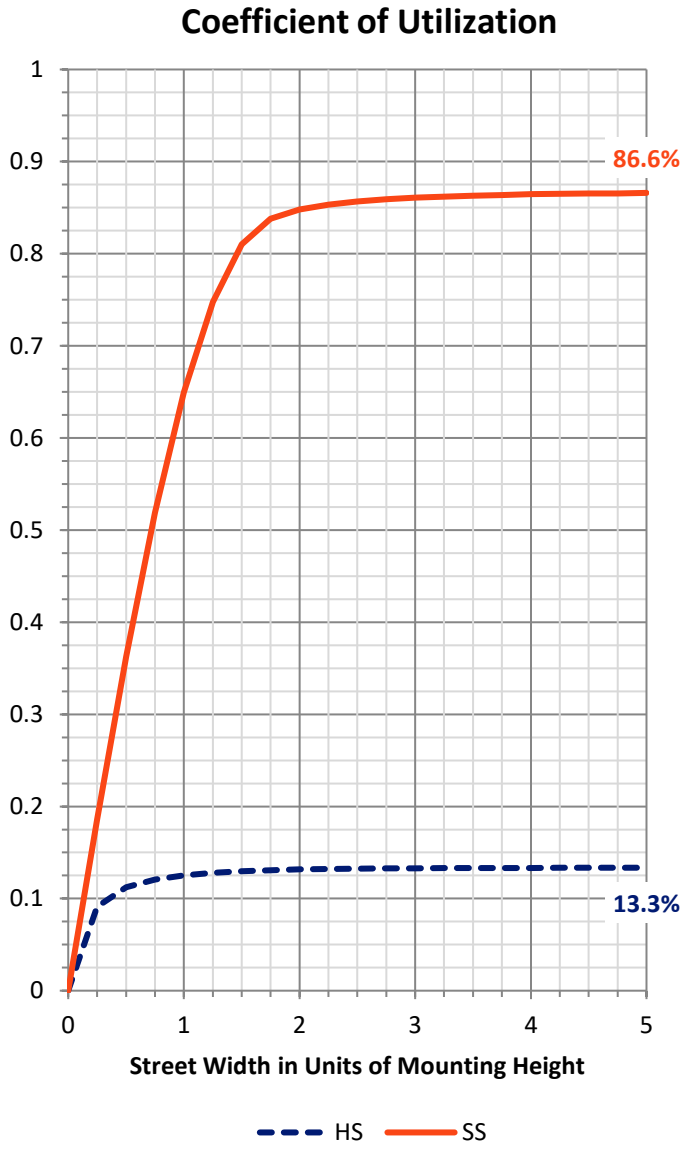
REPORT NUMBER: P1363080
CATALOG NUMBER: GSS-SB5B-735-U-SL2-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3053.5 | 0.0 | 3053.5 |
| | % Fixture | 13.5 | 0.0 | 13.5 |
| **Street Side** | Lumens | 19648.6 | 0.0 | 19648.6 |
| | % Fixture | 86.5 | 0.0 | 86.5 |
| **Total** | Lumens | 22702.1 | 0.0 | 22702.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 395.7 | 1.7 |
| 10°-20° | 980.3 | 4.3 |
| 20°-30° | 1626.2 | 7.2 |
| 30°-40° | 2592.2 | 11.4 |
| 40°-50° | 3956.0 | 17.4 |
| 50°-60° | 5267.5 | 23.2 |
| 60°-70° | 4917.1 | 21.7 |
| 70°-80° | 2780.6 | 12.2 |
| 80°-90° | 186.5 | 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° | 22702.1 | 100.0 |
| 0°-180° | 22702.1 | 100.0 |



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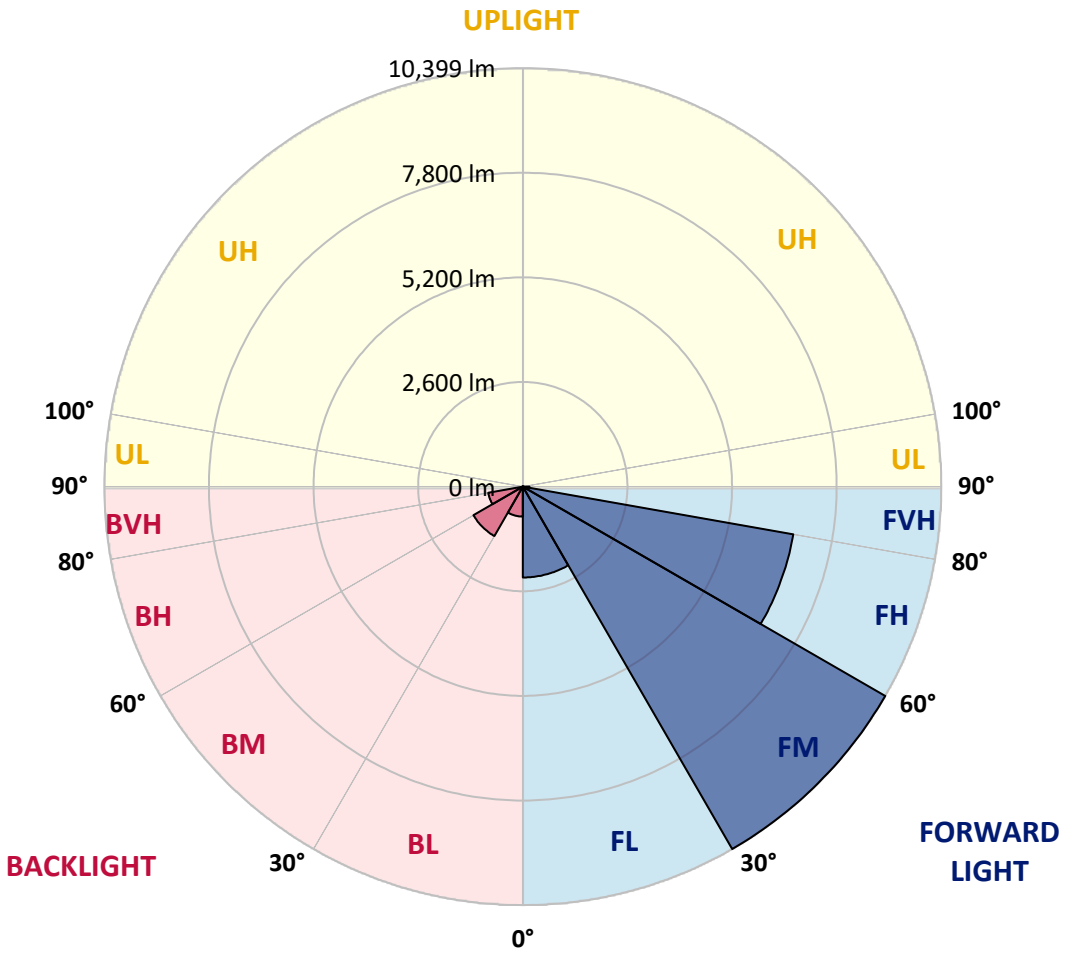
Scaled Data Report

REPORT NUMBER: P1363080
CATALOG NUMBER: GSS-SB5B-735-U-SL2-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2257.4 | 9.9 | | | |
| FM | (30°-60°) | 10399.4 | 45.8 | | | |
| FH | (60°-80°) | 6826.1 | 30.1 | | | G3/7500 |
| FVH | (80°-90°) | 165.6 | 0.7 | | | G2/225 |
| BL | (0°-30°) | 744.8 | 3.3 | B2/1000 | | |
| BM | (30°-60°) | 1416.3 | 6.2 | B2/2500 | | |
| BH | (60°-80°) | 871.6 | 3.8 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 20.9 | 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-G3**
Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 78° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | *4337.5* | 4337.5 |
| 2.5° | 4884.5 | 4814.5 | 4814.5 | 4782.7 | 4750.9 | 4693.7 | 4623.7 | 4547.4 | 4483.8 | *4452.0* | 4401.1 |
| 5° | 5234.3 | 5215.2 | 5208.8 | 5157.9 | 5107.1 | 5024.4 | 4935.3 | 4789.1 | 4655.5 | *4611.0* | 4496.5 |
| 7.5° | 5221.5 | 5208.8 | 5234.3 | 5297.9 | 5342.4 | 5310.6 | 5234.3 | 5056.2 | 4846.3 | *4770.0* | 4598.3 |
| 10° | 4827.2 | 4789.1 | 4878.1 | 5018.0 | 5221.5 | 5431.4 | 5463.2 | 5291.5 | 5024.4 | *4935.3* | 4693.7 |
| 12.5° | 4471.1 | 4471.1 | 4515.6 | 4642.8 | 4897.2 | 5272.4 | 5565.0 | 5507.7 | 5202.5 | *5094.3* | 4776.4 |
| 15° | 4426.6 | 4394.8 | 4407.5 | 4464.7 | 4642.8 | 5011.7 | 5501.4 | 5673.1 | 5367.8 | *5221.5* | 4852.7 |
| 17.5° | 4630.1 | 4591.9 | 4560.1 | 4534.7 | 4560.1 | 4801.8 | 5304.2 | 5813.0 | 5565.0 | *5406.0* | 4954.4 |
| 20° | 4948.1 | 4948.1 | 4865.4 | 4763.6 | 4681.0 | 4725.5 | 5145.2 | 5902.1 | 5800.3 | *5628.6* | 5107.1 |
| 22.5° | 5406.0 | 5348.7 | 5297.9 | 5138.9 | 4935.3 | 4839.9 | 5075.3 | 5997.5 | 6124.7 | *5914.8* | 5316.9 |
| 25° | 5787.6 | 5806.7 | 5749.4 | 5552.3 | 5266.1 | 5056.2 | 5132.5 | 6035.6 | 6493.5 | *6283.7* | 5577.7 |
| 27.5° | 6220.1 | 6201.0 | 6150.1 | 5952.9 | 5622.2 | 5323.3 | 5291.5 | 6111.9 | 6919.7 | *6697.1* | 5883.0 |
| 30° | 6620.7 | 6620.7 | 6557.1 | 6334.5 | 5997.5 | 5673.1 | 5526.8 | 6239.1 | 7345.8 | *7142.3* | 6226.4 |
| 32.5° | 7065.9 | 7072.3 | 6945.1 | 6709.8 | 6366.3 | 5997.5 | 5825.7 | 6429.9 | 7873.7 | *7721.0* | 6690.7 |
| 35° | 7428.5 | 7441.2 | 7409.4 | 7155.0 | 6703.4 | 6334.5 | 6137.4 | 6728.9 | 8490.6 | *8401.5* | 7307.6 |
| 37.5° | 7708.3 | 7727.4 | 7663.8 | 7549.3 | 7129.5 | 6658.9 | 6468.1 | 7097.7 | 9234.7 | *9291.9* | 8109.0 |
| 40° | 8032.7 | 8032.7 | 8032.7 | 7860.9 | 7549.3 | 7015.1 | 6805.2 | 7555.7 | 10036.1 | *10214.1* | 8999.4 |
| 42.5° | 8318.9 | 8337.9 | 8369.7 | 8236.2 | 7950.0 | 7523.9 | 7218.6 | 8070.8 | 10932.8 | *11333.5* | 10099.7 |
| 45° | 8465.1 | 8503.3 | 8617.8 | 8560.5 | 8344.3 | 7930.9 | 7657.4 | 8573.3 | 11918.6 | *12414.7* | 11282.6 |
| 47.5° | 8554.2 | 8598.7 | 8751.3 | 8821.3 | 8732.3 | 8242.5 | 8070.8 | 9171.1 | 12859.9 | *13546.8* | 12497.4 |
| 50° | 8624.1 | 8687.7 | 8859.5 | 8993.0 | 9075.7 | 8503.3 | 8477.9 | 9781.7 | 13801.2 | *14608.9* | 13604.0 |
| 52.5° | 8420.6 | 8484.2 | 8808.6 | 9234.7 | 9304.7 | 8897.6 | 8904.0 | 10443.1 | 14755.2 | *15690.1* | 14628.0 |
| 55° | 7695.6 | 7740.1 | 8191.7 | 9050.3 | 9578.1 | 9355.5 | 9482.7 | 11301.7 | 15798.2 | *16764.9* | 15607.4 |
| 57.5° | 5475.9 | 5749.4 | 6550.8 | 7911.8 | 9241.1 | 10010.6 | 10411.3 | 12249.3 | 17013.0 | *17941.5* | 16599.6 |
| 60° | 2276.9 | 2474.0 | 3250.0 | 5647.7 | 7994.5 | 10099.7 | 11689.7 | 13807.5 | 18393.1 | *19277.1* | 17725.3 |
| 62.5° | 1481.9 | 1501.0 | 1577.3 | 2423.2 | 5075.3 | 8859.5 | 12179.4 | 16014.4 | 20339.2 | *20829.0* | 18342.2 |
| 65° | 1322.9 | 1348.3 | 1386.5 | 1507.3 | 1869.8 | 5978.4 | 10525.8 | 16758.6 | 21922.9 | *21891.1* | 17992.4 |
| 67.5° | 1176.6 | 1208.4 | 1278.4 | 1291.1 | 1043.0 | 2200.6 | 7072.3 | 15664.6 | 23570.1 | *23913.6* | 18946.4 |
| 70° | *1004.9* | *1017.6* | *1144.8* | *1157.5* | *820.4* | *865.0* | *3561.6* | *13597.7* | *24180.7* | *25236.4* | *20167.5* |
| 72.5° | 699.6 | 737.8 | 966.7 | 1017.6 | 655.1 | 559.7 | 1297.4 | 9896.1 | 22476.2 | *24231.5* | 20091.2 |
| 75° | 413.4 | 432.5 | 553.3 | 693.2 | 508.8 | 394.3 | 585.1 | 6086.5 | 19340.7 | *20988.0* | 17877.9 |
| 77.5° | 298.9 | 318.0 | 400.7 | 540.6 | 324.4 | 267.1 | 362.5 | 3180.0 | 13432.3 | *13502.3* | 10093.3 |
| 80° | 95.4 | 108.1 | 248.0 | 362.5 | 235.3 | 171.7 | 222.6 | 1074.8 | 6786.1 | *6404.5* | 3084.6 |
| 82.5° | 50.9 | 50.9 | 152.6 | 190.8 | 146.3 | 108.1 | 127.2 | 445.2 | 2175.1 | *1392.8* | 489.7 |
| 85° | 25.4 | 25.4 | 63.6 | 76.3 | 57.2 | 50.9 | 63.6 | 159.0 | 229.0 | *209.9* | 139.9 |
| 87.5° | 0.0 | 0.0 | 6.4 | 6.4 | 6.4 | 12.7 | 25.4 | 44.5 | 57.2 | *57.2* | 63.6 |
| 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: P1363080
CATALOG NUMBER: GSS-SB5B-735-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 | 4337.5 |
| 2.5° | 4343.9 | 4293.0 | 4216.7 | 4127.6 | 4064.0 | 3975.0 | 3898.7 | 3866.9 | 3809.6 | 3796.9 | 3784.2 |
| 5° | 4388.4 | 4286.6 | 4114.9 | 3917.8 | 3746.0 | 3542.5 | 3377.2 | 3250.0 | 3160.9 | 3122.8 | 3103.7 |
| 7.5° | 4458.4 | 4293.0 | 4013.2 | 3688.8 | 3377.2 | 3071.9 | 2766.6 | 2531.3 | 2397.7 | 2270.5 | 2276.9 |
| 10° | 4496.5 | 4299.4 | 3879.6 | 3428.0 | 2963.8 | 2493.1 | 2035.2 | 1685.4 | 1501.0 | 1392.8 | 1367.4 |
| 12.5° | 4528.3 | 4267.6 | 3727.0 | 3103.7 | 2442.2 | 1768.1 | 1310.2 | 1081.2 | 985.8 | 973.1 | 966.7 |
| 15° | 4547.4 | 4229.4 | 3536.2 | 2728.4 | 1850.8 | 1195.7 | 973.1 | 909.5 | 884.0 | 877.7 | 877.7 |
| 17.5° | 4591.9 | 4184.9 | 3339.0 | 2264.2 | 1284.7 | 954.0 | 871.3 | 839.5 | 820.4 | 814.1 | 814.1 |
| 20° | 4668.2 | 4191.2 | 3135.5 | 1755.4 | 998.5 | 871.3 | 807.7 | 775.9 | 750.5 | 750.5 | 750.5 |
| 22.5° | 4795.4 | 4216.7 | 2874.7 | 1316.5 | 877.7 | 795.0 | 737.8 | 699.6 | 686.9 | 693.2 | 693.2 |
| 25° | 4967.1 | 4280.3 | 2607.6 | 1017.6 | 807.7 | 718.7 | 661.4 | 629.6 | 623.3 | 629.6 | 629.6 |
| 27.5° | 5183.4 | 4350.2 | 2276.9 | 877.7 | 744.1 | 655.1 | 597.8 | 578.8 | 572.4 | 585.1 | 585.1 |
| 30° | 5418.7 | 4432.9 | 1882.6 | 807.7 | 686.9 | 604.2 | 553.3 | 534.2 | 534.2 | 553.3 | 553.3 |
| 32.5° | 5749.4 | 4566.5 | 1526.4 | 750.5 | 642.4 | 566.0 | 515.2 | 496.1 | 502.4 | 521.5 | 521.5 |
| 35° | 6194.6 | 4738.2 | 1252.9 | 712.3 | 610.6 | 534.2 | 489.7 | 464.3 | 470.6 | 477.0 | 483.4 |
| 37.5° | 6773.4 | 4973.5 | 1081.2 | 686.9 | 578.8 | 515.2 | 457.9 | 438.8 | 438.8 | 445.2 | 445.2 |
| 40° | 7422.1 | 5253.3 | 998.5 | 667.8 | 553.3 | 483.4 | 432.5 | 407.0 | 407.0 | 419.8 | 419.8 |
| 42.5° | 8248.9 | 5552.3 | 934.9 | 642.4 | 521.5 | 457.9 | 400.7 | 381.6 | 375.2 | 388.0 | 388.0 |
| 45° | 9202.9 | 5984.7 | 896.8 | 616.9 | 489.7 | 426.1 | 375.2 | 349.8 | 343.4 | 349.8 | 356.2 |
| 47.5° | 10169.6 | 6442.7 | 858.6 | 585.1 | 470.6 | 400.7 | 356.2 | 324.4 | 318.0 | 318.0 | 318.0 |
| 50° | 11079.1 | 6900.6 | 833.2 | 547.0 | 451.6 | 375.2 | 330.7 | 305.3 | 292.6 | 292.6 | 292.6 |
| 52.5° | 11893.2 | 7326.7 | 820.4 | 515.2 | 432.5 | 356.2 | 318.0 | 286.2 | 267.1 | 267.1 | 267.1 |
| 55° | 12669.1 | 7740.1 | 801.4 | 477.0 | 413.4 | 330.7 | 298.9 | 267.1 | 248.0 | 241.7 | 241.7 |
| 57.5° | 13451.4 | 8121.7 | 750.5 | 438.8 | 375.2 | 311.6 | 279.8 | 248.0 | 229.0 | 216.2 | 216.2 |
| 60° | 14093.7 | 8357.0 | 674.2 | 394.3 | 330.7 | 286.2 | 260.8 | 229.0 | 203.5 | 184.4 | 184.4 |
| 62.5° | 14138.3 | 8115.3 | 559.7 | 349.8 | 292.6 | 260.8 | 235.3 | 203.5 | 171.7 | 146.3 | 146.3 |
| 65° | 13381.4 | 7275.8 | 445.2 | 292.6 | 260.8 | 229.0 | 197.2 | 171.7 | 139.9 | 114.5 | 108.1 |
| 67.5° | 13553.1 | 6601.7 | 343.4 | 248.0 | 229.0 | 184.4 | 159.0 | 139.9 | 114.5 | 95.4 | 95.4 |
| 70° | *13654.9* | *5196.1* | *273.5* | *203.5* | *190.8* | *146.3* | *127.2* | *120.8* | *95.4* | *76.3* | *76.3* |
| 72.5° | 12764.5 | 3218.2 | 222.6 | 171.7 | 146.3 | 101.8 | 101.8 | 95.4 | 76.3 | 57.2 | 50.9 |
| 75° | 11257.2 | 1920.7 | 171.7 | 133.6 | 101.8 | 76.3 | 76.3 | 70.0 | 50.9 | 38.2 | 38.2 |
| 77.5° | 6805.2 | 1011.2 | 133.6 | 101.8 | 70.0 | 57.2 | 50.9 | 44.5 | 31.8 | 25.4 | 19.1 |
| 80° | 2105.2 | 356.2 | 101.8 | 70.0 | 50.9 | 44.5 | 31.8 | 19.1 | 12.7 | 12.7 | 6.4 |
| 82.5° | 292.6 | 127.2 | 76.3 | 57.2 | 38.2 | 25.4 | 19.1 | 12.7 | 6.4 | 6.4 | 6.4 |
| 85° | 101.8 | 70.0 | 50.9 | 38.2 | 25.4 | 19.1 | 12.7 | 6.4 | 6.4 | 0.0 | 0.0 |
| 87.5° | 57.2 | 50.9 | 38.2 | 25.4 | 19.1 | 12.7 | 12.7 | 6.4 | 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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Peachtree City, GA 30269

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-5

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-735-U-5WQ

Data in this report applies to families of products including GSS-SB1A-735-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

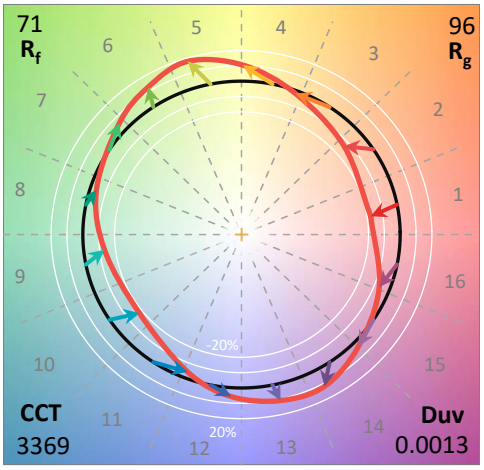
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-5 |
| 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-735-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3500K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3369 |
| CIE u': | 0.2386 |
| CIE v': | 0.5156 |
| Duv: | 0.0013 |
| CIE x: | 0.4143 |
| CIE y: | 0.3980 |
| CIE z: | 0.1877 |
| Peak Wavelength (nm): | 590 |
| Dominant Wavelength (nm): | 580 |
| Purity: | 43.80166 |
| Rf: | 71.4 |
| Rg: | 96 |

| | |
|---|---|
| CRI (Ra): | 70.1 |
| R1: | 66.6 |
| R2: | 77.6 |
| R3: | 88.5 |
| R4: | 69.5 |
| R5: | 66.4 |
| R6: | 69.6 |
| R7: | 77.5 |
| R8: | 44.9 |
| R9: | -40.2 |
| R10: | 49.1 |
| R11: | 66.3 |
| R12: | 45.7 |
| R13: | 68.0 |
| R14: | 93.4 |
| R15: | 57.6 |




## Test Conditions

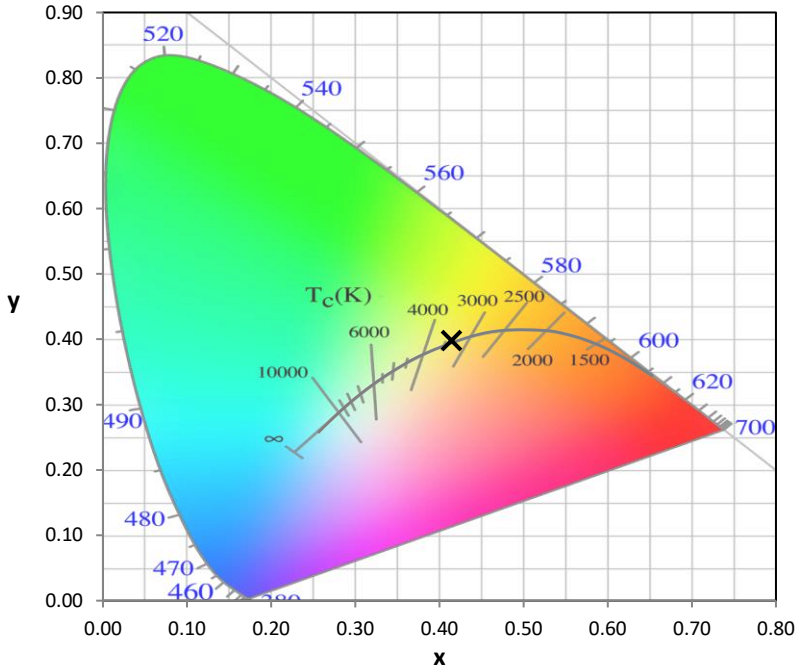
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-5

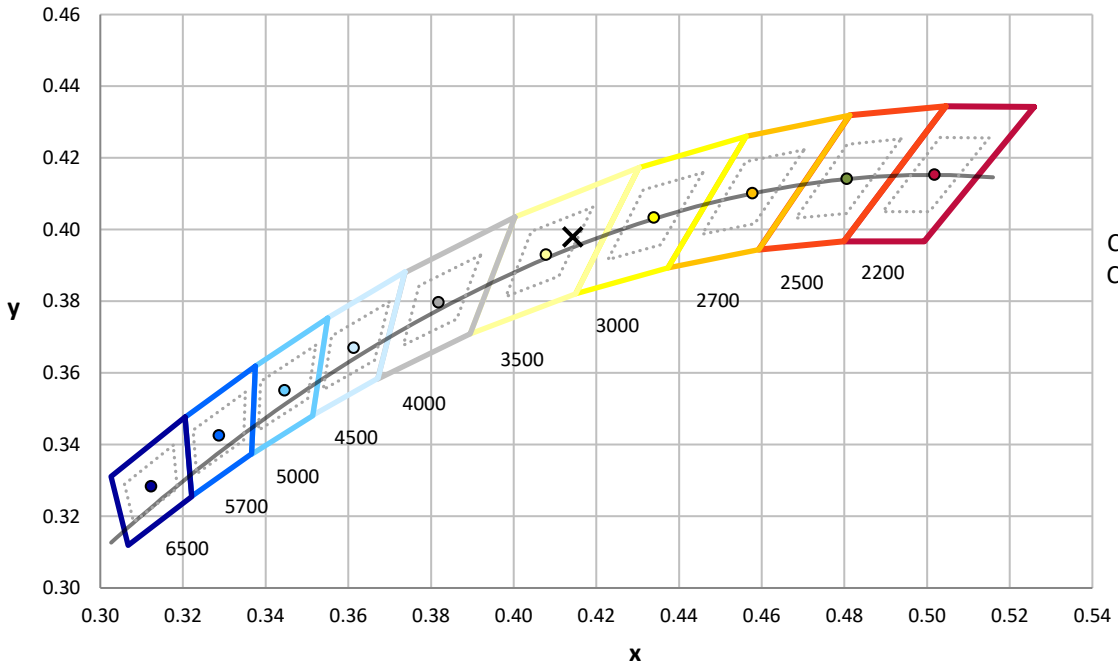
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

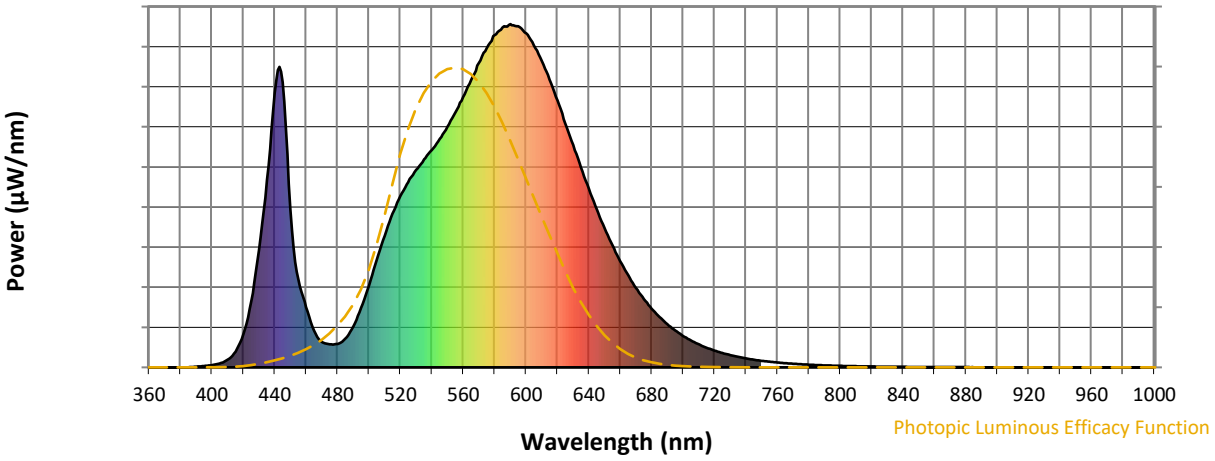



CCT = 3369K
CIE x = 0.4143
CIE y = 0.3980
Duv = 0.0013

Point lies inside the ANSI 3500K 4-step quadrangle

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## Photopic Flux vs. Wavelength

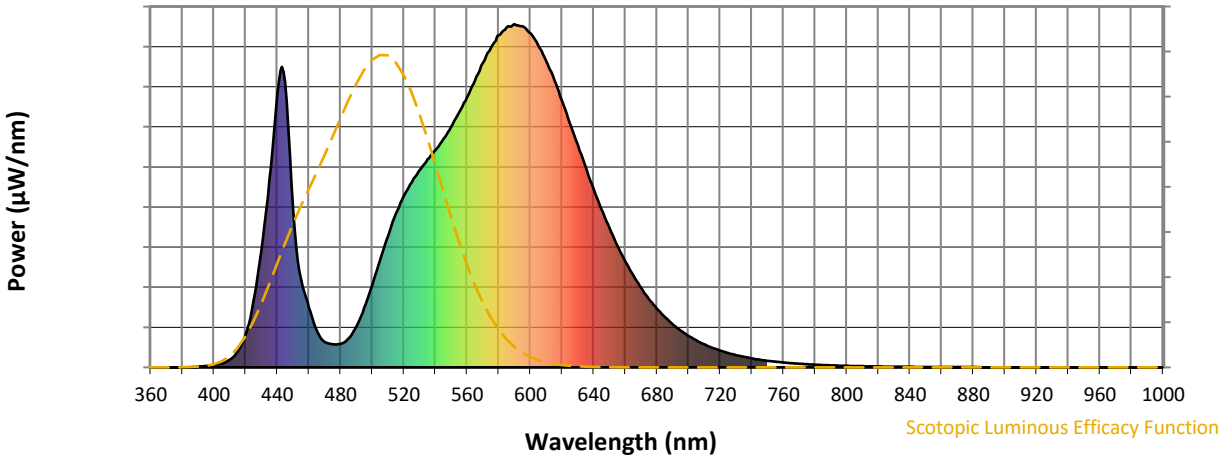



## Photopic Lumens: NR

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

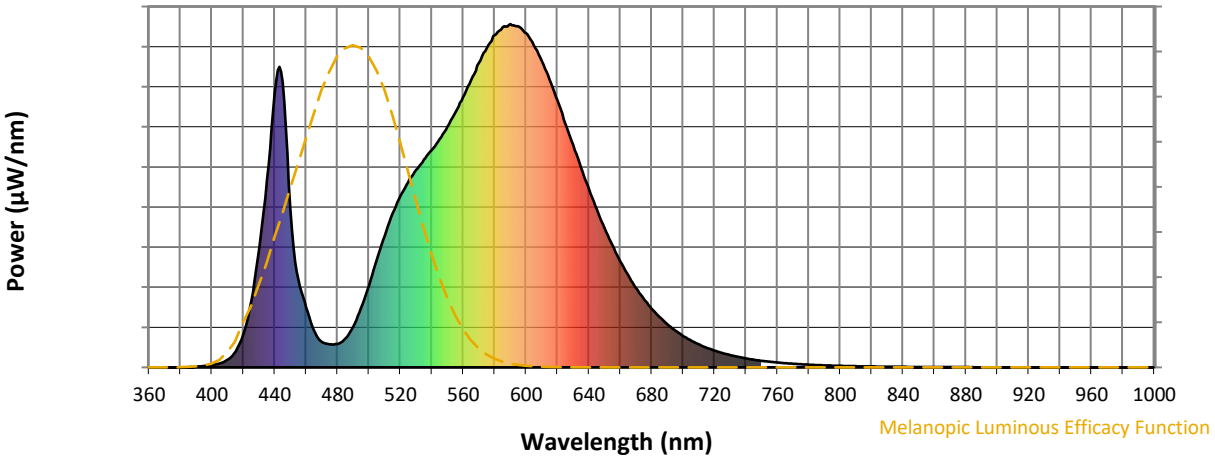



**Scotopic Lumens: NR** **S/P: 1.29**

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.36**

| 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 | 119 | NR | 620 | 778 | NR | 750 | 19 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 173 | NR | 625 | 711 | NR | 755 | 16 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 239 | NR | 630 | 648 | NR | 760 | 14 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 313 | NR | 635 | 582 | NR | 765 | 12 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 383 | NR | 640 | 520 | NR | 770 | 11 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 448 | NR | 645 | 460 | NR | 775 | 9 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 500 | NR | 650 | 406 | NR | 780 | 8 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 539 | NR | 655 | 355 | NR | 785 | 7 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 575 | NR | 660 | 309 | NR | 790 | 6 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 606 | NR | 665 | 269 | NR | 795 | 5 | NR | 925 | 0 | NR |
| 410 | 22 | NR | 540 | 633 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 45 | NR | 545 | 666 | NR | 675 | 199 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 96 | NR | 550 | 701 | NR | 680 | 171 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 193 | NR | 555 | 743 | NR | 685 | 147 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 341 | NR | 560 | 788 | NR | 690 | 126 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 547 | NR | 565 | 837 | NR | 695 | 107 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 799 | NR | 570 | 887 | NR | 700 | 92 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 831 | NR | 575 | 931 | NR | 705 | 78 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 461 | NR | 580 | 967 | NR | 710 | 67 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 256 | NR | 585 | 990 | NR | 715 | 57 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 176 | NR | 590 | 1000 | NR | 720 | 49 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 107 | NR | 595 | 994 | NR | 725 | 42 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 74 | NR | 600 | 973 | NR | 730 | 36 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 67 | NR | 605 | 938 | NR | 735 | 31 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 68 | NR | 610 | 892 | NR | 740 | 26 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 84 | NR | 615 | 838 | NR | 745 | 22 | NR | 875 | 1 | NR | | | |

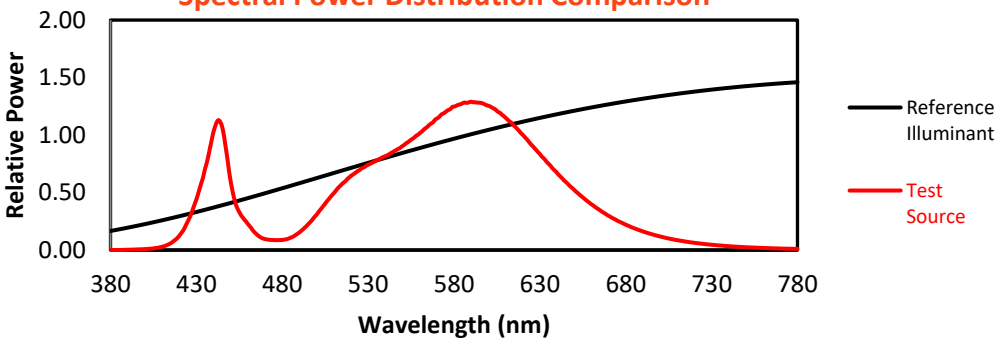
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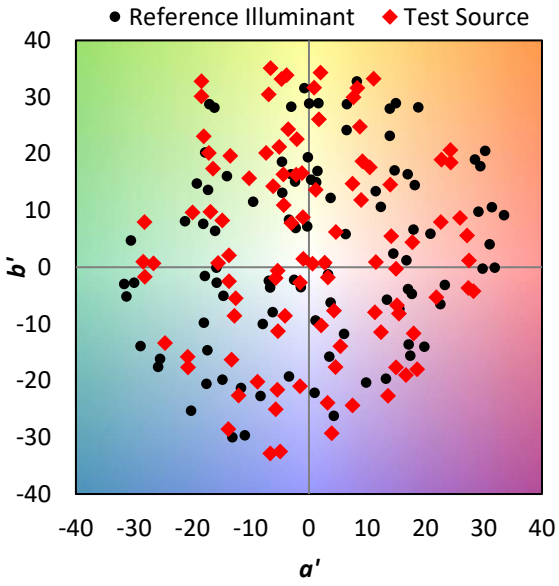
## Summary

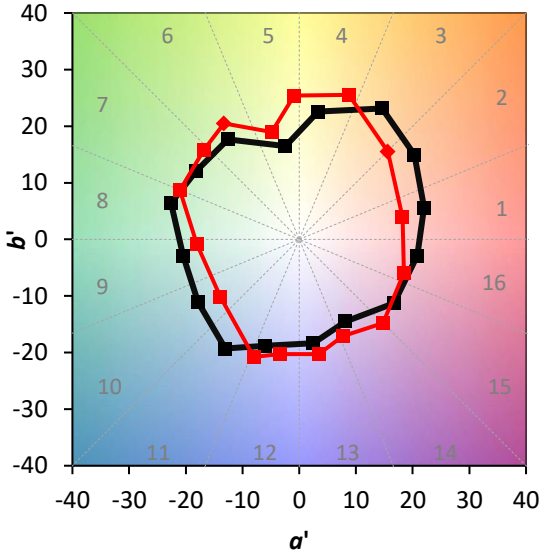
$R_f$ = 71.4
$R_g$ = 96
CIE $R_a$ = 70.1
$R_9$ = -40.2

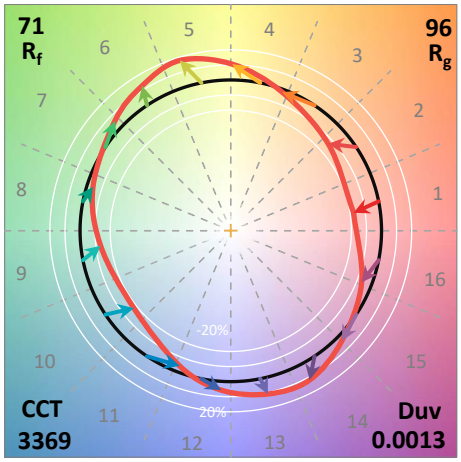
## Spectral Power Distribution Comparison

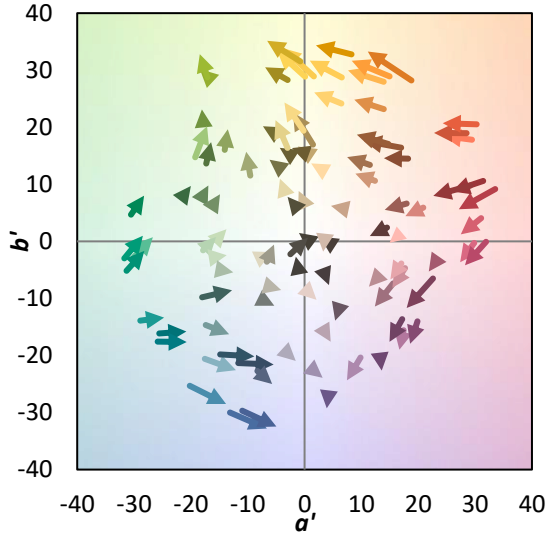



## Color Vector Graphics



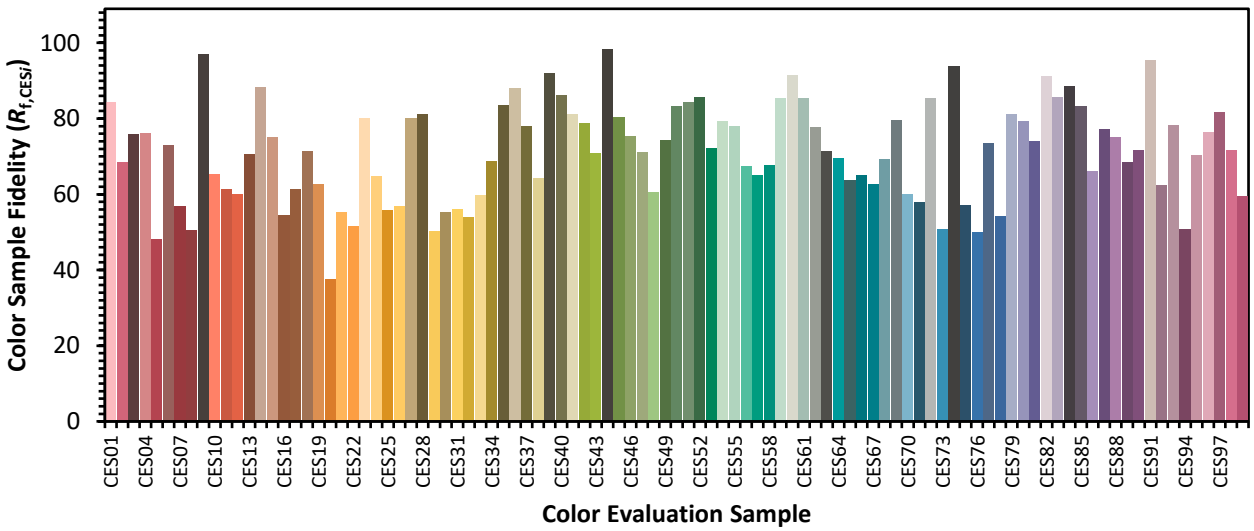



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## Individual Sample Fidelity Index ($R_{f,i}$)

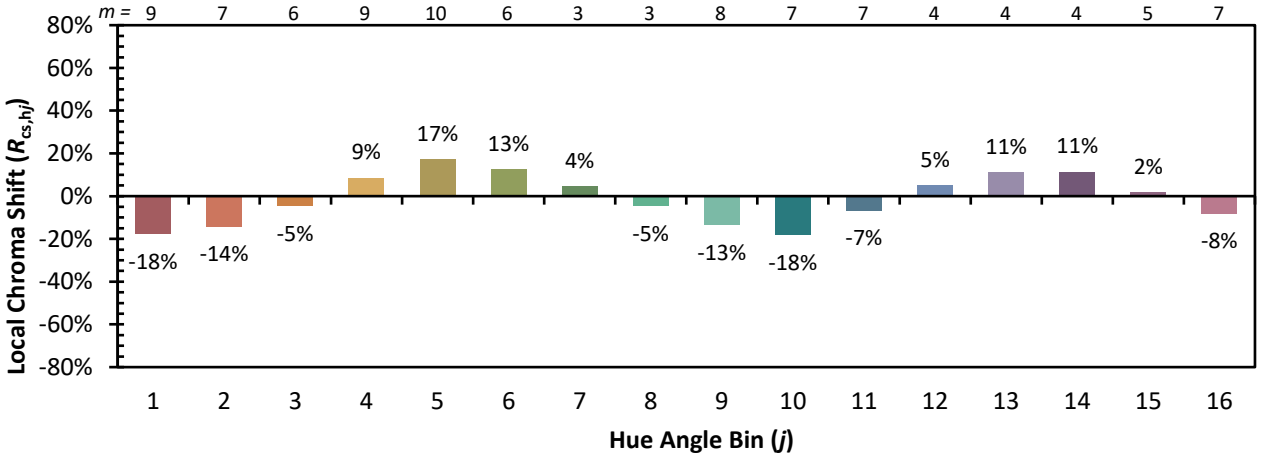
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 57 | CES51 = 84 | CES76 = 50 |
| CES02 = 62 | CES27 = 80 | CES52 = 86 | CES77 = 74 |
| CES03 = 31 | CES28 = 81 | CES53 = 72 | CES78 = 54 |
| CES04 = 70 | CES29 = 50 | CES54 = 79 | CES79 = 81 |
| CES05 = 48 | CES30 = 55 | CES55 = 78 | CES80 = 79 |
| CES06 = 51 | CES31 = 56 | CES56 = 67 | CES81 = 74 |
| CES07 = 40 | CES32 = 54 | CES57 = 65 | CES82 = 91 |
| CES08 = 39 | CES33 = 60 | CES58 = 68 | CES83 = 86 |
| CES09 = 29 | CES34 = 69 | CES59 = 85 | CES84 = 89 |
| CES10 = 75 | CES35 = 83 | CES60 = 91 | CES85 = 83 |
| CES11 = 58 | CES36 = 88 | CES61 = 85 | CES86 = 66 |
| CES12 = 64 | CES37 = 78 | CES62 = 78 | CES87 = 77 |
| CES13 = 43 | CES38 = 64 | CES63 = 71 | CES88 = 75 |
| CES14 = 74 | CES39 = 92 | CES64 = 70 | CES89 = 68 |
| CES15 = 71 | CES40 = 86 | CES65 = 64 | CES90 = 72 |
| CES16 = 47 | CES41 = 81 | CES66 = 65 | CES91 = 95 |
| CES17 = 50 | CES42 = 79 | CES67 = 63 | CES92 = 62 |
| CES18 = 56 | CES43 = 71 | CES68 = 69 | CES93 = 78 |
| CES19 = 72 | CES44 = 98 | CES69 = 80 | CES94 = 51 |
| CES20 = 65 | CES45 = 80 | CES70 = 60 | CES95 = 70 |
| CES21 = 87 | CES46 = 75 | CES71 = 58 | CES96 = 76 |
| CES22 = 79 | CES47 = 71 | CES72 = 85 | CES97 = 82 |
| CES23 = 92 | CES48 = 61 | CES73 = 51 | CES98 = 72 |
| CES24 = 91 | CES49 = 74 | CES74 = 94 | CES99 = 60 |
| CES25 = 72 | CES50 = 83 | CES75 = 57 | |

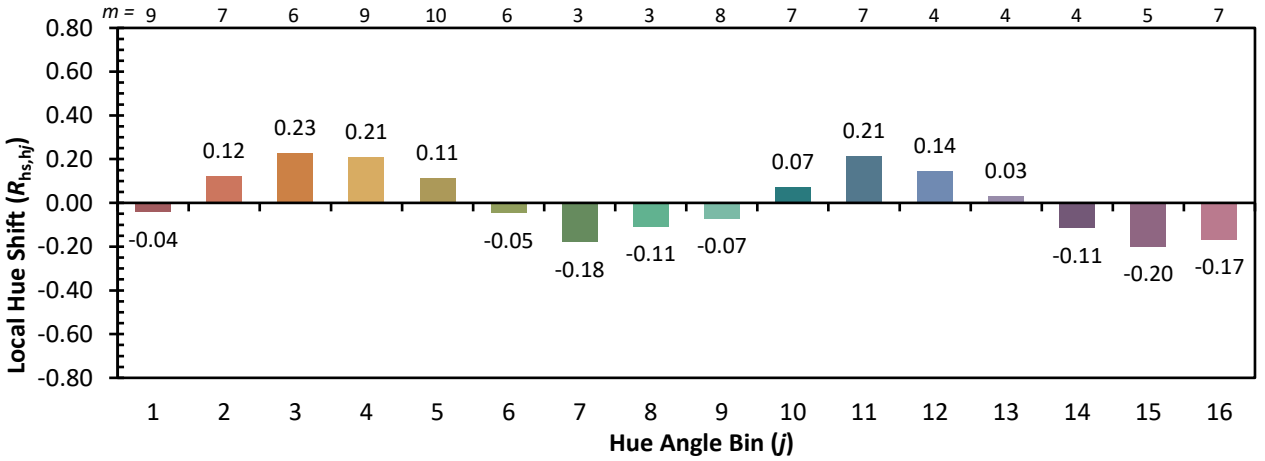


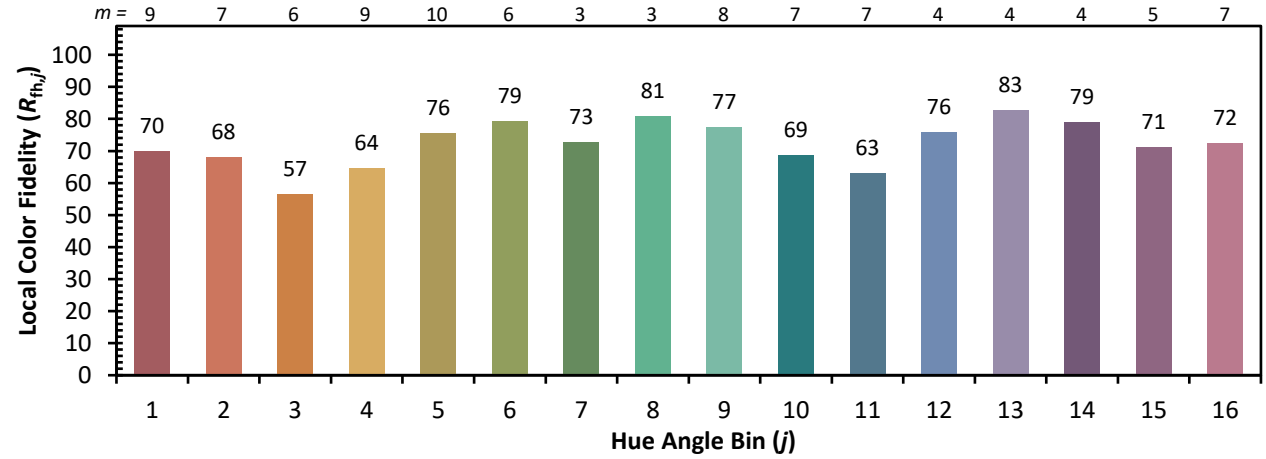
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## Color Rendition by Hue-Angle Bin



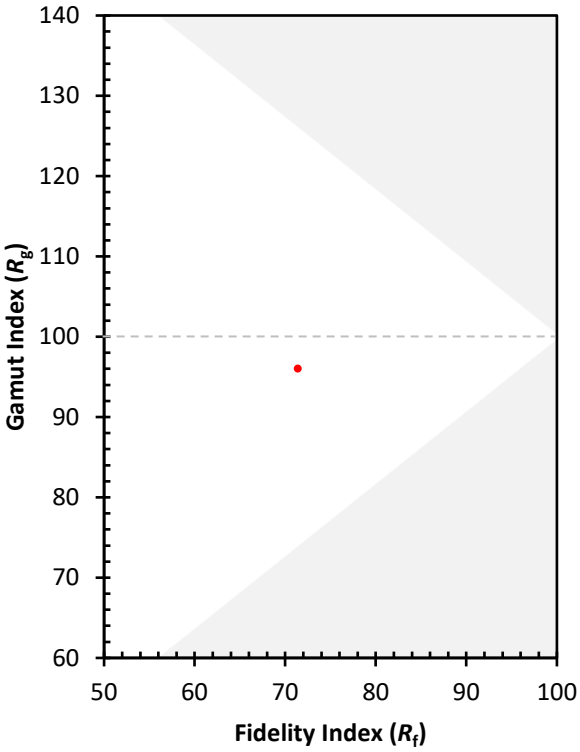



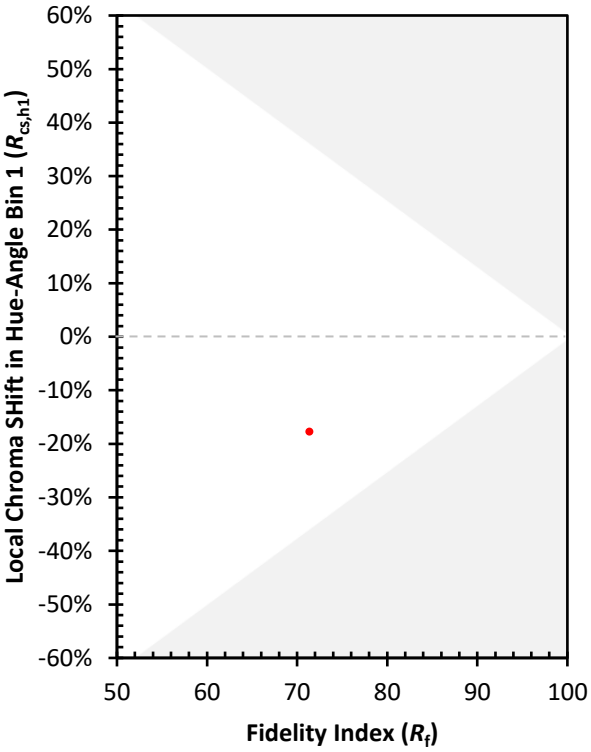



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## Measure Comparisons




(END OF REPORT)