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: P1366097

Luminaire Tested: **GSS-SB3C-727-U-T2R-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: | P1366097 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB3C-727-U-T2R-HSS |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 3SQUARE 150W 70CRI 2700K FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD |
| Light Source: | (78) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 16274.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 108.5 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B1 - U0 - G2 |

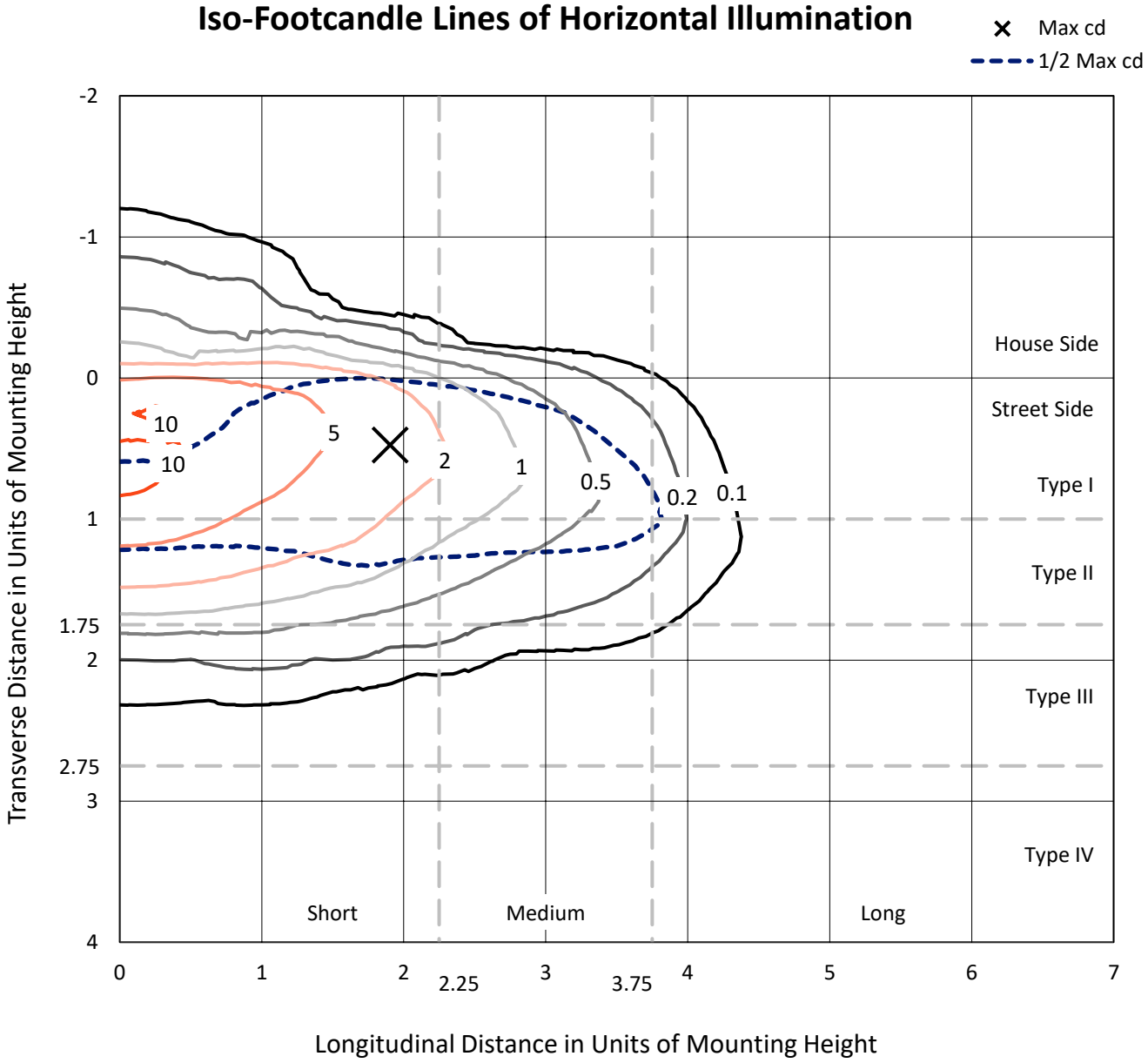
| | |
|---|---|
| Input Watts (W): | 150 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.3% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1366097
CATALOG NUMBER: GSS-SB3C-727-U-T2R-HSS

## Iso-Footcandle Lines of Horizontal Illumination



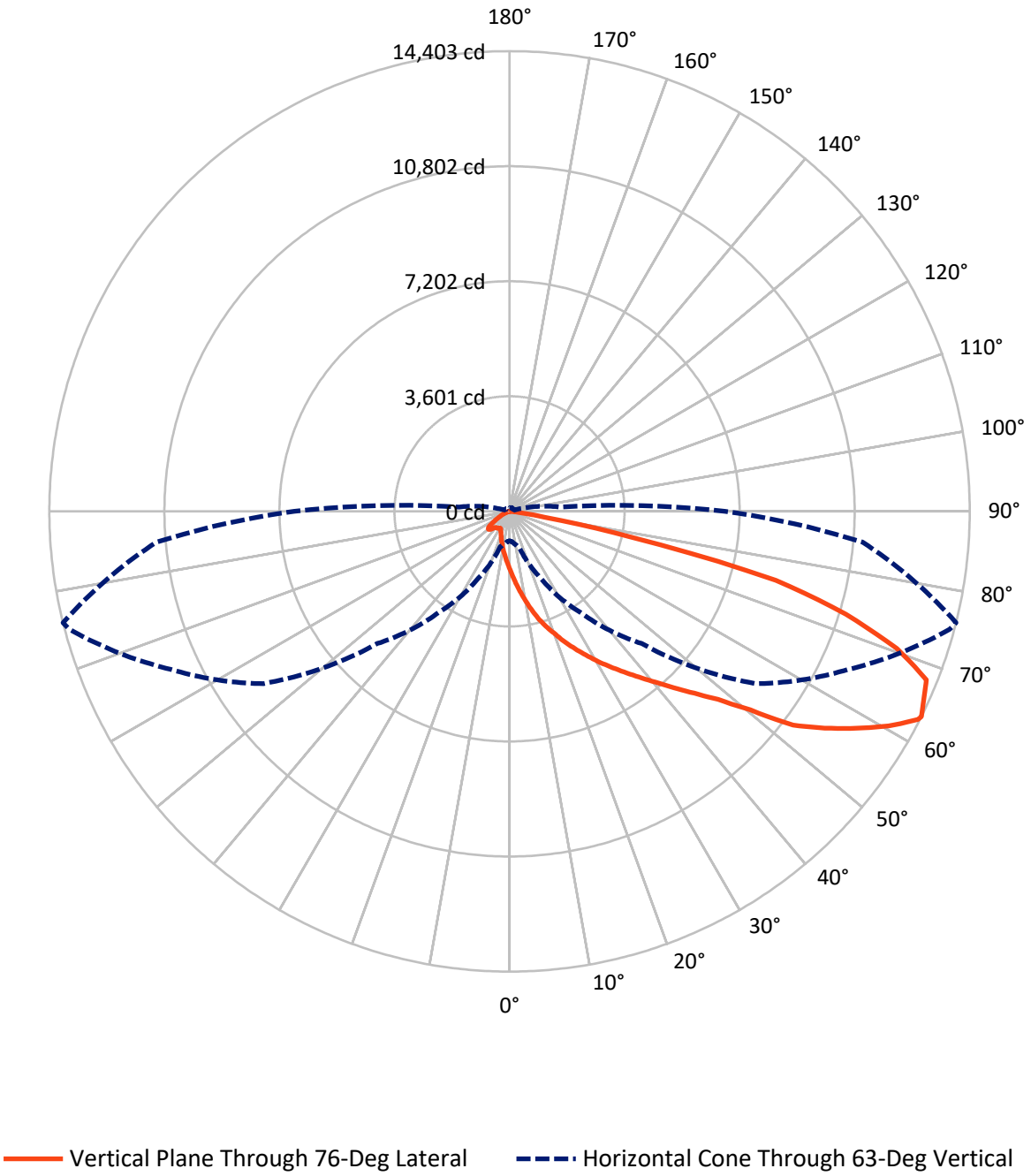

Based on 20 foot mounting height. Maximum calculated value = 11.5 fc
Type II - Short - N/A

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Scaled Data Report

REPORT NUMBER: P1366097
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## Luminous Intensity Polar Plot



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Scaled Data Report

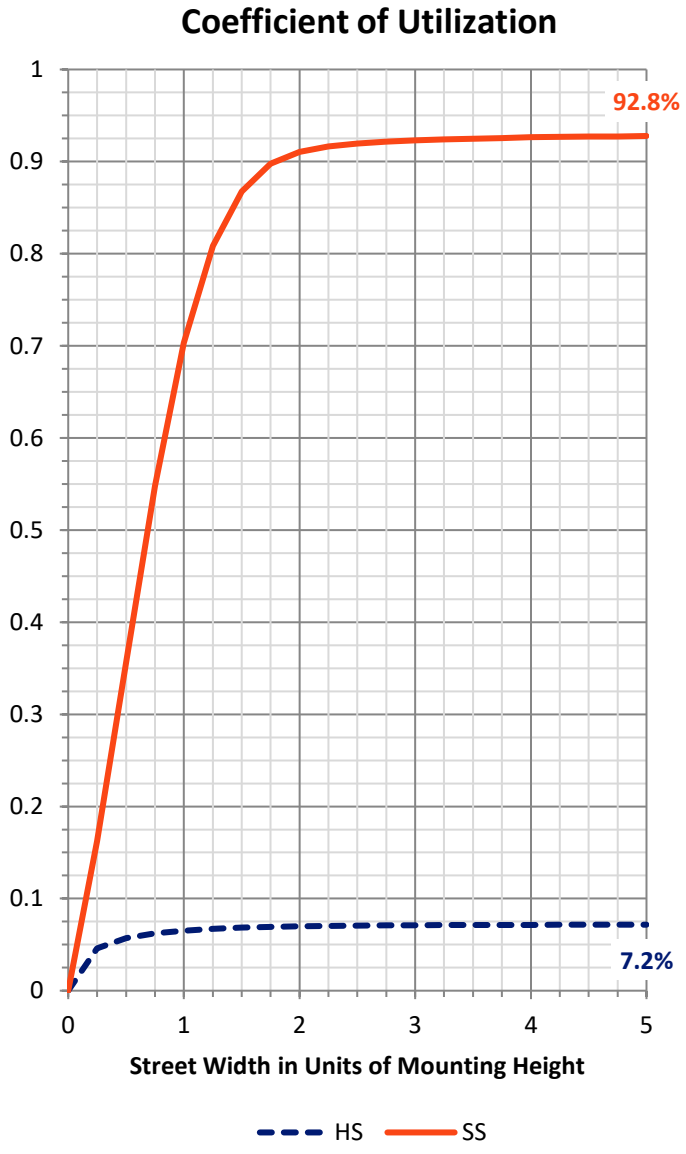
REPORT NUMBER: P1366097
CATALOG NUMBER: GSS-SB3C-727-U-T2R-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1172.8 | 0.0 | 1172.8 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| **Street Side** | Lumens | 15102.1 | 0.0 | 15102.1 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| **Total** | Lumens | 16274.9 | 0.0 | 16274.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 189.8 | 1.2 |
| 10°-20° | 679.1 | 4.2 |
| 20°-30° | 1324.1 | 8.1 |
| 30°-40° | 2325.7 | 14.3 |
| 40°-50° | 3402.8 | 20.9 |
| 50°-60° | 3948.6 | 24.3 |
| 60°-70° | 3112.0 | 19.1 |
| 70°-80° | 1236.9 | 7.6 |
| 80°-90° | 55.8 | 0.3 |
| 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° | 16274.9 | 100.0 |
| 0°-180° | 16274.9 | 100.0 |



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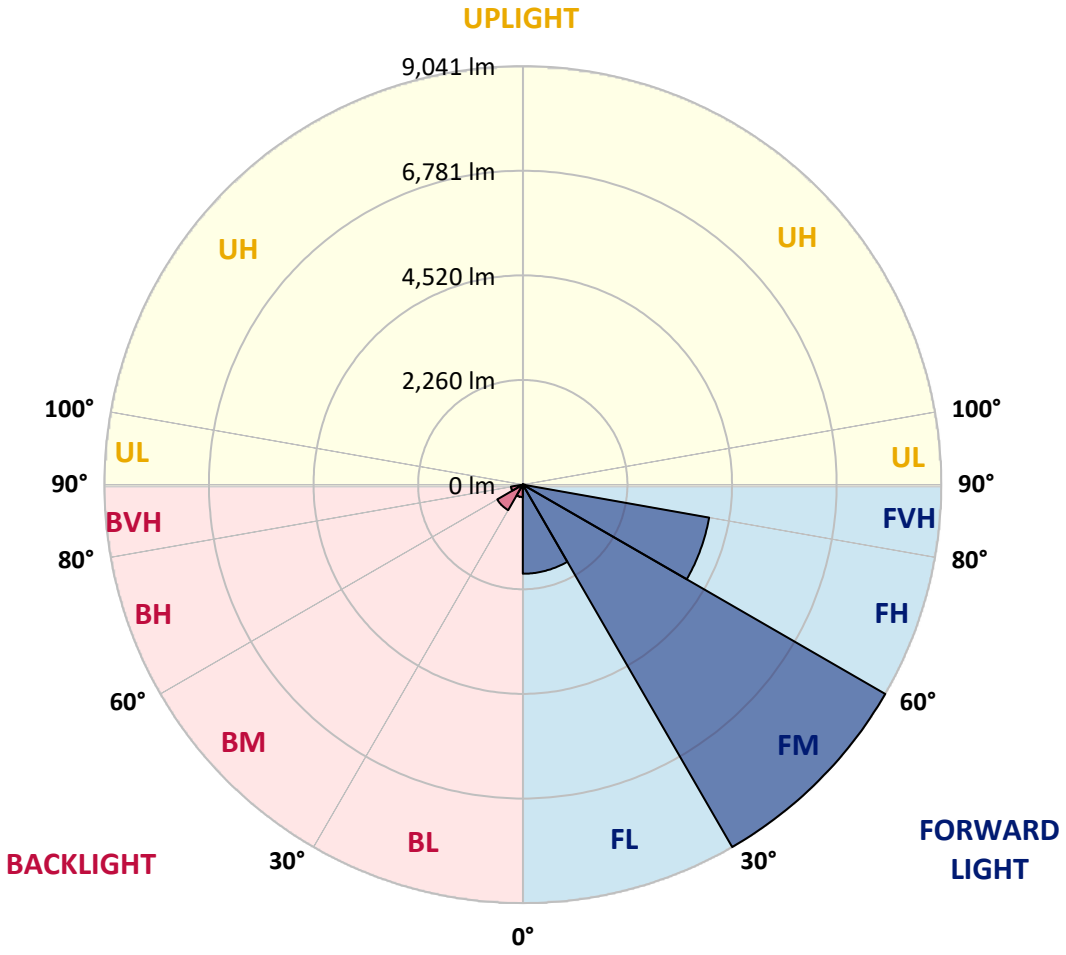
Scaled Data Report

REPORT NUMBER: P1366097
CATALOG NUMBER: GSS-SB3C-727-U-T2R-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1924.5 | 11.8 | | | |
| FM | (30°-60°) | 9040.9 | 55.6 | | | |
| FH | (60°-80°) | 4087.9 | 25.1 | | | G2/5000 |
| FVH | (80°-90°) | 48.8 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 268.6 | 1.7 | B1/500 | | |
| BM | (30°-60°) | 636.2 | 3.9 | B1/1000 | | |
| BH | (60°-80°) | 261.0 | 1.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 7.0 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G2**
Type II Short



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REPORT NUMBER: P1366097
CATALOG NUMBER: GSS-SB3C-727-U-T2R-HSS

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | *1819.4* | 1819.4 |
| 2.5° | 2608.1 | 2594.7 | 2594.7 | 2545.4 | 2473.7 | 2397.5 | 2290.0 | 2169.0 | 2048.0 | *2043.5* | 1909.0 |
| 5° | 3235.5 | 3217.6 | 3195.2 | 3136.9 | 3042.8 | 2917.3 | 2773.9 | 2563.3 | 2312.4 | *2303.4* | 2039.0 |
| 7.5° | 3643.3 | 3647.8 | 3616.4 | 3589.5 | 3526.8 | 3392.4 | 3208.6 | 2948.7 | 2621.6 | *2581.2* | 2209.3 |
| 10° | 4010.8 | 3988.4 | 3983.9 | 3979.4 | 3934.6 | 3804.6 | 3629.9 | 3325.1 | 2926.3 | *2886.0* | 2397.5 |
| 12.5° | 4239.3 | 4230.4 | 4261.7 | 4288.6 | 4279.7 | 4225.9 | 4024.2 | 3719.5 | 3249.0 | *3199.7* | 2585.7 |
| 15° | 4311.0 | 4320.0 | 4396.2 | 4481.3 | 4553.0 | 4570.9 | 4400.7 | 4087.0 | 3553.7 | *3522.3* | 2800.8 |
| 17.5° | 4257.3 | 4270.7 | 4378.2 | 4530.6 | 4705.4 | 4839.8 | 4763.6 | 4432.0 | 3880.8 | *3822.6* | 2993.5 |
| 20° | 4279.7 | 4293.1 | 4391.7 | 4535.1 | 4763.6 | 4992.2 | 5059.4 | 4799.5 | 4172.1 | *4109.4* | 3217.6 |
| 22.5° | 4656.1 | 4674.0 | 4696.4 | 4696.4 | 4853.3 | 5099.7 | 5252.1 | 5144.6 | 4503.7 | *4441.0* | 3464.1 |
| 25° | 5480.7 | 5467.2 | 5346.2 | 5149.0 | 5153.5 | 5261.1 | 5426.9 | 5431.4 | 4839.8 | *4763.6* | 3688.1 |
| 27.5° | 6300.7 | 6336.6 | 6179.7 | 5888.5 | 5659.9 | 5556.8 | 5628.5 | 5686.8 | 5162.5 | *5086.3* | 3939.1 |
| 30° | 7058.1 | 7035.7 | 6869.9 | 6569.6 | 6282.8 | 6045.3 | 5892.9 | 5924.3 | 5507.5 | *5449.3* | 4190.0 |
| 32.5° | 7654.1 | 7663.1 | 7474.8 | 7143.2 | 6829.5 | 6623.4 | 6309.7 | 6179.7 | 5843.6 | *5798.8* | 4458.9 |
| 35° | 8156.0 | 8129.1 | 7900.6 | 7577.9 | 7286.6 | 7152.2 | 6820.6 | 6457.6 | 6229.0 | *6170.8* | 4741.2 |
| 37.5° | 8635.5 | 8617.6 | 8335.3 | 7905.0 | 7640.7 | 7577.9 | 7389.7 | 6825.1 | 6627.9 | *6583.1* | 5099.7 |
| 40° | 8958.2 | 8940.2 | 8698.2 | 8277.0 | 7958.8 | 7905.0 | 7896.1 | 7282.1 | 7058.1 | *7026.7* | 5467.2 |
| 42.5° | 9034.3 | 9011.9 | 8841.6 | 8528.0 | 8245.6 | 8187.4 | 8380.1 | 7779.6 | 7595.8 | *7542.1* | 5897.4 |
| 45° | 8882.0 | 8904.4 | 8787.9 | 8599.7 | 8465.2 | 8398.0 | 8778.9 | 8321.8 | 8147.0 | *8115.7* | 6359.0 |
| 47.5° | 8442.8 | 8451.8 | 8442.8 | 8501.1 | 8528.0 | 8648.9 | 9146.4 | 8908.9 | 8787.9 | *8792.4* | 6950.5 |
| 50° | 7645.1 | 7631.7 | 7770.6 | 8093.3 | 8411.4 | 8828.2 | 9621.4 | 9675.2 | 9791.7 | *9764.8* | 7833.3 |
| 52.5° | 6085.6 | 6108.0 | 6708.5 | 7300.1 | 8075.3 | 8810.3 | 9979.9 | 10634.2 | 11109.2 | *11109.2* | 8787.9 |
| 55° | 4907.0 | 4925.0 | 5319.3 | 6318.7 | 7394.2 | 8617.6 | 10177.1 | 11127.1 | 11978.6 | *11974.1* | 9469.0 |
| 57.5° | 4010.8 | 4042.2 | 4355.8 | 5144.6 | 6376.9 | 8061.9 | 10257.7 | 11512.5 | 12726.9 | *12807.6* | 10168.1 |
| 60° | 2245.1 | 2419.9 | 3042.8 | 4078.0 | 5252.1 | 7197.0 | 10132.3 | 11839.6 | 13542.5 | *13636.7* | 10880.6 |
| 62.5° | 1017.3 | 1039.7 | 1322.0 | 2518.5 | 4091.4 | 6094.6 | 9549.7 | 11759.0 | 14277.5 | *14349.2* | 11113.7 |
| 63° | *923.2* | *959.0* | *1147.2* | *2303.4* | *3858.4* | *5848.1* | *9401.8* | *11700.7* | *14264.0* | *14403.0* | *11095.7* |
| 65° | 726.0 | 748.4 | 797.7 | 1487.8 | 2585.7 | 4799.5 | 8407.0 | 10741.7 | 14075.8 | *14241.6* | 10701.4 |
| 67.5° | 596.0 | 596.0 | 636.3 | 927.6 | 1429.5 | 3302.7 | 6233.5 | 9379.4 | 13878.6 | *14071.3* | 10199.5 |
| 70° | 506.4 | 506.4 | 533.3 | 654.3 | 851.5 | 1595.4 | 4485.8 | 8026.0 | 12704.5 | *12861.4* | 8877.5 |
| 72.5° | 367.5 | 385.4 | 425.7 | 510.9 | 587.1 | 900.7 | 2303.4 | 6161.8 | 10871.7 | *11010.6* | 7448.0 |
| 75° | 300.2 | 309.2 | 345.1 | 389.9 | 403.3 | 542.2 | 811.1 | 4588.9 | 8554.8 | *8608.6* | 5167.0 |
| 77.5° | 156.8 | 170.3 | 282.3 | 318.2 | 309.2 | 331.6 | 394.4 | 2500.6 | 4158.7 | *3876.3* | 1676.0 |
| 80° | 67.2 | 67.2 | 201.7 | 206.1 | 219.6 | 156.8 | 188.2 | 573.6 | 1192.0 | *1111.4* | 340.6 |
| 82.5° | 17.9 | 22.4 | 161.3 | 143.4 | 147.9 | 71.7 | 80.7 | 183.7 | 304.7 | *286.8* | 98.6 |
| 85° | 9.0 | 13.4 | 40.3 | 35.9 | 44.8 | 26.9 | 35.9 | 71.7 | 53.8 | *53.8* | 40.3 |
| 87.5° | 0.0 | 0.0 | 4.5 | 4.5 | 4.5 | 9.0 | 13.4 | 22.4 | 26.9 | *26.9* | 26.9 |
| 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: P1366097
CATALOG NUMBER: GSS-SB3C-727-U-T2R-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 | 1819.4 |
| 2.5° | 1837.3 | 1761.2 | 1622.2 | 1496.8 | 1371.3 | 1254.8 | 1160.7 | 1115.8 | 1053.1 | 1062.1 | 1053.1 |
| 5° | 1886.6 | 1734.3 | 1443.0 | 1183.1 | 990.4 | 838.0 | 739.4 | 685.6 | 640.8 | 631.9 | 640.8 |
| 7.5° | 1962.8 | 1725.3 | 1290.6 | 945.6 | 726.0 | 627.4 | 587.1 | 569.1 | 555.7 | 551.2 | 555.7 |
| 10° | 2061.4 | 1729.8 | 1151.7 | 766.3 | 613.9 | 569.1 | 542.2 | 524.3 | 510.9 | 510.9 | 506.4 |
| 12.5° | 2169.0 | 1734.3 | 1012.8 | 649.8 | 560.2 | 528.8 | 501.9 | 484.0 | 470.5 | 466.1 | 466.1 |
| 15° | 2272.0 | 1734.3 | 896.3 | 582.6 | 524.3 | 492.9 | 470.5 | 448.1 | 434.7 | 425.7 | 430.2 |
| 17.5° | 2375.1 | 1725.3 | 784.2 | 542.2 | 492.9 | 461.6 | 434.7 | 412.3 | 398.8 | 389.9 | 389.9 |
| 20° | 2491.6 | 1716.3 | 685.6 | 506.4 | 461.6 | 430.2 | 398.8 | 380.9 | 367.5 | 358.5 | 358.5 |
| 22.5° | 2612.6 | 1698.4 | 609.5 | 470.5 | 425.7 | 394.4 | 367.5 | 345.1 | 331.6 | 322.7 | 322.7 |
| 25° | 2729.1 | 1680.5 | 542.2 | 439.2 | 398.8 | 363.0 | 336.1 | 313.7 | 295.8 | 291.3 | 291.3 |
| 27.5° | 2854.6 | 1658.1 | 492.9 | 407.8 | 367.5 | 336.1 | 304.7 | 282.3 | 268.9 | 264.4 | 264.4 |
| 30° | 3007.0 | 1671.5 | 475.0 | 376.4 | 340.6 | 309.2 | 282.3 | 259.9 | 246.5 | 246.5 | 246.5 |
| 32.5° | 3150.4 | 1680.5 | 497.4 | 363.0 | 313.7 | 282.3 | 255.4 | 237.5 | 228.5 | 228.5 | 228.5 |
| 35° | 3311.7 | 1698.4 | 519.8 | 376.4 | 295.8 | 259.9 | 237.5 | 224.1 | 210.6 | 210.6 | 210.6 |
| 37.5° | 3499.9 | 1702.9 | 537.8 | 394.4 | 291.3 | 242.0 | 228.5 | 210.6 | 201.7 | 201.7 | 201.7 |
| 40° | 3822.6 | 1774.6 | 537.8 | 407.8 | 291.3 | 224.1 | 206.1 | 192.7 | 183.7 | 183.7 | 183.7 |
| 42.5° | 4221.4 | 1998.7 | 528.8 | 412.3 | 295.8 | 219.6 | 192.7 | 183.7 | 174.8 | 174.8 | 174.8 |
| 45° | 4642.6 | 2258.6 | 587.1 | 389.9 | 295.8 | 219.6 | 179.3 | 179.3 | 165.8 | 165.8 | 165.8 |
| 47.5° | 5135.6 | 2518.5 | 645.3 | 354.0 | 300.2 | 219.6 | 174.8 | 161.3 | 156.8 | 156.8 | 156.8 |
| 50° | 5776.4 | 2688.8 | 663.2 | 313.7 | 291.3 | 219.6 | 165.8 | 156.8 | 147.9 | 152.4 | 152.4 |
| 52.5° | 6273.8 | 2684.3 | 640.8 | 273.4 | 273.4 | 215.1 | 156.8 | 152.4 | 147.9 | 147.9 | 147.9 |
| 55° | 6686.1 | 2612.6 | 524.3 | 233.0 | 242.0 | 183.7 | 152.4 | 152.4 | 143.4 | 143.4 | 143.4 |
| 57.5° | 7008.8 | 2388.5 | 376.4 | 197.2 | 201.7 | 152.4 | 147.9 | 147.9 | 143.4 | 138.9 | 138.9 |
| 60° | 7156.7 | 2025.6 | 259.9 | 170.3 | 165.8 | 138.9 | 138.9 | 138.9 | 134.4 | 130.0 | 130.0 |
| 62.5° | 6892.3 | 1658.1 | 188.2 | 147.9 | 134.4 | 125.5 | 130.0 | 130.0 | 121.0 | 112.0 | 107.6 |
| 63° | *6744.4* | *1581.9* | *179.3* | *143.4* | *130.0* | *125.5* | *130.0* | *130.0* | *121.0* | *107.6* | *103.1* |
| 65° | 6255.9 | 1277.2 | 156.8 | 130.0 | 116.5 | 112.0 | 121.0 | 116.5 | 103.1 | 80.7 | 80.7 |
| 67.5° | 5597.2 | 847.0 | 134.4 | 116.5 | 103.1 | 98.6 | 103.1 | 103.1 | 89.6 | 71.7 | 67.2 |
| 70° | 4772.6 | 533.3 | 112.0 | 94.1 | 85.1 | 76.2 | 80.7 | 89.6 | 76.2 | 58.3 | 53.8 |
| 72.5° | 3916.7 | 371.9 | 89.6 | 76.2 | 67.2 | 53.8 | 67.2 | 76.2 | 62.7 | 44.8 | 44.8 |
| 75° | 2639.5 | 237.5 | 71.7 | 58.3 | 49.3 | 44.8 | 53.8 | 58.3 | 49.3 | 31.4 | 31.4 |
| 77.5° | 833.5 | 121.0 | 58.3 | 44.8 | 35.9 | 31.4 | 35.9 | 40.3 | 26.9 | 17.9 | 17.9 |
| 80° | 183.7 | 71.7 | 40.3 | 31.4 | 26.9 | 22.4 | 22.4 | 13.4 | 9.0 | 9.0 | 4.5 |
| 82.5° | 67.2 | 44.8 | 31.4 | 22.4 | 17.9 | 13.4 | 9.0 | 9.0 | 4.5 | 0.0 | 0.0 |
| 85° | 35.9 | 26.9 | 17.9 | 13.4 | 13.4 | 9.0 | 9.0 | 4.5 | 0.0 | 0.0 | 0.0 |
| 87.5° | 22.4 | 17.9 | 13.4 | 13.4 | 9.0 | 9.0 | 4.5 | 4.5 | 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: SP1-2407-184-3

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-727-U-5WQ

Data in this report applies to families of products including GSS-SB1A-727-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

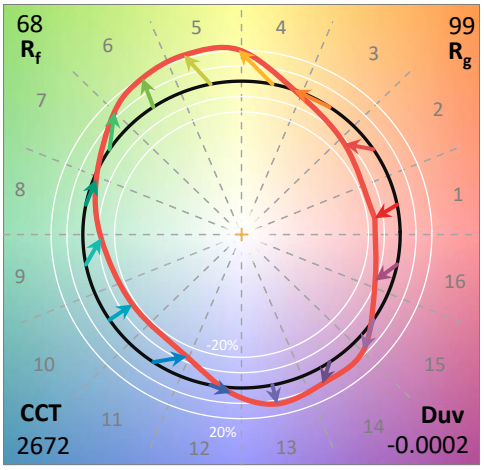
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-3 |
| 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-727-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 2700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2672 |
| CIE u': | 0.2638 |
| CIE v': | 0.5276 |
| Duv: | -0.0002 |
| CIE x: | 0.4619 |
| CIE y: | 0.4106 |
| CIE z: | 0.1275 |
| Peak Wavelength (nm): | 601 |
| Dominant Wavelength (nm): | 584 |
| Purity: | 61.88407 |
| Rf: | 67.9 |
| Rg: | 98.6 |

| | |
|---|---|
| CRI (Ra): | 71.1 |
| R1: | 68.3 |
| R2: | 79.8 |
| R3: | 91.2 |
| R4: | 69.4 |
| R5: | 66.5 |
| R6: | 72.6 |
| R7: | 77.0 |
| R8: | 44.1 |
| R9: | -27.8 |
| R10: | 54.4 |
| R11: | 65.8 |
| R12: | 45.6 |
| R13: | 69.8 |
| R14: | 94.5 |
| R15: | 60.1 |




## Test Conditions

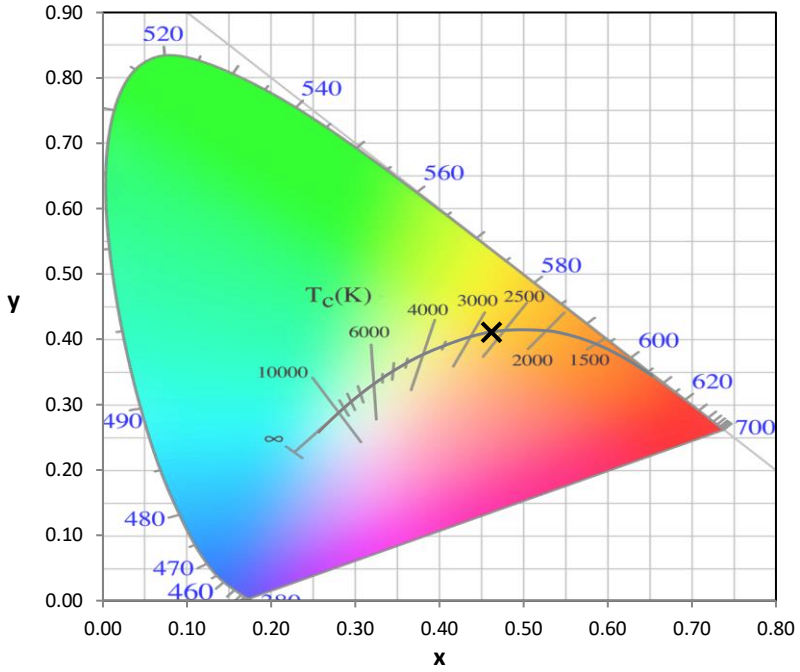
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-3

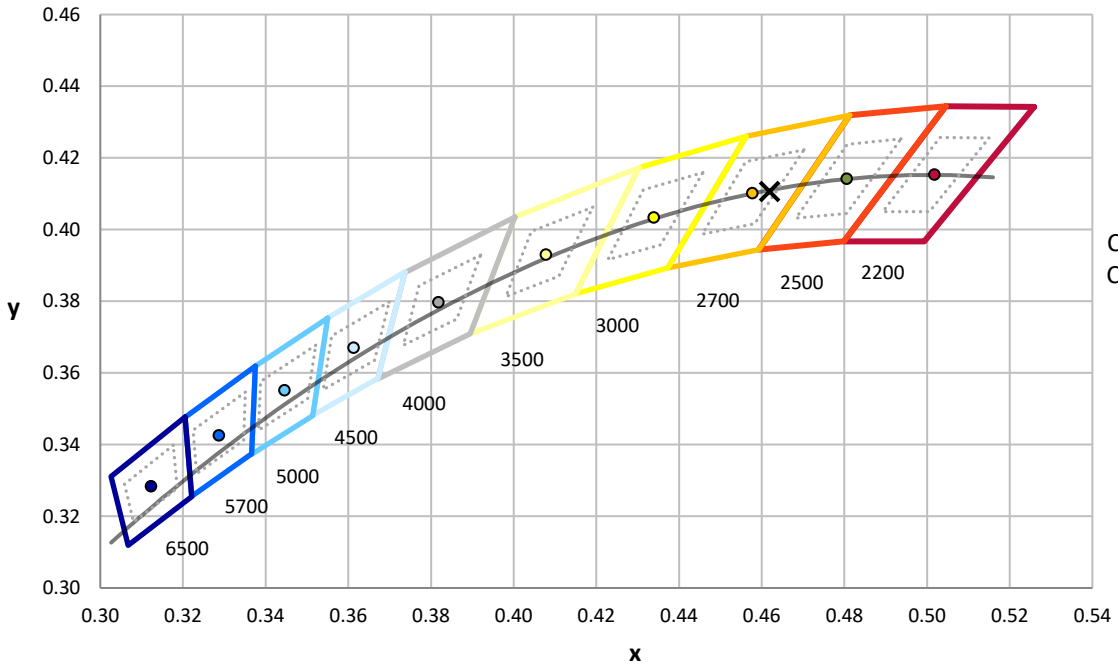
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

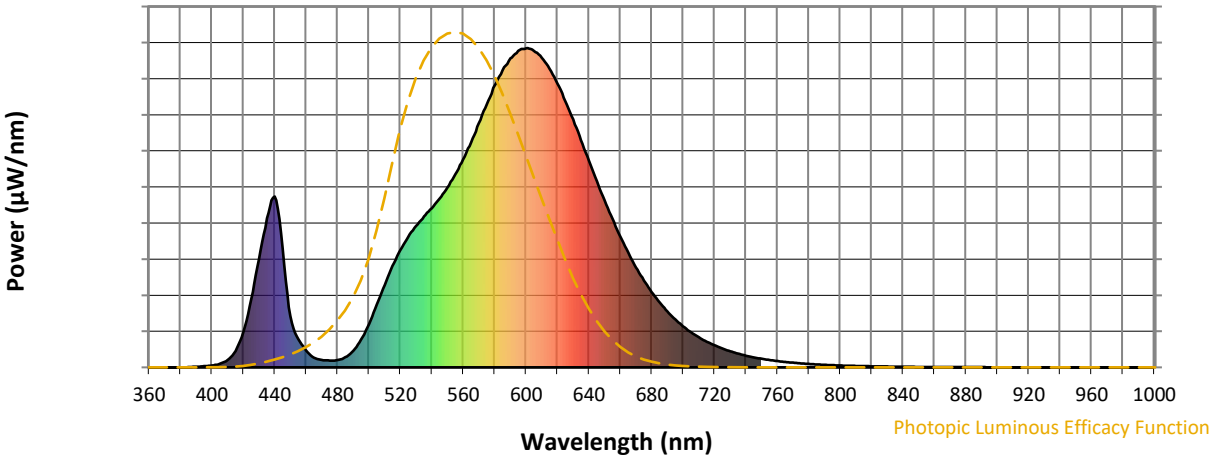



CCT = 2672K
CIE x = 0.4619
CIE y = 0.4106
Duv = -0.0002

Point lies inside the ANSI 2700K 4-step quadrangle

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## Photopic Flux vs. Wavelength

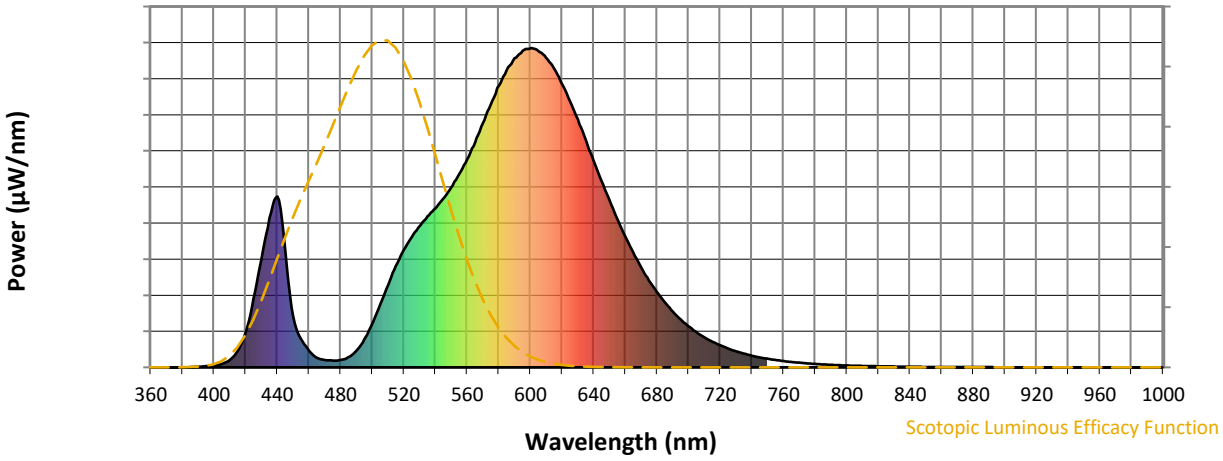



## Photopic Lumens: NR

| 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 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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## Scotopic Flux vs. Wavelength

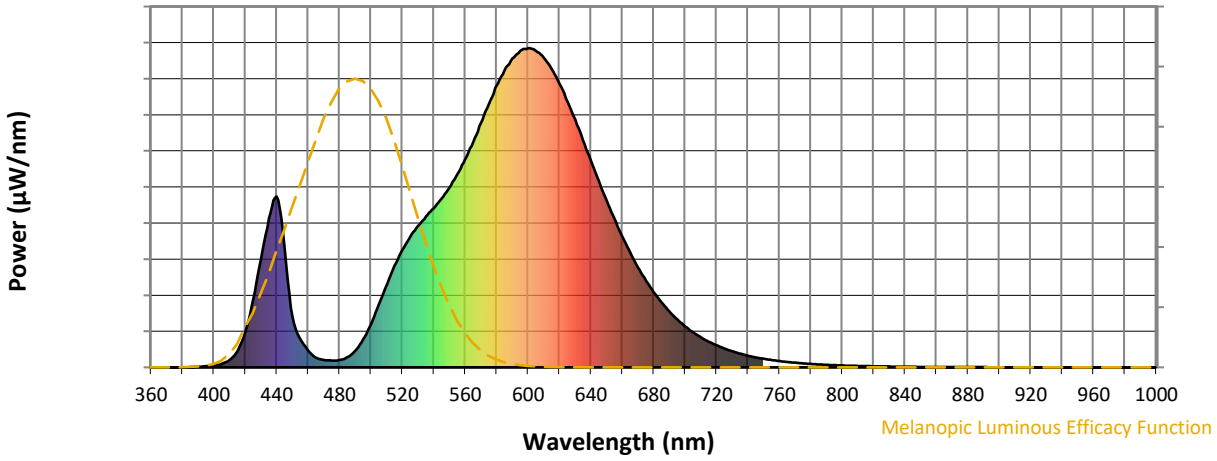



**Scotopic Lumens: NR** **S/P: 1.02**

| 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 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

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## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 1.71**

| 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 | 52 | NR | 620 | 888 | NR | 750 | 27 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 87 | NR | 625 | 834 | NR | 755 | 23 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 135 | NR | 630 | 776 | NR | 760 | 20 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 196 | NR | 635 | 712 | NR | 765 | 17 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 258 | NR | 640 | 648 | NR | 770 | 15 | NR | 900 | 0 | NR |
| 385 | 1 | NR | 515 | 317 | NR | 645 | 583 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 2 | NR | 520 | 368 | NR | 650 | 523 | NR | 780 | 11 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 408 | NR | 655 | 465 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 443 | NR | 660 | 410 | NR | 790 | 8 | NR | 920 | 0 | NR |
| 405 | 11 | NR | 535 | 473 | NR | 665 | 360 | NR | 795 | 7 | NR | 925 | 0 | NR |
| 410 | 23 | NR | 540 | 498 | NR | 670 | 313 | NR | 800 | 6 | NR | 930 | 0 | NR |
| 415 | 51 | NR | 545 | 530 | NR | 675 | 272 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 111 | NR | 550 | 563 | NR | 680 | 236 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 214 | NR | 555 | 605 | NR | 685 | 203 | NR | 815 | 4 | NR | 945 | 0 | NR |
| 430 | 339 | NR | 560 | 651 | NR | 690 | 175 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 467 | NR | 565 | 705 | NR | 695 | 150 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 535 | NR | 570 | 765 | NR | 700 | 128 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 372 | NR | 575 | 824 | NR | 705 | 110 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 160 | NR | 580 | 882 | NR | 710 | 94 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 89 | NR | 585 | 930 | NR | 715 | 80 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 53 | NR | 590 | 968 | NR | 720 | 69 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 31 | NR | 595 | 991 | NR | 725 | 59 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 23 | NR | 600 | 999 | NR | 730 | 50 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 21 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 23 | NR | 610 | 969 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 32 | NR | 615 | 935 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

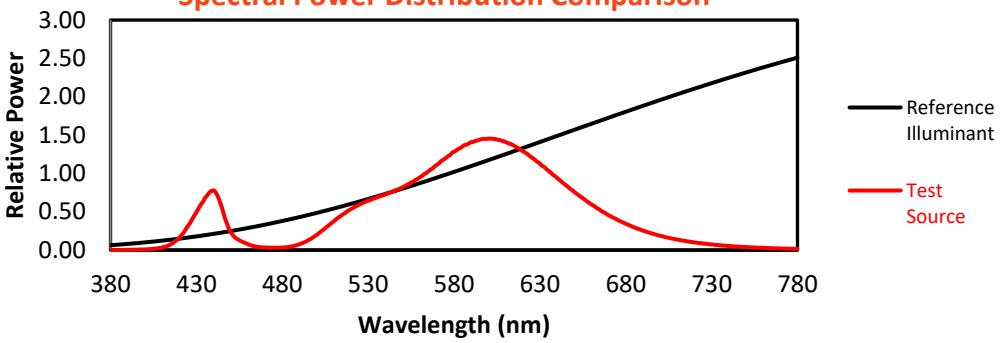
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# TM-30-18

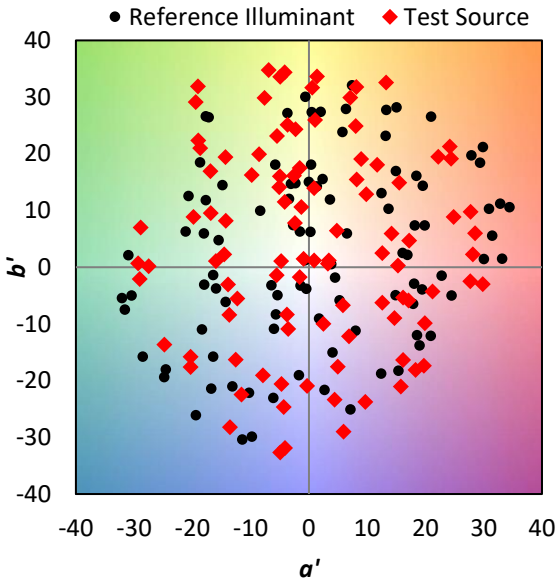
## Summary

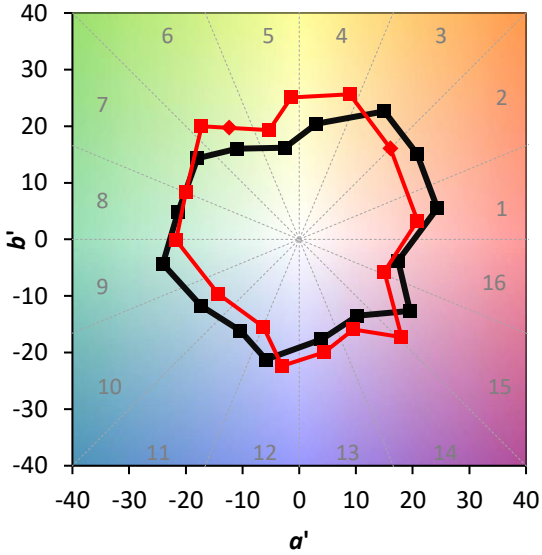
$R_f$ = 67.9
$R_g$ = 98.6
CIE $R_a$ = 71.1
$R_9$ = -27.8

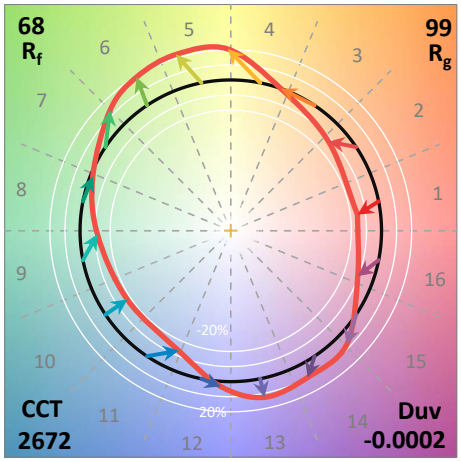
## Spectral Power Distribution Comparison

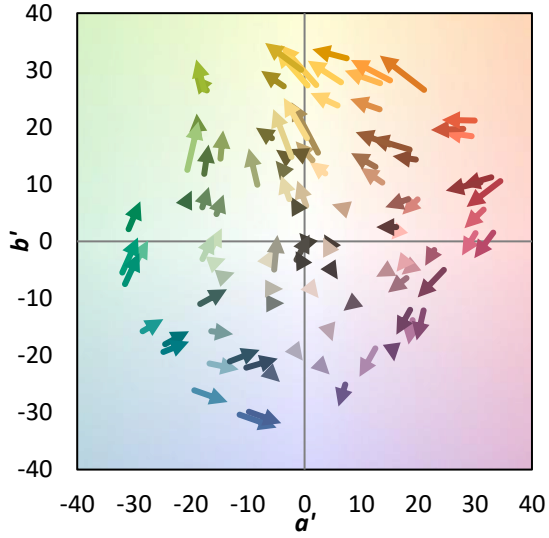



## Color Vector Graphics



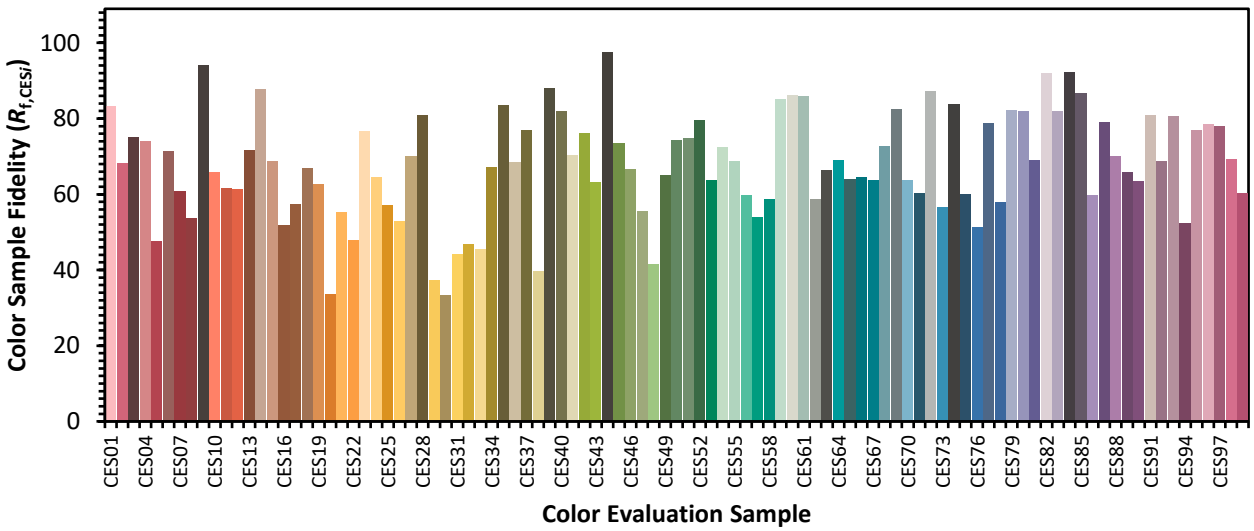



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**Individual Sample Fidelity Index ($R_{f,i}$)**

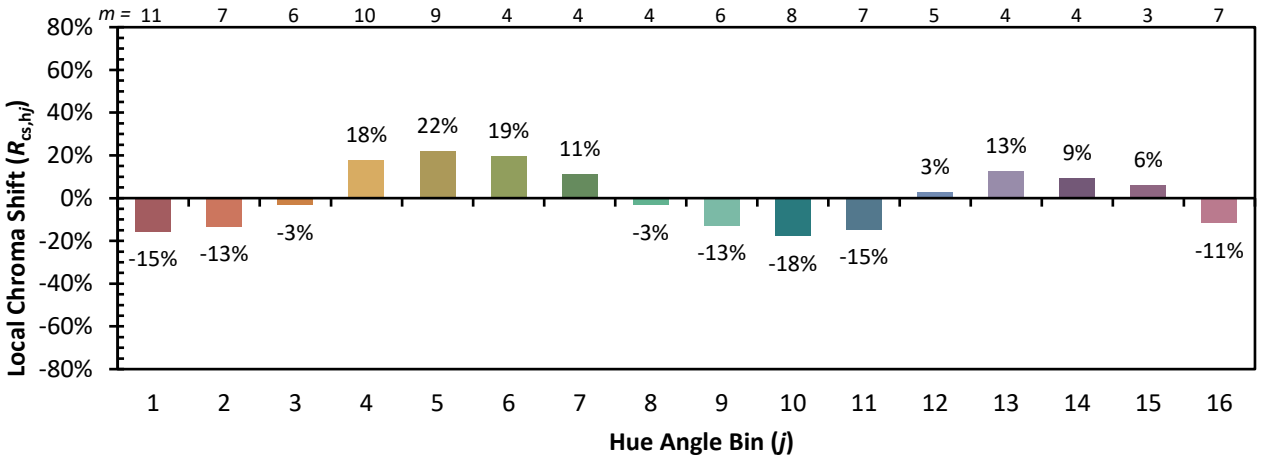
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 53 | CES51 = 75 | CES76 = 51 |
| CES02 = 63 | CES27 = 70 | CES52 = 80 | CES77 = 79 |
| CES03 = 31 | CES28 = 81 | CES53 = 64 | CES78 = 58 |
| CES04 = 71 | CES29 = 37 | CES54 = 73 | CES79 = 82 |
| CES05 = 50 | CES30 = 33 | CES55 = 69 | CES80 = 82 |
| CES06 = 52 | CES31 = 44 | CES56 = 60 | CES81 = 69 |
| CES07 = 42 | CES32 = 47 | CES57 = 54 | CES82 = 92 |
| CES08 = 41 | CES33 = 45 | CES58 = 59 | CES83 = 82 |
| CES09 = 29 | CES34 = 67 | CES59 = 85 | CES84 = 92 |
| CES10 = 77 | CES35 = 84 | CES60 = 86 | CES85 = 87 |
| CES11 = 60 | CES36 = 68 | CES61 = 86 | CES86 = 60 |
| CES12 = 66 | CES37 = 77 | CES62 = 59 | CES87 = 79 |
| CES13 = 44 | CES38 = 40 | CES63 = 66 | CES88 = 70 |
| CES14 = 74 | CES39 = 88 | CES64 = 69 | CES89 = 66 |
| CES15 = 72 | CES40 = 82 | CES65 = 64 | CES90 = 64 |
| CES16 = 48 | CES41 = 70 | CES66 = 65 | CES91 = 81 |
| CES17 = 51 | CES42 = 76 | CES67 = 64 | CES92 = 69 |
| CES18 = 57 | CES43 = 63 | CES68 = 73 | CES93 = 81 |
| CES19 = 73 | CES44 = 97 | CES69 = 83 | CES94 = 53 |
| CES20 = 67 | CES45 = 74 | CES70 = 64 | CES95 = 77 |
| CES21 = 88 | CES46 = 67 | CES71 = 60 | CES96 = 79 |
| CES22 = 80 | CES47 = 55 | CES72 = 87 | CES97 = 78 |
| CES23 = 92 | CES48 = 42 | CES73 = 57 | CES98 = 69 |
| CES24 = 92 | CES49 = 65 | CES74 = 84 | CES99 = 60 |
| CES25 = 73 | CES50 = 74 | CES75 = 60 | |

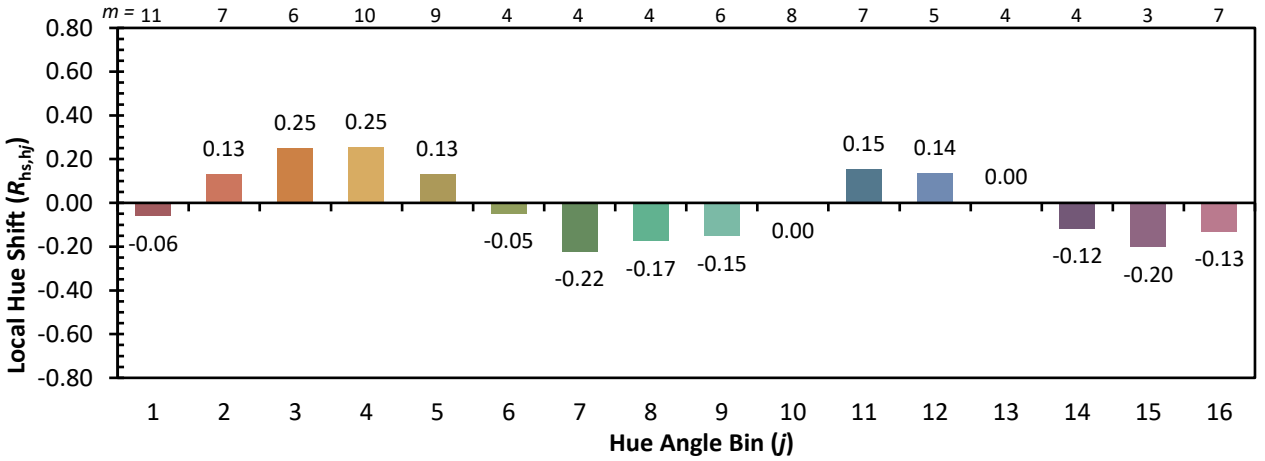


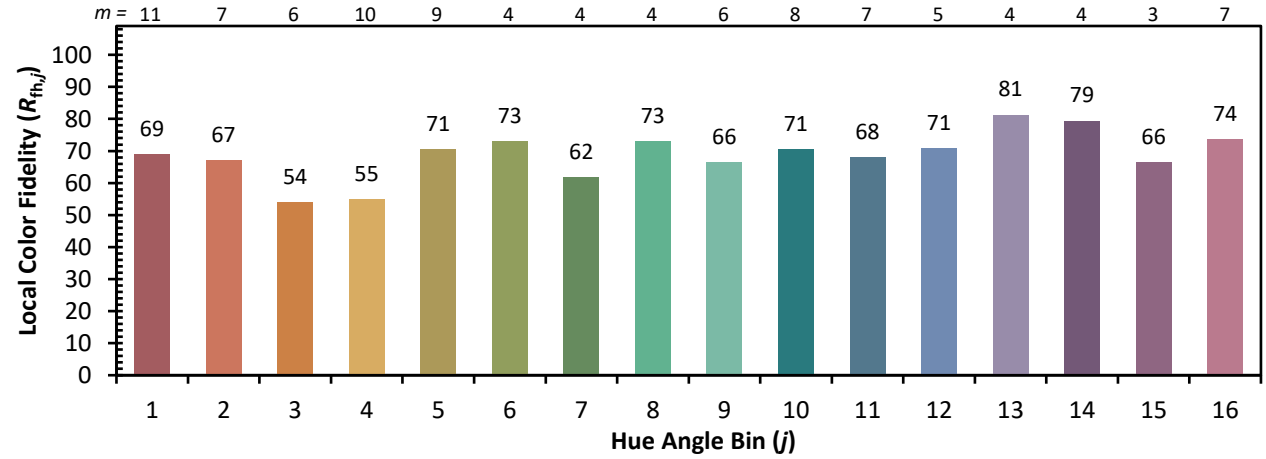
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## Color Rendition by Hue-Angle Bin



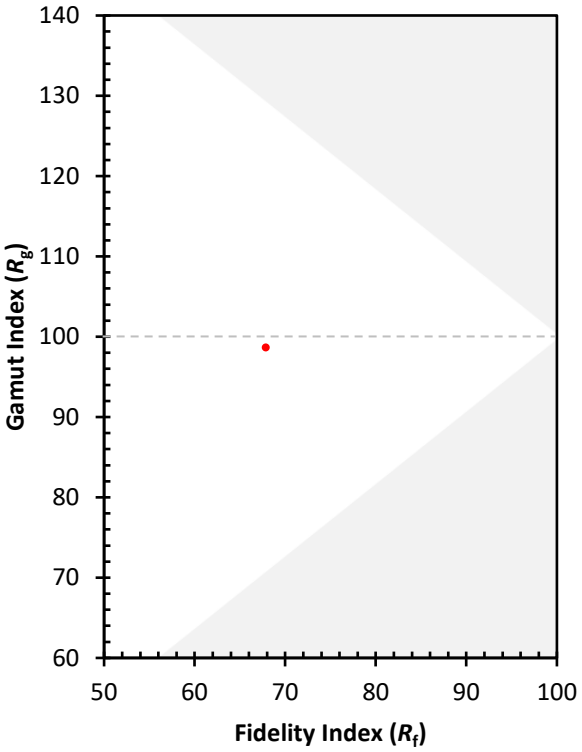



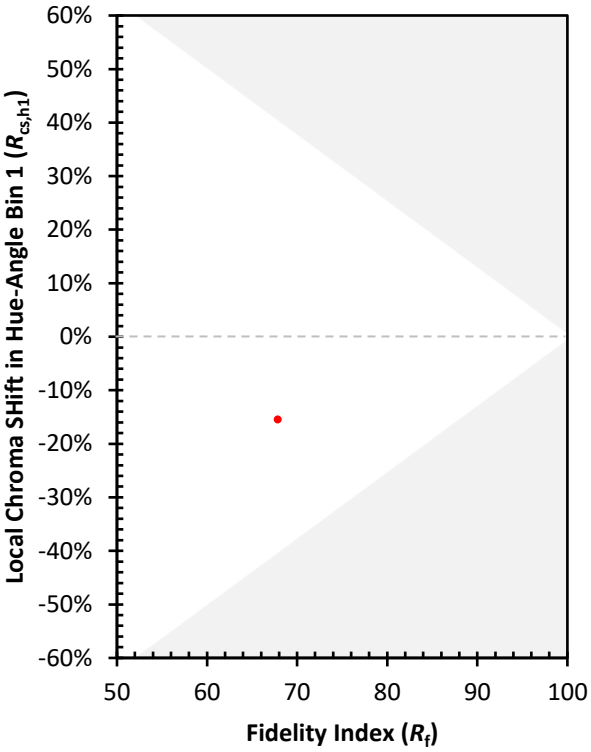



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## Measure Comparisons




(END OF REPORT)