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: P1360665

Luminaire Tested: **GSS-SB1C-740-U-T1**

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: | P1360665 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB1C-740-U-T1 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 1SQUARE 52W 70CRI 4000K FIXTURE w/ TYPE I DISTRIBUTION OPTIC |
| Light Source: | (26) 4000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 7072.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 136.0 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type I - Short |
| BUG Rating: | B3 - U0 - G3 |

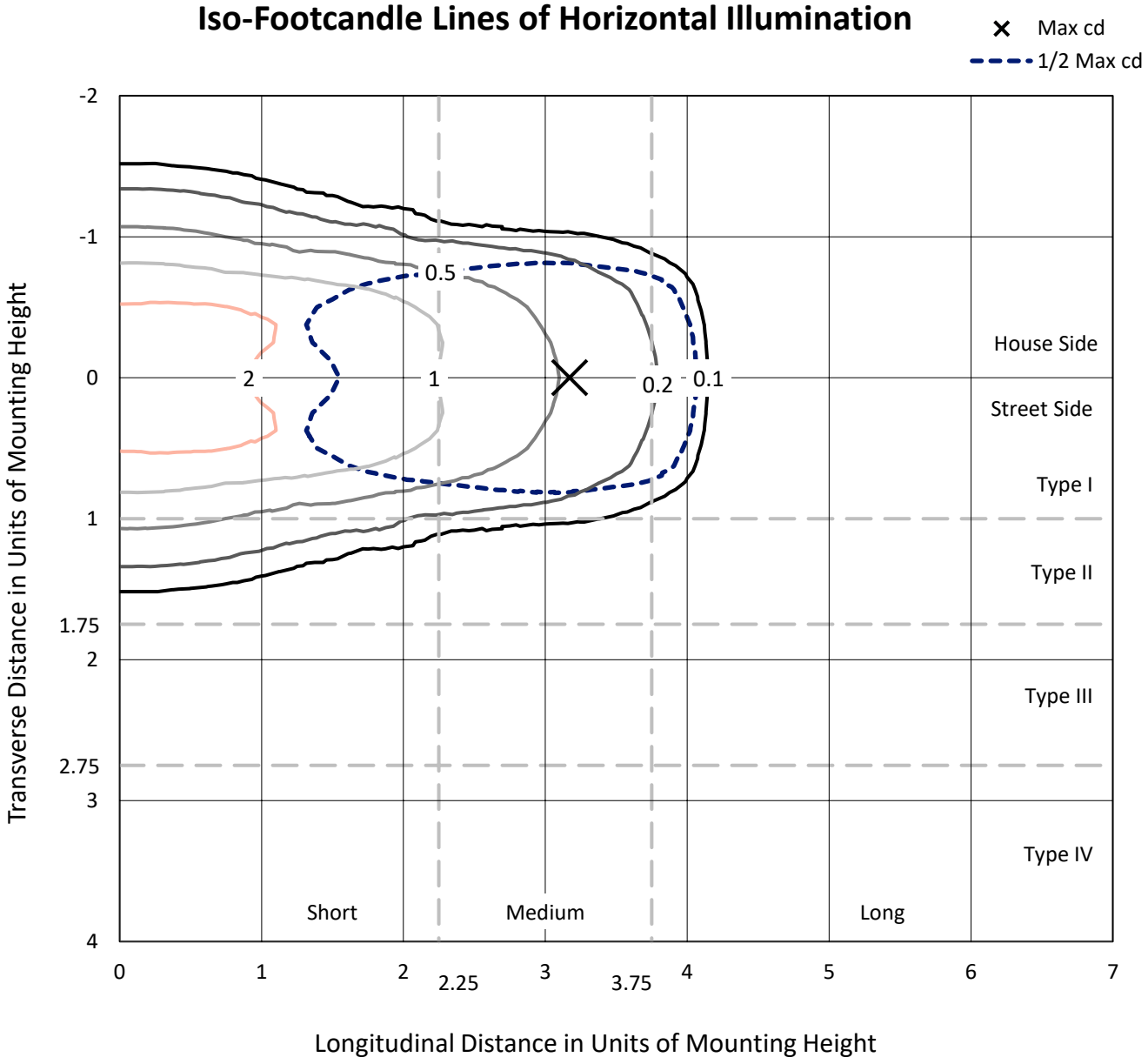
| | |
|---|---|
| Input Watts (W): | 52 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 10.1% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

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Scaled Data Report

REPORT NUMBER: P1360665
CATALOG NUMBER: GSS-SB1C-740-U-T1

## Iso-Footcandle Lines of Horizontal Illumination



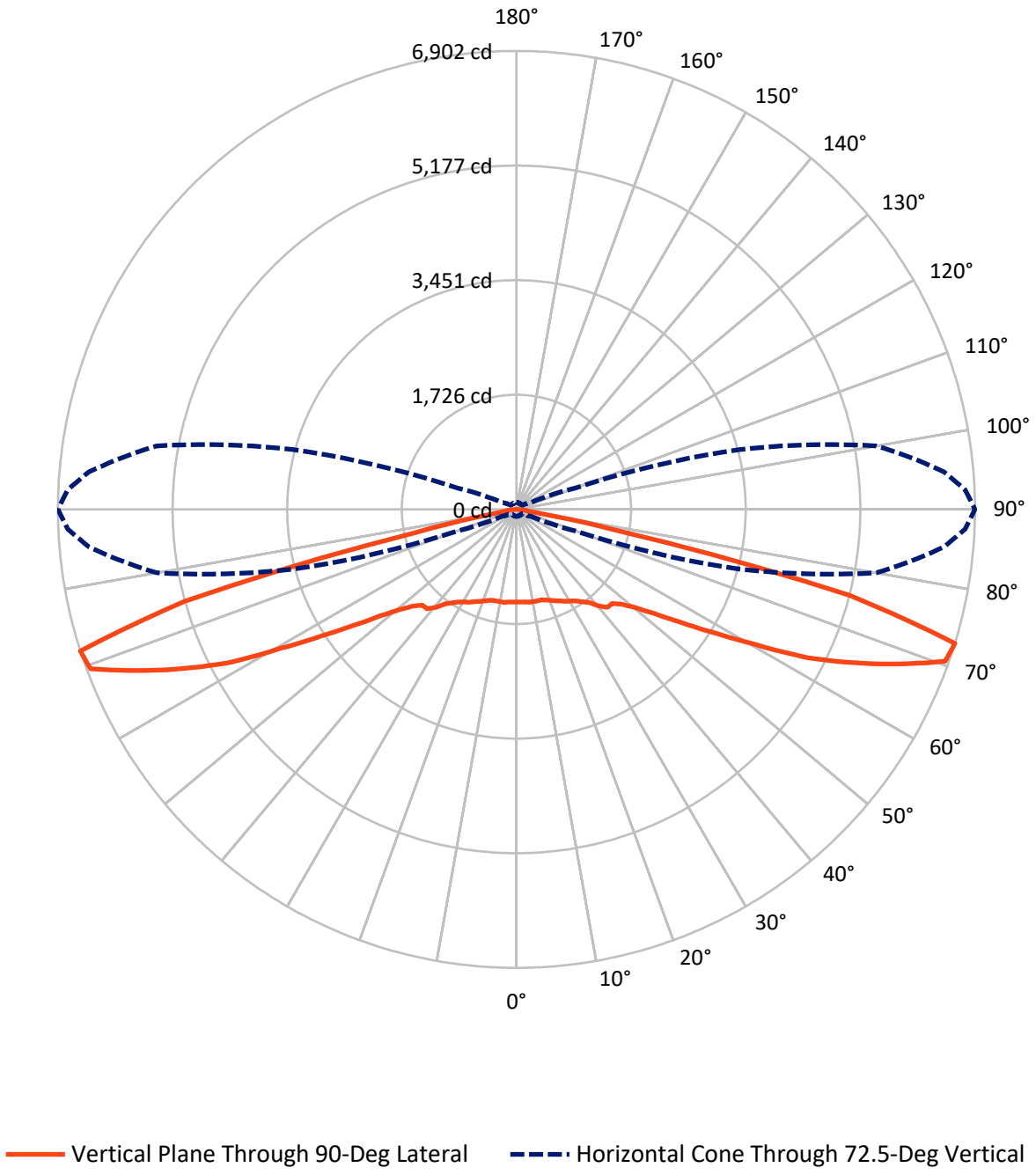

Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
Type I - Short - N/A

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## Luminous Intensity Polar Plot



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Scaled Data Report

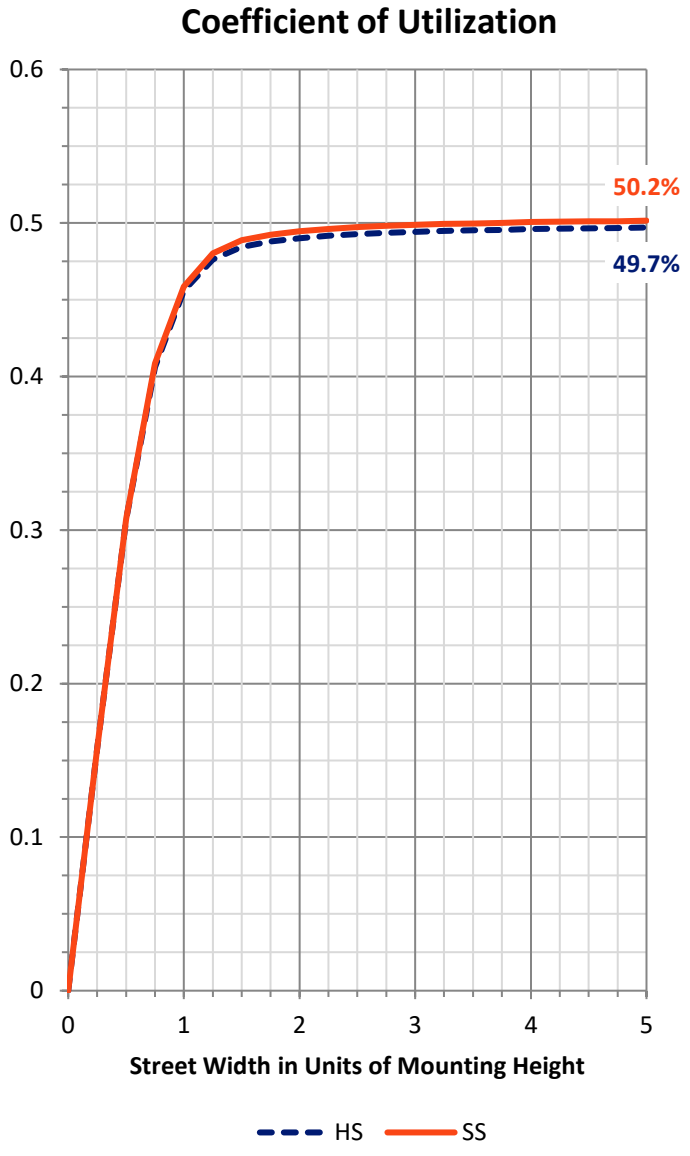
REPORT NUMBER: P1360665
CATALOG NUMBER: GSS-SB1C-740-U-T1

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3536.3 | 0.0 | 3536.3 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Street Side** | Lumens | 3536.3 | 0.0 | 3536.3 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Total** | Lumens | 7072.6 | 0.0 | 7072.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 134.9 | 1.9 |
| 10°-20° | 411.1 | 5.8 |
| 20°-30° | 687.1 | 9.7 |
| 30°-40° | 947.6 | 13.4 |
| 40°-50° | 1161.6 | 16.4 |
| 50°-60° | 1361.2 | 19.2 |
| 60°-70° | 1511.6 | 21.4 |
| 70°-80° | 822.0 | 11.6 |
| 80°-90° | 35.6 | 0.5 |
| 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° | 7072.6 | 100.0 |
| 0°-180° | 7072.6 | 100.0 |



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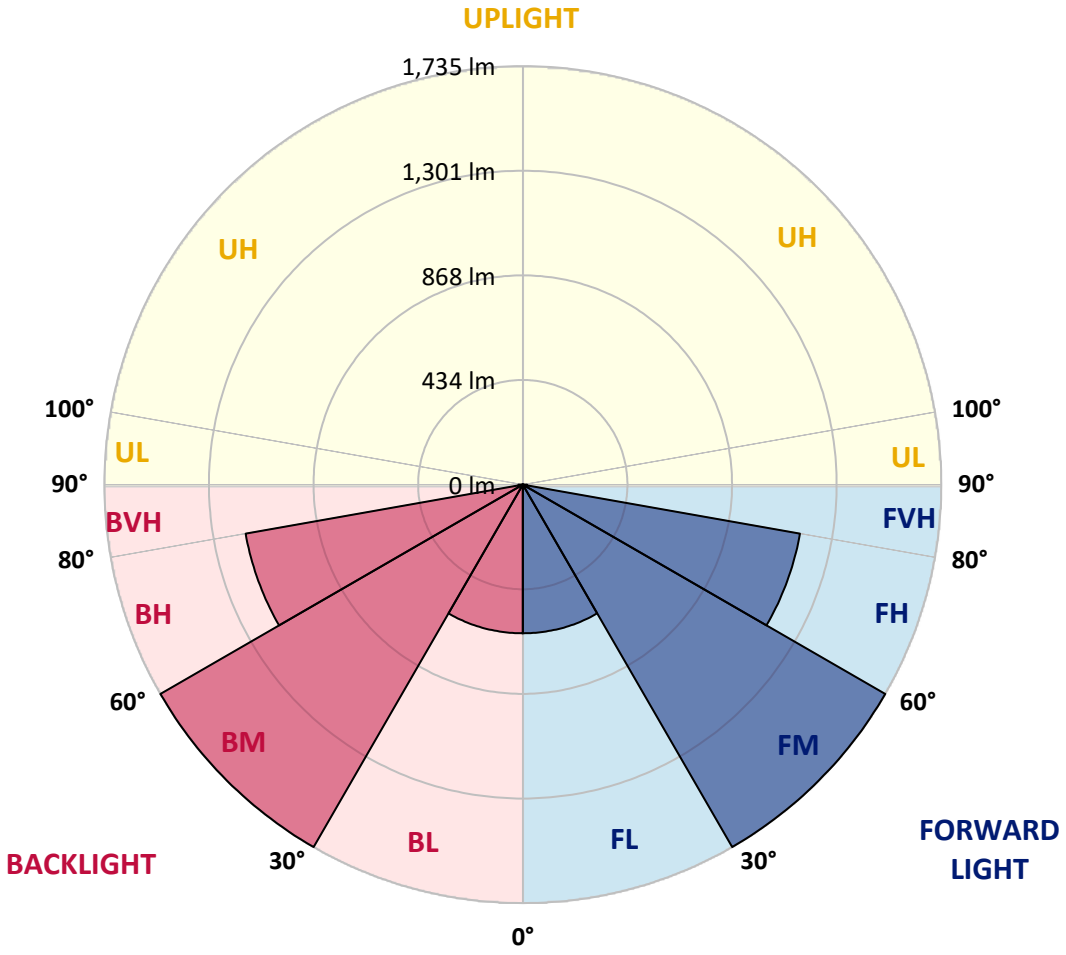
Scaled Data Report

REPORT NUMBER: P1360665
CATALOG NUMBER: GSS-SB1C-740-U-T1

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 616.5 | 8.7 | | | |
| FM | (30°-60°) | 1735.2 | 24.5 | | | |
| FH | (60°-80°) | 1166.8 | 16.5 | | | G1/1800 |
| FVH | (80°-90°) | 17.8 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 616.5 | 8.7 | B2/1000 | | |
| BM | (30°-60°) | 1735.2 | 24.5 | B2/2500 | | |
| BH | (60°-80°) | 1166.8 | 16.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 17.8 | 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 I Short



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REPORT NUMBER: P1360665
CATALOG NUMBER: GSS-SB1C-740-U-T1

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 80° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1393.5 | 1393.5 | 1393.5 | 1393.5 | 1393.5 | 1393.5 | 1393.5 | 1393.5 | 1393.5 | 1393.5 | 1393.5 |
| 2.5° | 1395.0 | 1395.0 | 1390.4 | 1396.6 | 1393.5 | 1395.0 | 1396.6 | 1395.0 | 1393.5 | 1395.0 | 1396.6 |
| 5° | 1402.8 | 1399.7 | 1402.8 | 1405.9 | 1401.2 | 1404.3 | 1402.8 | 1395.0 | 1399.7 | 1399.7 | 1399.7 |
| 7.5° | 1416.7 | 1419.8 | 1416.7 | 1424.5 | 1419.8 | 1429.1 | 1419.8 | 1413.6 | 1412.1 | 1410.5 | 1410.5 |
| 10° | 1422.9 | 1422.9 | 1421.4 | 1435.3 | 1438.4 | 1447.7 | 1441.5 | 1432.2 | 1427.6 | 1421.4 | 1415.2 |
| 12.5° | 1405.9 | 1409.0 | 1416.7 | 1443.0 | 1455.4 | 1474.0 | 1469.4 | 1450.8 | 1436.8 | 1432.2 | 1422.9 |
| 15° | 1387.3 | 1390.4 | 1405.9 | 1438.4 | 1467.8 | 1495.7 | 1494.1 | 1470.9 | 1453.9 | 1441.5 | 1427.6 |
| 17.5° | 1357.9 | 1362.5 | 1384.2 | 1433.7 | 1486.4 | 1517.4 | 1526.6 | 1503.4 | 1484.8 | 1464.7 | 1446.1 |
| 20° | 1308.3 | 1308.3 | 1347.0 | 1410.5 | 1483.3 | 1553.0 | 1577.7 | 1559.2 | 1537.5 | 1505.0 | 1480.2 |
| 22.5° | 1252.6 | 1255.7 | 1294.4 | 1378.0 | 1481.7 | 1583.9 | 1631.9 | 1611.8 | 1590.1 | 1554.5 | 1517.4 |
| 25° | 1196.9 | 1196.9 | 1240.2 | 1334.7 | 1461.6 | 1605.6 | 1695.4 | 1684.6 | 1641.2 | 1608.7 | 1560.7 |
| 27.5° | 1145.8 | 1145.8 | 1192.2 | 1291.3 | 1427.6 | 1611.8 | 1758.9 | 1758.9 | 1710.9 | 1662.9 | 1610.3 |
| 30° | 1085.4 | 1100.9 | 1153.5 | 1257.2 | 1396.6 | 1601.0 | 1805.3 | 1834.8 | 1791.4 | 1729.5 | 1652.1 |
| 32.5° | 1034.3 | 1045.1 | 1099.3 | 1209.2 | 1351.7 | 1588.6 | 1858.0 | 1930.8 | 1885.9 | 1800.7 | 1714.0 |
| 35° | 973.9 | 972.3 | 1034.3 | 1142.7 | 1288.2 | 1560.7 | 1899.8 | 2045.3 | 2002.0 | 1910.6 | 1793.0 |
| 37.5° | 894.9 | 894.9 | 958.4 | 1063.7 | 1227.8 | 1512.7 | 1933.9 | 2172.3 | 2139.8 | 2036.0 | 1910.6 |
| 40° | 809.8 | 819.1 | 874.8 | 981.6 | 1155.0 | 1455.4 | 1933.9 | 2276.0 | 2293.1 | 2186.2 | 2056.2 |
| 42.5° | 747.8 | 750.9 | 802.0 | 902.7 | 1074.5 | 1381.1 | 1909.1 | 2365.8 | 2416.9 | 2327.1 | 2158.4 |
| 45° | 682.8 | 690.6 | 733.9 | 826.8 | 990.9 | 1292.8 | 1865.7 | 2466.5 | 2548.5 | 2486.6 | 2265.2 |
| 47.5° | 603.8 | 611.6 | 661.1 | 755.6 | 912.0 | 1196.9 | 1793.0 | 2571.8 | 2743.6 | 2698.7 | 2455.6 |
| 50° | 512.5 | 518.7 | 565.1 | 665.8 | 823.7 | 1086.9 | 1701.6 | 2650.7 | 2938.7 | 2983.6 | 2743.6 |
| 52.5° | 401.0 | 405.7 | 455.2 | 552.8 | 718.4 | 981.6 | 1573.1 | 2698.7 | 3135.4 | 3293.3 | 3129.2 |
| 55° | 288.0 | 295.7 | 339.1 | 419.6 | 579.1 | 840.7 | 1419.8 | 2723.5 | 3350.6 | 3660.2 | 3607.6 |
| 57.5° | 207.5 | 210.6 | 240.0 | 301.9 | 430.4 | 675.1 | 1223.2 | 2681.7 | 3544.1 | 4098.4 | 4208.3 |
| 60° | 171.9 | 171.9 | 176.5 | 205.9 | 294.2 | 476.9 | 987.8 | 2526.9 | 3709.8 | 4541.2 | 4880.3 |
| 62.5° | 157.9 | 157.9 | 161.0 | 165.7 | 193.5 | 309.7 | 706.0 | 2212.6 | 3728.4 | 4967.0 | 5617.3 |
| 65° | 144.0 | 144.0 | 147.1 | 150.2 | 156.4 | 201.3 | 425.8 | 1619.5 | 3364.5 | 4971.7 | 6013.7 |
| 67.5° | 131.6 | 131.6 | 133.2 | 134.7 | 137.8 | 147.1 | 233.8 | 981.6 | 2692.5 | 4840.1 | 6165.4 |
| 70° | 119.2 | 119.2 | 119.2 | 117.7 | 122.3 | 123.9 | 154.8 | 498.6 | 1800.7 | 4370.9 | 6092.6 |
| 72.5° | *105.3* | *105.3* | *103.7* | *100.6* | *102.2* | *102.2* | *114.6* | *244.6* | *935.2* | *3474.4* | *5501.2* |
| 75° | 89.8 | 91.4 | 85.2 | 82.1 | 80.5 | 82.1 | 91.4 | 139.3 | 418.0 | 2107.3 | 4110.8 |
| 77.5° | 75.9 | 79.0 | 69.7 | 63.5 | 61.9 | 61.9 | 71.2 | 86.7 | 179.6 | 764.9 | 1842.5 |
| 80° | 57.3 | 58.8 | 51.1 | 44.9 | 44.9 | 43.4 | 52.6 | 63.5 | 85.2 | 227.6 | 413.4 |
| 82.5° | 32.5 | 32.5 | 29.4 | 26.3 | 24.8 | 26.3 | 35.6 | 43.4 | 52.6 | 80.5 | 113.0 |
| 85° | 7.7 | 7.7 | 9.3 | 10.8 | 10.8 | 13.9 | 20.1 | 23.2 | 27.9 | 32.5 | 43.4 |
| 87.5° | 1.5 | 1.5 | 1.5 | 3.1 | 4.6 | 4.6 | 7.7 | 10.8 | 13.9 | 17.0 | 18.6 |
| 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: P1360665
CATALOG NUMBER: GSS-SB1C-740-U-T1

**CANDELA DISTRIBUTION (continued):**

| | 85° | 87.5° | 90° |
|---|---|---|---|
| 0° | 1393.5 | 1393.5 | *1393.5* |
| 2.5° | 1396.6 | 1398.1 | *1396.6* |
| 5° | 1405.9 | 1402.8 | *1398.1* |
| 7.5° | 1407.4 | 1409.0 | *1410.5* |
| 10° | 1413.6 | 1419.8 | *1410.5* |
| 12.5° | 1419.8 | 1415.2 | *1412.1* |
| 15° | 1424.5 | 1422.9 | *1413.6* |
| 17.5° | 1441.5 | 1435.3 | *1433.7* |
| 20° | 1467.8 | 1466.3 | *1461.6* |
| 22.5° | 1498.8 | 1495.7 | *1494.1* |
| 25° | 1543.7 | 1532.8 | *1526.6* |
| 27.5° | 1580.8 | 1571.5 | *1568.4* |
| 30° | 1618.0 | 1599.4 | *1599.4* |
| 32.5° | 1650.5 | 1645.9 | *1642.8* |
| 35° | 1727.9 | 1704.7 | *1707.8* |
| 37.5° | 1822.4 | 1799.1 | *1779.0* |
| 40° | 1955.5 | 1924.6 | *1912.2* |
| 42.5° | 2040.7 | 2009.7 | *2012.8* |
| 45° | 2088.7 | 2034.5 | *2020.6* |
| 47.5° | 2218.7 | 2150.6 | *2132.0* |
| 50° | 2429.3 | 2345.7 | *2322.5* |
| 52.5° | 2769.9 | 2635.2 | *2604.3* |
| 55° | 3197.3 | 3031.6 | *3000.6* |
| 57.5° | 3782.6 | 3562.7 | *3496.1* |
| 60° | 4494.8 | 4222.3 | *4121.6* |
| 62.5° | 5351.0 | 5015.0 | *4919.0* |
| 65° | 5995.1 | 5714.9 | *5566.2* |
| 67.5° | 6510.7 | 6280.0 | *6208.8* |
| 70° | 6817.3 | 6828.1 | *6846.7* |
| 72.5° | *6462.7* | *6760.0* | *6902.4* |
| 75° | 4736.3 | 4967.0 | *5188.4* |
| 77.5° | 1830.1 | 1650.5 | *1597.9* |
| 80° | 295.7 | 277.1 | *286.4* |
| 82.5° | 133.2 | 140.9 | *148.6* |
| 85° | 86.7 | 100.6 | *106.8* |
| 87.5° | 20.1 | 20.1 | *20.1* |
| 90° | 0.0 | 0.0 | *0.0* |

Cooper Lighting Solutions Photometric Lab
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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: SP1-2407-184-1

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

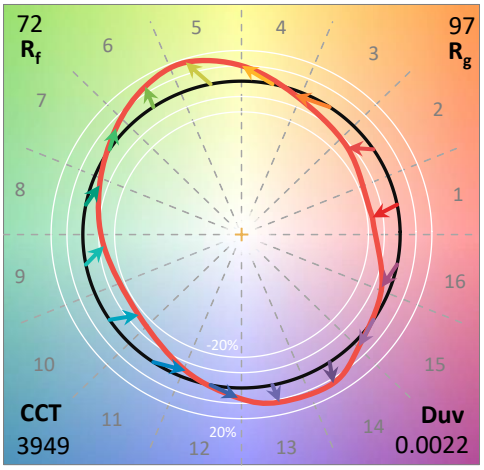
## Test Information

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

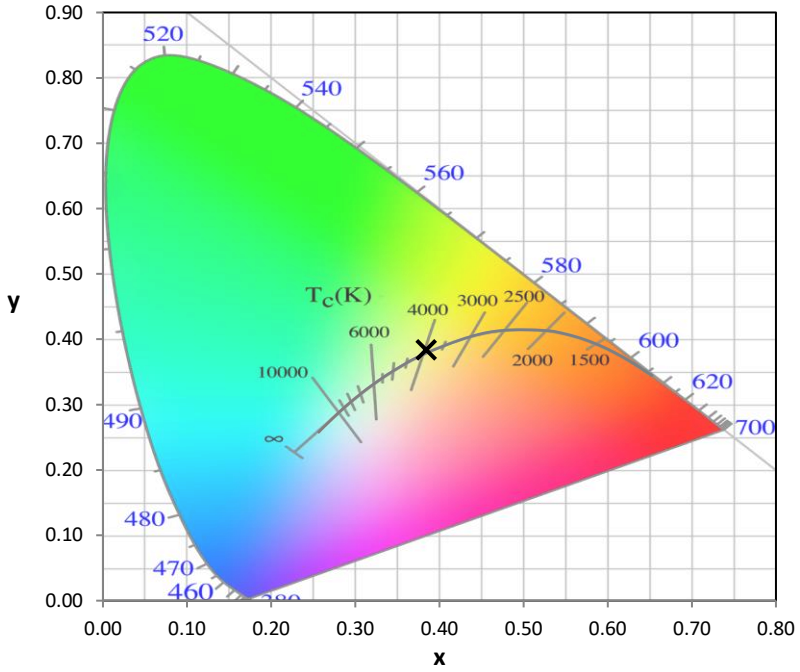
| | |
|---|---|
| Stabilization Time: | 34M |
| Operation Time: | 1H 34M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-1

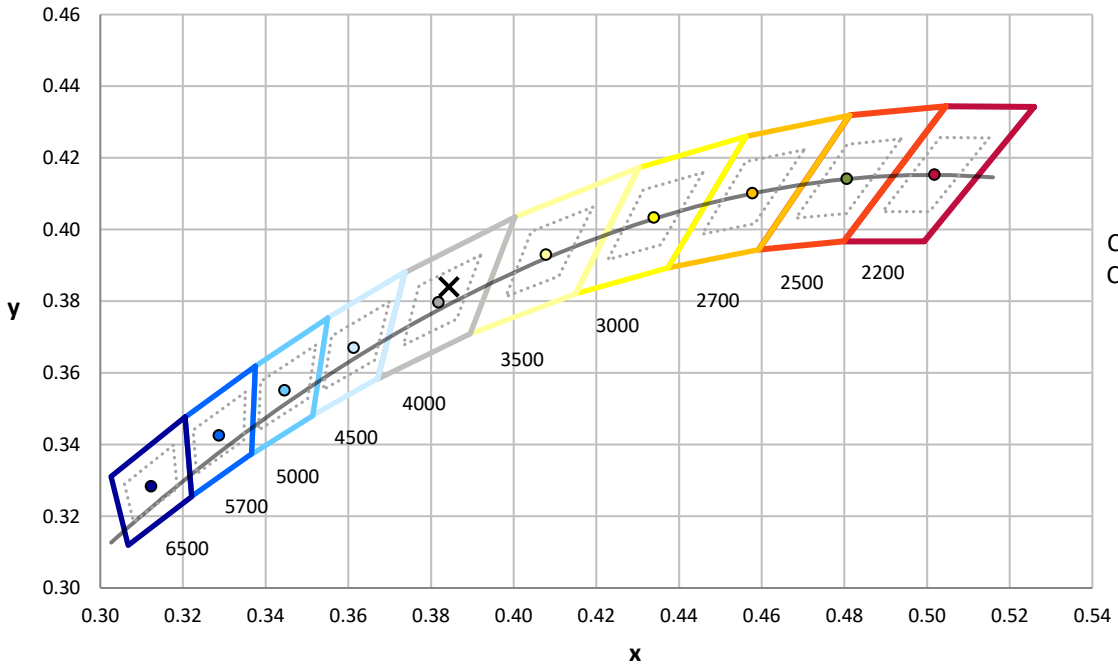
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

REPORT NUMBER: SP1-2407-184-1

## CIE 1931 Chromaticity Diagram




## CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

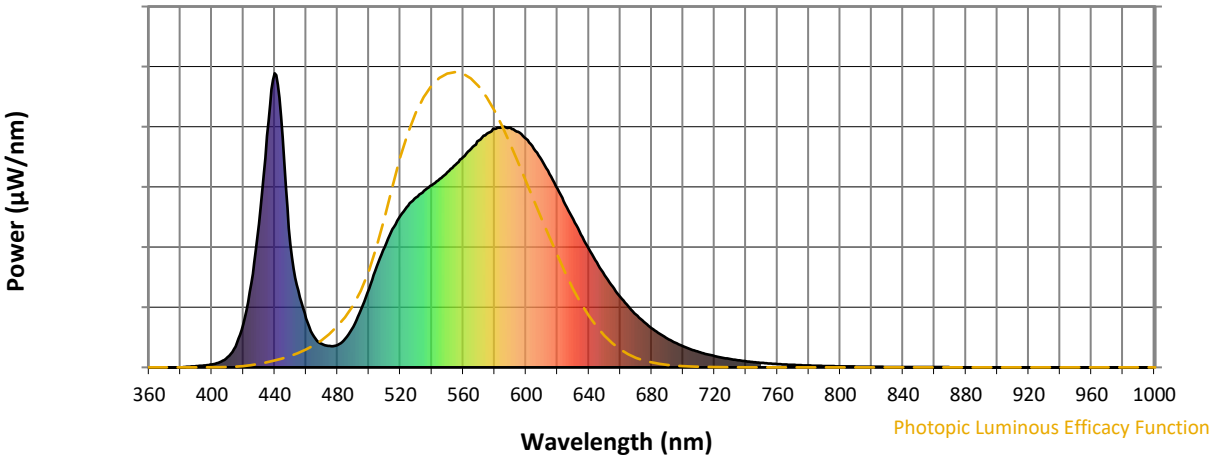



CCT = 3949K
CIE x = 0.3844
CIE y = 0.3840
Duv = 0.0022

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-1

## Photopic Flux vs. Wavelength

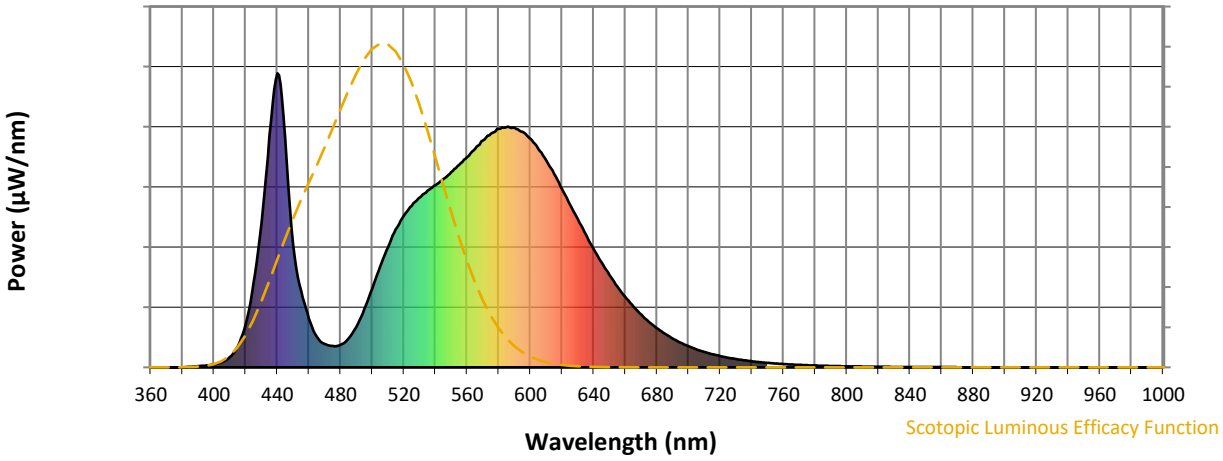



## Photopic Lumens: NR

| 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

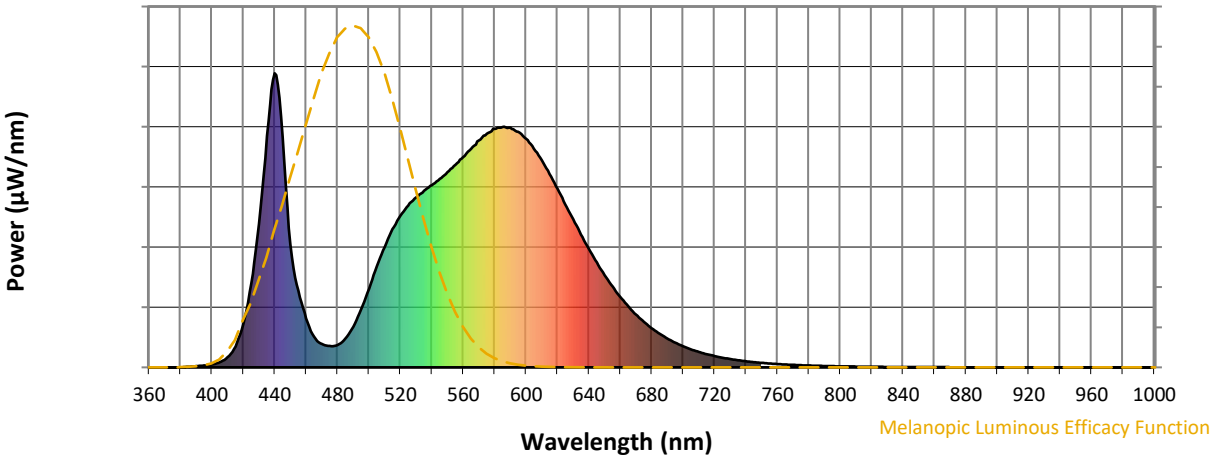



**Scotopic Lumens: NR** **S/P: 1.47**

| 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 | | | |

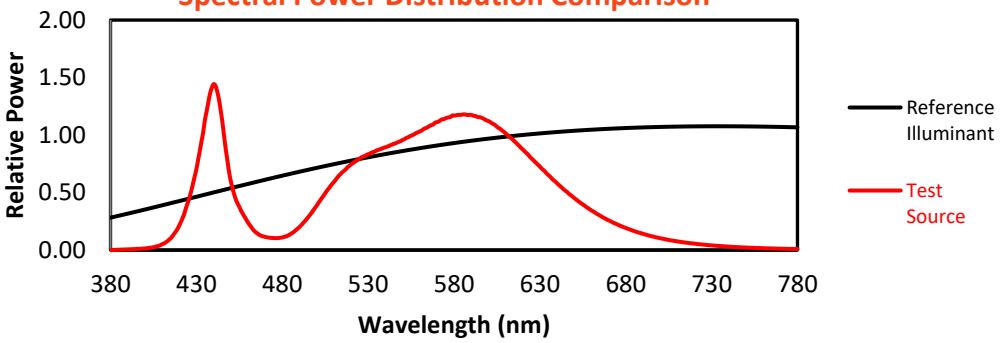
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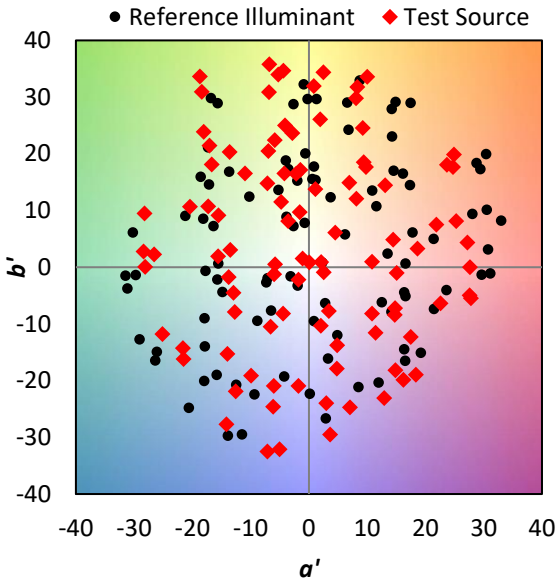
## Summary

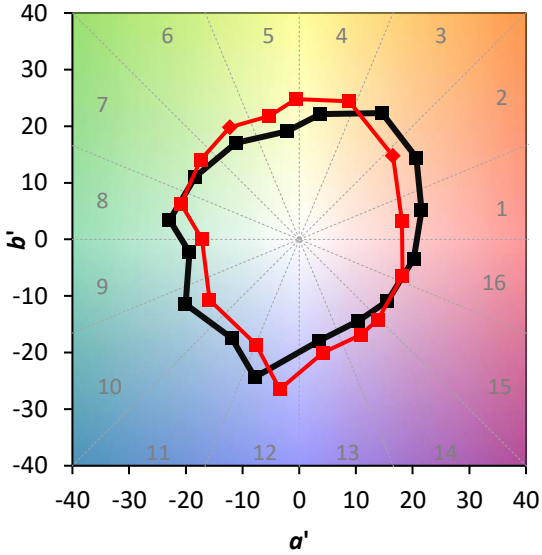
$R_f$ = 71.8
$R_g$ = 96.5
CIE $R_a$ = 70.7
$R_9$ = -36.7

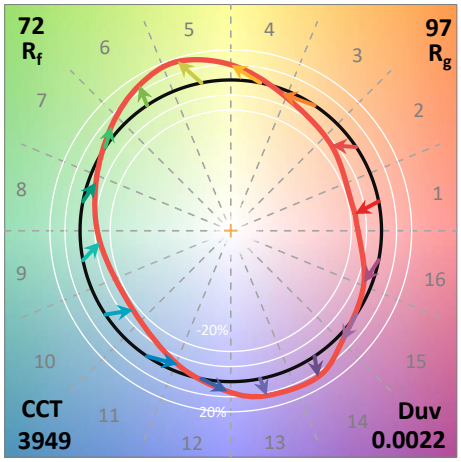
## Spectral Power Distribution Comparison

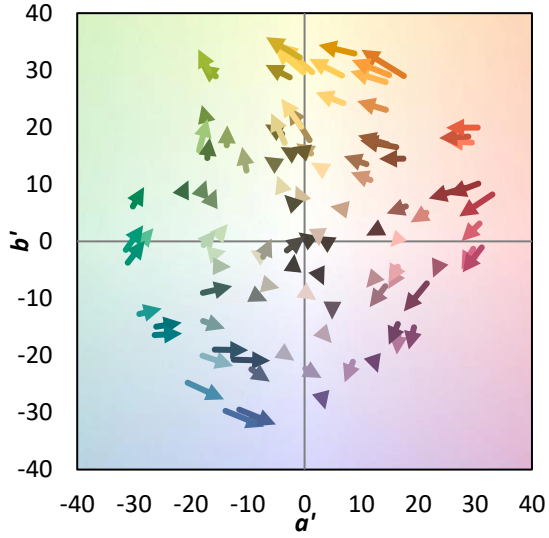



## Color Vector Graphics



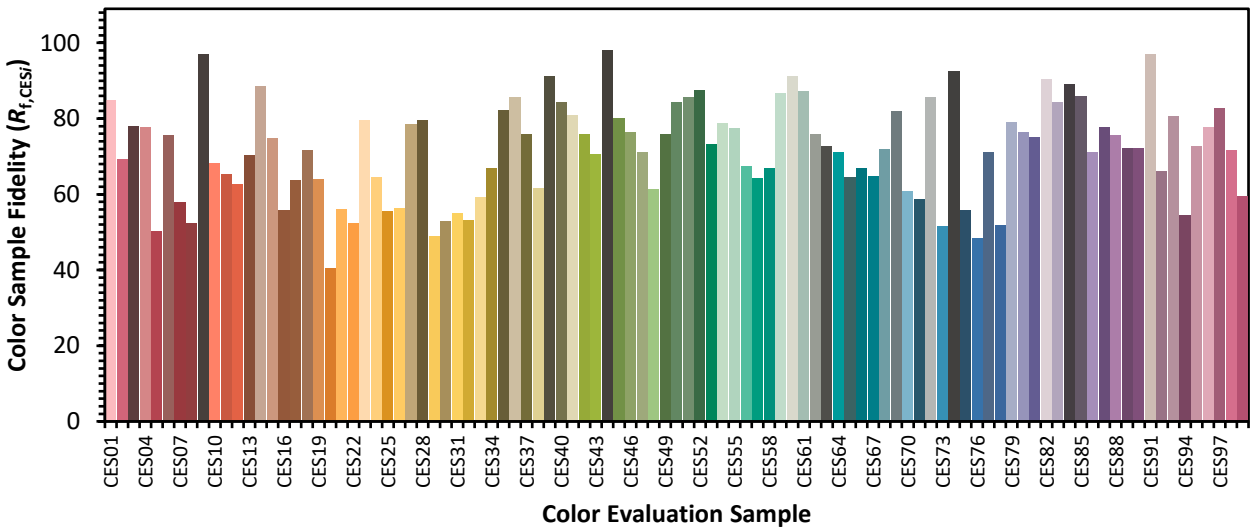



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**Individual Sample Fidelity Index ($R_{f,i}$)**

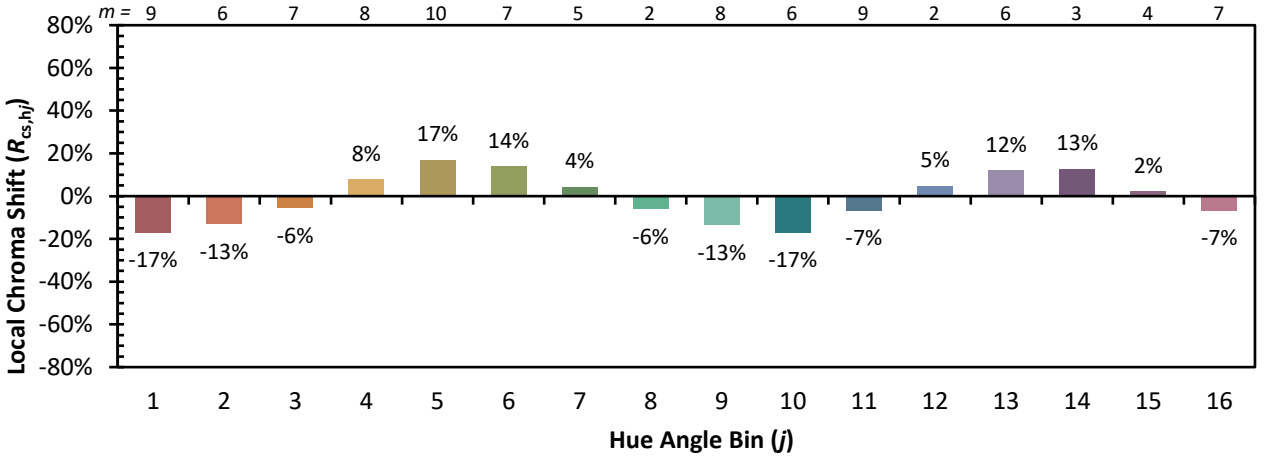
| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 56 | CES51 = 86 | CES76 = 48 |
| CES02 = 61 | CES27 = 79 | CES52 = 88 | CES77 = 71 |
| CES03 = 30 | CES28 = 80 | CES53 = 73 | CES78 = 52 |
| CES04 = 70 | CES29 = 49 | CES54 = 79 | CES79 = 79 |
| CES05 = 47 | CES30 = 53 | CES55 = 77 | CES80 = 77 |
| CES06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

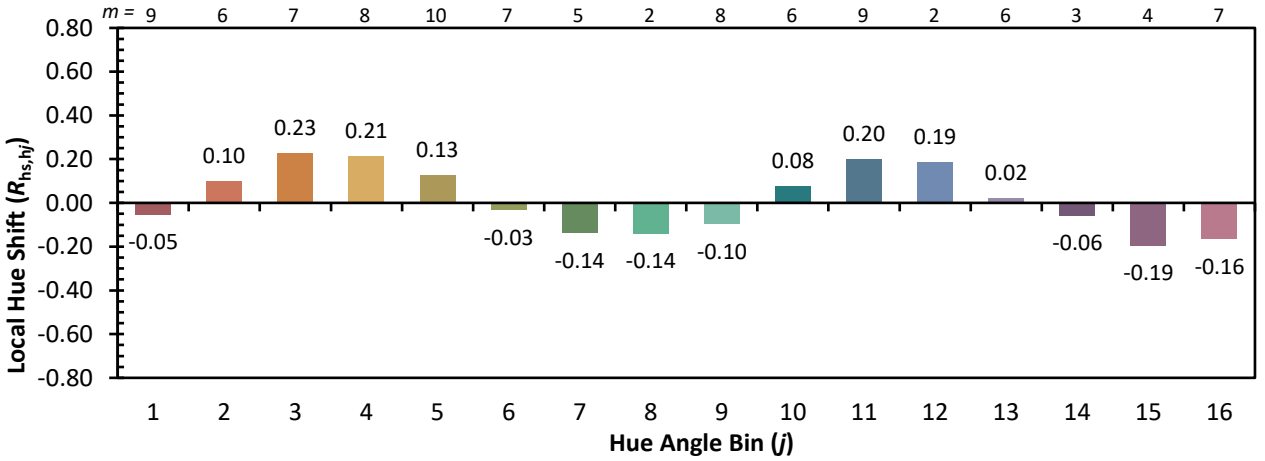


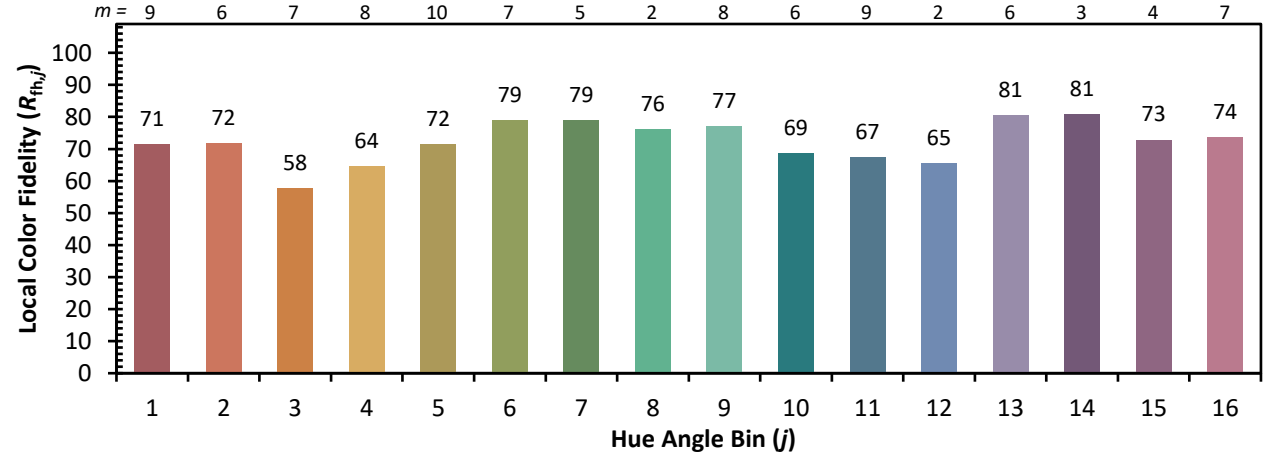
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## Color Rendition by Hue-Angle Bin



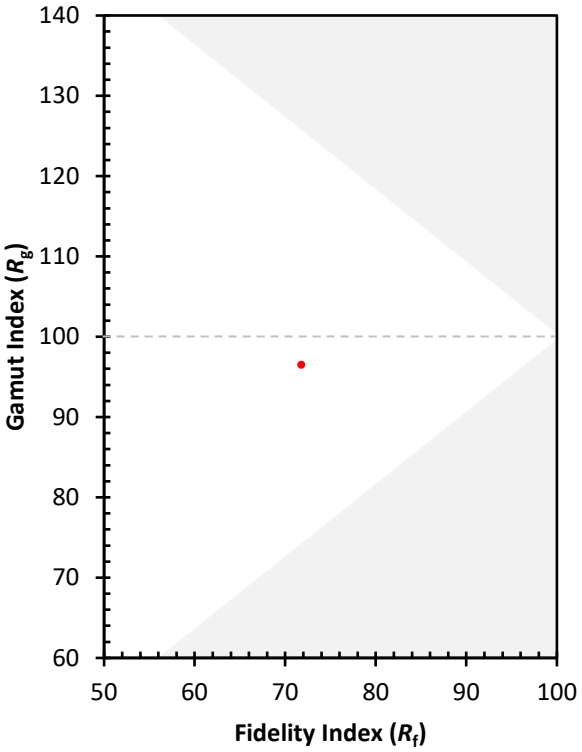



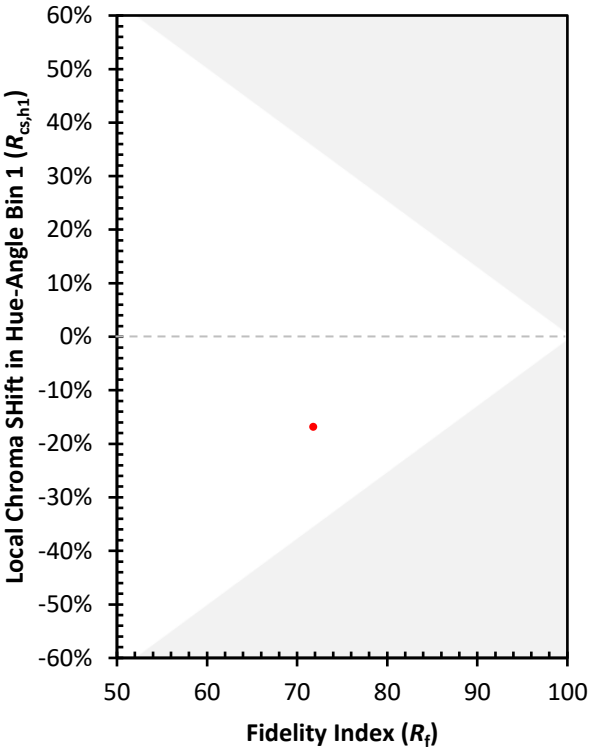



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## Measure Comparisons




(END OF REPORT)