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: P1360714

Luminaire Tested: **GSS-SB1D-727-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: | P1360714 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 02/18/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GSS-SB1D-727-U-T1 |
| Description: | GALLEON II SLIM SITE HIGH DENSITY LED ARRAYS 1SQUARE 76W 70CRI 2700K FIXTURE w/ TYPE I DISTRIBUTION OPTIC |
| Light Source: | (26) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 8525.1 lumens |
| Efficiency: | N/A |
| Efficacy: | 112.2 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 |

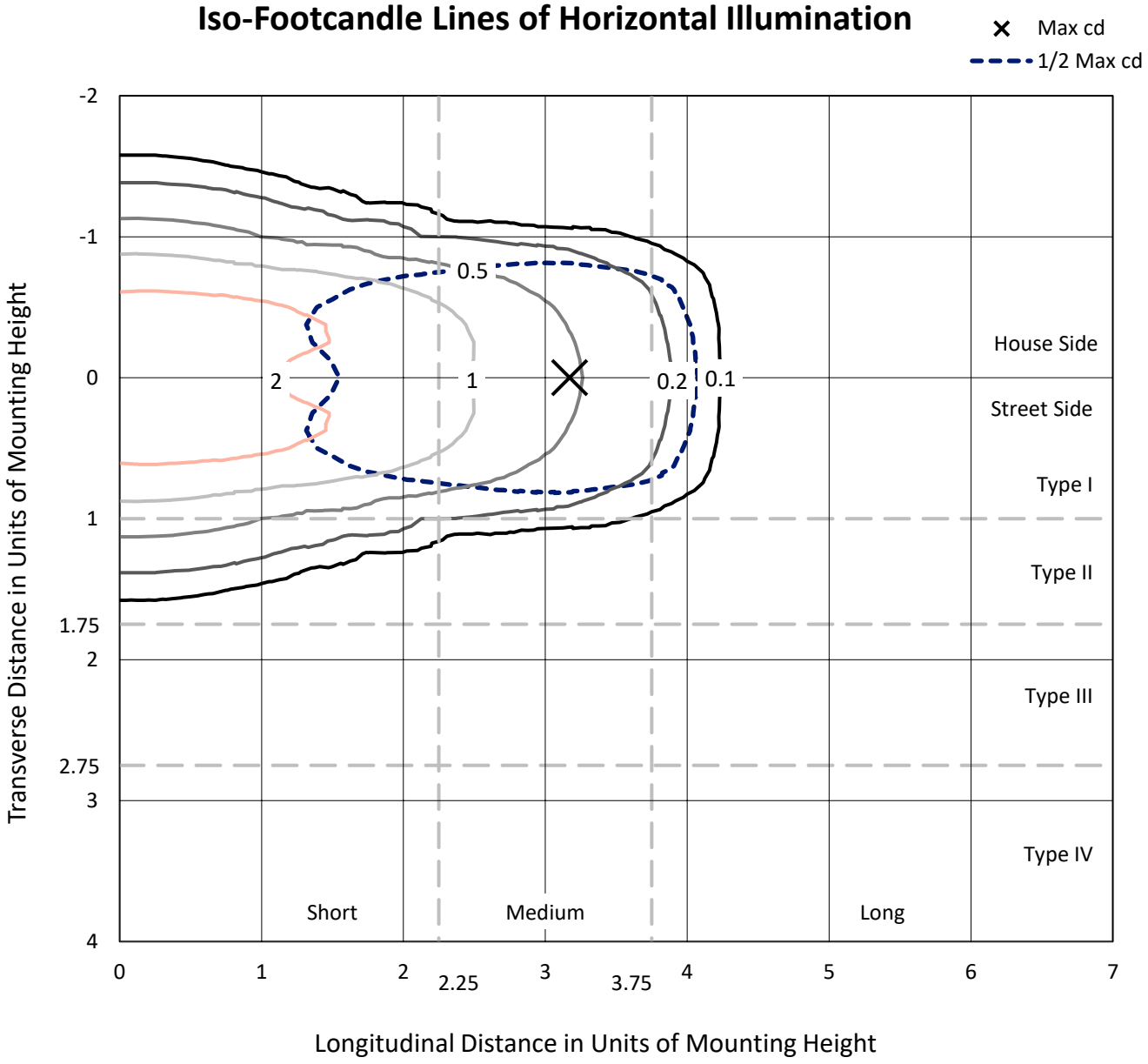
| | |
|---|---|
| Input Watts (W): | 76 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 6.7% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1360714
CATALOG NUMBER: GSS-SB1D-727-U-T1

## Iso-Footcandle Lines of Horizontal Illumination



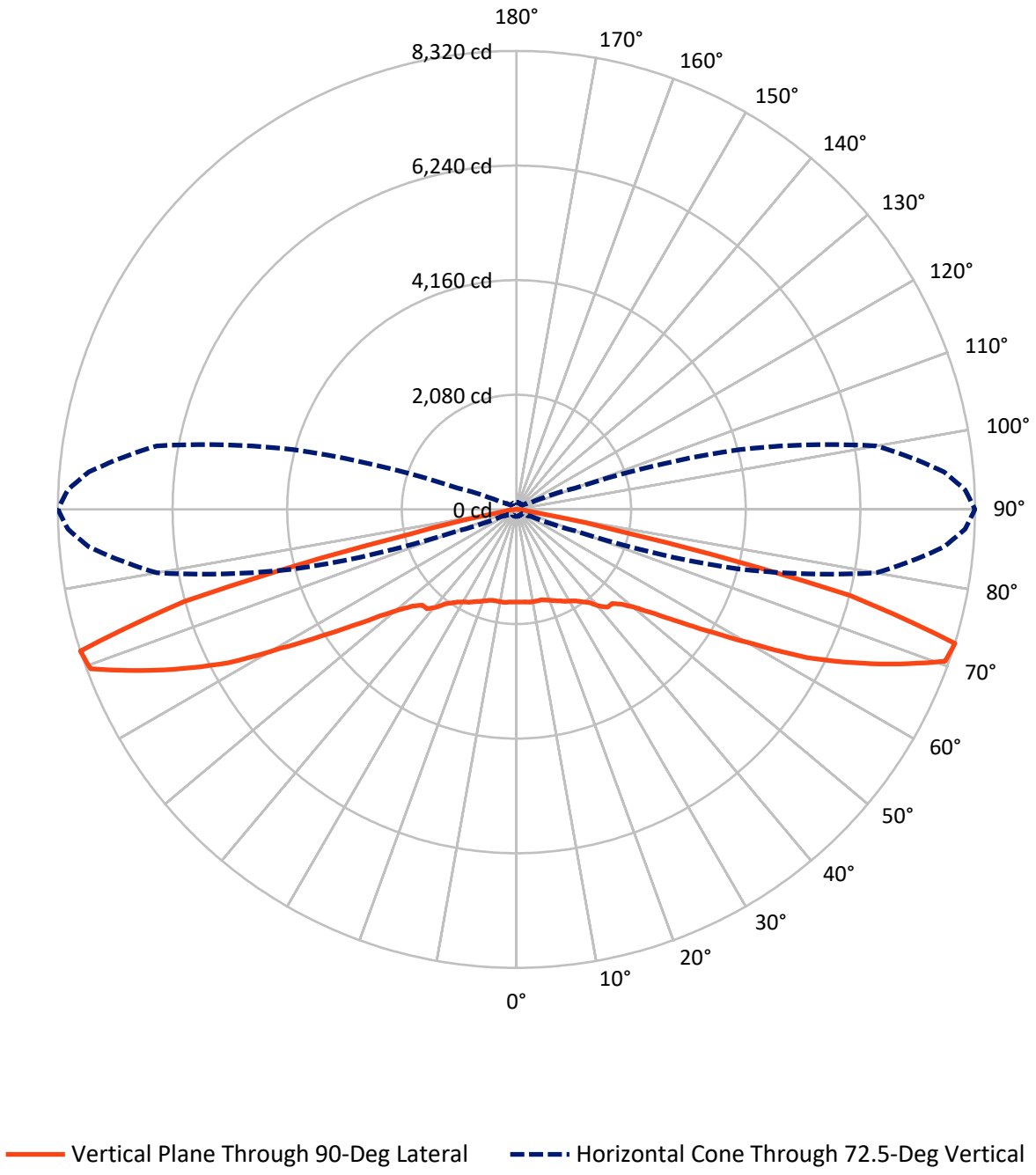

Based on 20 foot mounting height. Maximum calculated value = 4.2 fc
Type I - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1360714
CATALOG NUMBER: GSS-SB1D-727-U-T1

## Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

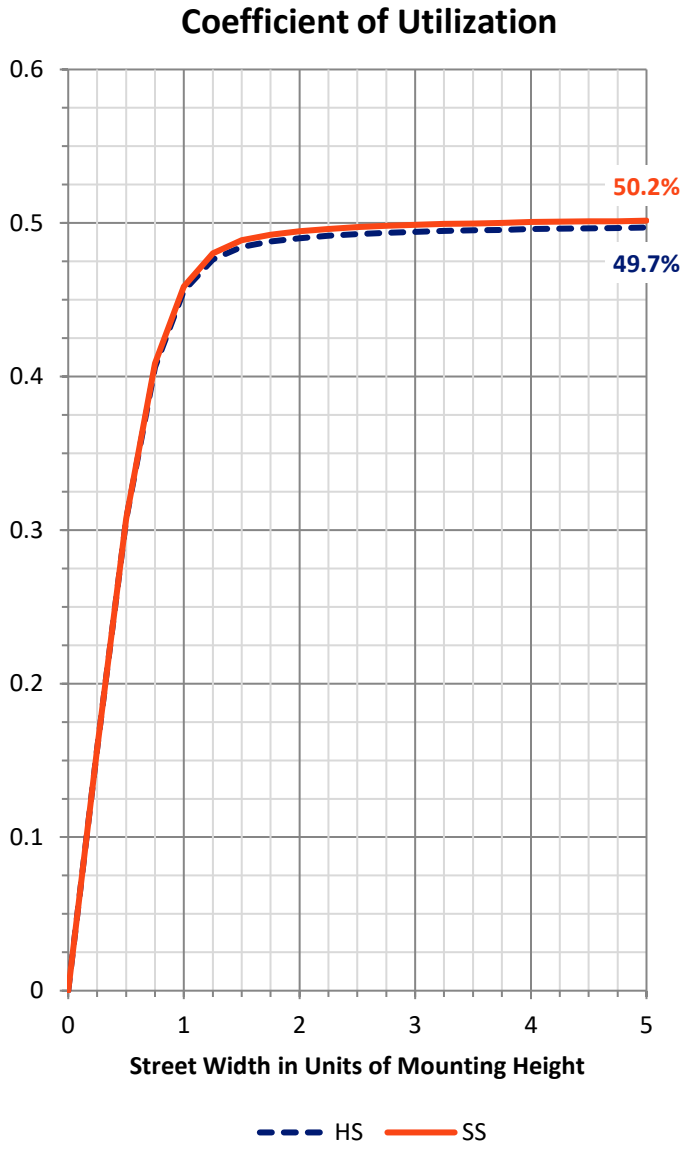
REPORT NUMBER: P1360714
CATALOG NUMBER: GSS-SB1D-727-U-T1

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 4262.6 | 0.0 | 4262.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Street Side** | Lumens | 4262.6 | 0.0 | 4262.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Total** | Lumens | 8525.1 | 0.0 | 8525.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 162.6 | 1.9 |
| 10°-20° | 495.5 | 5.8 |
| 20°-30° | 828.2 | 9.7 |
| 30°-40° | 1142.2 | 13.4 |
| 40°-50° | 1400.1 | 16.4 |
| 50°-60° | 1640.8 | 19.2 |
| 60°-70° | 1822.0 | 21.4 |
| 70°-80° | 990.8 | 11.6 |
| 80°-90° | 42.9 | 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° | 8525.1 | 100.0 |
| 0°-180° | 8525.1 | 100.0 |



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

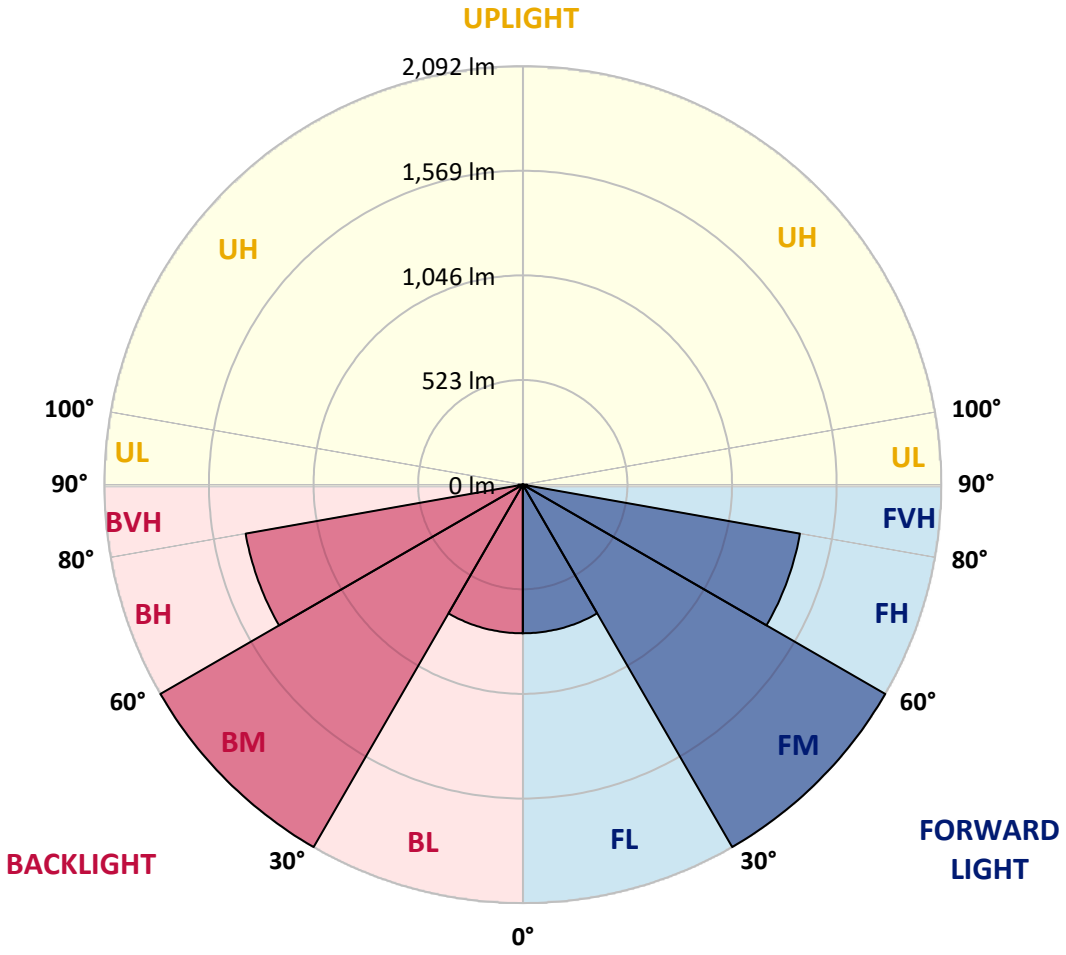
Scaled Data Report

REPORT NUMBER: P1360714
CATALOG NUMBER: GSS-SB1D-727-U-T1

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 743.1 | 8.7 | | | |
| FM | (30°-60°) | 2091.5 | 24.5 | | | |
| FH | (60°-80°) | 1406.4 | 16.5 | | | G1/1800 |
| FVH | (80°-90°) | 21.5 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 743.1 | 8.7 | B2/1000 | | |
| BM | (30°-60°) | 2091.5 | 24.5 | B2/2500 | | |
| BH | (60°-80°) | 1406.4 | 16.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 21.5 | 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



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1360714
CATALOG NUMBER: GSS-SB1D-727-U-T1

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 80° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1679.7 | 1679.7 | 1679.7 | 1679.7 | 1679.7 | 1679.7 | 1679.7 | 1679.7 | 1679.7 | 1679.7 | 1679.7 |
| 2.5° | 1681.5 | 1681.5 | 1675.9 | 1683.4 | 1679.7 | 1681.5 | 1683.4 | 1681.5 | 1679.7 | 1681.5 | 1683.4 |
| 5° | 1690.9 | 1687.1 | 1690.9 | 1694.6 | 1689.0 | 1692.7 | 1690.9 | 1681.5 | 1687.1 | 1687.1 | 1687.1 |
| 7.5° | 1707.7 | 1711.4 | 1707.7 | 1717.0 | 1711.4 | 1722.6 | 1711.4 | 1703.9 | 1702.1 | 1700.2 | 1700.2 |
| 10° | 1715.1 | 1715.1 | 1713.3 | 1730.1 | 1733.8 | 1745.0 | 1737.5 | 1726.3 | 1720.7 | 1713.3 | 1705.8 |
| 12.5° | 1694.6 | 1698.3 | 1707.7 | 1739.4 | 1754.3 | 1776.7 | 1771.1 | 1748.7 | 1731.9 | 1726.3 | 1715.1 |
| 15° | 1672.2 | 1675.9 | 1694.6 | 1733.8 | 1769.2 | 1802.8 | 1801.0 | 1773.0 | 1752.4 | 1737.5 | 1720.7 |
| 17.5° | 1636.7 | 1642.3 | 1668.5 | 1728.2 | 1791.6 | 1829.0 | 1840.2 | 1812.2 | 1789.8 | 1765.5 | 1743.1 |
| 20° | 1577.0 | 1577.0 | 1623.7 | 1700.2 | 1787.9 | 1871.9 | 1901.8 | 1879.4 | 1853.2 | 1814.0 | 1784.2 |
| 22.5° | 1509.8 | 1513.6 | 1560.2 | 1661.0 | 1786.0 | 1909.2 | 1967.1 | 1942.8 | 1916.7 | 1873.8 | 1829.0 |
| 25° | 1442.6 | 1442.6 | 1494.9 | 1608.7 | 1761.8 | 1935.3 | 2043.6 | 2030.5 | 1978.3 | 1939.1 | 1881.2 |
| 27.5° | 1381.1 | 1381.1 | 1437.0 | 1556.5 | 1720.7 | 1942.8 | 2120.1 | 2120.1 | 2062.3 | 2004.4 | 1940.9 |
| 30° | 1308.3 | 1326.9 | 1390.4 | 1515.4 | 1683.4 | 1929.7 | 2176.1 | 2211.6 | 2159.3 | 2084.6 | 1991.3 |
| 32.5° | 1246.7 | 1259.7 | 1325.1 | 1457.6 | 1629.3 | 1914.8 | 2239.6 | 2327.3 | 2273.1 | 2170.5 | 2066.0 |
| 35° | 1173.9 | 1172.0 | 1246.7 | 1377.3 | 1552.8 | 1881.2 | 2289.9 | 2465.4 | 2413.1 | 2303.0 | 2161.2 |
| 37.5° | 1078.7 | 1078.7 | 1155.2 | 1282.1 | 1480.0 | 1823.4 | 2331.0 | 2618.4 | 2579.2 | 2454.2 | 2303.0 |
| 40° | 976.1 | 987.3 | 1054.5 | 1183.2 | 1392.3 | 1754.3 | 2331.0 | 2743.5 | 2764.0 | 2635.2 | 2478.4 |
| 42.5° | 901.4 | 905.2 | 966.7 | 1088.0 | 1295.2 | 1664.7 | 2301.1 | 2851.7 | 2913.3 | 2805.0 | 2601.6 |
| 45° | 823.0 | 832.4 | 884.6 | 996.6 | 1194.4 | 1558.4 | 2248.9 | 2973.0 | 3071.9 | 2997.3 | 2730.4 |
| 47.5° | 727.9 | 737.2 | 796.9 | 910.8 | 1099.2 | 1442.6 | 2161.2 | 3099.9 | 3307.1 | 3252.9 | 2959.9 |
| 50° | 617.7 | 625.2 | 681.2 | 802.5 | 992.9 | 1310.1 | 2051.1 | 3195.1 | 3542.2 | 3596.3 | 3307.1 |
| 52.5° | 483.4 | 489.0 | 548.7 | 666.3 | 866.0 | 1183.2 | 1896.2 | 3252.9 | 3779.2 | 3969.6 | 3771.8 |
| 55° | 347.1 | 356.5 | 408.7 | 505.8 | 698.0 | 1013.4 | 1711.4 | 3282.8 | 4038.7 | 4411.9 | 4348.5 |
| 57.5° | 250.1 | 253.8 | 289.3 | 363.9 | 518.8 | 813.7 | 1474.4 | 3232.4 | 4271.9 | 4940.1 | 5072.6 |
| 60° | 207.2 | 207.2 | 212.8 | 248.2 | 354.6 | 574.8 | 1190.7 | 3045.8 | 4471.6 | 5473.8 | 5882.6 |
| 62.5° | 190.4 | 190.4 | 194.1 | 199.7 | 233.3 | 373.3 | 851.0 | 2666.9 | 4494.0 | 5987.1 | 6770.9 |
| 65° | 173.6 | 173.6 | 177.3 | 181.0 | 188.5 | 242.6 | 513.2 | 1952.1 | 4055.5 | 5992.7 | 7248.7 |
| 67.5° | 158.6 | 158.6 | 160.5 | 162.4 | 166.1 | 177.3 | 281.8 | 1183.2 | 3245.5 | 5834.0 | 7431.6 |
| 70° | 143.7 | 143.7 | 143.7 | 141.8 | 147.4 | 149.3 | 186.6 | 600.9 | 2170.5 | 5268.5 | 7343.9 |
| 72.5° | *126.9* | *126.9* | *125.0* | *121.3* | *123.2* | *123.2* | *138.1* | *294.9* | *1127.2* | *4188.0* | *6630.9* |
| 75° | 108.2 | 110.1 | 102.6 | 98.9 | 97.0 | 98.9 | 110.1 | 168.0 | 503.9 | 2540.0 | 4955.0 |
| 77.5° | 91.4 | 95.2 | 84.0 | 76.5 | 74.7 | 74.7 | 85.8 | 104.5 | 216.5 | 921.9 | 2220.9 |
| 80° | 69.1 | 70.9 | 61.6 | 54.1 | 54.1 | 52.3 | 63.5 | 76.5 | 102.6 | 274.3 | 498.3 |
| 82.5° | 39.2 | 39.2 | 35.5 | 31.7 | 29.9 | 31.7 | 42.9 | 52.3 | 63.5 | 97.0 | 136.2 |
| 85° | 9.3 | 9.3 | 11.2 | 13.1 | 13.1 | 16.8 | 24.3 | 28.0 | 33.6 | 39.2 | 52.3 |
| 87.5° | 1.9 | 1.9 | 1.9 | 3.7 | 5.6 | 5.6 | 9.3 | 13.1 | 16.8 | 20.5 | 22.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1360714
CATALOG NUMBER: GSS-SB1D-727-U-T1

**CANDELA DISTRIBUTION (continued):**

| | 85° | 87.5° | 90° |
|---|---|---|---|
| 0° | 1679.7 | 1679.7 | *1679.7* |
| 2.5° | 1683.4 | 1685.3 | *1683.4* |
| 5° | 1694.6 | 1690.9 | *1685.3* |
| 7.5° | 1696.5 | 1698.3 | *1700.2* |
| 10° | 1703.9 | 1711.4 | *1700.2* |
| 12.5° | 1711.4 | 1705.8 | *1702.1* |
| 15° | 1717.0 | 1715.1 | *1703.9* |
| 17.5° | 1737.5 | 1730.1 | *1728.2* |
| 20° | 1769.2 | 1767.4 | *1761.8* |
| 22.5° | 1806.6 | 1802.8 | *1801.0* |
| 25° | 1860.7 | 1847.6 | *1840.2* |
| 27.5° | 1905.5 | 1894.3 | *1890.6* |
| 30° | 1950.3 | 1927.9 | *1927.9* |
| 32.5° | 1989.5 | 1983.9 | *1980.1* |
| 35° | 2082.8 | 2054.8 | *2058.5* |
| 37.5° | 2196.6 | 2168.6 | *2144.4* |
| 40° | 2357.1 | 2319.8 | *2304.9* |
| 42.5° | 2459.8 | 2422.4 | *2426.2* |
| 45° | 2517.6 | 2452.3 | *2435.5* |
| 47.5° | 2674.4 | 2592.3 | *2569.9* |
| 50° | 2928.2 | 2827.4 | *2799.4* |
| 52.5° | 3338.8 | 3176.4 | *3139.1* |
| 55° | 3853.9 | 3654.2 | *3616.9* |
| 57.5° | 4559.4 | 4294.3 | *4214.1* |
| 60° | 5417.8 | 5089.4 | *4968.1* |
| 62.5° | 6449.9 | 6044.9 | *5929.2* |
| 65° | 7226.3 | 6888.5 | *6709.3* |
| 67.5° | 7847.8 | 7569.7 | *7483.8* |
| 70° | 8217.3 | 8230.4 | *8252.7* |
| 72.5° | *7789.9* | *8148.2* | *8319.9* |
| 75° | 5709.0 | 5987.1 | *6253.9* |
| 77.5° | 2206.0 | 1989.5 | *1926.0* |
| 80° | 356.5 | 334.1 | *345.3* |
| 82.5° | 160.5 | 169.8 | *179.2* |
| 85° | 104.5 | 121.3 | *128.8* |
| 87.5° | 24.3 | 24.3 | *24.3* |
| 90° | 0.0 | 0.0 | *0.0* |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
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: SP1-2407-184-3

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

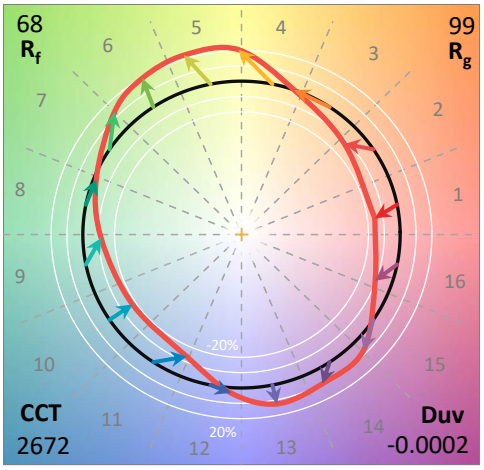
## Test Information

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

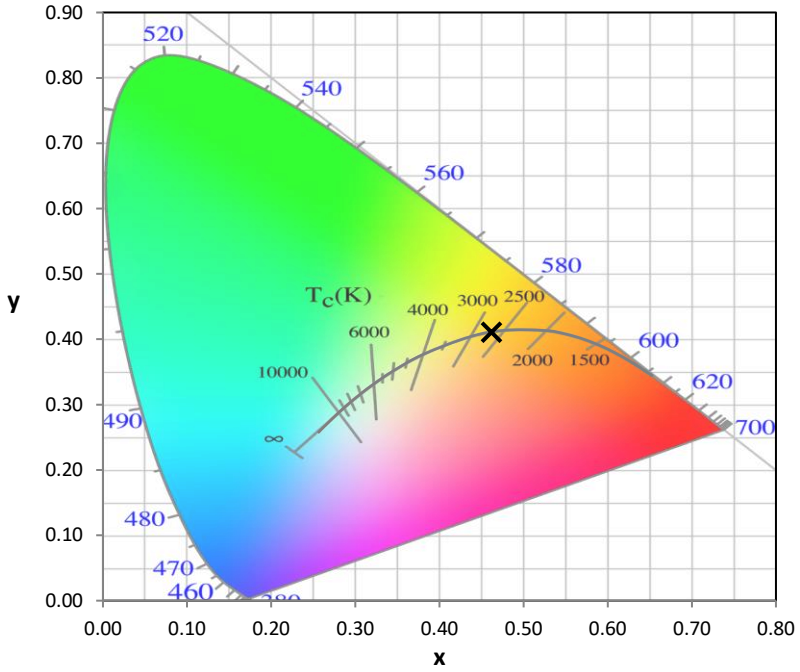
| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-3

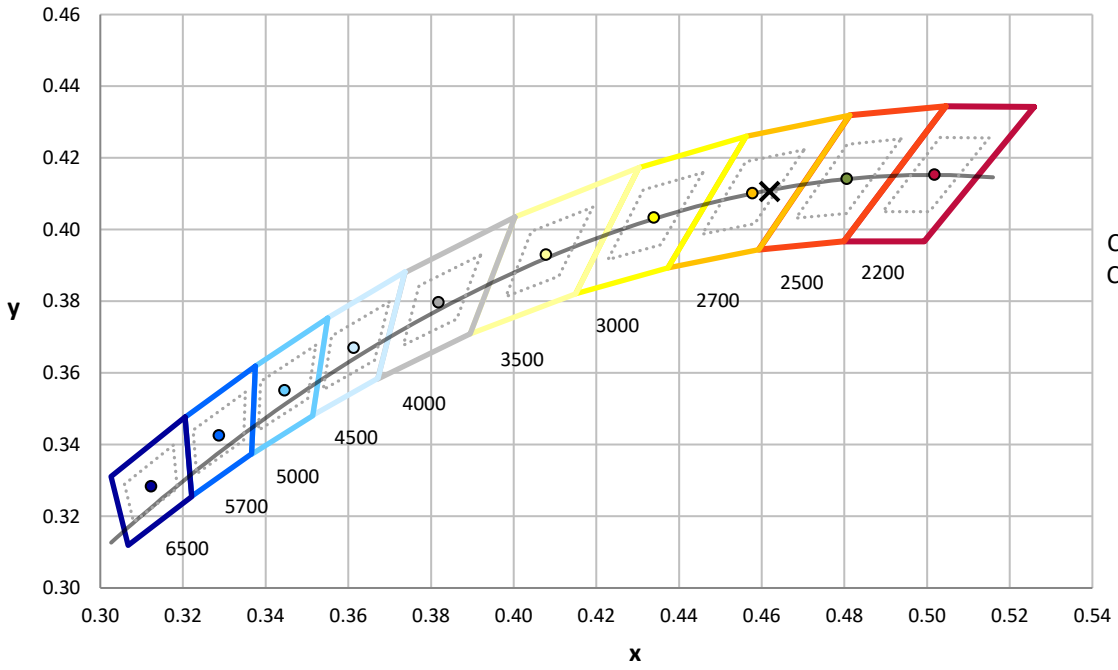
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

REPORT NUMBER: SP1-2407-184-3

## CIE 1931 Chromaticity Diagram




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

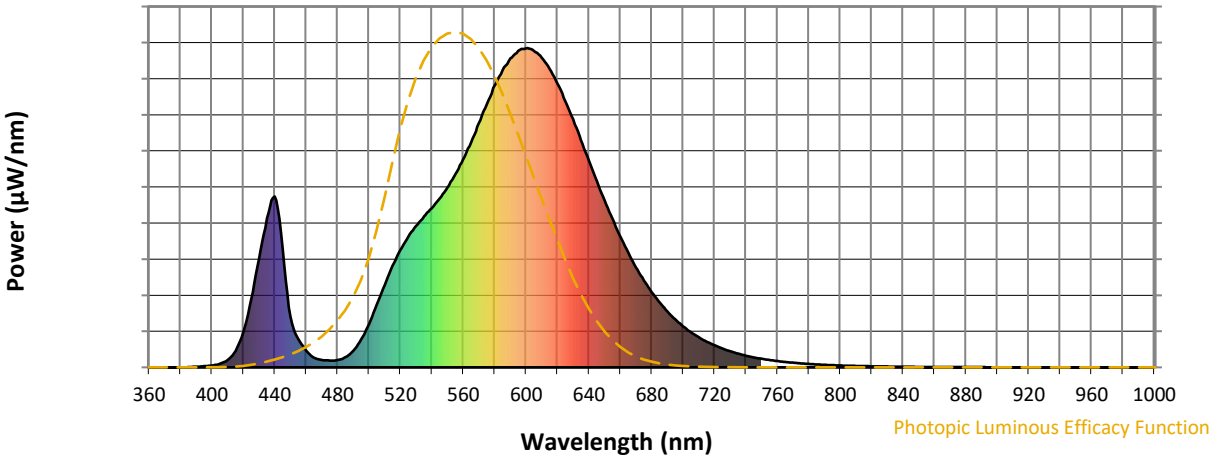



CCT = 2672K
CIE x = 0.4619
CIE y = 0.4106
Duv = -0.0002

Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-3

## Photopic Flux vs. Wavelength

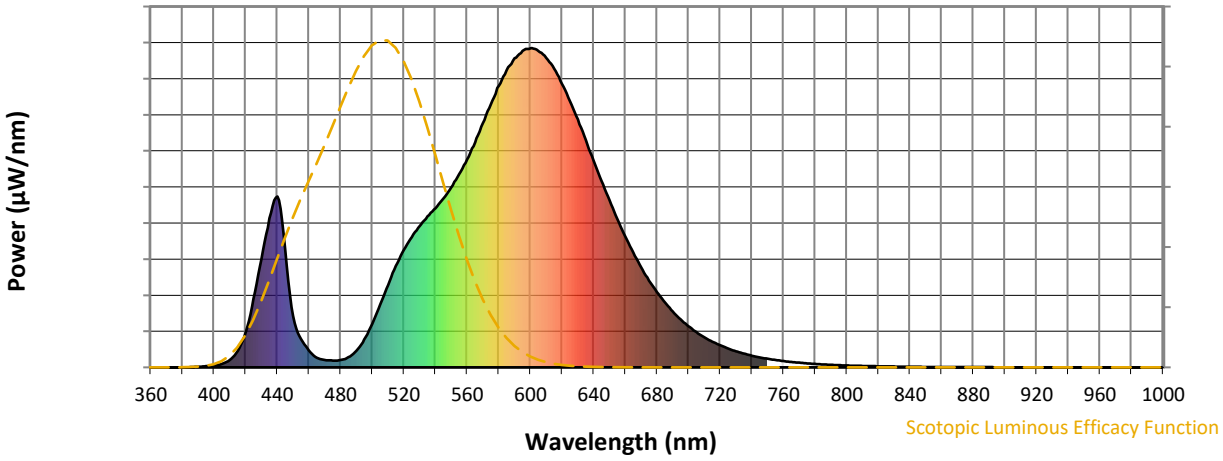



## Photopic Lumens: NR

| 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 | | | |

REPORT NUMBER: SP1-2407-184-3

## Scotopic Flux vs. Wavelength

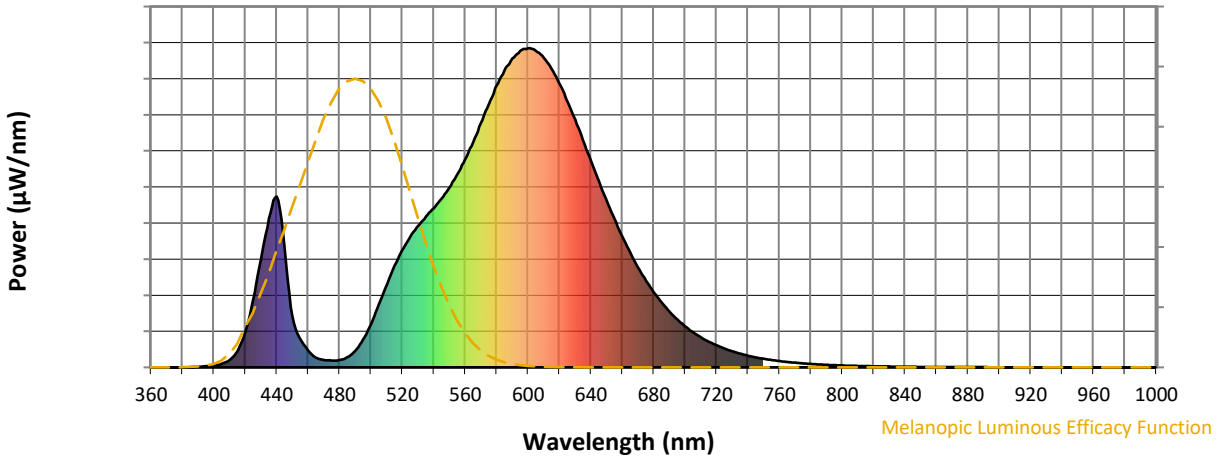



**Scotopic Lumens: NR** **S/P: 1.02**

| 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 | | | |

REPORT NUMBER: SP1-2407-184-3

## 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 | | | |

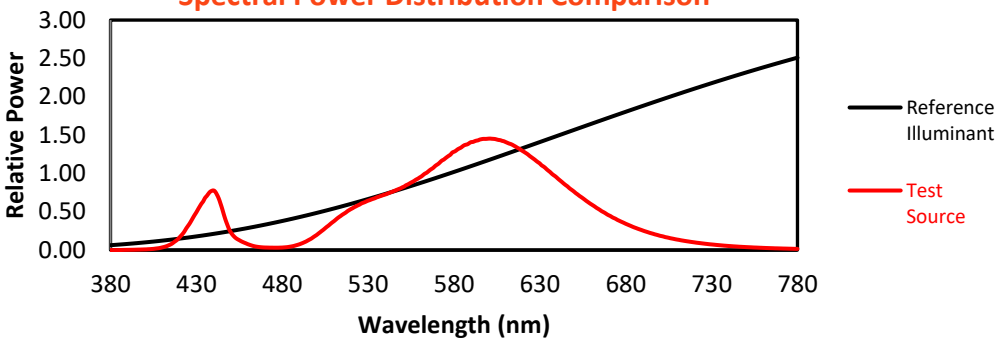
REPORT NUMBER: SP1-2407-184-3

# TM-30-18

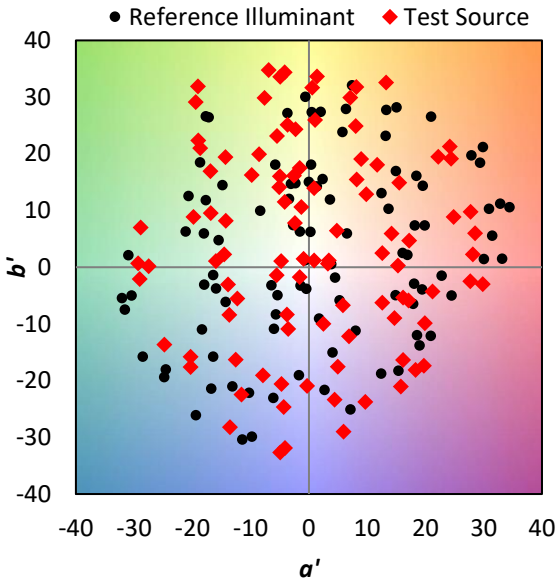
## Summary

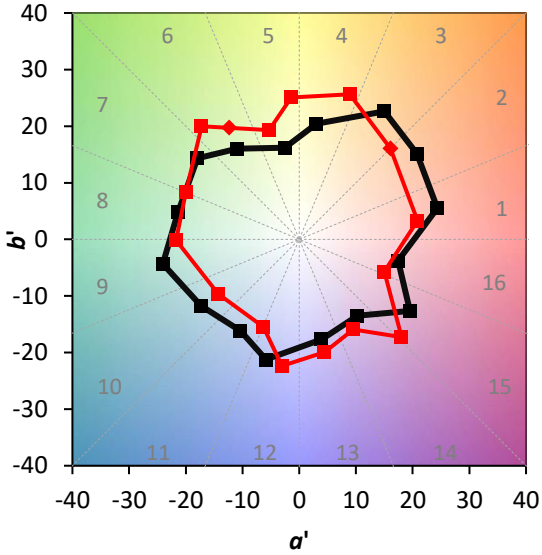
$R_f$ = 67.9
$R_g$ = 98.6
CIE $R_a$ = 71.1
$R_9$ = -27.8

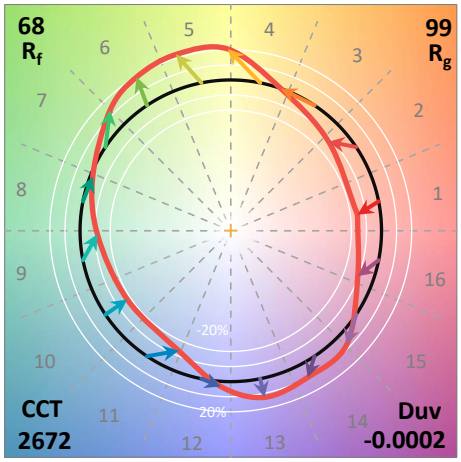
## Spectral Power Distribution Comparison

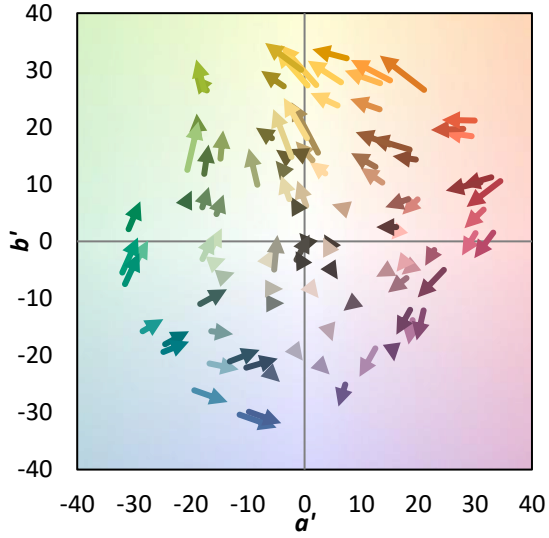



## Color Vector Graphics



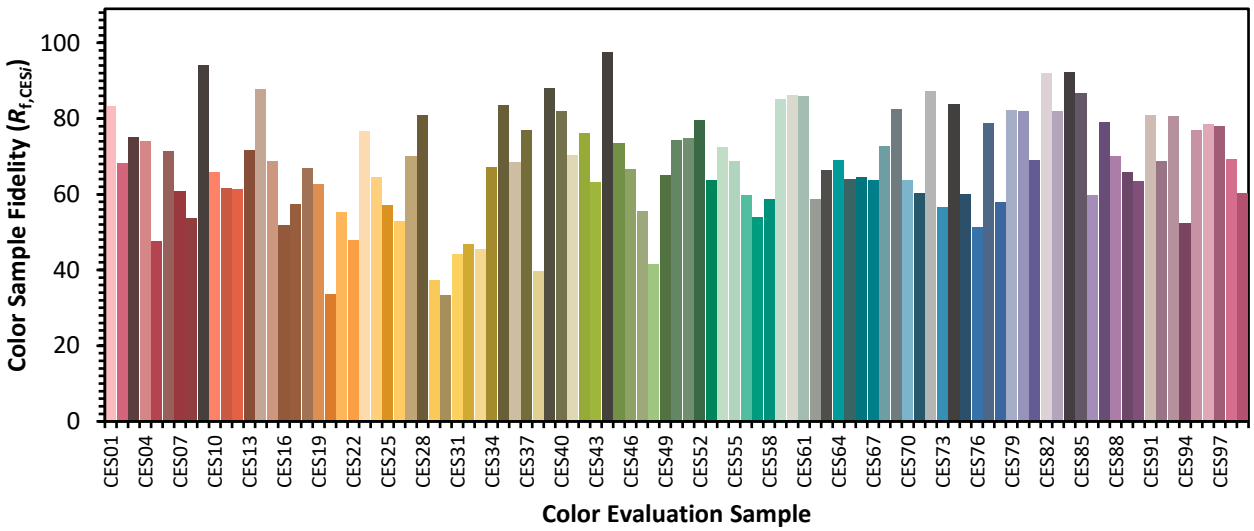



REPORT NUMBER: SP1-2407-184-3

# TM-30-18

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

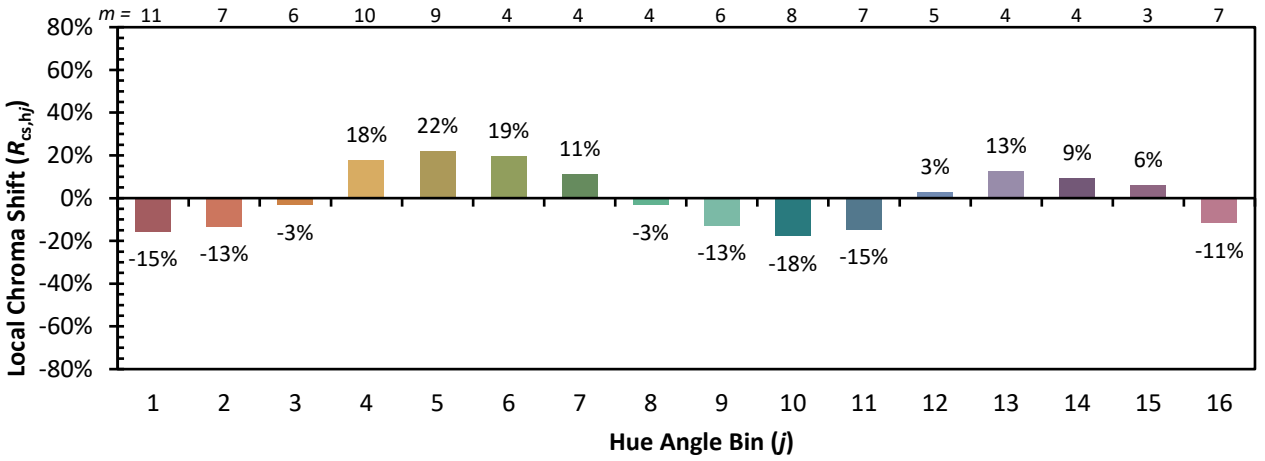
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 53 | CES51 = 75 | CES76 = 51 |
| CES02 = 63 | CES27 = 70 | CES52 = 80 | CES77 = 79 |
| CES03 = 31 | CES28 = 81 | CES53 = 64 | CES78 = 58 |
| CES04 = 71 | CES29 = 37 | CES54 = 73 | CES79 = 82 |
| CES05 = 50 | CES30 = 33 | CES55 = 69 | CES80 = 82 |
| CES06 = 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 | |

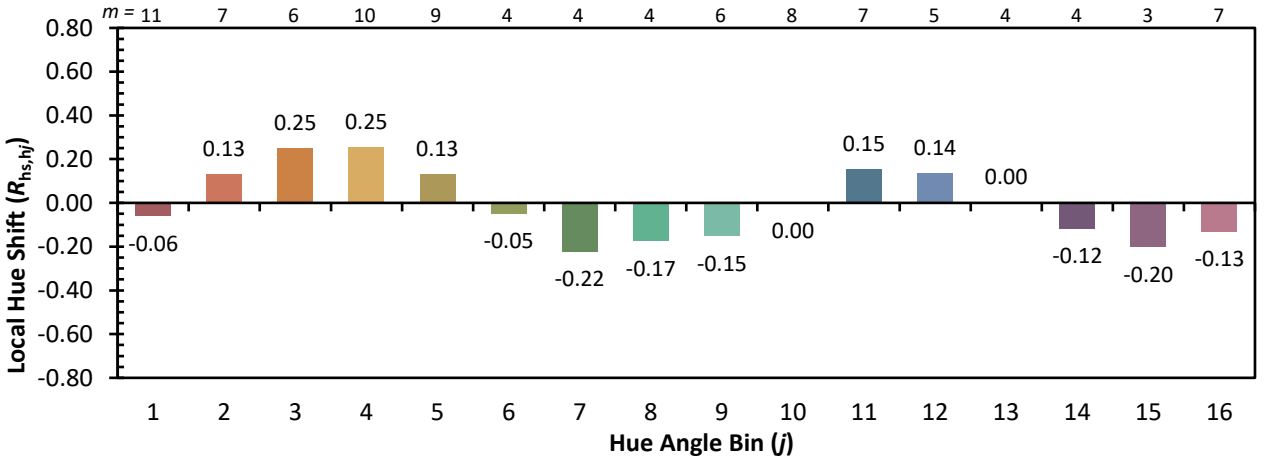


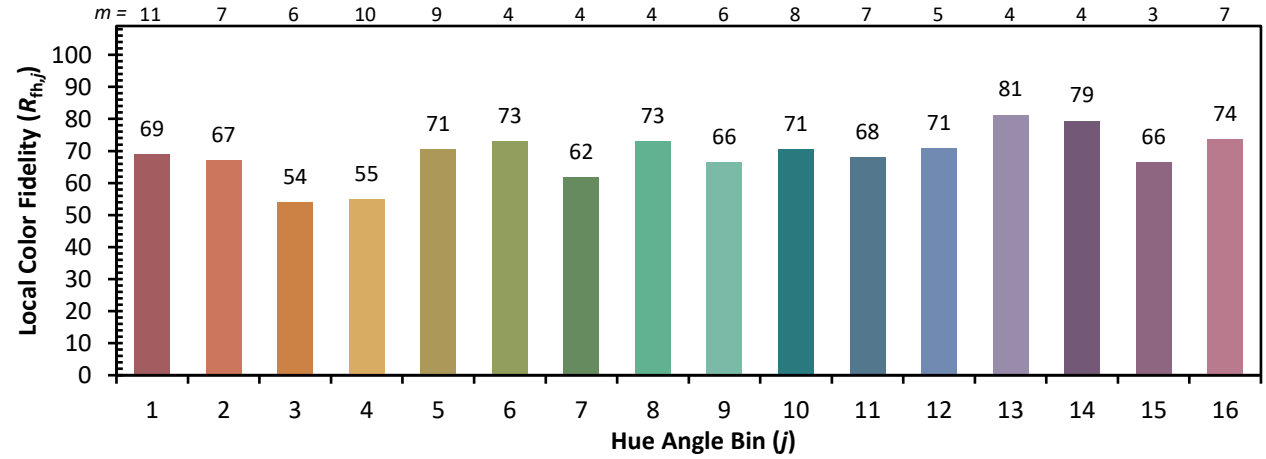
REPORT NUMBER: SP1-2407-184-3

# TM-30-18

## Color Rendition by Hue-Angle Bin



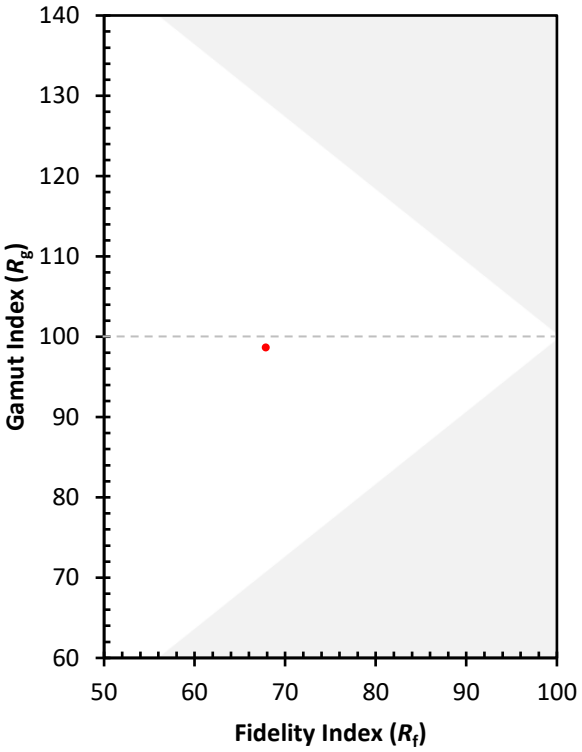



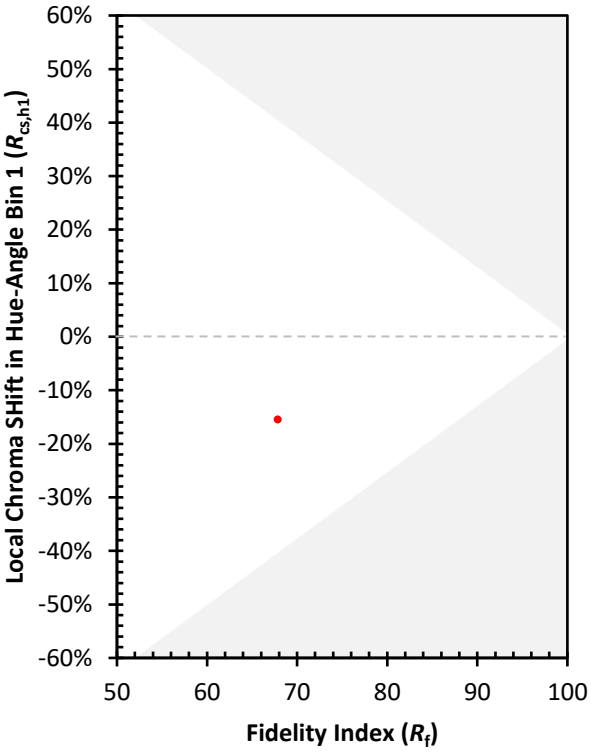



REPORT NUMBER: SP1-2407-184-3

# TM-30-18

## Measure Comparisons




(END OF REPORT)