

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P639913

Luminaire Tested: GWS-SA5C-827-U-SLR-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P639913
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5C-827-U-SLR-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (80) 2700K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9338.8 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G1

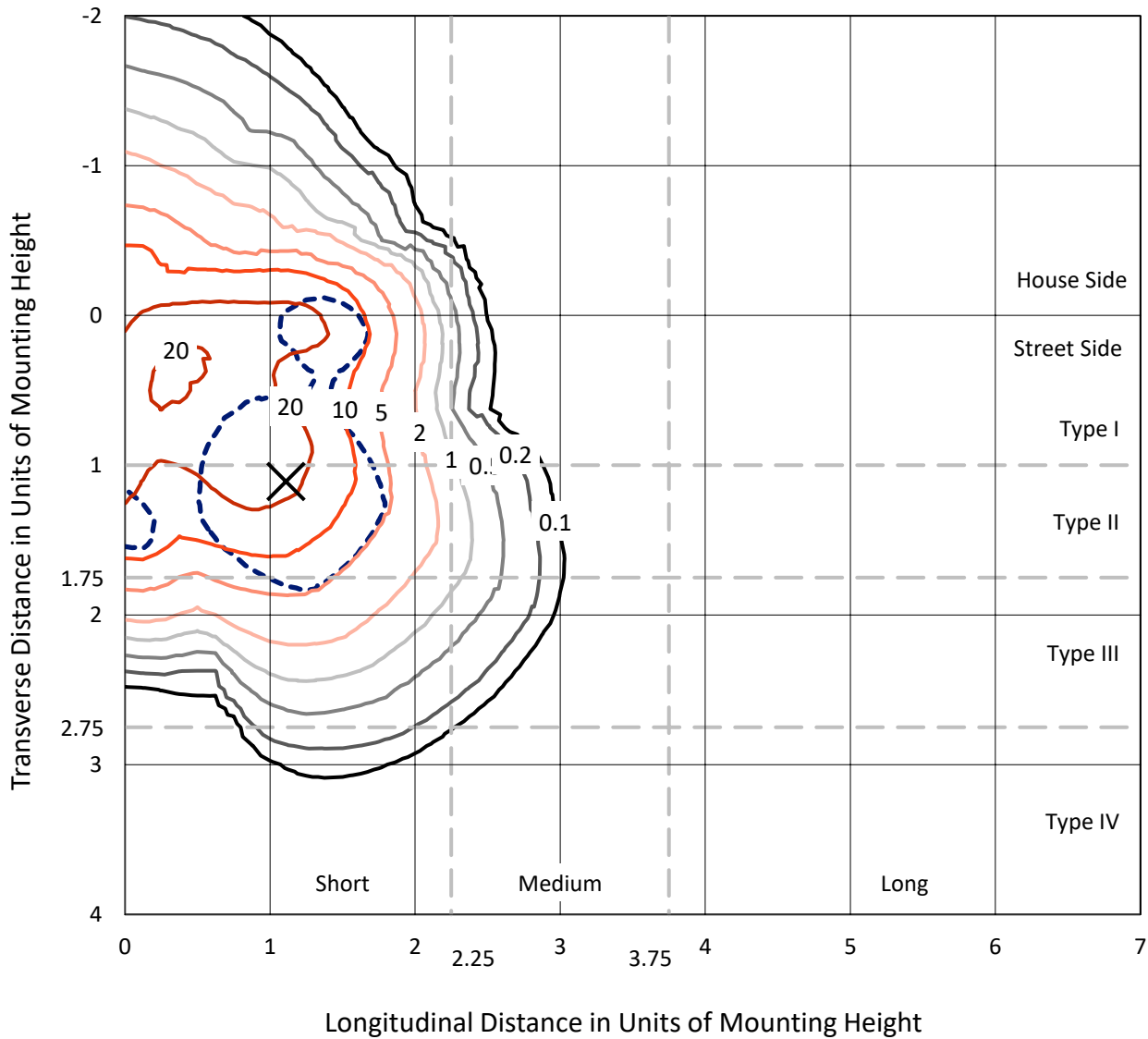
Input Watts (W): 157.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P639913
 CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination

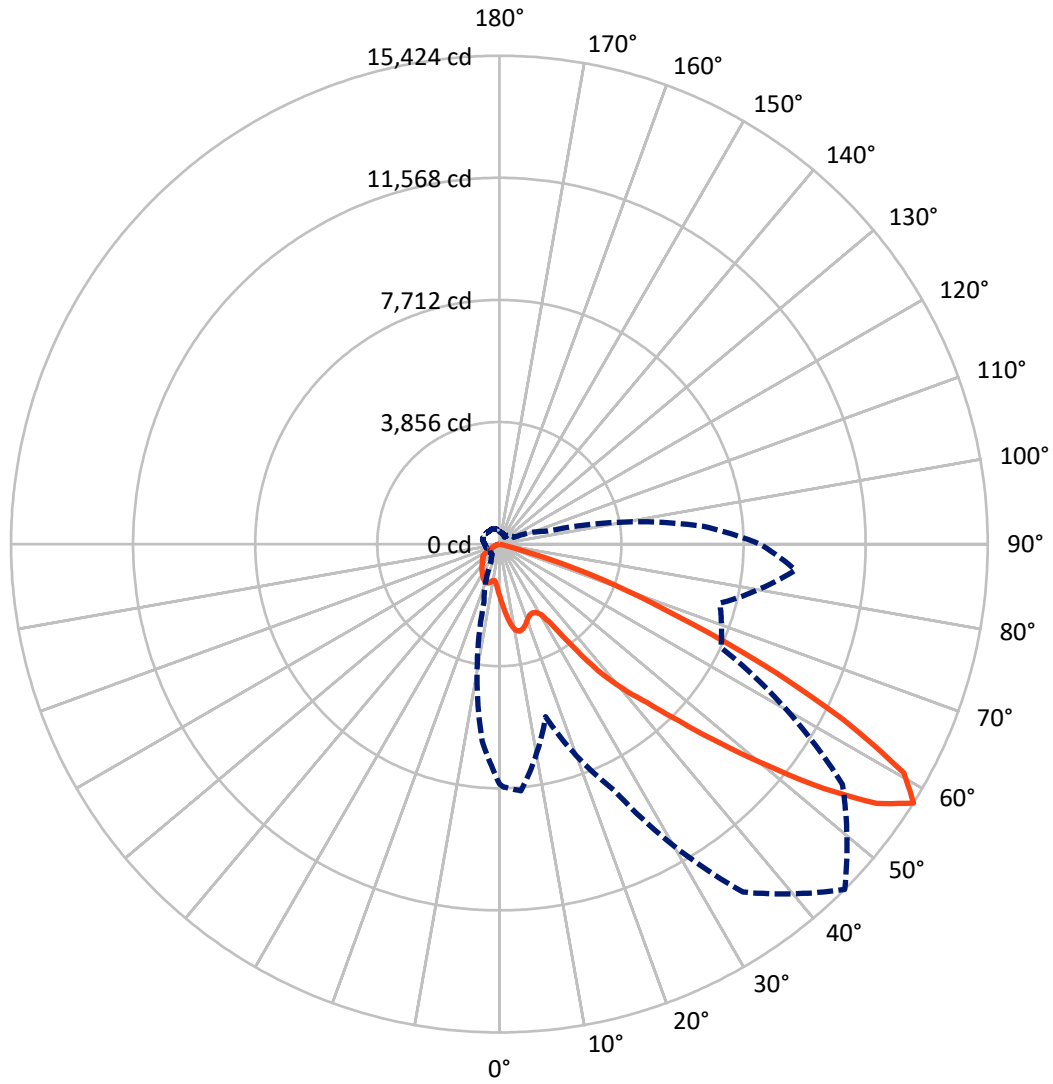
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 29.2 fc
 Type III - Short - N/A

REPORT NUMBER: P639913
CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P639913
 CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

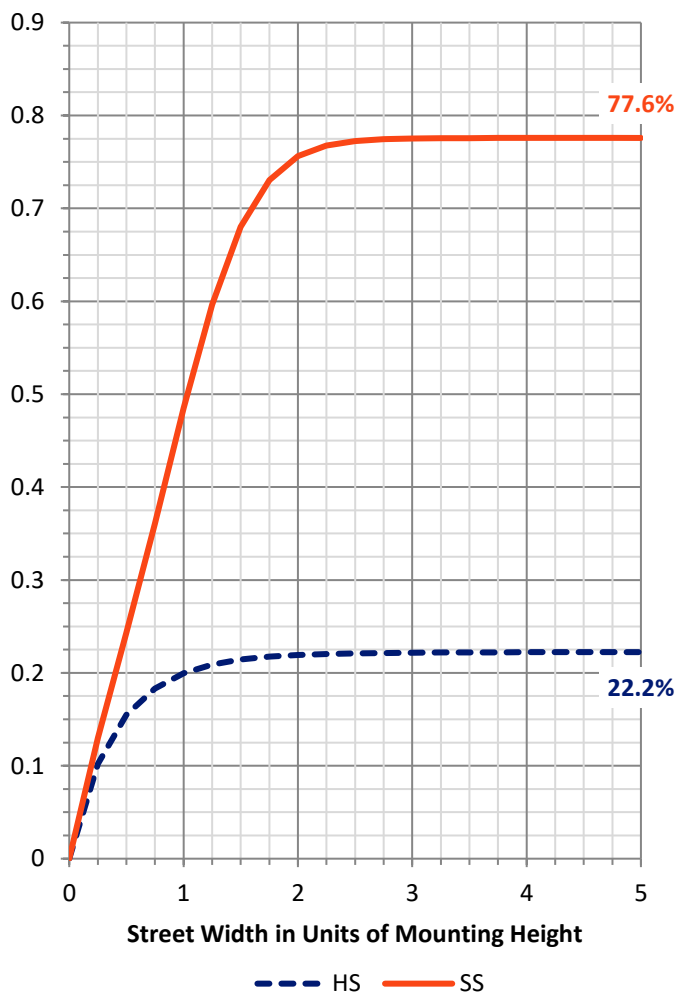
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2091.2 | 0.0 | 2091.2 |
| | % Fixture | 22.4 | 0.0 | 22.4 |
| Street Side | Lumens | 7247.6 | 0.0 | 7247.6 |
| | % Fixture | 77.6 | 0.0 | 77.6 |
| Total | Lumens | 9338.8 | 0.0 | 9338.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 161.5 | 1.7 |
| 10°-20° | 522.4 | 5.6 |
| 20°-30° | 848.5 | 9.1 |
| 30°-40° | 1311.1 | 14.0 |
| 40°-50° | 2102.4 | 22.5 |
| 50°-60° | 2873.4 | 30.8 |
| 60°-70° | 1391.7 | 14.9 |
| 70°-80° | 127.4 | 1.4 |
| 80°-90° | 0.4 | 0.0 |
| 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° | 9338.8 | 100.0 |
| 0°-180° | 9338.8 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P639913

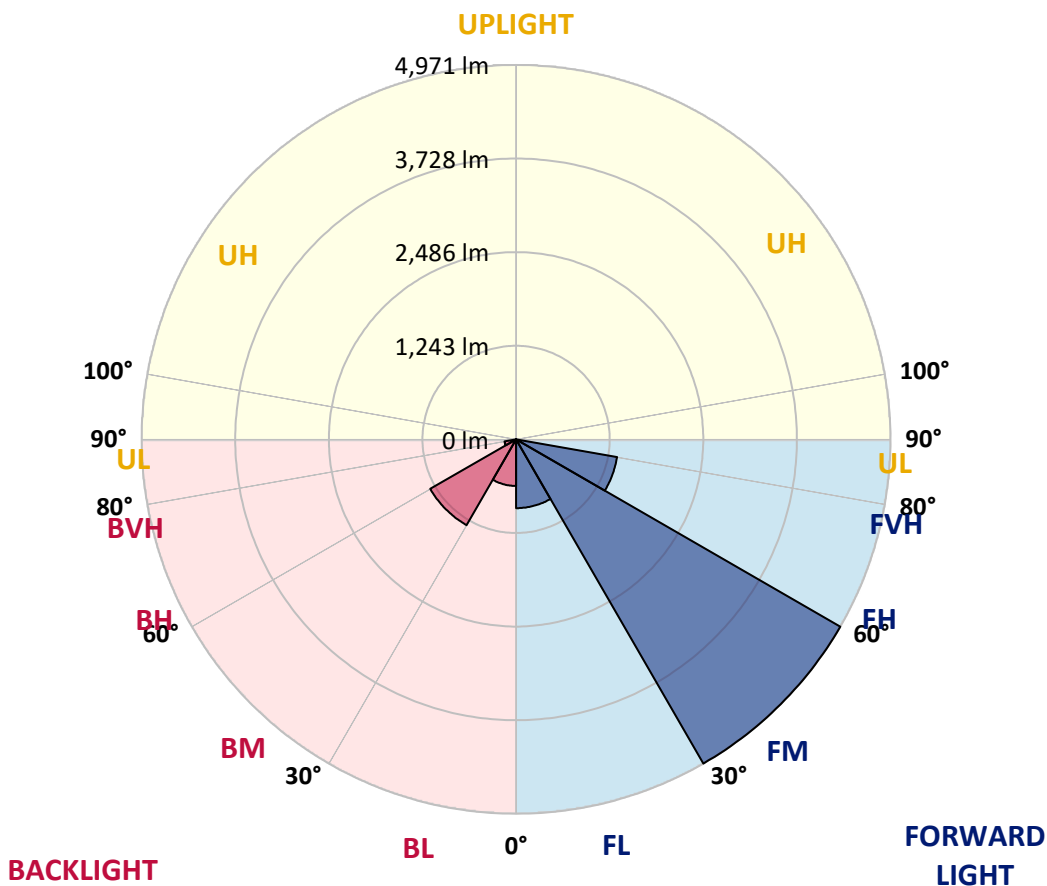
CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 913.6 | 9.8 | | | |
| FM (30°-60°) | 4971.2 | 53.2 | | | |
| FH (60°-80°) | 1362.4 | 14.6 | | | G1/1800 |
| FVH (80°-90°) | 0.4 | 0.0 | | | G0/10 |
| BL (0°-30°) | 618.8 | 6.6 | B2/1000 | | |
| BM (30°-60°) | 1315.7 | 14.1 | B2/2500 | | |
| BH (60°-80°) | 156.7 | 1.7 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.0 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G1

Type III Short





REPORT NUMBER: P639913

CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|---------|
| 0° | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 |
| 2.5° | 1778.2 | 1789.5 | 1808.3 | 1848.5 | 1882.3 | 1904.9 | 1915.0 | 1912.5 | 1898.6 | 1888.6 | 1868.5 |
| 5° | 1968.9 | 1968.9 | 2005.3 | 2096.9 | 2167.2 | 2211.1 | 2233.7 | 2219.9 | 2192.3 | 2148.4 | 2080.6 |
| 7.5° | 2135.8 | 2142.1 | 2203.6 | 2334.1 | 2440.8 | 2503.5 | 2539.9 | 2532.4 | 2483.4 | 2399.3 | 2263.8 |
| 10° | 2266.3 | 2273.9 | 2355.4 | 2514.8 | 2640.3 | 2704.3 | 2758.2 | 2763.3 | 2709.3 | 2597.6 | 2442.0 |
| 12.5° | 2393.1 | 2400.6 | 2485.9 | 2639.0 | 2749.5 | 2775.8 | 2823.5 | 2842.3 | 2828.5 | 2749.5 | 2587.6 |
| 15° | 2529.9 | 2547.4 | 2620.2 | 2734.4 | 2780.8 | 2749.5 | 2780.8 | 2814.7 | 2861.1 | 2853.6 | 2708.0 |
| 17.5° | 2664.1 | 2676.7 | 2750.7 | 2790.9 | 2739.4 | 2657.9 | 2672.9 | 2713.1 | 2818.5 | 2921.4 | 2827.3 |
| 20° | 2788.4 | 2805.9 | 2867.4 | 2814.7 | 2659.1 | 2532.4 | 2533.6 | 2586.3 | 2747.0 | 2962.8 | 2949.0 |
| 22.5° | 2918.9 | 2945.2 | 2989.1 | 2841.1 | 2585.1 | 2433.2 | 2439.5 | 2487.2 | 2690.5 | 3001.7 | 3087.0 |
| 25° | 3089.5 | 3114.6 | 3143.5 | 2906.3 | 2561.2 | 2384.3 | 2408.1 | 2452.1 | 2690.5 | 3068.2 | 3257.7 |
| 27.5° | 3320.4 | 3338.0 | 3339.3 | 3028.0 | 2602.6 | 2391.8 | 2442.0 | 2492.2 | 2770.8 | 3201.2 | 3486.1 |
| 30° | 3610.3 | 3637.9 | 3601.5 | 3217.5 | 2731.9 | 2492.2 | 2566.2 | 2629.0 | 2944.0 | 3425.8 | 3822.4 |
| 32.5° | 3962.9 | 4001.8 | 3952.9 | 3498.6 | 3001.7 | 2838.6 | 2972.8 | 3009.2 | 3220.0 | 3750.9 | 4203.9 |
| 35° | 4377.1 | 4409.7 | 4357.0 | 3887.6 | 3631.6 | 3661.8 | 3905.2 | 3858.8 | 3774.7 | 4151.2 | 4649.4 |
| 37.5° | 4831.3 | 4861.4 | 4759.8 | 4477.4 | 4562.8 | 4693.3 | 5082.3 | 4922.9 | 4651.9 | 4666.9 | 5132.5 |
| 40° | 5247.9 | 5280.6 | 5121.2 | 5118.7 | 5294.4 | 5532.8 | 6002.1 | 5782.5 | 5413.6 | 5342.1 | 5585.5 |
| 42.5° | 5679.6 | 5702.2 | 5557.9 | 5460.0 | 5859.1 | 6349.7 | 6846.7 | 6550.5 | 5918.1 | 5840.3 | 6152.7 |
| 45° | 6295.8 | 6343.5 | 6086.2 | 5628.2 | 6367.3 | 7289.6 | 7982.3 | 7403.8 | 6261.9 | 6199.1 | 7021.1 |
| 47.5° | 7201.8 | 7236.9 | 6712.4 | 5733.6 | 6840.4 | 8460.5 | 9401.6 | 8510.7 | 6564.3 | 6421.3 | 8208.2 |
| 50° | 7951.0 | 7974.8 | 7288.4 | 5849.0 | 7343.6 | 9722.9 | 11019.2 | 9823.3 | 6904.4 | 6788.9 | 9316.3 |
| 52.5° | 8503.1 | 8593.5 | 8045.1 | 6086.2 | 8004.9 | 11207.4 | 12809.9 | 11378.1 | 7435.2 | 7499.2 | 10234.9 |
| 55° | 8617.3 | 8740.3 | 8562.1 | 6231.8 | 8587.2 | 12719.6 | 14463.8 | 12769.7 | 7964.8 | 8037.6 | 10543.6 |
| 57.5° | 7573.3 | 7671.1 | 7819.2 | 5644.5 | 8573.4 | 13412.2 | 15423.8 | 13231.5 | 7723.8 | 7208.1 | 9387.8 |
| 60° | 5673.4 | 5741.1 | 6009.7 | 4314.3 | 7884.5 | 12799.9 | 14675.9 | 12446.0 | 6753.8 | 5500.2 | 7152.9 |
| 62.5° | 3364.4 | 3394.5 | 3734.5 | 2794.6 | 6544.2 | 11022.9 | 12171.2 | 10739.3 | 5337.0 | 3699.4 | 4380.8 |
| 65° | 1291.3 | 1278.7 | 1538.5 | 1379.1 | 4812.5 | 8780.5 | 9052.8 | 8186.9 | 3661.8 | 1695.4 | 1670.3 |
| 67.5° | 199.5 | 190.7 | 257.3 | 407.8 | 3471.0 | 6085.0 | 5973.3 | 5900.5 | 2293.9 | 395.3 | 345.1 |
| 70° | 45.2 | 45.2 | 55.2 | 120.5 | 2120.8 | 3575.2 | 3826.2 | 3648.0 | 1468.2 | 84.1 | 45.2 |
| 72.5° | 21.3 | 21.3 | 26.4 | 51.5 | 768.0 | 1473.2 | 1716.7 | 1690.3 | 476.9 | 27.6 | 16.3 |
| 75° | 7.5 | 8.8 | 8.8 | 11.3 | 46.4 | 76.5 | 175.7 | 125.5 | 30.1 | 0.0 | 0.0 |
| 77.5° | 2.5 | 2.5 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 1.3 | 1.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 |



REPORT NUMBER: P639913

CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 |
| 2.5° | 1824.6 | 1815.8 | 1783.2 | 1739.3 | 1696.6 | 1659.0 | 1620.1 | 1573.6 | 1539.7 | 1500.8 | 1488.3 |
| 5° | 2027.9 | 1972.7 | 1883.6 | 1790.7 | 1705.4 | 1632.6 | 1562.3 | 1487.0 | 1431.8 | 1376.6 | 1357.8 |
| 7.5° | 2199.8 | 2118.3 | 1973.9 | 1834.6 | 1717.9 | 1615.0 | 1513.4 | 1410.5 | 1330.2 | 1264.9 | 1244.8 |
| 10° | 2354.2 | 2260.1 | 2066.8 | 1894.9 | 1748.1 | 1628.8 | 1505.9 | 1376.6 | 1272.5 | 1194.7 | 1175.8 |
| 12.5° | 2487.2 | 2378.0 | 2145.9 | 1940.1 | 1760.6 | 1623.8 | 1504.6 | 1401.7 | 1307.6 | 1218.5 | 1194.7 |
| 15° | 2598.9 | 2478.4 | 2212.4 | 1970.2 | 1741.8 | 1561.1 | 1456.9 | 1440.6 | 1433.1 | 1335.2 | 1288.8 |
| 17.5° | 2708.0 | 2572.5 | 2266.3 | 1984.0 | 1689.1 | 1450.7 | 1375.4 | 1449.4 | 1528.5 | 1464.5 | 1405.5 |
| 20° | 2822.2 | 2667.9 | 2321.5 | 1986.5 | 1601.2 | 1326.4 | 1313.9 | 1430.6 | 1531.0 | 1510.9 | 1455.7 |
| 22.5° | 2956.5 | 2787.1 | 2390.6 | 1985.2 | 1490.8 | 1221.0 | 1268.7 | 1394.2 | 1475.7 | 1474.5 | 1430.6 |
| 25° | 3151.0 | 2937.7 | 2483.4 | 1992.8 | 1370.3 | 1139.4 | 1218.5 | 1332.7 | 1399.2 | 1396.7 | 1360.3 |
| 27.5° | 3359.3 | 3117.1 | 2603.9 | 2011.6 | 1267.4 | 1091.8 | 1159.5 | 1248.6 | 1306.3 | 1303.8 | 1272.5 |
| 30° | 3651.7 | 3324.2 | 2719.3 | 2012.8 | 1193.4 | 1066.7 | 1094.3 | 1155.8 | 1211.0 | 1204.7 | 1180.9 |
| 32.5° | 4006.9 | 3557.6 | 2816.0 | 1941.3 | 1147.0 | 1042.8 | 1026.5 | 1057.9 | 1100.5 | 1091.8 | 1085.5 |
| 35° | 4436.0 | 3834.9 | 2898.8 | 1784.5 | 1075.4 | 995.1 | 951.2 | 957.5 | 987.6 | 992.6 | 990.1 |
| 37.5° | 4925.4 | 4165.0 | 3001.7 | 1577.4 | 978.8 | 926.1 | 867.1 | 862.1 | 879.7 | 896.0 | 908.5 |
| 40° | 5408.6 | 4536.4 | 3141.0 | 1367.8 | 891.0 | 838.3 | 781.8 | 769.2 | 776.8 | 805.6 | 832.0 |
| 42.5° | 5951.9 | 4966.8 | 3291.6 | 1188.4 | 830.7 | 741.6 | 687.7 | 663.8 | 685.2 | 731.6 | 763.0 |
| 45° | 6735.0 | 5570.5 | 3438.4 | 1045.3 | 805.6 | 656.3 | 583.5 | 581.0 | 604.9 | 665.1 | 700.2 |
| 47.5° | 7834.3 | 6351.0 | 3535.0 | 933.6 | 804.4 | 589.8 | 503.2 | 518.3 | 545.9 | 604.9 | 645.0 |
| 50° | 8905.9 | 7328.5 | 3428.4 | 848.3 | 778.0 | 545.9 | 443.0 | 473.1 | 500.7 | 552.2 | 593.6 |
| 52.5° | 9552.2 | 7854.3 | 3013.0 | 768.0 | 696.5 | 525.8 | 384.0 | 436.7 | 441.7 | 488.2 | 532.1 |
| 55° | 9484.4 | 7514.3 | 2307.7 | 643.8 | 576.0 | 496.9 | 322.5 | 394.0 | 396.5 | 431.7 | 469.3 |
| 57.5° | 8232.1 | 6451.4 | 1584.9 | 522.0 | 432.9 | 410.3 | 266.0 | 332.5 | 356.4 | 377.7 | 405.3 |
| 60° | 6135.2 | 4707.1 | 706.5 | 424.2 | 274.8 | 277.3 | 227.1 | 251.0 | 287.4 | 312.5 | 336.3 |
| 62.5° | 3615.3 | 2708.0 | 287.4 | 254.7 | 151.8 | 174.4 | 183.2 | 183.2 | 205.8 | 224.6 | 239.7 |
| 65° | 1366.6 | 947.4 | 116.7 | 128.0 | 79.1 | 81.6 | 107.9 | 133.0 | 150.6 | 166.9 | 187.0 |
| 67.5° | 239.7 | 165.6 | 60.2 | 47.7 | 46.4 | 41.4 | 55.2 | 86.6 | 96.6 | 109.2 | 118.0 |
| 70° | 40.2 | 33.9 | 25.1 | 23.8 | 21.3 | 22.6 | 36.4 | 61.5 | 67.8 | 71.5 | 75.3 |
| 72.5° | 11.3 | 10.0 | 7.5 | 6.3 | 5.0 | 6.3 | 22.6 | 47.7 | 50.2 | 52.7 | 56.5 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.8 | 33.9 | 36.4 | 37.6 | 41.4 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 10.0 | 12.5 | 10.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 |



REPORT NUMBER: P639913

CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 |
| 2.5° | 1480.8 | 1455.7 | 1441.9 | 1434.3 | 1434.3 | 1424.3 | 1413.0 | 1409.2 | 1425.6 | 1425.6 | 1453.2 |
| 5° | 1333.9 | 1313.9 | 1291.3 | 1277.5 | 1256.1 | 1259.9 | 1247.4 | 1246.1 | 1262.4 | 1269.9 | 1298.8 |
| 7.5° | 1232.3 | 1207.2 | 1193.4 | 1184.6 | 1173.3 | 1168.3 | 1157.0 | 1153.2 | 1162.0 | 1174.6 | 1202.2 |
| 10° | 1164.5 | 1160.8 | 1159.5 | 1165.8 | 1165.8 | 1159.5 | 1149.5 | 1143.2 | 1145.7 | 1169.6 | 1200.9 |
| 12.5° | 1182.1 | 1189.6 | 1192.1 | 1202.2 | 1207.2 | 1202.2 | 1194.7 | 1197.2 | 1213.5 | 1257.4 | 1303.8 |
| 15° | 1258.7 | 1252.4 | 1249.9 | 1254.9 | 1258.7 | 1253.6 | 1251.1 | 1269.9 | 1326.4 | 1389.2 | 1441.9 |
| 17.5° | 1340.2 | 1300.1 | 1282.5 | 1282.5 | 1285.0 | 1282.5 | 1285.0 | 1321.4 | 1413.0 | 1475.7 | 1514.7 |
| 20° | 1381.6 | 1307.6 | 1280.0 | 1273.7 | 1278.7 | 1280.0 | 1288.8 | 1330.2 | 1430.6 | 1474.5 | 1483.3 |
| 22.5° | 1369.1 | 1276.2 | 1244.8 | 1239.8 | 1244.8 | 1249.9 | 1258.7 | 1293.8 | 1387.9 | 1410.5 | 1406.7 |
| 25° | 1306.3 | 1214.7 | 1189.6 | 1189.6 | 1200.9 | 1199.7 | 1203.4 | 1228.5 | 1306.3 | 1320.1 | 1313.9 |
| 27.5° | 1227.3 | 1140.7 | 1119.4 | 1131.9 | 1141.9 | 1139.4 | 1140.7 | 1162.0 | 1219.8 | 1223.5 | 1217.2 |
| 30° | 1147.0 | 1071.7 | 1051.6 | 1066.7 | 1080.5 | 1077.9 | 1079.2 | 1100.5 | 1136.9 | 1133.2 | 1124.4 |
| 32.5° | 1065.4 | 1010.2 | 995.1 | 1003.9 | 1025.2 | 1022.7 | 1027.8 | 1050.3 | 1064.1 | 1047.8 | 1037.8 |
| 35° | 990.1 | 961.2 | 950.0 | 955.0 | 971.3 | 975.0 | 983.8 | 998.9 | 998.9 | 978.8 | 961.2 |
| 37.5° | 919.8 | 916.1 | 908.5 | 902.3 | 917.3 | 928.6 | 941.2 | 958.7 | 933.6 | 904.8 | 888.5 |
| 40° | 854.6 | 870.9 | 860.9 | 844.5 | 853.3 | 869.6 | 894.7 | 908.5 | 878.4 | 849.6 | 822.0 |
| 42.5° | 794.3 | 822.0 | 818.2 | 798.1 | 805.6 | 820.7 | 849.6 | 860.9 | 825.7 | 793.1 | 766.7 |
| 45° | 736.6 | 775.5 | 778.0 | 752.9 | 760.5 | 775.5 | 809.4 | 813.2 | 768.0 | 732.9 | 714.0 |
| 47.5° | 686.4 | 729.1 | 730.3 | 711.5 | 714.0 | 735.4 | 766.7 | 768.0 | 716.5 | 683.9 | 660.1 |
| 50° | 638.7 | 687.7 | 691.4 | 675.1 | 677.6 | 702.7 | 729.1 | 724.1 | 668.9 | 635.0 | 613.6 |
| 52.5° | 581.0 | 647.5 | 656.3 | 648.8 | 658.8 | 678.9 | 695.2 | 677.6 | 613.6 | 579.8 | 560.9 |
| 55° | 518.3 | 604.9 | 623.7 | 618.7 | 630.0 | 646.3 | 650.0 | 638.7 | 558.4 | 524.5 | 507.0 |
| 57.5° | 445.5 | 498.2 | 530.8 | 520.8 | 529.6 | 545.9 | 557.2 | 548.4 | 488.2 | 461.8 | 446.7 |
| 60° | 368.9 | 404.1 | 411.6 | 395.3 | 387.8 | 416.6 | 443.0 | 431.7 | 380.2 | 363.9 | 346.3 |
| 62.5° | 269.8 | 310.0 | 315.0 | 293.6 | 284.9 | 316.2 | 338.8 | 327.5 | 271.1 | 253.5 | 239.7 |
| 65° | 215.8 | 253.5 | 263.5 | 243.4 | 238.4 | 262.3 | 276.1 | 248.5 | 208.3 | 189.5 | 174.4 |
| 67.5° | 141.8 | 171.9 | 198.3 | 197.0 | 187.0 | 194.5 | 184.5 | 161.9 | 133.0 | 123.0 | 112.9 |
| 70° | 87.8 | 105.4 | 121.7 | 128.0 | 126.7 | 124.2 | 110.4 | 94.1 | 85.3 | 81.6 | 76.5 |
| 72.5° | 67.8 | 85.3 | 97.9 | 101.6 | 102.9 | 99.1 | 87.8 | 72.8 | 64.0 | 59.0 | 55.2 |
| 75° | 50.2 | 64.0 | 74.0 | 79.1 | 81.6 | 79.1 | 67.8 | 57.7 | 48.9 | 45.2 | 41.4 |
| 77.5° | 17.6 | 21.3 | 26.4 | 28.9 | 27.6 | 26.4 | 23.8 | 23.8 | 18.8 | 17.6 | 15.1 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 |



REPORT NUMBER: P639913
 CATALOG NUMBER: GWS-SA5C-827-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (continued):

| | 285° | 295° | 305° | 315° | 325° | 335° | 345° | 355° | 359° | 360° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 | 1641.4 |
| 2.5° | 1484.5 | 1507.1 | 1548.5 | 1586.2 | 1626.3 | 1667.7 | 1712.9 | 1759.4 | 1780.7 | 1778.2 |
| 5° | 1342.7 | 1391.7 | 1459.4 | 1533.5 | 1616.3 | 1705.4 | 1804.5 | 1906.2 | 1950.1 | 1968.9 |
| 7.5° | 1253.6 | 1322.7 | 1411.7 | 1505.9 | 1615.0 | 1741.8 | 1891.1 | 2050.5 | 2114.5 | 2135.8 |
| 10° | 1264.9 | 1345.2 | 1419.3 | 1510.9 | 1627.6 | 1792.0 | 1977.7 | 2167.2 | 2242.5 | 2266.3 |
| 12.5° | 1356.5 | 1374.1 | 1394.2 | 1469.5 | 1616.3 | 1829.6 | 2056.8 | 2282.6 | 2369.2 | 2393.1 |
| 15° | 1439.4 | 1357.8 | 1320.1 | 1389.2 | 1576.1 | 1856.0 | 2137.1 | 2406.9 | 2502.2 | 2529.9 |
| 17.5° | 1443.1 | 1320.1 | 1236.1 | 1290.0 | 1510.9 | 1867.3 | 2216.1 | 2533.6 | 2637.8 | 2664.1 |
| 20° | 1396.7 | 1278.7 | 1170.8 | 1172.1 | 1421.8 | 1864.8 | 2281.4 | 2647.8 | 2764.5 | 2788.4 |
| 22.5° | 1328.9 | 1229.8 | 1118.1 | 1079.2 | 1326.4 | 1859.7 | 2352.9 | 2769.5 | 2896.3 | 2918.9 |
| 25° | 1253.6 | 1167.0 | 1067.9 | 1008.9 | 1231.0 | 1864.8 | 2453.3 | 2928.9 | 3068.2 | 3089.5 |
| 27.5° | 1172.1 | 1098.0 | 1029.0 | 981.3 | 1150.7 | 1883.6 | 2573.8 | 3132.2 | 3297.8 | 3320.4 |
| 30° | 1086.7 | 1031.5 | 1003.9 | 975.0 | 1100.5 | 1888.6 | 2704.3 | 3369.4 | 3578.9 | 3610.3 |
| 32.5° | 1002.7 | 972.5 | 973.8 | 978.8 | 1052.9 | 1853.5 | 2823.5 | 3632.9 | 3912.7 | 3962.9 |
| 35° | 924.9 | 916.1 | 941.2 | 966.3 | 983.8 | 1763.1 | 2927.7 | 3944.1 | 4325.6 | 4377.1 |
| 37.5° | 858.3 | 865.9 | 897.2 | 922.3 | 908.5 | 1635.1 | 3065.7 | 4333.1 | 4787.4 | 4831.3 |
| 40° | 794.3 | 813.2 | 849.6 | 860.9 | 850.8 | 1485.8 | 3231.3 | 4708.3 | 5187.7 | 5247.9 |
| 42.5° | 735.4 | 749.2 | 800.6 | 803.1 | 834.5 | 1333.9 | 3390.7 | 5112.4 | 5648.3 | 5679.6 |
| 45° | 687.7 | 685.2 | 737.9 | 754.2 | 855.8 | 1165.8 | 3546.3 | 5650.8 | 6250.6 | 6295.8 |
| 47.5° | 641.2 | 638.7 | 651.3 | 725.3 | 864.6 | 1010.2 | 3700.7 | 6438.8 | 7124.0 | 7201.8 |
| 50° | 597.3 | 601.1 | 562.2 | 711.5 | 816.9 | 891.0 | 3770.9 | 7167.9 | 7918.3 | 7951.0 |
| 52.5° | 558.4 | 544.6 | 476.9 | 666.3 | 715.3 | 778.0 | 3571.4 | 7499.2 | 8410.3 | 8503.1 |
| 55° | 503.2 | 426.7 | 392.8 | 540.9 | 564.7 | 678.9 | 2925.1 | 7307.2 | 8452.9 | 8617.3 |
| 57.5° | 430.4 | 335.1 | 333.8 | 399.1 | 399.1 | 630.0 | 1873.5 | 6243.1 | 7284.6 | 7573.3 |
| 60° | 331.3 | 259.8 | 276.1 | 277.3 | 256.0 | 459.3 | 1051.6 | 4522.6 | 5386.0 | 5673.4 |
| 62.5° | 235.9 | 198.3 | 208.3 | 165.6 | 146.8 | 229.6 | 504.5 | 2603.9 | 3324.2 | 3364.4 |
| 65° | 158.1 | 134.3 | 109.2 | 91.6 | 90.4 | 97.9 | 208.3 | 941.2 | 1144.5 | 1291.3 |
| 67.5° | 104.2 | 81.6 | 57.7 | 57.7 | 65.3 | 65.3 | 79.1 | 155.6 | 218.4 | 199.5 |
| 70° | 67.8 | 56.5 | 36.4 | 35.1 | 42.7 | 42.7 | 40.2 | 42.7 | 45.2 | 45.2 |
| 72.5° | 50.2 | 42.7 | 21.3 | 18.8 | 23.8 | 25.1 | 22.6 | 21.3 | 21.3 | 21.3 |
| 75° | 37.6 | 30.1 | 12.5 | 8.8 | 11.3 | 15.1 | 12.5 | 8.8 | 8.8 | 7.5 |
| 77.5° | 15.1 | 11.3 | 5.0 | 3.8 | 6.3 | 8.8 | 7.5 | 3.8 | 2.5 | 2.5 |
| 80° | 1.3 | 2.5 | 2.5 | 2.5 | 3.8 | 5.0 | 6.3 | 2.5 | 1.3 | 1.3 |
| 82.5° | 0.0 | 1.3 | 1.3 | 1.3 | 2.5 | 3.8 | 5.0 | 2.5 | 1.3 | 1.3 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 3.8 | 2.5 | 1.3 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 3.8 | 2.5 | 1.3 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

Invue

Report Number: SP1-2407-157-9

Test Date: 10/03/2024

Luminaire Tested: EMM2-HTN-SA1A-827-U-5WQ

Data applicable to all product families utilizing light square engine

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-157-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/03/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Invue
 Catalog Number: **EMM2-HTN-SA1A-827-U-5WQ**
 Description: Epic Modern Light Square 40W 5WQ Optic

Spectral Parameters

CCT (K): 2764
 CIE u': 0.2591
 CIE v': 0.5290
 Duv: 0.0020
 CIE x: 0.4581
 CIE y: 0.4156
 CIE z: 0.1263
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 583
 Purity: 62.2537
 Rf: 84.7
 Rg: 94.6

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 80.9 | | |
| R1: | 78.8 | R9: | -1.5 |
| R2: | 89.9 | R10: | 77.9 |
| R3: | 96.2 | R11: | 78.9 |
| R4: | 79.1 | R12: | 71.6 |
| R5: | 79.1 | R13: | 81.2 |
| R6: | 88.8 | R14: | 98.5 |
| R7: | 81.3 | R15: | 69.9 |
| R8: | 54.3 | | |



Test Conditions

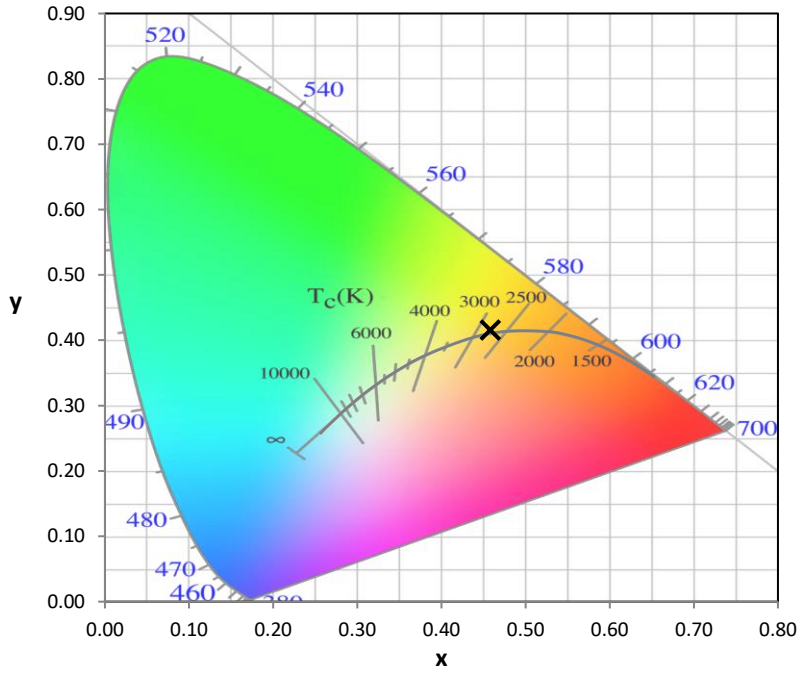
Stabilization Time: 81M
 Operation Time: 2H 21M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-157-9

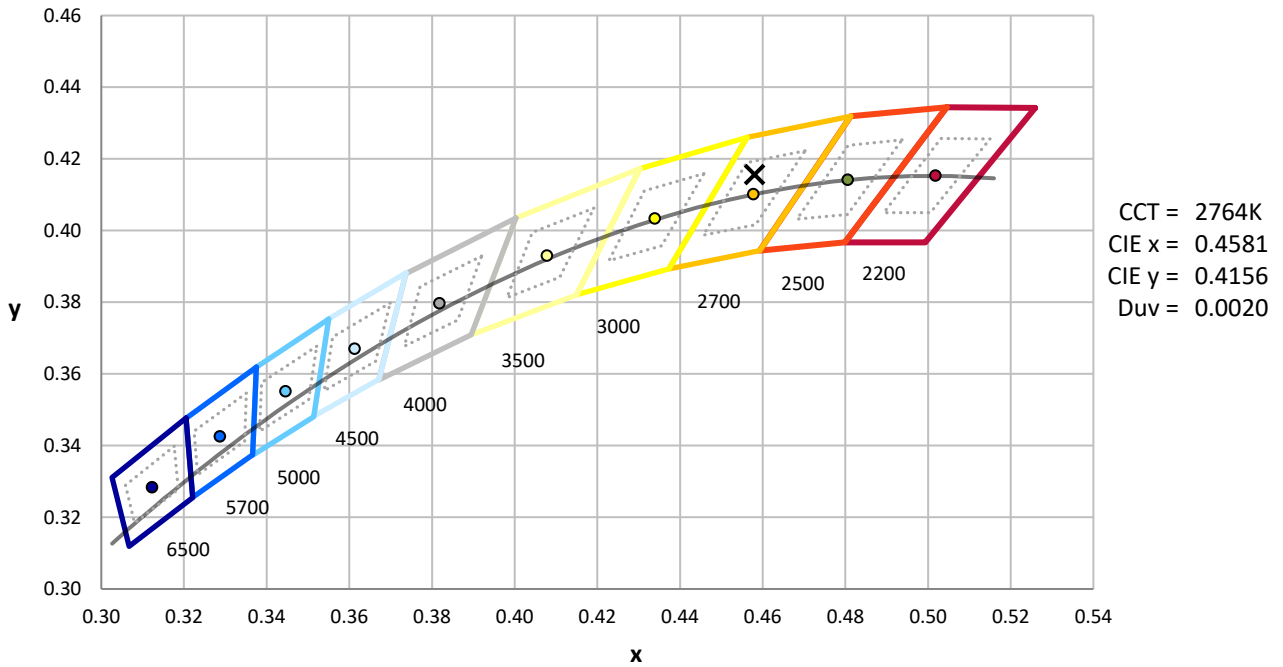
| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 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: SP1-2407-157-9

CIE 1931 Chromaticity Diagram



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



CCT = 2764K
 CIE x = 0.4581
 CIE y = 0.4156
 Duv = 0.0020

Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-9

Photopic Flux vs. Wavelength



Photopic Lumens: 4337.9

| λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) |
|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|-------------------|--------------------------------------|--------------------------------|
| 360 | 0 | 0.0 | 490 | 18018 | 2.6 | 620 | 87426 | 22.8 | 750 | 2680 | 0.0 | 880 | 58 | 0.0 |
| 365 | 0 | 0.0 | 495 | 22295 | 3.9 | 625 | 83013 | 18.2 | 755 | 2287 | 0.0 | 885 | 46 | 0.0 |
| 370 | 0 | 0.0 | 500 | 26478 | 5.8 | 630 | 78077 | 14.1 | 760 | 1944 | 0.0 | 890 | 45 | 0.0 |
| 375 | 0 | 0.0 | 505 | 30524 | 8.5 | 635 | 72080 | 10.7 | 765 | 1653 | 0.0 | 895 | 41 | 0.0 |
| 380 | 0 | 0.0 | 510 | 33611 | 11.5 | 640 | 66249 | 7.9 | 770 | 1413 | 0.0 | 900 | 38 | 0.0 |
| 385 | 0 | 0.0 | 515 | 36490 | 15.2 | 645 | 59973 | 5.7 | 775 | 1198 | 0.0 | 905 | 33 | 0.0 |
| 390 | 0 | 0.0 | 520 | 38610 | 18.7 | 650 | 53972 | 3.9 | 780 | 1025 | 0.0 | 910 | 30 | 0.0 |
| 395 | 0 | 0.0 | 525 | 40511 | 21.9 | 655 | 48369 | 2.7 | 785 | 874 | 0.0 | 915 | 23 | 0.0 |
| 400 | 48 | 0.0 | 530 | 42223 | 24.9 | 660 | 42641 | 1.8 | 790 | 747 | 0.0 | 920 | 24 | 0.0 |
| 405 | 201 | 0.0 | 535 | 44137 | 27.6 | 665 | 37602 | 1.1 | 795 | 639 | 0.0 | 925 | 22 | 0.0 |
| 410 | 457 | 0.0 | 540 | 46032 | 30.0 | 670 | 32798 | 0.7 | 800 | 547 | 0.0 | 930 | 22 | 0.0 |
| 415 | 925 | 0.0 | 545 | 48553 | 32.5 | 675 | 28558 | 0.5 | 805 | 473 | 0.0 | 935 | 17 | 0.0 |
| 420 | 1816 | 0.0 | 550 | 51408 | 34.9 | 680 | 24782 | 0.3 | 810 | 401 | 0.0 | 940 | 13 | 0.0 |
| 425 | 3217 | 0.0 | 555 | 54711 | 37.4 | 685 | 21386 | 0.2 | 815 | 351 | 0.0 | 945 | 6 | 0.0 |
| 430 | 5520 | 0.0 | 560 | 58847 | 40.0 | 690 | 18413 | 0.1 | 820 | 307 | 0.0 | 950 | 10 | 0.0 |
| 435 | 9225 | 0.1 | 565 | 63386 | 42.4 | 695 | 15721 | 0.1 | 825 | 261 | 0.0 | 955 | 11 | 0.0 |
| 440 | 15522 | 0.2 | 570 | 68196 | 44.3 | 700 | 13432 | 0.0 | 830 | 228 | 0.0 | 960 | 8 | 0.0 |
| 445 | 27642 | 0.6 | 575 | 73613 | 46.0 | 705 | 11513 | 0.0 | 835 | 193 | 0.0 | 965 | 12 | 0.0 |
| 450 | 36602 | 0.9 | 580 | 79207 | 47.1 | 710 | 9780 | 0.0 | 840 | 174 | 0.0 | 970 | 3 | 0.0 |
| 455 | 28292 | 0.9 | 585 | 84248 | 47.0 | 715 | 8356 | 0.0 | 845 | 151 | 0.0 | 975 | 8 | 0.0 |
| 460 | 21166 | 0.9 | 590 | 88397 | 45.7 | 720 | 7161 | 0.0 | 850 | 123 | 0.0 | 980 | 2 | 0.0 |
| 465 | 19092 | 1.0 | 595 | 91428 | 43.4 | 725 | 6067 | 0.0 | 855 | 106 | 0.0 | 985 | 13 | 0.0 |
| 470 | 14951 | 0.9 | 600 | 93452 | 40.3 | 730 | 5164 | 0.0 | 860 | 95 | 0.0 | 990 | 16 | 0.0 |
| 475 | 12606 | 1.0 | 605 | 93959 | 36.4 | 735 | 4393 | 0.0 | 865 | 82 | 0.0 | 995 | 20 | 0.0 |
| 480 | 13323 | 1.3 | 610 | 93079 | 32.0 | 740 | 3694 | 0.0 | 870 | 77 | 0.0 | 1000 | 0 | 0.0 |
| 485 | 15164 | 1.8 | 615 | 90707 | 27.3 | 745 | 3157 | 0.0 | 875 | 65 | 0.0 | | | |

REPORT NUMBER: SP1-2407-157-9

Scotopic Flux vs. Wavelength



Scotopic Lumens: 5286.7

S/P: 1.22

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 0 | 0.0 | 490 | 18018 | 75.9 | 620 | 87426 | 0.4 | 750 | 2680 | 0.0 | 880 | 58 | 0.0 |
| 365 | 0 | 0.0 | 495 | 22295 | 93.2 | 625 | 83013 | 0.2 | 755 | 2287 | 0.0 | 885 | 46 | 0.0 |
| 370 | 0 | 0.0 | 500 | 26478 | 107.8 | 630 | 78077 | 0.1 | 760 | 1944 | 0.0 | 890 | 45 | 0.0 |
| 375 | 0 | 0.0 | 505 | 30524 | 118.7 | 635 | 72080 | 0.1 | 765 | 1653 | 0.0 | 895 | 41 | 0.0 |
| 380 | 0 | 0.0 | 510 | 33611 | 122.2 | 640 | 66249 | 0.1 | 770 | 1413 | 0.0 | 900 | 38 | 0.0 |
| 385 | 0 | 0.0 | 515 | 36490 | 120.8 | 645 | 59973 | 0.0 | 775 | 1198 | 0.0 | 905 | 33 | 0.0 |
| 390 | 0 | 0.0 | 520 | 38610 | 113.9 | 650 | 53972 | 0.0 | 780 | 1025 | 0.0 | 910 | 30 | 0.0 |
| 395 | 0 | 0.0 | 525 | 40511 | 104.1 | 655 | 48369 | 0.0 | 785 | 874 | 0.0 | 915 | 23 | 0.0 |
| 400 | 48 | 0.0 | 530 | 42223 | 92.4 | 660 | 42641 | 0.0 | 790 | 747 | 0.0 | 920 | 24 | 0.0 |
| 405 | 201 | 0.0 | 535 | 44137 | 80.5 | 665 | 37602 | 0.0 | 795 | 639 | 0.0 | 925 | 22 | 0.0 |
| 410 | 457 | 0.1 | 540 | 46032 | 68.2 | 670 | 32798 | 0.0 | 800 | 547 | 0.0 | 930 | 22 | 0.0 |
| 415 | 925 | 0.3 | 545 | 48553 | 57.1 | 675 | 28558 | 0.0 | 805 | 473 | 0.0 | 935 | 17 | 0.0 |
| 420 | 1816 | 1.1 | 550 | 51408 | 46.7 | 680 | 24782 | 0.0 | 810 | 401 | 0.0 | 940 | 13 | 0.0 |
| 425 | 3217 | 2.5 | 555 | 54711 | 37.4 | 685 | 21386 | 0.0 | 815 | 351 | 0.0 | 945 | 6 | 0.0 |
| 430 | 5520 | 5.9 | 560 | 58847 | 29.4 | 690 | 18413 | 0.0 | 820 | 307 | 0.0 | 950 | 10 | 0.0 |
| 435 | 9225 | 12.5 | 565 | 63386 | 22.5 | 695 | 15721 | 0.0 | 825 | 261 | 0.0 | 955 | 11 | 0.0 |
| 440 | 15522 | 26.3 | 570 | 68196 | 16.9 | 700 | 13432 | 0.0 | 830 | 228 | 0.0 | 960 | 8 | 0.0 |
| 445 | 27642 | 55.2 | 575 | 73613 | 12.4 | 705 | 11513 | 0.0 | 835 | 193 | 0.0 | 965 | 12 | 0.0 |
| 450 | 36602 | 85.4 | 580 | 79207 | 9.0 | 710 | 9780 | 0.0 | 840 | 174 | 0.0 | 970 | 3 | 0.0 |
| 455 | 28292 | 75.1 | 585 | 84248 | 6.3 | 715 | 8356 | 0.0 | 845 | 151 | 0.0 | 975 | 8 | 0.0 |
| 460 | 21166 | 63.2 | 590 | 88397 | 4.4 | 720 | 7161 | 0.0 | 850 | 123 | 0.0 | 980 | 2 | 0.0 |
| 465 | 19092 | 63.2 | 595 | 91428 | 3.0 | 725 | 6067 | 0.0 | 855 | 106 | 0.0 | 985 | 13 | 0.0 |
| 470 | 14951 | 54.2 | 600 | 93452 | 2.0 | 730 | 5164 | 0.0 | 860 | 95 | 0.0 | 990 | 16 | 0.0 |
| 475 | 12606 | 48.8 | 605 | 93959 | 1.3 | 735 | 4393 | 0.0 | 865 | 82 | 0.0 | 995 | 20 | 0.0 |
| 480 | 13323 | 54.2 | 610 | 93079 | 0.9 | 740 | 3694 | 0.0 | 870 | 77 | 0.0 | 1000 | 0 | 0.0 |
| 485 | 15164 | 63.3 | 615 | 90707 | 0.5 | 745 | 3157 | 0.0 | 875 | 65 | 0.0 | | | |

REPORT NUMBER: SP1-2407-157-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: 9797

M/P: 2.26

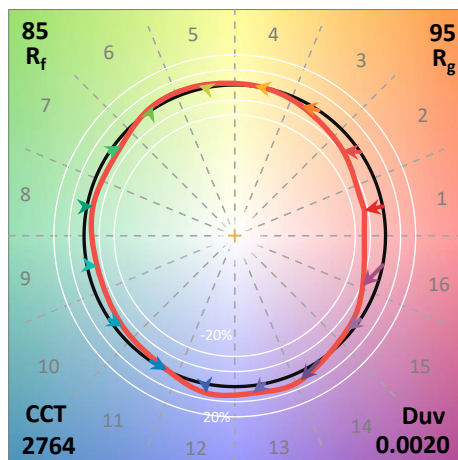
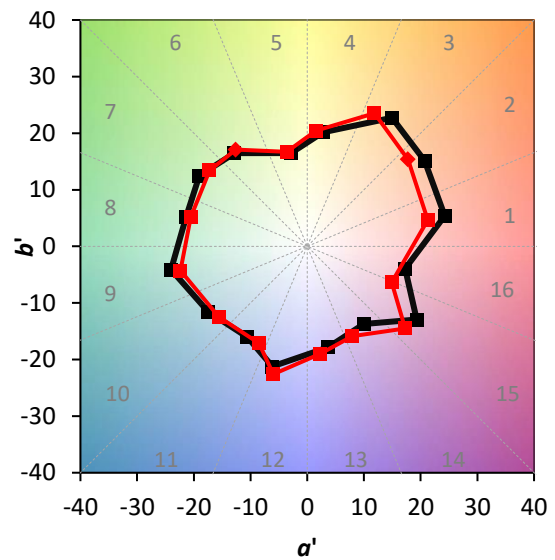
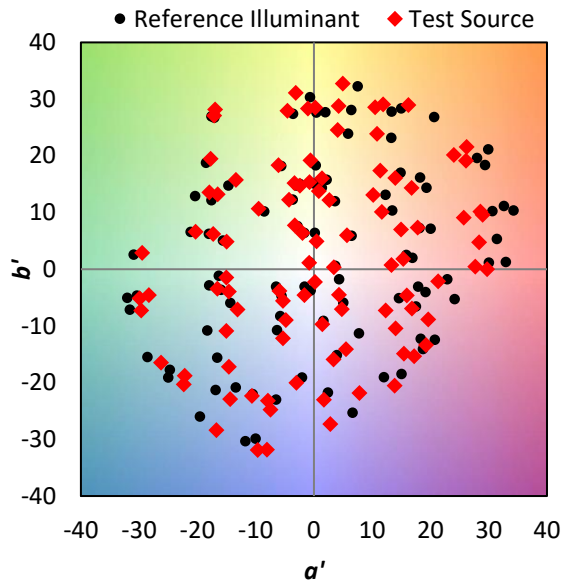
| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 0 | 0.0 | 490 | 18018 | 27.7 | 620 | 87426 | 1.1 | 750 | 2680 | 0.0 | 880 | 58 | 0.0 |
| 365 | 0 | 0.0 | 495 | 22295 | 36.0 | 625 | 83013 | 0.7 | 755 | 2287 | 0.0 | 885 | 46 | 0.0 |
| 370 | 0 | 0.0 | 500 | 26478 | 44.2 | 630 | 78077 | 0.4 | 760 | 1944 | 0.0 | 890 | 45 | 0.0 |
| 375 | 0 | 0.0 | 505 | 30524 | 51.8 | 635 | 72080 | 0.3 | 765 | 1653 | 0.0 | 895 | 41 | 0.0 |
| 380 | 0 | 0.0 | 510 | 33611 | 57.0 | 640 | 66249 | 0.2 | 770 | 1413 | 0.0 | 900 | 38 | 0.0 |
| 385 | 0 | 0.0 | 515 | 36490 | 60.5 | 645 | 59973 | 0.1 | 775 | 1198 | 0.0 | 905 | 33 | 0.0 |
| 390 | 0 | 0.0 | 520 | 38610 | 61.4 | 650 | 53972 | 0.1 | 780 | 1025 | 0.0 | 910 | 30 | 0.0 |
| 395 | 0 | 0.0 | 525 | 40511 | 60.6 | 655 | 48369 | 0.0 | 785 | 874 | 0.0 | 915 | 23 | 0.0 |
| 400 | 48 | 0.0 | 530 | 42223 | 58.2 | 660 | 42641 | 0.0 | 790 | 747 | 0.0 | 920 | 24 | 0.0 |
| 405 | 201 | 0.0 | 535 | 44137 | 55.0 | 665 | 37602 | 0.0 | 795 | 639 | 0.0 | 925 | 22 | 0.0 |
| 410 | 457 | 0.0 | 540 | 46032 | 50.9 | 670 | 32798 | 0.0 | 800 | 547 | 0.0 | 930 | 22 | 0.0 |
| 415 | 925 | 0.1 | 545 | 48553 | 46.6 | 675 | 28558 | 0.0 | 805 | 473 | 0.0 | 935 | 17 | 0.0 |
| 420 | 1816 | 0.3 | 550 | 51408 | 42.0 | 680 | 24782 | 0.0 | 810 | 401 | 0.0 | 940 | 13 | 0.0 |
| 425 | 3217 | 0.8 | 555 | 54711 | 37.4 | 685 | 21386 | 0.0 | 815 | 351 | 0.0 | 945 | 6 | 0.0 |
| 430 | 5520 | 1.9 | 560 | 58847 | 32.9 | 690 | 18413 | 0.0 | 820 | 307 | 0.0 | 950 | 10 | 0.0 |
| 435 | 9225 | 4.1 | 565 | 63386 | 28.4 | 695 | 15721 | 0.0 | 825 | 261 | 0.0 | 955 | 11 | 0.0 |
| 440 | 15522 | 8.7 | 570 | 68196 | 24.1 | 700 | 13432 | 0.0 | 830 | 228 | 0.0 | 960 | 8 | 0.0 |
| 445 | 27642 | 18.5 | 575 | 73613 | 20.0 | 705 | 11513 | 0.0 | 835 | 193 | 0.0 | 965 | 12 | 0.0 |
| 450 | 36602 | 28.3 | 580 | 79207 | 16.3 | 710 | 9780 | 0.0 | 840 | 174 | 0.0 | 970 | 3 | 0.0 |
| 455 | 28292 | 24.7 | 585 | 84248 | 12.9 | 715 | 8356 | 0.0 | 845 | 151 | 0.0 | 975 | 8 | 0.0 |
| 460 | 21166 | 20.4 | 590 | 88397 | 9.8 | 720 | 7161 | 0.0 | 850 | 123 | 0.0 | 980 | 2 | 0.0 |
| 465 | 19092 | 20.1 | 595 | 91428 | 7.3 | 725 | 6067 | 0.0 | 855 | 106 | 0.0 | 985 | 13 | 0.0 |
| 470 | 14951 | 17.2 | 600 | 93452 | 5.3 | 730 | 5164 | 0.0 | 860 | 95 | 0.0 | 990 | 16 | 0.0 |
| 475 | 12606 | 15.7 | 605 | 93959 | 3.7 | 735 | 4393 | 0.0 | 865 | 82 | 0.0 | 995 | 20 | 0.0 |
| 480 | 13323 | 18.0 | 610 | 93079 | 2.5 | 740 | 3694 | 0.0 | 870 | 77 | 0.0 | 1000 | 0 | 0.0 |
| 485 | 15164 | 21.9 | 615 | 90707 | 1.7 | 745 | 3157 | 0.0 | 875 | 65 | 0.0 | | | |

Summary

$R_f = 84.7$
 $R_g = 94.6$
 CIE $R_a = 80.9$
 $R_9 = -1.5$



Color Vector Graphics



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

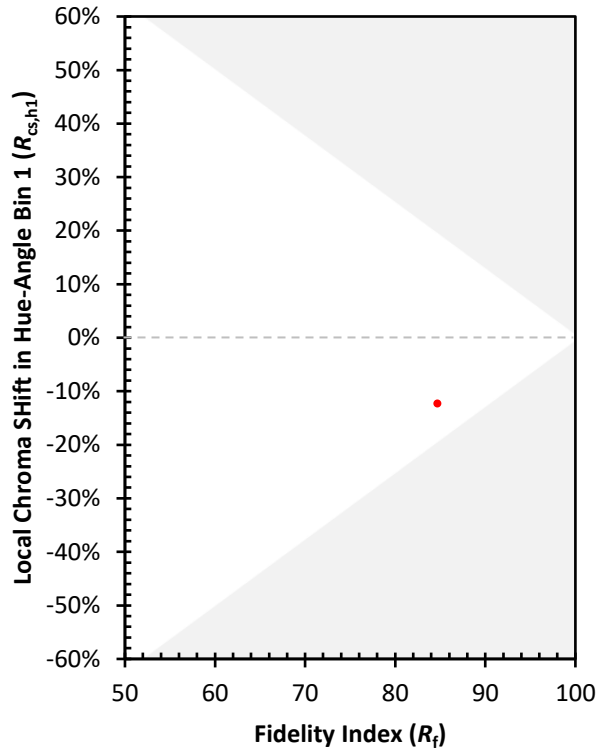
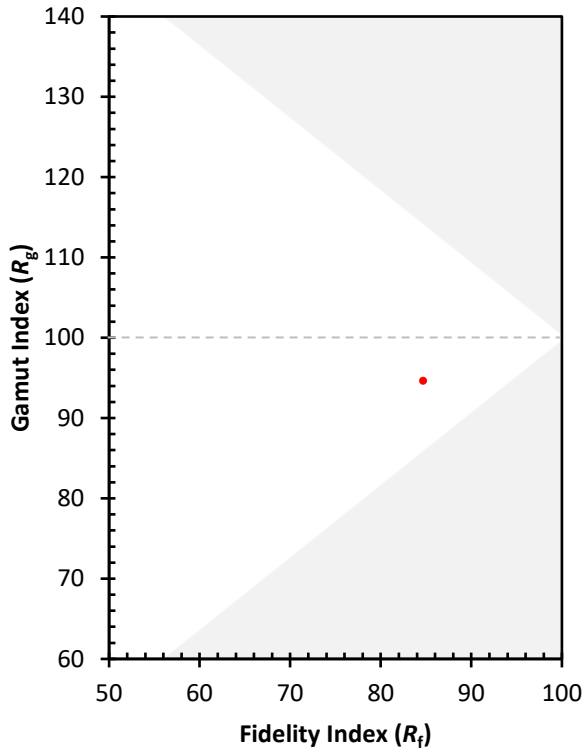
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 84 | CES51 = 95 | CES76 = 81 |
| CES02 = 63 | CES27 = 95 | CES52 = 94 | CES77 = 84 |
| CES03 = 31 | CES28 = 94 | CES53 = 89 | CES78 = 81 |
| CES04 = 71 | CES29 = 87 | CES54 = 91 | CES79 = 89 |
| CES05 = 50 | CES30 = 94 | CES55 = 90 | CES80 = 89 |
| CES06 = 52 | CES31 = 89 | CES56 = 86 | CES81 = 69 |
| CES07 = 43 | CES32 = 82 | CES57 = 85 | CES82 = 96 |
| CES08 = 41 | CES33 = 91 | CES58 = 86 | CES83 = 93 |
| CES09 = 29 | CES34 = 92 | CES59 = 91 | CES84 = 92 |
| CES10 = 77 | CES35 = 96 | CES60 = 94 | CES85 = 76 |
| CES11 = 60 | CES36 = 90 | CES61 = 89 | CES86 = 65 |
| CES12 = 66 | CES37 = 96 | CES62 = 94 | CES87 = 84 |
| CES13 = 44 | CES38 = 98 | CES63 = 87 | CES88 = 86 |
| CES14 = 74 | CES39 = 98 | CES64 = 82 | CES89 = 73 |
| CES15 = 72 | CES40 = 95 | CES65 = 78 | CES90 = 88 |
| CES16 = 48 | CES41 = 96 | CES66 = 81 | CES91 = 82 |
| CES17 = 50 | CES42 = 97 | CES67 = 80 | CES92 = 64 |
| CES18 = 57 | CES43 = 91 | CES68 = 83 | CES93 = 78 |
| CES19 = 73 | CES44 = 99 | CES69 = 88 | CES94 = 59 |
| CES20 = 67 | CES45 = 93 | CES70 = 80 | CES95 = 74 |
| CES21 = 87 | CES46 = 89 | CES71 = 79 | CES96 = 83 |
| CES22 = 79 | CES47 = 92 | CES72 = 92 | CES97 = 88 |
| CES23 = 92 | CES48 = 83 | CES73 = 75 | CES98 = 83 |
| CES24 = 91 | CES49 = 90 | CES74 = 91 | CES99 = 74 |
| CES25 = 72 | CES50 = 94 | CES75 = 81 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)