

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

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Peachtree City, GA 30269

Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: STREETWORKS

Report Number: P1456884

Luminaire Tested: GLAN-SB4B-940-U-T3LG

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1456884
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB4B-940-U-T3LG
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 450mA 4xLight Square
PACKAGE 90CRI 4000K FIXTURE w/ TYPE III LOW GLARE
Light Source: (104) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15952.9 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

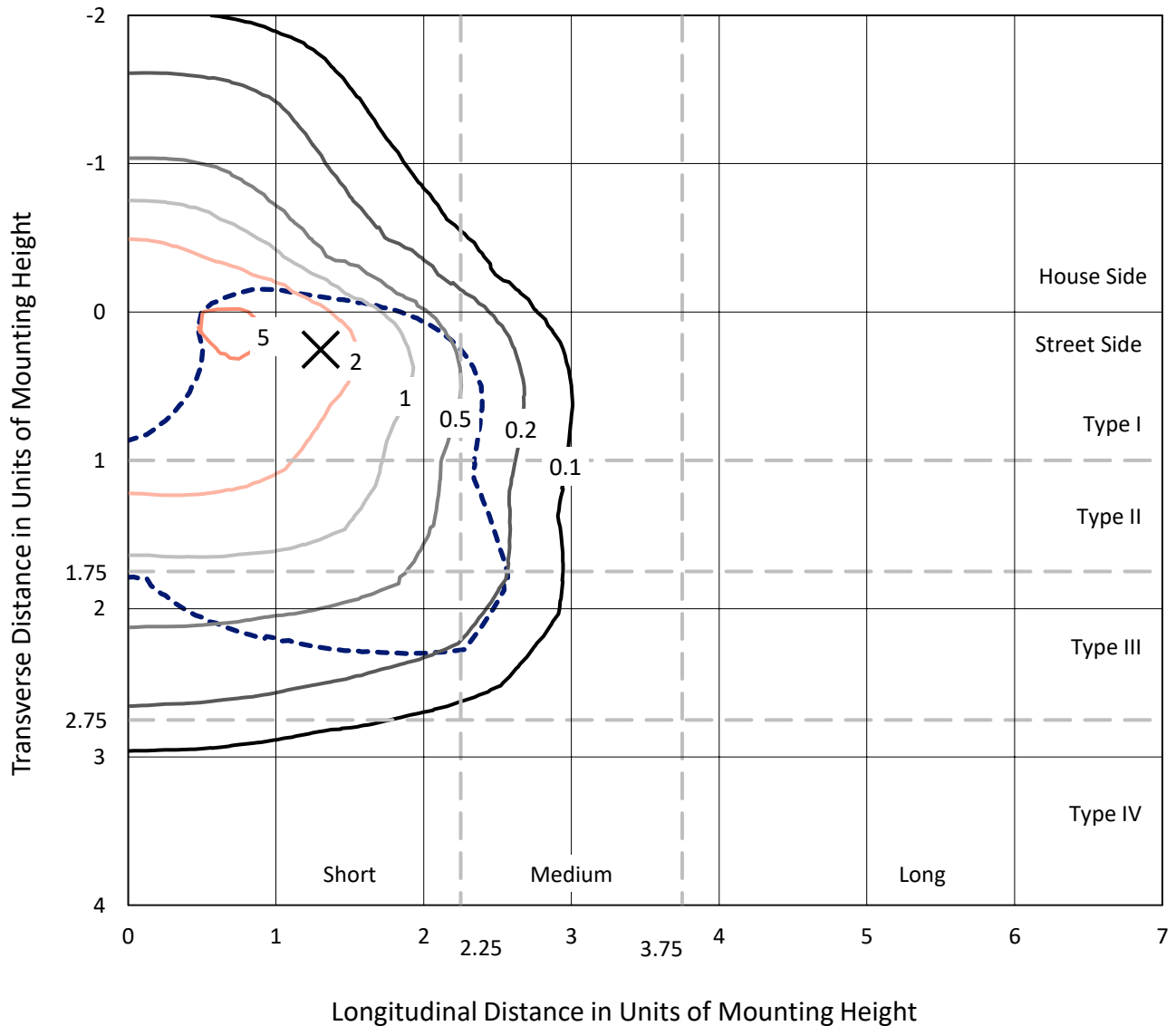
Input Watts (W): 147
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.97
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

REPORT NUMBER: P1456884

CATALOG NUMBER: GLAN-SB4B-940-U-T3LG

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

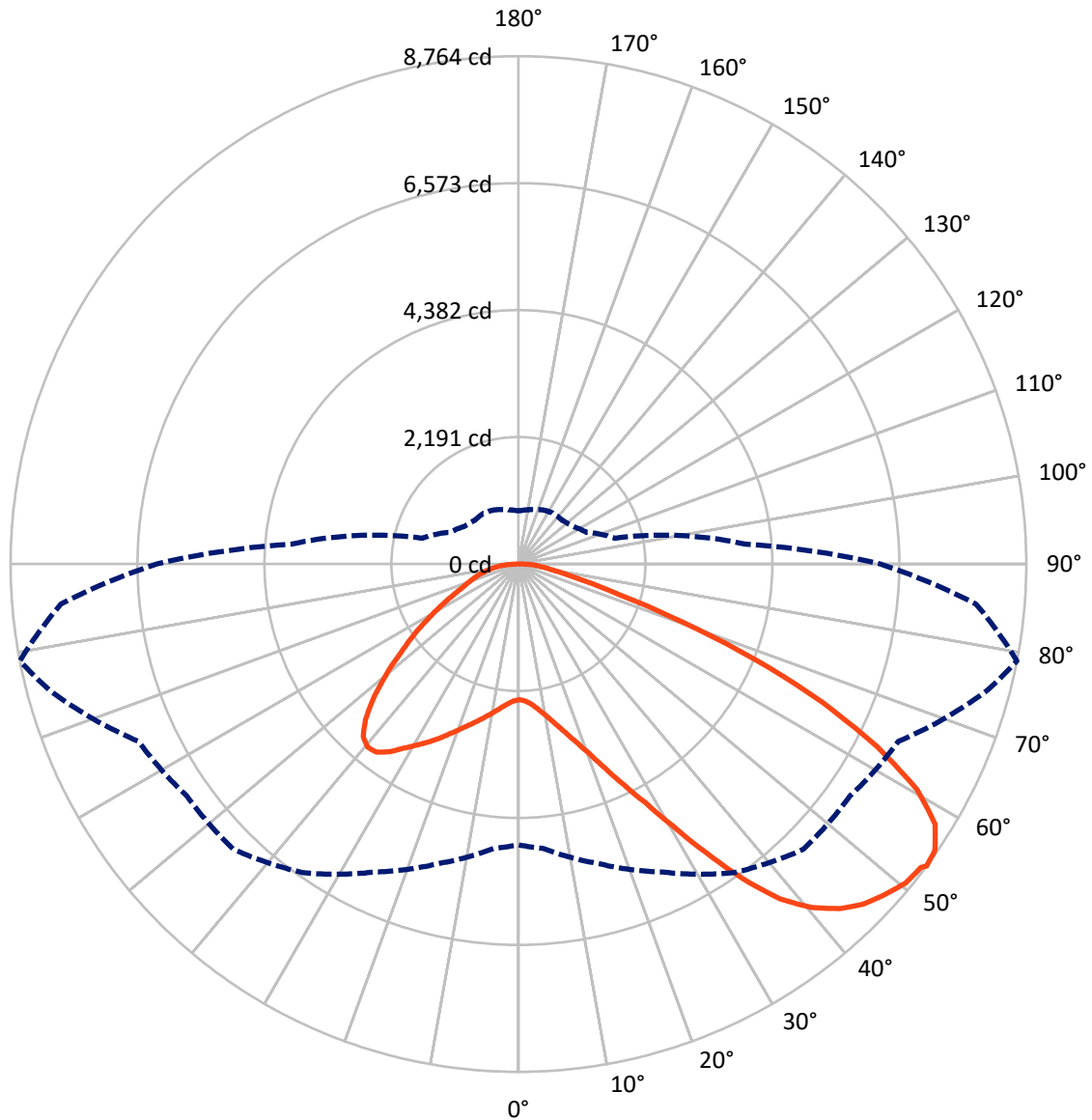


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Short - N/A

REPORT NUMBER: P1456884

CATALOG NUMBER: GLAN-SB4B-940-U-T3LG

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 53-Deg Vertical

REPORT NUMBER: P1456884

CATALOG NUMBER: GLAN-SB4B-940-U-T3LG

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4021.6 | 0.0 | 4021.6 |
| | % Fixture | 25.2 | 0.0 | 25.2 |
| Street Side | Lumens | 11931.3 | 0.0 | 11931.3 |
| | % Fixture | 74.8 | 0.0 | 74.8 |
| Total | Lumens | 15952.9 | 0.0 | 15952.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 223.1 | 1.4 |
| 10°-20° | 691.0 | 4.3 |
| 20°-30° | 1321.2 | 8.3 |
| 30°-40° | 2268.3 | 14.2 |
| 40°-50° | 3177.2 | 19.9 |
| 50°-60° | 3605.7 | 22.6 |
| 60°-70° | 3162.0 | 19.8 |
| 70°-80° | 1236.4 | 7.8 |
| 80°-90° | 267.9 | 1.7 |
| 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° | 15952.9 | 100.0 |
| 0°-180° | 15952.9 | 100.0 |



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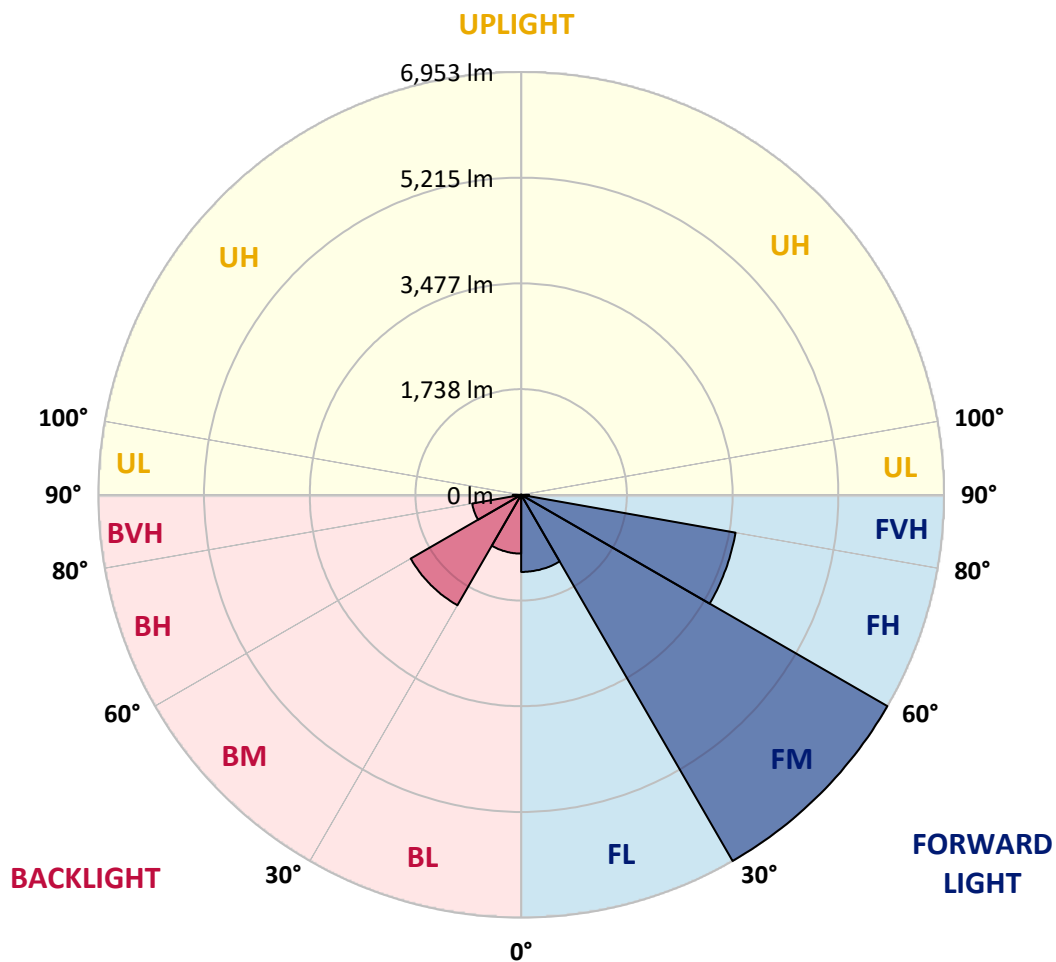
CATALOG NUMBER: GLAN-SB4B-940-U-T3LG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1268.1 | 7.9 | | | |
| FM | (30°-60°) | 6953.3 | 43.6 | | | |
| FH | (60°-80°) | 3580.0 | 22.4 | | | G2/5000 |
| FVH | (80°-90°) | 129.9 | 0.8 | | | G2/225 |
| BL | (0°-30°) | 967.2 | 6.1 | B2/1000 | | |
| BM | (30°-60°) | 2098.0 | 13.2 | B2/2500 | | |
| BH | (60°-80°) | 818.5 | 5.1 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 137.9 | 0.9 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type III Short





REPORT NUMBER: P1456884

CATALOG NUMBER: GLAN-SB4B-940-U-T3LG

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 |
| 2.5° | 2345.5 | 2345.5 | 2331.3 | 2345.5 | 2338.4 | 2349.0 | 2356.1 | 2356.1 | 2370.4 | 2366.8 | 2366.8 |
| 5° | 2306.4 | 2299.3 | 2295.7 | 2320.6 | 2334.8 | 2363.3 | 2395.2 | 2409.5 | 2434.3 | 2434.3 | 2437.9 |
| 7.5° | 2203.3 | 2199.8 | 2217.5 | 2267.3 | 2313.5 | 2384.6 | 2452.1 | 2491.2 | 2530.3 | 2537.4 | 2537.4 |
| 10° | 2139.4 | 2135.8 | 2157.1 | 2217.5 | 2292.2 | 2395.2 | 2501.8 | 2583.6 | 2647.6 | 2665.3 | 2665.3 |
| 12.5° | 2139.4 | 2139.4 | 2157.1 | 2217.5 | 2295.7 | 2420.1 | 2565.8 | 2704.4 | 2803.9 | 2825.2 | 2818.1 |
| 15° | 2199.8 | 2196.2 | 2217.5 | 2281.5 | 2356.1 | 2473.4 | 2651.1 | 2835.9 | 2970.9 | 3010.0 | 3013.6 |
| 17.5° | 2263.7 | 2260.2 | 2292.2 | 2373.9 | 2462.8 | 2580.0 | 2761.3 | 2988.7 | 3180.6 | 3230.4 | 3241.0 |
| 20° | 2363.3 | 2359.7 | 2398.8 | 2477.0 | 2587.1 | 2722.2 | 2910.5 | 3170.0 | 3436.5 | 3489.8 | 3504.0 |
| 22.5° | 2477.0 | 2480.5 | 2523.2 | 2619.1 | 2729.3 | 2907.0 | 3138.0 | 3425.8 | 3745.7 | 3827.4 | 3841.6 |
| 25° | 2715.1 | 2704.4 | 2739.9 | 2807.5 | 2924.7 | 3138.0 | 3422.3 | 3735.0 | 4115.3 | 4214.8 | 4232.5 |
| 27.5° | 3031.4 | 3013.6 | 3052.7 | 3120.2 | 3205.5 | 3404.5 | 3731.4 | 4079.7 | 4538.2 | 4662.5 | 4666.1 |
| 30° | 3315.7 | 3305.0 | 3358.3 | 3496.9 | 3585.7 | 3738.6 | 4086.8 | 4484.8 | 5060.6 | 5241.8 | 5248.9 |
| 32.5° | 3560.9 | 3557.3 | 3656.8 | 3834.5 | 4037.1 | 4200.5 | 4538.2 | 4996.6 | 5721.6 | 5931.2 | 5885.0 |
| 35° | 3795.4 | 3806.1 | 3930.5 | 4115.3 | 4385.3 | 4712.3 | 5053.4 | 5575.9 | 6418.1 | 6670.4 | 6595.8 |
| 37.5° | 4033.5 | 4040.6 | 4204.1 | 4442.2 | 4726.5 | 5153.0 | 5611.4 | 6204.9 | 7022.2 | 7335.0 | 7171.5 |
| 40° | 4253.9 | 4275.2 | 4495.5 | 4751.4 | 5121.0 | 5554.5 | 6066.3 | 6642.0 | 7487.8 | 7797.0 | 7619.3 |
| 42.5° | 4474.2 | 4506.2 | 4744.3 | 5096.1 | 5490.6 | 5941.9 | 6382.6 | 6908.5 | 7786.3 | 8131.0 | 7857.4 |
| 45° | 4701.6 | 4722.9 | 5017.9 | 5383.9 | 5831.7 | 6247.5 | 6563.8 | 7079.1 | 7992.4 | 8365.6 | 7992.4 |
| 47.5° | 4854.4 | 4897.1 | 5220.5 | 5643.4 | 6091.1 | 6482.1 | 6709.5 | 7150.2 | 8123.9 | 8518.4 | 8042.2 |
| 50° | 4914.9 | 4975.3 | 5323.5 | 5792.6 | 6304.4 | 6702.4 | 6823.2 | 7189.3 | 8269.6 | 8653.4 | 8031.5 |
| 52.5° | 4904.2 | 4961.1 | 5341.3 | 5860.2 | 6475.0 | 6905.0 | 6933.4 | 7231.9 | 8372.7 | 8699.6 | 7939.1 |
| 53° | 4847.3 | 4925.5 | 5352.0 | 5863.7 | 6499.8 | 6958.3 | 6983.1 | 7235.5 | 8386.9 | 8763.6 | 7924.9 |
| 55° | 4651.9 | 4694.5 | 5241.8 | 5860.2 | 6617.1 | 7157.3 | 7121.7 | 7342.1 | 8426.0 | 8720.9 | 7768.5 |
| 57.5° | 4474.2 | 4516.8 | 4993.0 | 5792.6 | 6713.1 | 7438.0 | 7345.6 | 7324.3 | 8212.7 | 8479.3 | 7374.1 |
| 60° | 4360.5 | 4374.7 | 4776.3 | 5579.4 | 6674.0 | 7633.5 | 7491.3 | 7114.6 | 7686.8 | 7907.1 | 6681.1 |
| 62.5° | 4264.5 | 4261.0 | 4616.3 | 5273.8 | 6524.7 | 7661.9 | 7519.8 | 6595.8 | 6915.6 | 6951.2 | 5757.1 |
| 65° | 4047.7 | 4022.9 | 4367.6 | 4929.1 | 6215.5 | 7534.0 | 7171.5 | 5810.4 | 5892.1 | 5774.9 | 4623.4 |
| 67.5° | 3617.7 | 3564.4 | 3870.0 | 4403.1 | 5586.5 | 7171.5 | 6506.9 | 4897.1 | 4644.8 | 4410.2 | 3482.7 |
| 70° | 2590.7 | 2590.7 | 2835.9 | 3369.0 | 4484.8 | 6197.8 | 5586.5 | 3706.6 | 3198.4 | 2988.7 | 2327.7 |
| 72.5° | 1268.7 | 1300.7 | 1556.5 | 1990.1 | 3006.5 | 4499.1 | 4278.7 | 2402.3 | 1940.4 | 1837.3 | 1492.6 |
| 75° | 540.2 | 543.7 | 664.6 | 881.3 | 1524.6 | 2661.8 | 2679.5 | 1386.0 | 1243.8 | 1194.1 | 987.9 |
| 77.5° | 376.7 | 383.8 | 437.1 | 518.8 | 725.0 | 1222.5 | 1393.1 | 838.7 | 835.1 | 799.6 | 703.6 |
| 80° | 287.9 | 295.0 | 330.5 | 387.4 | 486.9 | 625.5 | 721.4 | 568.6 | 597.0 | 561.5 | 508.2 |
| 82.5° | 216.8 | 223.9 | 248.8 | 291.4 | 348.3 | 419.3 | 405.1 | 419.3 | 440.7 | 419.3 | 366.0 |
| 85° | 145.7 | 149.3 | 167.0 | 202.6 | 223.9 | 252.3 | 252.3 | 305.6 | 319.8 | 312.7 | 287.9 |
| 87.5° | 74.6 | 74.6 | 88.8 | 106.6 | 113.7 | 117.3 | 103.1 | 135.0 | 152.8 | 167.0 | 135.0 |
| 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: P1456884

CATALOG NUMBER: GLAN-SB4B-940-U-T3LG

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 | 2341.9 |
| 2.5° | 2366.8 | 2370.4 | 2359.7 | 2356.1 | 2352.6 | 2334.8 | 2334.8 | 2317.1 | 2313.5 | 2317.1 | 2306.4 |
| 5° | 2445.0 | 2437.9 | 2409.5 | 2388.1 | 2363.3 | 2313.5 | 2285.1 | 2246.0 | 2235.3 | 2224.7 | 2214.0 |
| 7.5° | 2540.9 | 2530.3 | 2480.5 | 2423.7 | 2356.1 | 2260.2 | 2206.9 | 2142.9 | 2121.6 | 2103.8 | 2096.7 |
| 10° | 2661.8 | 2640.4 | 2562.3 | 2441.4 | 2317.1 | 2199.8 | 2125.1 | 2047.0 | 2011.4 | 2004.3 | 1986.6 |
| 12.5° | 2818.1 | 2779.0 | 2633.3 | 2445.0 | 2281.5 | 2128.7 | 2047.0 | 1986.6 | 1972.3 | 1968.8 | 1951.0 |
| 15° | 2992.3 | 2935.4 | 2700.9 | 2448.5 | 2235.3 | 2068.3 | 2018.5 | 1986.6 | 1986.6 | 1983.0 | 1972.3 |
| 17.5° | 3205.5 | 3113.1 | 2764.8 | 2434.3 | 2178.5 | 2050.5 | 2025.6 | 1997.2 | 1990.1 | 1993.7 | 1979.4 |
| 20° | 3461.4 | 3308.6 | 2832.3 | 2416.6 | 2153.6 | 2054.1 | 2025.6 | 1986.6 | 1968.8 | 1965.2 | 1954.6 |
| 22.5° | 3756.3 | 3532.4 | 2907.0 | 2388.1 | 2153.6 | 2050.5 | 2004.3 | 1951.0 | 1915.5 | 1901.3 | 1887.0 |
| 25° | 4093.9 | 3791.9 | 2985.2 | 2377.5 | 2160.7 | 2036.3 | 1961.7 | 1876.4 | 1819.5 | 1798.2 | 1787.5 |
| 27.5° | 4502.6 | 4065.5 | 3042.0 | 2388.1 | 2157.1 | 2004.3 | 1887.0 | 1776.9 | 1712.9 | 1677.4 | 1670.3 |
| 30° | 4953.9 | 4360.5 | 3081.1 | 2405.9 | 2135.8 | 1943.9 | 1798.2 | 1673.8 | 1585.0 | 1542.3 | 1531.7 |
| 32.5° | 5487.0 | 4691.0 | 3120.2 | 2405.9 | 2082.5 | 1858.6 | 1695.1 | 1560.1 | 1467.7 | 1418.0 | 1410.8 |
| 35° | 6076.9 | 5096.1 | 3155.7 | 2402.3 | 2018.5 | 1766.2 | 1592.1 | 1453.5 | 1357.5 | 1307.8 | 1304.2 |
| 37.5° | 6578.0 | 5401.7 | 3173.5 | 2366.8 | 1929.7 | 1659.6 | 1496.1 | 1357.5 | 1258.0 | 1204.7 | 1201.2 |
| 40° | 6887.2 | 5529.7 | 3138.0 | 2295.7 | 1823.1 | 1549.4 | 1389.5 | 1261.6 | 1162.1 | 1098.1 | 1083.9 |
| 42.5° | 7004.5 | 5469.2 | 3024.3 | 2178.5 | 1695.1 | 1439.3 | 1300.7 | 1165.6 | 1034.1 | 980.8 | 970.2 |
| 45° | 6965.4 | 5234.7 | 2782.6 | 2011.4 | 1553.0 | 1339.8 | 1222.5 | 1069.7 | 984.4 | 938.2 | 934.6 |
| 47.5° | 6833.9 | 4872.2 | 2480.5 | 1801.8 | 1403.7 | 1250.9 | 1119.4 | 1044.8 | 966.6 | 916.9 | 913.3 |
| 50° | 6602.9 | 4484.8 | 2118.0 | 1563.7 | 1268.7 | 1158.5 | 1094.6 | 1034.1 | 970.2 | 931.1 | 924.0 |
| 52.5° | 6307.9 | 4047.7 | 1784.0 | 1332.7 | 1151.4 | 1076.8 | 1069.7 | 1027.0 | 977.3 | 934.6 | 916.9 |
| 53° | 6240.4 | 3934.0 | 1720.0 | 1293.6 | 1133.6 | 1066.1 | 1062.6 | 1027.0 | 970.2 | 931.1 | 916.9 |
| 55° | 5917.0 | 3582.2 | 1517.5 | 1155.0 | 1044.8 | 1030.6 | 1062.6 | 1023.5 | 952.4 | 920.4 | 909.8 |
| 57.5° | 5398.2 | 3120.2 | 1322.0 | 1027.0 | 952.4 | 987.9 | 1051.9 | 1009.3 | 931.1 | 874.2 | 856.5 |
| 60° | 4772.7 | 2590.7 | 1172.7 | 941.7 | 884.9 | 934.6 | 1009.3 | 959.5 | 852.9 | 824.5 | 820.9 |
| 62.5° | 4026.4 | 2096.7 | 1059.0 | 870.7 | 828.0 | 877.8 | 945.3 | 860.0 | 781.8 | 760.5 | 753.4 |
| 65° | 3145.1 | 1666.7 | 970.2 | 817.4 | 771.2 | 810.3 | 856.5 | 803.2 | 753.4 | 735.6 | 732.1 |
| 67.5° | 2338.4 | 1307.8 | 899.1 | 771.2 | 714.3 | 739.2 | 792.5 | 778.3 | 735.6 | 725.0 | 721.4 |
| 70° | 1613.4 | 1062.6 | 835.1 | 728.5 | 643.2 | 671.7 | 753.4 | 764.1 | 721.4 | 714.3 | 710.8 |
| 72.5° | 1130.1 | 899.1 | 767.6 | 682.3 | 586.4 | 614.8 | 735.6 | 735.6 | 689.4 | 700.1 | 693.0 |
| 75° | 849.3 | 757.0 | 689.4 | 625.5 | 515.3 | 557.9 | 710.8 | 703.6 | 657.4 | 703.6 | 685.9 |
| 77.5° | 639.7 | 611.2 | 597.0 | 554.4 | 451.3 | 494.0 | 661.0 | 646.8 | 586.4 | 589.9 | 557.9 |
| 80° | 465.5 | 472.7 | 511.7 | 472.7 | 376.7 | 408.7 | 557.9 | 550.8 | 476.2 | 490.4 | 451.3 |
| 82.5° | 334.1 | 351.8 | 437.1 | 380.3 | 273.6 | 291.4 | 383.8 | 415.8 | 373.1 | 351.8 | 358.9 |
| 85° | 252.3 | 263.0 | 351.8 | 280.7 | 170.6 | 191.9 | 263.0 | 298.5 | 291.4 | 270.1 | 273.6 |
| 87.5° | 106.6 | 120.8 | 163.5 | 131.5 | 99.5 | 99.5 | 163.5 | 209.7 | 188.3 | 159.9 | 167.0 |
| 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



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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-16

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-940-U-5WQ

Data in this report applies to families of products including GSS-SB1A-940-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-16
 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-940-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 4000K CCT 26 LEDS

Spectral Parameters

CCT (K): 3856
 CIE u': 0.2261
 CIE v': 0.5084
 Duv: 0.0032
 CIE x: 0.3896
 CIE y: 0.3894
 CIE z: 0.2211
 Peak Wavelength (nm): 614
 Dominant Wavelength (nm): 578
 Purity: 33.77304
 Rf: 91.8
 Rg: 98.4

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 92.1 | | |
| R1: | 91.8 | R9: | 60.7 |
| R2: | 94.1 | R10: | 85.2 |
| R3: | 95.3 | R11: | 92.4 |
| R4: | 92.8 | R12: | 74.5 |
| R5: | 91.0 | R13: | 92.3 |
| R6: | 91.6 | R14: | 97.0 |
| R7: | 95.0 | R15: | 88.5 |
| R8: | 85.2 | | |



Test Conditions

Stabilization Time: 23M
 Operation Time: 1H 23M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-16

| 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: SP1-2407-184-16

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-16

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 | 492 | NR | 620 | 993 | NR | 750 | 73 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 539 | NR | 625 | 978 | NR | 755 | 62 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 583 | NR | 630 | 962 | NR | 760 | 54 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 623 | NR | 635 | 933 | NR | 765 | 46 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 661 | NR | 640 | 898 | NR | 770 | 39 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 698 | NR | 645 | 855 | NR | 775 | 34 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 733 | NR | 650 | 810 | NR | 780 | 29 | NR | 910 | 1 | NR |
| 395 | 1 | NR | 525 | 764 | NR | 655 | 759 | NR | 785 | 25 | NR | 915 | 1 | NR |
| 400 | 3 | NR | 530 | 794 | NR | 660 | 704 | NR | 790 | 21 | NR | 920 | 1 | NR |
| 405 | 6 | NR | 535 | 820 | NR | 665 | 651 | NR | 795 | 18 | NR | 925 | 1 | NR |
| 410 | 12 | NR | 540 | 837 | NR | 670 | 592 | NR | 800 | 16 | NR | 930 | 1 | NR |
| 415 | 22 | NR | 545 | 853 | NR | 675 | 538 | NR | 805 | 13 | NR | 935 | 0 | NR |
| 420 | 42 | NR | 550 | 864 | NR | 680 | 486 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 79 | NR | 555 | 872 | NR | 685 | 435 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 147 | NR | 560 | 876 | NR | 690 | 389 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 278 | NR | 565 | 883 | NR | 695 | 344 | NR | 825 | 7 | NR | 955 | 0 | NR |
| 440 | 515 | NR | 570 | 891 | NR | 700 | 303 | NR | 830 | 6 | NR | 960 | 0 | NR |
| 445 | 832 | NR | 575 | 900 | NR | 705 | 266 | NR | 835 | 5 | NR | 965 | 0 | NR |
| 450 | 874 | NR | 580 | 914 | NR | 710 | 233 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 659 | NR | 585 | 927 | NR | 715 | 203 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 567 | NR | 590 | 944 | NR | 720 | 178 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 485 | NR | 595 | 961 | NR | 725 | 154 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 401 | NR | 600 | 975 | NR | 730 | 133 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 393 | NR | 605 | 988 | NR | 735 | 115 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 417 | NR | 610 | 996 | NR | 740 | 98 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 448 | NR | 615 | 998 | NR | 745 | 85 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-16

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.72

| 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 | 492 | NR | 620 | 993 | NR | 750 | 73 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 539 | NR | 625 | 978 | NR | 755 | 62 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 583 | NR | 630 | 962 | NR | 760 | 54 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 623 | NR | 635 | 933 | NR | 765 | 46 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 661 | NR | 640 | 898 | NR | 770 | 39 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 698 | NR | 645 | 855 | NR | 775 | 34 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 733 | NR | 650 | 810 | NR | 780 | 29 | NR | 910 | 1 | NR |
| 395 | 1 | NR | 525 | 764 | NR | 655 | 759 | NR | 785 | 25 | NR | 915 | 1 | NR |
| 400 | 3 | NR | 530 | 794 | NR | 660 | 704 | NR | 790 | 21 | NR | 920 | 1 | NR |
| 405 | 6 | NR | 535 | 820 | NR | 665 | 651 | NR | 795 | 18 | NR | 925 | 1 | NR |
| 410 | 12 | NR | 540 | 837 | NR | 670 | 592 | NR | 800 | 16 | NR | 930 | 1 | NR |
| 415 | 22 | NR | 545 | 853 | NR | 675 | 538 | NR | 805 | 13 | NR | 935 | 0 | NR |
| 420 | 42 | NR | 550 | 864 | NR | 680 | 486 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 79 | NR | 555 | 872 | NR | 685 | 435 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 147 | NR | 560 | 876 | NR | 690 | 389 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 278 | NR | 565 | 883 | NR | 695 | 344 | NR | 825 | 7 | NR | 955 | 0 | NR |
| 440 | 515 | NR | 570 | 891 | NR | 700 | 303 | NR | 830 | 6 | NR | 960 | 0 | NR |
| 445 | 832 | NR | 575 | 900 | NR | 705 | 266 | NR | 835 | 5 | NR | 965 | 0 | NR |
| 450 | 874 | NR | 580 | 914 | NR | 710 | 233 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 659 | NR | 585 | 927 | NR | 715 | 203 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 567 | NR | 590 | 944 | NR | 720 | 178 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 485 | NR | 595 | 961 | NR | 725 | 154 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 401 | NR | 600 | 975 | NR | 730 | 133 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 393 | NR | 605 | 988 | NR | 735 | 115 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 417 | NR | 610 | 996 | NR | 740 | 98 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 448 | NR | 615 | 998 | NR | 745 | 85 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-16

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.52

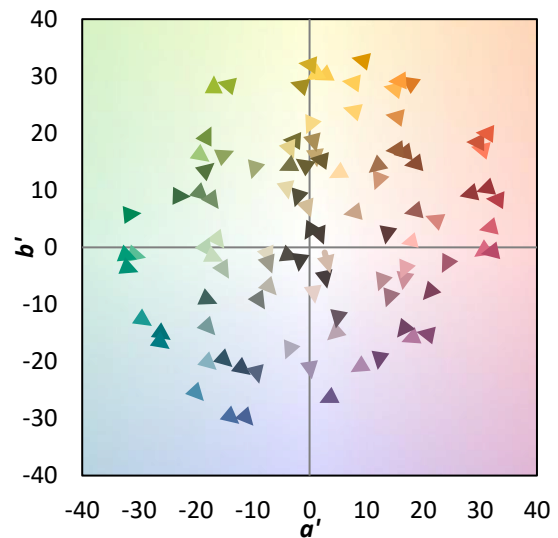
| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 492 | NR | 620 | 993 | NR | 750 | 73 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 539 | NR | 625 | 978 | NR | 755 | 62 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 583 | NR | 630 | 962 | NR | 760 | 54 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 623 | NR | 635 | 933 | NR | 765 | 46 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 661 | NR | 640 | 898 | NR | 770 | 39 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 698 | NR | 645 | 855 | NR | 775 | 34 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 733 | NR | 650 | 810 | NR | 780 | 29 | NR | 910 | 1 | NR |
| 395 | 1 | NR | 525 | 764 | NR | 655 | 759 | NR | 785 | 25 | NR | 915 | 1 | NR |
| 400 | 3 | NR | 530 | 794 | NR | 660 | 704 | NR | 790 | 21 | NR | 920 | 1 | NR |
| 405 | 6 | NR | 535 | 820 | NR | 665 | 651 | NR | 795 | 18 | NR | 925 | 1 | NR |
| 410 | 12 | NR | 540 | 837 | NR | 670 | 592 | NR | 800 | 16 | NR | 930 | 1 | NR |
| 415 | 22 | NR | 545 | 853 | NR | 675 | 538 | NR | 805 | 13 | NR | 935 | 0 | NR |
| 420 | 42 | NR | 550 | 864 | NR | 680 | 486 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 79 | NR | 555 | 872 | NR | 685 | 435 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 147 | NR | 560 | 876 | NR | 690 | 389 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 278 | NR | 565 | 883 | NR | 695 | 344 | NR | 825 | 7 | NR | 955 | 0 | NR |
| 440 | 515 | NR | 570 | 891 | NR | 700 | 303 | NR | 830 | 6 | NR | 960 | 0 | NR |
| 445 | 832 | NR | 575 | 900 | NR | 705 | 266 | NR | 835 | 5 | NR | 965 | 0 | NR |
| 450 | 874 | NR | 580 | 914 | NR | 710 | 233 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 659 | NR | 585 | 927 | NR | 715 | 203 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 567 | NR | 590 | 944 | NR | 720 | 178 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 485 | NR | 595 | 961 | NR | 725 | 154 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 401 | NR | 600 | 975 | NR | 730 | 133 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 393 | NR | 605 | 988 | NR | 735 | 115 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 417 | NR | 610 | 996 | NR | 740 | 98 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 448 | NR | 615 | 998 | NR | 745 | 85 | NR | 875 | 2 | NR | | | |

Summary

$R_f = 91.8$
 $R_g = 98.4$
 $CIE R_a = 92.1$
 $R_9 = 60.7$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 94 | CES51 = 96 | CES76 = 87 |
| CES02 = 62 | CES27 = 91 | CES52 = 98 | CES77 = 90 |
| CES03 = 31 | CES28 = 96 | CES53 = 95 | CES78 = 84 |
| CES04 = 69 | CES29 = 96 | CES54 = 94 | CES79 = 96 |
| CES05 = 49 | CES30 = 93 | CES55 = 92 | CES80 = 94 |
| CES06 = 50 | CES31 = 97 | CES56 = 93 | CES81 = 89 |
| CES07 = 42 | CES32 = 92 | CES57 = 92 | CES82 = 97 |
| CES08 = 41 | CES33 = 99 | CES58 = 92 | CES83 = 98 |
| CES09 = 29 | CES34 = 94 | CES59 = 96 | CES84 = 94 |
| CES10 = 74 | CES35 = 96 | CES60 = 93 | CES85 = 85 |
| CES11 = 57 | CES36 = 82 | CES61 = 92 | CES86 = 88 |
| CES12 = 63 | CES37 = 95 | CES62 = 87 | CES87 = 92 |
| CES13 = 43 | CES38 = 88 | CES63 = 92 | CES88 = 96 |
| CES14 = 74 | CES39 = 99 | CES64 = 89 | CES89 = 87 |
| CES15 = 71 | CES40 = 98 | CES65 = 88 | CES90 = 96 |
| CES16 = 47 | CES41 = 97 | CES66 = 87 | CES91 = 74 |
| CES17 = 49 | CES42 = 96 | CES67 = 86 | CES92 = 80 |
| CES18 = 56 | CES43 = 96 | CES68 = 88 | CES93 = 88 |
| CES19 = 71 | CES44 = 99 | CES69 = 89 | CES94 = 82 |
| CES20 = 66 | CES45 = 98 | CES70 = 86 | CES95 = 83 |
| CES21 = 85 | CES46 = 97 | CES71 = 81 | CES96 = 92 |
| CES22 = 78 | CES47 = 97 | CES72 = 94 | CES97 = 95 |
| CES23 = 91 | CES48 = 91 | CES73 = 81 | CES98 = 94 |
| CES24 = 90 | CES49 = 96 | CES74 = 93 | CES99 = 91 |
| CES25 = 71 | CES50 = 97 | CES75 = 83 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)