

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: P1457958

Luminaire Tested: GLAN-SB2D-930-U-T2LG-HSS

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1457958
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB2D-930-U-T2LG-HSS
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 2xLight Square PACKAGE 90CRI 3000K FIXTURE w/ TYPE II LOW GLARE WITH HOUSE SIDE SHIELD
Light Source: (52) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

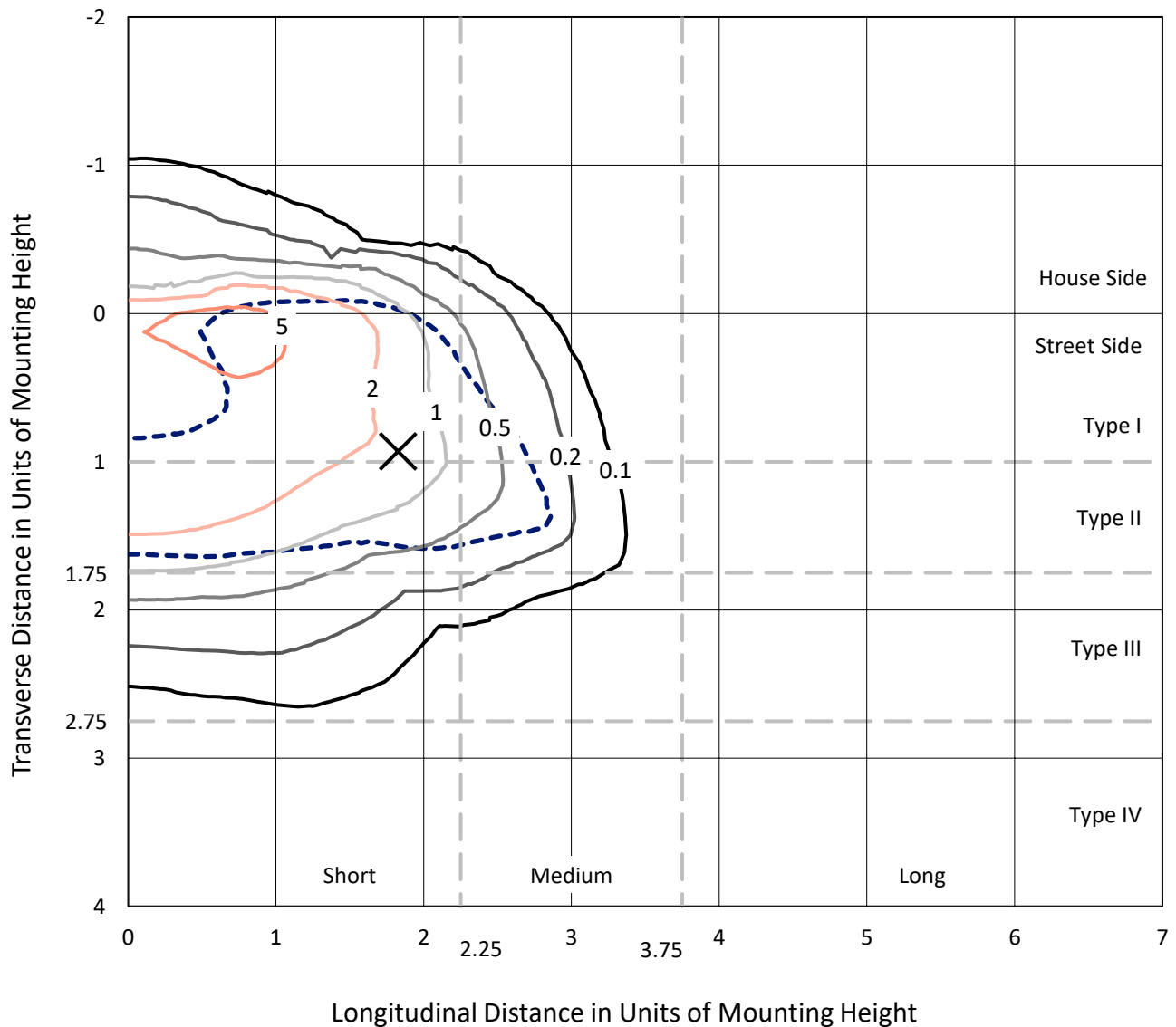
Lumens per Lamp: N/A
Luminaire Lumens: 10261.8 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 147.6
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: P1457958
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Iso-Footcandle Lines of Horizontal Illumination

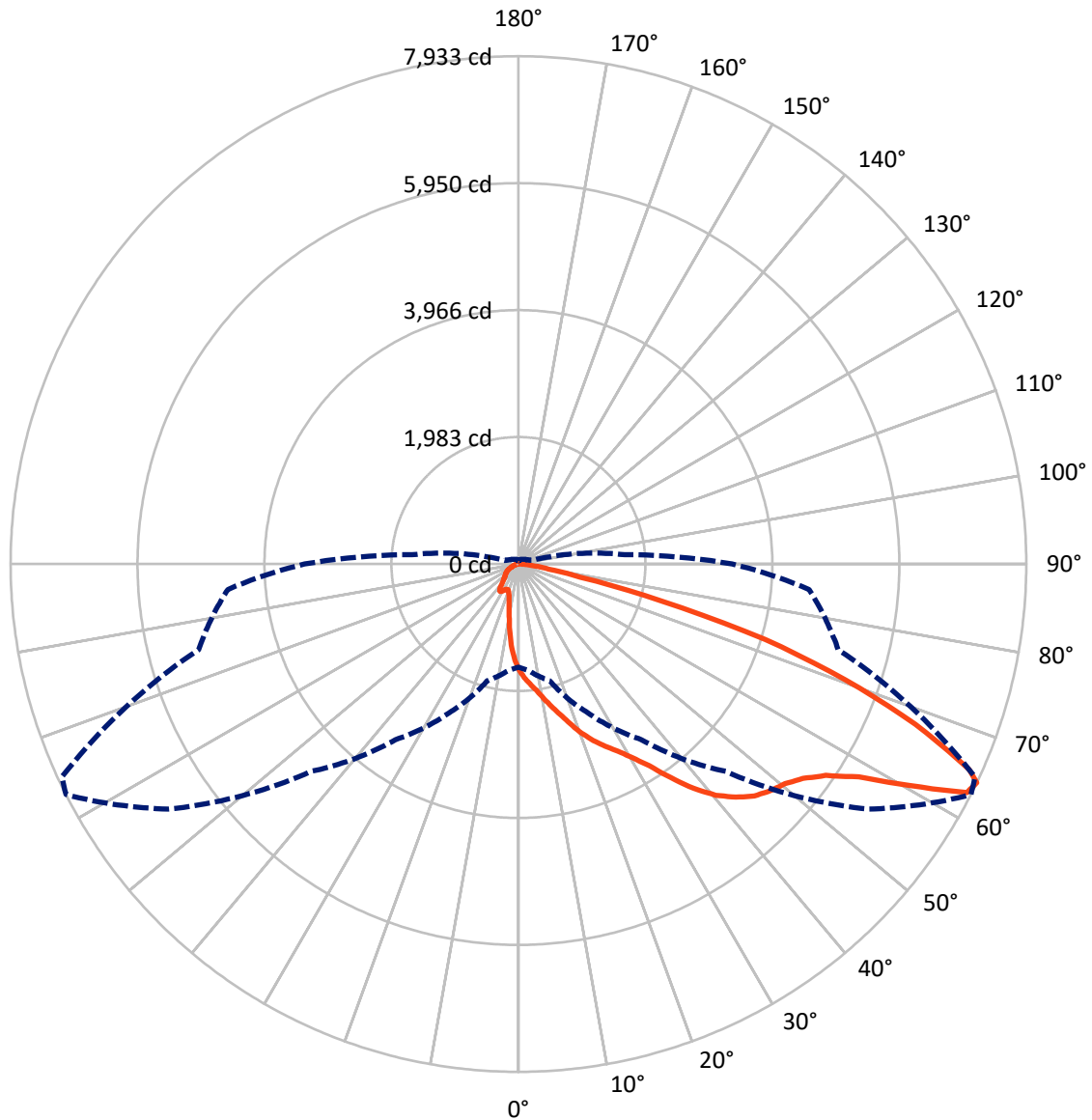
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.4 fc
 Type II - Short - N/A

REPORT NUMBER: P1457958
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Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1217.7 | 0.0 | 1217.7 |
| | % Fixture | 11.9 | 0.0 | 11.9 |
| Street Side | Lumens | 9044.1 | 0.0 | 9044.1 |
| | % Fixture | 88.1 | 0.0 | 88.1 |
| Total | Lumens | 10261.8 | 0.0 | 10261.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 139.7 | 1.4 |
| 10°-20° | 392.6 | 3.8 |
| 20°-30° | 699.3 | 6.8 |
| 30°-40° | 1335.6 | 13.0 |
| 40°-50° | 2213.9 | 21.6 |
| 50°-60° | 2759.7 | 26.9 |
| 60°-70° | 2057.8 | 20.1 |
| 70°-80° | 590.2 | 5.8 |
| 80°-90° | 73.0 | 0.7 |
| 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° | 10261.8 | 100.0 |
| 0°-180° | 10261.8 | 100.0 |



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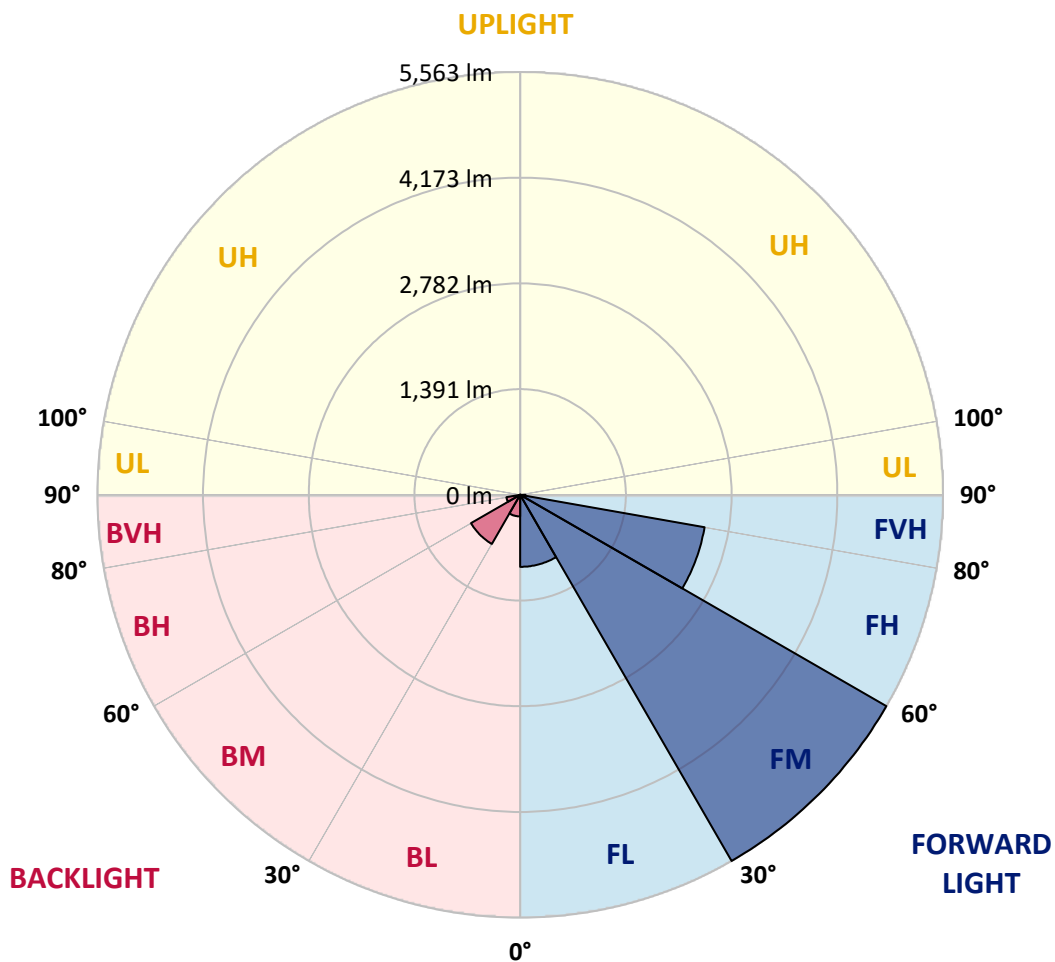
CATALOG NUMBER: GLAN-SB2D-930-U-T2LG-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 947.5 | 9.2 | | | |
| FM (30°-60°) | 5563.3 | 54.2 | | | |
| FH (60°-80°) | 2463.8 | 24.0 | | | G2/5000 |
| FVH (80°-90°) | 69.4 | 0.7 | | | G1/100 |
| BL (0°-30°) | 284.1 | 2.8 | B1/500 | | |
| BM (30°-60°) | 745.9 | 7.3 | B1/1000 | | |
| BH (60°-80°) | 184.2 | 1.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.6 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 63° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 |
| 2.5° | 1859.3 | 1853.1 | 1847.0 | 1837.8 | 1825.4 | 1813.1 | 1797.7 | 1776.2 | 1767.0 | 1736.2 | 1699.2 |
| 5° | 1954.7 | 1954.7 | 1951.6 | 1945.5 | 1939.3 | 1927.0 | 1908.6 | 1880.8 | 1868.5 | 1825.4 | 1760.8 |
| 7.5° | 1979.4 | 1982.4 | 1991.7 | 2004.0 | 2022.5 | 2019.4 | 2019.4 | 1988.6 | 1982.4 | 1936.3 | 1850.1 |
| 10° | 1936.3 | 1939.3 | 1964.0 | 1997.8 | 2053.2 | 2105.6 | 2142.5 | 2124.0 | 2114.8 | 2068.6 | 1960.9 |
| 12.5° | 1874.7 | 1874.7 | 1914.7 | 1967.0 | 2053.2 | 2151.7 | 2259.5 | 2278.0 | 2281.0 | 2228.7 | 2099.4 |
| 15° | 1714.6 | 1720.8 | 1785.4 | 1890.1 | 2031.7 | 2185.6 | 2367.2 | 2438.0 | 2456.5 | 2422.6 | 2268.7 |
| 17.5° | 1502.2 | 1508.4 | 1573.0 | 1714.6 | 1927.0 | 2185.6 | 2459.6 | 2622.7 | 2647.3 | 2653.5 | 2484.2 |
| 20° | 1412.9 | 1412.9 | 1449.9 | 1557.6 | 1779.3 | 2127.1 | 2515.0 | 2819.7 | 2875.1 | 2942.9 | 2721.2 |
| 22.5° | 1425.3 | 1425.3 | 1446.8 | 1508.4 | 1686.9 | 2047.1 | 2548.8 | 2995.2 | 3109.1 | 3281.5 | 3026.0 |
| 25° | 1493.0 | 1493.0 | 1511.5 | 1551.5 | 1696.1 | 2034.8 | 2613.5 | 3152.2 | 3333.8 | 3660.1 | 3373.8 |
| 27.5° | 1600.7 | 1597.6 | 1613.0 | 1653.1 | 1785.4 | 2093.3 | 2721.2 | 3309.2 | 3512.4 | 4084.9 | 3774.0 |
| 30° | 1757.7 | 1748.5 | 1754.6 | 1800.8 | 1930.1 | 2228.7 | 2878.2 | 3509.3 | 3715.5 | 4549.7 | 4217.3 |
| 32.5° | 2121.0 | 2117.9 | 2028.6 | 2004.0 | 2142.5 | 2447.3 | 3093.7 | 3758.6 | 3989.5 | 5042.3 | 4672.9 |
| 35° | 2776.6 | 2819.7 | 2693.5 | 2370.3 | 2398.0 | 2739.7 | 3401.5 | 4097.2 | 4309.6 | 5565.6 | 5168.5 |
| 37.5° | 3441.6 | 3441.6 | 3389.2 | 3007.5 | 2813.6 | 3062.9 | 3734.0 | 4445.1 | 4666.7 | 5987.3 | 5645.6 |
| 40° | 3967.9 | 3995.6 | 3934.1 | 3647.8 | 3395.4 | 3432.3 | 4066.4 | 4749.8 | 4953.0 | 6245.9 | 5984.2 |
| 42.5° | 4358.9 | 4352.7 | 4328.1 | 4140.3 | 3998.7 | 3915.6 | 4368.1 | 4977.6 | 5171.6 | 6378.3 | 6196.6 |
| 45° | 4780.6 | 4780.6 | 4746.8 | 4592.8 | 4475.9 | 4405.1 | 4592.8 | 5168.5 | 5371.7 | 6458.3 | 6329.0 |
| 47.5° | 5220.8 | 5214.7 | 5180.8 | 5011.5 | 4885.3 | 4780.6 | 4820.6 | 5291.6 | 5494.8 | 6406.0 | 6350.6 |
| 50° | 5328.6 | 5322.4 | 5399.4 | 5405.5 | 5291.6 | 5091.5 | 5002.3 | 5396.3 | 5574.8 | 6409.0 | 6418.3 |
| 52.5° | 5202.3 | 5239.3 | 5353.2 | 5491.7 | 5621.0 | 5411.7 | 5196.2 | 5562.5 | 5747.2 | 6495.2 | 6587.6 |
| 55° | 4888.4 | 4903.8 | 5122.3 | 5343.9 | 5645.6 | 5719.5 | 5507.1 | 5827.2 | 5990.4 | 6578.4 | 6738.4 |
| 57.5° | 4303.5 | 4362.0 | 4595.9 | 4980.7 | 5439.4 | 5747.2 | 6048.9 | 6270.5 | 6393.7 | 6612.2 | 6655.3 |
| 60° | 3247.6 | 3278.4 | 3786.3 | 4285.0 | 5011.5 | 5525.6 | 6553.7 | 7021.6 | 7006.2 | 6230.5 | 6073.5 |
| 62.5° | 1976.3 | 2004.0 | 2367.2 | 3158.3 | 4072.6 | 5063.8 | 6723.0 | 7862.0 | 7778.9 | 5587.1 | 5113.1 |
| 64° | 1610.0 | 1662.3 | 1887.0 | 2564.2 | 3349.2 | 4580.5 | 6673.8 | 7932.8 | 7868.2 | 5171.6 | 4555.9 |
| 65° | 1376.0 | 1446.8 | 1677.7 | 2225.6 | 2847.4 | 4060.3 | 6538.3 | 7735.8 | 7692.7 | 4919.1 | 4094.2 |
| 67.5° | 865.0 | 898.9 | 1240.6 | 1730.0 | 1960.9 | 2598.1 | 5621.0 | 6689.2 | 6766.1 | 4383.5 | 3019.8 |
| 70° | 643.4 | 658.8 | 852.7 | 1339.1 | 1529.9 | 1511.5 | 3860.2 | 5417.8 | 5436.3 | 3506.2 | 1822.4 |
| 72.5° | 467.9 | 471.0 | 597.2 | 991.2 | 1197.5 | 1031.2 | 2034.8 | 4026.4 | 3894.1 | 2053.2 | 994.3 |
| 75° | 310.9 | 323.2 | 418.7 | 698.8 | 932.7 | 757.3 | 926.6 | 2293.3 | 2253.3 | 1003.5 | 569.5 |
| 77.5° | 227.8 | 230.9 | 283.2 | 467.9 | 732.6 | 557.2 | 560.3 | 988.1 | 1018.9 | 597.2 | 360.2 |
| 80° | 129.3 | 135.4 | 184.7 | 286.3 | 477.1 | 381.7 | 314.0 | 477.1 | 547.9 | 406.3 | 240.1 |
| 82.5° | 77.0 | 83.1 | 132.4 | 187.8 | 326.3 | 157.0 | 160.1 | 261.7 | 326.3 | 292.4 | 129.3 |
| 85° | 46.2 | 49.3 | 83.1 | 101.6 | 193.9 | 104.7 | 58.5 | 129.3 | 169.3 | 172.4 | 70.8 |
| 87.5° | 30.8 | 30.8 | 46.2 | 43.1 | 55.4 | 49.3 | 24.6 | 33.9 | 43.1 | 58.5 | 27.7 |
| 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: P1457958

CATALOG NUMBER: GLAN-SB2D-930-U-T2LG-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 | 1659.2 |
| 2.5° | 1668.4 | 1650.0 | 1594.6 | 1520.7 | 1453.0 | 1400.6 | 1336.0 | 1292.9 | 1252.9 | 1252.9 | 1219.0 |
| 5° | 1708.5 | 1659.2 | 1523.8 | 1354.5 | 1172.8 | 1000.5 | 889.6 | 766.5 | 726.5 | 692.6 | 698.8 |
| 7.5° | 1776.2 | 1686.9 | 1446.8 | 1142.1 | 852.7 | 668.0 | 544.9 | 489.5 | 464.8 | 449.4 | 452.5 |
| 10° | 1859.3 | 1736.2 | 1354.5 | 926.6 | 628.0 | 489.5 | 431.0 | 409.4 | 400.2 | 397.1 | 397.1 |
| 12.5° | 1973.2 | 1794.7 | 1262.1 | 745.0 | 495.6 | 421.7 | 390.9 | 378.6 | 369.4 | 363.2 | 363.2 |
| 15° | 2108.6 | 1868.5 | 1154.4 | 612.6 | 434.0 | 387.9 | 363.2 | 350.9 | 338.6 | 335.5 | 335.5 |
| 17.5° | 2281.0 | 1945.5 | 1058.9 | 526.4 | 403.3 | 363.2 | 338.6 | 323.2 | 314.0 | 310.9 | 310.9 |
| 20° | 2471.9 | 2040.9 | 963.5 | 477.1 | 381.7 | 338.6 | 314.0 | 301.7 | 292.4 | 286.3 | 289.4 |
| 22.5° | 2715.1 | 2161.0 | 901.9 | 452.5 | 363.2 | 317.1 | 292.4 | 280.1 | 270.9 | 264.7 | 267.8 |
| 25° | 2982.9 | 2311.8 | 868.1 | 452.5 | 350.9 | 301.7 | 274.0 | 261.7 | 252.4 | 246.3 | 246.3 |
| 27.5° | 3309.2 | 2481.1 | 871.2 | 471.0 | 347.8 | 289.4 | 258.6 | 246.3 | 237.0 | 227.8 | 227.8 |
| 30° | 3669.3 | 2681.2 | 905.0 | 504.8 | 354.0 | 277.0 | 246.3 | 227.8 | 221.6 | 212.4 | 212.4 |
| 32.5° | 4051.1 | 2912.1 | 991.2 | 547.9 | 347.8 | 261.7 | 227.8 | 212.4 | 203.2 | 197.0 | 197.0 |
| 35° | 4454.3 | 3173.7 | 1099.0 | 566.4 | 317.1 | 240.1 | 212.4 | 197.0 | 190.9 | 187.8 | 184.7 |
| 37.5° | 4839.1 | 3401.5 | 1157.4 | 529.5 | 277.0 | 221.6 | 193.9 | 178.5 | 175.5 | 169.3 | 169.3 |
| 40° | 5137.7 | 3589.3 | 1123.6 | 452.5 | 255.5 | 203.2 | 178.5 | 163.2 | 157.0 | 150.8 | 150.8 |
| 42.5° | 5313.2 | 3657.0 | 1000.5 | 384.8 | 240.1 | 184.7 | 163.2 | 147.8 | 141.6 | 138.5 | 138.5 |
| 45° | 5414.8 | 3647.8 | 855.8 | 344.8 | 224.7 | 169.3 | 147.8 | 138.5 | 129.3 | 126.2 | 123.1 |
| 47.5° | 5411.7 | 3552.4 | 751.1 | 310.9 | 209.3 | 157.0 | 138.5 | 129.3 | 120.1 | 117.0 | 117.0 |
| 50° | 5390.1 | 3410.8 | 634.1 | 286.3 | 197.0 | 147.8 | 129.3 | 123.1 | 113.9 | 110.8 | 107.7 |
| 52.5° | 5442.5 | 3330.7 | 529.5 | 270.9 | 181.6 | 141.6 | 126.2 | 117.0 | 104.7 | 101.6 | 101.6 |
| 55° | 5507.1 | 3284.6 | 424.8 | 255.5 | 169.3 | 138.5 | 120.1 | 110.8 | 98.5 | 95.4 | 95.4 |
| 57.5° | 5319.3 | 3109.1 | 350.9 | 230.9 | 153.9 | 132.4 | 113.9 | 107.7 | 95.4 | 86.2 | 86.2 |
| 60° | 4728.3 | 2570.4 | 289.4 | 203.2 | 141.6 | 123.1 | 107.7 | 98.5 | 86.2 | 73.9 | 73.9 |
| 62.5° | 3844.8 | 1960.9 | 240.1 | 172.4 | 132.4 | 113.9 | 98.5 | 89.3 | 73.9 | 58.5 | 58.5 |
| 64° | 3340.0 | 1665.4 | 215.5 | 150.8 | 126.2 | 104.7 | 89.3 | 80.0 | 64.6 | 49.3 | 46.2 |
| 65° | 2995.2 | 1471.4 | 200.1 | 141.6 | 123.1 | 98.5 | 86.2 | 77.0 | 58.5 | 46.2 | 43.1 |
| 67.5° | 2108.6 | 988.1 | 160.1 | 117.0 | 107.7 | 83.1 | 73.9 | 64.6 | 52.3 | 40.0 | 36.9 |
| 70° | 1228.2 | 560.3 | 126.2 | 98.5 | 83.1 | 64.6 | 61.6 | 58.5 | 46.2 | 30.8 | 30.8 |
| 72.5° | 668.0 | 280.1 | 95.4 | 80.0 | 64.6 | 46.2 | 52.3 | 46.2 | 36.9 | 24.6 | 21.5 |
| 75° | 409.4 | 172.4 | 70.8 | 58.5 | 43.1 | 33.9 | 40.0 | 33.9 | 21.5 | 15.4 | 12.3 |
| 77.5° | 274.0 | 110.8 | 52.3 | 40.0 | 27.7 | 21.5 | 27.7 | 18.5 | 9.2 | 3.1 | 3.1 |
| 80° | 169.3 | 77.0 | 33.9 | 24.6 | 15.4 | 9.2 | 6.2 | 3.1 | 3.1 | 0.0 | 0.0 |
| 82.5° | 73.9 | 49.3 | 18.5 | 12.3 | 6.2 | 3.1 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 40.0 | 15.4 | 6.2 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 12.3 | 6.2 | 3.1 | 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 |

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-14

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-930-U-5WQ

Data in this report applies to families of products including GSS-SB1A-930-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-14
 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-930-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 3000K CCT 26 LEDS

Spectral Parameters

CCT (K): 2993
 CIE u': 0.2501
 CIE v': 0.5245
 Duv: 0.0021
 CIE x: 0.4406
 CIE y: 0.4107
 CIE z: 0.1487
 Peak Wavelength (nm): 621
 Dominant Wavelength (nm): 582
 Purity: 55.53327
 Rf: 92.6
 Rg: 98.5

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 92.4 | | |
| R1: | 92.2 | R9: | 58.2 |
| R2: | 95.2 | R10: | 87.7 |
| R3: | 97.0 | R11: | 93.5 |
| R4: | 93.1 | R12: | 81.7 |
| R5: | 91.7 | R13: | 92.9 |
| R6: | 94.2 | R14: | 97.6 |
| R7: | 93.3 | R15: | 88.1 |
| R8: | 82.3 | | |



Test Conditions

Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-14

| 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: SP1-2407-184-14

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-14

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 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-14

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.39

| 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 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-14

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.69

| 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 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

Summary

$R_f = 92.6$
 $R_g = 98.5$
 $CIE R_a = 92.4$
 $R_9 = 58.2$

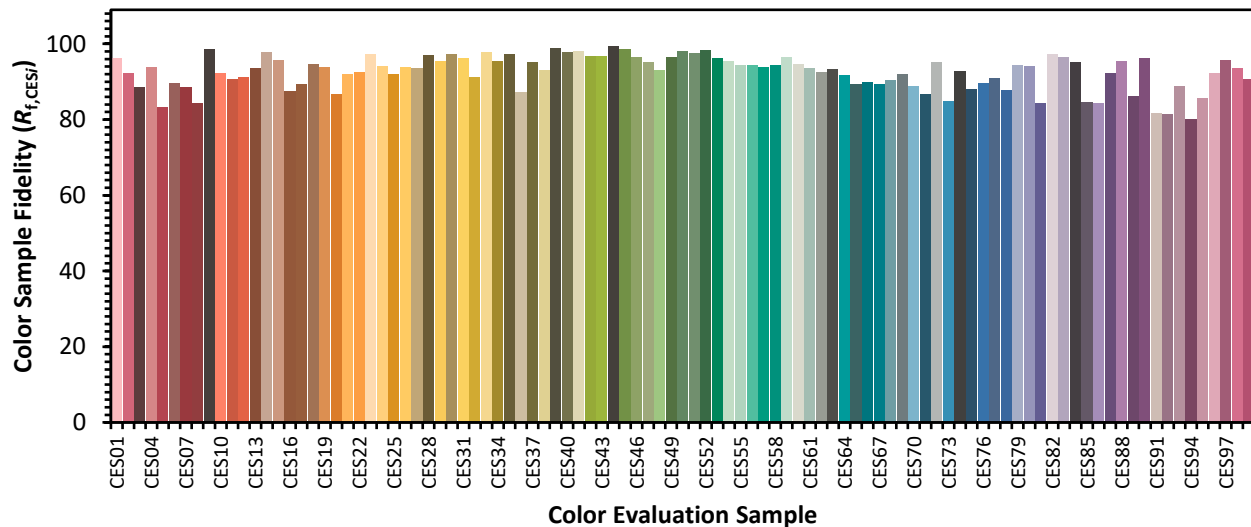


Color Vector Graphics

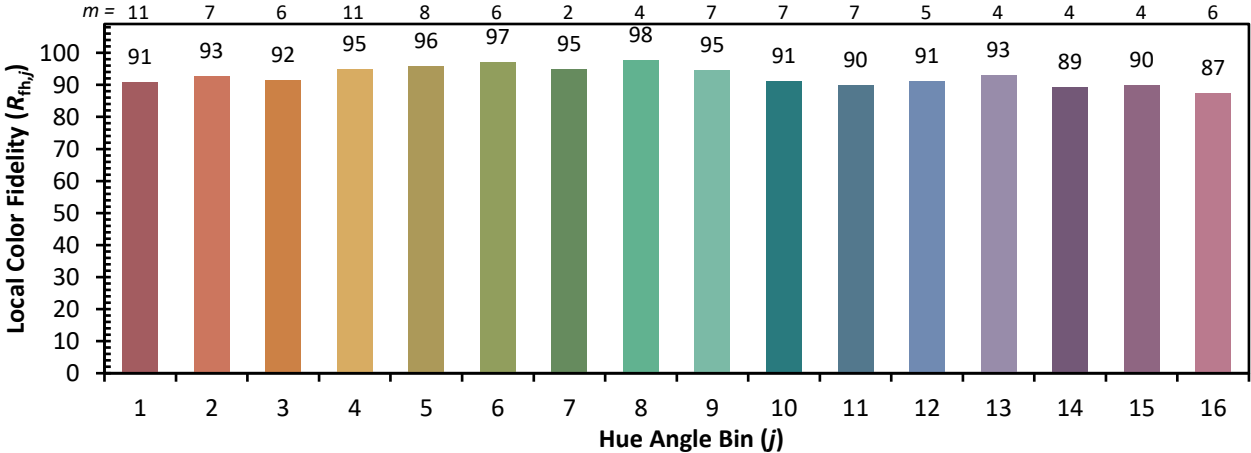


Individual Sample Fidelity Index ($R_{f,i}$)

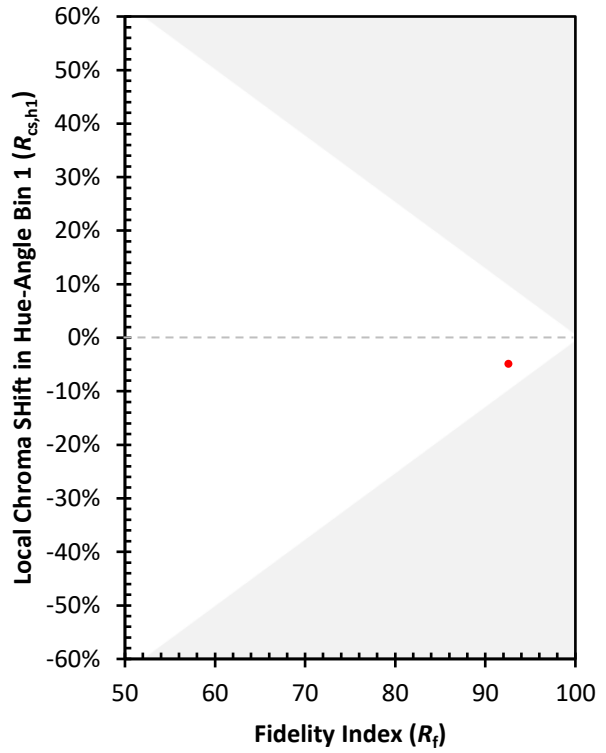
| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 94 | CES51 = 98 | CES76 = 90 |
| CES02 = 63 | CES27 = 94 | CES52 = 98 | CES77 = 91 |
| CES03 = 32 | CES28 = 97 | CES53 = 96 | CES78 = 88 |
| CES04 = 70 | CES29 = 95 | CES54 = 95 | CES79 = 94 |
| CES05 = 51 | CES30 = 97 | CES55 = 94 | CES80 = 94 |
| CES06 = 51 | CES31 = 96 | CES56 = 94 | CES81 = 84 |
| CES07 = 43 | CES32 = 91 | CES57 = 94 | CES82 = 97 |
| CES08 = 42 | CES33 = 98 | CES58 = 94 | CES83 = 97 |
| CES09 = 29 | CES34 = 96 | CES59 = 97 | CES84 = 95 |
| CES10 = 76 | CES35 = 97 | CES60 = 95 | CES85 = 85 |
| CES11 = 59 | CES36 = 87 | CES61 = 94 | CES86 = 84 |
| CES12 = 65 | CES37 = 95 | CES62 = 92 | CES87 = 92 |
| CES13 = 44 | CES38 = 93 | CES63 = 93 | CES88 = 95 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 86 |
| CES15 = 72 | CES40 = 98 | CES65 = 89 | CES90 = 96 |
| CES16 = 48 | CES41 = 98 | CES66 = 90 | CES91 = 82 |
| CES17 = 50 | CES42 = 97 | CES67 = 89 | CES92 = 81 |
| CES18 = 57 | CES43 = 97 | CES68 = 90 | CES93 = 89 |
| CES19 = 72 | CES44 = 99 | CES69 = 92 | CES94 = 80 |
| CES20 = 67 | CES45 = 99 | CES70 = 89 | CES95 = 86 |
| CES21 = 86 | CES46 = 96 | CES71 = 87 | CES96 = 92 |
| CES22 = 79 | CES47 = 95 | CES72 = 95 | CES97 = 96 |
| CES23 = 92 | CES48 = 93 | CES73 = 85 | CES98 = 94 |
| CES24 = 91 | CES49 = 97 | CES74 = 93 | CES99 = 91 |
| CES25 = 72 | CES50 = 98 | CES75 = 88 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)