

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: P1457384

Luminaire Tested: GLAN-SB3B-930-U-T4LG

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1457384
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB3B-930-U-T4LG
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 450mA 3xLight Square
PACKAGE 90CRI 3000K FIXTURE w/ TYPE IV LOW GLARE
Light Source: (78) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11510.4 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

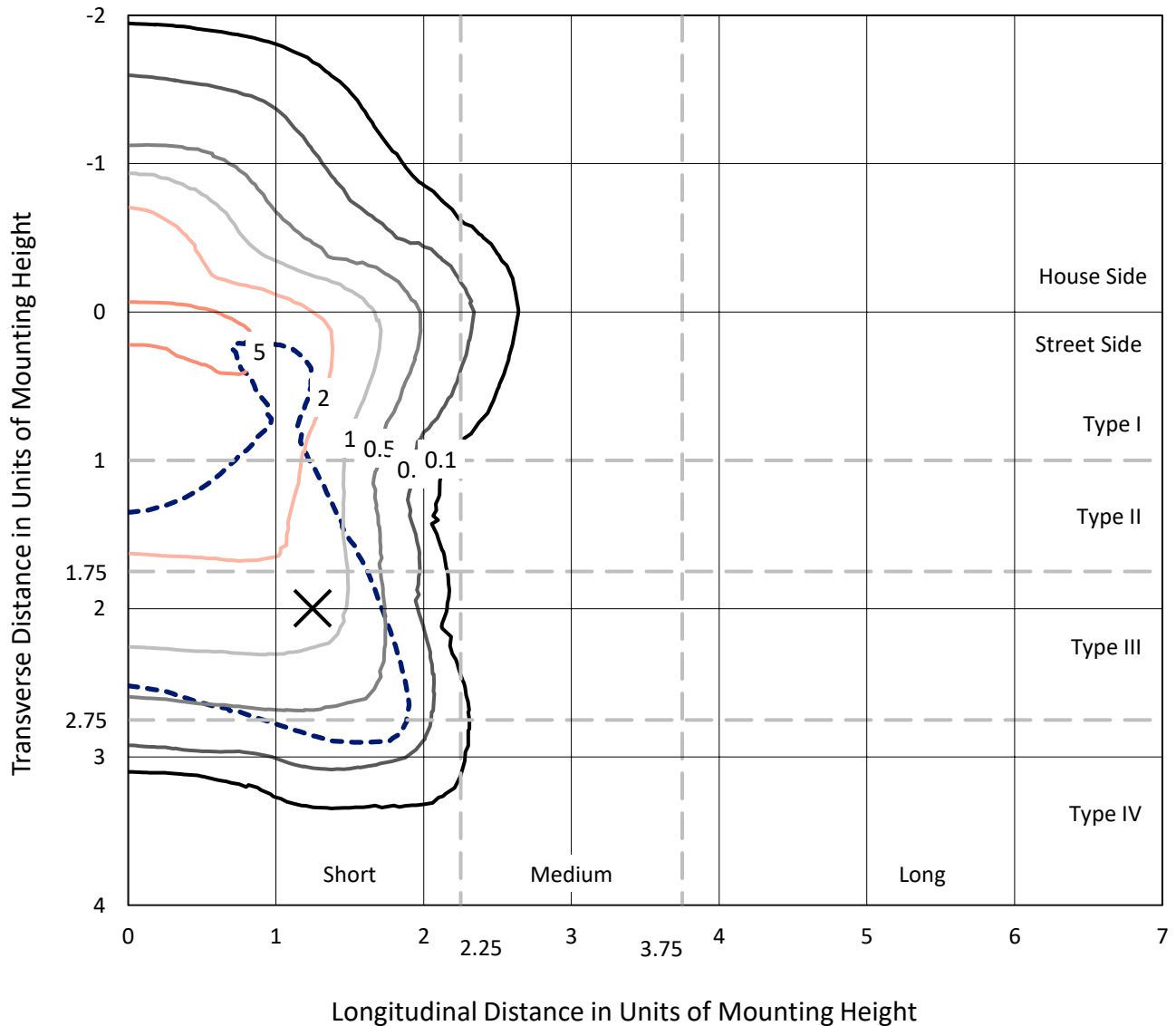
Input Watts (W): 109.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.97
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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CATALOG NUMBER: GLAN-SB3B-930-U-T4LG

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

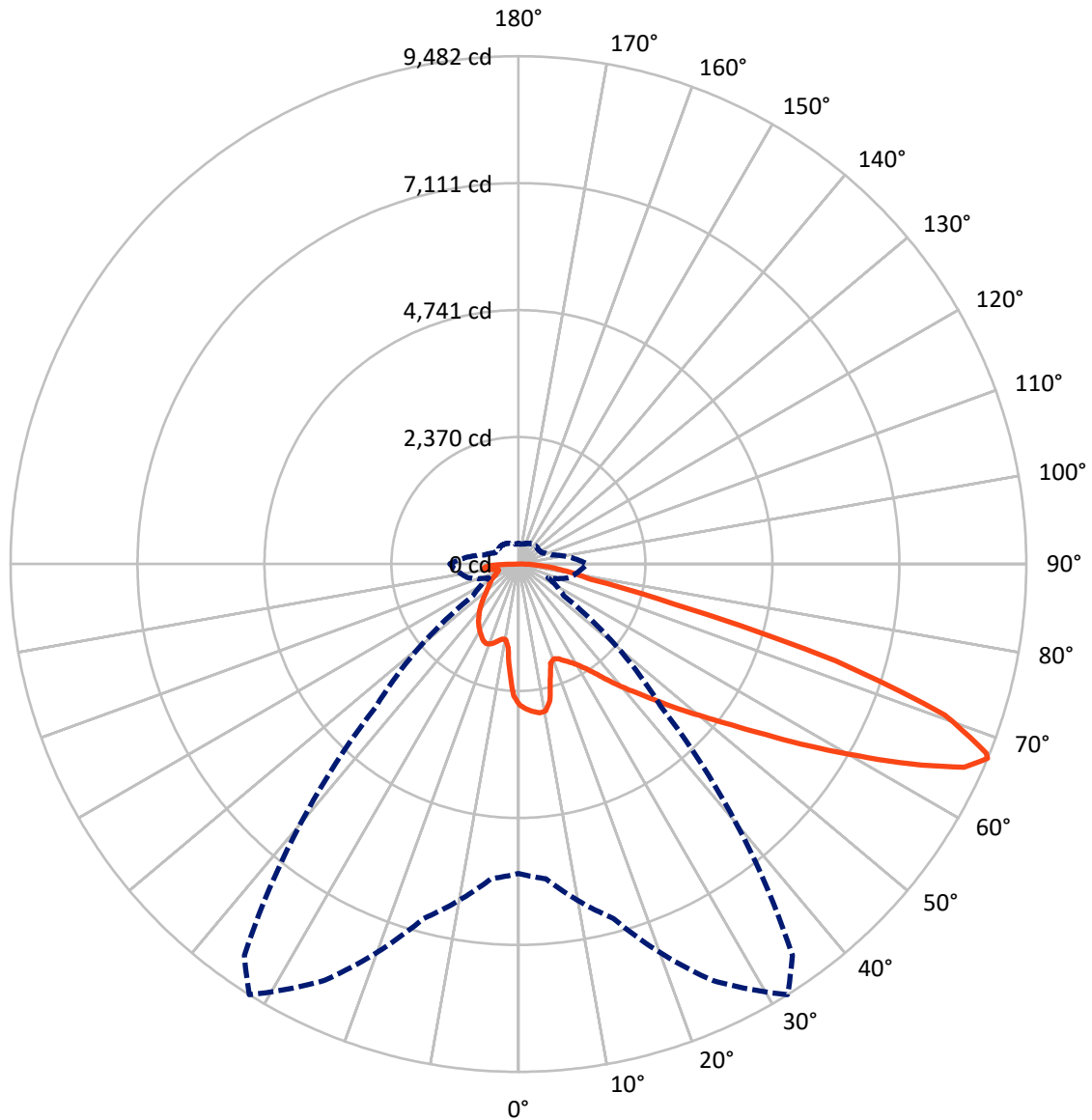


Based on 20 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - N/A

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CATALOG NUMBER: GLAN-SB3B-930-U-T4LG

Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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CATALOG NUMBER: GLAN-SB3B-930-U-T4LG

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2725.0 | 0.0 | 2725.0 |
| | % Fixture | 23.7 | 0.0 | 23.7 |
| Street Side | Lumens | 8785.3 | 0.0 | 8785.3 |
| | % Fixture | 76.3 | 0.0 | 76.3 |
| Total | Lumens | 11510.4 | 0.0 | 11510.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 229.8 | 2.0 |
| 10°-20° | 610.1 | 5.3 |
| 20°-30° | 996.3 | 8.7 |
| 30°-40° | 1468.5 | 12.8 |
| 40°-50° | 2025.1 | 17.6 |
| 50°-60° | 2558.4 | 22.2 |
| 60°-70° | 2476.0 | 21.5 |
| 70°-80° | 883.7 | 7.7 |
| 80°-90° | 262.4 | 2.3 |
| 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° | 11510.4 | 100.0 |
| 0°-180° | 11510.4 | 100.0 |



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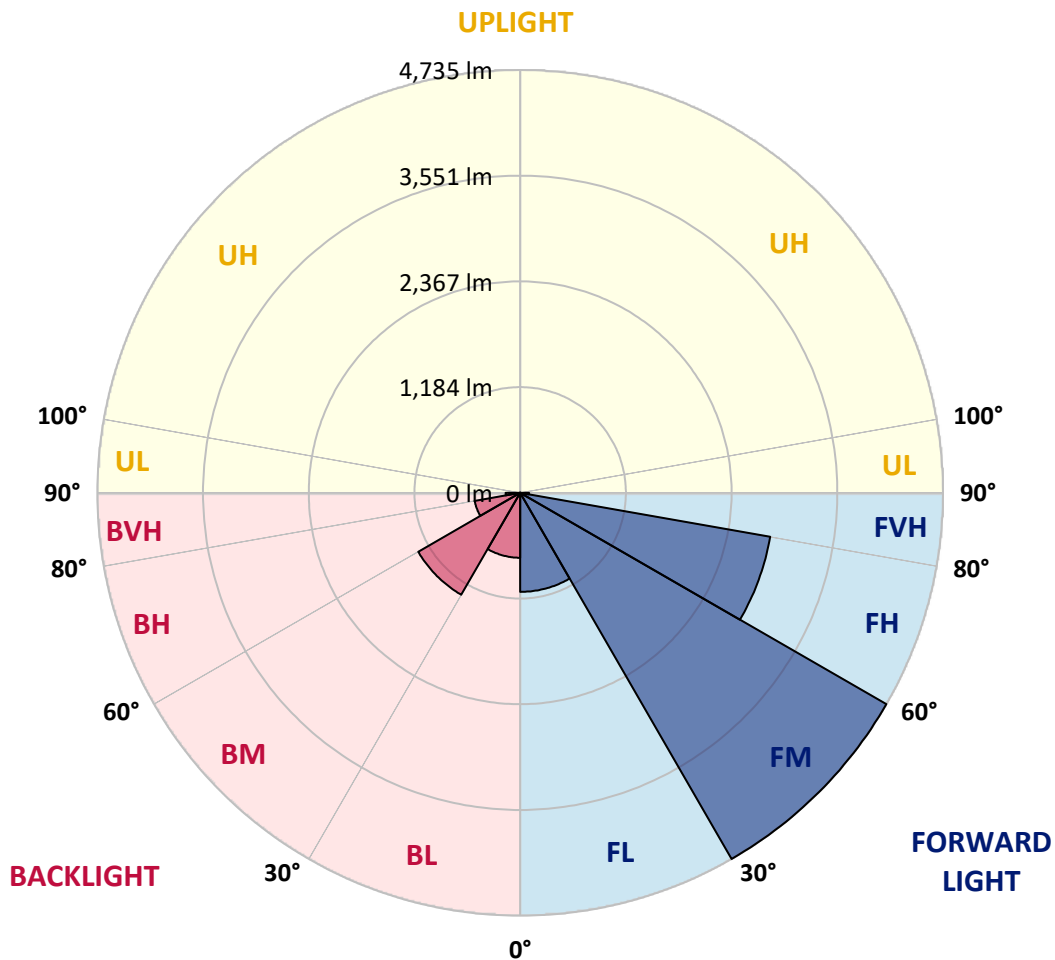
CATALOG NUMBER: GLAN-SB3B-930-U-T4LG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1109.0 | 9.6 | | | |
| FM | (30°-60°) | 4734.6 | 41.1 | | | |
| FH | (60°-80°) | 2842.8 | 24.7 | | | G2/5000 |
| FVH | (80°-90°) | 98.9 | 0.9 | | | G1/100 |
| BL | (0°-30°) | 727.2 | 6.3 | B2/1000 | | |
| BM | (30°-60°) | 1317.4 | 11.4 | B2/2500 | | |
| BH | (60°-80°) | 516.9 | 4.5 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 163.5 | 1.4 | | | 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 IV Short





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CATALOG NUMBER: GLAN-SB3B-930-U-T4LG

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 |
| 2.5° | 2729.6 | 2721.9 | 2714.2 | 2719.3 | 2709.1 | 2706.6 | 2693.8 | 2688.7 | 2673.3 | 2670.8 | 2642.7 |
| 5° | 2785.8 | 2770.5 | 2767.9 | 2773.0 | 2762.8 | 2762.8 | 2752.6 | 2744.9 | 2721.9 | 2709.1 | 2668.2 |
| 7.5° | 2785.8 | 2783.2 | 2788.3 | 2806.2 | 2808.8 | 2808.8 | 2808.8 | 2811.3 | 2788.3 | 2770.5 | 2706.6 |
| 10° | 2627.3 | 2601.8 | 2658.0 | 2747.5 | 2790.9 | 2816.5 | 2862.5 | 2890.6 | 2872.7 | 2859.9 | 2773.0 |
| 12.5° | 2154.5 | 2157.1 | 2246.5 | 2438.2 | 2612.0 | 2686.1 | 2877.8 | 2980.0 | 2987.7 | 2967.2 | 2857.4 |
| 15° | 1827.4 | 1840.2 | 1886.2 | 2024.2 | 2223.5 | 2333.4 | 2788.3 | 3059.3 | 3120.6 | 3100.1 | 2959.6 |
| 17.5° | 1727.7 | 1735.4 | 1755.8 | 1835.0 | 1947.5 | 2036.9 | 2545.5 | 3110.4 | 3281.6 | 3256.1 | 3074.6 |
| 20° | 1712.4 | 1717.5 | 1743.0 | 1809.5 | 1886.2 | 1937.3 | 2297.6 | 3069.5 | 3432.4 | 3422.2 | 3179.4 |
| 22.5° | 1714.9 | 1720.0 | 1753.3 | 1845.3 | 1924.5 | 1967.9 | 2218.4 | 2974.9 | 3590.9 | 3601.1 | 3286.7 |
| 25° | 1720.0 | 1722.6 | 1773.7 | 1896.4 | 1996.1 | 2049.7 | 2269.5 | 2890.6 | 3723.8 | 3810.7 | 3404.3 |
| 27.5° | 1748.1 | 1755.8 | 1824.8 | 1962.8 | 2080.4 | 2141.7 | 2389.6 | 2918.7 | 3869.4 | 4048.3 | 3544.9 |
| 30° | 1824.8 | 1829.9 | 1914.3 | 2057.4 | 2185.2 | 2249.1 | 2532.8 | 3031.1 | 4048.3 | 4293.7 | 3682.9 |
| 32.5° | 1944.9 | 1950.1 | 2047.2 | 2195.4 | 2333.4 | 2410.1 | 2719.3 | 3245.8 | 4247.7 | 4551.8 | 3820.9 |
| 35° | 2111.1 | 2113.6 | 2223.5 | 2382.0 | 2527.7 | 2614.6 | 2936.6 | 3488.6 | 4454.7 | 4771.6 | 3923.1 |
| 37.5° | 2307.9 | 2325.8 | 2438.2 | 2604.3 | 2775.6 | 2854.8 | 3192.2 | 3772.3 | 4638.7 | 4958.2 | 3981.9 |
| 40° | 2578.8 | 2583.9 | 2693.8 | 2854.8 | 3036.3 | 3112.9 | 3447.7 | 4040.7 | 4840.6 | 5068.1 | 4035.6 |
| 42.5° | 2857.4 | 2900.8 | 2992.8 | 3171.7 | 3307.2 | 3368.5 | 3739.1 | 4286.0 | 5001.6 | 5073.2 | 4012.6 |
| 45° | 3230.5 | 3263.7 | 3355.7 | 3514.2 | 3649.6 | 3721.2 | 4053.5 | 4510.9 | 5083.4 | 5029.8 | 3961.4 |
| 47.5° | 3657.3 | 3677.8 | 3751.9 | 3895.0 | 4045.8 | 4096.9 | 4380.6 | 4638.7 | 5114.1 | 4999.1 | 3938.4 |
| 50° | 4160.8 | 4160.8 | 4214.5 | 4337.1 | 4475.2 | 4546.7 | 4682.2 | 4715.4 | 5203.5 | 4945.4 | 3997.2 |
| 52.5° | 4585.1 | 4605.5 | 4677.1 | 4850.9 | 4988.9 | 5070.6 | 4917.3 | 4833.0 | 5022.1 | 4646.4 | 4015.1 |
| 55° | 4991.4 | 5014.4 | 5175.4 | 5392.7 | 5627.8 | 5717.3 | 5211.2 | 4774.2 | 4411.3 | 4209.4 | 3892.4 |
| 57.5° | 5379.9 | 5428.5 | 5630.4 | 6054.6 | 6409.9 | 6402.2 | 5584.4 | 4247.7 | 3601.1 | 3726.3 | 3624.1 |
| 60° | 5921.7 | 5972.8 | 6294.9 | 6829.0 | 7263.5 | 7082.0 | 5589.5 | 3534.6 | 2806.2 | 2974.9 | 3120.6 |
| 62.5° | 6374.1 | 6461.0 | 6933.8 | 7823.2 | 8221.9 | 7938.2 | 5126.9 | 2706.6 | 1863.2 | 2075.3 | 2412.6 |
| 65° | 6333.2 | 6448.2 | 7181.7 | 8554.2 | 9149.7 | 8886.4 | 4449.6 | 1712.4 | 961.0 | 1418.5 | 1689.4 |
| 67° | 5776.0 | 5901.3 | 6852.0 | 8579.7 | 9481.9 | 8919.6 | 3757.0 | 1035.1 | 610.8 | 984.0 | 1173.1 |
| 67.5° | 5456.6 | 5640.6 | 6688.5 | 8531.2 | 9420.6 | 8779.1 | 3445.2 | 866.4 | 575.0 | 915.0 | 1068.3 |
| 70° | 3355.7 | 3652.2 | 5019.5 | 7542.1 | 8444.3 | 7347.8 | 1914.3 | 490.7 | 467.7 | 613.4 | 738.6 |
| 72.5° | 1009.5 | 1099.0 | 1937.3 | 4838.1 | 6197.7 | 5446.3 | 861.3 | 378.3 | 419.1 | 493.3 | 569.9 |
| 75° | 490.7 | 523.9 | 800.0 | 1978.2 | 3018.4 | 3003.0 | 480.5 | 324.6 | 388.5 | 414.0 | 449.8 |
| 77.5° | 314.4 | 334.8 | 498.4 | 1106.6 | 1382.7 | 1231.9 | 347.6 | 283.7 | 345.0 | 339.9 | 334.8 |
| 80° | 196.8 | 207.0 | 319.5 | 641.5 | 1019.8 | 851.1 | 255.6 | 232.6 | 296.5 | 263.2 | 237.7 |
| 82.5° | 127.8 | 140.6 | 204.5 | 391.0 | 728.4 | 633.8 | 168.7 | 166.1 | 245.4 | 209.6 | 184.0 |
| 85° | 84.3 | 94.6 | 130.3 | 230.0 | 431.9 | 452.4 | 109.9 | 115.0 | 189.1 | 158.5 | 140.6 |
| 87.5° | 30.7 | 38.3 | 66.5 | 102.2 | 201.9 | 250.5 | 46.0 | 43.4 | 92.0 | 74.1 | 58.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: GLAN-SB3B-930-U-T4LG

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 | 2629.9 |
| 2.5° | 2637.6 | 2629.9 | 2594.1 | 2563.4 | 2540.4 | 2509.8 | 2476.5 | 2438.2 | 2412.6 | 2417.8 | 2410.1 |
| 5° | 2650.3 | 2629.9 | 2560.9 | 2456.1 | 2353.9 | 2226.1 | 2062.5 | 1965.4 | 1891.3 | 1852.9 | 1863.2 |
| 7.5° | 2678.4 | 2642.7 | 2497.0 | 2284.9 | 2019.1 | 1758.4 | 1597.4 | 1505.3 | 1461.9 | 1444.0 | 1441.5 |
| 10° | 2727.0 | 2665.7 | 2415.2 | 2019.1 | 1671.5 | 1495.1 | 1436.3 | 1410.8 | 1405.7 | 1405.7 | 1403.1 |
| 12.5° | 2785.8 | 2688.7 | 2277.2 | 1760.9 | 1505.3 | 1441.5 | 1431.2 | 1433.8 | 1441.5 | 1449.1 | 1436.3 |
| 15° | 2857.4 | 2698.9 | 2106.0 | 1605.0 | 1472.1 | 1456.8 | 1472.1 | 1490.0 | 1502.8 | 1513.0 | 1500.2 |
| 17.5° | 2928.9 | 2688.7 | 1944.9 | 1530.9 | 1477.2 | 1497.7 | 1528.4 | 1556.5 | 1564.1 | 1579.5 | 1569.2 |
| 20° | 2980.0 | 2652.9 | 1806.9 | 1502.8 | 1490.0 | 1536.0 | 1574.4 | 1605.0 | 1620.4 | 1630.6 | 1620.4 |
| 22.5° | 3018.4 | 2606.9 | 1707.3 | 1474.7 | 1490.0 | 1546.2 | 1592.2 | 1628.0 | 1645.9 | 1656.1 | 1643.4 |
| 25° | 3051.6 | 2543.0 | 1630.6 | 1433.8 | 1459.3 | 1513.0 | 1564.1 | 1599.9 | 1625.5 | 1640.8 | 1633.1 |
| 27.5° | 3092.5 | 2491.9 | 1559.0 | 1372.4 | 1395.5 | 1446.6 | 1500.2 | 1543.7 | 1592.2 | 1617.8 | 1612.7 |
| 30° | 3138.5 | 2466.3 | 1490.0 | 1306.0 | 1321.3 | 1372.4 | 1436.3 | 1495.1 | 1561.6 | 1594.8 | 1594.8 |
| 32.5° | 3192.2 | 2448.4 | 1426.1 | 1242.1 | 1254.9 | 1311.1 | 1372.4 | 1426.1 | 1497.7 | 1551.4 | 1548.8 |
| 35° | 3215.2 | 2428.0 | 1375.0 | 1183.3 | 1208.9 | 1254.9 | 1303.4 | 1339.2 | 1413.3 | 1477.2 | 1482.3 |
| 37.5° | 3238.2 | 2420.3 | 1349.4 | 1137.3 | 1157.8 | 1193.5 | 1219.1 | 1237.0 | 1306.0 | 1372.4 | 1375.0 |
| 40° | 3266.3 | 2456.1 | 1367.3 | 1106.6 | 1088.8 | 1124.5 | 1137.3 | 1147.5 | 1183.3 | 1226.8 | 1226.8 |
| 42.5° | 3248.4 | 2481.7 | 1408.2 | 1078.5 | 1004.4 | 1045.3 | 1050.4 | 1047.9 | 1050.4 | 1053.0 | 1050.4 |
| 45° | 3202.4 | 2456.1 | 1408.2 | 1035.1 | 915.0 | 958.4 | 955.9 | 943.1 | 922.6 | 869.0 | 861.3 |
| 47.5° | 3192.2 | 2440.8 | 1354.6 | 963.5 | 825.5 | 861.3 | 866.4 | 840.8 | 782.1 | 725.8 | 707.9 |
| 50° | 3235.6 | 2468.9 | 1270.2 | 876.6 | 748.8 | 779.5 | 792.3 | 748.8 | 682.4 | 623.6 | 613.4 |
| 52.5° | 3299.5 | 2504.7 | 1147.5 | 782.1 | 684.9 | 715.6 | 731.0 | 682.4 | 613.4 | 567.4 | 562.3 |
| 55° | 3291.8 | 2504.7 | 1009.5 | 695.2 | 636.4 | 659.4 | 684.9 | 633.8 | 580.2 | 554.6 | 552.0 |
| 57.5° | 3125.7 | 2410.1 | 907.3 | 633.8 | 590.4 | 610.8 | 644.1 | 595.5 | 544.4 | 549.5 | 557.2 |
| 60° | 2801.1 | 2164.7 | 830.6 | 592.9 | 549.5 | 569.9 | 605.7 | 549.5 | 483.0 | 465.2 | 465.2 |
| 62.5° | 2307.9 | 1783.9 | 769.3 | 552.0 | 511.2 | 536.7 | 554.6 | 480.5 | 437.0 | 416.6 | 416.6 |
| 65° | 1730.3 | 1380.1 | 705.4 | 518.8 | 477.9 | 506.0 | 485.6 | 449.8 | 406.4 | 391.0 | 393.6 |
| 67° | 1283.0 | 1070.9 | 651.7 | 490.7 | 457.5 | 470.3 | 454.9 | 429.4 | 385.9 | 373.1 | 385.9 |
| 67.5° | 1152.7 | 1017.2 | 638.9 | 483.0 | 452.4 | 462.6 | 447.3 | 426.8 | 380.8 | 368.0 | 380.8 |
| 70° | 792.3 | 782.1 | 569.9 | 447.3 | 424.3 | 414.0 | 421.7 | 396.1 | 357.8 | 352.7 | 365.5 |
| 72.5° | 603.2 | 623.6 | 511.2 | 416.6 | 393.6 | 380.8 | 398.7 | 373.1 | 334.8 | 342.5 | 355.3 |
| 75° | 472.8 | 503.5 | 457.5 | 373.1 | 357.8 | 360.4 | 396.1 | 385.9 | 355.3 | 362.9 | 365.5 |
| 77.5° | 350.1 | 406.4 | 391.0 | 324.6 | 311.8 | 347.6 | 447.3 | 477.9 | 424.3 | 411.5 | 393.6 |
| 80° | 255.6 | 291.4 | 329.7 | 268.4 | 260.7 | 334.8 | 552.0 | 610.8 | 523.9 | 472.8 | 460.0 |
| 82.5° | 189.1 | 204.5 | 270.9 | 214.7 | 189.1 | 299.0 | 613.4 | 718.2 | 623.6 | 526.5 | 511.2 |
| 85° | 135.5 | 158.5 | 214.7 | 158.5 | 125.2 | 245.4 | 600.6 | 702.8 | 618.5 | 498.4 | 485.6 |
| 87.5° | 48.6 | 69.0 | 92.0 | 71.6 | 63.9 | 168.7 | 495.8 | 506.0 | 385.9 | 176.3 | 178.9 |
| 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: SP1-2407-184-14

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 |

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CIE 1931 Chromaticity Diagram



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



CCT = 2993K
 CIE x = 0.4406
 CIE y = 0.4107
 Duv = 0.0021

Point lies inside the ANSI 3000K 4-step quadrangle

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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)