

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: P1458957

Luminaire Tested: GLAN-SB9C-830-U-T4LG-HSS

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1458957
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB9C-830-U-T4LG-HSS
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 9xLight Square
PACKAGE 80CRI 3000K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE SHIELD
Light Source: (234) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

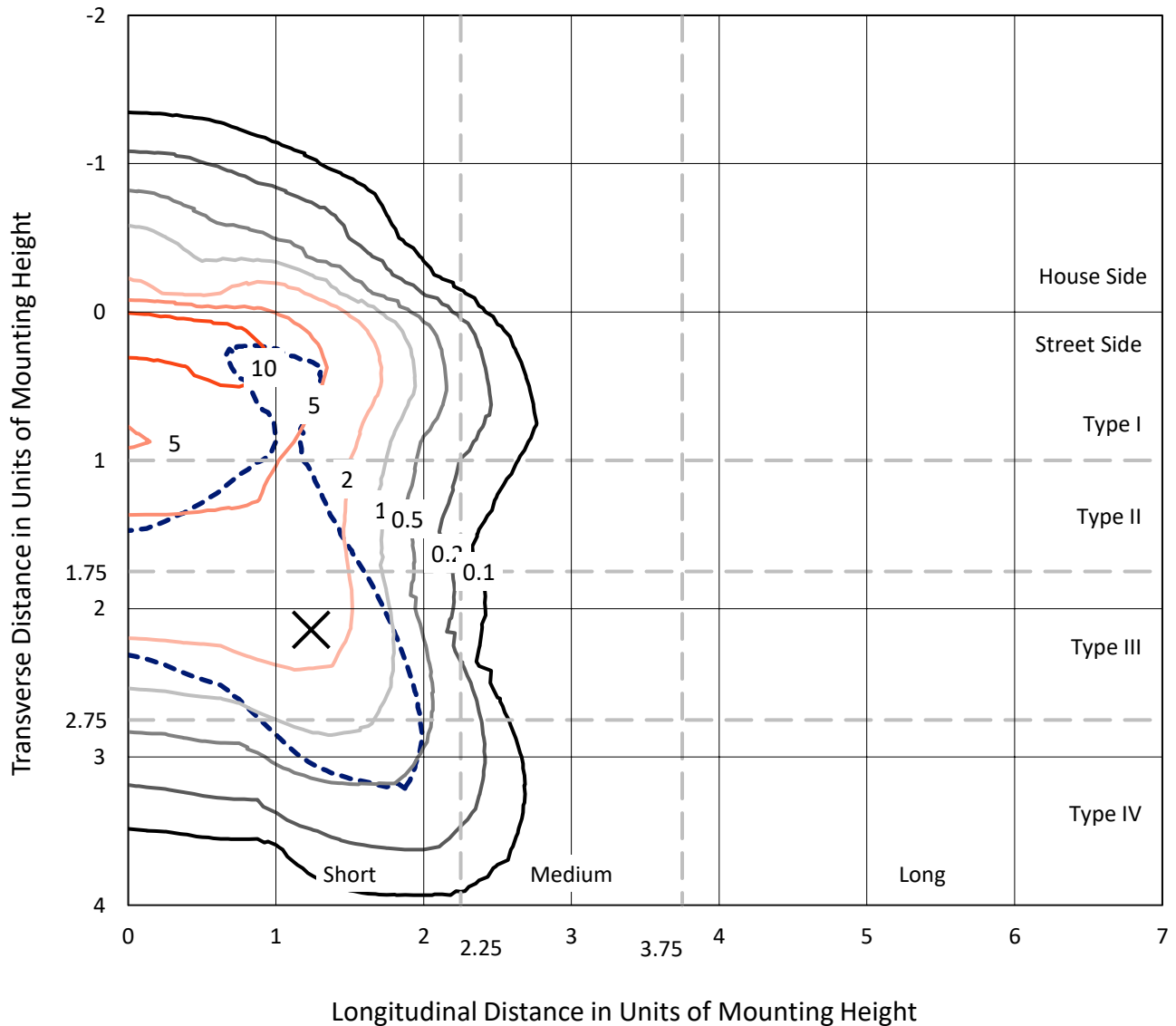
Lumens per Lamp: N/A
Luminaire Lumens: 44428.9 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

Input Watts (W): 449.8
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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Iso-Footcandle Lines of Horizontal Illumination

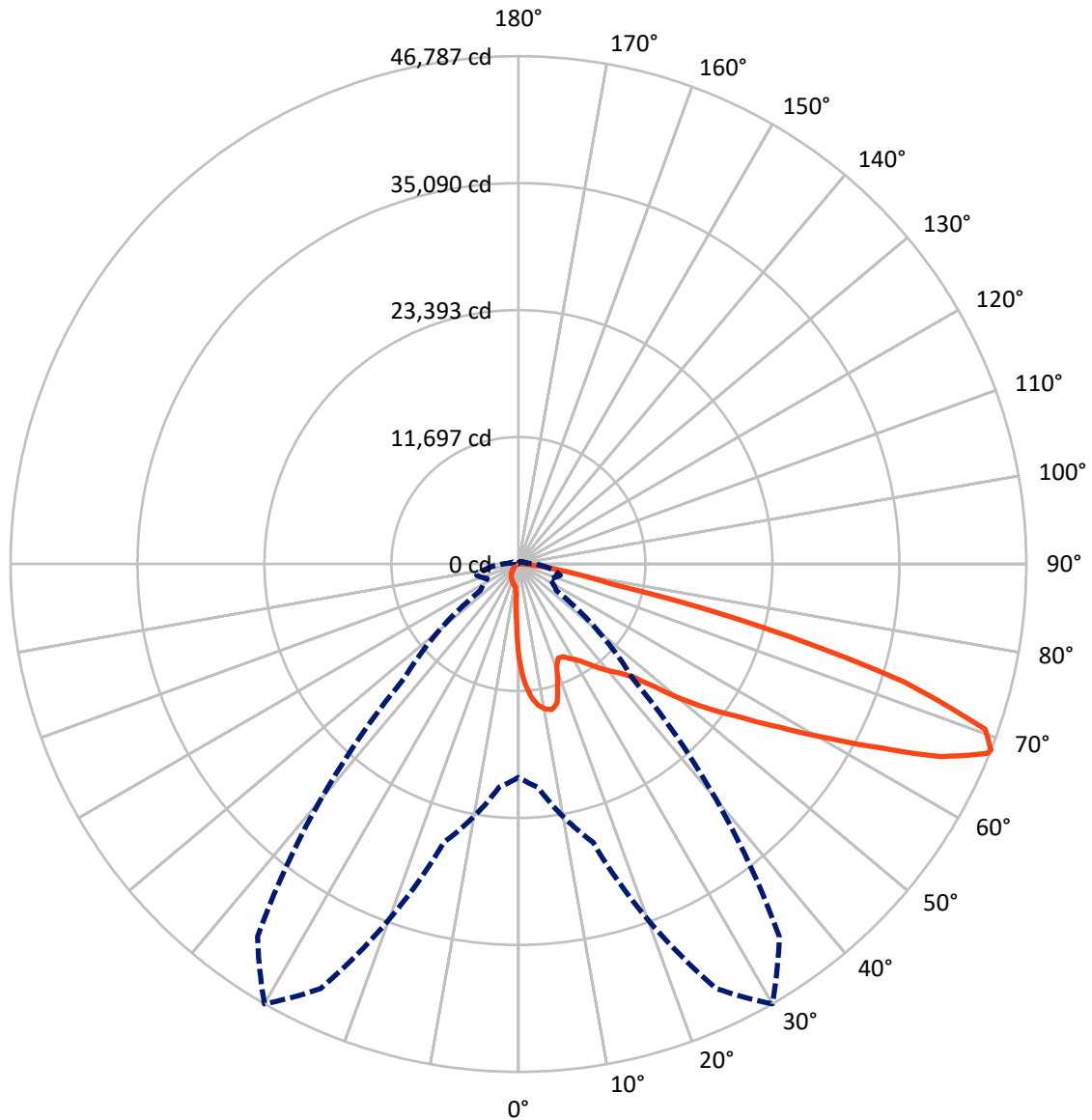
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.9 fc
 Type IV - Short - N/A

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CATALOG NUMBER: GLAN-SB9C-830-U-T4LG-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 30-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3391.1 | 0.0 | 3391.1 |
| | % Fixture | 7.6 | 0.0 | 7.6 |
| Street Side | Lumens | 41037.9 | 0.0 | 41037.9 |
| | % Fixture | 92.4 | 0.0 | 92.4 |
| Total | Lumens | 44428.9 | 0.0 | 44428.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 756.0 | 1.7 |
| 10°-20° | 2158.2 | 4.9 |
| 20°-30° | 3391.6 | 7.6 |
| 30°-40° | 5319.4 | 12.0 |
| 40°-50° | 7950.9 | 17.9 |
| 50°-60° | 10577.3 | 23.8 |
| 60°-70° | 10225.0 | 23.0 |
| 70°-80° | 3675.5 | 8.3 |
| 80°-90° | 375.1 | 0.8 |
| 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° | 44428.9 | 100.0 |
| 0°-180° | 44428.9 | 100.0 |



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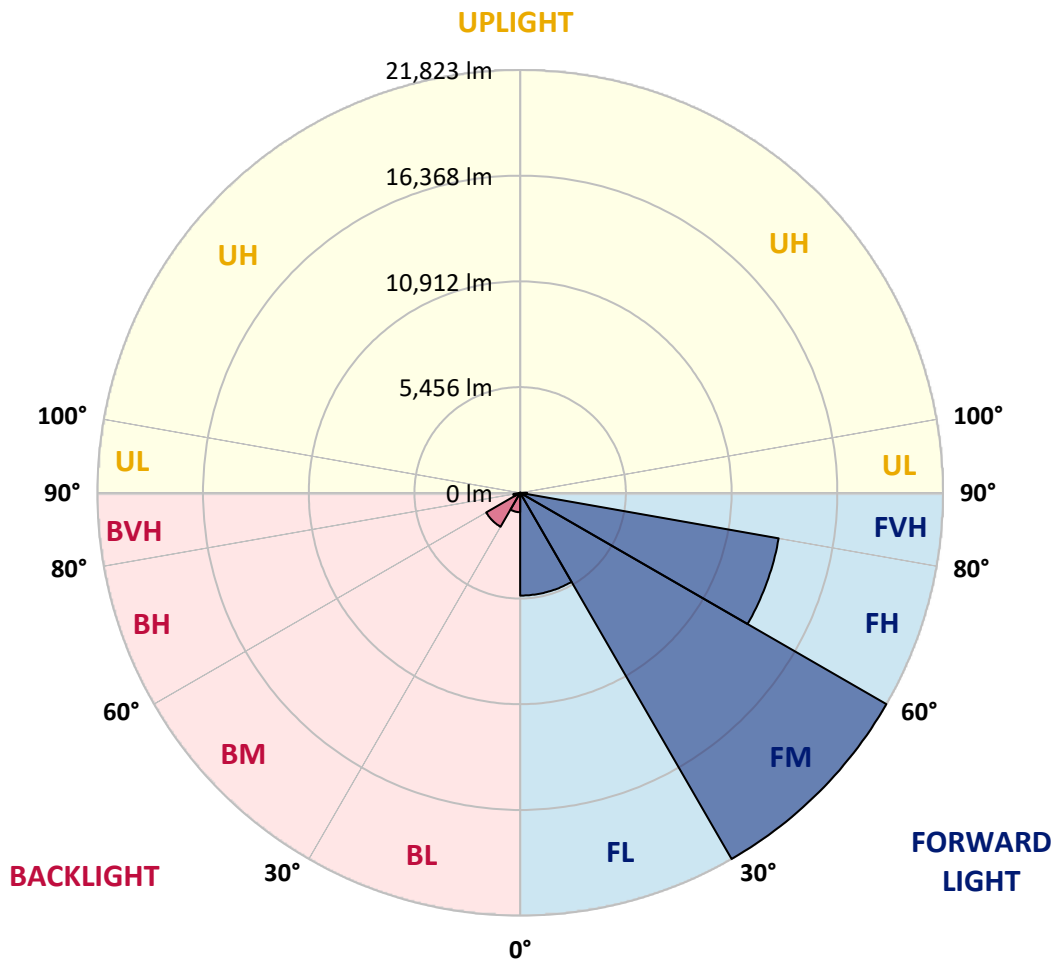
CATALOG NUMBER: GLAN-SB9C-830-U-T4LG-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 5304.8 | 11.9 | | | |
| FM | (30°-60°) | 21823.5 | 49.1 | | | |
| FH | (60°-80°) | 13547.8 | 30.5 | | | G5 |
| FVH | (80°-90°) | 361.8 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 1000.9 | 2.3 | B3/2500 | | |
| BM | (30°-60°) | 2024.1 | 4.6 | B2/2500 | | |
| BH | (60°-80°) | 352.7 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 13.3 | 0.0 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 30° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 |
| 2.5° | 11197.4 | 11197.4 | 11117.5 | 11011.0 | 10891.2 | 10851.2 | 10624.9 | 10305.3 | 9972.5 | 9586.4 | 9027.2 |
| 5° | 12635.3 | 12622.0 | 12462.3 | 12462.3 | 12302.5 | 12156.0 | 11929.7 | 11463.7 | 10931.1 | 10238.8 | 9266.8 |
| 7.5° | 13274.4 | 13301.1 | 13234.5 | 13234.5 | 13141.3 | 13034.8 | 12901.6 | 12448.9 | 11823.2 | 10891.2 | 9506.5 |
| 10° | 13500.8 | 13514.1 | 13514.1 | 13607.3 | 13580.7 | 13567.4 | 13554.0 | 13301.1 | 12648.7 | 11556.9 | 9759.4 |
| 12.5° | 12954.9 | 13021.5 | 13207.9 | 13620.6 | 13753.8 | 13900.2 | 14099.9 | 14020.0 | 13567.4 | 12395.7 | 10145.6 |
| 15° | 11197.4 | 11210.7 | 11730.0 | 12755.2 | 13301.1 | 13860.3 | 14632.5 | 14792.3 | 14499.4 | 13301.1 | 10545.0 |
| 17.5° | 9240.2 | 9280.1 | 9692.9 | 10837.9 | 11716.7 | 13008.2 | 14938.7 | 15591.1 | 15484.6 | 14193.1 | 10917.8 |
| 20° | 8428.0 | 8481.3 | 8681.0 | 9400.0 | 10065.7 | 11264.0 | 14632.5 | 16350.1 | 16390.0 | 15085.2 | 11264.0 |
| 22.5° | 8241.6 | 8281.5 | 8441.3 | 9000.5 | 9413.3 | 10212.1 | 13594.0 | 16949.2 | 17415.2 | 16110.4 | 11676.7 |
| 25° | 8188.3 | 8228.3 | 8467.9 | 9080.4 | 9466.5 | 10132.2 | 12648.7 | 17268.8 | 18626.8 | 17175.6 | 12076.1 |
| 27.5° | 8148.4 | 8201.7 | 8587.8 | 9373.3 | 9826.0 | 10465.1 | 12475.6 | 17335.3 | 19785.2 | 18307.3 | 12728.5 |
| 30° | 8201.7 | 8281.5 | 8787.5 | 9679.6 | 10198.8 | 10917.8 | 12888.3 | 17401.9 | 21063.4 | 19598.8 | 13554.0 |
| 32.5° | 8414.7 | 8481.3 | 9093.7 | 10092.3 | 10691.4 | 11503.6 | 13594.0 | 17801.3 | 22275.0 | 20916.9 | 14339.6 |
| 35° | 8654.3 | 8747.5 | 9479.8 | 10678.1 | 11397.1 | 12315.8 | 14552.6 | 18586.9 | 23433.3 | 22168.4 | 15151.8 |
| 37.5° | 8947.3 | 9053.8 | 9932.5 | 11343.9 | 12169.3 | 13207.9 | 15591.1 | 19678.7 | 24458.5 | 23193.7 | 15963.9 |
| 40° | 9346.7 | 9466.5 | 10451.8 | 12049.5 | 12941.6 | 13980.1 | 16616.3 | 20757.1 | 25244.1 | 23806.1 | 16496.5 |
| 42.5° | 10917.8 | 11077.6 | 11490.3 | 12741.9 | 13740.4 | 14805.6 | 17628.2 | 21782.3 | 25537.0 | 24005.8 | 16603.0 |
| 45° | 13847.0 | 14006.7 | 13900.2 | 14139.9 | 14805.6 | 15804.2 | 18733.3 | 22767.6 | 25576.9 | 23952.6 | 16549.8 |
| 47.5° | 16789.4 | 16975.8 | 16882.6 | 16749.5 | 16896.0 | 17375.3 | 19971.6 | 23393.4 | 25363.9 | 23925.9 | 16549.8 |
| 50° | 19598.8 | 19492.3 | 19505.6 | 19465.6 | 19598.8 | 19851.7 | 21169.9 | 23513.2 | 25310.6 | 24178.9 | 16696.2 |
| 52.5° | 21103.3 | 21156.6 | 21489.4 | 21982.0 | 22275.0 | 22527.9 | 22541.2 | 23699.6 | 24924.5 | 23752.9 | 16523.1 |
| 55° | 22581.2 | 22687.7 | 23459.9 | 24298.7 | 24951.2 | 25430.5 | 23912.6 | 23579.8 | 22621.1 | 22328.2 | 15617.8 |
| 57.5° | 24245.5 | 24391.9 | 25483.7 | 27214.6 | 28359.6 | 28612.6 | 25270.7 | 21343.0 | 19146.1 | 20291.1 | 13860.3 |
| 60° | 26535.6 | 26708.7 | 28159.9 | 30756.2 | 32460.5 | 31941.2 | 25377.2 | 17788.0 | 15205.0 | 16842.7 | 11437.1 |
| 62.5° | 28333.0 | 28679.2 | 31302.1 | 35349.7 | 37227.0 | 35576.0 | 23393.4 | 13633.9 | 10624.9 | 11836.5 | 8348.1 |
| 65° | 26415.7 | 27081.5 | 31355.4 | 40608.9 | 42779.1 | 39849.9 | 20277.8 | 9306.8 | 5991.5 | 7655.8 | 5339.1 |
| 67.5° | 21356.3 | 22288.3 | 27840.4 | 43165.2 | 46587.0 | 42100.1 | 15963.9 | 4939.6 | 3435.1 | 4447.0 | 2809.3 |
| 68° | 19652.0 | 20663.9 | 26548.9 | 43165.2 | 46786.7 | 41900.4 | 14818.9 | 4273.9 | 3168.8 | 3994.3 | 2436.5 |
| 70° | 13580.7 | 14299.6 | 20410.9 | 40742.0 | 45615.1 | 38199.0 | 9759.4 | 2449.8 | 2383.3 | 2742.8 | 1611.0 |
| 72.5° | 6657.2 | 7429.4 | 10917.8 | 32287.4 | 37160.4 | 29358.2 | 4447.0 | 1624.4 | 1810.8 | 2010.5 | 1264.9 |
| 75° | 2649.6 | 2809.3 | 4300.5 | 15924.0 | 23220.3 | 18733.3 | 2330.0 | 1224.9 | 1557.8 | 1571.1 | 998.6 |
| 77.5° | 1517.8 | 1611.0 | 2383.3 | 5858.3 | 8707.6 | 8374.7 | 1504.5 | 878.7 | 1238.2 | 1131.7 | 652.4 |
| 80° | 852.1 | 865.4 | 1344.8 | 3088.9 | 4979.6 | 4460.3 | 1025.2 | 639.1 | 945.3 | 798.9 | 439.4 |
| 82.5° | 426.1 | 479.3 | 852.1 | 1704.2 | 2769.4 | 2836.0 | 545.9 | 452.7 | 758.9 | 572.5 | 359.5 |
| 85° | 306.2 | 332.9 | 612.5 | 945.3 | 1278.2 | 1917.3 | 332.9 | 226.3 | 572.5 | 386.1 | 253.0 |
| 87.5° | 159.8 | 199.7 | 386.1 | 466.0 | 519.3 | 652.4 | 159.8 | 106.5 | 319.5 | 226.3 | 133.1 |
| 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: P1458957

CATALOG NUMBER: GLAN-SB9C-830-U-T4LG-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 | 8760.9 |
| 2.5° | 8760.9 | 8454.6 | 7828.9 | 7096.6 | 6524.0 | 5938.2 | 5458.9 | 5006.2 | 4793.2 | 4766.5 | 4819.8 |
| 5° | 8720.9 | 8055.2 | 6630.6 | 5232.6 | 4087.5 | 3288.7 | 2849.3 | 2622.9 | 2503.1 | 2449.8 | 2463.2 |
| 7.5° | 8641.0 | 7629.1 | 5352.4 | 3541.6 | 2649.6 | 2303.4 | 2196.9 | 2156.9 | 2143.6 | 2143.6 | 2143.6 |
| 10° | 8561.1 | 7056.6 | 4100.8 | 2596.3 | 2170.2 | 2077.0 | 2050.4 | 2050.4 | 2037.1 | 2037.1 | 2050.4 |
| 12.5° | 8521.2 | 6524.0 | 3182.1 | 2170.2 | 2023.8 | 1983.8 | 1957.2 | 1943.9 | 1943.9 | 1943.9 | 1957.2 |
| 15° | 8428.0 | 5938.2 | 2569.7 | 2010.5 | 1930.6 | 1877.3 | 1864.0 | 1850.7 | 1850.7 | 1850.7 | 1850.7 |
| 17.5° | 8348.1 | 5365.7 | 2236.8 | 1904.0 | 1837.4 | 1784.1 | 1770.8 | 1757.5 | 1757.5 | 1770.8 | 1770.8 |
| 20° | 8228.3 | 4819.8 | 2010.5 | 1797.4 | 1744.2 | 1690.9 | 1677.6 | 1664.3 | 1677.6 | 1677.6 | 1677.6 |
| 22.5° | 8081.8 | 4367.1 | 1877.3 | 1717.6 | 1651.0 | 1597.7 | 1597.7 | 1597.7 | 1597.7 | 1597.7 | 1611.0 |
| 25° | 7988.6 | 4047.6 | 1784.1 | 1624.4 | 1557.8 | 1517.8 | 1504.5 | 1504.5 | 1531.2 | 1531.2 | 1544.5 |
| 27.5° | 8135.1 | 3967.7 | 1797.4 | 1597.7 | 1477.9 | 1438.0 | 1424.6 | 1424.6 | 1451.3 | 1464.6 | 1477.9 |
| 30° | 8574.5 | 4114.1 | 1957.2 | 1677.6 | 1424.6 | 1358.1 | 1344.8 | 1344.8 | 1384.7 | 1398.0 | 1411.3 |
| 32.5° | 9080.4 | 4420.4 | 2196.9 | 1784.1 | 1384.7 | 1278.2 | 1251.6 | 1251.6 | 1291.5 | 1304.8 | 1318.1 |
| 35° | 9772.8 | 4899.7 | 2516.4 | 1877.3 | 1411.3 | 1198.3 | 1145.0 | 1145.0 | 1171.7 | 1198.3 | 1211.6 |
| 37.5° | 10664.8 | 5685.2 | 2889.2 | 1943.9 | 1411.3 | 1105.1 | 1038.5 | 1025.2 | 1051.8 | 1051.8 | 1065.2 |
| 40° | 11596.8 | 6710.4 | 3275.3 | 1943.9 | 1344.8 | 1011.9 | 945.3 | 905.4 | 918.7 | 905.4 | 918.7 |
| 42.5° | 12116.1 | 7535.9 | 3608.2 | 1824.1 | 1264.9 | 918.7 | 852.1 | 798.9 | 785.5 | 758.9 | 772.2 |
| 45° | 12409.0 | 7908.7 | 3515.0 | 1690.9 | 1185.0 | 852.1 | 772.2 | 705.7 | 679.0 | 639.1 | 639.1 |
| 47.5° | 12409.0 | 7948.7 | 3009.1 | 1584.4 | 1105.1 | 798.9 | 692.3 | 625.8 | 585.8 | 545.9 | 559.2 |
| 50° | 12262.5 | 7589.2 | 2383.3 | 1477.9 | 1011.9 | 745.6 | 625.8 | 572.5 | 519.3 | 492.6 | 492.6 |
| 52.5° | 11650.1 | 6417.5 | 1824.1 | 1344.8 | 905.4 | 679.0 | 559.2 | 505.9 | 452.7 | 439.4 | 439.4 |
| 55° | 10598.2 | 4713.3 | 1477.9 | 1211.6 | 812.2 | 625.8 | 505.9 | 466.0 | 412.7 | 386.1 | 386.1 |
| 57.5° | 8614.4 | 3222.1 | 1224.9 | 1091.8 | 719.0 | 559.2 | 452.7 | 412.7 | 346.2 | 319.5 | 319.5 |
| 60° | 6390.9 | 2103.7 | 1038.5 | 958.6 | 612.5 | 505.9 | 399.4 | 346.2 | 292.9 | 266.3 | 253.0 |
| 62.5° | 4313.9 | 1424.6 | 865.4 | 758.9 | 519.3 | 439.4 | 346.2 | 292.9 | 226.3 | 173.1 | 173.1 |
| 65° | 2689.5 | 1105.1 | 719.0 | 599.1 | 452.7 | 386.1 | 292.9 | 226.3 | 159.8 | 119.8 | 106.5 |
| 67.5° | 1544.5 | 892.1 | 585.8 | 466.0 | 386.1 | 306.2 | 226.3 | 186.4 | 133.1 | 93.2 | 79.9 |
| 68° | 1424.6 | 852.1 | 545.9 | 439.4 | 359.5 | 292.9 | 213.0 | 173.1 | 119.8 | 79.9 | 79.9 |
| 70° | 1158.4 | 758.9 | 466.0 | 359.5 | 306.2 | 239.7 | 186.4 | 146.5 | 93.2 | 53.3 | 53.3 |
| 72.5° | 1025.2 | 639.1 | 399.4 | 279.6 | 213.0 | 199.7 | 146.5 | 106.5 | 66.6 | 39.9 | 26.6 |
| 75° | 838.8 | 505.9 | 319.5 | 213.0 | 146.5 | 146.5 | 106.5 | 66.6 | 26.6 | 0.0 | 0.0 |
| 77.5° | 545.9 | 372.8 | 253.0 | 133.1 | 79.9 | 93.2 | 66.6 | 26.6 | 0.0 | 0.0 | 0.0 |
| 80° | 359.5 | 279.6 | 173.1 | 66.6 | 39.9 | 39.9 | 13.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 253.0 | 186.4 | 106.5 | 26.6 | 13.3 | 13.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 159.8 | 79.9 | 39.9 | 13.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 66.6 | 26.6 | 13.3 | 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: SP1-2407-184-9

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-830-U-5WQ

Data in this report applies to families of products including GSS-SB1A-830-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-9
 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-830-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3000K CCT 26 LEDS

Spectral Parameters

CCT (K): 3055
 CIE u': 0.2475
 CIE v': 0.5247
 Duv: 0.0032
 CIE x: 0.4377
 CIE y: 0.4124
 CIE z: 0.1499
 Peak Wavelength (nm): 604
 Dominant Wavelength (nm): 581
 Purity: 55.16339
 Rf: 81.5
 Rg: 99.2

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 80.9 | | |
| R1: | 79.5 | R9: | 6.8 |
| R2: | 85.6 | R10: | 67.1 |
| R3: | 92.1 | R11: | 82.5 |
| R4: | 82.4 | R12: | 63.4 |
| R5: | 78.9 | R13: | 80.2 |
| R6: | 81.7 | R14: | 95.1 |
| R7: | 85.1 | R15: | 71.7 |
| R8: | 61.9 | | |



Test Conditions

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

REPORT NUMBER: SP1-2407-184-9

| 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 |

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CIE 1931 Chromaticity Diagram



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



CCT = 3055K
 CIE x = 0.4377
 CIE y = 0.4124
 Duv = 0.0032

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 | 170 | NR | 620 | 938 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 234 | NR | 625 | 894 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 302 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 371 | NR | 635 | 788 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 728 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 482 | NR | 645 | 665 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 523 | NR | 650 | 603 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 553 | NR | 655 | 542 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 580 | NR | 660 | 484 | NR | 790 | 11 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 603 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 622 | NR | 670 | 377 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 36 | NR | 545 | 644 | NR | 675 | 330 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 71 | NR | 550 | 668 | NR | 680 | 289 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 693 | NR | 685 | 250 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 215 | NR | 560 | 720 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 341 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 514 | NR | 570 | 792 | NR | 700 | 161 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 576 | NR | 575 | 832 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 358 | NR | 580 | 875 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 222 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 170 | NR | 590 | 950 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 115 | NR | 595 | 977 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 88 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 87 | NR | 605 | 997 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 96 | NR | 610 | 990 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 122 | NR | 615 | 971 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-9

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.28

| 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 | 170 | NR | 620 | 938 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 234 | NR | 625 | 894 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 302 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 371 | NR | 635 | 788 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 728 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 482 | NR | 645 | 665 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 523 | NR | 650 | 603 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 553 | NR | 655 | 542 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 580 | NR | 660 | 484 | NR | 790 | 11 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 603 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 622 | NR | 670 | 377 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 36 | NR | 545 | 644 | NR | 675 | 330 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 71 | NR | 550 | 668 | NR | 680 | 289 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 693 | NR | 685 | 250 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 215 | NR | 560 | 720 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 341 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 514 | NR | 570 | 792 | NR | 700 | 161 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 576 | NR | 575 | 832 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 358 | NR | 580 | 875 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 222 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 170 | NR | 590 | 950 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 115 | NR | 595 | 977 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 88 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 87 | NR | 605 | 997 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 96 | NR | 610 | 990 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 122 | NR | 615 | 971 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.33

| 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 | 170 | NR | 620 | 938 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 234 | NR | 625 | 894 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 302 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 371 | NR | 635 | 788 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 728 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 482 | NR | 645 | 665 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 523 | NR | 650 | 603 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 553 | NR | 655 | 542 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 580 | NR | 660 | 484 | NR | 790 | 11 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 603 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 622 | NR | 670 | 377 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 36 | NR | 545 | 644 | NR | 675 | 330 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 71 | NR | 550 | 668 | NR | 680 | 289 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 693 | NR | 685 | 250 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 215 | NR | 560 | 720 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 341 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 514 | NR | 570 | 792 | NR | 700 | 161 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 576 | NR | 575 | 832 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 358 | NR | 580 | 875 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 222 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 170 | NR | 590 | 950 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 115 | NR | 595 | 977 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 88 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 87 | NR | 605 | 997 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 96 | NR | 610 | 990 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 122 | NR | 615 | 971 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 80.9$
 $R_9 = 6.8$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 74 | CES51 = 89 | CES76 = 70 |
| CES02 = 63 | CES27 = 88 | CES52 = 91 | CES77 = 86 |
| CES03 = 31 | CES28 = 89 | CES53 = 81 | CES78 = 72 |
| CES04 = 70 | CES29 = 67 | CES54 = 87 | CES79 = 90 |
| CES05 = 50 | CES30 = 68 | CES55 = 85 | CES80 = 88 |
| CES06 = 51 | CES31 = 71 | CES56 = 78 | CES81 = 78 |
| CES07 = 42 | CES32 = 70 | CES57 = 76 | CES82 = 95 |
| CES08 = 41 | CES33 = 71 | CES58 = 78 | CES83 = 90 |
| CES09 = 29 | CES34 = 82 | CES59 = 92 | CES84 = 93 |
| CES10 = 76 | CES35 = 90 | CES60 = 95 | CES85 = 86 |
| CES11 = 59 | CES36 = 93 | CES61 = 93 | CES86 = 72 |
| CES12 = 65 | CES37 = 87 | CES62 = 83 | CES87 = 85 |
| CES13 = 43 | CES38 = 75 | CES63 = 77 | CES88 = 83 |
| CES14 = 74 | CES39 = 94 | CES64 = 83 | CES89 = 75 |
| CES15 = 71 | CES40 = 89 | CES65 = 77 | CES90 = 81 |
| CES16 = 47 | CES41 = 85 | CES66 = 80 | CES91 = 96 |
| CES17 = 50 | CES42 = 86 | CES67 = 79 | CES92 = 73 |
| CES18 = 56 | CES43 = 81 | CES68 = 84 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 90 | CES94 = 64 |
| CES20 = 66 | CES45 = 87 | CES70 = 77 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 76 | CES96 = 84 |
| CES22 = 79 | CES47 = 77 | CES72 = 92 | CES97 = 87 |
| CES23 = 92 | CES48 = 71 | CES73 = 71 | CES98 = 81 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 74 |
| CES25 = 72 | CES50 = 89 | CES75 = 74 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)