

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: P1458360

Luminaire Tested: GLAN-SB4B-830-U-T3LG-HSS

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1458360
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB4B-830-U-T3LG-HSS
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 450mA 4xLight Square PACKAGE 80CRI 3000K FIXTURE w/ TYPE III LOW GLARE WITH HOUSE SIDE SHIELD
Light Source: (104) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

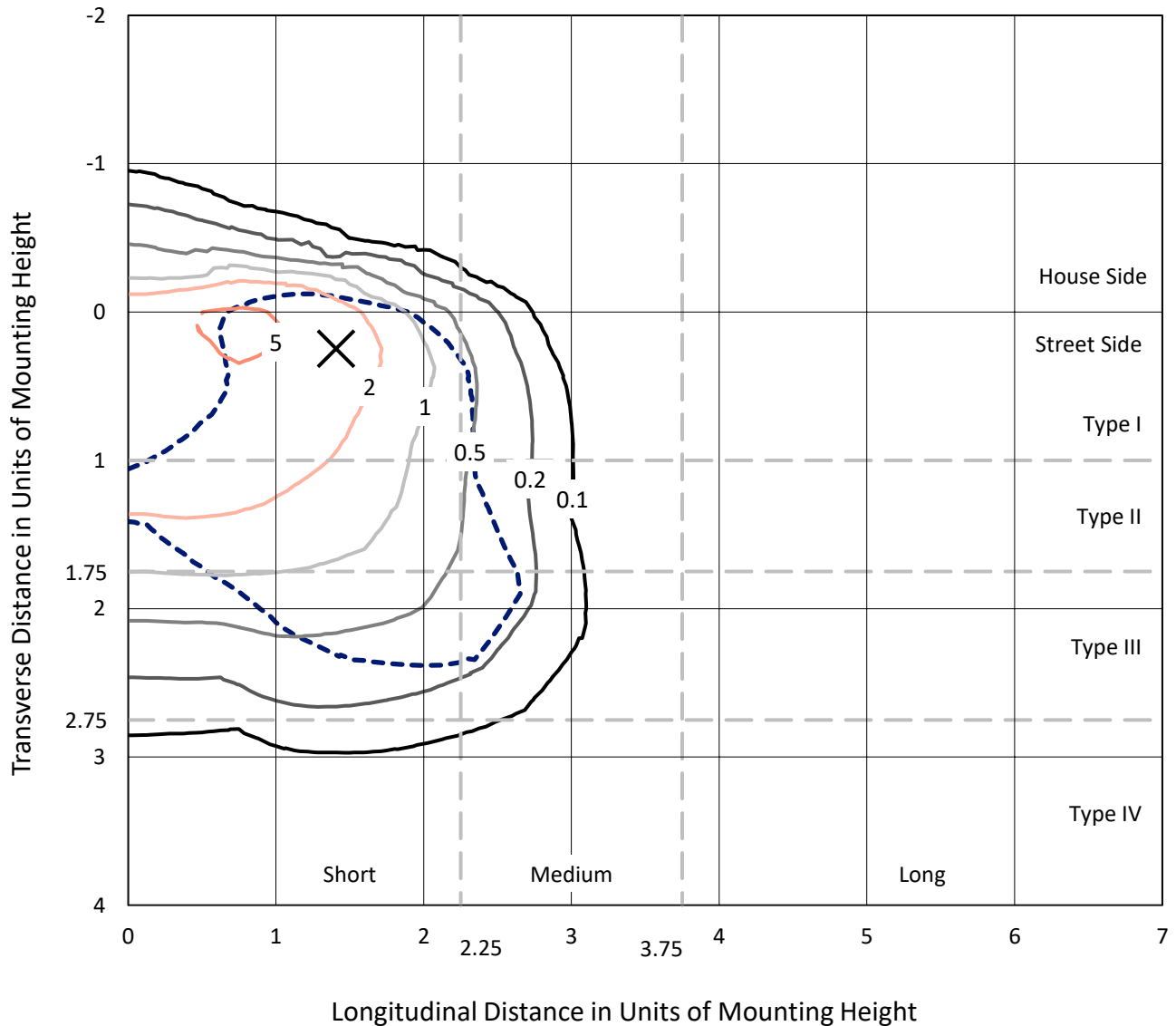
Lumens per Lamp: N/A
Luminaire Lumens: 15493.4 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

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

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Iso-Footcandle Lines of Horizontal Illumination

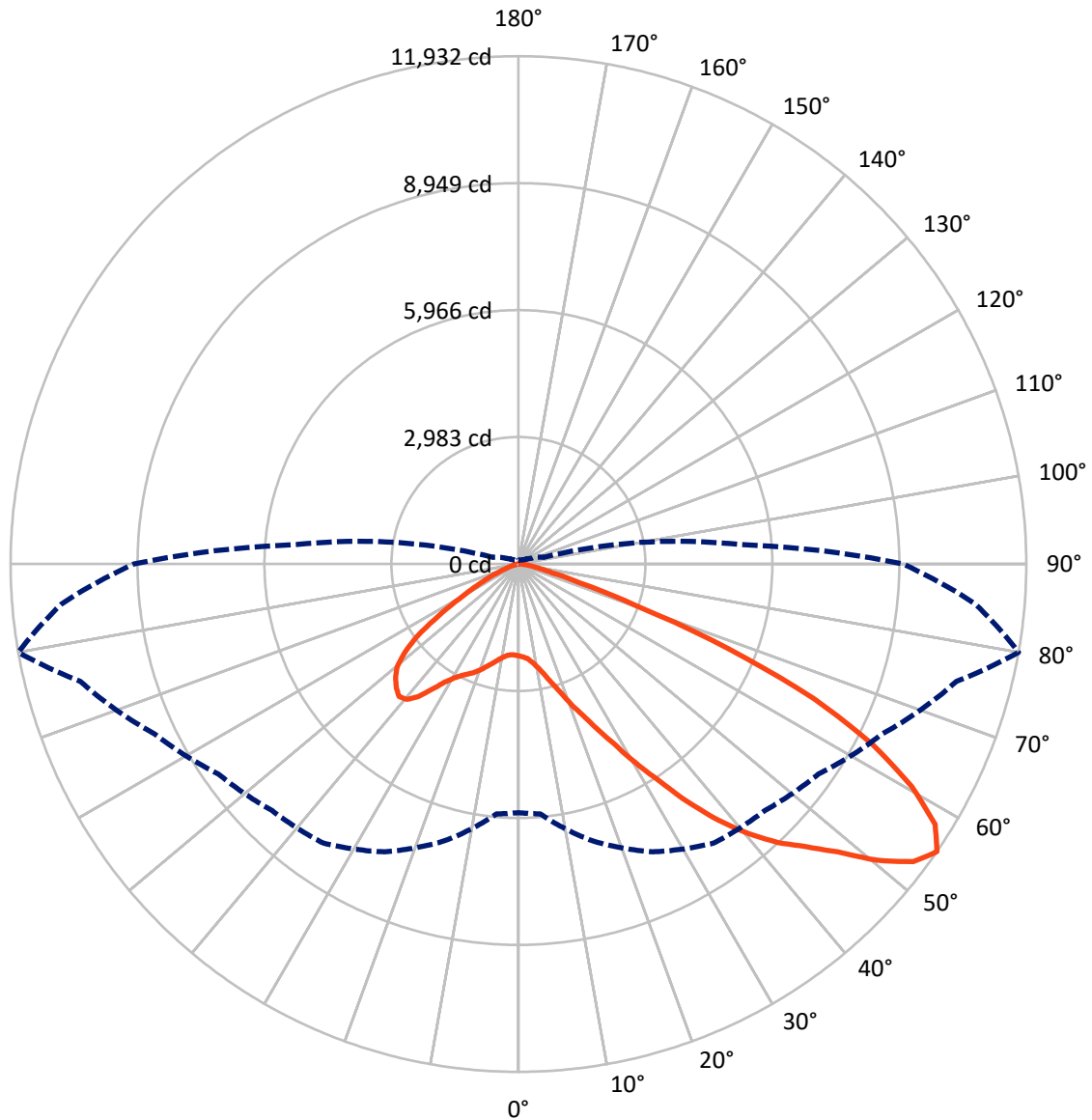
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1883.4 | 0.0 | 1883.4 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| Street Side | Lumens | 13610.0 | 0.0 | 13610.0 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| Total | Lumens | 15493.4 | 0.0 | 15493.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 181.1 | 1.2 |
| 10°-20° | 477.5 | 3.1 |
| 20°-30° | 934.8 | 6.0 |
| 30°-40° | 1901.8 | 12.3 |
| 40°-50° | 3206.1 | 20.7 |
| 50°-60° | 4096.4 | 26.4 |
| 60°-70° | 3497.4 | 22.6 |
| 70°-80° | 1117.6 | 7.2 |
| 80°-90° | 80.7 | 0.5 |
| 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° | 15493.4 | 100.0 |
| 0°-180° | 15493.4 | 100.0 |



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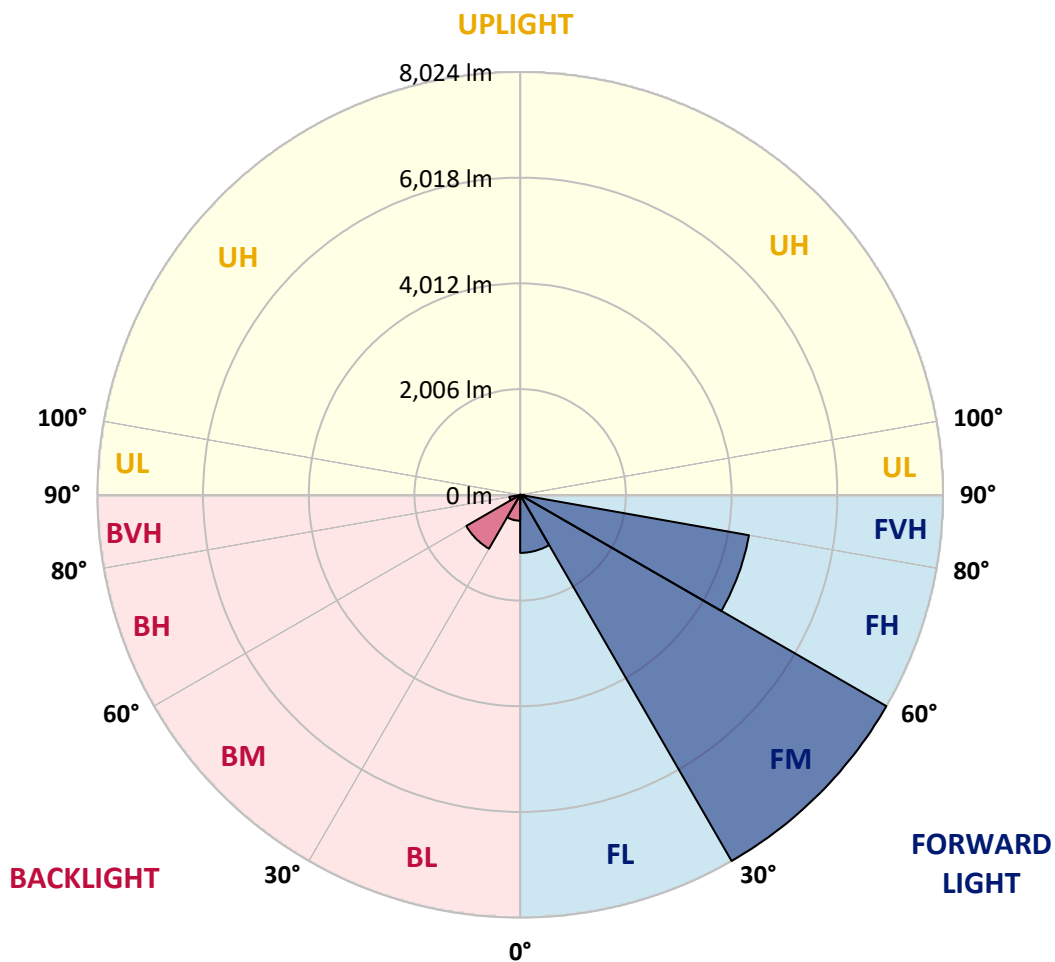
CATALOG NUMBER: GLAN-SB4B-830-U-T3LG-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1101.6 | 7.1 | | | |
| FM | (30°-60°) | 8023.9 | 51.8 | | | |
| FH | (60°-80°) | 4408.0 | 28.5 | | | G2/5000 |
| FVH | (80°-90°) | 76.5 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 491.8 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 1180.4 | 7.6 | B2/2500 | | |
| BH | (60°-80°) | 207.0 | 1.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 4.2 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0° | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 |
| 2.5° | 2171.4 | 2175.8 | 2171.4 | 2175.8 | 2184.6 | 2180.2 | 2197.8 | 2193.4 | 2193.4 | 2189.0 | 2171.4 |
| 5° | 2048.1 | 2052.5 | 2061.3 | 2083.3 | 2114.2 | 2145.0 | 2184.6 | 2211.1 | 2237.5 | 2233.1 | 2215.5 |
| 7.5° | 1805.8 | 1814.7 | 1849.9 | 1893.9 | 1995.2 | 2087.7 | 2189.0 | 2255.1 | 2312.4 | 2330.0 | 2316.8 |
| 10° | 1669.3 | 1678.1 | 1700.1 | 1744.2 | 1836.7 | 1990.8 | 2189.0 | 2325.6 | 2426.9 | 2462.1 | 2466.5 |
| 12.5° | 1656.1 | 1660.5 | 1678.1 | 1726.6 | 1805.8 | 1938.0 | 2184.6 | 2418.1 | 2589.8 | 2642.7 | 2660.3 |
| 15° | 1664.9 | 1673.7 | 1691.3 | 1731.0 | 1823.5 | 1973.2 | 2219.9 | 2563.4 | 2805.7 | 2880.5 | 2884.9 |
| 17.5° | 1700.1 | 1708.9 | 1731.0 | 1775.0 | 1876.3 | 2065.7 | 2330.0 | 2713.2 | 3065.5 | 3149.2 | 3197.7 |
| 20° | 1770.6 | 1775.0 | 1801.4 | 1858.7 | 1973.2 | 2180.2 | 2492.9 | 2915.8 | 3378.2 | 3501.6 | 3536.8 |
| 22.5° | 1863.1 | 1876.3 | 1911.6 | 1982.0 | 2127.4 | 2338.8 | 2717.6 | 3162.4 | 3721.8 | 3849.5 | 3911.2 |
| 25° | 1964.4 | 1982.0 | 2034.9 | 2149.4 | 2334.4 | 2581.0 | 2995.1 | 3488.4 | 4127.0 | 4281.2 | 4364.9 |
| 27.5° | 2171.4 | 2175.8 | 2211.1 | 2356.4 | 2594.2 | 2898.2 | 3347.4 | 3906.8 | 4602.7 | 4783.3 | 4875.8 |
| 30° | 2625.1 | 2629.5 | 2598.7 | 2638.3 | 2880.5 | 3272.5 | 3761.4 | 4395.7 | 5157.7 | 5408.7 | 5483.6 |
| 32.5° | 3180.0 | 3202.1 | 3197.7 | 3171.2 | 3281.4 | 3646.9 | 4254.7 | 4981.5 | 5809.5 | 6073.8 | 6144.3 |
| 35° | 3809.9 | 3862.7 | 3849.5 | 3840.7 | 3853.9 | 4127.0 | 4818.5 | 5628.9 | 6549.5 | 6871.0 | 6928.3 |
| 37.5° | 4426.5 | 4439.7 | 4501.4 | 4576.3 | 4585.1 | 4774.5 | 5470.4 | 6316.0 | 7236.6 | 7646.2 | 7734.3 |
| 40° | 4902.2 | 4946.3 | 5100.4 | 5250.2 | 5404.3 | 5554.1 | 6007.7 | 6871.0 | 7782.7 | 8333.3 | 8373.0 |
| 42.5° | 5272.2 | 5377.9 | 5602.5 | 5836.0 | 6148.7 | 6316.0 | 6518.7 | 7263.0 | 8227.6 | 8945.5 | 8927.9 |
| 45° | 5721.4 | 5765.5 | 6082.6 | 6390.9 | 6708.1 | 6963.5 | 6959.1 | 7593.4 | 8575.6 | 9469.7 | 9359.6 |
| 47.5° | 6025.4 | 6078.2 | 6509.8 | 6871.0 | 7196.9 | 7324.7 | 7351.1 | 7950.1 | 9055.6 | 10103.9 | 9844.1 |
| 50° | 6188.3 | 6280.8 | 6752.1 | 7210.2 | 7562.5 | 7602.2 | 7721.1 | 8417.0 | 9685.5 | 10945.2 | 10456.3 |
| 52.5° | 6205.9 | 6294.0 | 6835.8 | 7426.0 | 7809.2 | 7888.5 | 8091.1 | 8945.5 | 10297.7 | 11619.1 | 10808.6 |
| 55° | 5840.4 | 5893.2 | 6734.5 | 7461.2 | 8003.0 | 8188.0 | 8602.0 | 9434.4 | 10654.5 | 11931.8 | 10777.8 |
| 57.5° | 5496.8 | 5549.7 | 6280.8 | 7399.6 | 8201.2 | 8580.0 | 9148.1 | 9769.2 | 10377.0 | 11544.2 | 10090.7 |
| 60° | 5201.7 | 5228.1 | 5893.2 | 7113.3 | 8276.1 | 8963.2 | 9619.4 | 9438.8 | 9659.1 | 10614.8 | 8914.7 |
| 62.5° | 4646.7 | 4664.4 | 5452.8 | 6597.9 | 8126.3 | 9258.3 | 9782.4 | 8738.5 | 8870.7 | 9333.1 | 7531.7 |
| 65° | 3510.4 | 3576.5 | 4298.8 | 6210.3 | 7879.6 | 9394.8 | 9403.6 | 7884.1 | 7747.5 | 7637.4 | 5924.0 |
| 67.5° | 2382.8 | 2457.7 | 2893.8 | 5584.9 | 7478.8 | 9452.1 | 8668.1 | 6778.5 | 5902.0 | 5333.8 | 3880.4 |
| 70° | 1902.7 | 1902.7 | 2052.5 | 4488.2 | 6527.5 | 8720.9 | 7756.3 | 5118.0 | 3748.2 | 2946.6 | 2078.9 |
| 72.5° | 1250.9 | 1255.3 | 1396.2 | 2849.7 | 4629.1 | 6650.8 | 6324.9 | 2959.8 | 1946.8 | 1501.9 | 1026.2 |
| 75° | 453.7 | 453.7 | 612.2 | 1140.8 | 2448.9 | 3959.6 | 3853.9 | 1413.8 | 1057.1 | 819.2 | 621.0 |
| 77.5° | 242.2 | 251.1 | 295.1 | 471.3 | 938.2 | 1612.0 | 1506.3 | 722.3 | 599.0 | 510.9 | 387.6 |
| 80° | 163.0 | 167.4 | 198.2 | 290.7 | 453.7 | 621.0 | 484.5 | 405.2 | 405.2 | 343.6 | 259.9 |
| 82.5° | 88.1 | 92.5 | 132.1 | 189.4 | 242.2 | 290.7 | 233.4 | 237.8 | 286.3 | 233.4 | 149.8 |
| 85° | 61.7 | 61.7 | 101.3 | 136.5 | 136.5 | 140.9 | 101.3 | 149.8 | 167.4 | 145.3 | 101.3 |
| 87.5° | 35.2 | 35.2 | 57.3 | 66.1 | 66.1 | 61.7 | 30.8 | 52.9 | 66.1 | 74.9 | 44.0 |
| 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: P1458360

CATALOG NUMBER: GLAN-SB4B-830-U-T3LG-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 | 2158.2 |
| 2.5° | 2167.0 | 2153.8 | 2127.4 | 2074.5 | 2048.1 | 2012.9 | 1982.0 | 1942.4 | 1933.6 | 1929.2 | 1911.6 |
| 5° | 2202.2 | 2175.8 | 2096.5 | 1982.0 | 1885.1 | 1792.6 | 1700.1 | 1647.3 | 1603.2 | 1581.2 | 1576.8 |
| 7.5° | 2290.3 | 2237.5 | 2092.1 | 1889.5 | 1708.9 | 1550.4 | 1413.8 | 1294.9 | 1233.3 | 1180.4 | 1184.8 |
| 10° | 2422.5 | 2338.8 | 2100.9 | 1801.4 | 1532.8 | 1277.3 | 1079.1 | 907.3 | 784.0 | 726.7 | 722.3 |
| 12.5° | 2598.7 | 2479.7 | 2131.8 | 1713.3 | 1316.9 | 960.2 | 709.1 | 607.8 | 581.4 | 577.0 | 572.6 |
| 15° | 2814.5 | 2647.1 | 2162.6 | 1598.8 | 1026.2 | 665.1 | 577.0 | 555.0 | 550.6 | 546.2 | 546.2 |
| 17.5° | 3074.3 | 2840.9 | 2180.2 | 1405.0 | 748.8 | 572.6 | 541.8 | 528.5 | 524.1 | 519.7 | 519.7 |
| 20° | 3400.3 | 3056.7 | 2202.2 | 1158.4 | 634.2 | 550.6 | 515.3 | 497.7 | 493.3 | 493.3 | 488.9 |
| 22.5° | 3721.8 | 3299.0 | 2184.6 | 942.6 | 612.2 | 524.1 | 484.5 | 466.9 | 458.1 | 458.1 | 453.7 |
| 25° | 4091.8 | 3545.6 | 2131.8 | 850.1 | 607.8 | 502.1 | 453.7 | 427.2 | 414.0 | 409.6 | 409.6 |
| 27.5° | 4514.6 | 3827.5 | 2048.1 | 854.5 | 607.8 | 484.5 | 414.0 | 378.8 | 370.0 | 361.2 | 361.2 |
| 30° | 4999.1 | 4171.1 | 1986.4 | 911.7 | 616.6 | 466.9 | 378.8 | 334.7 | 321.5 | 312.7 | 317.1 |
| 32.5° | 5554.1 | 4554.3 | 1982.0 | 1004.2 | 629.8 | 440.4 | 339.1 | 290.7 | 277.5 | 273.1 | 277.5 |
| 35° | 6183.9 | 5029.9 | 2083.3 | 1074.7 | 594.6 | 383.2 | 290.7 | 251.1 | 237.8 | 237.8 | 242.2 |
| 37.5° | 6884.2 | 5576.1 | 2219.9 | 1057.1 | 480.1 | 303.9 | 251.1 | 220.2 | 207.0 | 211.4 | 215.8 |
| 40° | 7522.9 | 6003.3 | 2241.9 | 902.9 | 361.2 | 259.9 | 215.8 | 193.8 | 185.0 | 189.4 | 193.8 |
| 42.5° | 8007.4 | 6346.9 | 2030.5 | 700.3 | 303.9 | 220.2 | 185.0 | 167.4 | 163.0 | 171.8 | 171.8 |
| 45° | 8399.4 | 6483.4 | 1695.7 | 519.7 | 268.7 | 189.4 | 163.0 | 154.2 | 145.3 | 149.8 | 149.8 |
| 47.5° | 8809.0 | 6505.4 | 1383.0 | 418.4 | 237.8 | 171.8 | 149.8 | 140.9 | 132.1 | 132.1 | 132.1 |
| 50° | 9205.4 | 6452.6 | 1057.1 | 370.0 | 220.2 | 154.2 | 136.5 | 127.7 | 118.9 | 114.5 | 114.5 |
| 52.5° | 9302.3 | 6029.8 | 775.2 | 343.6 | 202.6 | 145.3 | 127.7 | 118.9 | 110.1 | 105.7 | 105.7 |
| 55° | 9033.6 | 5228.1 | 607.8 | 308.3 | 185.0 | 132.1 | 118.9 | 110.1 | 96.9 | 92.5 | 92.5 |
| 57.5° | 8148.3 | 3986.1 | 484.5 | 264.3 | 167.4 | 127.7 | 110.1 | 101.3 | 88.1 | 83.7 | 83.7 |
| 60° | 6998.7 | 2827.7 | 392.0 | 215.8 | 154.2 | 114.5 | 101.3 | 88.1 | 79.3 | 70.5 | 70.5 |
| 62.5° | 5725.8 | 2030.5 | 317.1 | 180.6 | 145.3 | 101.3 | 92.5 | 79.3 | 61.7 | 48.4 | 48.4 |
| 65° | 4391.3 | 1457.9 | 246.7 | 145.3 | 132.1 | 88.1 | 79.3 | 66.1 | 48.4 | 35.2 | 35.2 |
| 67.5° | 2840.9 | 942.6 | 185.0 | 127.7 | 101.3 | 74.9 | 61.7 | 52.9 | 44.0 | 30.8 | 26.4 |
| 70° | 1497.5 | 550.6 | 136.5 | 110.1 | 74.9 | 57.3 | 52.9 | 44.0 | 35.2 | 22.0 | 22.0 |
| 72.5° | 775.2 | 361.2 | 101.3 | 96.9 | 57.3 | 39.6 | 44.0 | 35.2 | 26.4 | 13.2 | 13.2 |
| 75° | 497.7 | 242.2 | 74.9 | 79.3 | 35.2 | 30.8 | 30.8 | 22.0 | 13.2 | 8.8 | 4.4 |
| 77.5° | 321.5 | 163.0 | 52.9 | 66.1 | 22.0 | 17.6 | 17.6 | 8.8 | 4.4 | 0.0 | 0.0 |
| 80° | 189.4 | 101.3 | 35.2 | 44.0 | 8.8 | 8.8 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 96.9 | 52.9 | 17.6 | 17.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 61.7 | 26.4 | 4.4 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 30.8 | 8.8 | 4.4 | 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 |

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: SP1-2407-184-9

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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-9

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)