

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: P1458770

Luminaire Tested: GLAN-SB7D-730-U-T4LG-HSS

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1458770
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB7D-730-U-T4LG-HSS
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 7xLight Square PACKAGE 70CRI 3000K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE SHIELD
Light Source: (182) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

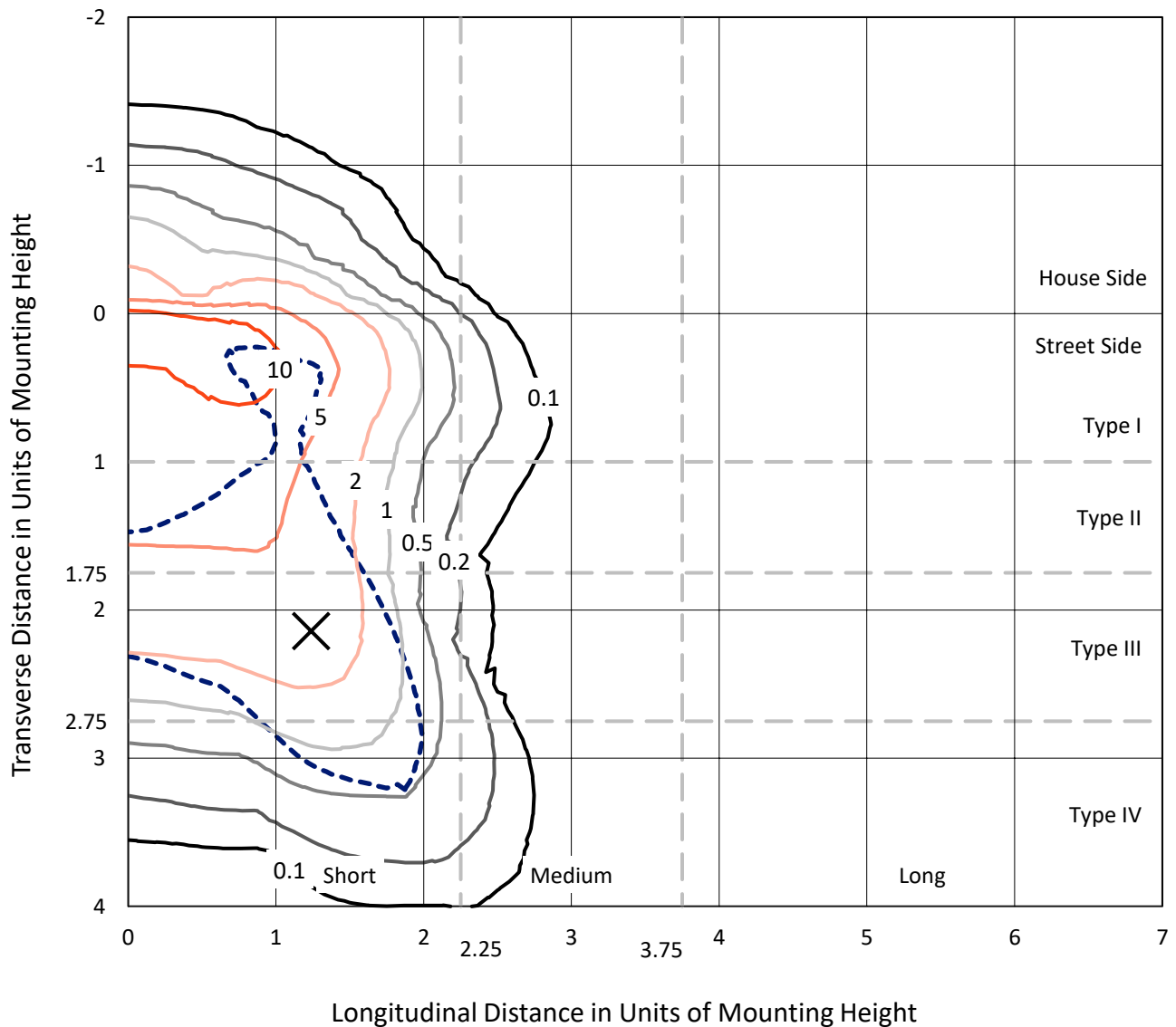
Lumens per Lamp: N/A
Luminaire Lumens: 52465.4 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

Input Watts (W): 512.8
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

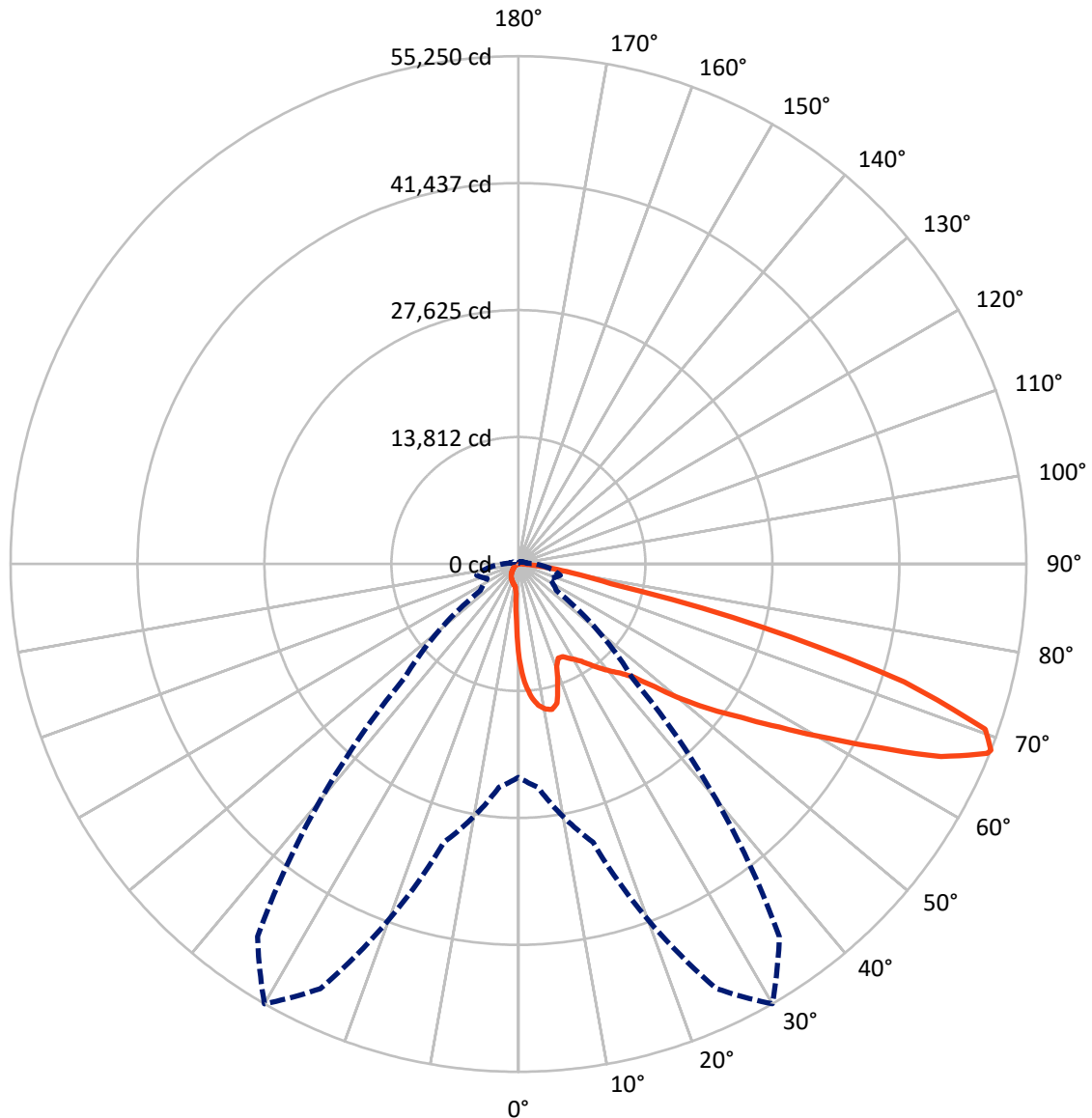
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.6 fc
 Type IV - Short - N/A

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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 | 4004.5 | 0.0 | 4004.5 |
| | % Fixture | 7.6 | 0.0 | 7.6 |
| Street Side | Lumens | 48460.9 | 0.0 | 48460.9 |
| | % Fixture | 92.4 | 0.0 | 92.4 |
| Total | Lumens | 52465.4 | 0.0 | 52465.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 892.7 | 1.7 |
| 10°-20° | 2548.6 | 4.9 |
| 20°-30° | 4005.0 | 7.6 |
| 30°-40° | 6281.6 | 12.0 |
| 40°-50° | 9389.1 | 17.9 |
| 50°-60° | 12490.6 | 23.8 |
| 60°-70° | 12074.5 | 23.0 |
| 70°-80° | 4340.3 | 8.3 |
| 80°-90° | 442.9 | 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° | 52465.4 | 100.0 |
| 0°-180° | 52465.4 | 100.0 |

Coefficient of Utilization



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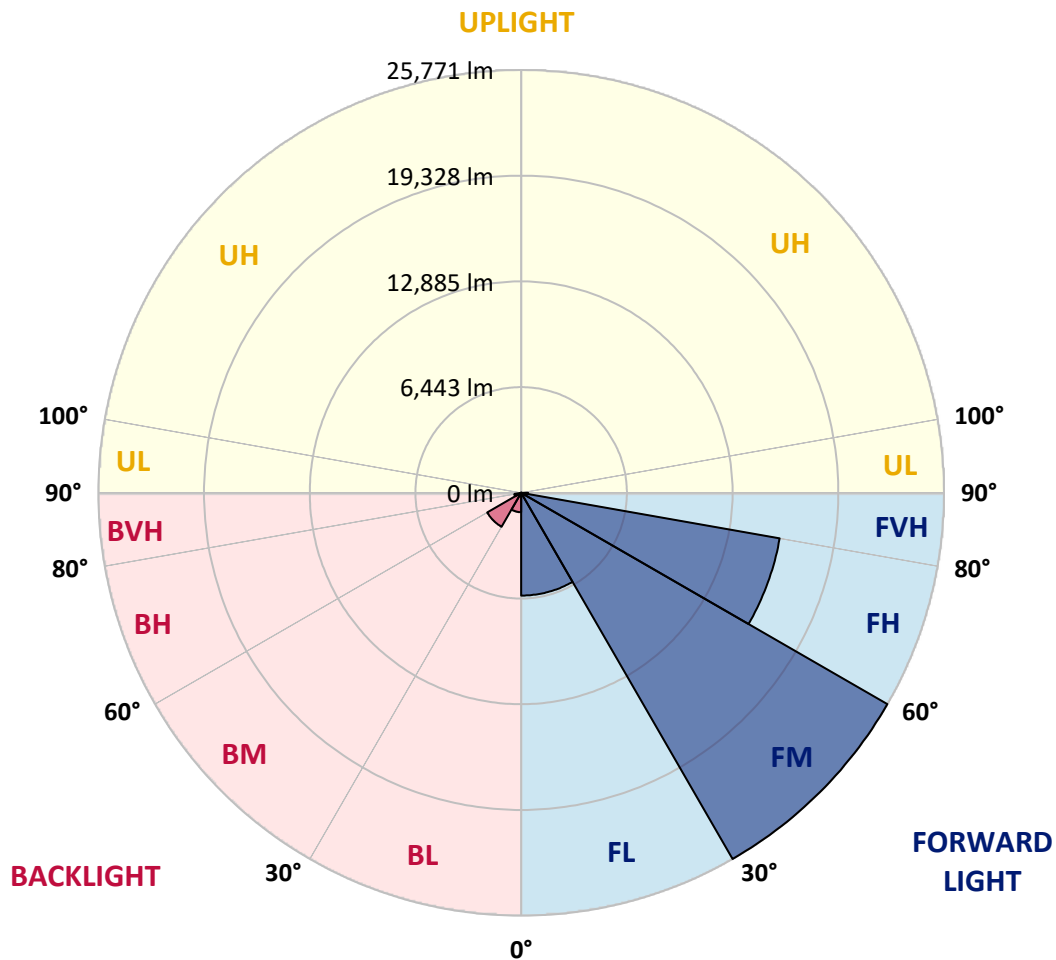
CATALOG NUMBER: GLAN-SB7D-730-U-T4LG-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 6264.4 | 11.9 | | | |
| FM | (30°-60°) | 25771.0 | 49.1 | | | |
| FH | (60°-80°) | 15998.3 | 30.5 | | | G5 |
| FVH | (80°-90°) | 427.2 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 1182.0 | 2.3 | B3/2500 | | |
| BM | (30°-60°) | 2390.3 | 4.6 | B2/2500 | | |
| BH | (60°-80°) | 416.5 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 15.7 | 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° | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 |
| 2.5° | 13222.8 | 13222.8 | 13128.5 | 13002.7 | 12861.2 | 12814.0 | 12546.7 | 12169.4 | 11776.3 | 11320.4 | 10660.0 |
| 5° | 14920.9 | 14905.1 | 14716.5 | 14716.5 | 14527.8 | 14354.8 | 14087.6 | 13537.3 | 12908.3 | 12090.8 | 10943.0 |
| 7.5° | 15675.5 | 15707.0 | 15628.4 | 15628.4 | 15518.3 | 15392.5 | 15235.3 | 14700.7 | 13961.8 | 12861.2 | 11226.0 |
| 10° | 15942.8 | 15958.6 | 15958.6 | 16068.6 | 16037.2 | 16021.4 | 16005.7 | 15707.0 | 14936.6 | 13647.3 | 11524.8 |
| 12.5° | 15298.2 | 15376.8 | 15596.9 | 16084.3 | 16241.6 | 16414.5 | 16650.4 | 16556.0 | 16021.4 | 14637.8 | 11980.7 |
| 15° | 13222.8 | 13238.5 | 13851.7 | 15062.4 | 15707.0 | 16367.3 | 17279.3 | 17467.9 | 17122.0 | 15707.0 | 12452.4 |
| 17.5° | 10911.6 | 10958.7 | 11446.1 | 12798.3 | 13836.0 | 15361.1 | 17640.9 | 18411.3 | 18285.5 | 16760.4 | 12892.6 |
| 20° | 9952.5 | 10015.4 | 10251.2 | 11100.2 | 11886.4 | 13301.4 | 17279.3 | 19307.5 | 19354.7 | 17813.8 | 13301.4 |
| 22.5° | 9732.4 | 9779.5 | 9968.2 | 10628.6 | 11116.0 | 12059.3 | 16052.9 | 20015.0 | 20565.3 | 19024.5 | 13788.8 |
| 25° | 9669.5 | 9716.6 | 9999.6 | 10722.9 | 11178.9 | 11965.0 | 14936.6 | 20392.4 | 21996.1 | 20282.3 | 14260.5 |
| 27.5° | 9622.3 | 9685.2 | 10141.2 | 11068.8 | 11603.4 | 12358.1 | 14732.2 | 20471.0 | 23364.0 | 21618.7 | 15030.9 |
| 30° | 9685.2 | 9779.5 | 10377.0 | 11430.4 | 12043.6 | 12892.6 | 15219.6 | 20549.6 | 24873.3 | 23143.8 | 16005.7 |
| 32.5° | 9936.8 | 10015.4 | 10738.6 | 11917.8 | 12625.3 | 13584.4 | 16052.9 | 21021.3 | 26304.1 | 24700.4 | 16933.4 |
| 35° | 10219.8 | 10329.8 | 11194.6 | 12609.6 | 13458.6 | 14543.5 | 17184.9 | 21948.9 | 27672.0 | 26178.3 | 17892.5 |
| 37.5° | 10565.7 | 10691.4 | 11729.1 | 13395.8 | 14370.6 | 15596.9 | 18411.3 | 23238.2 | 28882.6 | 27389.0 | 18851.5 |
| 40° | 11037.3 | 11178.9 | 12342.3 | 14229.1 | 15282.5 | 16508.9 | 19621.9 | 24511.7 | 29810.3 | 28112.2 | 19480.4 |
| 42.5° | 12892.6 | 13081.3 | 13568.7 | 15046.6 | 16225.8 | 17483.7 | 20816.9 | 25722.4 | 30156.2 | 28348.1 | 19606.2 |
| 45° | 16351.6 | 16540.3 | 16414.5 | 16697.5 | 17483.7 | 18662.9 | 22121.9 | 26885.8 | 30203.3 | 28285.2 | 19543.3 |
| 47.5° | 19826.3 | 20046.5 | 19936.4 | 19779.2 | 19952.1 | 20518.1 | 23584.1 | 27624.8 | 29951.8 | 28253.7 | 19543.3 |
| 50° | 23143.8 | 23018.1 | 23033.8 | 22986.6 | 23143.8 | 23442.6 | 24999.1 | 27766.3 | 29888.9 | 28552.5 | 19716.3 |
| 52.5° | 24920.5 | 24983.4 | 25376.5 | 25958.2 | 26304.1 | 26602.8 | 26618.6 | 27986.4 | 29432.9 | 28049.3 | 19511.9 |
| 55° | 26665.7 | 26791.5 | 27703.4 | 28694.0 | 29464.4 | 30030.4 | 28238.0 | 27844.9 | 26712.9 | 26367.0 | 18442.7 |
| 57.5° | 28631.1 | 28804.0 | 30093.3 | 32137.2 | 33489.4 | 33788.1 | 29841.7 | 25203.5 | 22609.3 | 23961.4 | 16367.3 |
| 60° | 31335.4 | 31539.8 | 33253.5 | 36319.5 | 38332.0 | 37718.8 | 29967.5 | 21005.5 | 17955.3 | 19889.2 | 13505.8 |
| 62.5° | 33457.9 | 33866.7 | 36964.1 | 41743.8 | 43960.7 | 42011.1 | 27624.8 | 16100.1 | 12546.7 | 13977.5 | 9858.1 |
| 65° | 31193.9 | 31980.0 | 37027.0 | 47954.3 | 50517.1 | 47058.1 | 23945.7 | 10990.2 | 7075.2 | 9040.6 | 6304.8 |
| 67.5° | 25219.2 | 26319.8 | 32876.2 | 50973.0 | 55013.8 | 49715.2 | 18851.5 | 5833.1 | 4056.5 | 5251.4 | 3317.5 |
| 68° | 23206.7 | 24401.7 | 31351.1 | 50973.0 | 55249.6 | 49479.4 | 17499.4 | 5047.0 | 3742.0 | 4716.8 | 2877.3 |
| 70° | 16037.2 | 16886.2 | 24102.9 | 48111.5 | 53866.0 | 45108.5 | 11524.8 | 2893.0 | 2814.4 | 3238.9 | 1902.4 |
| 72.5° | 7861.4 | 8773.3 | 12892.6 | 38127.6 | 43882.1 | 34668.6 | 5251.4 | 1918.2 | 2138.3 | 2374.1 | 1493.7 |
| 75° | 3128.8 | 3317.5 | 5078.4 | 18804.4 | 27420.4 | 22121.9 | 2751.5 | 1446.5 | 1839.6 | 1855.3 | 1179.2 |
| 77.5° | 1792.4 | 1902.4 | 2814.4 | 6918.0 | 10282.7 | 9889.6 | 1776.7 | 1037.7 | 1462.2 | 1336.4 | 770.4 |
| 80° | 1006.3 | 1022.0 | 1588.0 | 3647.7 | 5880.3 | 5267.1 | 1210.6 | 754.7 | 1116.3 | 943.4 | 518.8 |
| 82.5° | 503.1 | 566.0 | 1006.3 | 2012.5 | 3270.3 | 3348.9 | 644.6 | 534.6 | 896.2 | 676.1 | 424.5 |
| 85° | 361.6 | 393.1 | 723.2 | 1116.3 | 1509.4 | 2264.1 | 393.1 | 267.3 | 676.1 | 456.0 | 298.7 |
| 87.5° | 188.7 | 235.8 | 456.0 | 550.3 | 613.2 | 770.4 | 188.7 | 125.8 | 377.3 | 267.3 | 157.2 |
| 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: P1458770

CATALOG NUMBER: GLAN-SB7D-730-U-T4LG-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 | 10345.5 |
| 2.5° | 10345.5 | 9983.9 | 9245.0 | 8380.2 | 7704.1 | 7012.3 | 6446.3 | 5911.7 | 5660.2 | 5628.7 | 5691.6 |
| 5° | 10298.4 | 9512.2 | 7829.9 | 6179.0 | 4826.9 | 3883.5 | 3364.7 | 3097.4 | 2955.9 | 2893.0 | 2908.7 |
| 7.5° | 10204.0 | 9009.1 | 6320.5 | 4182.2 | 3128.8 | 2720.0 | 2594.2 | 2547.1 | 2531.4 | 2531.4 | 2531.4 |
| 10° | 10109.7 | 8333.0 | 4842.6 | 3065.9 | 2562.8 | 2452.7 | 2421.3 | 2421.3 | 2405.6 | 2405.6 | 2421.3 |
| 12.5° | 10062.5 | 7704.1 | 3757.7 | 2562.8 | 2389.9 | 2342.7 | 2311.2 | 2295.5 | 2295.5 | 2295.5 | 2311.2 |
| 15° | 9952.5 | 7012.3 | 3034.5 | 2374.1 | 2279.8 | 2216.9 | 2201.2 | 2185.5 | 2185.5 | 2185.5 | 2185.5 |
| 17.5° | 9858.1 | 6336.3 | 2641.4 | 2248.3 | 2169.7 | 2106.8 | 2091.1 | 2075.4 | 2075.4 | 2091.1 | 2091.1 |
| 20° | 9716.6 | 5691.6 | 2374.1 | 2122.6 | 2059.7 | 1996.8 | 1981.1 | 1965.3 | 1981.1 | 1981.1 | 1981.1 |
| 22.5° | 9543.7 | 5157.1 | 2216.9 | 2028.2 | 1949.6 | 1886.7 | 1886.7 | 1886.7 | 1886.7 | 1886.7 | 1902.4 |
| 25° | 9433.6 | 4779.7 | 2106.8 | 1918.2 | 1839.6 | 1792.4 | 1776.7 | 1776.7 | 1808.1 | 1808.1 | 1823.8 |
| 27.5° | 9606.6 | 4685.4 | 2122.6 | 1886.7 | 1745.2 | 1698.1 | 1682.3 | 1682.3 | 1713.8 | 1729.5 | 1745.2 |
| 30° | 10125.4 | 4858.3 | 2311.2 | 1981.1 | 1682.3 | 1603.7 | 1588.0 | 1588.0 | 1635.2 | 1650.9 | 1666.6 |
| 32.5° | 10722.9 | 5219.9 | 2594.2 | 2106.8 | 1635.2 | 1509.4 | 1477.9 | 1477.9 | 1525.1 | 1540.8 | 1556.5 |
| 35° | 11540.5 | 5786.0 | 2971.6 | 2216.9 | 1666.6 | 1415.0 | 1352.2 | 1352.2 | 1383.6 | 1415.0 | 1430.8 |
| 37.5° | 12593.9 | 6713.6 | 3411.8 | 2295.5 | 1666.6 | 1305.0 | 1226.4 | 1210.6 | 1242.1 | 1242.1 | 1257.8 |
| 40° | 13694.5 | 7924.2 | 3867.8 | 2295.5 | 1588.0 | 1194.9 | 1116.3 | 1069.1 | 1084.9 | 1069.1 | 1084.9 |
| 42.5° | 14307.7 | 8899.1 | 4260.9 | 2154.0 | 1493.7 | 1084.9 | 1006.3 | 943.4 | 927.6 | 896.2 | 911.9 |
| 45° | 14653.6 | 9339.3 | 4150.8 | 1996.8 | 1399.3 | 1006.3 | 911.9 | 833.3 | 801.9 | 754.7 | 754.7 |
| 47.5° | 14653.6 | 9386.5 | 3553.3 | 1871.0 | 1305.0 | 943.4 | 817.6 | 739.0 | 691.8 | 644.6 | 660.4 |
| 50° | 14480.6 | 8961.9 | 2814.4 | 1745.2 | 1194.9 | 880.5 | 739.0 | 676.1 | 613.2 | 581.7 | 581.7 |
| 52.5° | 13757.4 | 7578.3 | 2154.0 | 1588.0 | 1069.1 | 801.9 | 660.4 | 597.5 | 534.6 | 518.8 | 518.8 |
| 55° | 12515.3 | 5565.8 | 1745.2 | 1430.8 | 959.1 | 739.0 | 597.5 | 550.3 | 487.4 | 456.0 | 456.0 |
| 57.5° | 10172.6 | 3804.9 | 1446.5 | 1289.3 | 849.0 | 660.4 | 534.6 | 487.4 | 408.8 | 377.3 | 377.3 |
| 60° | 7546.9 | 2484.2 | 1226.4 | 1132.0 | 723.2 | 597.5 | 471.7 | 408.8 | 345.9 | 314.5 | 298.7 |
| 62.5° | 5094.2 | 1682.3 | 1022.0 | 896.2 | 613.2 | 518.8 | 408.8 | 345.9 | 267.3 | 204.4 | 204.4 |
| 65° | 3176.0 | 1305.0 | 849.0 | 707.5 | 534.6 | 456.0 | 345.9 | 267.3 | 188.7 | 141.5 | 125.8 |
| 67.5° | 1823.8 | 1053.4 | 691.8 | 550.3 | 456.0 | 361.6 | 267.3 | 220.1 | 157.2 | 110.1 | 94.3 |
| 68° | 1682.3 | 1006.3 | 644.6 | 518.8 | 424.5 | 345.9 | 251.6 | 204.4 | 141.5 | 94.3 | 94.3 |
| 70° | 1367.9 | 896.2 | 550.3 | 424.5 | 361.6 | 283.0 | 220.1 | 172.9 | 110.1 | 62.9 | 62.9 |
| 72.5° | 1210.6 | 754.7 | 471.7 | 330.2 | 251.6 | 235.8 | 172.9 | 125.8 | 78.6 | 47.2 | 31.4 |
| 75° | 990.5 | 597.5 | 377.3 | 251.6 | 172.9 | 172.9 | 125.8 | 78.6 | 31.4 | 0.0 | 0.0 |
| 77.5° | 644.6 | 440.2 | 298.7 | 157.2 | 94.3 | 110.1 | 78.6 | 31.4 | 0.0 | 0.0 | 0.0 |
| 80° | 424.5 | 330.2 | 204.4 | 78.6 | 47.2 | 47.2 | 15.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 298.7 | 220.1 | 125.8 | 31.4 | 15.7 | 15.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 188.7 | 94.3 | 47.2 | 15.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 78.6 | 31.4 | 15.7 | 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: SP1-2407-184-4

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-730-U-5WQ

Data in this report applies to families of products including GSS-SB1A-730-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-4
 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-730-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3000K CCT 26 LEDS

Spectral Parameters

CCT (K): 2985
 CIE u': 0.2504
 CIE v': 0.5243
 Duv: 0.0019
 CIE x: 0.4408
 CIE y: 0.4101
 CIE z: 0.1491
 Peak Wavelength (nm): 595
 Dominant Wavelength (nm): 582
 Purity: 55.41818
 Rf: 73.8
 Rg: 94.4

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 70.8 | | |
| R1: | 66.3 | R9: | -43.2 |
| R2: | 80.6 | R10: | 57.6 |
| R3: | 94.5 | R11: | 64.8 |
| R4: | 68.2 | R12: | 53.5 |
| R5: | 66.5 | R13: | 68.7 |
| R6: | 74.7 | R14: | 97.0 |
| R7: | 76.2 | R15: | 56.4 |
| R8: | 39.6 | | |



Test Conditions

Stabilization Time: 36M
 Operation Time: 1H 36M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-4

| 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

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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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-4

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.19

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.13

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

Summary

$R_f = 73.8$
 $R_g = 94.4$
 $CIE R_a = 70.8$
 $R_g = -43.2$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 63 | CES51 = 86 | CES76 = 61 |
| CES02 = 62 | CES27 = 83 | CES52 = 86 | CES77 = 81 |
| CES03 = 31 | CES28 = 86 | CES53 = 75 | CES78 = 64 |
| CES04 = 71 | CES29 = 58 | CES54 = 81 | CES79 = 86 |
| CES05 = 49 | CES30 = 61 | CES55 = 80 | CES80 = 86 |
| CES06 = 51 | CES31 = 63 | CES56 = 71 | CES81 = 70 |
| CES07 = 41 | CES32 = 61 | CES57 = 69 | CES82 = 94 |
| CES08 = 40 | CES33 = 65 | CES58 = 72 | CES83 = 88 |
| CES09 = 29 | CES34 = 77 | CES59 = 85 | CES84 = 90 |
| CES10 = 76 | CES35 = 88 | CES60 = 93 | CES85 = 80 |
| CES11 = 59 | CES36 = 89 | CES61 = 86 | CES86 = 60 |
| CES12 = 65 | CES37 = 85 | CES62 = 81 | CES87 = 78 |
| CES13 = 43 | CES38 = 69 | CES63 = 73 | CES88 = 75 |
| CES14 = 74 | CES39 = 93 | CES64 = 72 | CES89 = 66 |
| CES15 = 71 | CES40 = 89 | CES65 = 67 | CES90 = 72 |
| CES16 = 47 | CES41 = 83 | CES66 = 70 | CES91 = 95 |
| CES17 = 50 | CES42 = 87 | CES67 = 68 | CES92 = 59 |
| CES18 = 56 | CES43 = 77 | CES68 = 73 | CES93 = 76 |
| CES19 = 73 | CES44 = 99 | CES69 = 83 | CES94 = 48 |
| CES20 = 66 | CES45 = 83 | CES70 = 66 | CES95 = 70 |
| CES21 = 87 | CES46 = 77 | CES71 = 66 | CES96 = 76 |
| CES22 = 79 | CES47 = 74 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 62 | CES73 = 59 | CES98 = 73 |
| CES24 = 91 | CES49 = 77 | CES74 = 93 | CES99 = 60 |
| CES25 = 73 | CES50 = 85 | CES75 = 67 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)