

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: P1459191

Luminaire Tested: GLAN-SB5A-940-U-T4LG-HSS

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1459191
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB5A-940-U-T4LG-HSS
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 350mA 5xLight Square PACKAGE 90CRI 4000K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE SHIELD
Light Source: (130) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

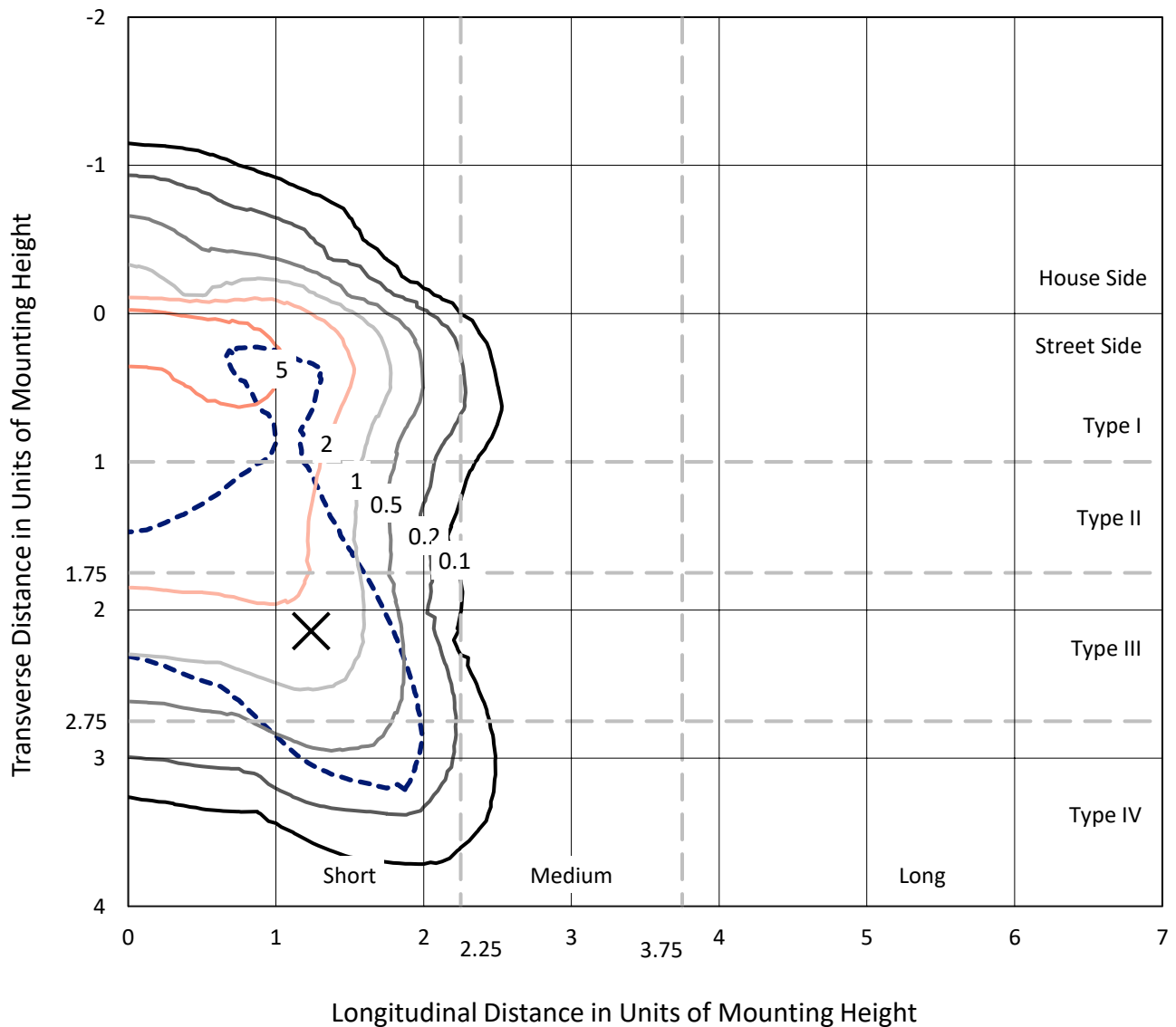
Lumens per Lamp: N/A
Luminaire Lumens: 11907.8 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 141.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.97
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

REPORT NUMBER: P1459191
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Iso-Footcandle Lines of Horizontal Illumination

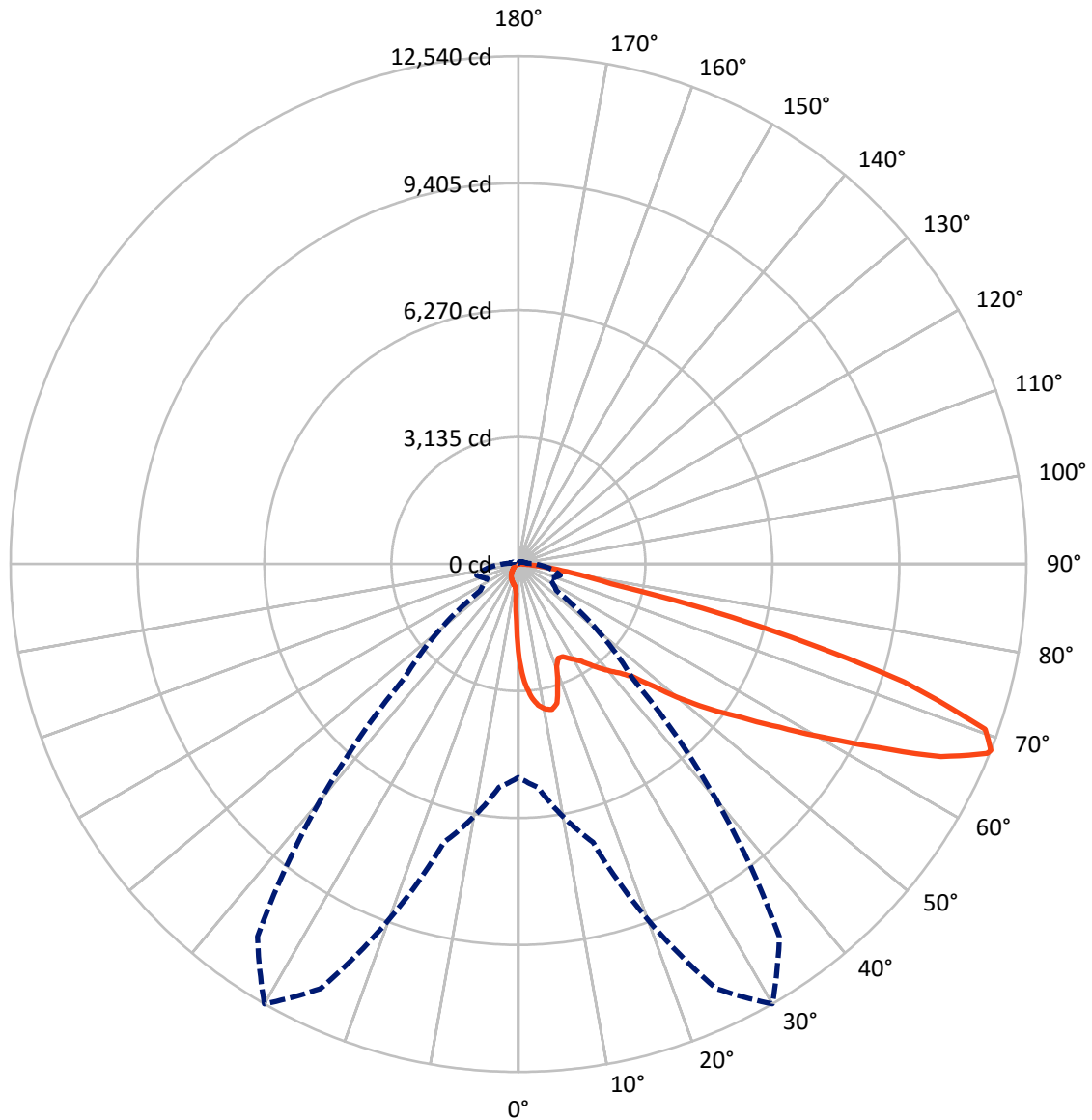
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9 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 | 908.9 | 0.0 | 908.9 |
| | % Fixture | 7.6 | 0.0 | 7.6 |
| Street Side | Lumens | 10998.9 | 0.0 | 10998.9 |
| | % Fixture | 92.4 | 0.0 | 92.4 |
| Total | Lumens | 11907.8 | 0.0 | 11907.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 202.6 | 1.7 |
| 10°-20° | 578.4 | 4.9 |
| 20°-30° | 909.0 | 7.6 |
| 30°-40° | 1425.7 | 12.0 |
| 40°-50° | 2131.0 | 17.9 |
| 50°-60° | 2834.9 | 23.8 |
| 60°-70° | 2740.5 | 23.0 |
| 70°-80° | 985.1 | 8.3 |
| 80°-90° | 100.5 | 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° | 11907.8 | 100.0 |
| 0°-180° | 11907.8 | 100.0 |



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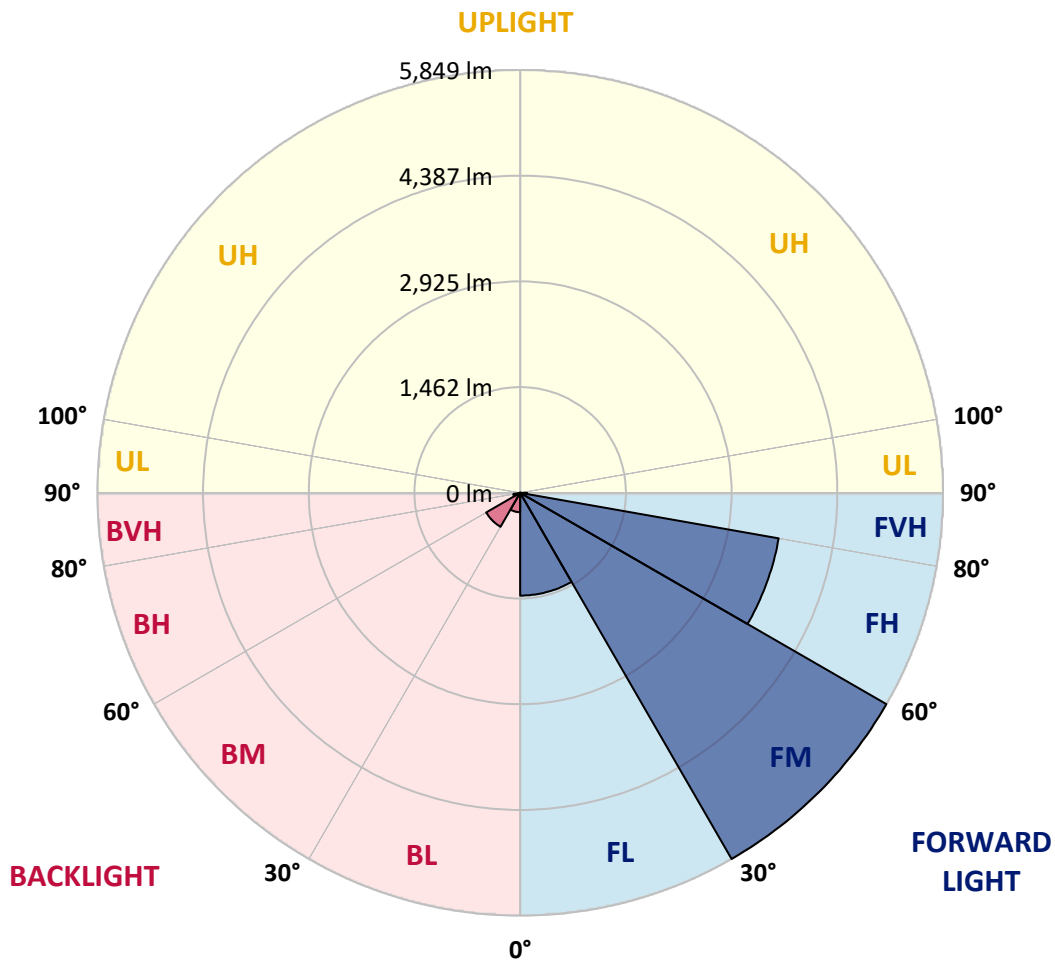
CATALOG NUMBER: GLAN-SB5A-940-U-T4LG-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1421.8 | 11.9 | | | |
| FM | (30°-60°) | 5849.1 | 49.1 | | | |
| FH | (60°-80°) | 3631.1 | 30.5 | | | G2/5000 |
| FVH | (80°-90°) | 97.0 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 268.3 | 2.3 | B1/500 | | |
| BM | (30°-60°) | 542.5 | 4.6 | B1/1000 | | |
| BH | (60°-80°) | 94.5 | 0.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 3.6 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 30° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|--------|
| 0° | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 |
| 2.5° | 3001.1 | 3001.1 | 2979.7 | 2951.2 | 2919.0 | 2908.3 | 2847.7 | 2762.0 | 2672.8 | 2569.3 | 2419.4 |
| 5° | 3386.5 | 3382.9 | 3340.1 | 3340.1 | 3297.3 | 3258.0 | 3197.4 | 3072.5 | 2929.7 | 2744.2 | 2483.7 |
| 7.5° | 3557.8 | 3564.9 | 3547.1 | 3547.1 | 3522.1 | 3493.6 | 3457.9 | 3336.6 | 3168.8 | 2919.0 | 2547.9 |
| 10° | 3618.5 | 3622.0 | 3622.0 | 3647.0 | 3639.9 | 3636.3 | 3632.7 | 3564.9 | 3390.1 | 3097.5 | 2615.7 |
| 12.5° | 3472.2 | 3490.0 | 3540.0 | 3650.6 | 3686.3 | 3725.5 | 3779.1 | 3757.6 | 3636.3 | 3322.3 | 2719.2 |
| 15° | 3001.1 | 3004.7 | 3143.9 | 3418.6 | 3564.9 | 3714.8 | 3921.8 | 3964.6 | 3886.1 | 3564.9 | 2826.3 |
| 17.5° | 2476.5 | 2487.3 | 2597.9 | 2904.8 | 3140.3 | 3486.4 | 4003.9 | 4178.7 | 4150.2 | 3804.0 | 2926.2 |
| 20° | 2258.9 | 2273.1 | 2326.7 | 2519.4 | 2697.8 | 3019.0 | 3921.8 | 4382.1 | 4392.8 | 4043.1 | 3019.0 |
| 22.5° | 2208.9 | 2219.6 | 2262.4 | 2412.3 | 2522.9 | 2737.0 | 3643.4 | 4542.7 | 4667.6 | 4317.9 | 3129.6 |
| 25° | 2194.6 | 2205.3 | 2269.6 | 2433.7 | 2537.2 | 2715.6 | 3390.1 | 4628.4 | 4992.3 | 4603.4 | 3236.6 |
| 27.5° | 2183.9 | 2198.2 | 2301.7 | 2512.2 | 2633.6 | 2804.8 | 3343.7 | 4646.2 | 5302.8 | 4906.7 | 3411.5 |
| 30° | 2198.2 | 2219.6 | 2355.2 | 2594.3 | 2733.5 | 2926.2 | 3454.3 | 4664.0 | 5645.4 | 5252.8 | 3632.7 |
| 32.5° | 2255.3 | 2273.1 | 2437.3 | 2704.9 | 2865.5 | 3083.2 | 3643.4 | 4771.1 | 5970.1 | 5606.1 | 3843.3 |
| 35° | 2319.5 | 2344.5 | 2540.8 | 2861.9 | 3054.6 | 3300.9 | 3900.4 | 4981.6 | 6280.6 | 5941.6 | 4061.0 |
| 37.5° | 2398.0 | 2426.6 | 2662.1 | 3040.4 | 3261.6 | 3540.0 | 4178.7 | 5274.3 | 6555.4 | 6216.3 | 4278.6 |
| 40° | 2505.1 | 2537.2 | 2801.3 | 3229.5 | 3468.6 | 3746.9 | 4453.5 | 5563.3 | 6765.9 | 6380.5 | 4421.4 |
| 42.5° | 2926.2 | 2969.0 | 3079.6 | 3415.1 | 3682.7 | 3968.2 | 4724.7 | 5838.1 | 6844.4 | 6434.0 | 4449.9 |
| 45° | 3711.2 | 3754.1 | 3725.5 | 3789.8 | 3968.2 | 4235.8 | 5020.9 | 6102.2 | 6855.1 | 6419.7 | 4435.7 |
| 47.5° | 4499.9 | 4549.8 | 4524.9 | 4489.2 | 4528.4 | 4656.9 | 5352.8 | 6269.9 | 6798.0 | 6412.6 | 4435.7 |
| 50° | 5252.8 | 5224.3 | 5227.9 | 5217.2 | 5252.8 | 5320.6 | 5673.9 | 6302.0 | 6783.7 | 6480.4 | 4474.9 |
| 52.5° | 5656.1 | 5670.4 | 5759.6 | 5891.6 | 5970.1 | 6037.9 | 6041.5 | 6351.9 | 6680.2 | 6366.2 | 4428.5 |
| 55° | 6052.2 | 6080.7 | 6287.7 | 6512.5 | 6687.4 | 6815.9 | 6409.0 | 6319.8 | 6062.9 | 5984.4 | 4185.9 |
| 57.5° | 6498.3 | 6537.5 | 6830.1 | 7294.0 | 7600.9 | 7668.7 | 6773.0 | 5720.3 | 5131.5 | 5438.4 | 3714.8 |
| 60° | 7112.0 | 7158.4 | 7547.4 | 8243.3 | 8700.0 | 8560.9 | 6801.6 | 4767.5 | 4075.2 | 4514.2 | 3065.3 |
| 62.5° | 7593.8 | 7686.6 | 8389.6 | 9474.4 | 9977.6 | 9535.1 | 6269.9 | 3654.2 | 2847.7 | 3172.4 | 2237.5 |
| 65° | 7079.9 | 7258.3 | 8403.8 | 10884.0 | 11465.6 | 10680.5 | 5434.8 | 2494.4 | 1605.8 | 2051.9 | 1431.0 |
| 67.5° | 5723.9 | 5973.7 | 7461.8 | 11569.1 | 12486.2 | 11283.6 | 4278.6 | 1323.9 | 920.7 | 1191.9 | 753.0 |
| 68° | 5267.1 | 5538.3 | 7115.6 | 11569.1 | 12539.7 | 11230.1 | 3971.8 | 1145.5 | 849.3 | 1070.6 | 653.0 |
| 70° | 3639.9 | 3832.6 | 5470.5 | 10919.6 | 12225.7 | 10238.1 | 2615.7 | 656.6 | 638.8 | 735.1 | 431.8 |
| 72.5° | 1784.3 | 1991.2 | 2926.2 | 8653.6 | 9959.7 | 7868.6 | 1191.9 | 435.4 | 485.3 | 538.8 | 339.0 |
| 75° | 710.1 | 753.0 | 1152.6 | 4267.9 | 6223.5 | 5020.9 | 624.5 | 328.3 | 417.5 | 421.1 | 267.6 |
| 77.5° | 406.8 | 431.8 | 638.8 | 1570.1 | 2333.8 | 2244.6 | 403.2 | 235.5 | 331.9 | 303.3 | 174.9 |
| 80° | 228.4 | 232.0 | 360.4 | 827.9 | 1334.6 | 1195.5 | 274.8 | 171.3 | 253.4 | 214.1 | 117.8 |
| 82.5° | 114.2 | 128.5 | 228.4 | 456.8 | 742.2 | 760.1 | 146.3 | 121.3 | 203.4 | 153.4 | 96.3 |
| 85° | 82.1 | 89.2 | 164.2 | 253.4 | 342.6 | 513.9 | 89.2 | 60.7 | 153.4 | 103.5 | 67.8 |
| 87.5° | 42.8 | 53.5 | 103.5 | 124.9 | 139.2 | 174.9 | 42.8 | 28.5 | 85.6 | 60.7 | 35.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1459191

CATALOG NUMBER: GLAN-SB5A-940-U-T4LG-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 | 2348.1 |
| 2.5° | 2348.1 | 2266.0 | 2098.3 | 1902.0 | 1748.6 | 1591.6 | 1463.1 | 1341.8 | 1284.7 | 1277.5 | 1291.8 |
| 5° | 2337.4 | 2158.9 | 1777.1 | 1402.4 | 1095.5 | 881.4 | 763.7 | 703.0 | 670.9 | 656.6 | 660.2 |
| 7.5° | 2316.0 | 2044.8 | 1434.5 | 949.2 | 710.1 | 617.4 | 588.8 | 578.1 | 574.5 | 574.5 | 574.5 |
| 10° | 2294.6 | 1891.3 | 1099.1 | 695.9 | 581.7 | 556.7 | 549.6 | 549.6 | 546.0 | 546.0 | 549.6 |
| 12.5° | 2283.8 | 1748.6 | 852.9 | 581.7 | 542.4 | 531.7 | 524.6 | 521.0 | 521.0 | 521.0 | 524.6 |
| 15° | 2258.9 | 1591.6 | 688.7 | 538.8 | 517.4 | 503.2 | 499.6 | 496.0 | 496.0 | 496.0 | 496.0 |
| 17.5° | 2237.5 | 1438.1 | 599.5 | 510.3 | 492.5 | 478.2 | 474.6 | 471.0 | 471.0 | 474.6 | 474.6 |
| 20° | 2205.3 | 1291.8 | 538.8 | 481.7 | 467.5 | 453.2 | 449.6 | 446.1 | 449.6 | 449.6 | 449.6 |
| 22.5° | 2166.1 | 1170.5 | 503.2 | 460.3 | 442.5 | 428.2 | 428.2 | 428.2 | 428.2 | 428.2 | 431.8 |
| 25° | 2141.1 | 1084.8 | 478.2 | 435.4 | 417.5 | 406.8 | 403.2 | 403.2 | 410.4 | 410.4 | 413.9 |
| 27.5° | 2180.4 | 1063.4 | 481.7 | 428.2 | 396.1 | 385.4 | 381.8 | 381.8 | 389.0 | 392.5 | 396.1 |
| 30° | 2298.1 | 1102.7 | 524.6 | 449.6 | 381.8 | 364.0 | 360.4 | 360.4 | 371.1 | 374.7 | 378.3 |
| 32.5° | 2433.7 | 1184.7 | 588.8 | 478.2 | 371.1 | 342.6 | 335.4 | 335.4 | 346.1 | 349.7 | 353.3 |
| 35° | 2619.3 | 1313.2 | 674.4 | 503.2 | 378.3 | 321.2 | 306.9 | 306.9 | 314.0 | 321.2 | 324.7 |
| 37.5° | 2858.4 | 1523.8 | 774.4 | 521.0 | 378.3 | 296.2 | 278.3 | 274.8 | 281.9 | 281.9 | 285.5 |
| 40° | 3108.2 | 1798.5 | 877.9 | 521.0 | 360.4 | 271.2 | 253.4 | 242.7 | 246.2 | 242.7 | 246.2 |
| 42.5° | 3247.3 | 2019.8 | 967.1 | 488.9 | 339.0 | 246.2 | 228.4 | 214.1 | 210.5 | 203.4 | 207.0 |
| 45° | 3325.9 | 2119.7 | 942.1 | 453.2 | 317.6 | 228.4 | 207.0 | 189.1 | 182.0 | 171.3 | 171.3 |
| 47.5° | 3325.9 | 2130.4 | 806.5 | 424.7 | 296.2 | 214.1 | 185.6 | 167.7 | 157.0 | 146.3 | 149.9 |
| 50° | 3286.6 | 2034.1 | 638.8 | 396.1 | 271.2 | 199.8 | 167.7 | 153.4 | 139.2 | 132.0 | 132.0 |
| 52.5° | 3122.4 | 1720.0 | 488.9 | 360.4 | 242.7 | 182.0 | 149.9 | 135.6 | 121.3 | 117.8 | 117.8 |
| 55° | 2840.5 | 1263.3 | 396.1 | 324.7 | 217.7 | 167.7 | 135.6 | 124.9 | 110.6 | 103.5 | 103.5 |
| 57.5° | 2308.8 | 863.6 | 328.3 | 292.6 | 192.7 | 149.9 | 121.3 | 110.6 | 92.8 | 85.6 | 85.6 |
| 60° | 1712.9 | 563.8 | 278.3 | 256.9 | 164.2 | 135.6 | 107.1 | 92.8 | 78.5 | 71.4 | 67.8 |
| 62.5° | 1156.2 | 381.8 | 232.0 | 203.4 | 139.2 | 117.8 | 92.8 | 78.5 | 60.7 | 46.4 | 46.4 |
| 65° | 720.8 | 296.2 | 192.7 | 160.6 | 121.3 | 103.5 | 78.5 | 60.7 | 42.8 | 32.1 | 28.5 |
| 67.5° | 413.9 | 239.1 | 157.0 | 124.9 | 103.5 | 82.1 | 60.7 | 50.0 | 35.7 | 25.0 | 21.4 |
| 68° | 381.8 | 228.4 | 146.3 | 117.8 | 96.3 | 78.5 | 57.1 | 46.4 | 32.1 | 21.4 | 21.4 |
| 70° | 310.5 | 203.4 | 124.9 | 96.3 | 82.1 | 64.2 | 50.0 | 39.3 | 25.0 | 14.3 | 14.3 |
| 72.5° | 274.8 | 171.3 | 107.1 | 74.9 | 57.1 | 53.5 | 39.3 | 28.5 | 17.8 | 10.7 | 7.1 |
| 75° | 224.8 | 135.6 | 85.6 | 57.1 | 39.3 | 39.3 | 28.5 | 17.8 | 7.1 | 0.0 | 0.0 |
| 77.5° | 146.3 | 99.9 | 67.8 | 35.7 | 21.4 | 25.0 | 17.8 | 7.1 | 0.0 | 0.0 | 0.0 |
| 80° | 96.3 | 74.9 | 46.4 | 17.8 | 10.7 | 10.7 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 67.8 | 50.0 | 28.5 | 7.1 | 3.6 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 42.8 | 21.4 | 10.7 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 17.8 | 7.1 | 3.6 | 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: SP1-2407-184-16

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-940-U-5WQ

Data in this report applies to families of products including GSS-SB1A-940-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-16
 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-940-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 4000K CCT 26 LEDS

Spectral Parameters

CCT (K): 3856
 CIE u': 0.2261
 CIE v': 0.5084
 Duv: 0.0032
 CIE x: 0.3896
 CIE y: 0.3894
 CIE z: 0.2211
 Peak Wavelength (nm): 614
 Dominant Wavelength (nm): 578
 Purity: 33.77304
 Rf: 91.8
 Rg: 98.4

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 92.1 | | |
| R1: | 91.8 | R9: | 60.7 |
| R2: | 94.1 | R10: | 85.2 |
| R3: | 95.3 | R11: | 92.4 |
| R4: | 92.8 | R12: | 74.5 |
| R5: | 91.0 | R13: | 92.3 |
| R6: | 91.6 | R14: | 97.0 |
| R7: | 95.0 | R15: | 88.5 |
| R8: | 85.2 | | |



Test Conditions

Stabilization Time: 23M
 Operation Time: 1H 23M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-16

| 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 = 3856K
 CIE x = 0.3896
 CIE y = 0.3894
 Duv = 0.0032

Point lies inside the ANSI 4000K 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 | 492 | NR | 620 | 993 | NR | 750 | 73 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 539 | NR | 625 | 978 | NR | 755 | 62 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 583 | NR | 630 | 962 | NR | 760 | 54 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 623 | NR | 635 | 933 | NR | 765 | 46 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 661 | NR | 640 | 898 | NR | 770 | 39 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 698 | NR | 645 | 855 | NR | 775 | 34 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 733 | NR | 650 | 810 | NR | 780 | 29 | NR | 910 | 1 | NR |
| 395 | 1 | NR | 525 | 764 | NR | 655 | 759 | NR | 785 | 25 | NR | 915 | 1 | NR |
| 400 | 3 | NR | 530 | 794 | NR | 660 | 704 | NR | 790 | 21 | NR | 920 | 1 | NR |
| 405 | 6 | NR | 535 | 820 | NR | 665 | 651 | NR | 795 | 18 | NR | 925 | 1 | NR |
| 410 | 12 | NR | 540 | 837 | NR | 670 | 592 | NR | 800 | 16 | NR | 930 | 1 | NR |
| 415 | 22 | NR | 545 | 853 | NR | 675 | 538 | NR | 805 | 13 | NR | 935 | 0 | NR |
| 420 | 42 | NR | 550 | 864 | NR | 680 | 486 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 79 | NR | 555 | 872 | NR | 685 | 435 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 147 | NR | 560 | 876 | NR | 690 | 389 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 278 | NR | 565 | 883 | NR | 695 | 344 | NR | 825 | 7 | NR | 955 | 0 | NR |
| 440 | 515 | NR | 570 | 891 | NR | 700 | 303 | NR | 830 | 6 | NR | 960 | 0 | NR |
| 445 | 832 | NR | 575 | 900 | NR | 705 | 266 | NR | 835 | 5 | NR | 965 | 0 | NR |
| 450 | 874 | NR | 580 | 914 | NR | 710 | 233 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 659 | NR | 585 | 927 | NR | 715 | 203 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 567 | NR | 590 | 944 | NR | 720 | 178 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 485 | NR | 595 | 961 | NR | 725 | 154 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 401 | NR | 600 | 975 | NR | 730 | 133 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 393 | NR | 605 | 988 | NR | 735 | 115 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 417 | NR | 610 | 996 | NR | 740 | 98 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 448 | NR | 615 | 998 | NR | 745 | 85 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-16

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.72

| 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 | 492 | NR | 620 | 993 | NR | 750 | 73 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 539 | NR | 625 | 978 | NR | 755 | 62 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 583 | NR | 630 | 962 | NR | 760 | 54 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 623 | NR | 635 | 933 | NR | 765 | 46 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 661 | NR | 640 | 898 | NR | 770 | 39 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 698 | NR | 645 | 855 | NR | 775 | 34 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 733 | NR | 650 | 810 | NR | 780 | 29 | NR | 910 | 1 | NR |
| 395 | 1 | NR | 525 | 764 | NR | 655 | 759 | NR | 785 | 25 | NR | 915 | 1 | NR |
| 400 | 3 | NR | 530 | 794 | NR | 660 | 704 | NR | 790 | 21 | NR | 920 | 1 | NR |
| 405 | 6 | NR | 535 | 820 | NR | 665 | 651 | NR | 795 | 18 | NR | 925 | 1 | NR |
| 410 | 12 | NR | 540 | 837 | NR | 670 | 592 | NR | 800 | 16 | NR | 930 | 1 | NR |
| 415 | 22 | NR | 545 | 853 | NR | 675 | 538 | NR | 805 | 13 | NR | 935 | 0 | NR |
| 420 | 42 | NR | 550 | 864 | NR | 680 | 486 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 79 | NR | 555 | 872 | NR | 685 | 435 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 147 | NR | 560 | 876 | NR | 690 | 389 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 278 | NR | 565 | 883 | NR | 695 | 344 | NR | 825 | 7 | NR | 955 | 0 | NR |
| 440 | 515 | NR | 570 | 891 | NR | 700 | 303 | NR | 830 | 6 | NR | 960 | 0 | NR |
| 445 | 832 | NR | 575 | 900 | NR | 705 | 266 | NR | 835 | 5 | NR | 965 | 0 | NR |
| 450 | 874 | NR | 580 | 914 | NR | 710 | 233 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 659 | NR | 585 | 927 | NR | 715 | 203 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 567 | NR | 590 | 944 | NR | 720 | 178 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 485 | NR | 595 | 961 | NR | 725 | 154 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 401 | NR | 600 | 975 | NR | 730 | 133 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 393 | NR | 605 | 988 | NR | 735 | 115 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 417 | NR | 610 | 996 | NR | 740 | 98 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 448 | NR | 615 | 998 | NR | 745 | 85 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-16

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.52

| 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 | 492 | NR | 620 | 993 | NR | 750 | 73 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 539 | NR | 625 | 978 | NR | 755 | 62 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 583 | NR | 630 | 962 | NR | 760 | 54 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 623 | NR | 635 | 933 | NR | 765 | 46 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 661 | NR | 640 | 898 | NR | 770 | 39 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 698 | NR | 645 | 855 | NR | 775 | 34 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 733 | NR | 650 | 810 | NR | 780 | 29 | NR | 910 | 1 | NR |
| 395 | 1 | NR | 525 | 764 | NR | 655 | 759 | NR | 785 | 25 | NR | 915 | 1 | NR |
| 400 | 3 | NR | 530 | 794 | NR | 660 | 704 | NR | 790 | 21 | NR | 920 | 1 | NR |
| 405 | 6 | NR | 535 | 820 | NR | 665 | 651 | NR | 795 | 18 | NR | 925 | 1 | NR |
| 410 | 12 | NR | 540 | 837 | NR | 670 | 592 | NR | 800 | 16 | NR | 930 | 1 | NR |
| 415 | 22 | NR | 545 | 853 | NR | 675 | 538 | NR | 805 | 13 | NR | 935 | 0 | NR |
| 420 | 42 | NR | 550 | 864 | NR | 680 | 486 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 79 | NR | 555 | 872 | NR | 685 | 435 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 147 | NR | 560 | 876 | NR | 690 | 389 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 278 | NR | 565 | 883 | NR | 695 | 344 | NR | 825 | 7 | NR | 955 | 0 | NR |
| 440 | 515 | NR | 570 | 891 | NR | 700 | 303 | NR | 830 | 6 | NR | 960 | 0 | NR |
| 445 | 832 | NR | 575 | 900 | NR | 705 | 266 | NR | 835 | 5 | NR | 965 | 0 | NR |
| 450 | 874 | NR | 580 | 914 | NR | 710 | 233 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 659 | NR | 585 | 927 | NR | 715 | 203 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 567 | NR | 590 | 944 | NR | 720 | 178 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 485 | NR | 595 | 961 | NR | 725 | 154 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 401 | NR | 600 | 975 | NR | 730 | 133 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 393 | NR | 605 | 988 | NR | 735 | 115 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 417 | NR | 610 | 996 | NR | 740 | 98 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 448 | NR | 615 | 998 | NR | 745 | 85 | NR | 875 | 2 | NR | | | |

Summary

$R_f = 91.8$
 $R_g = 98.4$
 $CIE R_a = 92.1$
 $R_9 = 60.7$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 94 | CES51 = 96 | CES76 = 87 |
| CES02 = 62 | CES27 = 91 | CES52 = 98 | CES77 = 90 |
| CES03 = 31 | CES28 = 96 | CES53 = 95 | CES78 = 84 |
| CES04 = 69 | CES29 = 96 | CES54 = 94 | CES79 = 96 |
| CES05 = 49 | CES30 = 93 | CES55 = 92 | CES80 = 94 |
| CES06 = 50 | CES31 = 97 | CES56 = 93 | CES81 = 89 |
| CES07 = 42 | CES32 = 92 | CES57 = 92 | CES82 = 97 |
| CES08 = 41 | CES33 = 99 | CES58 = 92 | CES83 = 98 |
| CES09 = 29 | CES34 = 94 | CES59 = 96 | CES84 = 94 |
| CES10 = 74 | CES35 = 96 | CES60 = 93 | CES85 = 85 |
| CES11 = 57 | CES36 = 82 | CES61 = 92 | CES86 = 88 |
| CES12 = 63 | CES37 = 95 | CES62 = 87 | CES87 = 92 |
| CES13 = 43 | CES38 = 88 | CES63 = 92 | CES88 = 96 |
| CES14 = 74 | CES39 = 99 | CES64 = 89 | CES89 = 87 |
| CES15 = 71 | CES40 = 98 | CES65 = 88 | CES90 = 96 |
| CES16 = 47 | CES41 = 97 | CES66 = 87 | CES91 = 74 |
| CES17 = 49 | CES42 = 96 | CES67 = 86 | CES92 = 80 |
| CES18 = 56 | CES43 = 96 | CES68 = 88 | CES93 = 88 |
| CES19 = 71 | CES44 = 99 | CES69 = 89 | CES94 = 82 |
| CES20 = 66 | CES45 = 98 | CES70 = 86 | CES95 = 83 |
| CES21 = 85 | CES46 = 97 | CES71 = 81 | CES96 = 92 |
| CES22 = 78 | CES47 = 97 | CES72 = 94 | CES97 = 95 |
| CES23 = 91 | CES48 = 91 | CES73 = 81 | CES98 = 94 |
| CES24 = 90 | CES49 = 96 | CES74 = 93 | CES99 = 91 |
| CES25 = 71 | CES50 = 97 | CES75 = 83 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)