

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Cooper Lighting Solutions Photometric Lab
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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: P1457392

Luminaire Tested: GLAN-SB5B-930-U-T4LG

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1457392
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB5B-930-U-T4LG
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 450mA 5xLight Square
PACKAGE 90CRI 3000K FIXTURE w/ TYPE IV LOW GLARE
Light Source: (130) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19379.2 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

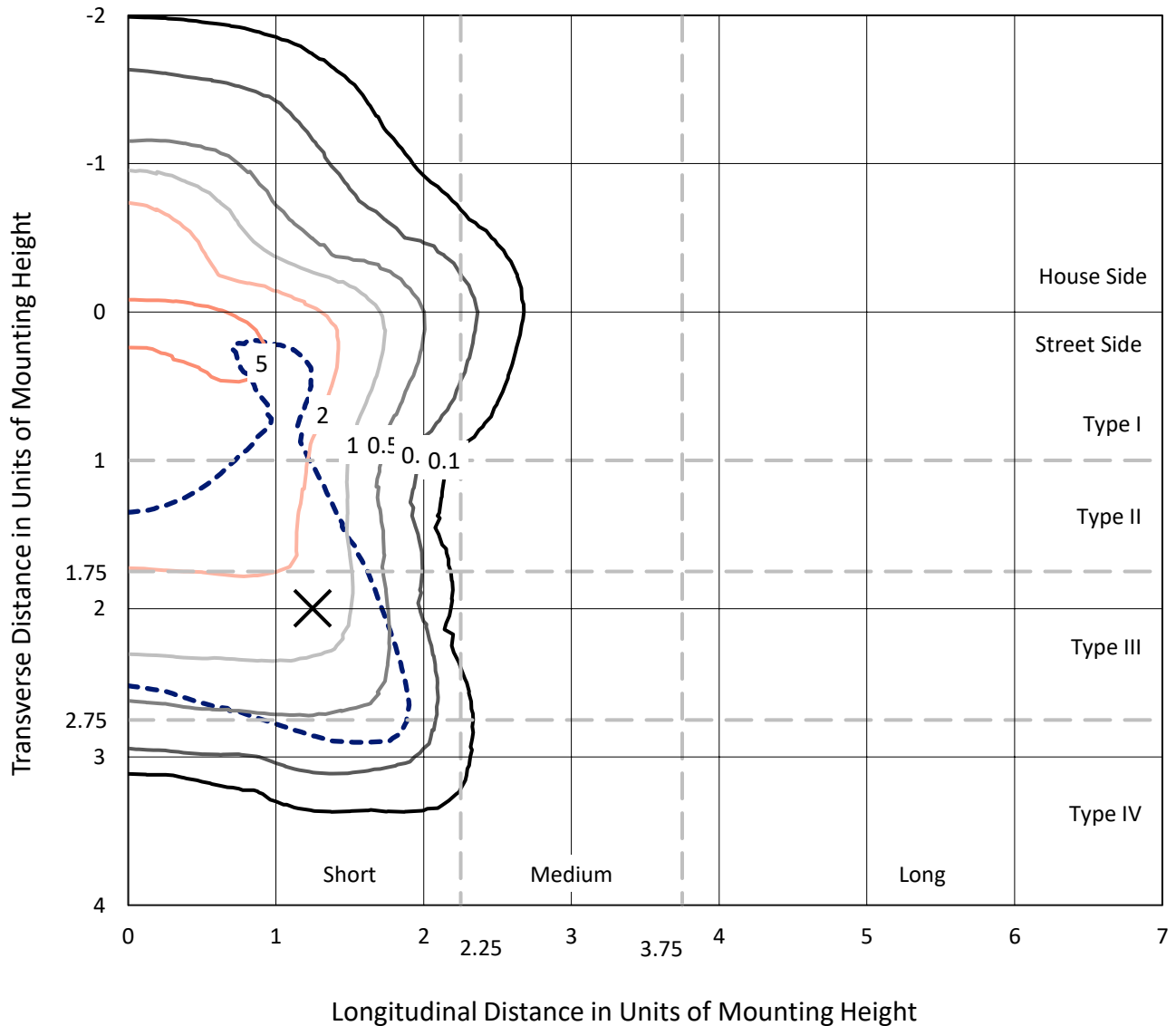
Input Watts (W): 182.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.97
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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CATALOG NUMBER: GLAN-SB5B-930-U-T4LG

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

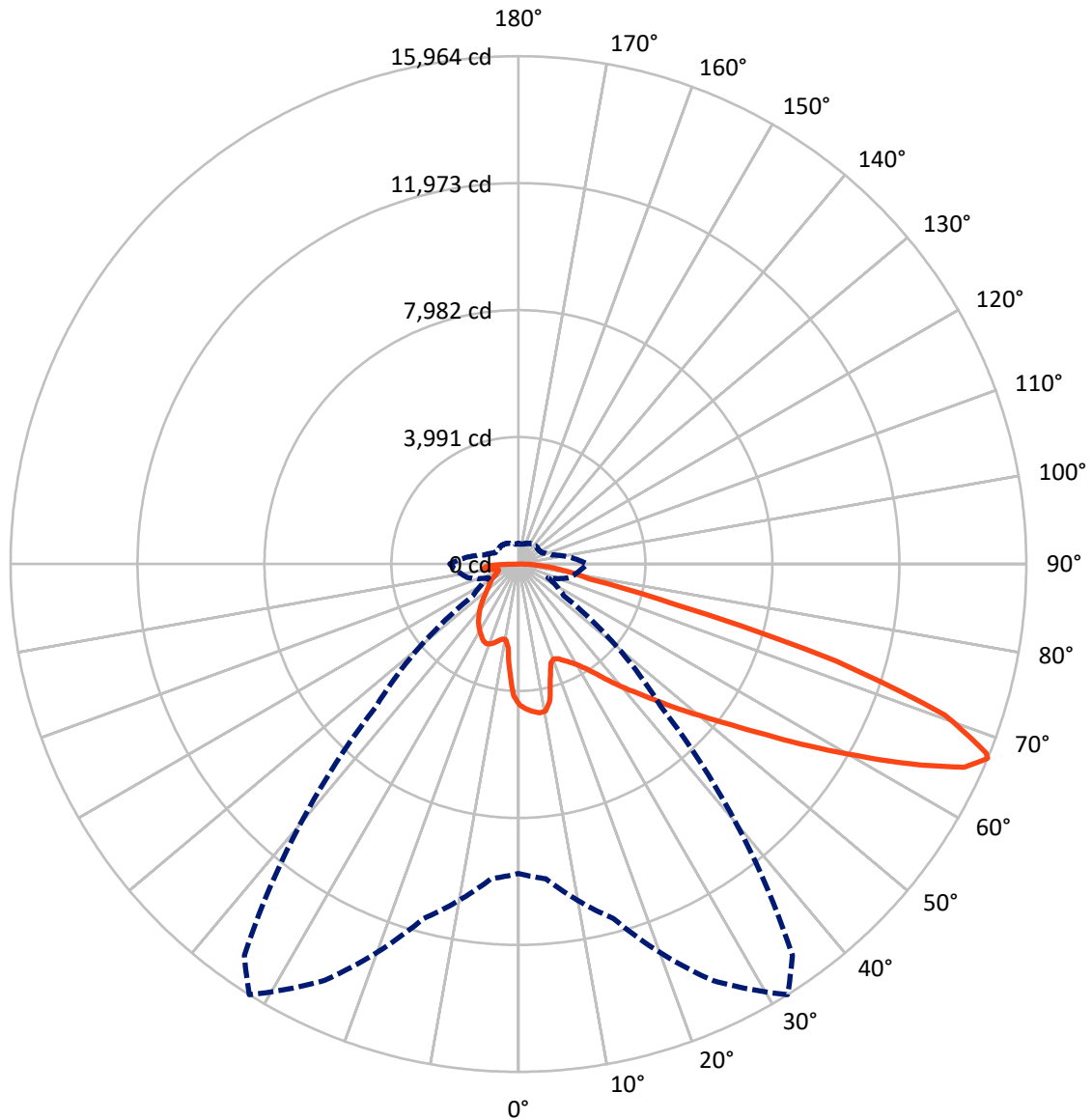


Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
 Type IV - Short - N/A

REPORT NUMBER: P1457392

CATALOG NUMBER: GLAN-SB5B-930-U-T4LG

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: GLAN-SB5B-930-U-T4LG

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4587.9 | 0.0 | 4587.9 |
| | % Fixture | 23.7 | 0.0 | 23.7 |
| Street Side | Lumens | 14791.2 | 0.0 | 14791.2 |
| | % Fixture | 76.3 | 0.0 | 76.3 |
| Total | Lumens | 19379.2 | 0.0 | 19379.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 386.9 | 2.0 |
| 10°-20° | 1027.2 | 5.3 |
| 20°-30° | 1677.5 | 8.7 |
| 30°-40° | 2472.4 | 12.8 |
| 40°-50° | 3409.6 | 17.6 |
| 50°-60° | 4307.3 | 22.2 |
| 60°-70° | 4168.7 | 21.5 |
| 70°-80° | 1487.8 | 7.7 |
| 80°-90° | 441.8 | 2.3 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 19379.2 | 100.0 |
| 0°-180° | 19379.2 | 100.0 |



REPORT NUMBER: P1457392

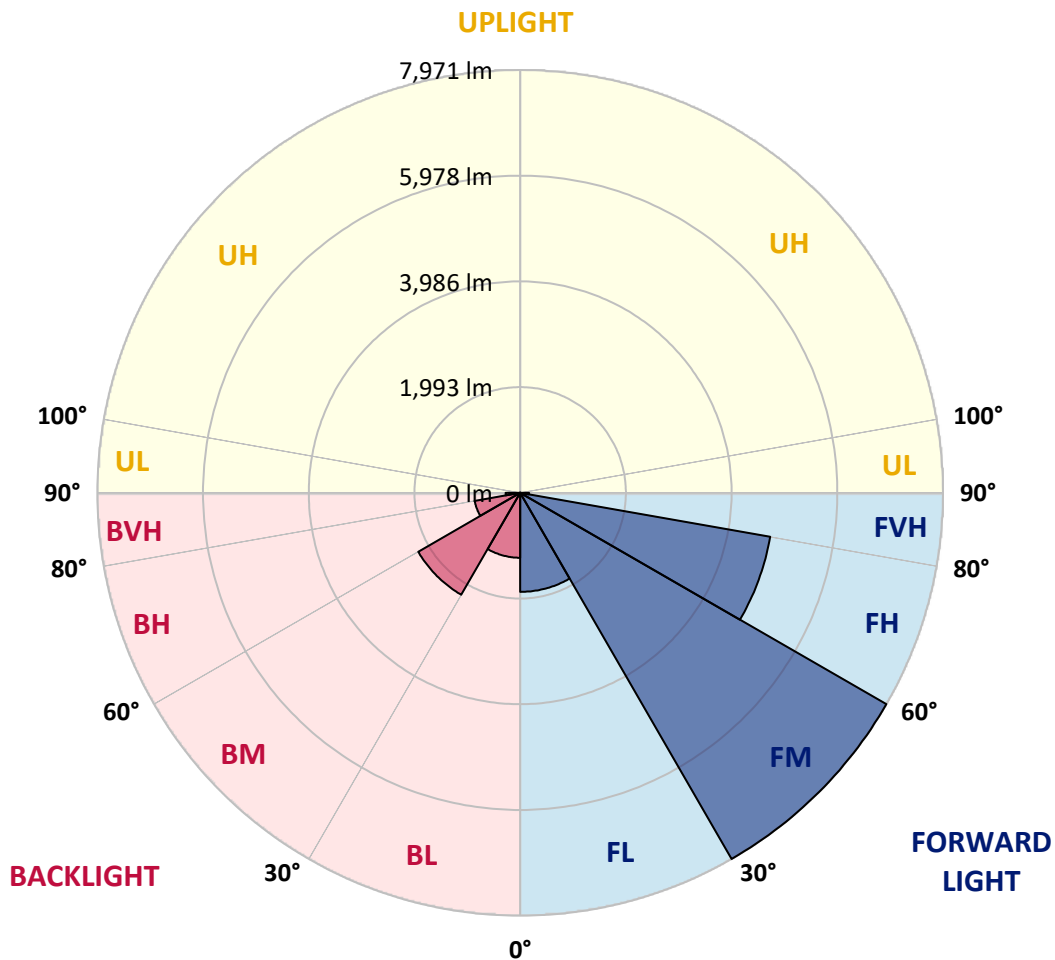
CATALOG NUMBER: GLAN-SB5B-930-U-T4LG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1867.2 | 9.6 | | | |
| FM | (30°-60°) | 7971.3 | 41.1 | | | |
| FH | (60°-80°) | 4786.3 | 24.7 | | | G2/5000 |
| FVH | (80°-90°) | 166.5 | 0.9 | | | G2/225 |
| BL | (0°-30°) | 1224.3 | 6.3 | B3/2500 | | |
| BM | (30°-60°) | 2218.1 | 11.4 | B2/2500 | | |
| BH | (60°-80°) | 870.3 | 4.5 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 275.3 | 1.4 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type IV Short





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CATALOG NUMBER: GLAN-SB5B-930-U-T4LG

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| 0° | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 |
| 2.5° | 4595.6 | 4582.7 | 4569.8 | 4578.4 | 4561.1 | 4556.8 | 4535.3 | 4526.7 | 4500.9 | 4496.6 | 4449.3 |
| 5° | 4690.2 | 4664.4 | 4660.1 | 4668.7 | 4651.5 | 4651.5 | 4634.3 | 4621.4 | 4582.7 | 4561.1 | 4492.3 |
| 7.5° | 4690.2 | 4685.9 | 4694.5 | 4724.7 | 4729.0 | 4729.0 | 4729.0 | 4733.3 | 4694.5 | 4664.4 | 4556.8 |
| 10° | 4423.5 | 4380.4 | 4475.1 | 4625.7 | 4698.8 | 4741.9 | 4819.3 | 4866.7 | 4836.5 | 4815.0 | 4668.7 |
| 12.5° | 3627.4 | 3631.7 | 3782.3 | 4105.0 | 4397.6 | 4522.4 | 4845.1 | 5017.3 | 5030.2 | 4995.7 | 4810.7 |
| 15° | 3076.6 | 3098.1 | 3175.6 | 3407.9 | 3743.6 | 3928.6 | 4694.5 | 5150.7 | 5253.9 | 5219.5 | 4982.8 |
| 17.5° | 2908.8 | 2921.7 | 2956.1 | 3089.5 | 3278.9 | 3429.5 | 4285.8 | 5236.7 | 5525.0 | 5482.0 | 5176.5 |
| 20° | 2883.0 | 2891.6 | 2934.6 | 3046.5 | 3175.6 | 3261.6 | 3868.4 | 5167.9 | 5778.9 | 5761.7 | 5352.9 |
| 22.5° | 2887.3 | 2895.9 | 2951.8 | 3106.7 | 3240.1 | 3313.3 | 3735.0 | 5008.7 | 6045.7 | 6062.9 | 5533.6 |
| 25° | 2895.9 | 2900.2 | 2986.3 | 3192.8 | 3360.6 | 3451.0 | 3821.0 | 4866.7 | 6269.4 | 6415.7 | 5731.6 |
| 27.5° | 2943.2 | 2956.1 | 3072.3 | 3304.7 | 3502.6 | 3605.9 | 4023.3 | 4914.0 | 6514.7 | 6815.9 | 5968.2 |
| 30° | 3072.3 | 3080.9 | 3222.9 | 3463.9 | 3679.0 | 3786.6 | 4264.2 | 5103.3 | 6815.9 | 7229.0 | 6200.6 |
| 32.5° | 3274.6 | 3283.2 | 3446.7 | 3696.2 | 3928.6 | 4057.7 | 4578.4 | 5464.8 | 7151.5 | 7663.6 | 6432.9 |
| 35° | 3554.3 | 3558.6 | 3743.6 | 4010.4 | 4255.6 | 4401.9 | 4944.1 | 5873.6 | 7500.1 | 8033.6 | 6605.1 |
| 37.5° | 3885.6 | 3915.7 | 4105.0 | 4384.7 | 4673.0 | 4806.4 | 5374.4 | 6351.2 | 7809.9 | 8347.8 | 6704.0 |
| 40° | 4341.7 | 4350.3 | 4535.3 | 4806.4 | 5111.9 | 5241.0 | 5804.7 | 6803.0 | 8149.8 | 8532.8 | 6794.4 |
| 42.5° | 4810.7 | 4883.9 | 5038.8 | 5340.0 | 5568.0 | 5671.3 | 6295.2 | 7216.1 | 8420.9 | 8541.4 | 6755.7 |
| 45° | 5439.0 | 5494.9 | 5649.8 | 5916.6 | 6144.6 | 6265.1 | 6824.5 | 7594.7 | 8558.6 | 8468.2 | 6669.6 |
| 47.5° | 6157.5 | 6192.0 | 6316.8 | 6557.7 | 6811.6 | 6897.7 | 7375.3 | 7809.9 | 8610.2 | 8416.6 | 6630.9 |
| 50° | 7005.2 | 7005.2 | 7095.6 | 7302.1 | 7534.5 | 7655.0 | 7883.0 | 7939.0 | 8760.8 | 8326.2 | 6729.8 |
| 52.5° | 7719.5 | 7753.9 | 7874.4 | 8167.0 | 8399.4 | 8537.1 | 8278.9 | 8136.9 | 8455.3 | 7822.8 | 6760.0 |
| 55° | 8403.7 | 8442.4 | 8713.5 | 9079.3 | 9475.1 | 9625.7 | 8773.7 | 8037.9 | 7426.9 | 7087.0 | 6553.4 |
| 57.5° | 9057.7 | 9139.5 | 9479.4 | 10193.7 | 10791.8 | 10778.9 | 9402.0 | 7151.5 | 6062.9 | 6273.7 | 6101.6 |
| 60° | 9970.0 | 10056.0 | 10598.2 | 11497.5 | 12229.0 | 11923.5 | 9410.6 | 5951.0 | 4724.7 | 5008.7 | 5253.9 |
| 62.5° | 10731.6 | 10877.9 | 11673.9 | 13171.4 | 13842.6 | 13365.0 | 8631.8 | 4556.8 | 3136.9 | 3494.0 | 4062.0 |
| 65° | 10662.8 | 10856.4 | 12091.3 | 14402.0 | 15404.6 | 14961.4 | 7491.5 | 2883.0 | 1617.9 | 2388.1 | 2844.3 |
| 67° | 9724.7 | 9935.6 | 11536.3 | 14445.1 | 15964.0 | 15017.4 | 6325.4 | 1742.7 | 1028.4 | 1656.6 | 1975.1 |
| 67.5° | 9186.8 | 9496.6 | 11260.9 | 14363.3 | 15860.7 | 14780.7 | 5800.4 | 1458.7 | 968.2 | 1540.5 | 1798.6 |
| 70° | 5649.8 | 6148.9 | 8451.0 | 12698.1 | 14217.0 | 12371.0 | 3222.9 | 826.2 | 787.4 | 1032.7 | 1243.6 |
| 72.5° | 1699.7 | 1850.3 | 3261.6 | 8145.5 | 10434.7 | 9169.6 | 1450.1 | 636.8 | 705.7 | 830.5 | 959.6 |
| 75° | 826.2 | 882.1 | 1346.8 | 3330.5 | 5081.8 | 5056.0 | 809.0 | 546.5 | 654.1 | 697.1 | 757.3 |
| 77.5° | 529.3 | 563.7 | 839.1 | 1863.2 | 2327.9 | 2074.0 | 585.2 | 477.6 | 580.9 | 572.3 | 563.7 |
| 80° | 331.3 | 348.5 | 537.9 | 1080.0 | 1716.9 | 1432.9 | 430.3 | 391.6 | 499.1 | 443.2 | 400.2 |
| 82.5° | 215.1 | 236.7 | 344.2 | 658.4 | 1226.3 | 1067.1 | 284.0 | 279.7 | 413.1 | 352.8 | 309.8 |
| 85° | 142.0 | 159.2 | 219.5 | 387.3 | 727.2 | 761.6 | 185.0 | 193.6 | 318.4 | 266.8 | 236.7 |
| 87.5° | 51.6 | 64.5 | 111.9 | 172.1 | 339.9 | 421.7 | 77.5 | 73.2 | 154.9 | 124.8 | 99.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: GLAN-SB5B-930-U-T4LG

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 | 4427.8 |
| 2.5° | 4440.7 | 4427.8 | 4367.5 | 4315.9 | 4277.1 | 4225.5 | 4169.6 | 4105.0 | 4062.0 | 4070.6 | 4057.7 |
| 5° | 4462.2 | 4427.8 | 4311.6 | 4135.2 | 3963.0 | 3747.9 | 3472.5 | 3309.0 | 3184.2 | 3119.7 | 3136.9 |
| 7.5° | 4509.5 | 4449.3 | 4204.0 | 3846.9 | 3399.3 | 2960.4 | 2689.4 | 2534.4 | 2461.3 | 2431.2 | 2426.9 |
| 10° | 4591.3 | 4488.0 | 4066.3 | 3399.3 | 2814.1 | 2517.2 | 2418.3 | 2375.2 | 2366.6 | 2366.6 | 2362.3 |
| 12.5° | 4690.2 | 4526.7 | 3833.9 | 2964.7 | 2534.4 | 2426.9 | 2409.7 | 2414.0 | 2426.9 | 2439.8 | 2418.3 |
| 15° | 4810.7 | 4543.9 | 3545.6 | 2702.3 | 2478.5 | 2452.7 | 2478.5 | 2508.6 | 2530.1 | 2547.4 | 2525.8 |
| 17.5° | 4931.2 | 4526.7 | 3274.6 | 2577.5 | 2487.1 | 2521.5 | 2573.2 | 2620.5 | 2633.4 | 2659.2 | 2642.0 |
| 20° | 5017.3 | 4466.5 | 3042.2 | 2530.1 | 2508.6 | 2586.1 | 2650.6 | 2702.3 | 2728.1 | 2745.3 | 2728.1 |
| 22.5° | 5081.8 | 4389.0 | 2874.4 | 2482.8 | 2508.6 | 2603.3 | 2680.7 | 2741.0 | 2771.1 | 2788.3 | 2766.8 |
| 25° | 5137.7 | 4281.5 | 2745.3 | 2414.0 | 2457.0 | 2547.4 | 2633.4 | 2693.7 | 2736.7 | 2762.5 | 2749.6 |
| 27.5° | 5206.6 | 4195.4 | 2624.8 | 2310.7 | 2349.4 | 2435.5 | 2525.8 | 2599.0 | 2680.7 | 2723.8 | 2715.2 |
| 30° | 5284.0 | 4152.4 | 2508.6 | 2198.8 | 2224.6 | 2310.7 | 2418.3 | 2517.2 | 2629.1 | 2685.1 | 2685.1 |
| 32.5° | 5374.4 | 4122.2 | 2401.1 | 2091.2 | 2112.8 | 2207.4 | 2310.7 | 2401.1 | 2521.5 | 2611.9 | 2607.6 |
| 35° | 5413.1 | 4087.8 | 2315.0 | 1992.3 | 2035.3 | 2112.8 | 2194.5 | 2254.8 | 2379.5 | 2487.1 | 2495.7 |
| 37.5° | 5451.9 | 4074.9 | 2272.0 | 1914.8 | 1949.2 | 2009.5 | 2052.5 | 2082.6 | 2198.8 | 2310.7 | 2315.0 |
| 40° | 5499.2 | 4135.2 | 2302.1 | 1863.2 | 1833.1 | 1893.3 | 1914.8 | 1932.0 | 1992.3 | 2065.4 | 2065.4 |
| 42.5° | 5469.1 | 4178.2 | 2370.9 | 1815.9 | 1691.1 | 1759.9 | 1768.5 | 1764.2 | 1768.5 | 1772.8 | 1768.5 |
| 45° | 5391.6 | 4135.2 | 2370.9 | 1742.7 | 1540.5 | 1613.6 | 1609.3 | 1587.8 | 1553.4 | 1463.0 | 1450.1 |
| 47.5° | 5374.4 | 4109.3 | 2280.6 | 1622.2 | 1389.9 | 1450.1 | 1458.7 | 1415.7 | 1316.7 | 1222.0 | 1191.9 |
| 50° | 5447.6 | 4156.7 | 2138.6 | 1475.9 | 1260.8 | 1312.4 | 1333.9 | 1260.8 | 1148.9 | 1049.9 | 1032.7 |
| 52.5° | 5555.1 | 4216.9 | 1932.0 | 1316.7 | 1153.2 | 1204.8 | 1230.6 | 1148.9 | 1032.7 | 955.3 | 946.7 |
| 55° | 5542.2 | 4216.9 | 1699.7 | 1170.4 | 1071.4 | 1110.2 | 1153.2 | 1067.1 | 976.8 | 933.7 | 929.4 |
| 57.5° | 5262.5 | 4057.7 | 1527.6 | 1067.1 | 994.0 | 1028.4 | 1084.3 | 1002.6 | 916.5 | 925.1 | 938.0 |
| 60° | 4716.1 | 3644.6 | 1398.5 | 998.3 | 925.1 | 959.6 | 1019.8 | 925.1 | 813.3 | 783.1 | 783.1 |
| 62.5° | 3885.6 | 3003.5 | 1295.2 | 929.4 | 860.6 | 903.6 | 933.7 | 809.0 | 735.8 | 701.4 | 701.4 |
| 65° | 2913.1 | 2323.6 | 1187.6 | 873.5 | 804.7 | 852.0 | 817.6 | 757.3 | 684.2 | 658.4 | 662.7 |
| 67° | 2160.1 | 1802.9 | 1097.3 | 826.2 | 770.2 | 791.7 | 765.9 | 722.9 | 649.7 | 628.2 | 649.7 |
| 67.5° | 1940.6 | 1712.6 | 1075.7 | 813.3 | 761.6 | 778.8 | 753.0 | 718.6 | 641.1 | 619.6 | 641.1 |
| 70° | 1333.9 | 1316.7 | 959.6 | 753.0 | 714.3 | 697.1 | 710.0 | 667.0 | 602.4 | 593.8 | 615.3 |
| 72.5° | 1015.5 | 1049.9 | 860.6 | 701.4 | 662.7 | 641.1 | 671.3 | 628.2 | 563.7 | 576.6 | 598.1 |
| 75° | 796.0 | 847.7 | 770.2 | 628.2 | 602.4 | 606.7 | 667.0 | 649.7 | 598.1 | 611.0 | 615.3 |
| 77.5° | 589.5 | 684.2 | 658.4 | 546.5 | 525.0 | 585.2 | 753.0 | 804.7 | 714.3 | 692.8 | 662.7 |
| 80° | 430.3 | 490.5 | 555.1 | 451.8 | 438.9 | 563.7 | 929.4 | 1028.4 | 882.1 | 796.0 | 774.5 |
| 82.5° | 318.4 | 344.2 | 456.1 | 361.4 | 318.4 | 503.4 | 1032.7 | 1209.1 | 1049.9 | 886.4 | 860.6 |
| 85° | 228.1 | 266.8 | 361.4 | 266.8 | 210.8 | 413.1 | 1011.2 | 1183.3 | 1041.3 | 839.1 | 817.6 |
| 87.5° | 81.8 | 116.2 | 154.9 | 120.5 | 107.6 | 284.0 | 834.8 | 852.0 | 649.7 | 296.9 | 301.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-14

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-930-U-5WQ

Data in this report applies to families of products including GSS-SB1A-930-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-14
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/15/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGraw-Edison
 Catalog Number: **GSS-SB1A-930-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 3000K CCT 26 LEDS

Spectral Parameters

CCT (K): 2993
 CIE u': 0.2501
 CIE v': 0.5245
 Duv: 0.0021
 CIE x: 0.4406
 CIE y: 0.4107
 CIE z: 0.1487
 Peak Wavelength (nm): 621
 Dominant Wavelength (nm): 582
 Purity: 55.53327
 Rf: 92.6
 Rg: 98.5

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 92.4 | | |
| R1: | 92.2 | R9: | 58.2 |
| R2: | 95.2 | R10: | 87.7 |
| R3: | 97.0 | R11: | 93.5 |
| R4: | 93.1 | R12: | 81.7 |
| R5: | 91.7 | R13: | 92.9 |
| R6: | 94.2 | R14: | 97.6 |
| R7: | 93.3 | R15: | 88.1 |
| R8: | 82.3 | | |



Test Conditions

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

REPORT NUMBER: SP1-2407-184-14

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

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CIE 1931 Chromaticity Diagram



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

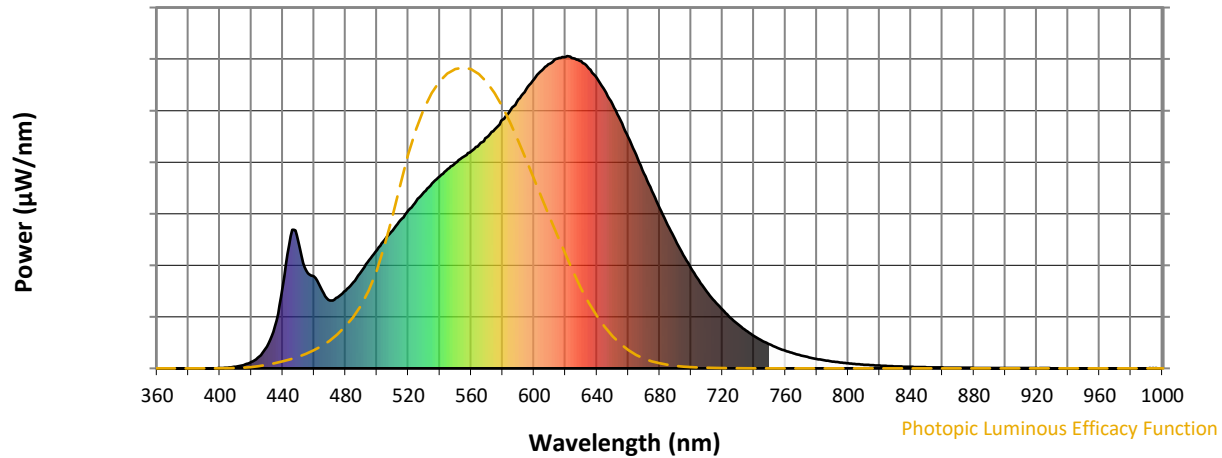


CCT = 2993K
 CIE x = 0.4406
 CIE y = 0.4107
 Duv = 0.0021

Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength



Photopic Lumens: NR

| λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) | λ (nm) | Power W [^] /nm | Lumens (ϕ /nm) |
|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|-------------------|-----------------------------|-------------------------|
| 360 | 0 | NR | 490 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-14

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.39

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

REPORT NUMBER: SP1-2407-184-14

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.69

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 310 | NR | 620 | 998 | NR | 750 | 77 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 347 | NR | 625 | 993 | NR | 755 | 66 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 379 | NR | 630 | 983 | NR | 760 | 56 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 412 | NR | 635 | 960 | NR | 765 | 48 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 442 | NR | 640 | 930 | NR | 770 | 41 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 475 | NR | 645 | 889 | NR | 775 | 35 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 506 | NR | 650 | 846 | NR | 780 | 30 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 535 | NR | 655 | 794 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 1 | NR | 530 | 565 | NR | 660 | 740 | NR | 790 | 22 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 592 | NR | 665 | 684 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 6 | NR | 540 | 615 | NR | 670 | 624 | NR | 800 | 16 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 638 | NR | 675 | 567 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 20 | NR | 550 | 658 | NR | 680 | 513 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 38 | NR | 555 | 678 | NR | 685 | 459 | NR | 815 | 10 | NR | 945 | 0 | NR |
| 430 | 70 | NR | 560 | 695 | NR | 690 | 412 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 136 | NR | 565 | 716 | NR | 695 | 363 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 262 | NR | 570 | 740 | NR | 700 | 320 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 424 | NR | 575 | 765 | NR | 705 | 281 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 406 | NR | 580 | 796 | NR | 710 | 245 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 313 | NR | 585 | 827 | NR | 715 | 215 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 294 | NR | 590 | 861 | NR | 720 | 188 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 250 | NR | 595 | 894 | NR | 725 | 162 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 217 | NR | 600 | 927 | NR | 730 | 140 | NR | 860 | 3 | NR | 990 | 0 | NR |
| 475 | 228 | NR | 605 | 954 | NR | 735 | 121 | NR | 865 | 2 | NR | 995 | 0 | NR |
| 480 | 249 | NR | 610 | 976 | NR | 740 | 104 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 276 | NR | 615 | 992 | NR | 745 | 89 | NR | 875 | 2 | NR | | | |

Summary

$R_f = 92.6$
 $R_g = 98.5$
 $CIE R_a = 92.4$
 $R_9 = 58.2$



Color Vector Graphics



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

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 94 | CES51 = 98 | CES76 = 90 |
| CES02 = 63 | CES27 = 94 | CES52 = 98 | CES77 = 91 |
| CES03 = 32 | CES28 = 97 | CES53 = 96 | CES78 = 88 |
| CES04 = 70 | CES29 = 95 | CES54 = 95 | CES79 = 94 |
| CES05 = 51 | CES30 = 97 | CES55 = 94 | CES80 = 94 |
| CES06 = 51 | CES31 = 96 | CES56 = 94 | CES81 = 84 |
| CES07 = 43 | CES32 = 91 | CES57 = 94 | CES82 = 97 |
| CES08 = 42 | CES33 = 98 | CES58 = 94 | CES83 = 97 |
| CES09 = 29 | CES34 = 96 | CES59 = 97 | CES84 = 95 |
| CES10 = 76 | CES35 = 97 | CES60 = 95 | CES85 = 85 |
| CES11 = 59 | CES36 = 87 | CES61 = 94 | CES86 = 84 |
| CES12 = 65 | CES37 = 95 | CES62 = 92 | CES87 = 92 |
| CES13 = 44 | CES38 = 93 | CES63 = 93 | CES88 = 95 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 86 |
| CES15 = 72 | CES40 = 98 | CES65 = 89 | CES90 = 96 |
| CES16 = 48 | CES41 = 98 | CES66 = 90 | CES91 = 82 |
| CES17 = 50 | CES42 = 97 | CES67 = 89 | CES92 = 81 |
| CES18 = 57 | CES43 = 97 | CES68 = 90 | CES93 = 89 |
| CES19 = 72 | CES44 = 99 | CES69 = 92 | CES94 = 80 |
| CES20 = 67 | CES45 = 99 | CES70 = 89 | CES95 = 86 |
| CES21 = 86 | CES46 = 96 | CES71 = 87 | CES96 = 92 |
| CES22 = 79 | CES47 = 95 | CES72 = 95 | CES97 = 96 |
| CES23 = 92 | CES48 = 93 | CES73 = 85 | CES98 = 94 |
| CES24 = 91 | CES49 = 97 | CES74 = 93 | CES99 = 91 |
| CES25 = 72 | CES50 = 98 | CES75 = 88 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)