

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: P1458969

Luminaire Tested: GLAN-SB3C-835-U-T4LG-HSS

Issue Date: 05/20/2026

Test Information

Test Method: LM-79-2024
Report Number: P1458969
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/22/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: STREETWORKS
Catalog Number: GLAN-SB3C-835-U-T4LG-HSS
Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 3xLight Square PACKAGE 80CRI 3500K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE SHIELD
Light Source: (78) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

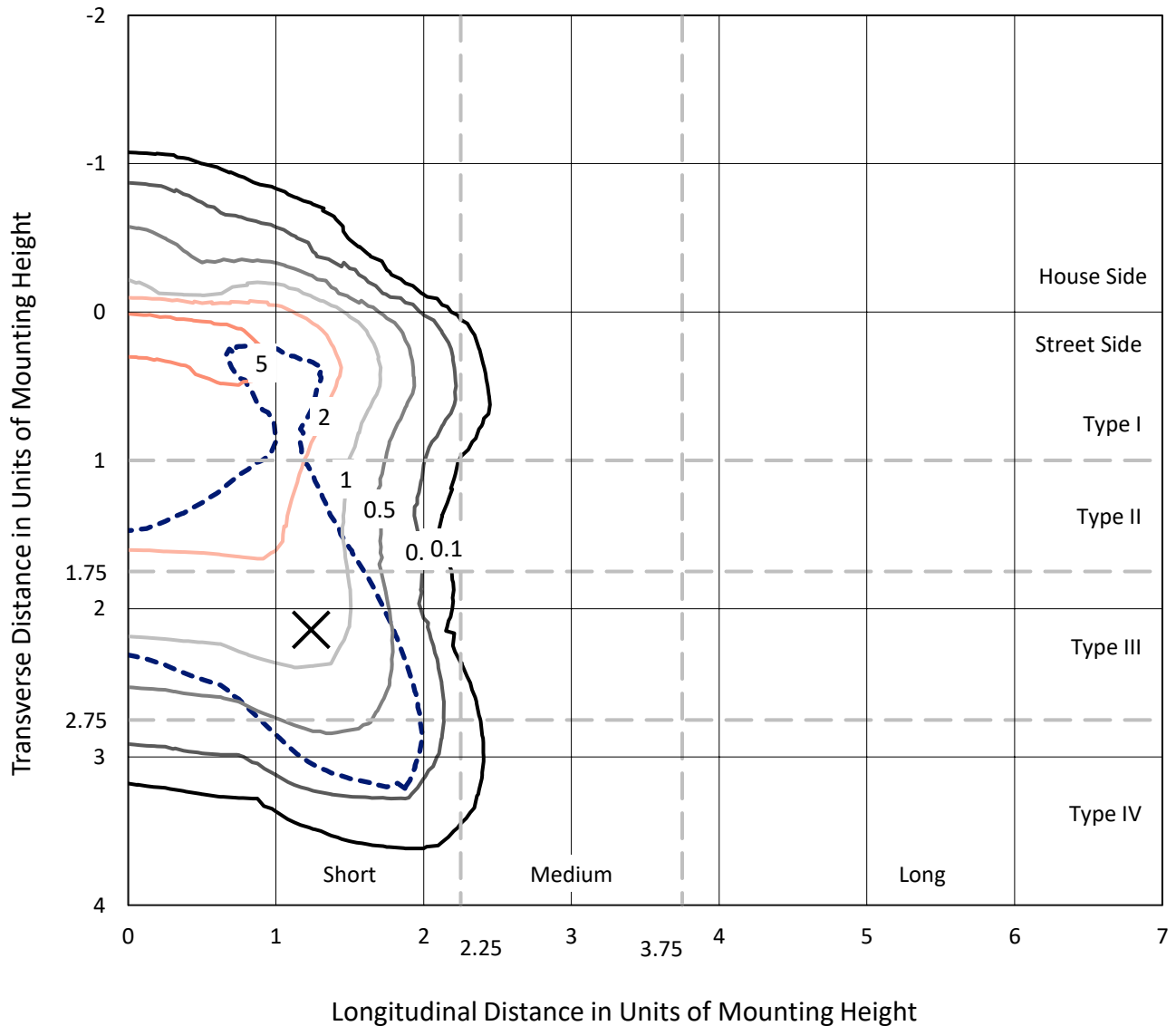
Lumens per Lamp: N/A
Luminaire Lumens: 15117.8 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 149.1
Input Voltage (V): 120
Input Current (A_{in}): 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

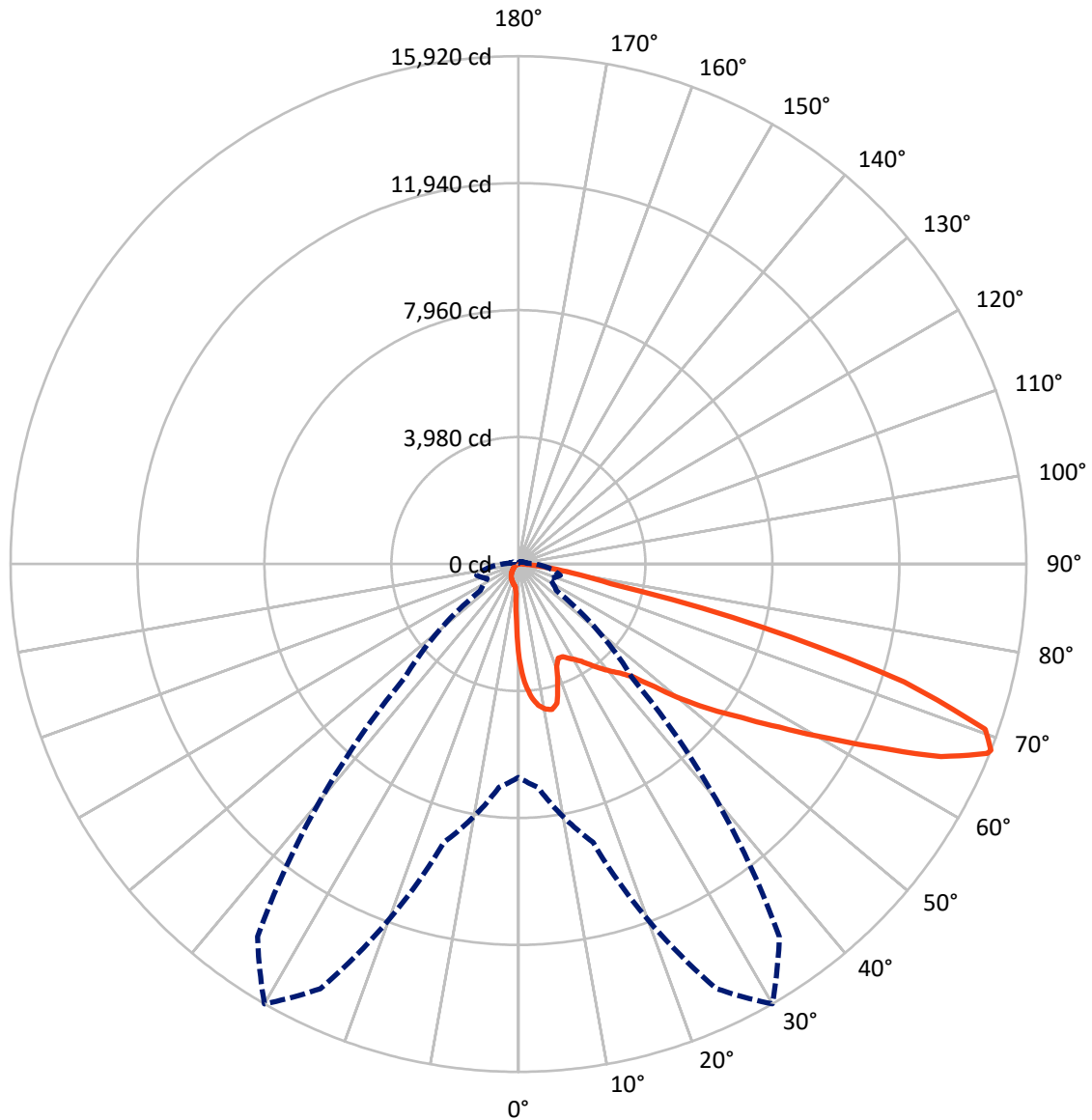
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 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 | 1153.9 | 0.0 | 1153.9 |
| | % Fixture | 7.6 | 0.0 | 7.6 |
| Street Side | Lumens | 13964.0 | 0.0 | 13964.0 |
| | % Fixture | 92.4 | 0.0 | 92.4 |
| Total | Lumens | 15117.8 | 0.0 | 15117.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 257.2 | 1.7 |
| 10°-20° | 734.4 | 4.9 |
| 20°-30° | 1154.1 | 7.6 |
| 30°-40° | 1810.0 | 12.0 |
| 40°-50° | 2705.5 | 17.9 |
| 50°-60° | 3599.1 | 23.8 |
| 60°-70° | 3479.3 | 23.0 |
| 70°-80° | 1250.7 | 8.3 |
| 80°-90° | 127.6 | 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° | 15117.8 | 100.0 |
| 0°-180° | 15117.8 | 100.0 |



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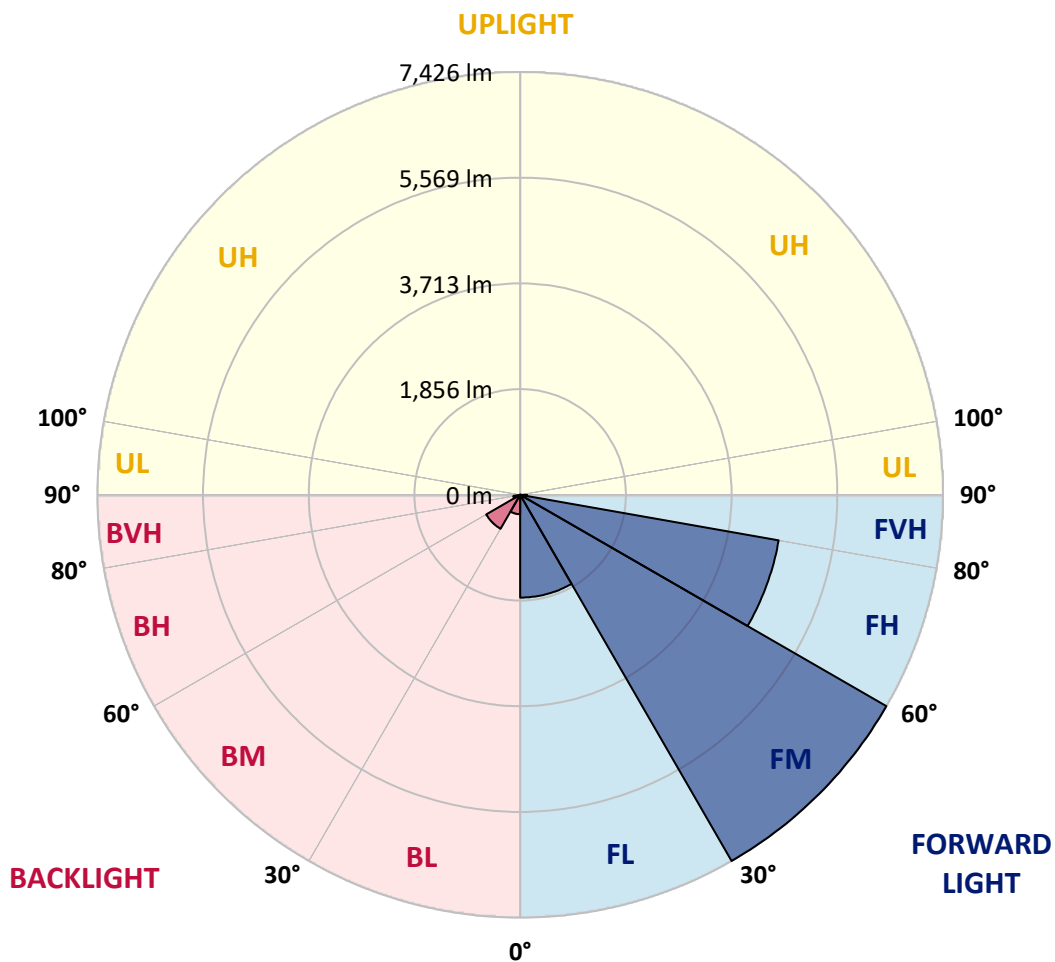
CATALOG NUMBER: GLAN-SB3C-835-U-T4LG-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1805.1 | 11.9 | | | |
| FM | (30°-60°) | 7425.9 | 49.1 | | | |
| FH | (60°-80°) | 4609.9 | 30.5 | | | G2/5000 |
| FVH | (80°-90°) | 123.1 | 0.8 | | | G2/225 |
| BL | (0°-30°) | 340.6 | 2.3 | B1/500 | | |
| BM | (30°-60°) | 688.8 | 4.6 | B1/1000 | | |
| BH | (60°-80°) | 120.0 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 4.5 | 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° | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 |
| 2.5° | 3810.1 | 3810.1 | 3783.0 | 3746.7 | 3705.9 | 3692.3 | 3615.3 | 3506.6 | 3393.3 | 3262.0 | 3071.7 |
| 5° | 4299.4 | 4294.9 | 4240.5 | 4240.5 | 4186.2 | 4136.3 | 4059.3 | 3900.7 | 3719.5 | 3483.9 | 3153.2 |
| 7.5° | 4516.9 | 4526.0 | 4503.3 | 4503.3 | 4471.6 | 4435.3 | 4390.0 | 4236.0 | 4023.1 | 3705.9 | 3234.8 |
| 10° | 4593.9 | 4598.4 | 4598.4 | 4630.2 | 4621.1 | 4616.6 | 4612.0 | 4526.0 | 4304.0 | 3932.5 | 3320.8 |
| 12.5° | 4408.2 | 4430.8 | 4494.2 | 4634.7 | 4680.0 | 4729.8 | 4797.8 | 4770.6 | 4616.6 | 4217.9 | 3452.2 |
| 15° | 3810.1 | 3814.7 | 3991.4 | 4340.2 | 4526.0 | 4716.2 | 4979.0 | 5033.4 | 4933.7 | 4526.0 | 3588.1 |
| 17.5° | 3144.2 | 3157.7 | 3298.2 | 3687.8 | 3986.8 | 4426.3 | 5083.2 | 5305.2 | 5269.0 | 4829.5 | 3715.0 |
| 20° | 2867.8 | 2885.9 | 2953.9 | 3198.5 | 3425.0 | 3832.8 | 4979.0 | 5563.4 | 5577.0 | 5133.0 | 3832.8 |
| 22.5° | 2804.4 | 2818.0 | 2872.3 | 3062.6 | 3203.1 | 3474.9 | 4625.6 | 5767.3 | 5925.9 | 5481.9 | 3973.2 |
| 25° | 2786.2 | 2799.8 | 2881.4 | 3089.8 | 3221.2 | 3447.7 | 4304.0 | 5876.0 | 6338.2 | 5844.3 | 4109.2 |
| 27.5° | 2772.7 | 2790.8 | 2922.2 | 3189.5 | 3343.5 | 3561.0 | 4245.1 | 5898.7 | 6732.3 | 6229.4 | 4331.1 |
| 30° | 2790.8 | 2818.0 | 2990.1 | 3293.7 | 3470.4 | 3715.0 | 4385.5 | 5921.3 | 7167.2 | 6668.9 | 4612.0 |
| 32.5° | 2863.3 | 2885.9 | 3094.3 | 3434.1 | 3638.0 | 3914.3 | 4625.6 | 6057.3 | 7579.5 | 7117.4 | 4879.3 |
| 35° | 2944.8 | 2976.5 | 3225.7 | 3633.4 | 3878.1 | 4190.7 | 4951.8 | 6324.6 | 7973.7 | 7543.3 | 5155.7 |
| 37.5° | 3044.5 | 3080.7 | 3379.7 | 3860.0 | 4140.9 | 4494.2 | 5305.2 | 6696.1 | 8322.5 | 7892.1 | 5432.1 |
| 40° | 3180.4 | 3221.2 | 3556.4 | 4100.1 | 4403.6 | 4757.0 | 5654.0 | 7063.0 | 8589.8 | 8100.5 | 5613.3 |
| 42.5° | 3715.0 | 3769.4 | 3909.8 | 4335.7 | 4675.5 | 5037.9 | 5998.4 | 7411.9 | 8689.5 | 8168.5 | 5649.5 |
| 45° | 4711.7 | 4766.1 | 4729.8 | 4811.4 | 5037.9 | 5377.7 | 6374.4 | 7747.1 | 8703.1 | 8150.3 | 5631.4 |
| 47.5° | 5712.9 | 5776.4 | 5744.7 | 5699.4 | 5749.2 | 5912.3 | 6795.7 | 7960.1 | 8630.6 | 8141.3 | 5631.4 |
| 50° | 6668.9 | 6632.6 | 6637.2 | 6623.6 | 6668.9 | 6755.0 | 7203.5 | 8000.8 | 8612.5 | 8227.4 | 5681.2 |
| 52.5° | 7180.8 | 7198.9 | 7312.2 | 7479.8 | 7579.5 | 7665.6 | 7670.1 | 8064.3 | 8481.1 | 8082.4 | 5622.3 |
| 55° | 7683.7 | 7719.9 | 7982.7 | 8268.1 | 8490.1 | 8653.2 | 8136.8 | 8023.5 | 7697.3 | 7597.6 | 5314.3 |
| 57.5° | 8250.0 | 8299.9 | 8671.4 | 9260.3 | 9649.9 | 9736.0 | 8598.9 | 7262.4 | 6514.8 | 6904.5 | 4716.2 |
| 60° | 9029.3 | 9088.2 | 9582.0 | 10465.4 | 11045.3 | 10868.6 | 8635.1 | 6052.7 | 5173.8 | 5731.1 | 3891.7 |
| 62.5° | 9640.9 | 9758.7 | 10651.2 | 12028.4 | 12667.2 | 12105.5 | 7960.1 | 4639.2 | 3615.3 | 4027.6 | 2840.6 |
| 65° | 8988.5 | 9215.0 | 10669.3 | 13818.0 | 14556.5 | 13559.7 | 6899.9 | 3166.8 | 2038.7 | 2605.0 | 1816.7 |
| 67.5° | 7266.9 | 7584.0 | 9473.2 | 14687.8 | 15852.2 | 14325.4 | 5432.1 | 1680.8 | 1168.9 | 1513.2 | 955.9 |
| 68° | 6687.0 | 7031.3 | 9033.8 | 14687.8 | 15920.1 | 14257.4 | 5042.4 | 1454.3 | 1078.3 | 1359.1 | 829.1 |
| 70° | 4621.1 | 4865.7 | 6945.2 | 13863.3 | 15521.4 | 12998.0 | 3320.8 | 833.6 | 811.0 | 933.3 | 548.2 |
| 72.5° | 2265.2 | 2528.0 | 3715.0 | 10986.4 | 12644.6 | 9989.7 | 1513.2 | 552.7 | 616.1 | 684.1 | 430.4 |
| 75° | 901.6 | 955.9 | 1463.3 | 5418.5 | 7901.2 | 6374.4 | 792.8 | 416.8 | 530.1 | 534.6 | 339.8 |
| 77.5° | 516.5 | 548.2 | 811.0 | 1993.4 | 2962.9 | 2849.7 | 511.9 | 299.0 | 421.3 | 385.1 | 222.0 |
| 80° | 290.0 | 294.5 | 457.6 | 1051.1 | 1694.4 | 1517.7 | 348.8 | 217.5 | 321.7 | 271.8 | 149.5 |
| 82.5° | 145.0 | 163.1 | 290.0 | 579.9 | 942.3 | 965.0 | 185.7 | 154.0 | 258.2 | 194.8 | 122.3 |
| 85° | 104.2 | 113.3 | 208.4 | 321.7 | 434.9 | 652.4 | 113.3 | 77.0 | 194.8 | 131.4 | 86.1 |
| 87.5° | 54.4 | 68.0 | 131.4 | 158.6 | 176.7 | 222.0 | 54.4 | 36.2 | 108.7 | 77.0 | 45.3 |
| 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: P1458969

CATALOG NUMBER: GLAN-SB3C-835-U-T4LG-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 | 2981.1 |
| 2.5° | 2981.1 | 2876.9 | 2663.9 | 2414.7 | 2219.9 | 2020.6 | 1857.5 | 1703.5 | 1631.0 | 1621.9 | 1640.0 |
| 5° | 2967.5 | 2740.9 | 2256.2 | 1780.5 | 1390.9 | 1119.0 | 969.5 | 892.5 | 851.7 | 833.6 | 838.1 |
| 7.5° | 2940.3 | 2596.0 | 1821.3 | 1205.1 | 901.6 | 783.8 | 747.5 | 733.9 | 729.4 | 729.4 | 729.4 |
| 10° | 2913.1 | 2401.2 | 1395.4 | 883.4 | 738.5 | 706.8 | 697.7 | 697.7 | 693.2 | 693.2 | 697.7 |
| 12.5° | 2899.5 | 2219.9 | 1082.8 | 738.5 | 688.6 | 675.0 | 666.0 | 661.5 | 661.5 | 661.5 | 666.0 |
| 15° | 2867.8 | 2020.6 | 874.4 | 684.1 | 656.9 | 638.8 | 634.3 | 629.7 | 629.7 | 629.7 | 629.7 |
| 17.5° | 2840.6 | 1825.8 | 761.1 | 647.9 | 625.2 | 607.1 | 602.6 | 598.0 | 598.0 | 602.6 | 602.6 |
| 20° | 2799.8 | 1640.0 | 684.1 | 611.6 | 593.5 | 575.4 | 570.8 | 566.3 | 570.8 | 570.8 | 570.8 |
| 22.5° | 2750.0 | 1486.0 | 638.8 | 584.4 | 561.8 | 543.7 | 543.7 | 543.7 | 543.7 | 543.7 | 548.2 |
| 25° | 2718.3 | 1377.3 | 607.1 | 552.7 | 530.1 | 516.5 | 511.9 | 511.9 | 521.0 | 521.0 | 525.5 |
| 27.5° | 2768.1 | 1350.1 | 611.6 | 543.7 | 502.9 | 489.3 | 484.8 | 484.8 | 493.8 | 498.4 | 502.9 |
| 30° | 2917.6 | 1399.9 | 666.0 | 570.8 | 484.8 | 462.1 | 457.6 | 457.6 | 471.2 | 475.7 | 480.2 |
| 32.5° | 3089.8 | 1504.1 | 747.5 | 607.1 | 471.2 | 434.9 | 425.9 | 425.9 | 439.5 | 444.0 | 448.5 |
| 35° | 3325.4 | 1667.2 | 856.3 | 638.8 | 480.2 | 407.7 | 389.6 | 389.6 | 398.7 | 407.7 | 412.3 |
| 37.5° | 3628.9 | 1934.5 | 983.1 | 661.5 | 480.2 | 376.0 | 353.4 | 348.8 | 357.9 | 357.9 | 362.4 |
| 40° | 3946.1 | 2283.4 | 1114.5 | 661.5 | 457.6 | 344.3 | 321.7 | 308.1 | 312.6 | 308.1 | 312.6 |
| 42.5° | 4122.7 | 2564.3 | 1227.8 | 620.7 | 430.4 | 312.6 | 290.0 | 271.8 | 267.3 | 258.2 | 262.8 |
| 45° | 4222.4 | 2691.1 | 1196.0 | 575.4 | 403.2 | 290.0 | 262.8 | 240.1 | 231.1 | 217.5 | 217.5 |
| 47.5° | 4222.4 | 2704.7 | 1023.9 | 539.1 | 376.0 | 271.8 | 235.6 | 212.9 | 199.3 | 185.7 | 190.3 |
| 50° | 4172.6 | 2582.4 | 811.0 | 502.9 | 344.3 | 253.7 | 212.9 | 194.8 | 176.7 | 167.6 | 167.6 |
| 52.5° | 3964.2 | 2183.7 | 620.7 | 457.6 | 308.1 | 231.1 | 190.3 | 172.2 | 154.0 | 149.5 | 149.5 |
| 55° | 3606.3 | 1603.8 | 502.9 | 412.3 | 276.4 | 212.9 | 172.2 | 158.6 | 140.4 | 131.4 | 131.4 |
| 57.5° | 2931.2 | 1096.4 | 416.8 | 371.5 | 244.6 | 190.3 | 154.0 | 140.4 | 117.8 | 108.7 | 108.7 |
| 60° | 2174.6 | 715.8 | 353.4 | 326.2 | 208.4 | 172.2 | 135.9 | 117.8 | 99.7 | 90.6 | 86.1 |
| 62.5° | 1467.9 | 484.8 | 294.5 | 258.2 | 176.7 | 149.5 | 117.8 | 99.7 | 77.0 | 58.9 | 58.9 |
| 65° | 915.2 | 376.0 | 244.6 | 203.9 | 154.0 | 131.4 | 99.7 | 77.0 | 54.4 | 40.8 | 36.2 |
| 67.5° | 525.5 | 303.5 | 199.3 | 158.6 | 131.4 | 104.2 | 77.0 | 63.4 | 45.3 | 31.7 | 27.2 |
| 68° | 484.8 | 290.0 | 185.7 | 149.5 | 122.3 | 99.7 | 72.5 | 58.9 | 40.8 | 27.2 | 27.2 |
| 70° | 394.2 | 258.2 | 158.6 | 122.3 | 104.2 | 81.5 | 63.4 | 49.8 | 31.7 | 18.1 | 18.1 |
| 72.5° | 348.8 | 217.5 | 135.9 | 95.1 | 72.5 | 68.0 | 49.8 | 36.2 | 22.7 | 13.6 | 9.1 |
| 75° | 285.4 | 172.2 | 108.7 | 72.5 | 49.8 | 49.8 | 36.2 | 22.7 | 9.1 | 0.0 | 0.0 |
| 77.5° | 185.7 | 126.9 | 86.1 | 45.3 | 27.2 | 31.7 | 22.7 | 9.1 | 0.0 | 0.0 | 0.0 |
| 80° | 122.3 | 95.1 | 58.9 | 22.7 | 13.6 | 13.6 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 86.1 | 63.4 | 36.2 | 9.1 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 54.4 | 27.2 | 13.6 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 22.7 | 9.1 | 4.5 | 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: SP1-2407-184-10

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-835-U-5WQ

Data in this report applies to families of products including GSS-SB1A-835-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-10
 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-835-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3500K CCT 26 LEDS

Spectral Parameters

CCT (K): 3411
 CIE u': 0.2360
 CIE v': 0.5189
 Duv: 0.0044
 CIE x: 0.4154
 CIE y: 0.4059
 CIE z: 0.1787
 Peak Wavelength (nm): 601
 Dominant Wavelength (nm): 579
 Purity: 46.51914
 Rf: 86.6
 Rg: 95.9

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 83.5 | | |
| R1: | 81.1 | R9: | 6.3 |
| R2: | 88.9 | R10: | 75.4 |
| R3: | 97.2 | R11: | 84.1 |
| R4: | 83.8 | R12: | 69.7 |
| R5: | 81.7 | R13: | 82.8 |
| R6: | 86.9 | R14: | 98.5 |
| R7: | 86.1 | R15: | 72.6 |
| R8: | 62.2 | | |



Test Conditions

Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-10

| 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 3500K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-10

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 | 311 | NR | 620 | 903 | NR | 750 | 26 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 376 | NR | 625 | 851 | NR | 755 | 22 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 438 | NR | 630 | 797 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 491 | NR | 635 | 735 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 533 | NR | 640 | 672 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 566 | NR | 645 | 607 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 592 | NR | 650 | 546 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 608 | NR | 655 | 487 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 625 | NR | 660 | 429 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 642 | NR | 665 | 378 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 657 | NR | 670 | 329 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 677 | NR | 675 | 286 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 43 | NR | 550 | 701 | NR | 680 | 248 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 80 | NR | 555 | 728 | NR | 685 | 213 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 140 | NR | 560 | 757 | NR | 690 | 184 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 243 | NR | 565 | 793 | NR | 695 | 156 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 412 | NR | 570 | 831 | NR | 700 | 134 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 610 | NR | 575 | 872 | NR | 705 | 114 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 597 | NR | 580 | 911 | NR | 710 | 97 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 412 | NR | 585 | 944 | NR | 715 | 83 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 330 | NR | 590 | 974 | NR | 720 | 70 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 274 | NR | 595 | 992 | NR | 725 | 60 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 211 | NR | 600 | 999 | NR | 730 | 51 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 200 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 220 | NR | 610 | 975 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 255 | NR | 615 | 944 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-10

Scotopic Flux vs. Wavelength



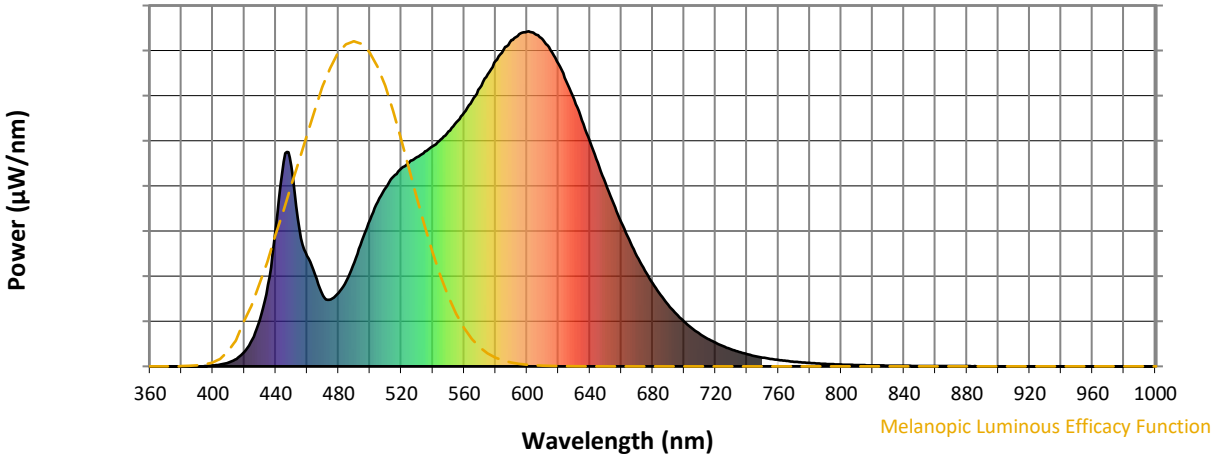
Scotopic Lumens: NR

S/P: 1.48

| 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 | 311 | NR | 620 | 903 | NR | 750 | 26 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 376 | NR | 625 | 851 | NR | 755 | 22 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 438 | NR | 630 | 797 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 491 | NR | 635 | 735 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 533 | NR | 640 | 672 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 566 | NR | 645 | 607 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 592 | NR | 650 | 546 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 608 | NR | 655 | 487 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 625 | NR | 660 | 429 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 642 | NR | 665 | 378 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 657 | NR | 670 | 329 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 677 | NR | 675 | 286 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 43 | NR | 550 | 701 | NR | 680 | 248 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 80 | NR | 555 | 728 | NR | 685 | 213 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 140 | NR | 560 | 757 | NR | 690 | 184 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 243 | NR | 565 | 793 | NR | 695 | 156 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 412 | NR | 570 | 831 | NR | 700 | 134 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 610 | NR | 575 | 872 | NR | 705 | 114 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 597 | NR | 580 | 911 | NR | 710 | 97 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 412 | NR | 585 | 944 | NR | 715 | 83 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 330 | NR | 590 | 974 | NR | 720 | 70 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 274 | NR | 595 | 992 | NR | 725 | 60 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 211 | NR | 600 | 999 | NR | 730 | 51 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 200 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 220 | NR | 610 | 975 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 255 | NR | 615 | 944 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-10

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.88

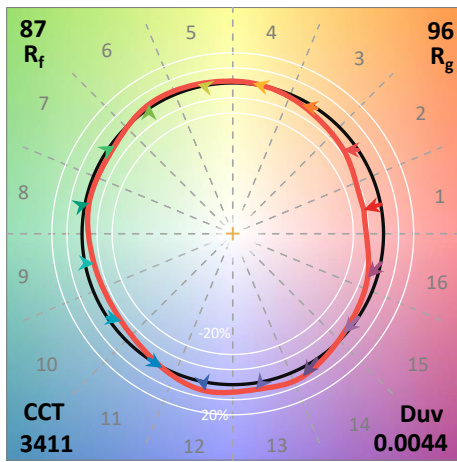
| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 311 | NR | 620 | 903 | NR | 750 | 26 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 376 | NR | 625 | 851 | NR | 755 | 22 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 438 | NR | 630 | 797 | NR | 760 | 19 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 491 | NR | 635 | 735 | NR | 765 | 16 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 533 | NR | 640 | 672 | NR | 770 | 14 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 566 | NR | 645 | 607 | NR | 775 | 12 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 592 | NR | 650 | 546 | NR | 780 | 10 | NR | 910 | 0 | NR |
| 395 | 1 | NR | 525 | 608 | NR | 655 | 487 | NR | 785 | 9 | NR | 915 | 0 | NR |
| 400 | 3 | NR | 530 | 625 | NR | 660 | 429 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 6 | NR | 535 | 642 | NR | 665 | 378 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 12 | NR | 540 | 657 | NR | 670 | 329 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 22 | NR | 545 | 677 | NR | 675 | 286 | NR | 805 | 5 | NR | 935 | 0 | NR |
| 420 | 43 | NR | 550 | 701 | NR | 680 | 248 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 80 | NR | 555 | 728 | NR | 685 | 213 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 140 | NR | 560 | 757 | NR | 690 | 184 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 243 | NR | 565 | 793 | NR | 695 | 156 | NR | 825 | 3 | NR | 955 | 0 | NR |
| 440 | 412 | NR | 570 | 831 | NR | 700 | 134 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 610 | NR | 575 | 872 | NR | 705 | 114 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 597 | NR | 580 | 911 | NR | 710 | 97 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 412 | NR | 585 | 944 | NR | 715 | 83 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 330 | NR | 590 | 974 | NR | 720 | 70 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 274 | NR | 595 | 992 | NR | 725 | 60 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 211 | NR | 600 | 999 | NR | 730 | 51 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 200 | NR | 605 | 992 | NR | 735 | 43 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 220 | NR | 610 | 975 | NR | 740 | 36 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 255 | NR | 615 | 944 | NR | 745 | 31 | NR | 875 | 1 | NR | | | |

Summary

$R_f = 86.6$
 $R_g = 95.9$
 $CIE R_a = 83.5$
 $R_9 = 6.3$



Color Vector Graphics

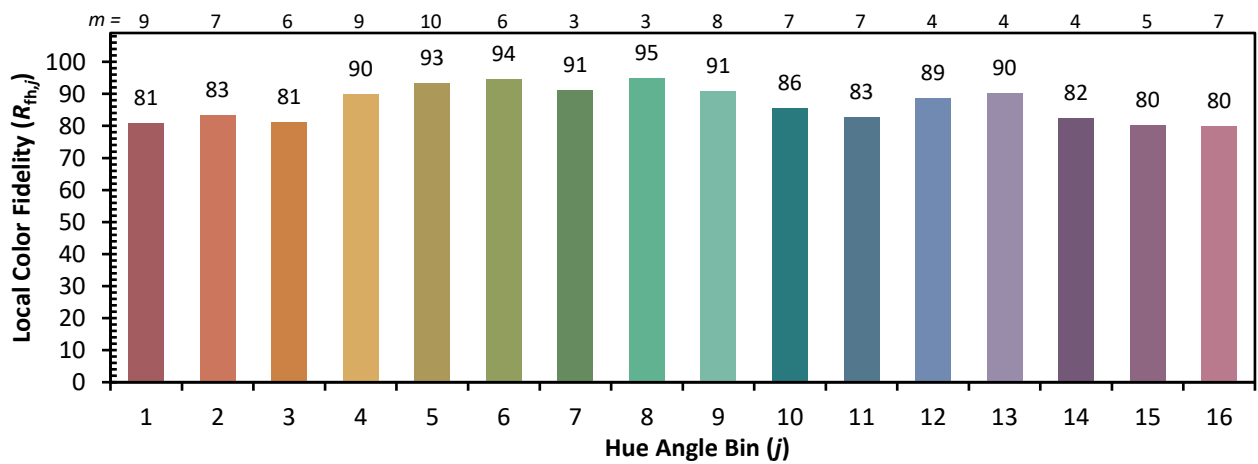
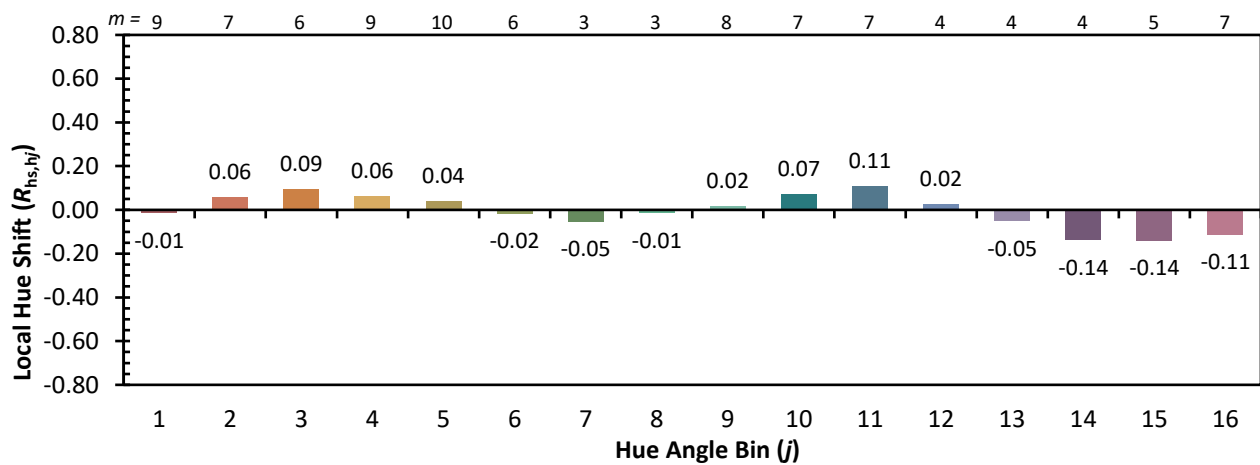
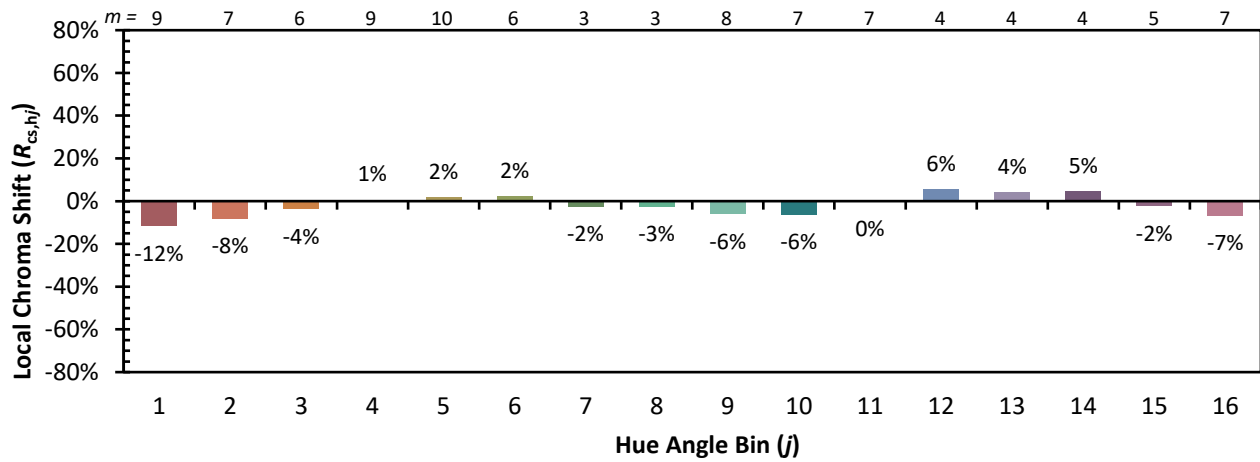


Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|-------------|------------|------------|
| CES01 = 86 | CES26 = 85 | CES51 = 97 | CES76 = 81 |
| CES02 = 62 | CES27 = 95 | CES52 = 96 | CES77 = 87 |
| CES03 = 31 | CES28 = 94 | CES53 = 91 | CES78 = 80 |
| CES04 = 70 | CES29 = 87 | CES54 = 92 | CES79 = 93 |
| CES05 = 49 | CES30 = 93 | CES55 = 92 | CES80 = 91 |
| CES06 = 51 | CES31 = 89 | CES56 = 88 | CES81 = 77 |
| CES07 = 41 | CES32 = 84 | CES57 = 87 | CES82 = 96 |
| CES08 = 40 | CES33 = 91 | CES58 = 88 | CES83 = 95 |
| CES09 = 29 | CES34 = 91 | CES59 = 93 | CES84 = 92 |
| CES10 = 75 | CES35 = 95 | CES60 = 94 | CES85 = 80 |
| CES11 = 58 | CES36 = 90 | CES61 = 91 | CES86 = 72 |
| CES12 = 64 | CES37 = 95 | CES62 = 95 | CES87 = 86 |
| CES13 = 43 | CES38 = 100 | CES63 = 88 | CES88 = 88 |
| CES14 = 74 | CES39 = 97 | CES64 = 85 | CES89 = 77 |
| CES15 = 71 | CES40 = 94 | CES65 = 80 | CES90 = 88 |
| CES16 = 47 | CES41 = 97 | CES66 = 84 | CES91 = 81 |
| CES17 = 49 | CES42 = 96 | CES67 = 82 | CES92 = 67 |
| CES18 = 56 | CES43 = 93 | CES68 = 85 | CES93 = 81 |
| CES19 = 72 | CES44 = 99 | CES69 = 89 | CES94 = 63 |
| CES20 = 66 | CES45 = 95 | CES70 = 81 | CES95 = 76 |
| CES21 = 86 | CES46 = 91 | CES71 = 79 | CES96 = 84 |
| CES22 = 78 | CES47 = 93 | CES72 = 93 | CES97 = 92 |
| CES23 = 91 | CES48 = 85 | CES73 = 76 | CES98 = 86 |
| CES24 = 90 | CES49 = 92 | CES74 = 95 | CES99 = 77 |
| CES25 = 72 | CES50 = 96 | CES75 = 80 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)