

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P636009

Luminaire Tested: GWS-SA3E-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636009
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3E-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13668.3 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G2

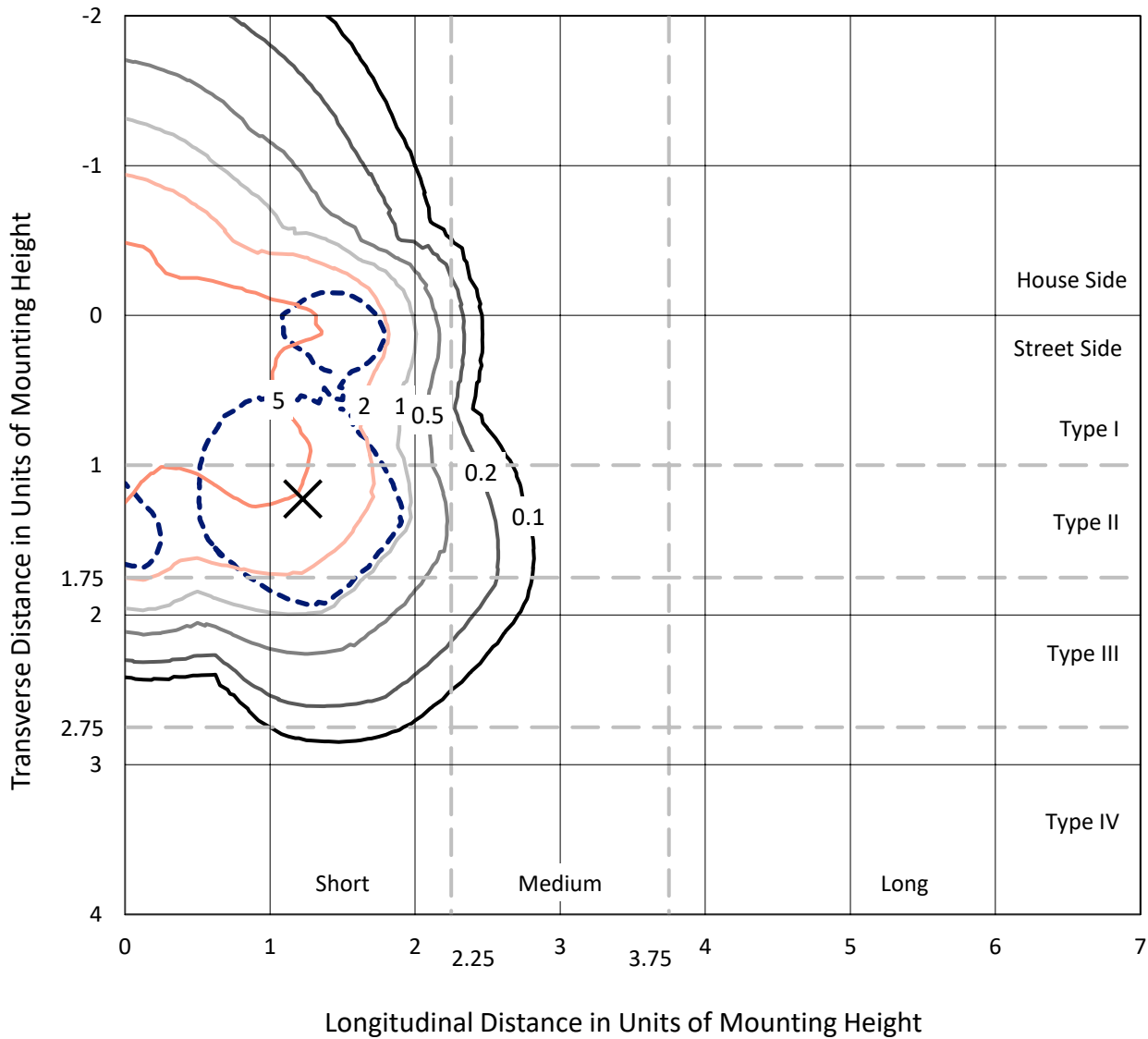
Input Watts (W): 159.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636009
 CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

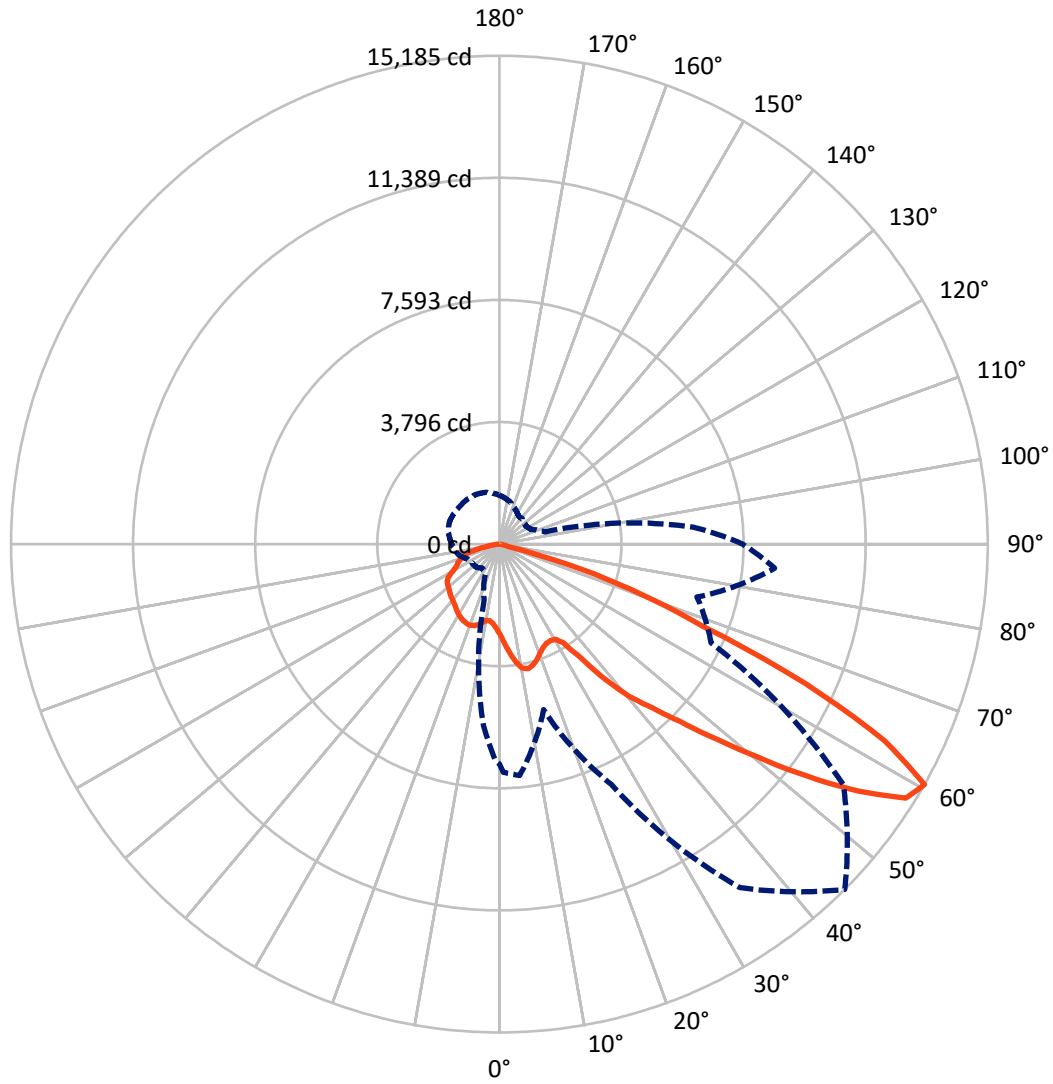
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Short - N/A

REPORT NUMBER: P636009
CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P636009

CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4791.2	0.0	4791.2
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	8877.1	0.0	8877.1
	% Fixture	64.9	0.0	64.9
Total	Lumens	13668.3	0.0	13668.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.0	2.0
10°-20°	865.7	6.3
20°-30°	1406.2	10.3
30°-40°	1983.2	14.5
40°-50°	2740.7	20.1
50°-60°	3528.1	25.8
60°-70°	2235.4	16.4
70°-80°	573.6	4.2
80°-90°	61.3	0.4
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°	13668.3	100.0
0°-180°	13668.3	100.0

Coefficient of Utilization



REPORT NUMBER: P636009

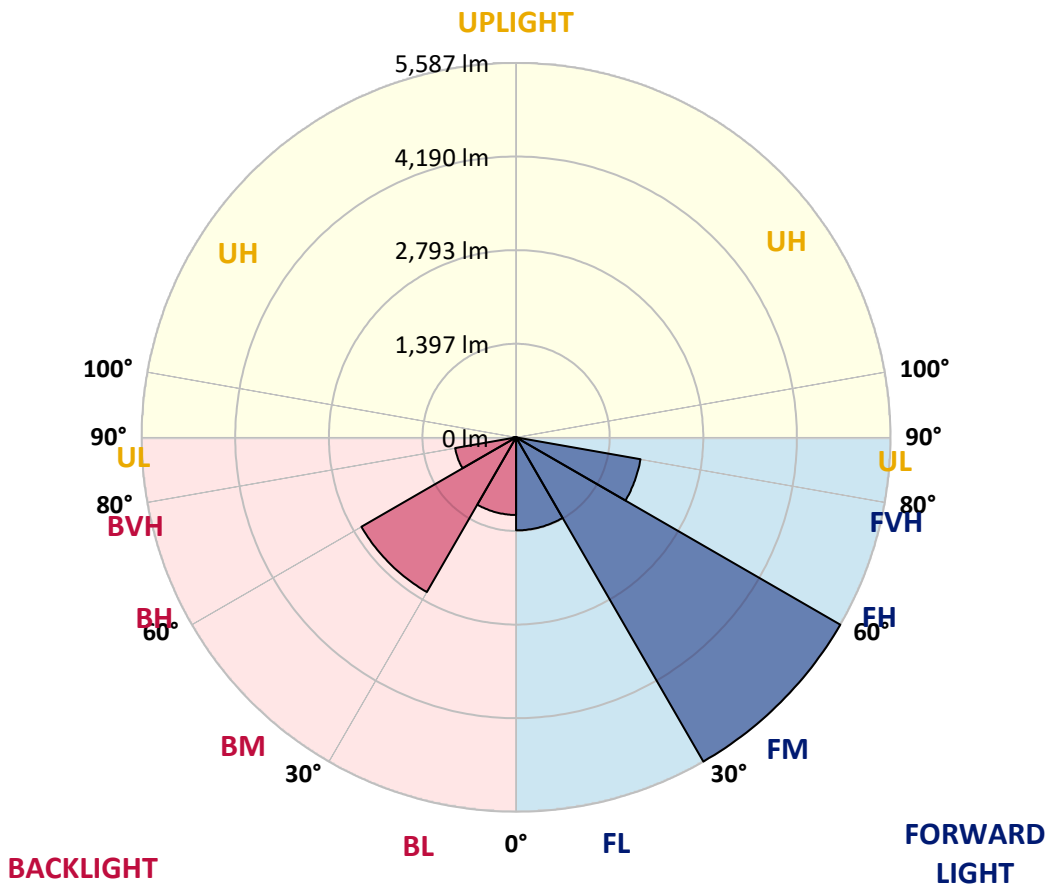
CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1387.9	10.2			
FM (30°-60°)	5586.8	40.9			
FH (60°-80°)	1885.7	13.8			G2/5000
FVH (80°-90°)	16.7	0.1			G1/100
BL (0°-30°)	1158.0	8.5	B3/2500		
BM (30°-60°)	2665.2	19.5	B3/5000		
BH (60°-80°)	923.3	6.8	B2/1000		G2/1000
BVH (80°-90°)	44.7	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type III Short





REPORT NUMBER: P636009

CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9
2.5°	2936.9	2956.9	2969.4	2993.2	3035.8	3059.6	3085.9	3057.1	3064.6	3060.9	3014.5
5°	3110.9	3134.7	3167.3	3237.4	3316.3	3360.2	3401.5	3395.2	3356.4	3291.3	3245.0
7.5°	3273.8	3301.3	3357.7	3471.6	3588.1	3655.7	3705.8	3673.3	3640.7	3538.0	3421.5
10°	3401.5	3417.8	3494.2	3647.0	3782.2	3858.6	3920.0	3912.5	3867.4	3752.2	3595.6
12.5°	3521.7	3533.0	3615.7	3768.5	3889.9	3923.8	3973.8	3990.1	3975.1	3888.7	3734.6
15°	3650.7	3672.0	3748.4	3864.9	3920.0	3884.9	3902.5	3947.5	3990.1	3990.1	3848.6
17.5°	3771.0	3789.7	3867.4	3917.5	3864.9	3772.2	3777.2	3834.8	3936.3	4042.7	3952.6
20°	3877.4	3894.9	3971.3	3923.8	3757.2	3621.9	3618.2	3688.3	3852.4	4076.5	4064.0
22.5°	3993.9	4018.9	4082.8	3928.8	3657.0	3485.4	3484.2	3556.8	3778.5	4110.4	4191.8
25°	4159.2	4198.0	4230.6	3972.6	3603.1	3396.5	3412.8	3481.7	3754.7	4165.5	4380.9
27.5°	4404.7	4436.0	4433.5	4064.0	3600.6	3360.2	3394.0	3474.1	3797.3	4263.2	4580.0
30°	4670.2	4686.5	4660.2	4191.8	3658.2	3382.7	3432.8	3528.0	3905.0	4424.7	4873.1
32.5°	4964.5	4984.5	4934.4	4383.4	3792.3	3549.3	3659.5	3705.8	4056.5	4657.7	5183.7
35°	5302.6	5341.5	5237.5	4636.4	4186.8	4156.7	4317.0	4256.9	4378.4	4933.2	5515.5
37.5°	5658.3	5659.6	5510.5	5010.8	4960.7	5012.1	5332.7	5144.8	5060.9	5240.0	5853.7
40°	5960.1	5952.6	5723.4	5515.5	5634.5	5838.7	6225.7	5937.6	5717.2	5652.1	6134.2
42.5°	6262.0	6234.4	6002.7	5836.2	6099.2	6518.7	6955.8	6602.6	6138.0	6026.5	6411.0
45°	6647.7	6638.9	6359.7	5963.9	6518.7	7280.2	7860.0	7287.7	6387.2	6244.4	6871.9
47.5°	7270.2	7227.6	6707.8	5953.9	6912.0	8294.6	9027.3	8150.6	6561.3	6249.5	7615.8
50°	7878.8	7826.2	7123.6	5952.6	7317.7	9346.6	10404.9	9198.8	6739.1	6279.5	8372.3
52.5°	8493.7	8493.7	7806.2	6094.2	7743.6	10521.4	11996.7	10505.1	7042.2	6672.8	9302.8
55°	8859.4	8957.1	8573.9	6333.4	8242.0	11904.0	13571.0	11915.3	7510.6	7382.9	10161.9
57.5°	8394.8	8577.7	8522.5	6166.8	8536.3	12919.7	14906.0	12984.8	7742.3	7466.8	10032.9
60°	6840.6	7094.8	7221.3	5325.2	8245.8	13037.4	15185.3	13055.0	7263.9	6358.4	8593.9
62.5°	4547.4	4756.6	4949.5	3804.8	7138.7	11728.7	13430.7	11732.4	6066.6	4745.3	5953.9
65°	2230.5	2385.8	2593.7	2249.3	5576.9	9800.0	10471.3	9480.6	4388.4	2656.3	3037.1
67.5°	583.6	627.4	656.3	872.9	3995.1	7041.0	6829.3	6934.5	2819.1	867.9	794.0
70°	303.1	305.6	304.3	360.7	2700.2	4474.8	4706.5	4354.6	1967.5	363.2	313.1
72.5°	216.7	217.9	214.2	243.0	1303.7	2563.7	2656.3	2627.5	1030.7	215.4	214.2
75°	141.5	142.8	140.3	142.8	196.6	291.8	269.3	283.0	171.6	136.5	136.5
77.5°	83.9	85.2	83.9	86.4	83.9	83.9	77.6	77.6	73.9	73.9	75.1
80°	56.4	56.4	55.1	57.6	52.6	52.6	50.1	48.8	45.1	43.8	43.8
82.5°	33.8	35.1	33.8	33.8	31.3	31.3	28.8	27.6	23.8	23.8	22.5
85°	17.5	17.5	16.3	16.3	13.8	12.5	10.0	10.0	7.5	6.3	6.3
87.5°	2.5	2.5	1.3	1.3	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



REPORT NUMBER: P636009

CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9
2.5°	3002.0	2976.9	2939.4	2903.1	2869.2	2834.2	2794.1	2752.8	2717.7	2681.4	2662.6
5°	3183.6	3132.2	3034.6	2948.1	2870.5	2806.6	2737.7	2678.9	2623.8	2578.7	2556.1
7.5°	3347.7	3267.5	3119.7	2983.2	2878.0	2790.3	2695.2	2607.5	2533.6	2478.5	2457.2
10°	3499.2	3404.0	3209.9	3037.1	2914.3	2816.6	2700.2	2581.2	2483.5	2410.9	2393.3
12.5°	3621.9	3513.0	3281.3	3080.9	2935.6	2830.4	2727.7	2625.0	2528.6	2434.7	2419.6
15°	3730.9	3601.9	3335.1	3108.4	2928.1	2794.1	2707.7	2695.2	2695.2	2588.7	2558.6
17.5°	3824.8	3683.3	3379.0	3121.0	2880.5	2686.4	2633.8	2742.7	2865.5	2789.1	2721.5
20°	3932.5	3760.9	3415.3	3121.0	2792.8	2549.9	2544.9	2730.2	2911.8	2913.1	2841.7
22.5°	4041.5	3851.1	3457.9	3109.7	2672.6	2392.1	2484.8	2680.1	2841.7	2910.6	2861.7
25°	4218.1	3976.4	3525.5	3100.9	2532.3	2284.4	2430.9	2613.7	2750.3	2822.9	2791.6
27.5°	4442.2	4141.7	3628.2	3114.7	2393.3	2220.5	2373.3	2527.3	2651.3	2715.2	2692.6
30°	4692.7	4332.0	3738.4	3138.5	2293.1	2187.9	2304.4	2428.4	2538.6	2602.5	2592.5
32.5°	5012.1	4538.7	3833.6	3105.9	2236.8	2171.7	2231.8	2320.7	2427.1	2467.2	2476.0
35°	5394.1	4766.6	3906.2	2978.2	2185.4	2154.1	2152.9	2208.0	2283.1	2347.0	2353.3
37.5°	5746.0	5033.4	3986.4	2759.0	2092.8	2110.3	2060.2	2092.8	2166.6	2230.5	2255.6
40°	6094.2	5303.9	4097.8	2479.7	1971.3	2012.6	1953.7	1976.3	2035.1	2119.1	2159.1
42.5°	6432.3	5548.1	4215.6	2194.2	1849.8	1876.1	1832.3	1854.8	1916.2	2021.4	2066.5
45°	6800.5	5878.7	4307.0	1924.9	1744.6	1733.3	1698.2	1730.8	1823.5	1938.7	1992.6
47.5°	7496.8	6399.7	4367.1	1745.8	1688.2	1606.8	1566.7	1636.9	1742.1	1858.6	1923.7
50°	8347.2	7153.7	4349.6	1631.9	1639.4	1476.6	1462.8	1555.5	1668.2	1789.7	1861.1
52.5°	9021.0	7893.8	4150.4	1522.9	1544.2	1393.9	1353.8	1489.1	1596.8	1720.8	1794.7
55°	9535.7	8143.1	3539.3	1393.9	1388.9	1333.8	1249.9	1420.2	1525.4	1640.6	1720.8
57.5°	9116.2	7588.3	2623.8	1216.1	1186.0	1214.8	1133.4	1303.7	1437.7	1551.7	1623.1
60°	7565.7	6050.3	1461.5	1077.1	991.9	1062.0	1049.5	1181.0	1342.6	1462.8	1524.2
62.5°	5136.1	4029.0	866.7	851.6	804.0	904.2	970.6	1057.0	1216.1	1313.8	1371.4
65°	2559.9	1957.5	576.1	637.5	643.7	743.9	869.2	964.3	1097.1	1197.3	1254.9
67.5°	742.7	608.7	438.3	487.2	554.8	635.0	735.2	847.9	976.9	1095.8	1163.5
70°	320.6	324.4	348.2	405.8	472.2	554.8	655.0	765.2	874.2	965.6	1016.9
72.5°	226.7	235.5	261.8	320.6	383.2	462.1	562.3	668.8	747.7	840.4	894.2
75°	145.3	151.5	172.8	217.9	264.3	340.7	435.8	533.5	614.9	681.3	732.7
77.5°	80.2	81.4	98.9	125.2	156.5	205.4	275.5	351.9	412.0	449.6	495.9
80°	46.3	46.3	55.1	71.4	90.2	120.2	159.1	196.6	232.9	256.7	279.3
82.5°	25.0	25.0	28.8	38.8	48.8	66.4	88.9	107.7	130.2	142.8	157.8
85°	7.5	7.5	10.0	13.8	17.5	25.0	35.1	45.1	55.1	63.9	72.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
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: P636009

CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9
2.5°	2658.8	2641.3	2631.3	2618.8	2622.5	2611.2	2605.0	2608.7	2586.2	2608.7	2631.3
5°	2547.4	2522.3	2502.3	2486.0	2478.5	2463.5	2454.7	2454.7	2440.9	2463.5	2491.0
7.5°	2449.7	2429.6	2419.6	2409.6	2398.3	2384.6	2369.5	2364.5	2355.8	2379.6	2403.3
10°	2384.6	2387.1	2393.3	2407.1	2404.6	2395.8	2373.3	2360.8	2360.8	2388.3	2424.6
12.5°	2414.6	2440.9	2455.9	2481.0	2486.0	2478.5	2455.9	2445.9	2471.0	2512.3	2572.4
15°	2531.1	2548.6	2561.1	2581.2	2579.9	2573.7	2556.1	2563.7	2646.3	2726.5	2780.3
17.5°	2657.6	2637.5	2635.0	2647.6	2651.3	2643.8	2633.8	2667.6	2804.1	2879.3	2906.8
20°	2749.0	2680.1	2665.1	2670.1	2680.1	2676.4	2676.4	2731.5	2873.0	2908.1	2873.0
22.5°	2776.6	2678.9	2656.3	2657.6	2671.4	2672.6	2678.9	2736.5	2819.1	2820.4	2766.5
25°	2732.7	2638.8	2622.5	2625.0	2641.3	2640.0	2642.6	2675.1	2711.4	2696.4	2656.3
27.5°	2650.1	2568.7	2563.7	2577.4	2598.7	2587.4	2579.9	2588.7	2606.2	2587.4	2552.4
30°	2556.1	2487.3	2489.8	2516.1	2538.6	2519.8	2501.0	2506.0	2507.3	2487.3	2447.2
32.5°	2457.2	2405.9	2414.6	2442.2	2468.5	2448.4	2428.4	2425.9	2402.1	2378.3	2339.5
35°	2358.3	2338.2	2349.5	2372.0	2394.6	2378.3	2365.8	2358.3	2306.9	2271.8	2239.3
37.5°	2268.1	2283.1	2303.2	2316.9	2324.4	2323.2	2315.7	2298.1	2230.5	2189.2	2146.6
40°	2187.9	2234.3	2255.6	2261.8	2273.1	2270.6	2269.3	2244.3	2155.4	2111.5	2062.7
42.5°	2115.3	2180.4	2216.7	2223.0	2229.3	2230.5	2226.8	2190.4	2089.0	2037.6	1991.3
45°	2045.2	2130.3	2176.7	2170.4	2179.2	2179.2	2182.9	2135.3	2023.9	1971.3	1922.4
47.5°	1983.8	2084.0	2126.6	2119.1	2124.1	2127.8	2131.6	2076.5	1952.5	1902.4	1852.3
50°	1927.4	2033.9	2070.2	2072.7	2072.7	2081.5	2080.2	2026.4	1892.4	1838.5	1788.4
52.5°	1867.3	1982.5	2021.4	2037.6	2042.7	2046.4	2028.9	1966.3	1831.0	1765.9	1719.5
55°	1797.2	1929.9	1965.0	1986.3	1996.3	1993.8	1970.0	1906.1	1768.4	1703.3	1650.7
57.5°	1690.7	1817.2	1867.3	1877.3	1893.6	1883.6	1856.0	1802.2	1668.2	1603.1	1549.2
60°	1574.3	1665.7	1705.8	1714.5	1702.0	1705.8	1702.0	1650.7	1534.2	1482.8	1427.7
62.5°	1421.5	1502.9	1545.5	1556.7	1535.4	1549.2	1544.2	1480.3	1363.9	1310.0	1261.2
65°	1306.2	1395.2	1445.3	1451.5	1445.3	1451.5	1434.0	1356.3	1246.1	1191.0	1140.9
67.5°	1216.1	1307.5	1360.1	1377.6	1371.4	1370.1	1342.6	1252.4	1138.4	1078.3	1014.4
70°	1060.8	1140.9	1208.6	1251.1	1251.1	1227.3	1174.7	1090.8	999.4	948.1	898.0
72.5°	939.3	1040.7	1107.1	1151.0	1159.7	1145.9	1072.1	983.1	877.9	826.6	774.0
75°	774.0	872.9	944.3	1001.9	1013.2	998.2	913.0	825.3	727.6	677.5	624.9
77.5°	517.2	576.1	633.7	686.3	675.0	685.1	627.4	561.1	501.0	463.4	439.6
80°	291.8	330.6	348.2	377.0	377.0	377.0	339.4	308.1	274.3	253.0	229.2
82.5°	165.3	190.4	197.9	221.7	227.9	229.2	204.1	184.1	162.8	151.5	135.3
85°	76.4	90.2	91.4	105.2	110.2	120.2	109.0	95.2	82.7	77.6	67.6
87.5°	2.5	7.5	10.0	18.8	25.0	28.8	31.3	31.3	26.3	23.8	20.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P636009

CATALOG NUMBER: GWS-SA3E-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9	2807.9
2.5°	2658.8	2688.9	2724.0	2749.0	2794.1	2831.7	2870.5	2913.1	2944.4	2936.9
5°	2524.8	2574.9	2638.8	2697.7	2781.6	2866.7	2960.7	3057.1	3113.5	3110.9
7.5°	2449.7	2521.1	2598.7	2677.6	2776.6	2899.3	3043.3	3193.6	3270.0	3273.8
10°	2489.8	2566.2	2618.8	2685.1	2789.1	2943.1	3116.0	3296.3	3384.0	3401.5
12.5°	2616.3	2610.0	2606.2	2653.8	2779.1	2974.4	3186.1	3401.5	3500.4	3521.7
15°	2736.5	2607.5	2529.8	2562.4	2734.0	2994.5	3255.0	3516.7	3628.2	3650.7
17.5°	2759.0	2563.7	2419.6	2442.2	2662.6	3000.7	3321.4	3629.4	3749.7	3771.0
20°	2696.4	2507.3	2339.5	2308.2	2572.4	2984.5	3362.7	3723.4	3854.9	3877.4
22.5°	2617.5	2457.2	2279.4	2198.0	2462.2	2968.2	3409.0	3822.3	3973.8	3993.9
25°	2534.8	2393.3	2223.0	2099.0	2337.0	2958.2	3486.7	3952.6	4135.4	4159.2
27.5°	2447.2	2315.7	2174.2	2051.4	2221.7	2970.7	3596.9	4163.0	4370.9	4404.7
30°	2353.3	2238.0	2142.8	2035.1	2142.8	2982.0	3718.4	4378.4	4622.6	4670.2
32.5°	2255.6	2166.6	2110.3	2042.7	2094.0	2955.7	3824.8	4620.1	4923.2	4964.5
35°	2157.9	2094.0	2069.0	2056.4	2028.9	2859.2	3911.2	4864.3	5266.3	5302.6
37.5°	2066.5	2018.9	2011.3	2025.1	1928.7	2701.4	4011.4	5174.9	5603.2	5658.3
40°	1981.3	1937.5	1936.2	1933.7	1818.5	2486.0	4146.7	5490.5	5935.1	5960.1
42.5°	1902.4	1847.3	1857.3	1827.2	1728.3	2253.1	4274.4	5759.8	6244.4	6262.0
45°	1832.3	1759.6	1770.9	1733.3	1685.7	2008.8	4387.1	6077.9	6636.4	6647.7
47.5°	1764.6	1687.0	1655.7	1653.2	1678.2	1783.4	4497.4	6690.3	7250.1	7270.2
50°	1702.0	1618.1	1529.2	1584.3	1631.9	1614.3	4635.1	7346.5	7883.8	7878.8
52.5°	1641.9	1531.7	1405.2	1511.6	1511.6	1489.1	4596.3	7744.8	8407.3	8493.7
55°	1573.0	1392.7	1276.2	1390.2	1335.1	1376.4	3908.7	7875.1	8736.7	8859.4
57.5°	1436.5	1221.1	1119.6	1181.0	1098.4	1276.2	2807.9	7228.8	8176.9	8394.8
60°	1305.0	1094.6	1028.2	1016.9	909.2	1040.7	1819.7	5659.6	6730.4	6840.6
62.5°	1151.0	985.6	929.3	842.9	731.4	757.7	1102.1	3724.6	4522.4	4547.4
65°	1034.5	893.0	785.3	682.6	598.6	549.8	651.2	1795.9	2260.6	2230.5
67.5°	887.9	765.2	662.5	588.6	519.7	458.4	433.3	533.5	603.7	583.6
70°	790.3	672.5	573.6	503.5	439.6	378.2	334.4	314.4	308.1	303.1
72.5°	681.3	578.6	475.9	408.3	348.2	291.8	251.7	227.9	221.7	216.7
75°	543.5	447.1	353.2	289.3	236.7	196.6	170.3	150.3	146.5	141.5
77.5°	359.4	286.8	210.4	171.6	140.3	119.0	101.4	88.9	86.4	83.9
80°	197.9	165.3	129.0	103.9	83.9	72.6	66.4	58.9	57.6	56.4
82.5°	117.7	98.9	73.9	58.9	48.8	43.8	40.1	36.3	35.1	33.8
85°	58.9	46.3	32.6	27.6	25.0	22.5	22.5	18.8	17.5	17.5
87.5°	15.0	12.5	7.5	6.3	6.3	6.3	5.0	3.8	3.8	2.5
90°	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: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u': 0.2476
 CIE v': 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 Rf: 81.5
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



Test Conditions

Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$

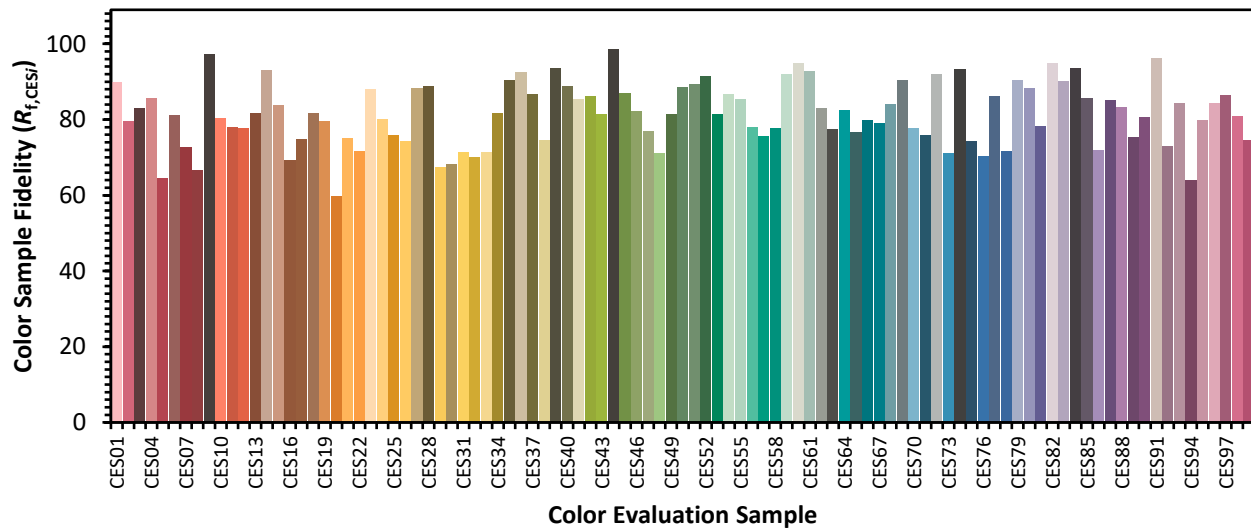


Color Vector Graphics

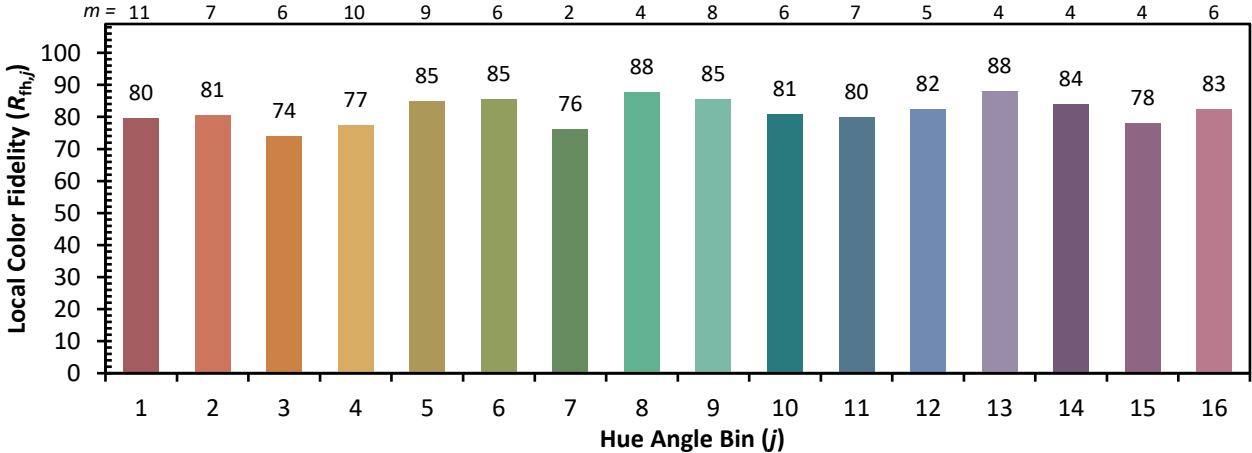


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)