

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: P636005

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

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636005
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-39)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3E-830-U-SLL-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT 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: 13598.1 lumens
Efficiency: N/A
Efficacy: 85.4 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

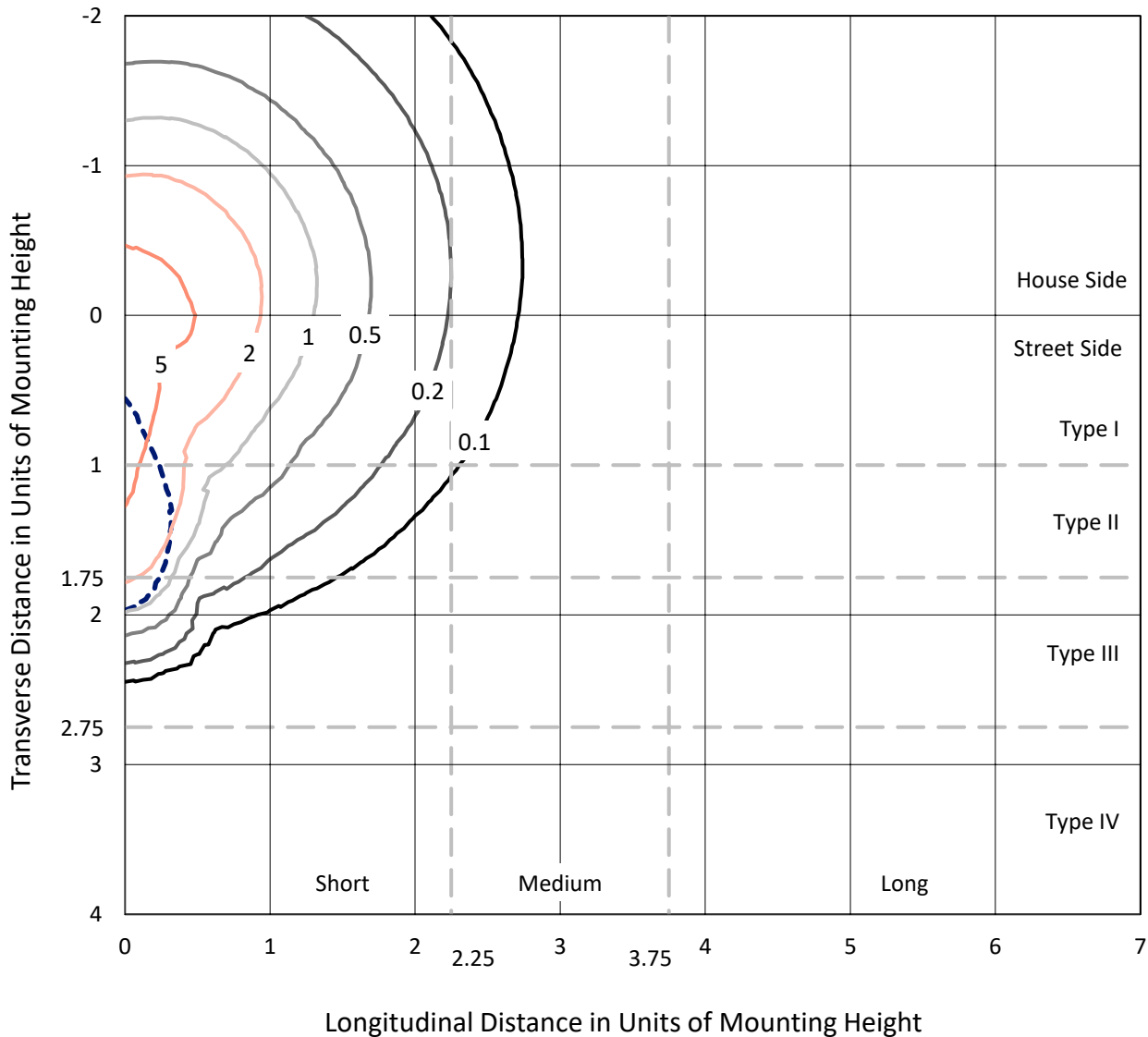
Input Watts (W): 159.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636005
 CATALOG NUMBER: GWS-SA3E-830-U-SLL-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

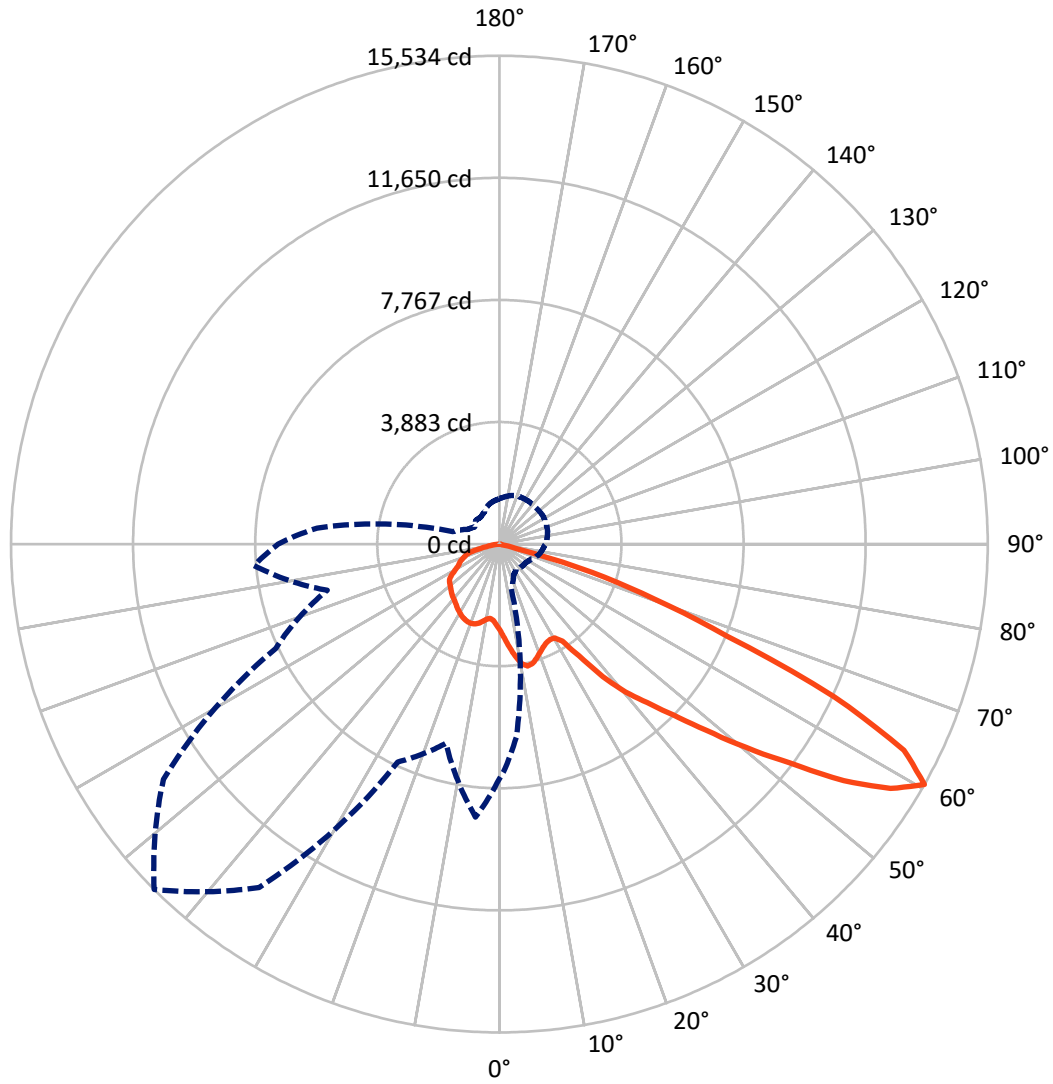
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.3 fc
 Type III - Short - N/A

REPORT NUMBER: P636005
CATALOG NUMBER: GWS-SA3E-830-U-SLL-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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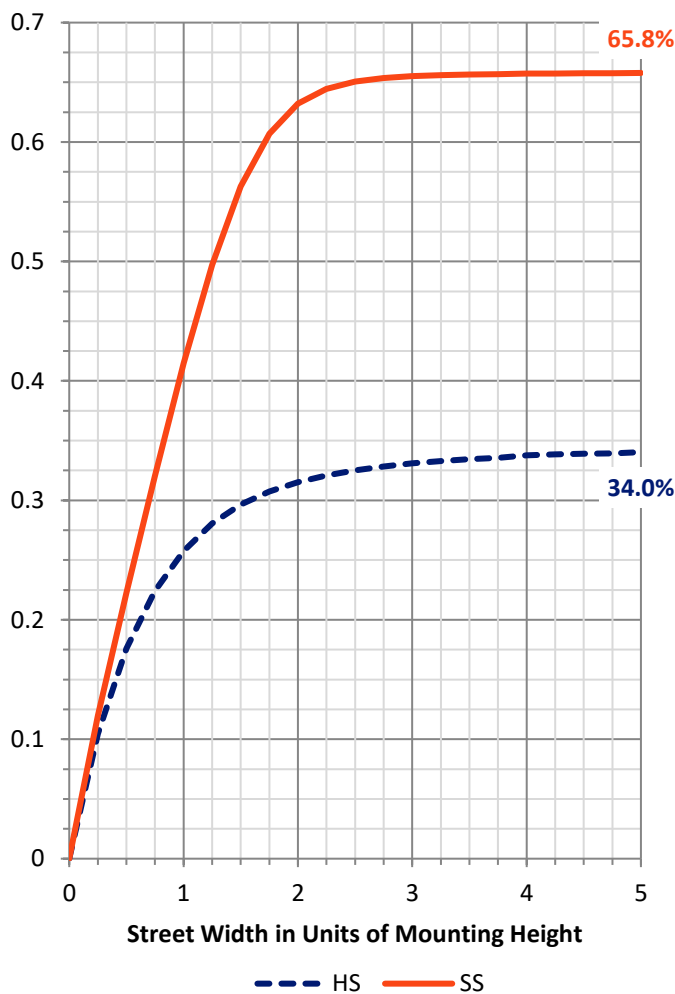
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4651.8	0.0	4651.8
	% Fixture	34.2	0.0	34.2
Street Side	Lumens	8946.3	0.0	8946.3
	% Fixture	65.8	0.0	65.8
Total	Lumens	13598.1	0.0	13598.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.0	2.0
10°-20°	859.4	6.3
20°-30°	1399.7	10.3
30°-40°	1966.3	14.5
40°-50°	2690.6	19.8
50°-60°	3451.9	25.4
60°-70°	2324.4	17.1
70°-80°	581.1	4.3
80°-90°	56.7	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°	13598.1	100.0
0°-180°	13598.1	100.0

Coefficient of Utilization



REPORT NUMBER: P636005

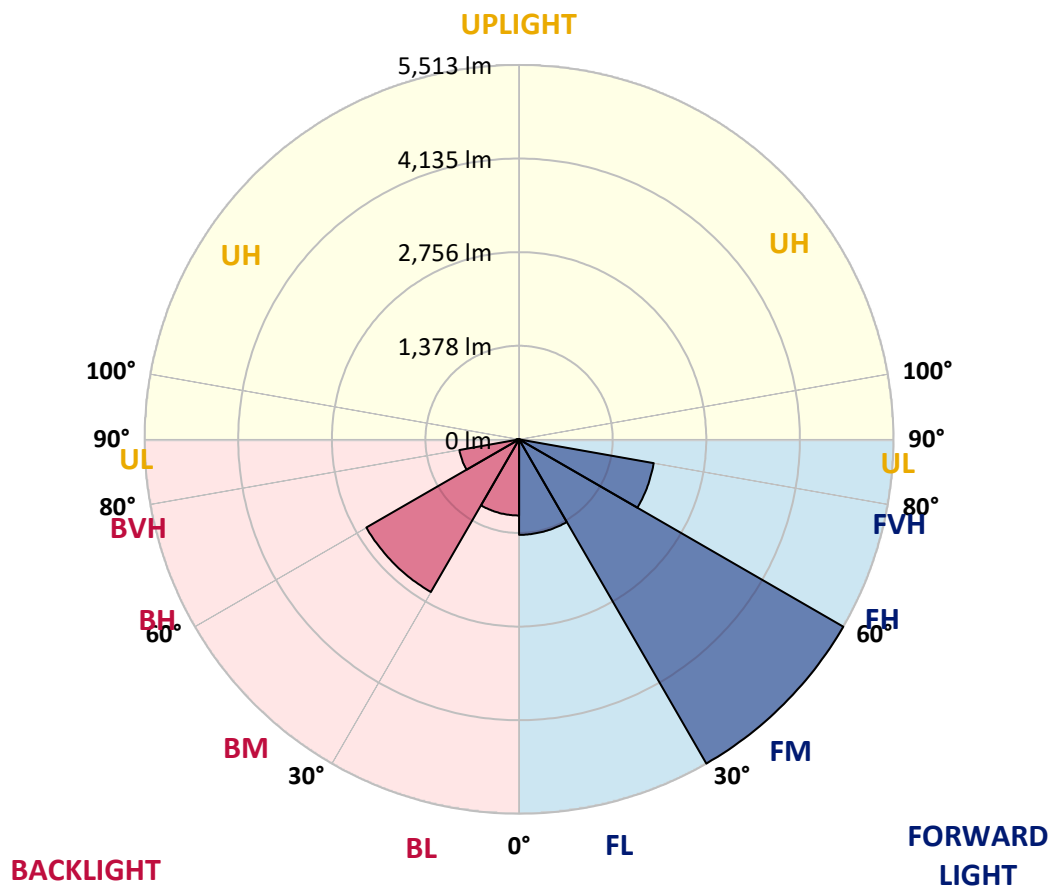
CATALOG NUMBER: GWS-SA3E-830-U-SLL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1405.7	10.3			
FM (30°-60°)	5512.8	40.5			
FH (60°-80°)	2013.1	14.8			G2/5000
FVH (80°-90°)	14.7	0.1			G1/100
BL (0°-30°)	1121.4	8.2	B3/2500		
BM (30°-60°)	2596.1	19.1	B3/5000		
BH (60°-80°)	892.4	6.6	B2/1000		G2/1000
BVH (80°-90°)	41.9	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: P636005

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

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6
2.5°	2901.6	2895.4	2889.1	2840.3	2827.8	2792.7	2767.6	2736.3	2691.2	2666.2	2644.9
5°	3083.2	3073.2	3039.4	2939.2	2874.1	2802.7	2743.8	2678.7	2609.8	2564.8	2529.7
7.5°	3254.8	3252.3	3194.7	3029.4	2924.2	2821.5	2741.3	2646.2	2547.2	2479.6	2434.5
10°	3413.8	3395.1	3326.2	3110.8	2973.0	2855.3	2768.9	2663.7	2548.5	2457.1	2397.0
12.5°	3554.1	3530.3	3435.1	3185.9	3015.6	2870.3	2776.4	2690.0	2613.6	2537.2	2468.3
15°	3669.3	3640.5	3544.1	3256.0	3053.2	2861.6	2730.1	2662.4	2688.7	2722.6	2646.2
17.5°	3777.0	3747.0	3629.2	3307.4	3064.4	2807.7	2616.1	2587.3	2720.1	2874.1	2839.0
20°	3867.2	3833.4	3696.9	3332.4	3044.4	2705.0	2468.3	2518.4	2693.8	2877.8	2934.2
22.5°	3964.9	3937.3	3773.3	3368.8	3019.4	2563.5	2344.4	2467.1	2648.7	2810.2	2895.4
25°	4121.4	4087.6	3892.2	3432.6	3006.8	2430.8	2255.4	2417.0	2586.1	2732.6	2798.9
27.5°	4348.1	4285.5	4055.0	3544.1	3020.6	2305.5	2199.1	2355.6	2513.4	2638.6	2692.5
30°	4594.8	4519.6	4235.4	3659.3	3040.6	2229.1	2169.0	2285.5	2402.0	2527.2	2586.1
32.5°	4886.6	4820.2	4428.2	3745.7	2998.1	2194.1	2146.5	2209.1	2301.8	2402.0	2450.8
35°	5234.7	5115.7	4638.6	3815.8	2860.3	2142.7	2126.4	2125.2	2174.0	2271.7	2326.8
37.5°	5609.2	5481.4	4897.8	3891.0	2646.2	2061.3	2078.9	2026.3	2071.3	2149.0	2211.6
40°	5916.0	5782.0	5159.6	3993.7	2378.2	1933.6	1973.7	1917.3	1944.9	2025.0	2095.1
42.5°	6216.5	6073.8	5403.8	4110.1	2118.9	1808.4	1828.4	1807.1	1815.9	1899.8	1997.5
45°	6611.0	6450.7	5704.3	4192.8	1886.0	1709.4	1690.6	1654.3	1700.7	1809.6	1913.6
47.5°	7269.7	7078.1	6196.5	4246.6	1716.9	1653.1	1566.7	1545.4	1603.0	1724.5	1832.2
50°	8039.9	7874.6	6983.0	4244.1	1590.5	1605.5	1446.4	1427.7	1522.8	1645.6	1759.5
52.5°	8671.1	8503.3	7655.5	4118.9	1486.5	1504.0	1376.3	1323.7	1453.9	1567.9	1681.9
55°	9180.8	8991.7	7964.8	3595.4	1355.0	1342.5	1299.9	1203.5	1367.5	1490.3	1596.7
57.5°	8906.5	8681.1	7590.3	2733.8	1219.8	1140.9	1168.4	1097.0	1249.8	1403.9	1506.5
60°	7467.6	7264.7	6166.4	1455.2	1073.2	953.0	1010.6	1021.9	1120.8	1299.9	1405.1
62.5°	5129.5	4981.7	4179.0	882.9	846.6	765.2	855.3	936.7	1010.6	1162.2	1253.6
65°	2509.7	2465.8	2090.1	566.1	592.3	618.6	708.8	807.7	916.7	1049.4	1145.9
67.5°	691.3	696.3	633.7	442.1	467.1	539.8	611.1	690.0	799.0	921.7	1019.4
70°	304.3	309.3	319.3	340.6	388.2	454.6	528.5	609.9	710.1	812.8	906.7
72.5°	211.6	216.7	231.7	259.2	301.8	364.4	434.6	512.2	616.1	702.6	780.2
75°	130.2	134.0	147.8	171.6	200.4	248.0	316.8	388.2	479.6	558.5	627.4
77.5°	68.9	66.4	75.1	91.4	116.5	141.5	187.8	232.9	298.1	361.9	419.5
80°	37.6	36.3	41.3	50.1	57.6	77.6	109.0	139.0	176.6	212.9	244.2
82.5°	16.3	15.0	16.3	21.3	26.3	37.6	55.1	76.4	97.7	122.7	142.8
85°	0.0	0.0	0.0	1.3	6.3	10.0	18.8	27.6	40.1	55.1	67.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	11.3
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: P636005

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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6
2.5°	2632.4	2601.1	2598.6	2573.5	2576.0	2577.3	2552.2	2542.2	2551.0	2561.0	2556.0
5°	2517.2	2484.6	2470.8	2447.0	2444.5	2433.3	2423.2	2410.7	2419.5	2428.3	2433.3
7.5°	2417.0	2395.7	2386.9	2380.7	2383.2	2378.2	2358.1	2346.9	2345.6	2349.4	2354.4
10°	2384.4	2366.9	2378.2	2395.7	2408.2	2417.0	2395.7	2376.9	2359.4	2351.9	2351.9
12.5°	2454.6	2432.0	2454.6	2473.3	2498.4	2504.7	2480.9	2460.8	2454.6	2462.1	2477.1
15°	2609.8	2557.2	2556.0	2567.3	2587.3	2597.3	2574.8	2564.8	2564.8	2612.4	2649.9
17.5°	2765.1	2678.7	2642.4	2636.1	2648.7	2652.4	2633.6	2624.9	2647.4	2740.1	2810.2
20°	2874.1	2768.9	2690.0	2675.0	2678.7	2680.0	2664.9	2658.7	2691.2	2804.0	2862.8
22.5°	2862.8	2785.2	2688.7	2670.0	2676.2	2673.7	2659.9	2657.4	2683.7	2781.4	2809.0
25°	2785.2	2725.1	2643.7	2631.1	2641.2	2639.9	2626.1	2619.9	2631.1	2696.3	2698.8
27.5°	2696.3	2643.7	2573.5	2569.8	2586.1	2594.8	2571.0	2552.2	2548.5	2592.3	2582.3
30°	2589.8	2551.0	2494.6	2497.1	2527.2	2532.2	2503.4	2475.8	2468.3	2492.1	2478.4
32.5°	2463.3	2450.8	2420.7	2427.0	2455.8	2465.8	2435.8	2407.0	2398.2	2405.7	2376.9
35°	2355.6	2350.6	2353.1	2364.4	2389.4	2397.0	2371.9	2349.4	2336.8	2310.5	2273.0
37.5°	2244.2	2257.9	2294.3	2315.5	2329.3	2326.8	2313.0	2296.8	2276.7	2227.9	2181.6
40°	2140.2	2175.3	2240.4	2264.2	2269.2	2270.5	2260.4	2246.7	2221.6	2156.5	2103.9
42.5°	2060.1	2098.9	2185.3	2221.6	2224.1	2226.6	2216.6	2205.3	2170.3	2083.9	2032.5
45°	1976.2	2027.5	2129.0	2172.8	2170.3	2169.0	2160.3	2155.3	2113.9	2013.7	1957.4
47.5°	1904.8	1964.9	2073.9	2111.4	2110.2	2108.9	2102.7	2102.7	2061.3	1952.4	1888.5
50°	1834.7	1903.5	2017.5	2048.8	2051.3	2048.8	2046.3	2050.1	2001.2	1884.7	1822.1
52.5°	1758.3	1835.9	1954.9	1983.7	1998.7	2005.0	2005.0	1996.2	1938.6	1817.1	1748.2
55°	1674.4	1748.2	1886.0	1924.8	1937.3	1948.6	1948.6	1931.1	1877.2	1754.5	1680.6
57.5°	1570.4	1635.5	1744.5	1783.3	1813.4	1820.9	1820.9	1792.1	1748.2	1630.5	1570.4
60°	1457.7	1514.1	1587.9	1629.3	1651.8	1636.8	1648.1	1640.5	1605.5	1496.5	1446.4
62.5°	1307.4	1365.0	1446.4	1489.0	1499.0	1484.0	1499.0	1497.8	1450.2	1352.5	1292.4
65°	1199.7	1256.1	1336.2	1391.3	1407.6	1403.9	1413.9	1398.8	1340.0	1247.3	1189.7
67.5°	1072.0	1132.1	1224.8	1286.1	1320.0	1323.7	1337.5	1306.2	1246.1	1144.6	1072.0
70°	950.5	1001.9	1073.2	1130.8	1178.4	1202.2	1204.7	1159.7	1084.5	1000.6	948.0
72.5°	822.8	875.4	961.8	1024.4	1084.5	1112.1	1112.1	1057.0	975.6	882.9	826.5
75°	667.5	716.3	795.2	862.9	931.7	966.8	965.5	918.0	827.8	740.1	681.3
77.5°	452.1	488.4	538.5	589.8	599.9	627.4	641.2	581.1	531.0	483.4	430.8
80°	263.0	285.5	313.1	341.9	348.1	356.9	334.4	311.8	285.5	254.2	230.4
82.5°	154.0	169.1	182.8	205.4	209.1	211.6	191.6	181.6	160.3	141.5	126.5
85°	75.1	80.1	92.7	103.9	98.9	96.4	87.7	77.6	68.9	61.4	53.8
87.5°	15.0	15.0	22.5	21.3	17.5	15.0	8.8	11.3	2.5	2.5	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6
2.5°	2572.3	2593.6	2619.9	2654.9	2695.0	2737.6	2778.9	2810.2	2841.5	2887.9	2880.3
5°	2440.8	2477.1	2518.4	2572.3	2637.4	2711.3	2793.9	2876.6	2965.5	3040.6	3073.2
7.5°	2364.4	2404.5	2453.3	2523.4	2607.3	2697.5	2814.0	2948.0	3092.0	3190.9	3252.3
10°	2364.4	2415.7	2479.6	2547.2	2621.1	2713.8	2857.8	3025.6	3211.0	3341.2	3412.6
12.5°	2500.9	2552.2	2566.0	2563.5	2604.8	2707.5	2892.9	3107.0	3328.7	3466.4	3554.1
15°	2713.8	2731.3	2627.4	2532.2	2538.5	2662.4	2909.2	3172.1	3430.1	3595.4	3690.6
17.5°	2856.6	2810.2	2624.9	2458.3	2423.2	2586.1	2909.2	3234.8	3537.8	3724.4	3813.3
20°	2867.8	2752.6	2561.0	2386.9	2296.8	2484.6	2889.1	3282.3	3641.8	3848.4	3943.6
22.5°	2768.9	2654.9	2493.4	2325.6	2192.8	2361.9	2856.6	3318.7	3730.7	3964.9	4082.6
25°	2656.2	2561.0	2424.5	2263.0	2121.4	2237.9	2826.5	3380.0	3854.7	4122.7	4241.6
27.5°	2546.0	2465.8	2341.8	2210.4	2081.4	2130.2	2807.7	3470.2	4002.4	4346.8	4449.5
30°	2438.3	2365.6	2252.9	2160.3	2060.1	2060.1	2791.4	3574.1	4197.8	4598.5	4701.2
32.5°	2329.3	2260.4	2169.0	2111.4	2047.6	2032.5	2746.3	3671.8	4399.4	4874.0	4979.2
35°	2227.9	2159.0	2088.9	2065.1	2041.3	2011.2	2634.9	3748.2	4596.0	5195.9	5286.1
37.5°	2132.7	2066.3	2013.7	2007.5	2010.0	1953.6	2459.6	3812.1	4841.5	5525.3	5572.8
40°	2050.1	1976.2	1934.8	1933.6	1946.1	1861.0	2237.9	3903.5	5122.0	5804.5	5784.5
42.5°	1976.2	1898.5	1848.4	1859.7	1852.2	1768.3	2021.3	3987.4	5366.2	6066.3	6026.2
45°	1903.5	1828.4	1758.3	1774.5	1765.8	1710.7	1837.2	4048.8	5636.7	6380.6	6385.6
47.5°	1833.4	1759.5	1689.4	1669.3	1668.1	1693.1	1695.6	4068.8	6077.5	6886.5	6772.6
50°	1768.3	1694.4	1621.8	1554.1	1580.4	1658.1	1590.5	4053.8	6737.5	7445.1	7127.0
52.5°	1700.7	1630.5	1550.4	1428.9	1497.8	1574.2	1496.5	3999.9	7140.8	7938.5	7748.1
55°	1623.0	1556.6	1447.7	1299.9	1383.8	1400.1	1400.1	3479.0	7312.3	8426.9	8544.6
57.5°	1519.1	1431.4	1258.6	1139.6	1214.8	1152.1	1297.4	2434.5	7029.3	8272.9	8730.0
60°	1401.4	1307.4	1124.6	1039.4	1062.0	951.8	1105.8	1526.6	5825.8	7039.3	7830.8
62.5°	1246.1	1159.7	1008.1	941.7	895.4	776.4	890.4	965.5	3993.7	5227.2	5767.0
65°	1142.1	1046.9	911.7	824.0	728.9	624.9	591.1	633.7	2147.7	2925.4	3289.9
67.5°	1019.4	925.5	797.7	687.5	611.1	536.0	477.1	462.1	736.4	974.3	1054.5
70°	902.9	812.8	706.3	603.6	527.2	453.3	395.7	354.4	340.6	338.1	333.1
72.5°	784.0	700.0	611.1	516.0	432.1	364.4	313.1	265.5	245.5	239.2	232.9
75°	642.4	576.1	487.2	384.5	316.8	254.2	214.1	182.8	165.3	159.0	151.5
77.5°	413.3	383.2	305.6	248.0	191.6	151.5	130.2	110.2	98.9	96.4	90.2
80°	220.4	205.4	169.1	142.8	114.0	92.7	81.4	70.1	63.9	61.4	58.9
82.5°	122.7	111.5	93.9	82.7	66.4	56.4	50.1	45.1	41.3	40.1	38.8
85°	55.1	47.6	37.6	35.1	31.3	28.8	27.6	25.0	23.8	22.5	21.3
87.5°	2.5	5.0	6.3	5.0	5.0	7.5	8.8	8.8	7.5	7.5	6.3
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: P636005

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

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6	2742.6
2.5°	2926.7	2964.3	2968.0	2980.5	2964.3	2960.5	2934.2	2919.2	2905.4	2901.6
5°	3154.6	3229.7	3259.8	3281.1	3261.1	3251.0	3193.4	3133.3	3099.5	3083.2
7.5°	3388.8	3501.5	3560.4	3586.7	3589.2	3544.1	3445.1	3332.4	3276.1	3254.8
10°	3597.9	3736.9	3814.6	3864.7	3847.1	3792.0	3656.8	3504.0	3432.6	3413.8
12.5°	3753.2	3886.0	3946.1	3978.6	3977.4	3947.3	3819.6	3654.3	3572.9	3554.1
15°	3853.4	3932.3	3936.1	3943.6	3964.9	4004.9	3938.6	3785.8	3695.6	3669.3
17.5°	3932.3	3901.0	3842.1	3822.1	3869.7	3981.1	4021.2	3897.2	3799.6	3777.0
20°	3982.4	3824.6	3720.7	3681.8	3736.9	3918.5	4071.3	3997.4	3896.0	3867.2
22.5°	4021.2	3753.2	3585.4	3559.1	3616.7	3850.9	4122.7	4116.4	4004.9	3964.9
25°	4082.6	3705.6	3490.2	3471.4	3525.3	3818.3	4191.5	4277.9	4179.0	4121.4
27.5°	4179.0	3700.6	3441.4	3435.1	3509.0	3847.1	4290.5	4514.6	4390.7	4348.1
30°	4313.0	3748.2	3452.7	3465.2	3555.4	3951.1	4444.5	4785.1	4661.2	4594.8
32.5°	4505.9	3875.9	3624.2	3678.1	3744.5	4117.6	4669.9	5078.2	4984.3	4886.6
35°	4760.1	4226.6	4131.4	4360.6	4298.0	4482.1	4941.7	5433.8	5319.9	5234.7
37.5°	5099.5	4945.4	5033.1	5348.7	5197.1	5170.9	5273.5	5756.9	5694.3	5609.2
40°	5575.4	5606.7	5768.2	6182.7	5963.6	5794.5	5680.5	5999.9	6021.2	5916.0
42.5°	5890.9	6035.0	6424.4	6895.3	6593.5	6189.0	6021.2	6310.5	6311.7	6216.5
45°	6008.7	6385.6	7199.6	7741.9	7237.2	6414.4	6209.0	6732.5	6720.0	6611.0
47.5°	5966.1	6681.2	8004.9	8833.9	8063.7	6574.7	6182.7	7333.6	7435.1	7269.7
50°	5877.2	6978.0	8945.4	10171.4	9078.1	6745.0	6142.7	7999.9	8167.7	8039.9
52.5°	5967.3	7308.6	10057.4	11554.0	10350.5	7016.8	6413.2	8855.2	8825.1	8671.1
55°	6252.9	7699.3	11408.7	13290.9	11748.1	7476.4	7108.2	9670.5	9364.9	9180.8
57.5°	6239.1	7978.6	12593.4	14664.7	12964.1	7853.3	7349.9	9756.9	9139.5	8906.5
60°	5663.0	7850.8	13044.2	15533.8	13331.0	7645.4	6554.7	8714.9	7711.8	7467.6
62.5°	4226.6	6966.7	12170.1	14445.6	12292.8	6603.5	4929.2	6255.4	5541.5	5129.5
65°	2703.8	5450.1	10231.5	11703.0	10132.6	5050.6	2935.5	3353.7	2627.4	2509.7
67.5°	1150.9	3847.1	7953.5	7822.0	7580.3	3272.3	1133.4	944.3	703.8	691.3
70°	380.7	2617.4	4902.9	5217.2	4527.2	2254.2	374.4	316.8	315.6	304.3
72.5°	249.2	1405.1	2760.1	3073.2	2912.9	1297.4	226.7	211.6	216.7	211.6
75°	149.0	305.6	464.6	603.6	464.6	217.9	136.5	134.0	136.5	130.2
77.5°	87.7	85.2	82.7	82.7	81.4	75.1	68.9	66.4	67.6	68.9
80°	56.4	53.8	51.3	50.1	43.8	41.3	38.8	36.3	36.3	37.6
82.5°	36.3	33.8	31.3	27.6	22.5	18.8	17.5	15.0	15.0	16.3
85°	18.8	15.0	11.3	8.8	5.0	2.5	0.0	0.0	0.0	0.0
87.5°	3.8	0.0	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

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



CCT = 3050K
 CIE x = 0.4383
 CIE y = 0.4131
 Duv = 0.0034

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

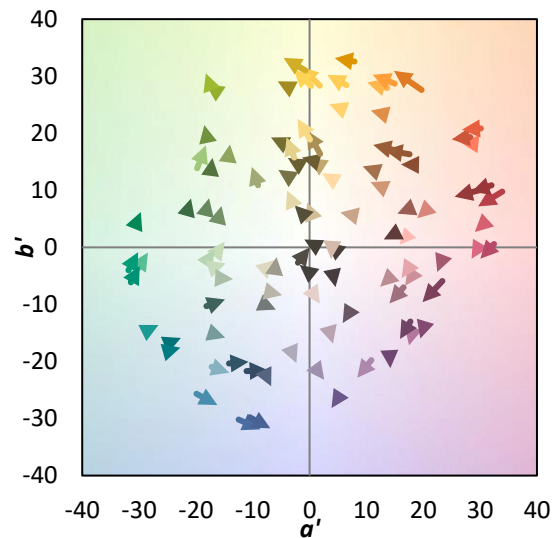
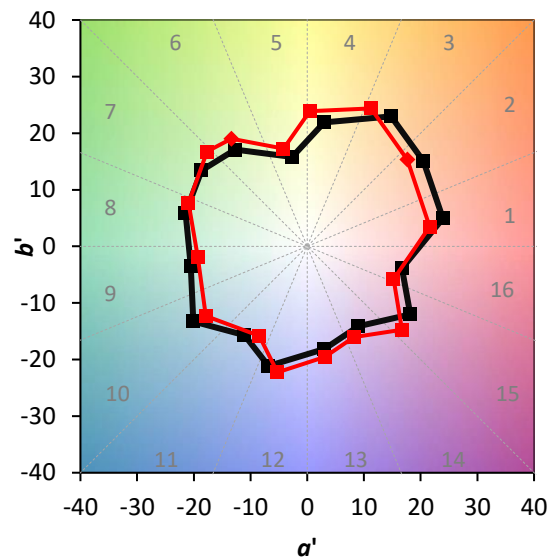
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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

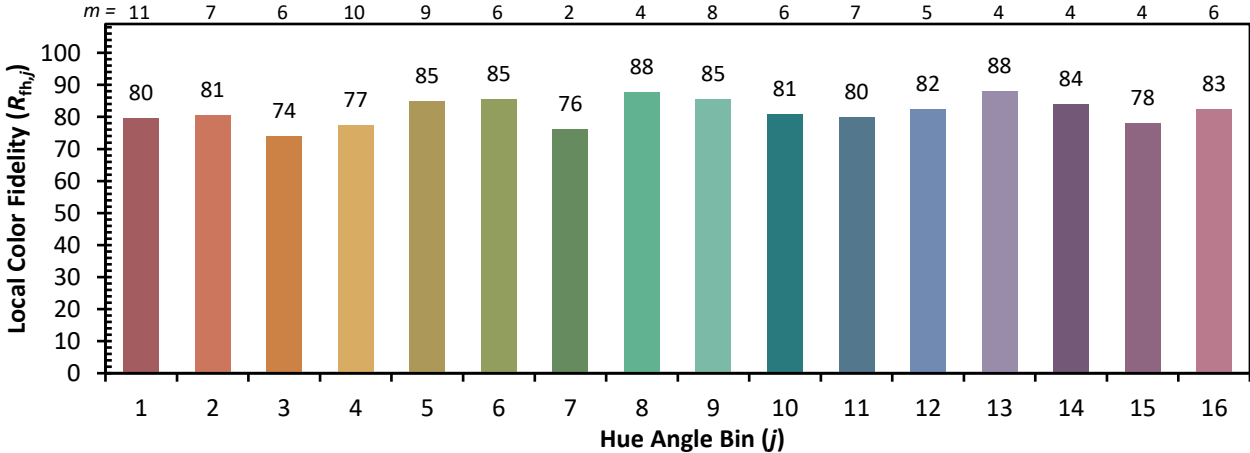


Individual Sample Fidelity Index ($R_{f,i}$)

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)