

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: P641945

Luminaire Tested: GWS-SA6B-830-U-SLL-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P641945
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-SA6B-830-U-SLL-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (96) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13091.7 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G2

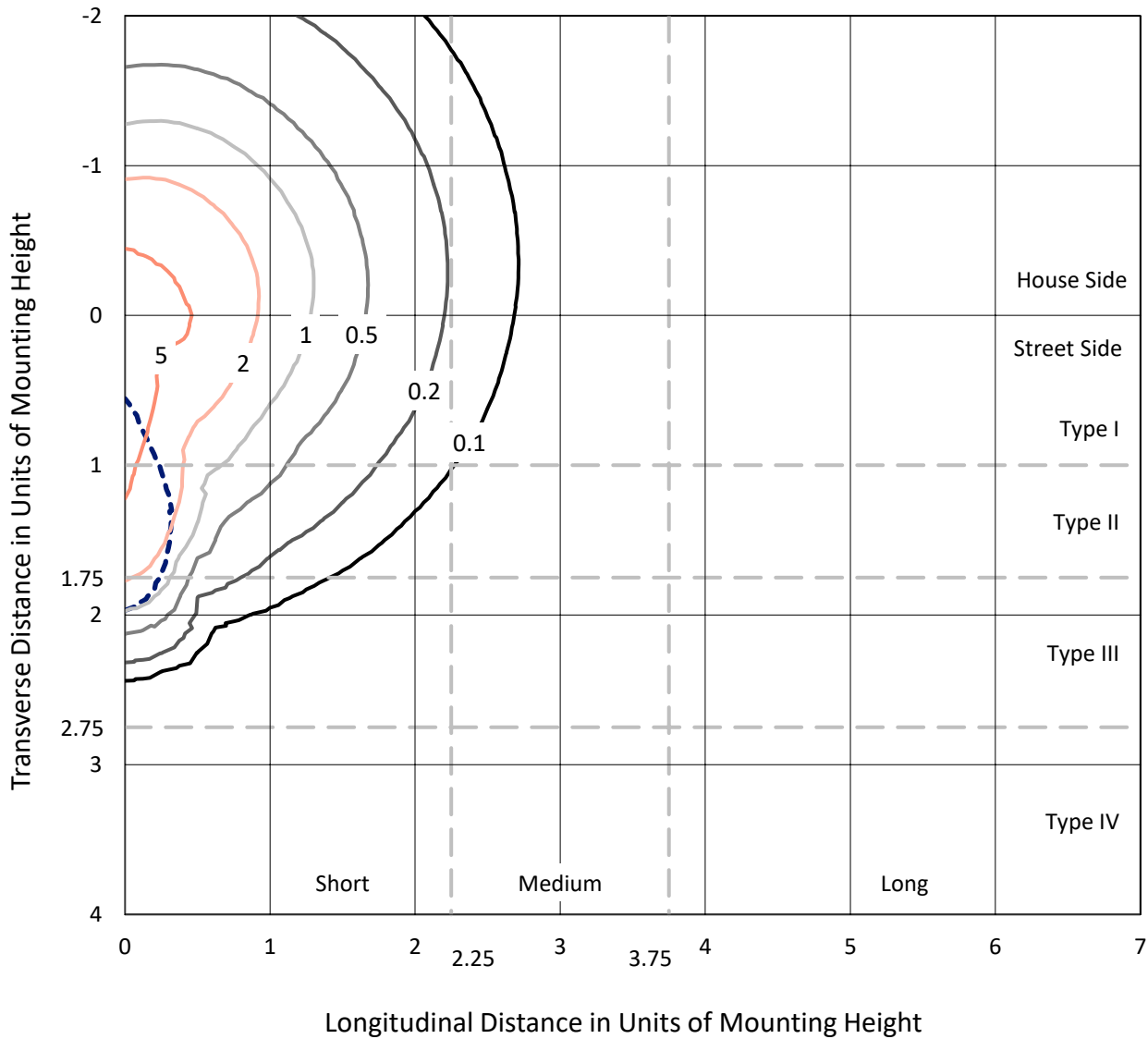
Input Watts (W): 138.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

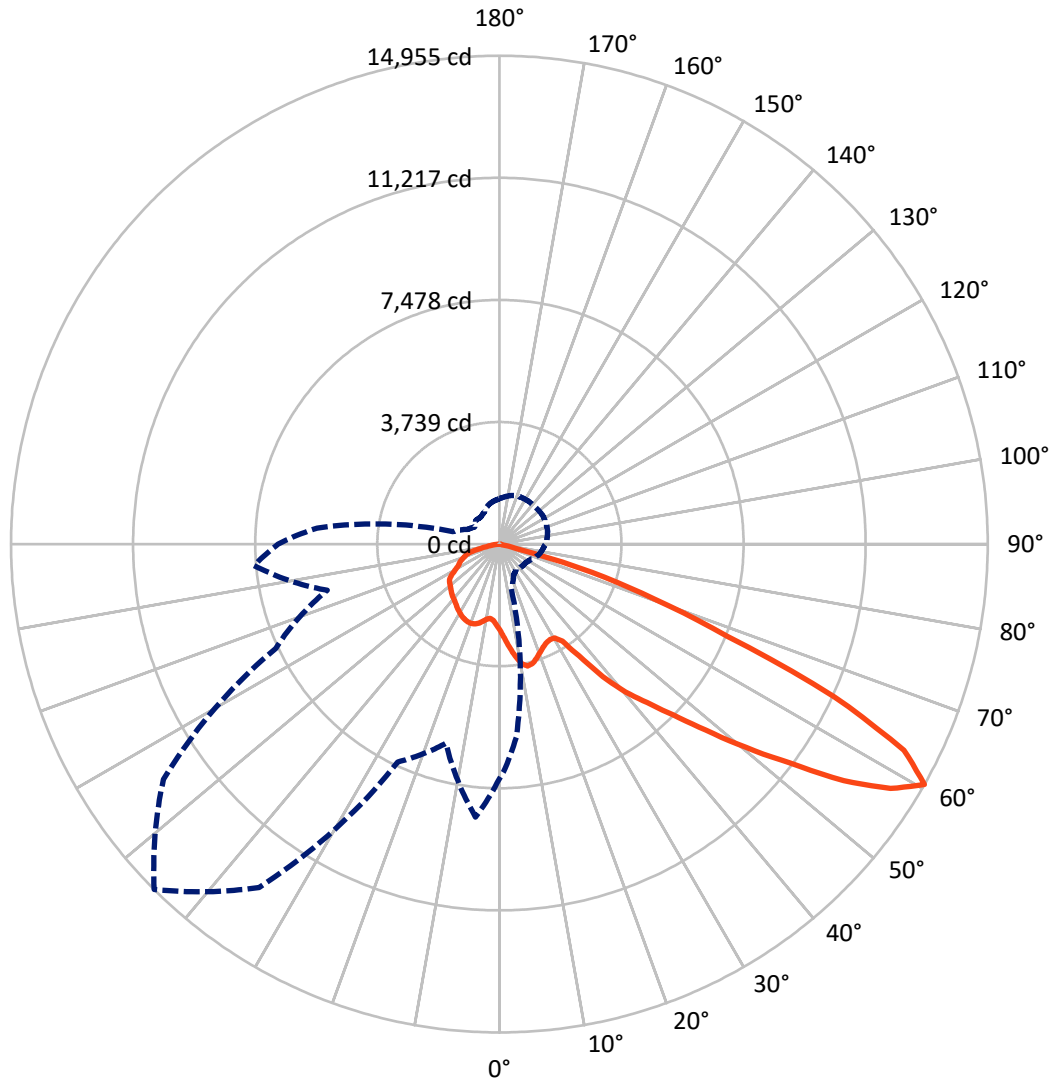
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8 fc
 Type III - Short - N/A

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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	4478.6	0.0	4478.6
	% Fixture	34.2	0.0	34.2
Street Side	Lumens	8613.1	0.0	8613.1
	% Fixture	65.8	0.0	65.8
Total	Lumens	13091.7	0.0	13091.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.0	2.0
10°-20°	827.4	6.3
20°-30°	1347.6	10.3
30°-40°	1893.1	14.5
40°-50°	2590.4	19.8
50°-60°	3323.4	25.4
60°-70°	2237.8	17.1
70°-80°	559.5	4.3
80°-90°	54.5	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°	13091.7	100.0
0°-180°	13091.7	100.0

Coefficient of Utilization



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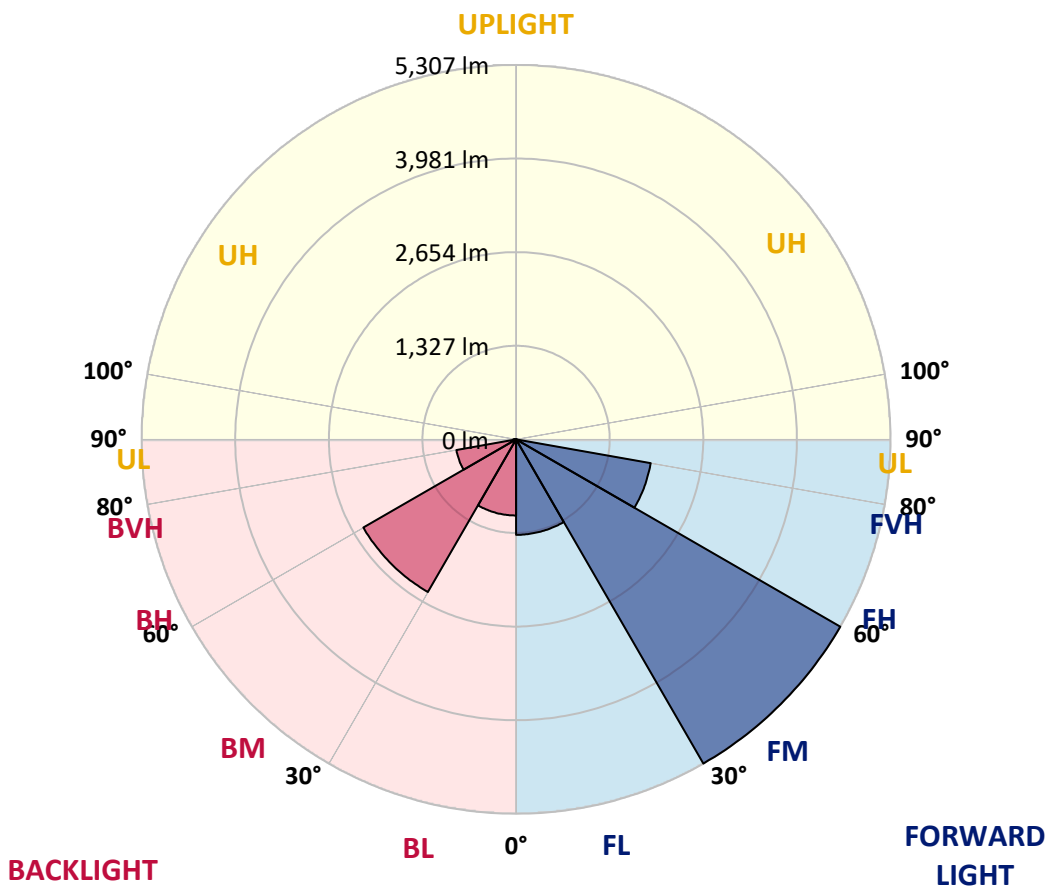
CATALOG NUMBER: GWS-SA6B-830-U-SLL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1353.4	10.3			
FM (30°-60°)	5307.5	40.5			
FH (60°-80°)	1938.1	14.8			G2/5000
FVH (80°-90°)	14.2	0.1			G1/100
BL (0°-30°)	1079.6	8.2	B3/2500		
BM (30°-60°)	2499.4	19.1	B2/2500		
BH (60°-80°)	859.2	6.6	B2/1000		G2/1000
BVH (80°-90°)	40.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5
2.5°	2793.6	2787.6	2781.5	2734.5	2722.4	2688.7	2664.6	2634.4	2591.0	2566.9	2546.4
5°	2968.4	2958.8	2926.2	2829.7	2767.1	2698.3	2641.7	2579.0	2512.7	2469.2	2435.5
7.5°	3133.6	3131.2	3075.7	2916.6	2815.3	2716.4	2639.3	2547.6	2452.4	2387.3	2343.9
10°	3286.7	3268.6	3202.3	2994.9	2862.3	2749.0	2665.8	2564.5	2453.6	2365.6	2307.7
12.5°	3421.7	3398.8	3307.2	3067.3	2903.3	2763.4	2673.0	2589.8	2516.3	2442.7	2376.4
15°	3532.7	3504.9	3412.1	3134.8	2939.5	2755.0	2628.4	2563.3	2588.6	2621.2	2547.6
17.5°	3636.4	3607.4	3494.1	3184.2	2950.3	2703.2	2518.7	2491.0	2618.8	2767.1	2733.3
20°	3723.2	3690.6	3559.2	3208.3	2931.0	2604.3	2376.4	2424.6	2593.4	2770.7	2824.9
22.5°	3817.2	3790.7	3632.7	3243.3	2906.9	2468.0	2257.0	2375.2	2550.0	2705.6	2787.6
25°	3967.9	3935.4	3747.3	3304.8	2894.9	2340.2	2171.4	2327.0	2489.7	2630.8	2694.7
27.5°	4186.1	4125.9	3904.0	3412.1	2908.1	2219.7	2117.2	2267.9	2419.8	2540.4	2592.2
30°	4423.7	4351.3	4077.6	3523.0	2927.4	2146.1	2088.3	2200.4	2312.5	2433.1	2489.7
32.5°	4704.6	4640.7	4263.3	3606.2	2886.4	2112.4	2066.5	2126.8	2216.1	2312.5	2359.5
35°	5039.8	4925.2	4465.9	3673.7	2753.8	2062.9	2047.3	2046.1	2093.1	2187.1	2240.2
37.5°	5400.3	5277.3	4715.4	3746.1	2547.6	1984.6	2001.4	1950.8	1994.2	2069.0	2129.2
40°	5695.7	5566.7	4967.4	3844.9	2289.6	1861.6	1900.2	1845.9	1872.4	1949.6	2017.1
42.5°	5985.0	5847.6	5202.5	3957.1	2040.0	1741.0	1760.3	1739.8	1748.2	1829.0	1923.1
45°	6364.8	6210.5	5491.9	4036.6	1815.8	1645.8	1627.7	1592.7	1637.3	1742.2	1842.3
47.5°	6999.0	6814.5	5965.7	4088.5	1653.0	1591.5	1508.3	1487.8	1543.3	1660.2	1763.9
50°	7740.5	7581.4	6722.9	4086.1	1531.2	1545.7	1392.6	1374.5	1466.1	1584.3	1694.0
52.5°	8348.2	8186.6	7370.4	3965.5	1431.2	1448.0	1325.1	1274.4	1399.8	1509.5	1619.2
55°	8838.9	8656.8	7668.2	3461.5	1304.6	1292.5	1251.5	1158.7	1316.6	1434.8	1537.3
57.5°	8574.9	8357.8	7307.7	2632.0	1174.3	1098.4	1124.9	1056.2	1203.3	1351.6	1450.4
60°	7189.5	6994.2	5936.8	1401.0	1033.3	917.5	973.0	983.8	1079.1	1251.5	1352.8
62.5°	4938.5	4796.2	4023.4	850.0	815.0	736.7	823.5	901.9	973.0	1118.9	1206.9
65°	2416.2	2374.0	2012.3	545.0	570.3	595.6	682.4	777.7	882.6	1010.4	1103.2
67.5°	665.5	670.4	610.1	425.6	449.7	519.7	588.4	664.3	769.2	887.4	981.4
70°	293.0	297.8	307.5	327.9	373.8	437.7	508.8	587.2	683.6	782.5	872.9
72.5°	203.8	208.6	223.1	249.6	290.6	350.9	418.4	493.1	593.2	676.4	751.1
75°	125.4	129.0	142.3	165.2	192.9	238.7	305.0	373.8	461.8	537.7	604.0
77.5°	66.3	63.9	72.3	88.0	112.1	136.2	180.9	224.3	287.0	348.4	403.9
80°	36.2	35.0	39.8	48.2	55.5	74.8	104.9	133.8	170.0	205.0	235.1
82.5°	15.7	14.5	15.7	20.5	25.3	36.2	53.1	73.5	94.0	118.2	137.4
85°	0.0	0.0	0.0	1.2	6.0	9.6	18.1	26.5	38.6	53.1	65.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	10.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5
2.5°	2534.4	2504.2	2501.8	2477.7	2480.1	2481.3	2457.2	2447.5	2456.0	2465.6	2460.8
5°	2423.4	2392.1	2378.8	2355.9	2353.5	2342.7	2333.0	2320.9	2329.4	2337.8	2342.7
7.5°	2327.0	2306.5	2298.0	2292.0	2294.4	2289.6	2270.3	2259.5	2258.3	2261.9	2266.7
10°	2295.6	2278.8	2289.6	2306.5	2318.5	2327.0	2306.5	2288.4	2271.5	2264.3	2264.3
12.5°	2363.1	2341.4	2363.1	2381.2	2405.3	2411.4	2388.5	2369.2	2363.1	2370.4	2384.9
15°	2512.7	2462.0	2460.8	2471.7	2491.0	2500.6	2478.9	2469.2	2469.2	2515.1	2551.2
17.5°	2662.2	2579.0	2544.0	2538.0	2550.0	2553.6	2535.6	2527.1	2548.8	2638.0	2705.6
20°	2767.1	2665.8	2589.8	2575.3	2579.0	2580.2	2565.7	2559.7	2591.0	2699.5	2756.2
22.5°	2756.2	2681.5	2588.6	2570.5	2576.6	2574.1	2560.9	2558.5	2583.8	2677.8	2704.4
25°	2681.5	2623.6	2545.2	2533.2	2542.8	2541.6	2528.3	2522.3	2533.2	2595.8	2598.3
27.5°	2595.8	2545.2	2477.7	2474.1	2489.7	2498.2	2475.3	2457.2	2453.6	2495.8	2486.1
30°	2493.4	2456.0	2401.7	2404.1	2433.1	2437.9	2410.2	2383.6	2376.4	2399.3	2386.1
32.5°	2371.6	2359.5	2330.6	2336.6	2364.4	2374.0	2345.1	2317.3	2308.9	2316.1	2288.4
35°	2267.9	2263.1	2265.5	2276.3	2300.5	2307.7	2283.6	2261.9	2249.8	2224.5	2188.3
37.5°	2160.6	2173.9	2208.8	2229.3	2242.6	2240.2	2226.9	2211.2	2191.9	2144.9	2100.3
40°	2060.5	2094.3	2157.0	2179.9	2184.7	2185.9	2176.3	2163.0	2138.9	2076.2	2025.6
42.5°	1983.4	2020.7	2103.9	2138.9	2141.3	2143.7	2134.1	2123.2	2089.5	2006.3	1956.8
45°	1902.6	1952.0	2049.7	2091.9	2089.5	2088.3	2079.8	2075.0	2035.2	1938.7	1884.5
47.5°	1833.9	1891.7	1996.6	2032.8	2031.6	2030.4	2024.4	2024.4	1984.6	1879.7	1818.2
50°	1766.3	1832.6	1942.4	1972.5	1974.9	1972.5	1970.1	1973.7	1926.7	1814.6	1754.3
52.5°	1692.8	1767.5	1882.1	1909.8	1924.3	1930.3	1930.3	1921.9	1866.4	1749.5	1683.1
55°	1612.0	1683.1	1815.8	1853.1	1865.2	1876.1	1876.1	1859.2	1807.3	1689.2	1618.0
57.5°	1511.9	1574.6	1679.5	1716.9	1745.8	1753.1	1753.1	1725.3	1683.1	1569.8	1511.9
60°	1403.4	1457.7	1528.8	1568.6	1590.3	1575.8	1586.7	1579.5	1545.7	1440.8	1392.6
62.5°	1258.7	1314.2	1392.6	1433.6	1443.2	1428.7	1443.2	1442.0	1396.2	1302.1	1244.3
65°	1155.0	1209.3	1286.5	1339.5	1355.2	1351.6	1361.2	1346.8	1290.1	1200.9	1145.4
67.5°	1032.1	1089.9	1179.2	1238.2	1270.8	1274.4	1287.7	1257.5	1199.7	1102.0	1032.1
70°	915.1	964.6	1033.3	1088.7	1134.6	1157.5	1159.9	1116.5	1044.1	963.3	912.7
72.5°	792.1	842.8	926.0	986.3	1044.1	1070.7	1070.7	1017.6	939.2	850.0	795.8
75°	642.6	689.7	765.6	830.7	897.0	930.8	929.6	883.8	797.0	712.6	655.9
77.5°	435.3	470.2	518.4	567.9	577.5	604.0	617.3	559.4	511.2	465.4	414.8
80°	253.2	274.9	301.4	329.2	335.2	343.6	321.9	300.2	274.9	244.8	221.8
82.5°	148.3	162.8	176.0	197.7	201.3	203.8	184.5	174.8	154.3	136.2	121.8
85°	72.3	77.2	89.2	100.1	95.2	92.8	84.4	74.8	66.3	59.1	51.8
87.5°	14.5	14.5	21.7	20.5	16.9	14.5	8.4	10.9	2.4	2.4	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°	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5
2.5°	2476.5	2497.0	2522.3	2556.1	2594.6	2635.6	2675.4	2705.6	2735.7	2780.3	2773.1
5°	2349.9	2384.9	2424.6	2476.5	2539.2	2610.3	2689.9	2769.5	2855.1	2927.4	2958.8
7.5°	2276.3	2314.9	2361.9	2429.5	2510.2	2597.1	2709.2	2838.2	2976.8	3072.1	3131.2
10°	2276.3	2325.8	2387.3	2452.4	2523.5	2612.7	2751.4	2912.9	3091.4	3216.8	3285.5
12.5°	2407.8	2457.2	2470.5	2468.0	2507.8	2606.7	2785.1	2991.3	3204.7	3337.3	3421.7
15°	2612.7	2629.6	2529.5	2437.9	2443.9	2563.3	2800.8	3054.0	3302.4	3461.5	3553.2
17.5°	2750.2	2705.6	2527.1	2366.8	2333.0	2489.7	2800.8	3114.3	3406.1	3585.7	3671.3
20°	2761.0	2650.1	2465.6	2298.0	2211.2	2392.1	2781.5	3160.1	3506.1	3705.1	3796.7
22.5°	2665.8	2556.1	2400.5	2239.0	2111.2	2273.9	2750.2	3195.1	3591.7	3817.2	3930.5
25°	2557.3	2465.6	2334.2	2178.7	2042.4	2154.6	2721.2	3254.2	3711.1	3969.1	4083.7
27.5°	2451.2	2374.0	2254.6	2128.0	2003.9	2050.9	2703.2	3341.0	3853.4	4184.9	4283.8
30°	2347.5	2277.5	2169.0	2079.8	1983.4	1983.4	2687.5	3441.0	4041.5	4427.3	4526.2
32.5°	2242.6	2176.3	2088.3	2032.8	1971.3	1956.8	2644.1	3535.1	4235.6	4692.5	4793.8
35°	2144.9	2078.6	2011.1	1988.2	1965.3	1936.3	2536.8	3608.6	4424.9	5002.4	5089.2
37.5°	2053.3	1989.4	1938.7	1932.7	1935.1	1880.9	2368.0	3670.1	4661.2	5319.5	5365.3
40°	1973.7	1902.6	1862.8	1861.6	1873.6	1791.7	2154.6	3758.1	4931.3	5588.4	5569.1
42.5°	1902.6	1827.8	1779.6	1790.4	1783.2	1702.4	1946.0	3838.9	5166.4	5840.4	5801.8
45°	1832.6	1760.3	1692.8	1708.5	1700.0	1647.0	1768.7	3898.0	5426.8	6143.0	6147.8
47.5°	1765.1	1694.0	1626.5	1607.2	1606.0	1630.1	1632.5	3917.3	5851.2	6630.1	6520.4
50°	1702.4	1631.3	1561.4	1496.3	1521.6	1596.3	1531.2	3902.8	6486.6	7167.8	6861.6
52.5°	1637.3	1569.8	1492.6	1375.7	1442.0	1515.5	1440.8	3851.0	6874.8	7642.9	7459.6
55°	1562.6	1498.7	1393.8	1251.5	1332.3	1348.0	1348.0	3349.4	7040.0	8113.1	8226.4
57.5°	1462.5	1378.1	1211.7	1097.2	1169.5	1109.2	1249.1	2343.9	6767.5	7964.8	8404.9
60°	1349.2	1258.7	1082.7	1000.7	1022.4	916.3	1064.6	1469.7	5608.9	6777.2	7539.2
62.5°	1199.7	1116.5	970.6	906.7	862.1	747.5	857.2	929.6	3844.9	5032.5	5552.2
65°	1099.6	1008.0	877.7	793.3	701.7	601.6	569.1	610.1	2067.8	2816.5	3167.3
67.5°	981.4	891.0	768.0	661.9	588.4	516.0	459.4	444.9	708.9	938.0	1015.2
70°	869.3	782.5	680.0	581.1	507.6	436.5	381.0	341.2	327.9	325.5	320.7
72.5°	754.8	674.0	588.4	496.7	416.0	350.9	301.4	255.6	236.3	230.3	224.3
75°	618.5	554.6	469.0	370.1	305.0	244.8	206.2	176.0	159.2	153.1	145.9
77.5°	397.9	368.9	294.2	238.7	184.5	145.9	125.4	106.1	95.2	92.8	86.8
80°	212.2	197.7	162.8	137.4	109.7	89.2	78.4	67.5	61.5	59.1	56.7
82.5°	118.2	107.3	90.4	79.6	63.9	54.3	48.2	43.4	39.8	38.6	37.4
85°	53.1	45.8	36.2	33.8	30.1	27.7	26.5	24.1	22.9	21.7	20.5
87.5°	2.4	4.8	6.0	4.8	4.8	7.2	8.4	8.4	7.2	7.2	6.0
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: P641945

CATALOG NUMBER: GWS-SA6B-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5	2640.5
2.5°	2817.7	2853.9	2857.5	2869.5	2853.9	2850.2	2824.9	2810.5	2797.2	2793.6
5°	3037.1	3109.5	3138.4	3158.9	3139.6	3130.0	3074.5	3016.6	2984.1	2968.4
7.5°	3262.6	3371.1	3427.8	3453.1	3455.5	3412.1	3316.8	3208.3	3154.1	3133.6
10°	3463.9	3597.8	3672.5	3720.8	3703.9	3650.8	3520.6	3373.5	3304.8	3286.7
12.5°	3613.4	3741.2	3799.1	3830.5	3829.3	3800.3	3677.3	3518.2	3439.8	3421.7
15°	3709.9	3785.9	3789.5	3796.7	3817.2	3855.8	3791.9	3644.8	3558.0	3532.7
17.5°	3785.9	3755.7	3699.1	3679.8	3725.6	3832.9	3871.5	3752.1	3658.1	3636.4
20°	3834.1	3682.2	3582.1	3544.7	3597.8	3772.6	3919.7	3848.6	3750.9	3723.2
22.5°	3871.5	3613.4	3451.9	3426.6	3482.0	3707.5	3969.1	3963.1	3855.8	3817.2
25°	3930.5	3567.6	3360.3	3342.2	3394.0	3676.1	4035.4	4118.6	4023.4	3967.9
27.5°	4023.4	3562.8	3313.2	3307.2	3378.3	3703.9	4130.7	4346.5	4227.1	4186.1
30°	4152.4	3608.6	3324.1	3336.1	3422.9	3803.9	4279.0	4606.9	4487.6	4423.7
32.5°	4338.1	3731.6	3489.3	3541.1	3605.0	3964.3	4496.0	4889.1	4798.6	4704.6
35°	4582.8	4069.2	3977.6	4198.2	4137.9	4315.2	4757.6	5231.5	5121.8	5039.8
37.5°	4909.6	4761.3	4845.7	5149.5	5003.6	4978.3	5077.2	5542.5	5482.3	5400.3
40°	5367.7	5397.9	5553.4	5952.5	5741.5	5578.7	5469.0	5776.5	5796.9	5695.7
42.5°	5671.6	5810.2	6185.2	6638.5	6347.9	5958.5	5796.9	6075.5	6076.7	5985.0
45°	5784.9	6147.8	6931.5	7453.6	6967.7	6175.5	5977.8	6481.8	6469.7	6364.8
47.5°	5743.9	6432.3	7706.8	8504.9	7763.4	6329.9	5952.5	7060.5	7158.2	6999.0
50°	5658.3	6718.1	8612.2	9792.6	8740.0	6493.8	5913.9	7701.9	7863.5	7740.5
52.5°	5745.1	7036.4	9682.9	11123.7	9965.0	6755.5	6174.3	8525.4	8496.5	8348.2
55°	6020.0	7412.6	10983.8	12796.0	11310.6	7198.0	6843.5	9310.3	9016.1	8838.9
57.5°	6006.7	7681.4	12124.4	14118.6	12481.3	7560.9	7076.2	9393.5	8799.1	8574.9
60°	5452.1	7558.5	12558.4	14955.4	12834.5	7360.7	6310.6	8390.4	7424.6	7189.5
62.5°	4069.2	6707.2	11716.9	13907.6	11835.0	6357.6	4745.6	6022.4	5335.2	4938.5
65°	2603.1	5247.2	9850.5	11267.2	9755.2	4862.5	2826.1	3228.8	2529.5	2416.2
67.5°	1108.0	3703.9	7657.3	7530.7	7298.0	3150.5	1091.1	909.1	677.6	665.5
70°	366.5	2519.9	4720.3	5022.9	4358.6	2170.2	360.5	305.0	303.8	293.0
72.5°	239.9	1352.8	2657.3	2958.8	2804.4	1249.1	218.2	203.8	208.6	203.8
75°	143.5	294.2	447.3	581.1	447.3	209.8	131.4	129.0	131.4	125.4
77.5°	84.4	82.0	79.6	79.6	78.4	72.3	66.3	63.9	65.1	66.3
80°	54.3	51.8	49.4	48.2	42.2	39.8	37.4	35.0	35.0	36.2
82.5°	35.0	32.6	30.1	26.5	21.7	18.1	16.9	14.5	14.5	15.7
85°	18.1	14.5	10.9	8.4	4.8	2.4	0.0	0.0	0.0	0.0
87.5°	3.6	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

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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)