

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P861205

Luminaire Tested: **8APVTLD-SL3C3 HI POWER 5000K 120V**

Issue Date: 1/11/2023



Test Information

Test Method: LM-79-08
Report Number: P861205
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (NTCLR22090026)
Test Lab: INNOVATION CENTER
Issue Date: 1/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 8APVTLD-SL3C3 HI POWER 5000K 120V
Description: HI POWER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

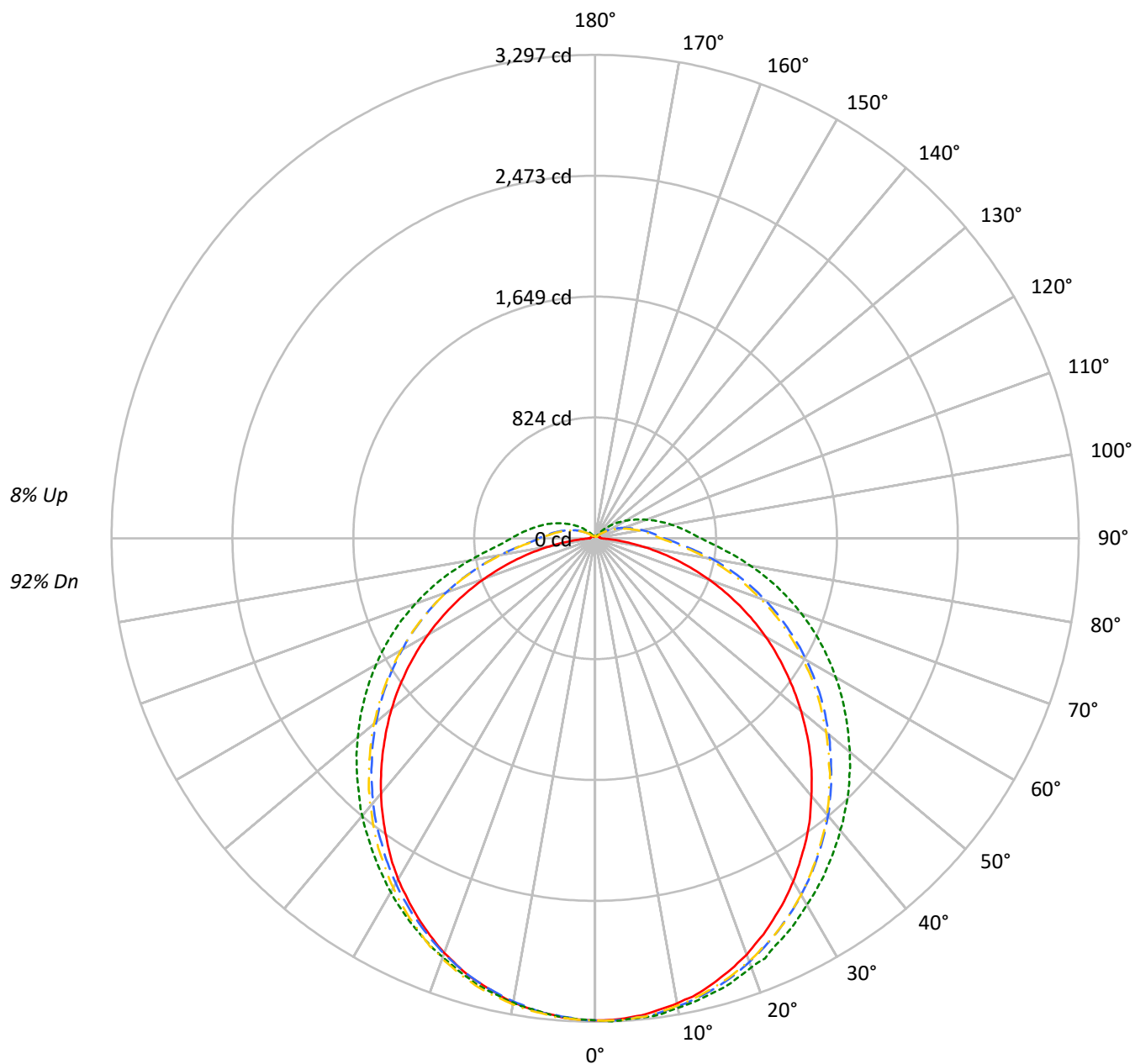
Lumens per Lamp: N/A
Luminaire Lumens: 11200.1 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.28 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 8' x H: 0.08')
CIE Type: Direct

Input Watts (W): 94
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

Luminous Intensity Polar Plot





TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20
RC	80					70					50					30					10
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	117	117	117	117		114	114	114	114		107	107	107		101	101	101		95	95	95
1	105	100	95	91		102	97	92	88		91	87	84		86	83	80		81	79	76
2	95	86	79	72		92	84	77	71		79	73	68		74	70	65		70	66	63
3	86	75	66	60		83	73	65	59		69	62	57		65	59	55		62	57	53
4	79	66	57	50		76	64	56	49		61	54	48		58	51	46		55	49	45
5	72	59	50	43		70	57	49	42		54	47	41		52	45	40		49	43	39
6	67	53	44	37		64	52	43	37		49	41	36		47	40	35		44	39	34
7	62	48	39	33		60	47	38	32		45	37	32		42	36	31		40	35	30
8	58	44	35	29		56	43	34	29		41	33	28		39	32	28		37	31	27
9	54	40	32	26		52	39	31	26		37	30	25		36	29	25		34	29	24
10	50	37	29	24		49	36	29	23		35	28	23		33	27	22		32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13274	13274	13274	13274
5°	13244	13026	13212	12955
10°	13176	12770	13152	12625
15°	13076	12523	13023	12317
20°	12930	12257	12874	11967
25°	12720	12023	12663	11659
30°	12518	11760	12443	11349
35°	12268	11538	12154	11037
40°	11981	11322	11862	10760
45°	11709	11151	11548	10486
50°	11370	10976	11231	10221
55°	11003	10792	10872	9969
60°	10643	10658	10442	9714
65°	10157	10548	9899	9443
70°	9513	10452	9220	9123
75°	8642	10376	8263	8766
80°	7370	10340	6894	8334
85°	5794	10526	5202	8194



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.0	2.8
10°-20°	889.2	7.9
20°-30°	1345.3	12.0
30°-40°	1625.7	14.5
40°-50°	1711.3	15.3
50°-60°	1607.2	14.4
60°-70°	1340.9	12.0
70°-80°	957.6	8.5
80°-90°	564.3	5.0
90°-100°	353.1	3.2
100°-110°	232.9	2.1
110°-120°	138.4	1.2
120°-130°	71.7	0.6
130°-140°	29.1	0.3
140°-150°	10.7	0.1
150°-160°	6.2	0.1
160°-170°	4.0	0.0
170°-180°	1.4	0.0
0°-30°	2545.5	22.7
0°-40°	4171.2	37.2
0°-60°	7489.7	66.9
0°-90°	10352.5	92.4
90°-120°	724.4	6.5
90°-150°	835.9	7.5
90°-180°	848.0	7.6
0°-180°	11200.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3288	3288	3288	3288	3288	
5°	3272	3285	3264	3267	3272	311
15°	3138	3197	3125	3145	3138	885
25°	2870	3014	2857	2923	2870	1323
35°	2508	2751	2484	2632	2508	1568
45°	2073	2442	2044	2296	2073	1597
55°	1587	2081	1568	1922	1587	1420
65°	1087	1696	1060	1519	1087	1075
75°	576	1286	550	1086	576	609
85°	140	877	126	682	140	155
90°	42	722	38	573	42	26
95°	36	619	33	492	36	29
105°	30	448	29	359	30	33
115°	26	301	25	238	26	26
125°	21	183	20	140	21	19
135°	17	91	14	61	17	13
145°	14	23	11	18	14	9
155°	12	13	11	14	12	6
165°	14	13	15	13	14	4
175°	16	13	18	12	16	1
180°	16	16	16	16	16	



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3288.4	3288.4	3288.4	3288.4	3288.4	3288.4	3288.4	3288.4	3288.4	3288.4	3288.4
1°	3288.2	3293.6	3288.4	3289.6	3291.5	3290.9	3291.1	3288.2	3286.7	3287.6	3287.8
2°	3286.7	3291.5	3291.3	3291.5	3296.7	3289.9	3289.2	3287.3	3283.8	3283.6	3281.5
3°	3282.3	3290.3	3288.8	3285.5	3293.6	3288.8	3290.5	3283.4	3280.3	3278.2	3273.6
4°	3277.7	3289.7	3284.0	3284.6	3287.3	3283.6	3288.0	3275.3	3275.0	3273.4	3270.7
5°	3271.5	3285.7	3280.5	3278.0	3285.1	3280.7	3280.1	3272.5	3263.6	3270.2	3259.6
6°	3265.9	3277.1	3277.3	3276.9	3282.8	3276.1	3280.1	3266.9	3256.9	3260.0	3258.1
7°	3252.9	3268.6	3273.0	3269.6	3282.1	3269.2	3268.4	3256.5	3249.6	3250.6	3247.9
8°	3241.7	3260.2	3261.9	3267.5	3274.6	3264.8	3260.9	3246.9	3238.9	3239.8	3232.5
9°	3232.3	3242.5	3252.7	3258.4	3262.1	3258.3	3248.1	3239.6	3226.2	3227.9	3219.1
10°	3220.6	3227.5	3240.8	3250.0	3252.9	3247.7	3236.7	3222.2	3214.7	3212.0	3207.8
11°	3206.0	3221.6	3231.4	3238.9	3242.7	3237.9	3225.4	3212.2	3199.3	3195.1	3193.0
12°	3195.3	3204.1	3218.1	3228.7	3233.7	3225.0	3212.0	3194.5	3180.5	3176.8	3176.1
13°	3178.6	3188.9	3205.4	3216.8	3221.4	3212.2	3197.4	3175.1	3160.9	3155.3	3160.1
14°	3157.2	3168.8	3189.9	3202.8	3209.1	3201.4	3180.7	3158.2	3143.6	3133.2	3144.6
15°	3137.7	3152.6	3174.9	3190.3	3197.4	3182.8	3165.7	3139.4	3125.2	3117.1	3125.0
16°	3115.2	3133.4	3156.7	3173.2	3186.8	3166.1	3147.1	3120.0	3107.9	3095.0	3105.4
17°	3093.5	3113.3	3139.2	3157.6	3170.9	3153.6	3131.3	3092.9	3084.5	3072.2	3083.5
18°	3070.1	3096.4	3120.2	3139.2	3149.6	3136.1	3110.4	3072.9	3058.7	3049.5	3061.0
19°	3045.1	3067.8	3097.5	3121.5	3132.9	3119.6	3087.9	3046.8	3032.6	3026.1	3037.2
20°	3021.5	3042.0	3074.3	3103.7	3113.1	3098.1	3070.1	3026.3	3008.4	3002.8	3014.8
21°	2990.0	3015.9	3052.0	3087.0	3099.1	3078.7	3048.0	3003.4	2980.6	2972.9	2986.7
22°	2961.6	2994.8	3027.8	3063.1	3090.4	3062.2	3021.3	2979.0	2948.9	2943.5	2961.4
23°	2935.1	2963.7	3003.6	3038.0	3058.7	3038.4	3000.2	2942.4	2919.5	2913.9	2931.6
24°	2904.0	2934.7	2978.1	3020.1	3034.7	3013.4	2977.1	2919.1	2888.0	2886.1	2904.1
25°	2870.0	2907.8	2953.7	2995.9	3014.2	2991.5	2951.4	2891.3	2857.1	2855.2	2874.2
26°	2837.7	2877.8	2923.9	2975.0	2991.7	2966.9	2926.2	2859.4	2823.1	2821.0	2846.7
27°	2808.1	2848.6	2896.3	2945.8	2968.3	2942.4	2898.8	2826.0	2790.1	2788.2	2814.3
28°	2772.6	2811.6	2868.8	2922.6	2941.2	2918.5	2867.7	2790.3	2752.6	2752.2	2783.5
29°	2737.3	2780.1	2840.8	2896.3	2914.1	2893.0	2837.9	2756.3	2721.1	2719.0	2751.5
30°	2701.9	2747.8	2808.5	2869.4	2887.2	2860.9	2808.7	2724.4	2685.6	2682.2	2717.7
31°	2663.3	2712.5	2777.8	2841.3	2862.7	2837.7	2775.3	2684.8	2645.9	2647.0	2683.5
32°	2624.3	2678.5	2746.5	2812.0	2837.3	2807.4	2741.7	2650.1	2609.8	2612.4	2647.8
33°	2584.2	2636.1	2716.1	2782.2	2808.9	2780.9	2708.3	2614.0	2568.9	2576.7	2614.2
34°	2546.8	2601.3	2680.8	2752.2	2783.0	2753.6	2674.9	2577.9	2526.4	2534.5	2576.7
35°	2507.8	2563.9	2645.9	2722.3	2751.3	2719.8	2641.4	2537.4	2484.5	2493.0	2538.7
36°	2467.8	2526.4	2613.0	2692.1	2722.1	2686.8	2602.6	2496.5	2442.7	2453.8	2505.5
37°	2427.9	2488.4	2576.5	2661.0	2693.9	2657.6	2568.7	2459.6	2400.8	2415.0	2469.8
38°	2383.9	2446.1	2543.5	2628.4	2661.4	2621.7	2534.5	2416.6	2358.6	2376.0	2433.3
39°	2337.1	2404.3	2506.6	2595.9	2634.1	2586.5	2493.4	2376.6	2315.2	2336.1	2395.1
40°	2293.7	2362.6	2470.7	2564.4	2599.4	2557.3	2457.7	2336.5	2270.8	2291.9	2353.8
41°	2248.9	2325.7	2433.8	2534.1	2572.7	2524.1	2420.8	2291.7	2227.0	2253.0	2315.0
42°	2206.7	2282.3	2393.1	2500.5	2536.2	2489.0	2381.8	2250.8	2181.3	2207.8	2274.1



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	2072.6	2159.0	2276.0	2396.0	2441.7	2388.9	2265.2	2119.1	2044.0	2075.5	2151.4
46°	2025.4	2114.5	2236.6	2359.9	2408.1	2355.3	2214.9	2076.9	1997.9	2030.4	2114.5
47°	1977.2	2066.7	2198.4	2322.3	2370.1	2317.1	2181.5	2030.6	1951.5	1984.3	2075.7
48°	1929.4	2025.0	2156.4	2289.6	2339.4	2280.0	2135.2	1987.4	1905.2	1939.6	2033.6
49°	1881.2	1977.6	2120.3	2255.1	2300.2	2243.9	2096.3	1941.1	1859.2	1891.4	1991.6
50°	1833.1	1932.6	2081.1	2214.2	2268.7	2204.8	2055.2	1896.5	1810.7	1844.8	1947.4
51°	1784.3	1885.0	2038.1	2179.2	2228.4	2165.6	2011.2	1850.3	1764.1	1799.5	1904.8
52°	1735.4	1842.6	1997.5	2146.2	2191.9	2126.2	1969.1	1803.3	1715.4	1750.1	1866.6
53°	1686.3	1795.4	1958.6	2108.4	2156.6	2089.3	1929.6	1756.1	1665.5	1705.1	1822.5
54°	1636.7	1747.3	1915.8	2068.8	2119.9	2051.7	1888.0	1711.4	1616.1	1658.6	1779.7
55°	1586.7	1701.8	1875.7	2031.2	2081.1	2014.4	1845.1	1664.4	1567.9	1611.6	1735.0
56°	1538.3	1652.7	1833.8	1994.5	2044.8	1974.7	1799.4	1614.3	1517.4	1562.3	1691.5
57°	1489.4	1606.4	1791.3	1953.8	2008.5	1937.8	1762.1	1566.0	1466.9	1515.3	1649.5
58°	1441.7	1559.0	1748.9	1915.2	1969.9	1895.9	1718.5	1518.1	1416.8	1467.5	1605.8
59°	1392.9	1512.4	1706.5	1874.6	1933.2	1857.4	1672.2	1472.6	1367.2	1419.3	1563.0
60°	1342.1	1463.7	1664.2	1835.8	1891.9	1815.2	1629.4	1423.2	1316.8	1373.4	1516.7
61°	1290.5	1418.1	1619.5	1795.4	1855.6	1775.1	1590.2	1376.9	1265.3	1324.7	1477.2
62°	1241.0	1369.8	1579.9	1754.1	1816.8	1736.5	1547.6	1329.7	1214.4	1276.1	1433.3
63°	1190.4	1322.9	1532.6	1714.9	1777.4	1695.3	1501.3	1283.0	1162.0	1228.3	1388.4
64°	1138.3	1276.9	1490.8	1673.3	1739.9	1654.3	1460.4	1233.5	1111.8	1180.2	1344.3
65°	1087.2	1228.9	1448.1	1634.8	1696.4	1610.6	1416.2	1186.0	1059.6	1132.0	1298.1
66°	1036.3	1181.0	1404.6	1593.6	1660.6	1570.3	1372.9	1139.8	1009.0	1083.6	1256.7
67°	984.4	1134.8	1362.0	1549.7	1617.5	1529.3	1328.6	1092.1	957.8	1036.8	1212.8
68°	932.7	1086.2	1319.0	1508.5	1578.2	1487.5	1285.1	1045.0	905.7	989.9	1168.0
69°	881.1	1041.4	1276.4	1465.7	1534.9	1446.0	1241.4	996.7	854.5	942.9	1124.4
70°	829.1	994.1	1234.4	1425.3	1494.0	1403.4	1197.4	950.2	803.6	895.7	1080.3
71°	777.2	946.4	1189.8	1380.8	1451.5	1362.0	1153.8	905.2	749.7	848.7	1035.0
72°	727.0	899.8	1151.4	1340.0	1410.0	1318.9	1109.7	859.4	700.5	802.6	993.7
73°	677.4	854.4	1106.0	1296.0	1369.4	1278.4	1066.9	812.6	651.1	756.3	950.8
74°	625.4	808.1	1065.2	1250.0	1325.9	1234.6	1022.6	766.7	600.4	711.6	906.4
75°	575.7	763.8	1020.7	1208.5	1286.1	1193.9	980.9	721.3	550.4	666.5	863.4
76°	524.7	717.9	978.0	1166.0	1242.4	1150.6	938.9	676.3	501.2	622.9	819.2
77°	476.1	675.3	935.4	1124.6	1199.9	1109.6	897.1	632.2	452.3	579.7	777.4
78°	427.5	632.0	892.6	1082.4	1157.3	1066.9	853.4	588.2	404.2	538.4	736.7
79°	381.5	590.1	851.8	1041.5	1117.1	1026.7	814.8	548.3	358.6	496.1	698.0
80°	335.8	548.2	808.7	998.9	1075.5	985.0	771.6	506.1	314.1	456.8	656.8
81°	292.3	507.0	768.1	959.9	1033.8	946.1	733.0	466.7	272.0	418.3	618.9
82°	249.8	469.9	728.9	919.6	993.3	907.6	692.6	426.4	230.2	381.7	582.3
83°	211.1	431.6	688.4	880.7	954.3	867.7	655.4	391.0	192.2	347.5	548.5
84°	174.1	396.4	650.1	841.5	914.8	831.0	617.6	354.6	157.6	315.0	515.5
85°	140.0	362.1	614.5	803.1	876.7	795.0	584.3	322.1	125.7	284.1	484.9
86°	109.3	328.1	580.4	767.3	843.2	761.7	553.1	291.5	97.3	256.5	457.4
87°	84.2	297.5	549.3	731.9	806.8	727.7	521.1	263.5	73.0	231.3	432.2



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	41.7	231.7	472.8	645.5	722.2	643.3	445.7	201.5	38.5	186.2	384.3
91°	39.7	216.7	453.0	623.7	695.2	619.9	428.2	188.3	37.0	175.7	369.5
92°	38.7	205.1	435.8	605.5	676.2	601.7	412.6	178.1	36.0	165.4	356.1
93°	37.5	192.9	420.6	588.4	656.7	583.3	398.2	167.9	35.0	155.9	342.8
94°	36.8	182.5	406.0	569.6	637.3	565.6	383.9	157.8	34.1	147.2	329.7
95°	36.1	172.4	392.3	553.0	618.9	548.3	370.6	147.9	33.0	138.9	316.4
96°	35.5	162.6	376.9	536.6	599.1	531.4	356.1	139.2	32.3	130.4	304.1
97°	34.6	153.3	362.4	520.1	581.8	514.7	343.1	130.4	31.8	122.5	292.1
98°	34.1	144.1	348.5	503.9	564.1	497.9	330.1	122.5	31.0	115.0	280.4
99°	33.6	136.4	335.7	488.2	546.6	481.1	317.0	114.8	30.3	107.6	269.9
100°	33.1	128.7	320.9	472.3	529.6	465.3	304.5	108.2	30.1	100.8	258.5
101°	32.6	121.5	308.0	457.1	512.6	449.5	291.8	100.9	29.9	94.5	248.1
102°	32.1	114.2	295.5	441.3	496.1	434.4	279.0	94.3	29.7	88.3	236.4
103°	31.8	107.2	283.7	424.6	479.4	420.1	267.8	88.2	29.4	82.9	226.6
104°	31.3	101.1	271.9	408.9	462.0	404.7	254.5	82.4	29.2	77.5	216.2
105°	30.5	94.9	260.7	395.2	448.0	390.4	244.5	76.8	28.9	72.3	206.6
106°	30.3	88.8	249.1	380.2	431.3	375.2	232.7	71.6	28.9	67.1	197.6
107°	30.1	83.7	238.0	364.9	416.7	361.0	222.9	66.7	27.9	62.1	188.2
108°	29.5	77.9	227.8	351.9	399.9	346.5	211.5	61.6	27.6	57.3	178.7
109°	28.8	72.8	217.1	337.8	386.8	333.4	202.6	57.1	27.3	53.4	170.0
110°	28.3	67.8	207.2	324.4	370.3	319.0	192.0	53.1	27.1	49.2	161.2
111°	28.0	62.8	197.3	311.5	357.2	306.9	182.5	48.7	27.1	45.3	153.2
112°	27.6	58.4	187.7	297.9	342.3	294.1	172.9	44.6	26.3	41.3	145.0
113°	27.3	54.6	178.4	285.5	327.8	281.6	164.3	41.0	26.3	37.9	137.0
114°	26.6	50.2	169.1	273.1	315.4	269.0	155.5	37.3	26.1	34.7	129.4
115°	25.9	46.3	160.4	261.0	300.8	256.4	147.3	34.2	25.1	31.4	121.7
116°	25.6	42.7	151.8	248.5	288.9	244.7	138.8	30.9	24.8	28.6	114.0
117°	25.3	38.9	143.4	237.3	275.0	233.8	131.0	28.5	24.4	26.2	107.4
118°	24.8	35.8	135.3	226.8	263.1	222.5	123.0	25.9	24.1	23.8	100.1
119°	24.3	32.7	127.8	215.6	250.7	211.4	115.4	24.2	23.6	23.8	93.7
120°	23.9	30.0	119.8	204.6	239.7	201.0	108.0	24.0	23.4	23.5	86.8
121°	23.3	28.2	112.6	194.4	227.5	189.7	100.6	23.3	23.1	22.3	79.9
122°	22.8	27.5	105.3	183.9	217.2	179.8	93.8	23.2	22.1	22.0	74.2
123°	21.9	27.0	98.3	174.7	204.1	169.8	86.6	22.8	21.2	21.5	67.8
124°	21.1	26.7	91.2	164.5	194.7	159.7	80.1	21.8	20.7	21.0	61.7
125°	20.8	26.0	84.3	154.7	183.2	150.1	73.5	21.7	20.2	20.8	56.3
126°	20.2	25.5	78.0	145.9	173.5	141.0	67.3	21.0	19.6	20.8	51.0
127°	19.9	25.0	71.5	136.5	163.1	132.2	61.2	20.8	19.1	20.3	46.2
128°	19.6	24.3	65.5	127.9	153.8	123.7	55.8	21.0	18.2	19.8	40.9
129°	19.3	23.6	59.4	119.4	143.6	114.3	50.4	20.0	17.7	19.0	36.0
130°	18.7	23.3	54.2	110.6	135.4	106.6	45.5	19.5	16.9	18.6	31.7
131°	18.2	22.8	48.8	102.6	125.0	98.3	40.1	18.8	16.4	18.3	27.0
132°	17.7	22.3	43.5	94.2	117.3	90.9	35.6	18.5	15.7	17.8	23.2



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	16.7	20.9	29.8	72.1	91.0	68.7	22.9	17.2	14.1	16.3	16.1
136°	16.4	20.6	25.7	65.2	82.8	61.5	19.4	16.8	13.7	15.8	15.5
137°	16.1	19.9	22.6	58.5	74.9	55.2	18.2	16.3	13.4	15.6	15.1
138°	15.9	19.6	21.4	52.7	67.2	49.6	17.2	16.2	13.2	15.6	14.5
139°	15.6	19.1	20.9	46.2	60.1	43.5	16.5	15.5	13.1	15.3	14.0
140°	15.2	18.8	20.2	40.7	53.6	37.9	16.2	15.2	13.2	14.6	13.3
141°	14.7	18.1	19.9	35.1	46.8	32.5	15.7	15.2	12.7	13.9	13.1
142°	14.7	17.9	19.3	30.0	40.4	27.5	15.3	14.3	12.4	13.6	12.8
143°	14.7	17.4	18.8	25.3	34.7	22.9	14.8	13.8	11.9	13.4	12.1
144°	14.4	17.3	18.5	21.2	28.6	19.1	14.2	13.5	11.2	13.2	11.9
145°	13.9	16.8	18.0	19.9	23.3	16.8	13.8	13.3	11.0	13.2	11.6
146°	13.7	16.3	17.7	19.2	18.7	16.3	13.7	13.0	11.0	13.2	11.4
147°	13.7	15.9	17.3	18.9	16.4	15.9	13.7	13.2	11.0	13.1	11.4
148°	13.2	15.6	17.0	18.6	15.9	15.9	13.3	13.0	11.0	13.1	11.4
149°	13.1	15.1	16.5	18.2	15.6	15.8	13.3	12.7	11.0	13.0	11.4
150°	12.9	14.9	16.1	17.5	15.6	15.8	13.2	12.7	11.0	13.0	11.4
151°	12.6	14.6	16.0	17.4	15.1	15.4	13.0	12.8	11.0	12.9	11.3
152°	12.5	14.6	15.9	17.2	14.6	14.6	13.0	12.9	10.9	12.9	11.3
153°	12.4	14.1	15.8	16.9	13.9	14.2	13.0	13.0	10.9	12.9	11.3
154°	12.5	14.1	15.7	16.5	13.7	13.9	13.0	13.1	10.9	12.9	11.3
155°	12.5	14.1	15.6	16.4	13.0	13.7	13.0	13.2	10.9	12.9	11.3
156°	12.6	14.1	15.5	16.2	13.0	13.2	13.0	13.3	10.9	12.9	11.3
157°	12.7	14.1	15.5	15.9	12.9	13.4	13.0	13.4	10.9	12.9	11.3
158°	12.7	14.2	15.4	16.0	12.9	13.0	13.0	13.5	11.2	12.9	11.3
159°	12.8	14.2	15.4	15.4	12.8	12.7	13.0	13.7	11.2	13.1	11.3
160°	12.9	14.2	15.4	15.4	12.8	12.7	13.0	13.8	11.6	13.2	11.3
161°	12.9	14.3	15.4	15.5	12.8	12.7	13.1	13.9	12.2	13.6	12.1
162°	13.1	14.3	15.3	15.2	12.8	12.7	13.1	14.0	13.1	14.2	13.0
163°	13.2	14.4	15.3	15.0	12.8	12.7	13.2	14.5	13.9	14.6	13.6
164°	13.4	14.5	15.3	14.7	12.8	12.7	13.3	14.8	14.4	14.7	14.0
165°	14.0	14.5	15.3	14.8	12.7	12.7	13.4	15.2	14.9	14.9	14.5
166°	14.4	14.6	15.3	14.5	12.7	12.6	13.4	15.3	15.4	15.1	15.1
167°	14.9	15.3	15.2	14.5	12.7	12.6	13.5	15.7	16.1	15.4	15.7
168°	15.4	15.3	15.2	14.3	12.7	12.6	13.6	15.7	16.4	15.9	16.5
169°	15.4	15.6	15.2	14.3	12.7	12.6	13.6	15.7	16.9	15.9	17.0
170°	15.5	15.4	15.2	14.2	12.7	12.6	13.5	15.7	17.2	15.9	17.7
171°	15.5	15.8	15.1	14.0	12.6	12.6	13.5	15.7	17.2	15.9	18.3
172°	15.5	15.6	15.1	13.8	12.6	12.6	13.5	15.7	17.7	15.9	18.5
173°	15.6	16.1	15.1	13.3	12.6	12.6	13.4	16.0	17.9	15.8	18.5
174°	15.6	15.9	15.0	13.0	12.6	12.6	13.4	16.2	18.1	15.8	18.7
175°	15.7	16.3	14.9	13.0	12.6	12.6	13.4	16.2	18.2	15.8	18.5
176°	15.7	16.6	14.9	12.8	12.6	12.5	13.4	16.2	18.4	15.8	18.3
177°	15.7	16.8	14.8	12.8	12.5	12.5	13.3	16.2	18.6	15.8	18.0

TEST NUMBER: P861205
CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3288.4	3288.4	3288.4	3288.4	3288.4	3288.4
1°	3284.6	3284.2	3289.6	3288.2	3289.4	3288.2
2°	3278.4	3283.8	3287.6	3285.7	3286.7	3286.7
3°	3275.9	3275.5	3280.7	3280.3	3282.5	3282.3
4°	3269.4	3273.8	3277.3	3278.2	3275.3	3277.7
5°	3264.4	3267.3	3272.7	3276.7	3267.5	3271.5
6°	3255.4	3257.7	3262.5	3262.9	3259.6	3265.9
7°	3249.6	3245.8	3255.0	3256.1	3251.3	3252.9
8°	3238.3	3237.9	3246.0	3251.0	3241.5	3241.7
9°	3227.5	3229.3	3232.5	3240.0	3229.8	3232.3
10°	3211.0	3216.0	3220.0	3227.7	3214.1	3220.6
11°	3198.1	3205.4	3208.5	3214.5	3199.7	3206.0
12°	3188.2	3187.4	3200.1	3200.5	3182.4	3195.3
13°	3175.1	3175.3	3185.5	3190.3	3166.3	3178.6
14°	3156.7	3159.0	3169.9	3173.4	3147.6	3157.2
15°	3138.4	3144.8	3153.2	3155.9	3128.2	3137.7
16°	3117.1	3122.9	3135.5	3136.3	3107.5	3115.2
17°	3100.2	3104.6	3118.6	3117.5	3082.9	3093.5
18°	3076.6	3081.0	3096.2	3094.1	3065.6	3070.1
19°	3055.1	3060.7	3077.2	3070.8	3035.3	3045.1
20°	3033.8	3039.3	3051.2	3050.7	3013.6	3021.5
21°	3011.7	3019.4	3029.3	3021.1	2985.0	2990.0
22°	2985.6	2997.3	3005.9	3002.7	2957.7	2961.6
23°	2963.1	2973.7	2985.4	2971.7	2928.3	2935.1
24°	2934.7	2947.9	2960.6	2942.6	2901.5	2904.0
25°	2912.2	2923.0	2931.0	2910.1	2868.4	2870.0
26°	2879.6	2898.8	2899.9	2883.2	2834.2	2837.7
27°	2852.9	2870.7	2870.5	2851.5	2801.6	2808.1
28°	2825.6	2844.0	2847.5	2819.8	2764.7	2772.6
29°	2797.8	2816.8	2813.7	2787.6	2728.8	2737.3
30°	2766.1	2786.4	2785.7	2752.1	2695.2	2701.9
31°	2740.3	2757.4	2754.5	2719.4	2660.5	2663.3
32°	2704.0	2724.6	2721.3	2680.6	2625.1	2624.3
33°	2674.1	2694.8	2691.4	2645.5	2585.9	2584.2
34°	2642.8	2663.3	2657.8	2611.5	2547.0	2546.8
35°	2611.3	2631.8	2621.7	2577.7	2508.4	2507.8
36°	2574.0	2600.2	2589.0	2538.5	2468.0	2467.8
37°	2537.7	2566.7	2556.0	2500.9	2427.5	2427.9
38°	2505.5	2535.6	2523.9	2461.9	2386.2	2383.9
39°	2475.7	2505.9	2490.3	2419.6	2344.6	2337.1
40°	2445.0	2470.5	2453.4	2383.9	2300.2	2293.7
41°	2403.5	2439.0	2419.3	2344.6	2257.2	2248.9
42°	2369.7	2399.1	2385.5	2305.4	2214.2	2206.7



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	2258.1	2296.2	2274.3	2179.4	2081.3	2072.6
46°	2224.1	2260.3	2235.3	2136.4	2031.2	2025.4
47°	2187.9	2224.0	2199.0	2095.5	1988.9	1977.2
48°	2150.2	2189.4	2158.7	2053.6	1942.4	1929.4
49°	2110.3	2150.0	2119.5	2011.8	1896.2	1881.2
50°	2072.6	2112.6	2077.6	1968.5	1850.6	1833.1
51°	2036.9	2075.5	2040.0	1923.2	1802.7	1784.3
52°	1992.4	2037.9	1999.1	1879.8	1753.5	1735.4
53°	1953.2	2001.4	1961.4	1837.5	1706.8	1686.3
54°	1914.3	1960.7	1917.8	1791.2	1659.1	1636.7
55°	1875.2	1922.3	1879.5	1748.3	1611.0	1586.7
56°	1834.0	1884.3	1838.0	1703.7	1565.3	1538.3
57°	1794.0	1845.4	1797.4	1659.4	1516.2	1489.4
58°	1751.4	1804.7	1754.8	1616.3	1467.6	1441.7
59°	1710.8	1765.6	1711.9	1573.5	1419.8	1392.9
60°	1666.2	1724.3	1671.7	1527.0	1371.6	1342.1
61°	1623.7	1684.0	1628.2	1483.9	1322.2	1290.5
62°	1580.9	1643.8	1585.1	1436.2	1276.6	1241.0
63°	1538.9	1602.3	1541.8	1394.0	1229.2	1190.4
64°	1497.5	1560.5	1499.3	1348.0	1180.2	1138.3
65°	1452.6	1518.7	1457.3	1301.9	1132.3	1087.2
66°	1413.1	1476.2	1412.5	1256.4	1084.6	1036.3
67°	1369.2	1435.1	1368.3	1213.2	1037.2	984.4
68°	1328.0	1387.8	1327.7	1167.1	987.0	932.7
69°	1286.0	1346.9	1283.3	1122.5	939.5	881.1
70°	1242.4	1304.0	1241.0	1078.9	894.3	829.1
71°	1198.9	1259.6	1197.3	1033.0	844.9	777.2
72°	1158.3	1218.4	1155.5	989.9	798.8	727.0
73°	1114.9	1172.2	1110.2	943.9	752.0	677.4
74°	1070.1	1130.9	1067.8	899.5	707.6	625.4
75°	1027.7	1086.5	1025.5	856.2	661.3	575.7
76°	982.0	1041.7	983.5	812.8	615.6	524.7
77°	939.5	996.3	941.5	770.6	572.6	476.1
78°	899.1	951.2	897.8	731.0	529.1	427.5
79°	858.9	909.2	857.5	689.6	488.3	381.5
80°	820.5	866.9	816.9	650.9	447.7	335.8
81°	782.1	825.5	776.6	613.3	408.8	292.3
82°	745.4	786.7	739.5	576.4	372.2	249.8
83°	711.2	750.3	701.1	542.0	337.1	211.1
84°	678.0	715.5	666.2	507.5	303.3	174.1
85°	647.0	682.5	633.7	476.3	271.0	140.0
86°	619.2	655.1	605.0	449.4	243.8	109.3
87°	592.6	629.6	579.8	423.7	219.2	84.2



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	538.5	572.8	523.5	370.0	169.7	41.7
91°	522.1	555.8	506.9	356.8	159.7	39.7
92°	507.0	538.8	490.4	343.6	149.4	38.7
93°	490.9	522.6	475.3	330.1	140.9	37.5
94°	475.6	506.8	460.0	316.2	133.2	36.8
95°	459.2	491.5	445.2	303.6	125.2	36.1
96°	444.4	477.6	431.4	291.9	116.9	35.5
97°	429.0	462.7	417.3	281.2	110.0	34.6
98°	415.1	448.8	403.4	270.4	103.2	34.1
99°	400.4	435.3	389.8	259.8	96.6	33.6
100°	386.6	421.9	376.0	249.0	90.8	33.1
101°	373.7	407.9	362.6	237.7	85.3	32.6
102°	359.0	396.2	349.8	227.8	79.9	32.1
103°	346.4	383.1	338.1	218.2	74.5	31.8
104°	332.4	371.0	326.7	208.1	69.6	31.3
105°	319.7	358.7	315.4	198.5	65.0	30.5
106°	307.6	346.7	303.5	188.7	60.3	30.3
107°	295.2	334.6	290.8	179.7	56.2	30.1
108°	283.0	321.9	278.3	170.5	52.9	29.5
109°	271.6	309.1	267.1	162.1	49.2	28.8
110°	258.8	297.2	255.9	154.0	45.4	28.3
111°	248.3	285.4	244.7	146.0	42.5	28.0
112°	237.3	273.0	234.0	138.2	38.9	27.6
113°	226.9	261.8	223.7	130.5	36.1	27.3
114°	216.4	249.7	213.4	123.2	33.6	26.6
115°	206.3	238.4	203.5	115.9	31.1	25.9
116°	196.0	227.8	193.6	109.2	29.5	25.6
117°	187.1	217.3	183.2	102.1	29.0	25.3
118°	176.7	207.2	173.6	95.6	28.5	24.8
119°	167.2	196.8	164.4	89.1	28.1	24.3
120°	158.3	186.6	155.3	82.8	27.6	23.9
121°	148.5	176.9	146.7	76.8	27.1	23.3
122°	140.5	167.4	138.2	70.8	27.0	22.8
123°	131.6	158.1	129.4	65.2	26.3	21.9
124°	123.6	148.8	121.3	59.4	26.0	21.1
125°	115.8	140.0	113.5	54.6	25.6	20.8
126°	107.3	131.3	105.5	49.4	25.0	20.2
127°	99.5	122.7	97.7	44.5	24.7	19.9
128°	92.1	114.1	90.5	39.8	24.0	19.6
129°	84.0	105.8	83.1	35.4	23.5	19.3
130°	77.6	97.7	75.8	31.3	22.8	18.7
131°	70.2	90.0	69.1	27.5	22.3	18.2
132°	63.2	82.5	62.3	24.2	21.7	17.7



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	45.1	61.2	44.8	21.1	20.3	16.7
136°	39.3	55.1	39.3	20.8	19.7	16.4
137°	34.0	48.9	34.1	20.3	19.3	16.1
138°	28.7	43.1	29.3	19.7	18.8	15.9
139°	23.7	37.2	24.7	19.1	18.2	15.6
140°	19.1	31.9	20.8	18.7	17.7	15.2
141°	15.8	26.8	18.8	18.2	17.3	14.7
142°	14.9	22.2	18.5	17.9	17.0	14.7
143°	14.5	19.0	17.9	17.5	16.5	14.7
144°	13.8	18.0	17.6	17.1	16.2	14.4
145°	13.7	17.5	17.4	16.4	15.7	13.9
146°	13.2	17.1	16.9	16.2	15.5	13.7
147°	13.2	16.8	16.6	15.4	15.2	13.7
148°	13.0	16.3	16.3	15.2	14.8	13.2
149°	12.7	16.1	16.1	14.9	14.6	13.1
150°	12.5	15.6	15.9	14.7	14.2	12.9
151°	11.7	15.3	15.6	14.5	14.2	12.6
152°	11.3	14.9	15.2	14.2	13.7	12.5
153°	10.8	14.6	14.9	14.0	13.3	12.4
154°	10.3	14.4	14.9	14.0	13.4	12.5
155°	10.5	14.1	14.6	14.0	13.4	12.5
156°	10.6	13.9	14.2	14.0	13.4	12.6
157°	10.7	13.8	14.2	14.0	13.4	12.7
158°	10.8	13.7	14.1	14.0	13.4	12.7
159°	10.9	13.5	14.0	14.0	13.5	12.8
160°	11.1	13.4	14.0	14.0	13.5	12.9
161°	11.2	13.2	13.9	14.0	13.7	12.9
162°	11.3	13.0	13.7	14.0	14.0	13.1
163°	11.6	12.9	13.6	14.0	14.5	13.2
164°	11.8	12.9	13.5	14.0	15.2	13.4
165°	12.1	12.7	13.5	14.0	15.3	14.0
166°	12.5	12.5	13.5	14.0	15.8	14.4
167°	12.6	12.5	13.5	14.1	16.5	14.9
168°	12.8	12.4	13.5	14.1	16.8	15.4
169°	13.0	12.5	13.5	14.1	17.7	15.4
170°	13.2	12.4	13.5	14.2	18.0	15.5
171°	13.3	12.4	13.5	14.3	18.2	15.5
172°	14.0	12.3	13.4	15.2	18.3	15.5
173°	14.7	12.3	13.4	15.7	18.3	15.6
174°	15.0	12.3	13.4	15.9	18.5	15.6
175°	14.8	12.2	13.4	16.2	18.3	15.7
176°	14.8	12.2	13.4	16.4	18.3	15.7
177°	14.8	12.2	13.4	16.5	18.3	15.7



TEST NUMBER: P861205

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 120V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	15.7	15.7	15.7	15.7	15.7	15.7



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°







43°	2163.1	2241.0	2355.3	2465.3	2507.0	2455.9	2336.1	2206.3	2136.8	2164.6	2234.3
44°	2117.0	2200.7	2317.9	2428.7	2475.1	2423.7	2303.5	2165.0	2090.7	2121.6	2197.1



88°	64.6	271.7	520.8	699.9	777.6	697.4	493.0	238.4	56.4	213.4	413.4
89°	49.5	250.3	495.0	671.7	746.0	666.1	466.7	217.5	44.4	197.4	397.6



133°	17.4	21.9	38.9	87.1	107.5	83.0	31.1	18.0	15.0	17.3	19.4
134°	17.1	21.3	34.0	79.3	99.2	75.4	26.6	17.8	14.6	16.8	16.8



178°	15.7	16.8	14.8	12.8	12.7	12.7	13.3	16.2	18.6	15.8	17.5
179°	15.7	16.8	14.8	12.8	12.7	13.0	13.3	16.2	18.6	15.8	17.0





43°	2330.0	2363.6	2348.8	2262.6	2167.3	2163.1
44°	2295.6	2330.0	2310.4	2219.0	2126.6	2117.0



88°	571.7	607.4	558.3	402.9	199.6	64.6
89°	554.3	589.6	540.3	385.4	182.5	49.5



133°	56.8	75.3	56.5	22.4	21.3	17.4
134°	51.1	67.8	50.6	21.6	20.6	17.1



178°	14.8	12.0	13.4	16.4	18.3	15.7
179°	14.8	12.9	13.4	16.4	18.7	15.7



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

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

METALUX

Report Number: SP1-2210-820-18

Test Date: 11/11/2022

Luminaire Tested: 4APVTLD-SL3C3

Data in this report applies to families of products including 4APVTLD-SL3C3.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2210-820-18
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/11/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: METALUX
 Catalog Number: **4APVTLD-SL3C3**
 Description: METALUX

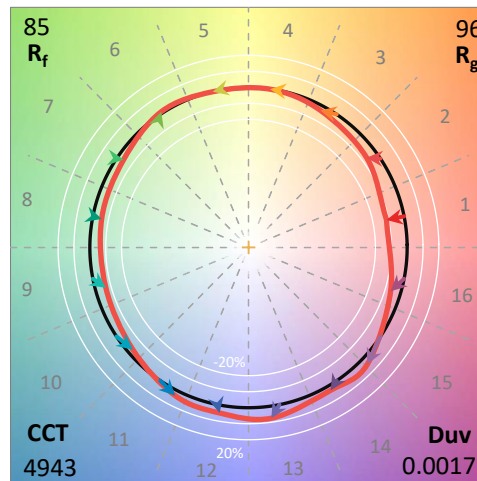
0.1699(@277V) [AT MAX POWER AND 5000K]

Spectral Parameters

CCT (K): 4943
 CIE u' : 0.2108
 CIE v' : 0.4873
 Duv: 0.0017
 CIE x: 0.3470
 CIE y: 0.3564
 CIE z: 0.2966
 Peak Wavelength (nm): 452
 Dominant Wavelength (nm): 571
 Purity: 11.1

CRI (Ra): 85.1
 R1: 83.6
 R2: 91.2
 R3: 95.3
 R4: 83.2
 R5: 83.4
 R6: 86.5
 R7: 88.0
 R8: 69.5
 R9: 16.8
 R10: 78.4
 R11: 82.6
 R12: 60.5
 R13: 86.0
 R14: 97.8

Rf: 85.4
 Rg: 95.7



Test Conditions

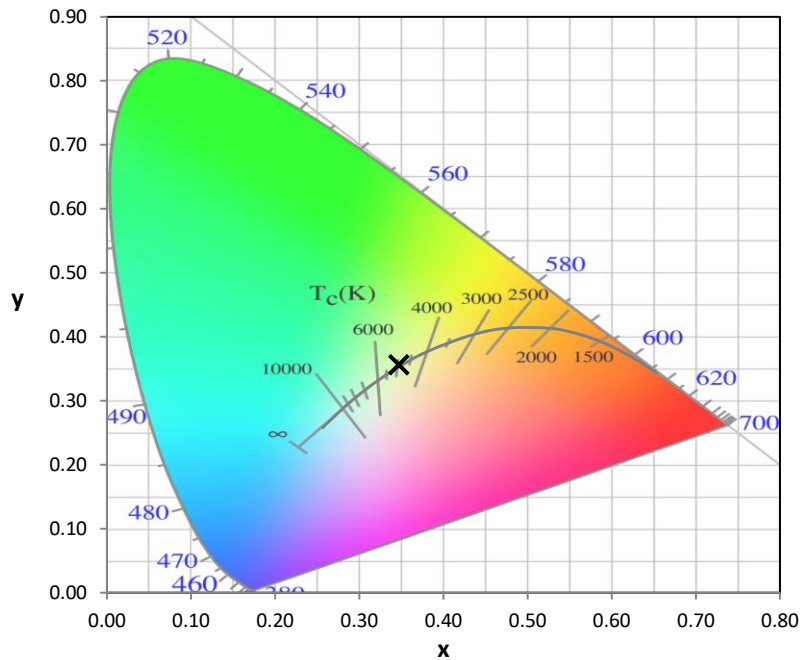
Stabilization Time: 70M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.0/52%
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2210-820-18

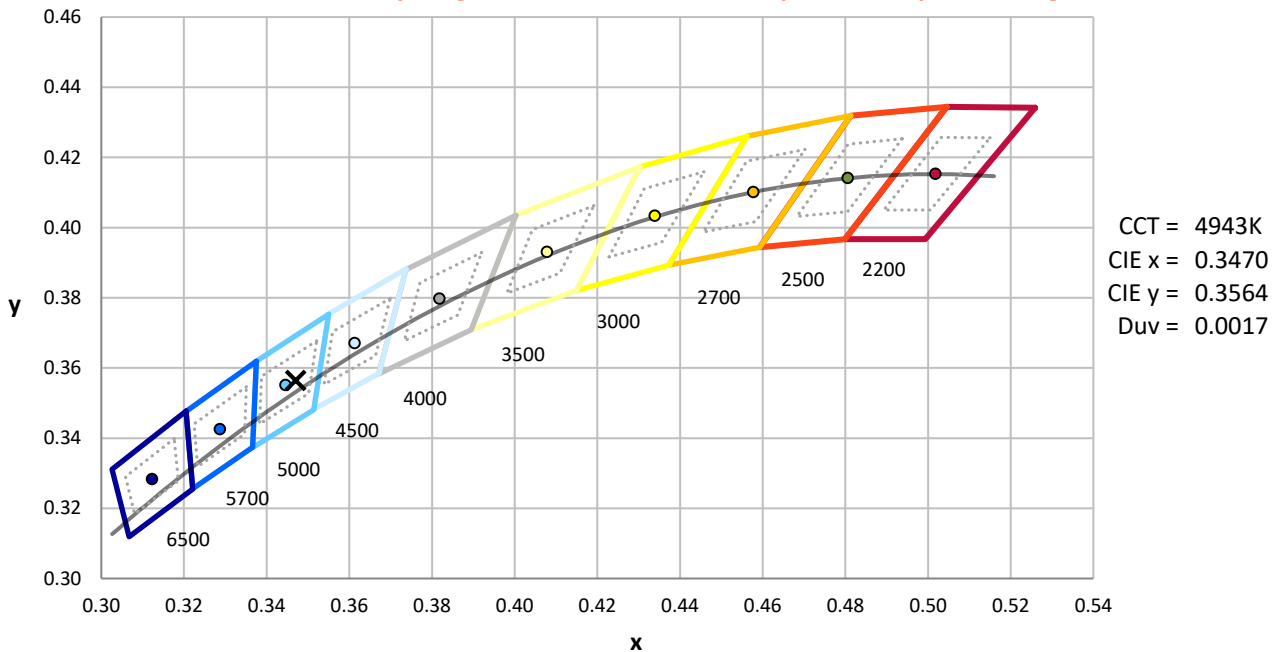
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	8/8/2022	2/8/2023
Power Meter	XITRON 2801 IN0071	11/29/2021	11/29/2022
AC Power Source	CHROMA 61603 IN0063	11/29/2021	11/29/2022
DC Power Source	AGILENT E3634A IN0208	11/29/2021	11/29/2022
Sphere Thermometer	ONSET IN0085	11/29/2021	11/29/2022
Room Thermometer	ONSET IN0046	11/29/2021	11/29/2022

REPORT NUMBER: SP1-2210-820-18

CIE 1931 Chromaticity Diagram



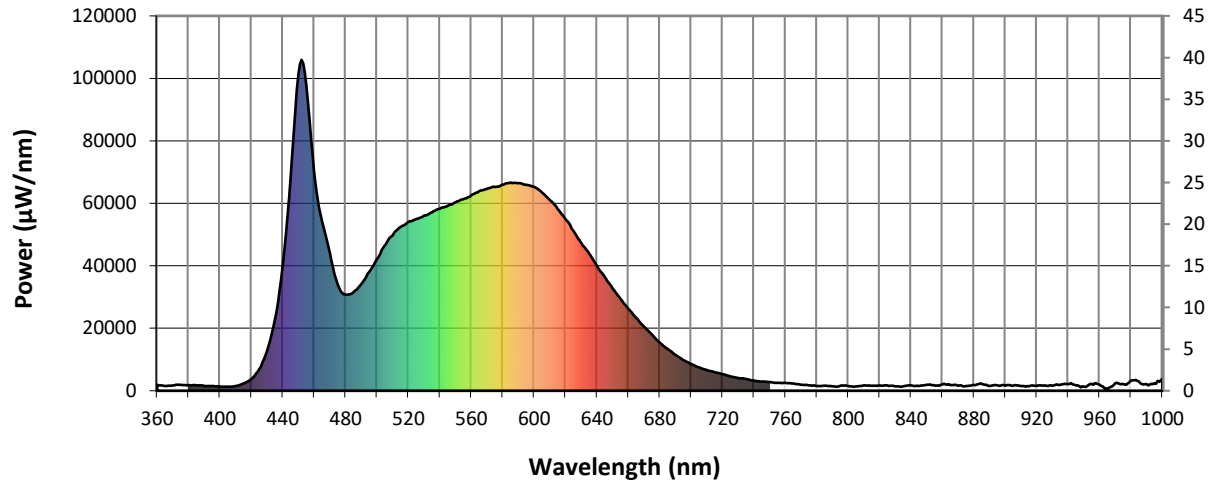
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2210-820-18

Photopic Flux vs. Wavelength

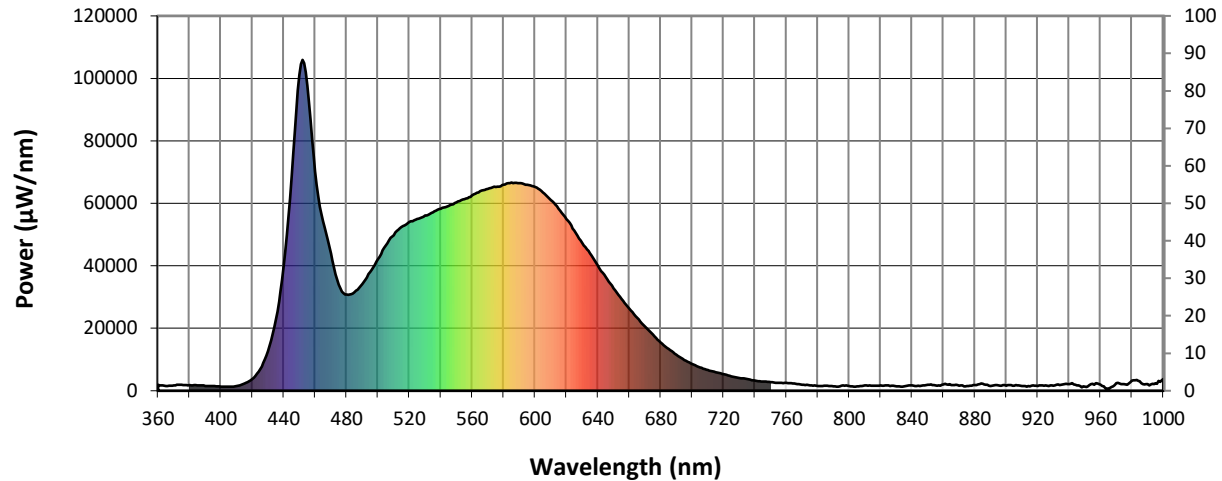


#####

λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	1893	NR	490	34177	NR	620	54916	NR	750	2782	NR	880	1820	NR
365	1545	NR	495	38010	NR	625	51257	NR	755	2500	NR	885	2271	NR
370	1699	NR	500	42146	NR	630	47308	NR	760	2486	NR	890	1534	NR
375	1869	NR	505	46431	NR	635	44039	NR	765	2313	NR	895	1734	NR
380	1777	NR	510	49788	NR	640	39981	NR	770	1952	NR	900	1568	NR
385	1753	NR	515	52380	NR	645	36389	NR	775	1752	NR	905	1643	NR
390	1511	NR	520	54014	NR	650	32774	NR	780	1548	NR	910	1551	NR
395	1483	NR	525	54953	NR	655	29367	NR	785	1620	NR	915	1428	NR
400	1318	NR	530	56065	NR	660	26307	NR	790	1393	NR	920	1468	NR
405	1342	NR	535	57107	NR	665	23364	NR	795	1627	NR	925	1750	NR
410	1469	NR	540	58306	NR	670	20576	NR	800	1553	NR	930	1641	NR
415	2297	NR	545	59230	NR	675	17969	NR	805	1356	NR	935	1881	NR
420	3731	NR	550	60272	NR	680	15411	NR	810	1669	NR	940	2088	NR
425	6912	NR	555	61298	NR	685	13354	NR	815	1647	NR	945	1721	NR
430	12723	NR	560	62528	NR	690	11535	NR	820	1702	NR	950	1281	NR
435	22892	NR	565	63874	NR	695	9837	NR	825	1689	NR	955	2199	NR
440	39880	NR	570	64630	NR	700	8571	NR	830	1456	NR	960	1889	NR
445	68496	NR	575	65183	NR	705	7495	NR	835	1385	NR	965	707	NR
450	101099	NR	580	65979	NR	710	6588	NR	840	1748	NR	970	2458	NR
455	97717	NR	585	66701	NR	715	5938	NR	845	1548	NR	975	2097	NR
460	70276	NR	590	66508	NR	720	5289	NR	850	1920	NR	980	3285	NR
465	54311	NR	595	65934	NR	725	4630	NR	855	1663	NR	985	3054	NR
470	43940	NR	600	65218	NR	730	4073	NR	860	2052	NR	990	2145	NR
475	34008	NR	605	63482	NR	735	3717	NR	865	1849	NR	995	2463	NR
480	30758	NR	610	61041	NR	740	3235	NR	870	1628	NR	1000	3802	NR
485	31504	NR	615	58238	NR	745	2924	NR	875	1526	NR			

REPORT NUMBER: SP1-2210-820-18

Scotopic Flux vs. Wavelength



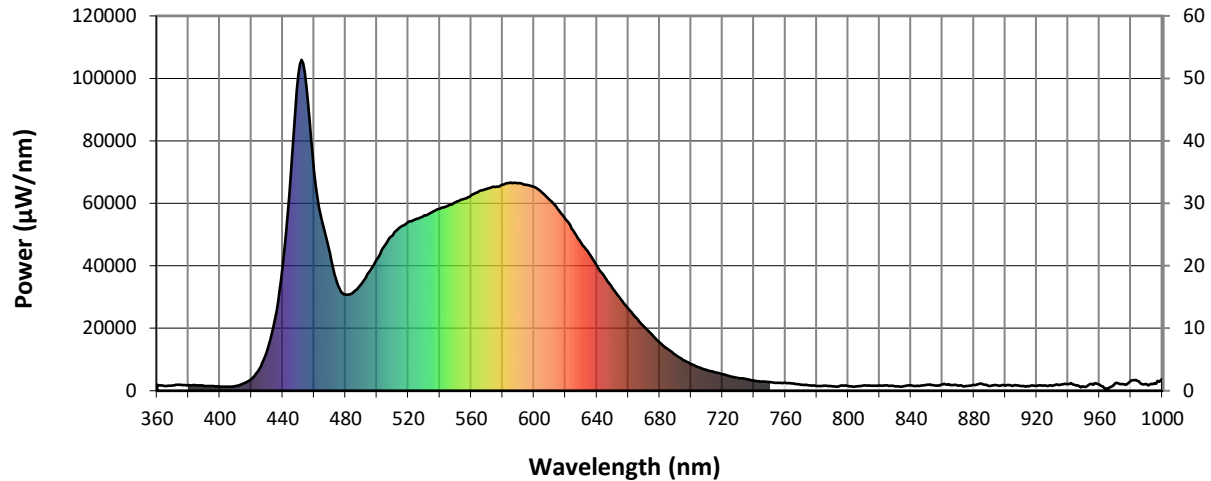
Scotopic Lumens: 8348.9

S/P: 1.99

λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	1893	NR	490	34177	NR	620	54916	NR	750	2782	NR	880	1820	NR
365	1545	NR	495	38010	NR	625	51257	NR	755	2500	NR	885	2271	NR
370	1699	NR	500	42146	NR	630	47308	NR	760	2486	NR	890	1534	NR
375	1869	NR	505	46431	NR	635	44039	NR	765	2313	NR	895	1734	NR
380	1777	NR	510	49788	NR	640	39981	NR	770	1952	NR	900	1568	NR
385	1753	NR	515	52380	NR	645	36389	NR	775	1752	NR	905	1643	NR
390	1511	NR	520	54014	NR	650	32774	NR	780	1548	NR	910	1551	NR
395	1483	NR	525	54953	NR	655	29367	NR	785	1620	NR	915	1428	NR
400	1318	NR	530	56065	NR	660	26307	NR	790	1393	NR	920	1468	NR
405	1342	NR	535	57107	NR	665	23364	NR	795	1627	NR	925	1750	NR
410	1469	NR	540	58306	NR	670	20576	NR	800	1553	NR	930	1641	NR
415	2297	NR	545	59230	NR	675	17969	NR	805	1356	NR	935	1881	NR
420	3731	NR	550	60272	NR	680	15411	NR	810	1669	NR	940	2088	NR
425	6912	NR	555	61298	NR	685	13354	NR	815	1647	NR	945	1721	NR
430	12723	NR	560	62528	NR	690	11535	NR	820	1702	NR	950	1281	NR
435	22892	NR	565	63874	NR	695	9837	NR	825	1689	NR	955	2199	NR
440	39880	NR	570	64630	NR	700	8571	NR	830	1456	NR	960	1889	NR
445	68496	NR	575	65183	NR	705	7495	NR	835	1385	NR	965	707	NR
450	101099	NR	580	65979	NR	710	6588	NR	840	1748	NR	970	2458	NR
455	97717	NR	585	66701	NR	715	5938	NR	845	1548	NR	975	2097	NR
460	70276	NR	590	66508	NR	720	5289	NR	850	1920	NR	980	3285	NR
465	54311	NR	595	65934	NR	725	4630	NR	855	1663	NR	985	3054	NR
470	43940	NR	600	65218	NR	730	4073	NR	860	2052	NR	990	2145	NR
475	34008	NR	605	63482	NR	735	3717	NR	865	1849	NR	995	2463	NR
480	30758	NR	610	61041	NR	740	3235	NR	870	1628	NR	1000	3802	NR
485	31504	NR	615	58238	NR	745	2924	NR	875	1526	NR			

REPORT NUMBER: SP1-2210-820-18

Melanopic Flux vs. Wavelength



Melanopic Lumens: 3536.5 S/P: 0.84

λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	1893	NR	490	34177	NR	620	54916	NR	750	2782	NR	880	1820	NR
365	1545	NR	495	38010	NR	625	51257	NR	755	2500	NR	885	2271	NR
370	1699	NR	500	42146	NR	630	47308	NR	760	2486	NR	890	1534	NR
375	1869	NR	505	46431	NR	635	44039	NR	765	2313	NR	895	1734	NR
380	1777	NR	510	49788	NR	640	39981	NR	770	1952	NR	900	1568	NR
385	1753	NR	515	52380	NR	645	36389	NR	775	1752	NR	905	1643	NR
390	1511	NR	520	54014	NR	650	32774	NR	780	1548	NR	910	1551	NR
395	1483	NR	525	54953	NR	655	29367	NR	785	1620	NR	915	1428	NR
400	1318	NR	530	56065	NR	660	26307	NR	790	1393	NR	920	1468	NR
405	1342	NR	535	57107	NR	665	23364	NR	795	1627	NR	925	1750	NR
410	1469	NR	540	58306	NR	670	20576	NR	800	1553	NR	930	1641	NR
415	2297	NR	545	59230	NR	675	17969	NR	805	1356	NR	935	1881	NR
420	3731	NR	550	60272	NR	680	15411	NR	810	1669	NR	940	2088	NR
425	6912	NR	555	61298	NR	685	13354	NR	815	1647	NR	945	1721	NR
430	12723	NR	560	62528	NR	690	11535	NR	820	1702	NR	950	1281	NR
435	22892	NR	565	63874	NR	695	9837	NR	825	1689	NR	955	2199	NR
440	39880	NR	570	64630	NR	700	8571	NR	830	1456	NR	960	1889	NR
445	68496	NR	575	65183	NR	705	7495	NR	835	1385	NR	965	707	NR
450	101099	NR	580	65979	NR	710	6588	NR	840	1748	NR	970	2458	NR
455	97717	NR	585	66701	NR	715	5938	NR	845	1548	NR	975	2097	NR
460	70276	NR	590	66508	NR	720	5289	NR	850	1920	NR	980	3285	NR
465	54311	NR	595	65934	NR	725	4630	NR	855	1663	NR	985	3054	NR
470	43940	NR	600	65218	NR	730	4073	NR	860	2052	NR	990	2145	NR
475	34008	NR	605	63482	NR	735	3717	NR	865	1849	NR	995	2463	NR
480	30758	NR	610	61041	NR	740	3235	NR	870	1628	NR	1000	3802	NR
485	31504	NR	615	58238	NR	745	2924	NR	875	1526	NR			

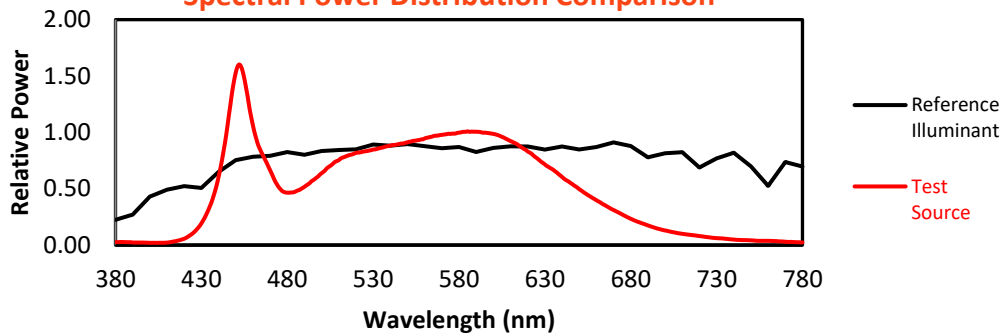
REPORT NUMBER: SP1-2210-820-18

TM-30-18

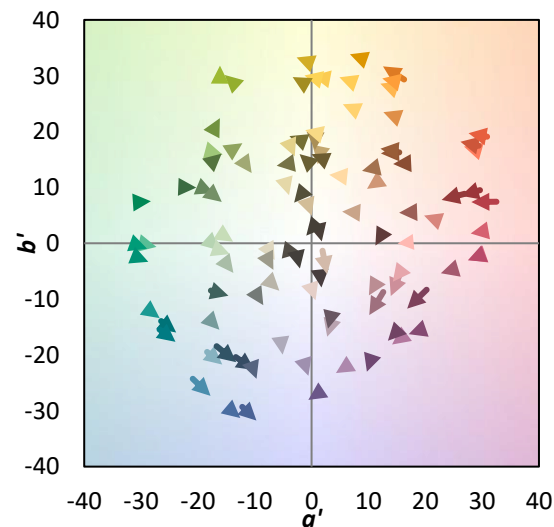
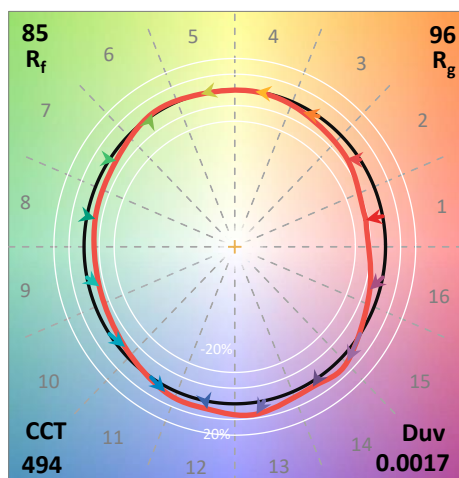
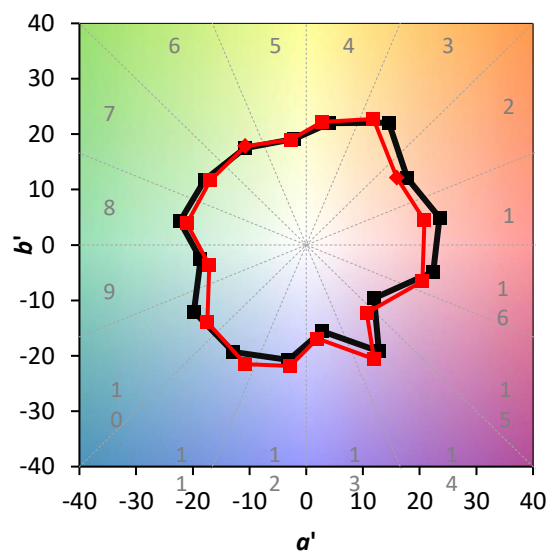
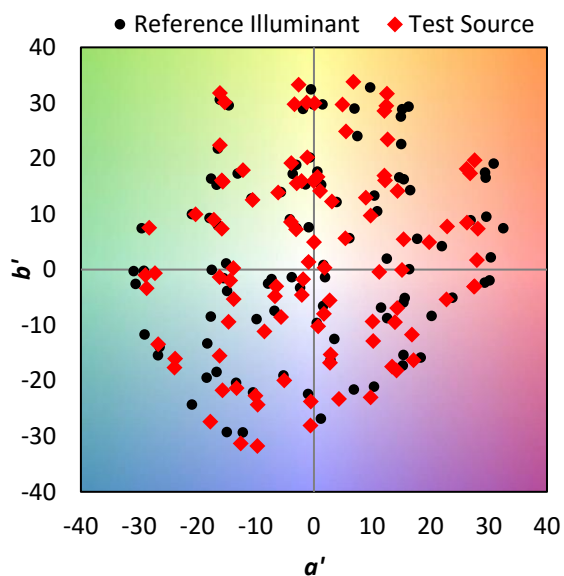
Summary

$R_f = 85.4$
 $R_g = 95.7$
 $CIE R_a = 85.1$
 $R_g = 16.8$

Spectral Power Distribution Comparison



Color Vector Graphics

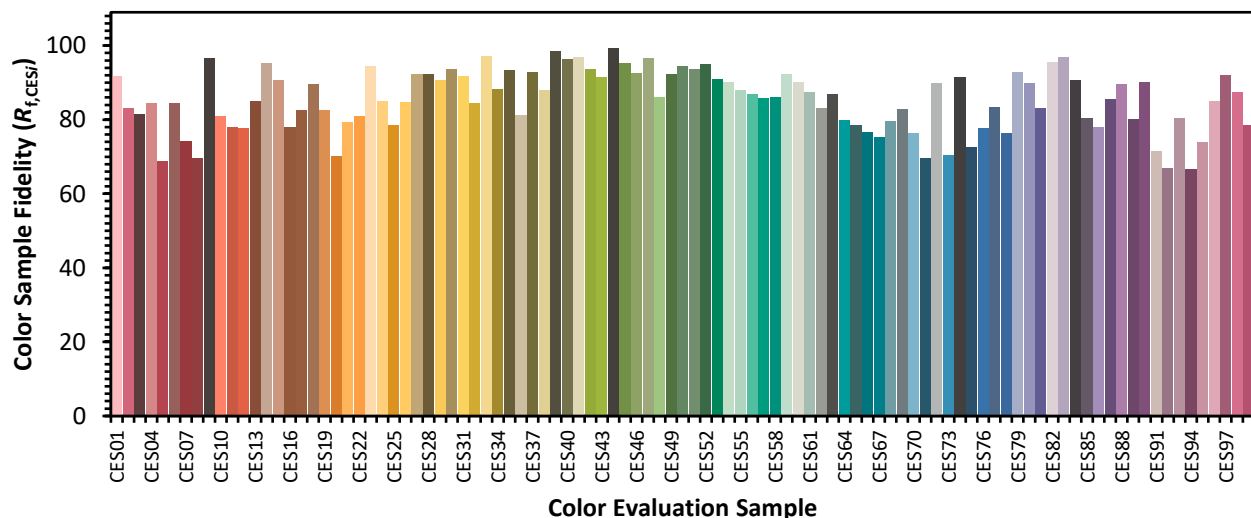


REPORT NUMBER: SP1-2210-820-18

TM-30-18

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

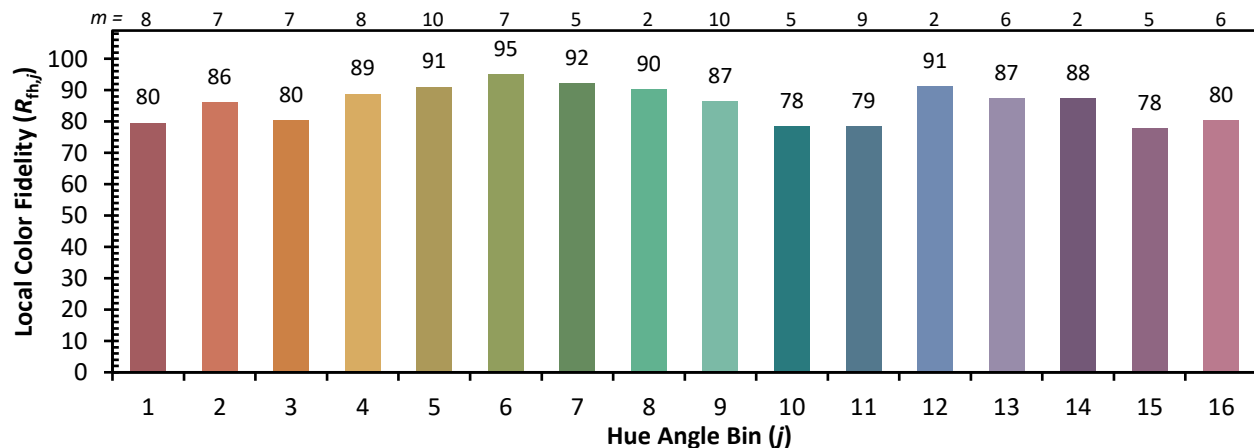
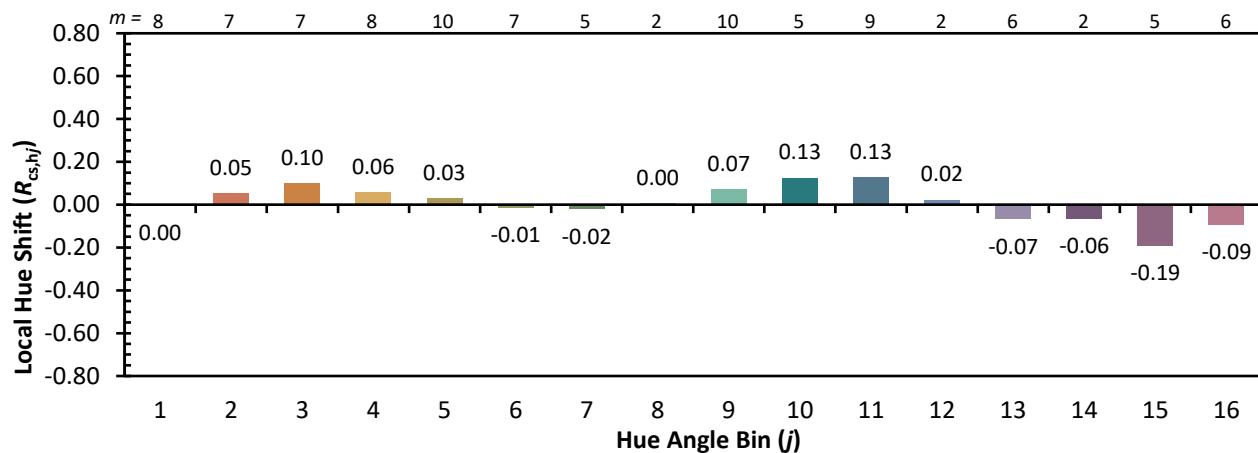
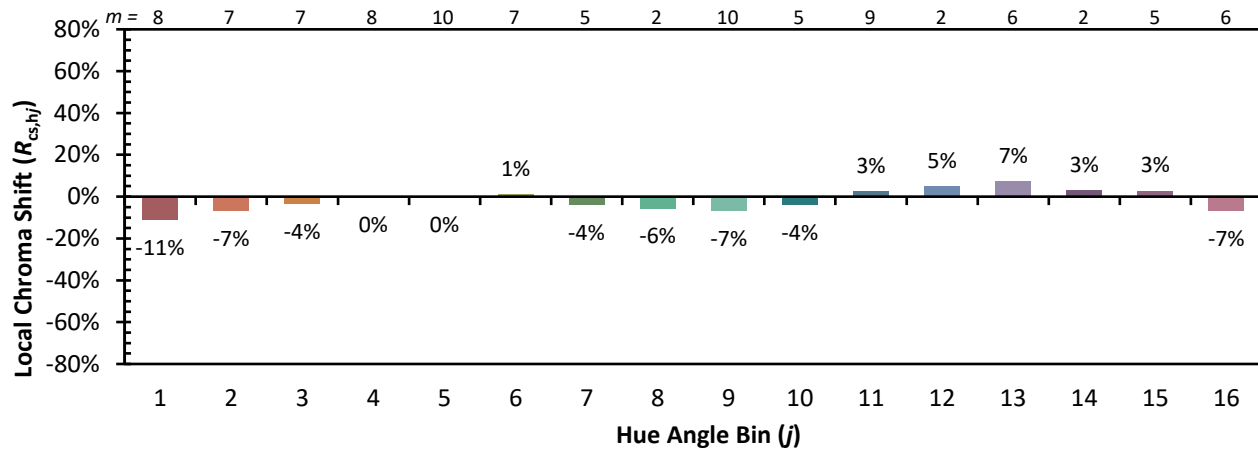
CES01 = 85	CES26 = 85	CES51 = 94	CES76 = 78
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 83
CES03 = 31	CES28 = 92	CES53 = 91	CES78 = 76
CES04 = 69	CES29 = 91	CES54 = 90	CES79 = 93
CES05 = 47	CES30 = 93	CES55 = 88	CES80 = 90
CES06 = 50	CES31 = 92	CES56 = 87	CES81 = 83
CES07 = 40	CES32 = 84	CES57 = 86	CES82 = 96
CES08 = 39	CES33 = 97	CES58 = 86	CES83 = 97
CES09 = 29	CES34 = 88	CES59 = 92	CES84 = 91
CES10 = 73	CES35 = 93	CES60 = 90	CES85 = 80
CES11 = 56	CES36 = 81	CES61 = 87	CES86 = 78
CES12 = 62	CES37 = 93	CES62 = 83	CES87 = 86
CES13 = 42	CES38 = 88	CES63 = 87	CES88 = 90
CES14 = 74	CES39 = 98	CES64 = 80	CES89 = 80
CES15 = 71	CES40 = 96	CES65 = 78	CES90 = 90
CES16 = 46	CES41 = 97	CES66 = 77	CES91 = 71
CES17 = 49	CES42 = 93	CES67 = 75	CES92 = 67
CES18 = 56	CES43 = 92	CES68 = 79	CES93 = 80
CES19 = 70	CES44 = 99	CES69 = 83	CES94 = 66
CES20 = 64	CES45 = 95	CES70 = 76	CES95 = 74
CES21 = 85	CES46 = 93	CES71 = 70	CES96 = 85
CES22 = 77	CES47 = 97	CES72 = 90	CES97 = 92
CES23 = 91	CES48 = 86	CES73 = 70	CES98 = 87
CES24 = 90	CES49 = 92	CES74 = 91	CES99 = 78
CES25 = 71	CES50 = 94	CES75 = 73	



REPORT NUMBER: SP1-2210-820-18

TM-30-18

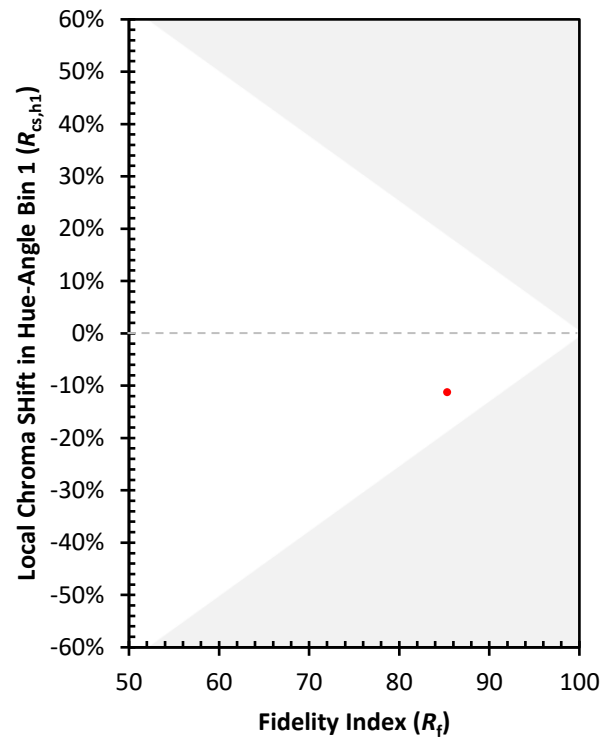
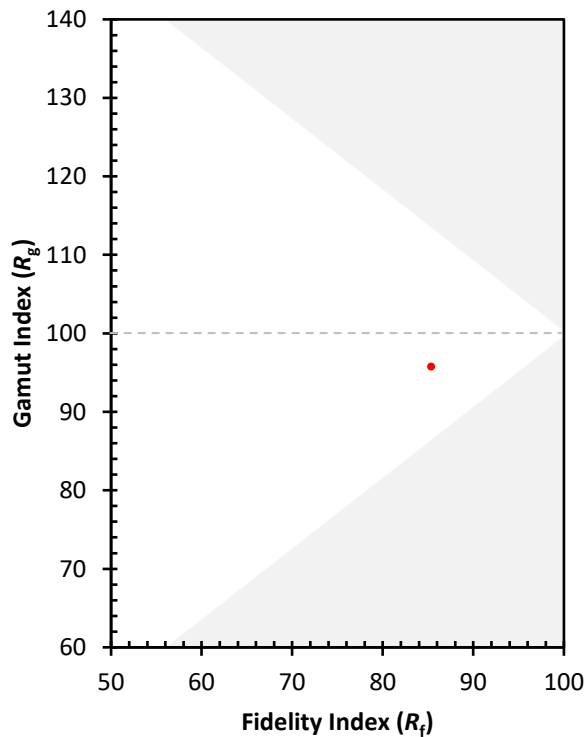
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2210-820-18

TM-30-18

Measure Comparisons



(END OF REPORT)