

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P861206

Luminaire Tested: **8APVTLD-SL3C3 HI POWER 5000K 277V**

Issue Date: 1/11/2023

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P861206
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 277V
Description: HI POWER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

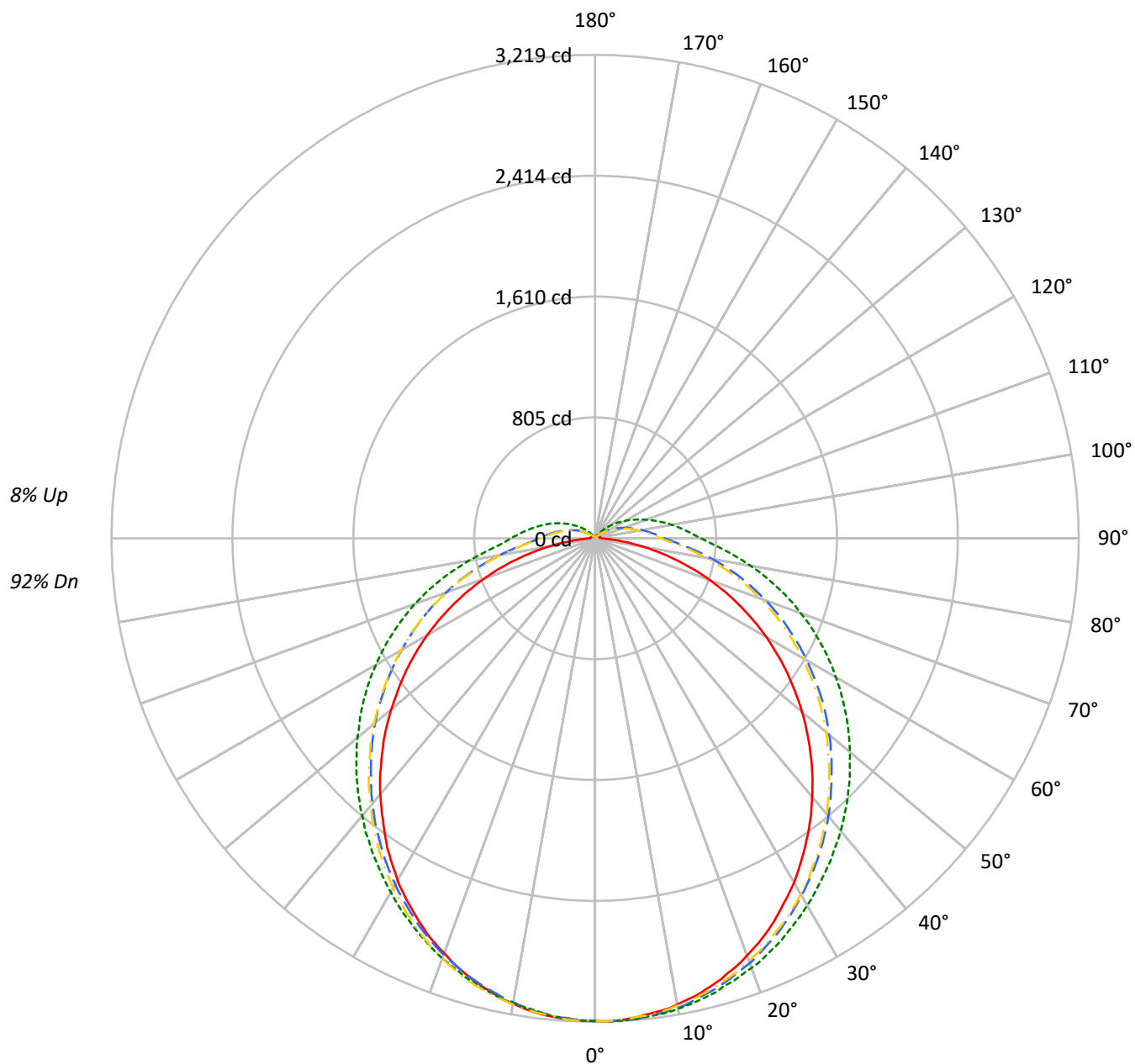
Lumens per Lamp: N/A
Luminaire Lumens: 10948.7 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.28 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 8' x H: 0.08')
CIE Type: Direct

Input Watts (W): 92
Input Voltage (V): 277
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: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

Luminous Intensity Polar Plot





TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

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	77
2	95	86	79	72		92	84	77	71		79	73	68		74	70	65		70	66	63
3	86	75	67	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°	12978	12978	12978	12978
5°	12953	12727	12948	12673
10°	12894	12488	12873	12331
15°	12799	12248	12750	12030
20°	12651	11983	12581	11719
25°	12480	11750	12396	11395
30°	12268	11501	12182	11083
35°	12003	11267	11900	10793
40°	11742	11076	11625	10505
45°	11458	10878	11305	10258
50°	11152	10712	10986	9994
55°	10815	10565	10647	9752
60°	10433	10420	10237	9491
65°	9949	10308	9712	9214
70°	9318	10179	9059	8938
75°	8419	10112	8093	8573
80°	7171	10102	6782	8165
85°	5649	10293	5107	8020



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.1	2.8
10°-20°	869.3	7.9
20°-30°	1315.3	12.0
30°-40°	1589.4	14.5
40°-50°	1672.9	15.3
50°-60°	1571.6	14.4
60°-70°	1310.9	12.0
70°-80°	935.9	8.5
80°-90°	551.6	5.0
90°-100°	345.0	3.2
100°-110°	227.5	2.1
110°-120°	135.1	1.2
120°-130°	70.0	0.6
130°-140°	28.4	0.3
140°-150°	10.4	0.1
150°-160°	6.1	0.1
160°-170°	3.8	0.0
170°-180°	1.4	0.0
0°-30°	2488.7	22.7
0°-40°	4078.0	37.2
0°-60°	7322.6	66.9
0°-90°	10120.9	92.4
90°-120°	707.6	6.5
90°-150°	816.4	7.5
90°-180°	828.0	7.6
0°-180°	10948.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3215	3215	3215	3215	3215	
5°	3200	3210	3198	3196	3200	304
15°	3071	3127	3060	3072	3071	866
25°	2816	2946	2797	2857	2816	1296
35°	2454	2687	2432	2574	2454	1535
45°	2028	2382	2001	2246	2028	1565
55°	1560	2037	1536	1880	1560	1394
65°	1065	1658	1040	1482	1065	1053
75°	561	1253	539	1063	561	595
85°	136	857	123	668	136	151
90°	41	704	37	559	41	25
95°	35	604	32	481	35	28
105°	30	437	28	350	30	32
115°	25	294	25	234	25	25
125°	20	179	20	136	20	18
135°	16	89	14	60	16	13
145°	14	23	11	17	14	9
155°	12	13	11	14	12	6
165°	14	12	14	12	14	4
175°	15	12	18	12	15	1
180°	15	15	15	15	15	



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3215.1	3215.1	3215.1	3215.1	3215.1	3215.1	3215.1	3215.1	3215.1	3215.1	3215.1
1°	3216.3	3214.4	3219.1	3215.9	3217.4	3212.3	3218.0	3212.3	3214.0	3216.3	3213.0
2°	3216.3	3214.2	3216.5	3216.1	3219.1	3213.4	3215.7	3210.9	3212.8	3216.8	3215.5
3°	3213.0	3213.8	3215.5	3217.2	3217.0	3211.9	3208.8	3210.9	3210.2	3213.8	3201.6
4°	3206.7	3207.5	3214.9	3210.3	3214.7	3204.6	3209.0	3207.3	3204.6	3205.4	3199.5
5°	3199.7	3205.0	3212.3	3211.1	3209.6	3205.0	3197.8	3203.7	3198.5	3193.8	3193.4
6°	3190.5	3196.8	3205.6	3206.5	3204.1	3198.7	3196.6	3195.9	3192.6	3184.8	3184.6
7°	3183.3	3188.4	3198.5	3194.3	3201.2	3189.0	3189.7	3186.9	3184.4	3177.2	3177.2
8°	3175.4	3182.7	3192.0	3192.6	3197.6	3185.6	3181.2	3172.2	3174.9	3167.4	3168.0
9°	3167.6	3170.7	3184.2	3187.5	3192.2	3178.3	3172.6	3163.2	3160.2	3157.5	3152.6
10°	3151.6	3158.7	3175.6	3177.5	3181.2	3164.2	3159.8	3150.6	3146.6	3143.2	3137.1
11°	3136.2	3145.3	3164.2	3167.8	3172.2	3154.8	3150.1	3139.0	3136.2	3126.6	3124.3
12°	3123.9	3131.2	3148.5	3157.7	3161.7	3144.7	3137.7	3122.6	3117.5	3109.6	3108.1
13°	3108.7	3115.2	3130.6	3147.2	3149.7	3131.8	3120.7	3106.0	3096.7	3093.0	3090.2
14°	3089.2	3101.4	3118.8	3132.3	3138.6	3120.7	3109.1	3090.2	3080.1	3069.0	3075.9
15°	3071.3	3085.0	3103.7	3117.8	3127.4	3107.9	3090.9	3072.6	3059.5	3049.0	3056.6
16°	3052.2	3066.9	3086.7	3104.9	3103.2	3095.1	3073.2	3047.3	3039.6	3026.3	3038.1
17°	3026.7	3042.9	3068.1	3085.6	3093.2	3074.7	3056.8	3029.1	3016.4	3006.3	3016.9
18°	3007.4	3021.1	3048.2	3073.2	3076.6	3059.9	3040.4	3006.4	2993.9	2984.1	2992.1
19°	2983.6	3000.3	3027.4	3055.5	3059.1	3043.6	3013.1	2978.0	2966.4	2961.4	2972.5
20°	2956.3	2975.5	3010.3	3038.3	3043.6	3026.5	2993.5	2955.9	2939.9	2931.1	2951.1
21°	2929.8	2956.5	2988.9	3015.2	3029.5	3003.2	2971.9	2935.5	2915.8	2905.0	2926.3
22°	2905.9	2930.2	2963.3	2994.2	3007.8	2981.1	2951.9	2907.6	2887.8	2876.9	2899.4
23°	2876.7	2901.2	2938.2	2977.8	2986.2	2968.3	2927.3	2881.7	2861.1	2850.2	2871.6
24°	2847.0	2870.8	2916.0	2954.6	2967.9	2943.7	2901.2	2855.4	2828.1	2821.0	2846.0
25°	2815.7	2841.6	2891.2	2931.3	2945.8	2922.9	2877.5	2822.6	2796.8	2795.3	2817.6
26°	2782.3	2811.3	2862.4	2910.5	2920.8	2894.9	2852.7	2796.8	2764.4	2762.3	2785.6
27°	2746.8	2783.3	2837.8	2883.4	2896.6	2872.0	2825.4	2764.4	2732.5	2730.6	2754.9
28°	2714.0	2752.4	2807.3	2859.8	2872.0	2847.0	2794.7	2731.6	2699.5	2696.5	2723.4
29°	2681.4	2721.1	2777.9	2828.7	2849.8	2821.8	2768.6	2696.3	2666.7	2663.5	2695.5
30°	2648.0	2686.6	2746.8	2804.1	2823.7	2793.8	2736.2	2657.4	2629.4	2626.5	2662.5
31°	2609.7	2652.2	2716.5	2776.8	2798.7	2767.3	2705.3	2628.0	2589.9	2594.6	2626.5
32°	2570.2	2617.5	2685.0	2751.8	2769.5	2735.6	2677.8	2594.3	2552.3	2555.3	2595.4
33°	2532.1	2580.7	2654.5	2723.6	2741.7	2707.7	2639.5	2555.9	2514.9	2520.4	2561.5
34°	2494.5	2544.9	2623.4	2694.6	2714.8	2681.6	2605.7	2518.2	2477.3	2480.8	2526.7
35°	2453.7	2508.4	2589.5	2663.5	2686.8	2651.9	2573.8	2481.9	2432.5	2438.6	2491.1
36°	2415.0	2468.2	2556.1	2633.2	2661.4	2619.2	2539.9	2444.5	2391.5	2401.4	2453.9
37°	2373.8	2431.0	2521.6	2603.4	2629.9	2589.3	2507.1	2406.0	2347.4	2361.7	2418.4
38°	2334.1	2394.2	2485.9	2571.0	2600.7	2557.3	2468.4	2363.1	2307.4	2324.4	2383.3
39°	2289.8	2355.6	2452.2	2540.9	2573.1	2526.4	2432.5	2324.7	2265.8	2282.6	2344.2
40°	2247.9	2316.3	2415.0	2508.6	2542.9	2493.4	2397.6	2285.8	2225.4	2241.4	2306.0
41°	2204.8	2276.7	2378.5	2477.0	2511.9	2462.6	2357.7	2246.5	2182.8	2200.6	2268.3
42°	2163.4	2231.1	2341.3	2444.3	2478.9	2428.7	2321.9	2202.3	2138.6	2158.4	2229.2



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	2028.1	2107.7	2225.4	2344.6	2382.0	2325.9	2203.4	2072.6	2001.1	2030.0	2110.3
46°	1982.9	2064.0	2188.4	2310.6	2350.7	2294.2	2163.2	2030.8	1960.0	1986.2	2071.2
47°	1935.6	2021.1	2150.4	2276.9	2318.3	2260.5	2122.4	1983.7	1913.9	1940.0	2030.2
48°	1891.8	1978.2	2110.5	2242.2	2280.9	2222.9	2085.9	1940.4	1867.0	1893.7	1992.7
49°	1845.4	1931.6	2074.9	2205.3	2247.5	2185.9	2046.5	1898.9	1819.1	1849.1	1950.3
50°	1798.0	1889.8	2033.5	2170.6	2214.1	2151.2	2005.8	1850.9	1771.2	1805.5	1912.0
51°	1750.8	1845.1	1994.0	2135.7	2178.8	2113.0	1965.0	1806.9	1722.2	1760.8	1870.3
52°	1702.4	1798.9	1955.7	2100.6	2143.7	2077.4	1923.8	1761.3	1672.6	1713.4	1828.2
53°	1654.4	1753.4	1915.8	2066.9	2109.4	2039.6	1884.5	1716.3	1628.6	1668.5	1786.4
54°	1606.6	1706.6	1875.6	2025.3	2072.6	2004.9	1844.2	1672.5	1581.7	1622.2	1741.0
55°	1559.6	1660.4	1834.4	1990.0	2037.3	1965.4	1800.8	1623.9	1535.5	1575.5	1702.7
56°	1511.2	1614.3	1792.8	1952.2	2000.5	1926.7	1758.3	1577.0	1487.0	1526.0	1658.4
57°	1462.3	1570.8	1752.2	1914.1	1963.1	1888.9	1717.3	1531.1	1437.6	1478.2	1616.3
58°	1412.9	1524.7	1708.6	1873.1	1926.3	1851.5	1673.0	1484.5	1390.3	1431.4	1574.6
59°	1364.0	1479.4	1667.2	1833.7	1889.0	1812.9	1635.3	1438.9	1339.1	1385.8	1529.9
60°	1315.7	1433.4	1626.4	1794.2	1849.7	1773.0	1591.6	1391.2	1290.9	1341.3	1485.3
61°	1266.3	1385.6	1585.7	1755.6	1812.5	1731.9	1551.9	1345.2	1241.5	1294.4	1445.2
62°	1215.6	1340.6	1543.9	1717.9	1775.2	1691.4	1508.6	1299.0	1190.8	1249.7	1401.1
63°	1165.6	1293.2	1501.7	1676.4	1737.5	1651.7	1465.9	1251.8	1140.8	1201.3	1359.3
64°	1114.7	1247.1	1459.1	1638.0	1697.9	1612.7	1425.4	1207.0	1090.3	1152.8	1316.5
65°	1064.9	1199.4	1417.5	1596.7	1657.8	1569.0	1381.5	1160.1	1039.6	1107.4	1271.6
66°	1013.9	1154.7	1378.9	1557.5	1619.3	1531.8	1340.1	1113.2	986.9	1061.5	1229.4
67°	963.8	1108.7	1334.2	1518.6	1579.7	1492.3	1297.0	1067.6	938.3	1015.1	1187.2
68°	913.6	1061.2	1292.3	1473.6	1541.0	1450.6	1253.8	1022.5	888.3	965.8	1142.6
69°	863.4	1015.5	1250.1	1436.7	1499.2	1410.3	1211.4	973.5	838.6	922.0	1098.7
70°	812.1	970.3	1205.7	1391.9	1454.9	1370.2	1169.6	929.5	789.6	876.3	1057.5
71°	761.5	922.6	1164.7	1350.1	1418.1	1329.5	1125.7	883.1	736.8	829.8	1013.6
72°	711.3	878.9	1122.3	1308.7	1377.5	1288.1	1083.7	838.8	687.6	785.0	972.3
73°	660.7	832.0	1081.9	1264.7	1336.4	1246.5	1043.2	793.0	637.8	738.8	929.4
74°	609.8	789.1	1039.5	1224.5	1294.2	1205.8	998.6	749.3	588.6	694.8	888.5
75°	560.8	744.8	998.6	1180.4	1253.3	1165.2	957.4	704.6	539.1	652.0	844.8
76°	512.5	701.5	956.8	1140.3	1210.8	1123.5	914.4	659.5	491.7	607.9	803.0
77°	463.9	659.2	912.1	1098.9	1172.1	1084.6	875.9	617.4	444.2	566.5	762.3
78°	417.0	616.6	872.7	1056.5	1132.3	1040.7	831.7	574.9	398.9	525.4	721.4
79°	371.9	576.1	833.0	1018.4	1090.4	1002.7	793.9	533.9	353.6	484.8	682.8
80°	326.7	535.7	791.4	978.4	1050.7	960.0	752.4	494.0	309.0	446.8	643.8
81°	285.1	497.9	750.1	938.8	1008.9	921.6	714.0	454.1	267.1	409.2	606.7
82°	244.7	458.8	712.3	900.3	969.8	884.7	675.6	416.4	226.0	373.5	570.5
83°	205.7	421.2	674.0	860.1	930.3	847.6	640.2	380.9	188.7	340.2	537.0
84°	170.3	386.6	635.0	822.0	894.5	809.5	603.7	347.3	154.4	307.8	504.5
85°	136.5	353.0	601.4	784.6	857.3	775.1	570.7	314.3	123.4	278.6	475.2
86°	106.7	319.9	568.4	750.6	822.9	741.8	540.2	283.9	95.5	251.2	447.4
87°	81.8	290.3	537.1	716.0	788.5	708.8	508.2	255.9	71.7	226.4	423.3



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	41.1	226.2	462.6	631.3	703.8	627.1	437.3	196.3	37.4	182.8	375.2
91°	38.8	211.4	443.9	609.9	679.5	603.9	418.5	183.5	36.2	172.1	361.3
92°	37.9	200.1	427.4	591.1	659.6	586.8	403.0	173.8	34.9	162.5	348.8
93°	36.9	188.7	412.0	572.8	641.1	567.5	388.0	163.5	34.0	152.9	335.9
94°	36.0	178.1	397.0	556.4	621.6	551.0	375.5	154.1	33.4	143.7	322.7
95°	35.4	167.8	383.1	540.1	604.0	534.0	361.4	144.2	32.2	135.8	309.5
96°	34.4	158.7	369.0	523.7	585.6	518.3	349.2	135.5	31.7	127.5	297.5
97°	33.9	149.8	354.1	508.2	568.1	501.3	335.0	127.3	31.1	119.7	285.4
98°	33.1	140.9	340.0	492.6	550.8	485.0	322.3	119.1	30.4	112.5	275.4
99°	32.9	132.9	327.1	477.0	533.9	468.4	309.1	111.4	29.6	105.3	263.6
100°	32.6	125.2	314.1	462.0	517.0	452.5	297.5	105.1	29.3	98.2	252.9
101°	32.1	118.0	300.9	446.0	500.6	439.0	285.2	98.5	29.1	92.7	242.9
102°	31.4	111.4	289.5	430.5	483.7	423.4	271.7	92.1	28.6	86.5	232.4
103°	30.9	104.9	276.7	415.7	467.9	409.4	260.5	85.8	28.6	80.7	222.2
104°	30.4	98.7	265.4	400.5	451.2	395.3	248.8	80.1	28.6	75.9	213.0
105°	29.9	92.6	254.8	386.7	436.7	381.3	237.8	74.4	28.4	70.5	202.3
106°	29.6	87.0	243.5	372.4	420.9	366.3	226.5	69.3	28.1	65.4	193.6
107°	29.1	81.5	232.4	357.5	405.7	351.7	217.1	64.8	27.1	60.3	184.1
108°	28.8	76.0	222.9	343.6	390.5	337.2	205.5	60.0	26.9	56.1	174.9
109°	28.1	71.0	213.0	330.7	376.8	324.8	197.6	55.6	26.9	52.3	166.7
110°	27.6	65.8	202.6	317.3	361.6	310.9	187.0	51.4	26.6	48.0	157.8
111°	26.9	61.5	193.0	303.7	348.2	299.2	178.4	47.4	26.1	44.2	149.8
112°	26.8	57.0	183.4	291.2	333.7	286.9	168.5	43.3	25.8	40.2	142.5
113°	26.5	53.1	173.7	279.1	320.4	274.5	159.3	39.9	26.0	36.8	134.3
114°	25.8	49.0	165.3	266.8	307.8	262.1	151.3	36.0	25.1	33.9	127.0
115°	25.3	45.1	156.9	254.9	294.2	250.1	143.0	33.0	24.6	30.6	119.2
116°	25.0	41.3	148.0	243.9	282.0	237.8	135.2	30.0	24.1	27.8	111.8
117°	24.6	38.0	140.3	232.0	268.8	227.0	127.9	27.3	23.6	25.5	105.3
118°	24.1	35.1	132.1	221.5	257.4	216.6	119.6	25.2	23.3	23.5	97.7
119°	23.6	32.0	124.3	210.8	245.2	205.5	112.6	23.7	23.0	23.3	91.7
120°	23.3	29.2	117.0	199.9	233.6	195.0	105.0	23.4	22.8	22.3	85.0
121°	22.8	27.4	110.2	190.0	222.4	184.1	97.7	23.3	22.0	21.7	78.5
122°	22.3	26.6	102.9	180.2	212.1	175.2	91.4	22.2	21.5	21.2	72.7
123°	21.3	26.3	95.7	170.3	199.8	165.1	83.8	22.0	21.3	21.2	66.1
124°	20.7	26.1	88.9	160.6	190.0	155.1	78.1	21.4	20.8	20.7	60.7
125°	20.3	25.3	82.7	151.4	179.1	146.8	71.3	20.9	20.2	20.5	55.1
126°	19.8	24.8	76.1	142.5	169.4	137.2	65.6	20.9	19.5	19.9	50.0
127°	19.5	24.3	70.0	133.5	159.2	128.4	59.7	20.5	18.5	19.4	45.4
128°	19.2	23.6	64.0	125.0	150.2	120.5	53.9	19.9	17.8	18.8	39.8
129°	18.8	23.1	57.9	116.3	140.2	111.5	49.3	19.4	16.9	18.5	35.3
130°	18.4	23.0	52.7	108.3	131.5	103.9	44.1	18.6	16.4	18.0	30.9
131°	18.0	22.3	47.4	100.2	121.9	95.4	39.0	18.3	15.9	17.9	26.5
132°	17.5	21.8	42.3	92.6	114.2	88.1	34.4	18.1	15.4	17.4	23.0



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	16.4	20.0	28.8	70.4	88.7	66.5	22.4	16.6	13.6	15.9	15.6
136°	16.0	20.0	24.9	63.4	80.4	59.8	18.8	16.4	13.4	15.5	15.3
137°	15.9	19.5	21.9	56.9	73.1	53.7	17.6	16.0	13.2	15.2	14.9
138°	15.5	19.2	20.8	51.3	65.4	47.8	16.8	15.6	12.7	15.0	14.1
139°	15.4	18.5	20.3	45.4	58.6	42.1	16.0	15.3	12.7	14.9	13.6
140°	14.9	18.4	19.8	39.7	52.1	36.5	15.6	15.1	12.6	14.1	12.9
141°	14.7	17.7	19.3	34.3	45.5	31.6	15.3	14.5	12.2	13.7	12.8
142°	14.5	17.5	19.1	29.3	39.2	26.5	14.9	14.0	11.6	13.4	12.6
143°	14.3	17.2	18.4	24.3	33.5	22.2	14.1	13.6	11.2	13.2	11.8
144°	14.0	16.7	18.1	20.7	27.7	18.5	14.0	13.2	11.2	13.1	11.1
145°	13.7	16.2	17.6	19.2	22.6	16.4	13.5	13.0	11.2	13.1	11.0
146°	13.4	15.9	17.3	18.6	18.0	15.7	13.3	12.7	11.2	13.0	10.8
147°	13.1	15.2	16.8	18.1	16.0	15.5	13.1	12.7	11.2	12.9	10.9
148°	12.9	15.0	16.6	18.1	15.7	15.7	13.1	12.5	11.1	12.8	10.9
149°	12.6	14.8	16.0	17.6	15.2	15.4	13.0	12.5	11.1	12.7	11.0
150°	12.6	14.6	15.6	17.5	14.9	15.2	13.0	12.6	11.1	12.6	11.1
151°	12.2	14.3	15.4	17.0	14.4	14.5	12.9	12.6	11.1	12.6	11.1
152°	12.2	14.1	15.4	16.6	13.9	14.2	12.9	12.6	11.0	12.6	11.2
153°	12.2	13.9	15.1	16.5	13.4	13.9	12.8	12.6	11.0	12.6	11.3
154°	12.2	13.8	15.1	16.3	13.0	13.7	12.8	12.7	11.0	12.6	11.3
155°	12.1	13.8	15.1	15.8	12.7	13.0	12.3	12.7	11.0	12.6	11.4
156°	12.1	13.8	15.1	15.8	12.7	12.9	12.3	12.7	11.0	12.6	11.5
157°	12.1	13.7	15.0	15.5	12.7	12.9	12.4	12.7	11.1	12.6	11.5
158°	12.1	13.7	15.0	15.5	12.7	12.8	12.4	12.8	11.3	12.6	11.6
159°	12.1	13.6	15.0	15.1	12.6	12.8	12.4	12.8	11.5	12.7	11.7
160°	12.1	13.6	15.0	15.1	12.6	12.7	12.5	12.8	11.7	12.9	11.7
161°	12.7	13.6	15.0	15.0	12.6	12.7	12.6	12.8	11.9	13.1	11.8
162°	12.7	13.6	15.0	14.8	12.6	12.7	13.0	13.5	12.7	13.7	12.6
163°	12.9	13.9	14.9	14.6	12.5	12.6	13.0	14.2	13.6	14.0	13.3
164°	13.2	13.7	14.9	14.3	12.5	12.6	13.0	14.5	13.9	14.2	13.6
165°	13.7	13.7	14.9	14.5	12.5	12.6	13.0	14.6	14.4	14.5	14.1
166°	14.1	14.2	14.9	14.1	12.5	12.5	13.0	14.7	15.0	14.7	14.6
167°	14.4	14.7	14.9	14.1	12.4	12.5	13.0	14.8	15.7	15.0	15.3
168°	14.7	14.9	14.8	14.0	12.4	12.5	13.0	14.9	16.0	15.4	16.0
169°	15.0	15.0	14.8	13.9	12.4	12.4	13.1	14.9	16.4	15.5	16.6
170°	15.2	15.1	14.8	13.8	12.4	12.4	13.1	15.0	16.9	15.5	17.1
171°	15.2	15.3	14.8	13.7	12.3	12.4	13.1	15.1	17.0	15.5	17.8
172°	15.3	15.4	14.8	13.6	12.3	12.3	13.1	15.1	17.4	15.5	18.1
173°	15.3	15.5	14.7	13.0	12.3	12.3	13.1	15.5	17.5	15.5	17.9
174°	15.3	15.5	14.7	12.6	12.3	12.3	13.1	15.8	17.7	15.4	17.9
175°	15.3	15.9	14.7	12.6	12.3	12.2	13.1	15.6	17.9	15.4	18.1
176°	15.3	16.2	14.6	12.6	12.2	12.2	13.1	15.6	18.0	15.4	17.6
177°	15.4	16.4	14.6	12.5	12.2	12.0	13.1	15.6	18.2	15.4	17.1



TEST NUMBER: P861206
CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3215.1	3215.1	3215.1	3215.1	3215.1	3215.1
1°	3216.1	3213.2	3213.6	3209.4	3215.7	3216.3
2°	3208.6	3208.3	3209.2	3214.5	3215.7	3216.3
3°	3206.2	3205.4	3204.4	3210.0	3212.3	3213.0
4°	3200.6	3200.2	3198.0	3206.0	3204.2	3206.7
5°	3193.4	3196.0	3192.8	3195.3	3196.2	3199.7
6°	3185.2	3184.0	3189.9	3189.0	3192.4	3190.5
7°	3175.1	3173.0	3177.9	3182.5	3183.6	3183.3
8°	3168.0	3162.3	3169.0	3174.7	3173.7	3175.4
9°	3155.4	3155.2	3157.1	3164.0	3160.2	3167.6
10°	3145.9	3141.1	3146.1	3152.9	3145.5	3151.6
11°	3127.2	3135.0	3136.9	3139.0	3130.2	3136.2
12°	3118.4	3119.9	3121.7	3127.6	3117.5	3123.9
13°	3098.0	3104.7	3109.4	3112.5	3100.1	3108.7
14°	3080.6	3088.8	3094.4	3096.3	3082.6	3089.2
15°	3070.7	3071.7	3079.7	3082.0	3060.6	3071.3
16°	3049.7	3056.0	3060.6	3064.2	3040.2	3052.2
17°	3032.4	3036.0	3043.3	3045.5	3017.1	3026.7
18°	3010.5	3013.1	3026.7	3022.5	2993.7	3007.4
19°	2991.6	2995.4	3008.9	3000.9	2969.4	2983.6
20°	2967.9	2976.5	2982.6	2975.7	2947.1	2956.3
21°	2945.2	2954.4	2960.7	2951.7	2919.3	2929.8
22°	2922.5	2930.3	2935.5	2928.4	2890.5	2905.9
23°	2897.2	2904.6	2908.0	2897.5	2860.7	2876.7
24°	2875.0	2882.1	2884.9	2872.5	2829.6	2847.0
25°	2847.6	2856.9	2862.2	2843.4	2798.7	2815.7
26°	2818.0	2830.6	2833.6	2812.3	2768.0	2782.3
27°	2790.7	2805.8	2805.6	2784.8	2736.0	2746.8
28°	2765.2	2779.1	2780.2	2749.7	2705.3	2714.0
29°	2739.2	2751.0	2749.1	2720.1	2671.9	2681.4
30°	2706.2	2721.1	2718.4	2687.9	2637.4	2648.0
31°	2677.0	2692.3	2687.3	2654.0	2603.2	2609.7
32°	2648.6	2662.7	2655.7	2621.7	2568.1	2570.2
33°	2617.0	2632.8	2625.5	2588.9	2531.9	2532.1
34°	2585.3	2602.3	2594.4	2549.4	2493.2	2494.5
35°	2555.7	2573.8	2562.8	2516.4	2453.7	2453.7
36°	2519.7	2542.4	2529.2	2477.9	2413.8	2415.0
37°	2488.8	2508.0	2497.7	2440.9	2373.8	2373.8
38°	2451.0	2482.7	2464.4	2405.2	2333.5	2334.1
39°	2420.7	2446.1	2430.6	2363.7	2293.3	2289.8
40°	2384.3	2411.9	2398.2	2324.4	2252.1	2247.9
41°	2352.8	2380.4	2365.4	2285.8	2209.2	2204.8
42°	2320.4	2346.3	2332.4	2248.8	2165.1	2163.4



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	2212.2	2246.2	2221.0	2126.9	2034.6	2028.1
46°	2173.7	2209.0	2184.7	2084.8	1990.6	1982.9
47°	2138.6	2172.0	2145.8	2046.1	1944.2	1935.6
48°	2101.4	2135.9	2106.7	2005.8	1899.1	1891.8
49°	2063.2	2102.5	2072.0	1963.9	1854.9	1845.4
50°	2025.7	2065.7	2029.7	1921.3	1810.6	1798.0
51°	1989.8	2025.3	1988.8	1875.7	1762.6	1750.8
52°	1948.0	1990.6	1953.9	1833.5	1715.0	1702.4
53°	1913.3	1955.5	1915.0	1793.8	1671.7	1654.4
54°	1871.1	1917.5	1875.5	1751.1	1624.5	1606.6
55°	1830.2	1880.5	1835.8	1708.7	1576.9	1559.6
56°	1792.9	1842.1	1794.1	1665.6	1531.5	1511.2
57°	1752.9	1804.7	1756.1	1621.6	1484.9	1462.3
58°	1713.2	1766.1	1714.5	1580.1	1438.1	1412.9
59°	1671.9	1724.7	1674.1	1536.3	1389.4	1364.0
60°	1630.5	1684.8	1630.4	1490.4	1344.3	1315.7
61°	1590.2	1644.7	1589.2	1448.2	1297.0	1266.3
62°	1549.8	1605.7	1546.5	1403.5	1249.5	1215.6
63°	1508.1	1566.4	1506.6	1360.1	1201.9	1165.6
64°	1466.1	1524.6	1461.3	1317.7	1154.4	1114.7
65°	1424.1	1481.9	1421.1	1273.4	1107.6	1064.9
66°	1382.4	1441.2	1380.4	1228.3	1061.6	1013.9
67°	1340.6	1401.7	1337.1	1184.4	1013.7	963.8
68°	1297.7	1358.0	1296.3	1139.5	967.3	913.6
69°	1256.6	1318.8	1253.8	1095.6	919.7	863.4
70°	1213.5	1277.5	1210.6	1052.3	873.6	812.1
71°	1174.0	1232.6	1168.4	1009.1	827.2	761.5
72°	1131.3	1191.6	1127.4	966.4	782.4	711.3
73°	1089.1	1148.0	1085.4	922.3	737.0	660.7
74°	1046.7	1106.3	1043.8	879.0	690.7	609.8
75°	1003.6	1062.6	1001.6	837.0	647.1	560.8
76°	961.9	1018.6	959.9	795.3	605.7	512.5
77°	921.7	975.3	918.5	754.5	561.2	463.9
78°	880.1	930.4	878.5	714.2	518.9	417.0
79°	840.8	889.1	838.3	674.4	478.1	371.9
80°	802.9	849.3	799.8	636.5	438.3	326.7
81°	763.9	808.1	759.7	599.2	400.4	285.1
82°	728.9	771.2	722.1	564.4	364.9	244.7
83°	695.7	734.3	685.9	529.9	329.5	205.7
84°	663.8	700.4	651.5	497.0	296.8	170.3
85°	632.9	668.0	620.5	466.5	265.1	136.5
86°	605.1	639.1	591.8	439.2	238.3	106.7
87°	580.0	614.5	567.1	414.4	214.6	81.8



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	526.9	559.0	511.3	361.7	166.1	41.1
91°	511.1	542.7	494.6	348.1	156.0	38.8
92°	496.4	526.0	479.8	335.3	146.5	37.9
93°	481.1	510.6	465.1	322.5	137.9	36.9
94°	465.1	495.6	449.9	309.0	130.4	36.0
95°	449.9	481.0	435.1	296.6	122.6	35.4
96°	434.4	466.7	421.4	285.9	114.7	34.4
97°	420.7	452.6	408.0	274.4	107.7	33.9
98°	406.6	438.5	394.5	263.8	100.9	33.1
99°	392.1	425.6	381.6	252.9	94.6	32.9
100°	378.4	412.0	368.1	242.9	89.0	32.6
101°	365.0	398.7	354.5	232.1	83.6	32.1
102°	350.9	386.5	342.0	222.7	77.9	31.4
103°	339.0	374.6	330.6	212.7	73.1	30.9
104°	324.4	361.9	319.1	203.1	68.2	30.4
105°	312.7	350.5	308.3	193.3	63.5	29.9
106°	301.3	339.1	296.4	184.5	59.2	29.6
107°	288.8	327.3	284.0	175.2	55.3	29.1
108°	276.7	315.4	272.3	166.5	51.7	28.8
109°	264.3	302.2	261.0	158.5	48.0	28.1
110°	253.8	290.4	250.2	150.4	44.3	27.6
111°	242.6	278.7	239.3	142.2	41.4	26.9
112°	232.2	266.4	229.3	134.8	38.2	26.8
113°	222.1	254.7	218.7	127.4	35.4	26.5
114°	212.2	243.9	208.7	120.0	32.6	25.8
115°	200.9	233.7	199.2	113.6	30.5	25.3
116°	192.3	222.5	189.3	106.5	28.8	25.0
117°	182.5	212.8	179.3	99.8	28.5	24.6
118°	173.3	202.6	170.1	93.3	28.0	24.1
119°	163.7	192.5	160.8	87.1	27.3	23.6
120°	154.6	182.6	152.1	81.1	27.1	23.3
121°	145.7	173.0	143.5	74.6	26.5	22.8
122°	137.4	163.1	135.0	69.4	26.0	22.3
123°	128.5	154.2	126.9	63.5	25.8	21.3
124°	121.1	145.6	119.0	58.0	25.2	20.7
125°	112.6	136.5	111.3	53.0	24.8	20.3
126°	105.1	128.3	103.4	48.3	24.3	19.8
127°	97.9	119.8	95.6	43.4	23.7	19.5
128°	89.4	111.7	88.3	38.8	23.5	19.2
129°	82.6	103.5	80.9	34.8	22.7	18.8
130°	75.5	95.6	74.2	30.6	22.2	18.4
131°	68.7	88.2	67.5	26.8	21.9	18.0
132°	62.0	80.5	61.0	23.5	21.1	17.5



TEST NUMBER: P861206

CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	44.1	59.7	43.8	20.3	19.9	16.4
136°	38.1	54.0	38.6	20.0	19.4	16.0
137°	33.4	47.7	33.5	19.8	18.8	15.9
138°	27.8	41.9	28.8	19.1	18.4	15.5
139°	23.2	36.3	24.4	18.5	17.8	15.4
140°	18.7	31.1	20.5	18.1	17.1	14.9
141°	15.3	26.1	18.4	17.8	16.9	14.7
142°	14.1	21.8	17.9	17.5	16.5	14.5
143°	14.1	18.4	17.7	17.0	16.1	14.3
144°	13.6	17.6	17.4	16.5	15.6	14.0
145°	13.1	16.9	16.9	15.8	15.3	13.7
146°	13.1	16.7	16.5	15.5	15.1	13.4
147°	13.0	16.1	16.2	15.0	14.8	13.1
148°	12.8	15.9	16.0	14.6	14.5	12.9
149°	12.3	15.6	15.7	14.5	14.0	12.6
150°	11.8	15.2	15.5	14.3	14.0	12.6
151°	11.5	14.9	15.2	13.8	13.8	12.2
152°	11.1	14.6	14.7	13.6	13.5	12.2
153°	10.5	14.2	14.7	13.5	13.5	12.2
154°	10.3	13.9	14.5	13.6	13.6	12.2
155°	10.1	13.7	14.4	13.6	13.6	12.1
156°	10.2	13.4	14.2	13.6	13.7	12.1
157°	10.2	13.5	14.0	13.6	13.7	12.1
158°	10.2	13.4	13.9	13.6	13.8	12.1
159°	10.3	13.2	13.7	13.6	13.8	12.1
160°	10.3	13.2	13.7	13.6	13.8	12.1
161°	10.3	12.9	13.4	13.6	13.9	12.7
162°	11.0	12.9	13.2	13.6	13.9	12.7
163°	11.3	12.7	13.4	13.6	14.0	12.9
164°	11.5	12.4	13.0	13.6	14.5	13.2
165°	11.8	12.4	13.0	13.6	15.0	13.7
166°	12.1	12.3	13.0	13.7	15.1	14.1
167°	12.3	12.3	13.0	13.7	15.9	14.4
168°	12.5	12.3	13.0	13.8	16.3	14.7
169°	12.7	12.2	13.0	13.9	16.8	15.0
170°	12.9	12.2	13.0	13.9	17.4	15.2
171°	13.1	11.9	13.0	14.0	17.9	15.2
172°	13.7	11.8	13.0	14.3	18.1	15.3
173°	14.3	11.8	13.0	15.4	17.9	15.3
174°	14.8	11.8	13.0	15.5	17.9	15.3
175°	14.6	11.8	13.0	15.6	18.1	15.3
176°	14.6	11.7	13.4	15.8	18.1	15.3
177°	14.6	11.7	13.2	15.8	18.1	15.4



TEST NUMBER: P861206
CATALOG NUMBER: 8APVTLD-SL3C3 HI POWER 5000K 277V

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	15.3	15.3	15.3	15.3	15.3	15.3



Report Generated By 670246072 / DESKTOP-50001EG





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







43°	2119.1	2191.6	2303.0	2411.3	2449.1	2396.5	2283.0	2160.1	2092.4	2112.8	2185.7
44°	2073.7	2150.8	2264.8	2377.8	2418.2	2363.5	2240.8	2117.8	2048.2	2071.2	2149.1



88°	62.7	264.8	510.2	684.8	759.6	679.2	481.2	231.6	54.9	208.9	404.3
89°	47.7	243.8	484.8	656.6	729.4	649.7	455.5	212.4	43.2	193.6	389.5



133°	17.0	21.0	37.7	84.8	104.8	80.7	29.9	17.9	15.2	16.7	18.9
134°	16.9	20.8	33.2	77.4	97.0	73.3	25.9	17.4	14.0	16.5	16.6



178°	15.4	16.2	14.6	12.5	12.4	12.4	13.1	15.6	18.2	15.4	16.9
179°	15.4	16.4	14.6	12.5	12.9	12.2	13.1	15.6	18.2	15.4	16.8





43°	2281.1	2314.1	2289.5	2210.9	2122.9	2119.1
44°	2247.1	2277.4	2257.2	2169.1	2079.6	2073.7



88°	558.8	593.3	545.7	394.2	195.0	62.7
89°	542.0	575.3	528.3	377.0	178.2	47.7



133°	55.2	73.4	55.6	21.6	20.7	17.0
134°	50.1	66.4	49.7	21.0	20.2	16.9



178°	14.6	11.9	13.2	15.8	18.1	15.4
179°	14.6	12.4	13.2	15.8	18.1	15.4



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

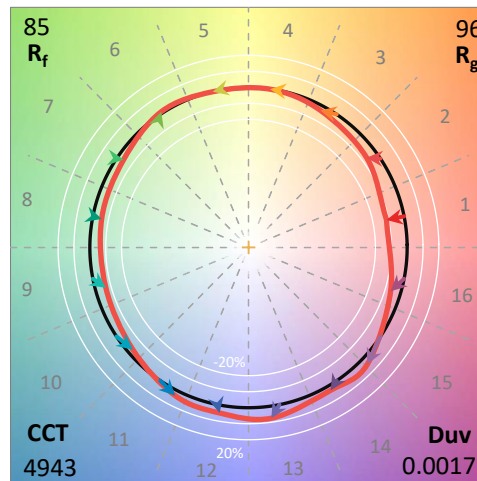
0.1699(@277V) [AT MAX POWER AND 5000K]

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

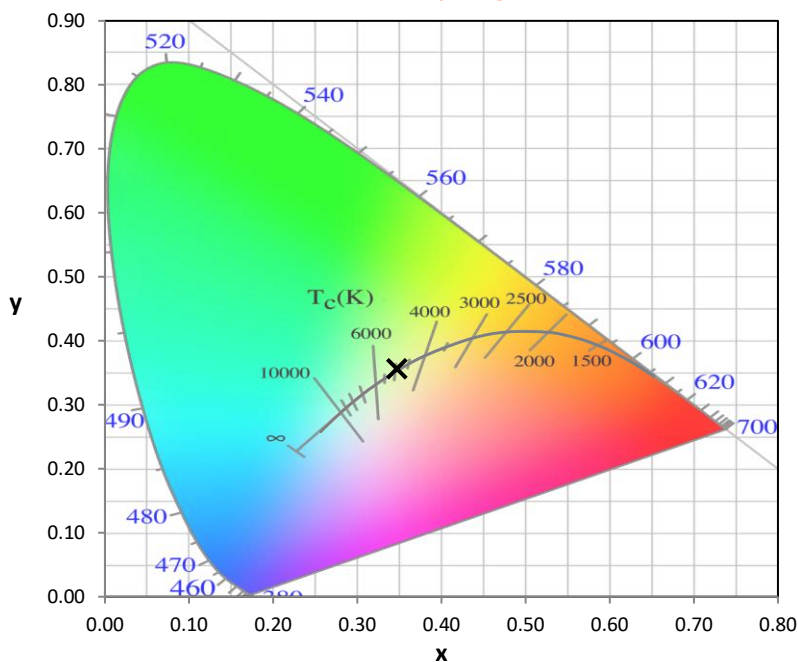
Stabilization Time: 70M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.0/52%
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2210-820-18

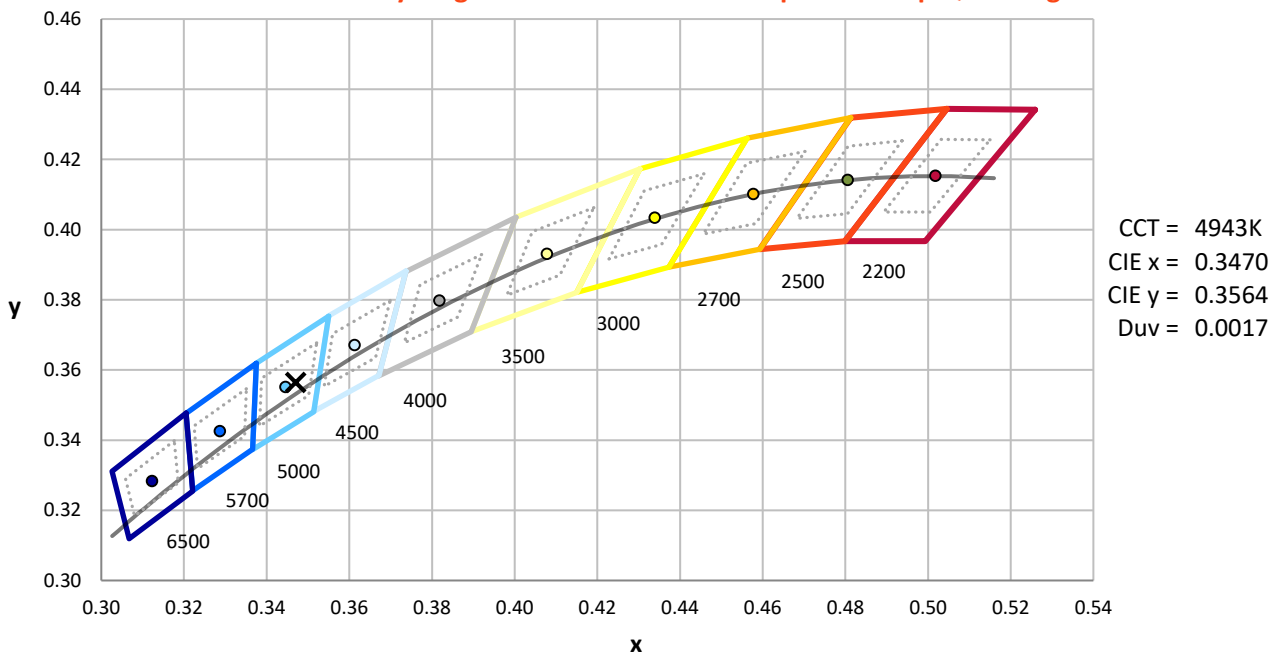
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	8/8/2022	2/8/2023
Power Meter	XITRON 2801 IN0071	11/29/2021	11/29/2022
AC Power Source	CHROMA 61603 IN0063	11/29/2021	11/29/2022
DC Power Source	AGILENT E3634A IN0208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



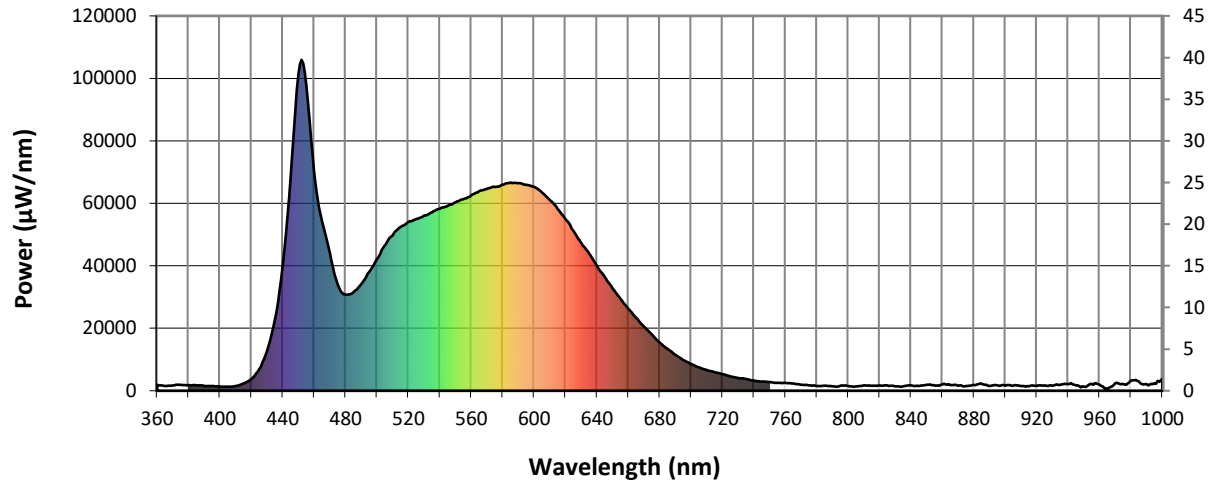
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2210-820-18

Photopic Flux vs. Wavelength

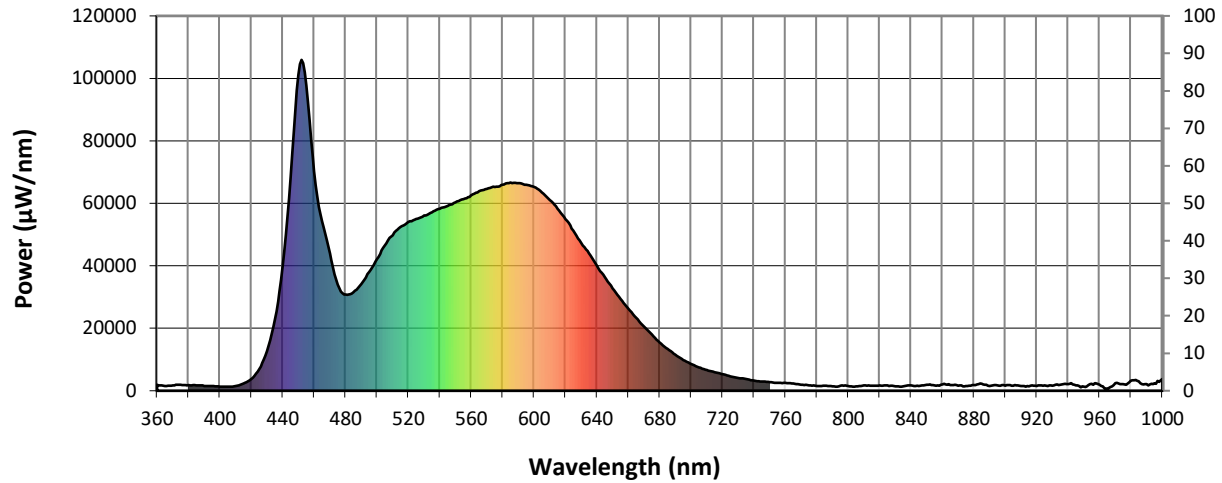


#####

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



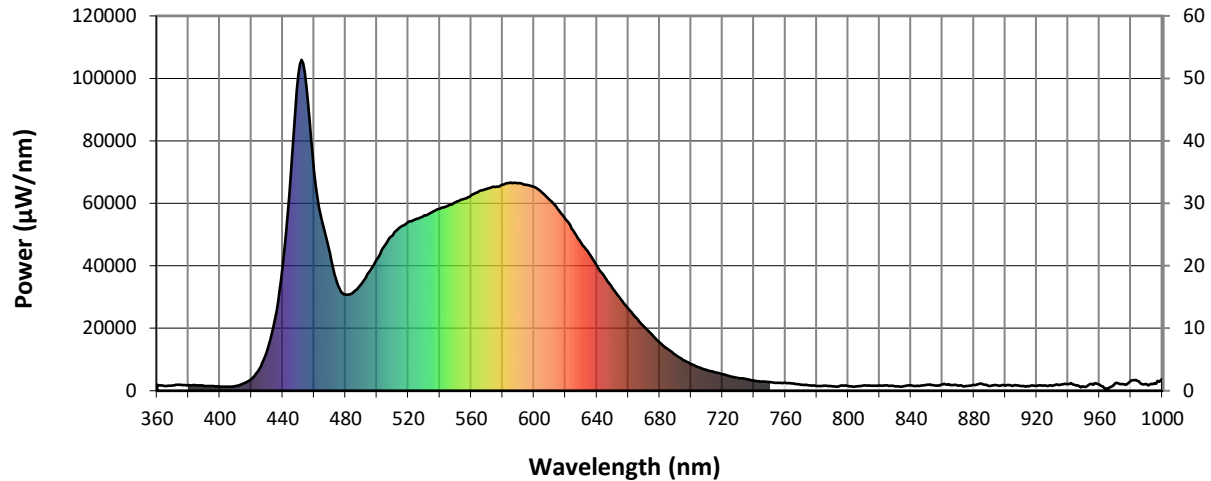
Scotopic Lumens: 8348.9

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			

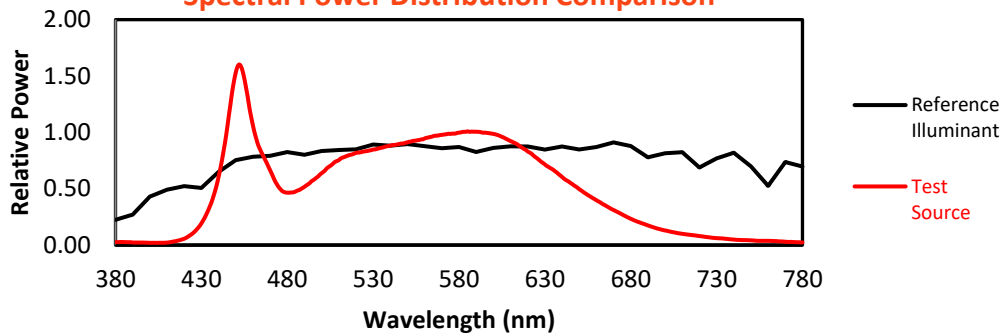
REPORT NUMBER: SP1-2210-820-18

TM-30-18

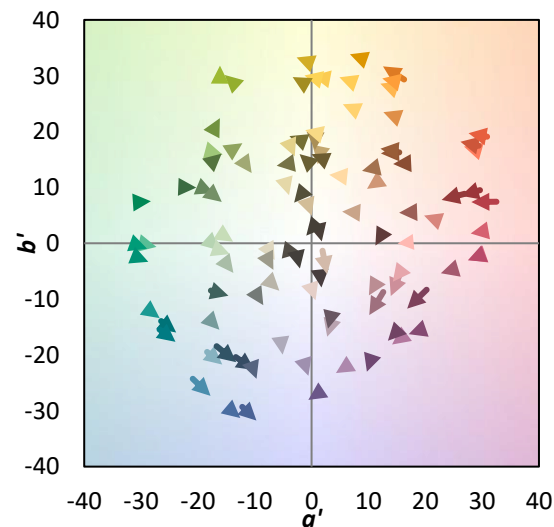
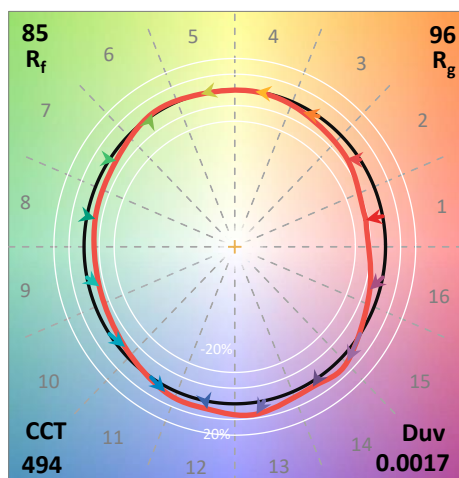
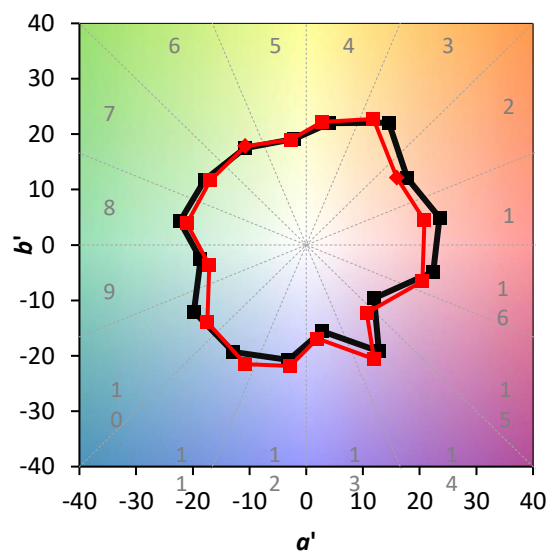
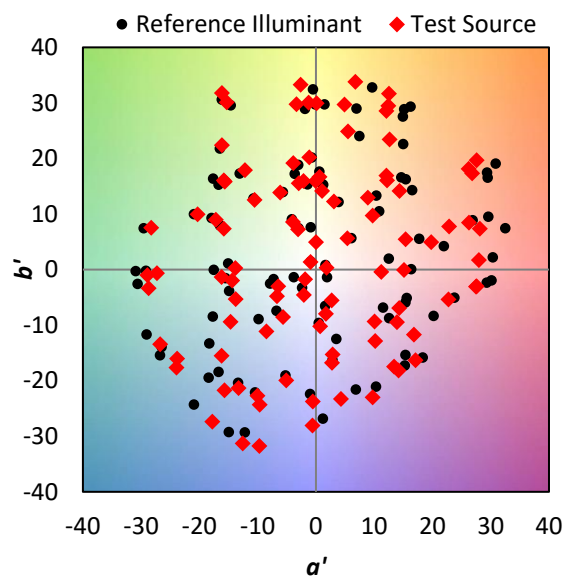
Summary

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

Spectral Power Distribution Comparison



Color Vector Graphics

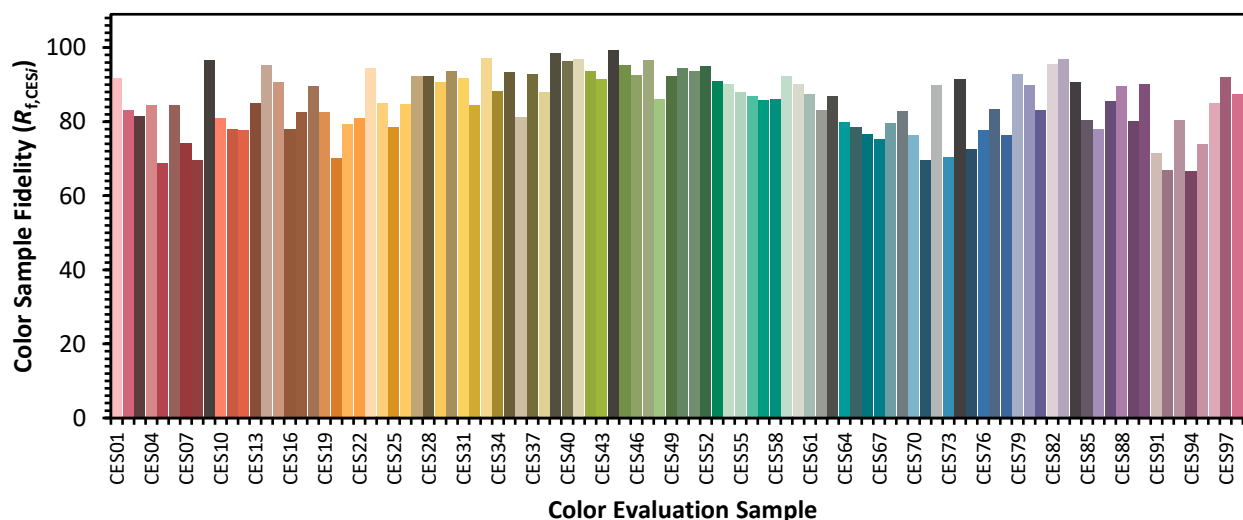


REPORT NUMBER: SP1-2210-820-18

TM-30-18

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

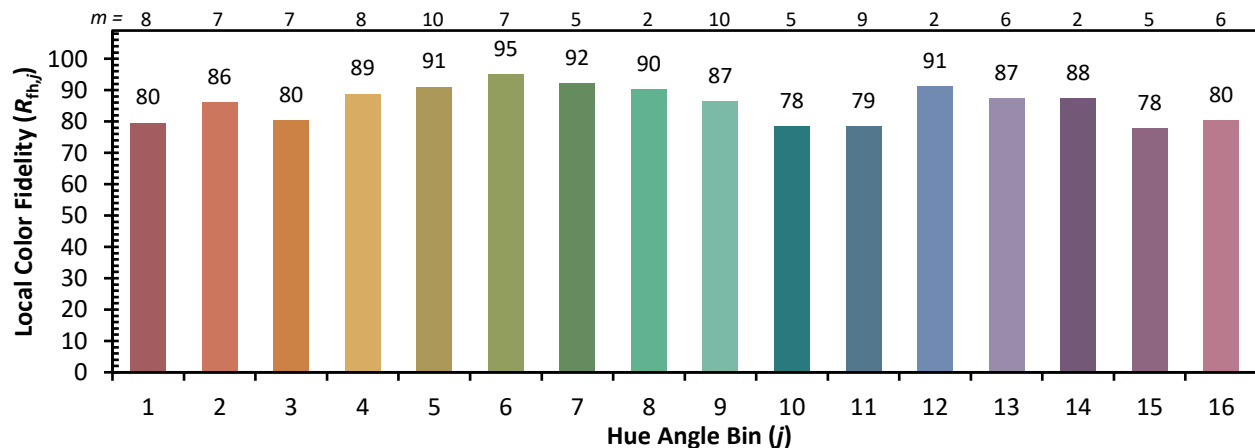
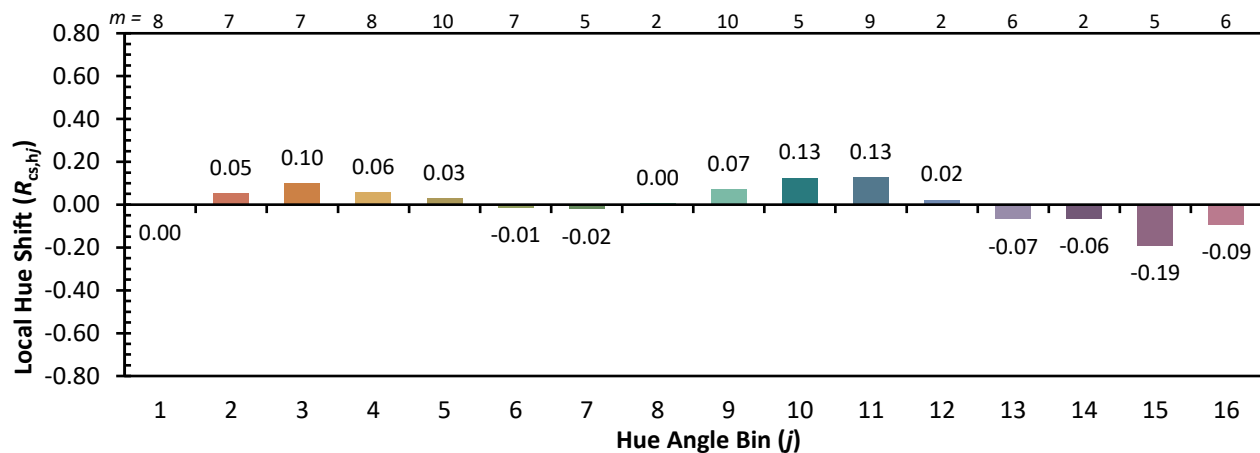
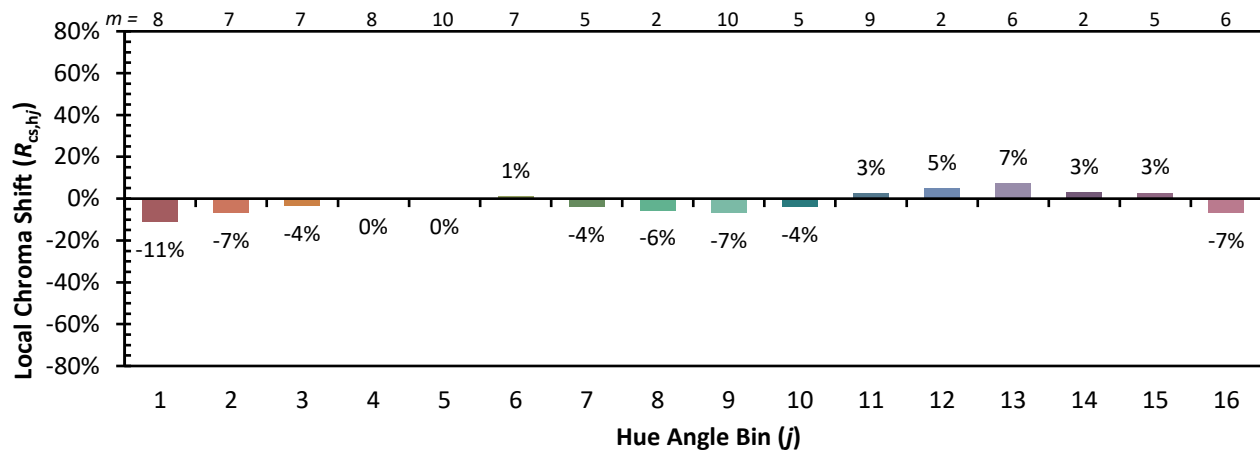
CES01 = 85	CES26 = 85	CES51 = 94	CES76 = 78
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 83
CES03 = 31	CES28 = 92	CES53 = 91	CES78 = 76
CES04 = 69	CES29 = 91	CES54 = 90	CES79 = 93
CES05 = 47	CES30 = 93	CES55 = 88	CES80 = 90
CES06 = 50	CES31 = 92	CES56 = 87	CES81 = 83
CES07 = 40	CES32 = 84	CES57 = 86	CES82 = 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

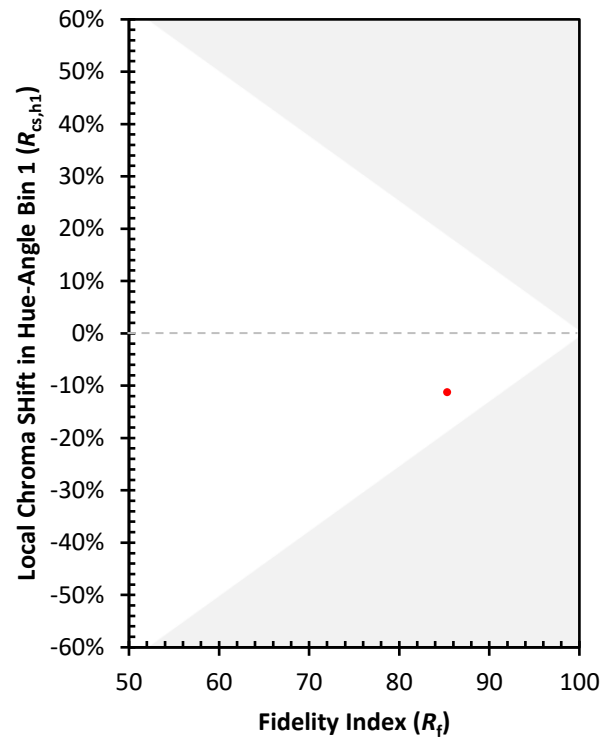
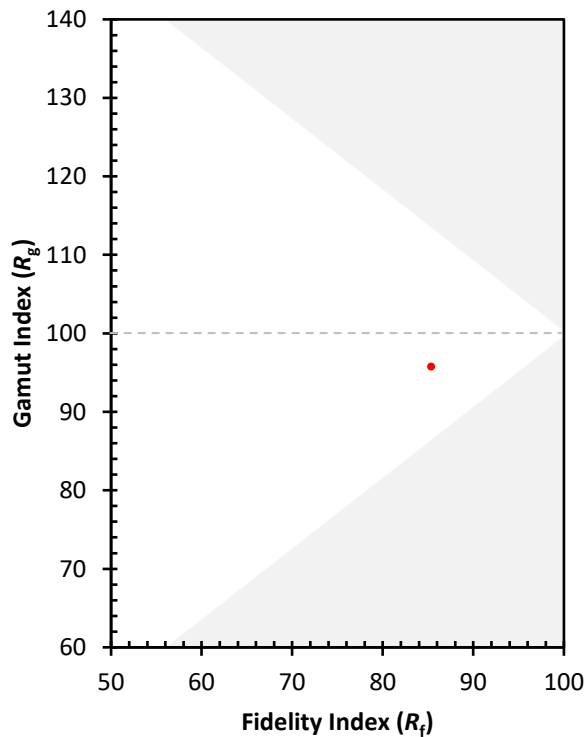
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2210-820-18

TM-30-18

Measure Comparisons



(END OF REPORT)