

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: PORTFOLIO

Report Number: P244103

Luminaire Tested: **LSR8B50D010 EC8B50835 8LBSW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244103  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1801-521-53)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B50D010 EC8B50835 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3500 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5820.0 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.2 / 1.11  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

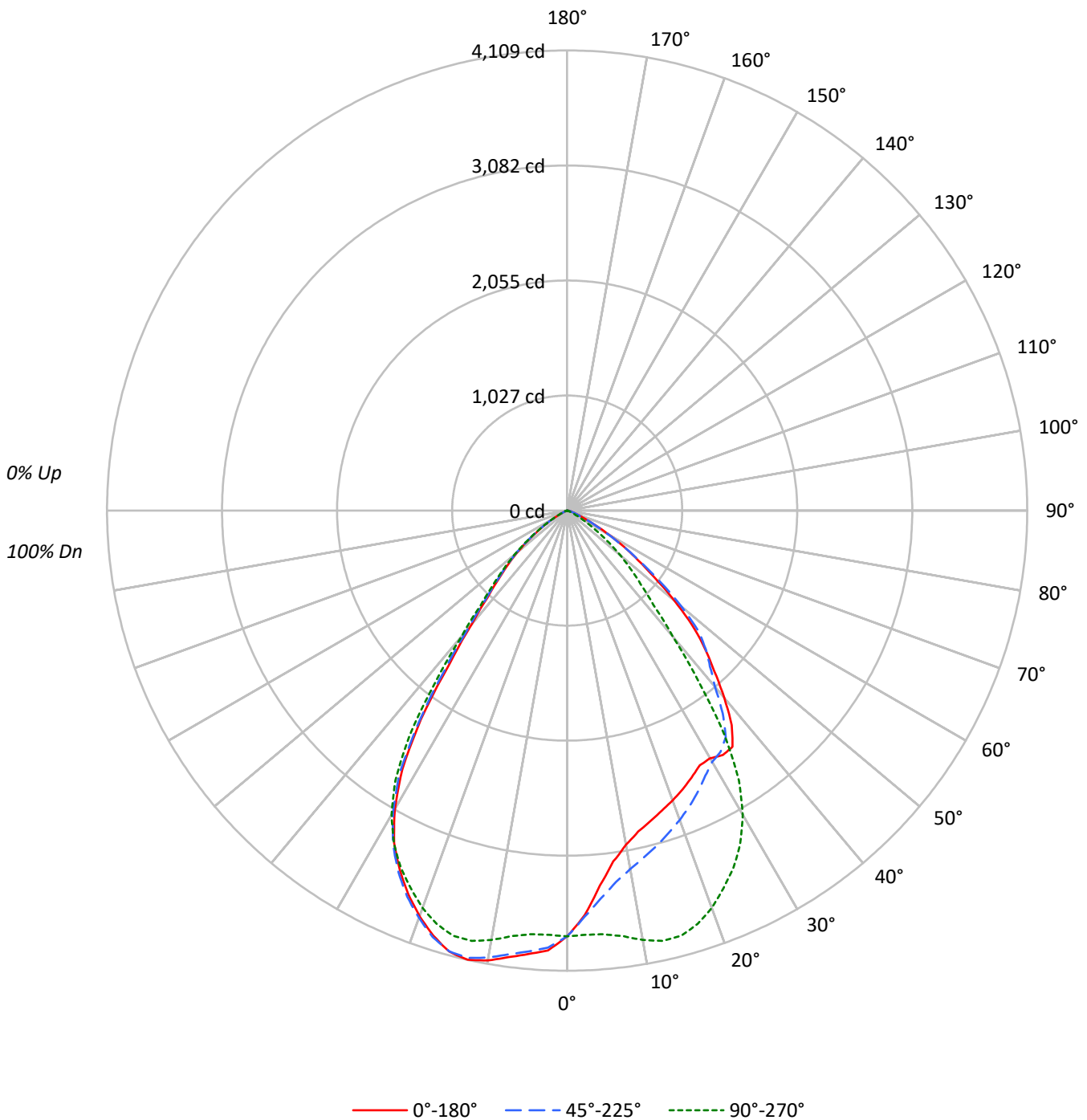
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	91	103	98	93	90	94	91	88	91	88	86	88	86	84	82
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	76	72	68	67
5	86	76	69	64	84	75	69	64	73	68	63	72	66	63	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	117243	117243	117243
5°	104021	117536	123039
10°	94841	121898	127715
15°	91654	125462	130148
20°	90347	123914	126470
25°	89460	119642	120391
30°	90918	111656	109590
35°	96911	92398	85705
40°	87826	59153	53562
45°	75801	40469	37683
50°	59808	29522	27795
55°	41515	18155	17080
60°	26433	9177	8196
65°	13192	3641	2773
70°	7294	1803	992
75°	5242	1311	477
80°	4262	888	178
85°	4599	708	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	354.4	6.1
10°-20°	1023.5	17.6
20°-30°	1485.6	25.5
30°-40°	1463.1	25.1
40°-50°	917.2	15.8
50°-60°	442.6	7.6
60°-70°	107.1	1.8
70°-80°	21.6	0.4
80°-90°	5.0	0.1
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°-30°	2863.4	49.2
0°-40°	4326.6	74.3
0°-60°	5686.3	97.7
0°-90°	5820.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5820.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3802	3802	3802	3802	3802	
5°	3360	3474	3797	3951	3975	311
15°	2871	3097	3930	4074	4077	812
25°	2629	2766	3516	3564	3538	1217
35°	2574	2470	2454	2315	2277	1558
45°	1738	1750	928	889	864	1329
55°	772	797	338	334	318	710
65°	181	179	50	43	38	206
75°	44	38	11	5	4	49
85°	13	10	2	0	0	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1
2.5°	3614.3	3591.3	3548.3	3600.3	3600.3	3571.3	3629.3	3594.3	3622.3	3666.2	3627.3
5°	3360.5	3341.6	3305.6	3360.5	3367.5	3340.6	3410.5	3384.5	3425.5	3479.4	3474.4
7.5°	3159.7	3135.8	3102.8	3159.7	3170.7	3152.8	3219.7	3207.7	3261.6	3331.6	3343.6
10°	3028.9	3003.9	2974.9	3026.9	3034.9	3022.9	3090.8	3083.8	3136.8	3217.7	3249.7
12.5°	2936.0	2915.0	2883.0	2938.0	2947.0	2930.0	2993.9	2990.9	3045.9	3130.8	3170.7
15°	2871.0	2846.1	2817.1	2864.1	2876.0	2857.1	2918.0	2912.0	2967.9	3051.9	3096.8
17.5°	2810.1	2787.1	2757.2	2801.1	2813.1	2793.1	2853.1	2843.1	2891.0	2970.9	3016.9
20°	2753.2	2728.2	2701.2	2746.2	2753.2	2730.2	2790.1	2777.1	2820.1	2894.0	2939.0
22.5°	2694.2	2668.3	2640.3	2684.2	2691.2	2668.3	2723.2	2708.2	2748.2	2815.1	2856.1
25°	2629.3	2605.3	2577.3	2618.3	2624.3	2599.3	2657.3	2638.3	2673.2	2732.2	2766.2
27.5°	2564.4	2541.4	2510.4	2552.4	2555.4	2531.4	2584.3	2558.4	2587.3	2641.3	2670.3
30°	2553.4	2527.4	2495.4	2529.4	2530.4	2499.4	2549.4	2518.4	2534.4	2574.4	2591.3
32.5°	2588.3	2562.4	2529.4	2557.4	2554.4	2520.4	2568.4	2530.4	2535.4	2556.4	2552.4
35°	2574.4	2543.4	2504.4	2534.4	2534.4	2493.4	2541.4	2496.4	2491.4	2494.4	2469.5
37.5°	2415.5	2391.5	2354.6	2383.5	2380.6	2349.6	2386.5	2349.6	2332.6	2325.6	2280.7
40°	2181.8	2152.8	2124.8	2155.8	2158.8	2125.8	2173.8	2131.8	2126.8	2106.8	2053.9
42.5°	1945.0	1935.0	1908.0	1934.0	1948.0	1920.0	1960.0	1940.0	1943.0	1938.0	1888.1
45°	1738.2	1721.2	1701.2	1731.2	1740.2	1726.2	1766.2	1754.2	1766.2	1791.2	1750.2
47.5°	1515.4	1498.5	1476.5	1508.4	1524.4	1498.5	1532.4	1528.4	1546.4	1589.4	1585.4
50°	1246.7	1234.7	1230.7	1234.7	1244.7	1232.7	1256.7	1257.7	1269.7	1328.6	1332.6
52.5°	987.0	984.0	970.0	983.0	983.0	964.0	988.0	977.0	989.0	1028.9	1054.9
55°	772.2	769.2	760.2	772.2	759.2	752.2	759.2	748.2	739.2	770.2	797.2
57.5°	601.4	591.4	580.4	585.4	584.4	569.4	577.4	564.4	557.4	568.4	592.4
60°	428.6	425.6	415.6	420.6	424.6	413.6	421.6	415.6	403.6	412.6	413.6
62.5°	284.7	286.7	280.7	281.7	278.7	276.7	281.7	284.7	281.7	277.7	278.7
65°	180.8	179.8	178.8	179.8	181.8	177.8	180.8	182.8	179.8	179.8	178.8
67.5°	119.9	116.9	113.9	115.9	117.9	114.9	117.9	116.9	117.9	116.9	113.9
70°	80.9	79.9	78.9	79.9	79.9	77.9	79.9	78.9	79.9	78.9	75.9
72.5°	58.9	58.9	57.9	58.9	58.9	56.9	57.9	55.9	56.9	55.9	53.9
75°	44.0	44.0	43.0	44.0	43.0	42.0	43.0	42.0	40.0	40.0	38.0
77.5°	32.0	32.0	32.0	32.0	32.0	31.0	31.0	30.0	29.0	28.0	28.0
80°	24.0	23.0	23.0	23.0	23.0	22.0	23.0	22.0	21.0	20.0	19.0
82.5°	17.0	18.0	17.0	17.0	17.0	16.0	17.0	16.0	16.0	15.0	13.0
85°	13.0	13.0	13.0	13.0	13.0	12.0	12.0	12.0	11.0	11.0	10.0
87.5°	7.0	7.0	7.0	8.0	7.0	7.0	7.0	6.0	6.0	5.0	5.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1
2.5°	3679.2	3684.2	3673.2	3690.2	3756.1	3703.2	3725.2	3732.2	3782.1	3791.1	3785.1
5°	3539.4	3561.3	3575.3	3613.3	3686.2	3648.2	3687.2	3712.2	3776.1	3797.1	3802.1
7.5°	3429.5	3475.4	3509.4	3571.3	3657.2	3628.3	3687.2	3728.2	3806.1	3833.1	3846.0
10°	3347.6	3417.5	3476.4	3561.3	3658.2	3639.3	3716.2	3774.1	3861.0	3893.0	3909.0
12.5°	3285.6	3370.5	3449.5	3557.3	3662.2	3653.2	3746.1	3812.1	3904.0	3936.0	3954.9
15°	3217.7	3315.6	3407.5	3528.4	3641.3	3639.3	3739.2	3809.1	3903.0	3930.0	3947.9
17.5°	3136.8	3241.7	3342.6	3473.4	3585.3	3587.3	3688.2	3757.1	3849.0	3871.0	3883.0
20°	3054.9	3158.7	3259.6	3394.5	3504.4	3507.4	3606.3	3670.2	3758.1	3776.1	3779.1
22.5°	2967.9	3064.8	3165.7	3299.6	3405.5	3407.5	3505.4	3565.3	3640.3	3649.2	3657.2
25°	2869.0	2964.0	3058.9	3191.7	3292.6	3298.6	3387.5	3440.5	3509.4	3516.4	3519.4
27.5°	2766.2	2844.1	2935.0	3048.9	3150.8	3146.8	3230.7	3290.6	3352.6	3348.6	3347.6
30°	2662.3	2727.2	2783.1	2893.0	2967.9	2970.9	3049.9	3078.8	3143.8	3135.8	3134.8
32.5°	2589.3	2606.3	2621.3	2677.2	2748.2	2723.2	2777.1	2813.1	2858.1	2855.1	2856.1
35°	2455.5	2424.5	2379.6	2387.5	2430.5	2391.5	2420.5	2419.5	2465.5	2454.5	2467.5
37.5°	2226.7	2138.8	2038.9	1982.0	1990.0	1941.0	1931.0	1955.0	1971.0	1940.0	1951.0
40°	1983.0	1853.1	1697.3	1567.4	1560.4	1499.5	1488.5	1464.5	1495.5	1469.5	1477.5
42.5°	1803.1	1631.3	1426.5	1268.7	1234.7	1183.8	1153.8	1149.8	1158.8	1140.8	1135.8
45°	1665.3	1482.5	1247.7	1066.9	1028.9	974.0	944.0	933.0	934.0	928.0	923.1
47.5°	1503.5	1319.6	1081.9	897.1	854.1	802.2	772.2	765.2	769.2	761.2	755.2
50°	1279.7	1114.9	898.1	729.2	691.3	653.3	629.4	622.4	621.4	615.4	611.4
52.5°	1038.9	902.1	714.3	573.4	539.4	502.5	485.5	476.5	477.5	471.5	465.5
55°	804.2	719.3	553.4	433.6	402.6	373.6	357.6	346.6	343.6	337.7	334.7
57.5°	598.4	541.4	414.6	312.7	294.7	266.7	250.7	237.8	235.8	232.8	231.8
60°	419.6	378.6	291.7	222.8	201.8	184.8	168.8	155.8	149.8	148.8	145.8
62.5°	271.7	246.7	191.8	148.8	132.9	120.9	104.9	95.9	91.9	87.9	88.9
65°	168.8	149.8	119.9	95.9	86.9	77.9	65.9	57.9	53.9	49.9	50.9
67.5°	104.9	93.9	75.9	61.9	55.9	48.9	40.0	34.0	31.0	28.0	26.0
70°	70.9	60.9	51.9	44.0	40.0	35.0	29.0	24.0	22.0	20.0	18.0
72.5°	49.9	45.0	38.0	33.0	30.0	26.0	22.0	19.0	17.0	15.0	13.0
75°	36.0	32.0	28.0	24.0	22.0	20.0	17.0	15.0	13.0	11.0	9.0
77.5°	26.0	23.0	20.0	18.0	17.0	14.0	12.0	11.0	10.0	8.0	6.0
80°	18.0	16.0	13.0	12.0	12.0	10.0	9.0	8.0	7.0	5.0	4.0
82.5°	12.0	11.0	10.0	9.0	8.0	7.0	7.0	5.0	4.0	3.0	2.0
85°	9.0	8.0	7.0	6.0	6.0	5.0	4.0	3.0	3.0	2.0	1.0
87.5°	5.0	5.0	4.0	3.0	3.0	2.0	2.0	1.0	1.0	1.0	1.0
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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1
2.5°	3836.1	3839.0	3856.0	3843.0	3876.0	3900.0	3888.0	3915.0	3906.0	3904.0	3935.0
5°	3862.0	3869.0	3892.0	3880.0	3916.0	3941.9	3930.0	3959.9	3950.9	3948.9	3980.9
7.5°	3912.0	3919.0	3938.9	3929.0	3966.9	3989.9	3974.9	4007.9	3995.9	3994.9	4025.9
10°	3974.9	3984.9	4001.9	3991.9	4026.9	4046.8	4031.9	4063.8	4052.8	4047.8	4081.8
12.5°	4021.9	4028.9	4045.8	4037.8	4071.8	4086.8	4073.8	4104.8	4090.8	4086.8	4116.8
15°	4010.9	4017.9	4031.9	4024.9	4056.8	4070.8	4053.8	4087.8	4073.8	4065.8	4092.8
17.5°	3940.9	3944.9	3954.9	3947.9	3981.9	3990.9	3971.9	4005.9	3992.9	3978.9	4004.9
20°	3838.1	3836.1	3842.0	3839.0	3867.0	3872.0	3860.0	3885.0	3870.0	3862.0	3877.0
22.5°	3710.2	3708.2	3712.2	3704.2	3732.2	3735.2	3717.2	3747.1	3732.2	3717.2	3742.1
25°	3568.3	3557.3	3555.3	3558.3	3577.3	3580.3	3561.3	3583.3	3564.3	3552.3	3576.3
27.5°	3393.5	3379.5	3376.5	3379.5	3398.5	3384.5	3368.5	3384.5	3365.5	3354.5	3369.5
30°	3177.7	3157.8	3148.8	3142.8	3162.7	3157.8	3120.8	3138.8	3108.8	3092.8	3103.8
32.5°	2887.0	2876.0	2852.1	2838.1	2857.1	2819.1	2796.1	2796.1	2784.1	2757.2	2763.2
35°	2483.4	2466.5	2444.5	2432.5	2435.5	2384.5	2346.6	2354.6	2314.6	2307.6	2310.6
37.5°	1973.0	1945.0	1937.0	1912.0	1918.0	1873.1	1821.1	1822.1	1801.1	1779.2	1772.2
40°	1482.5	1477.5	1469.5	1448.5	1456.5	1407.6	1387.6	1388.6	1374.6	1358.6	1366.6
42.5°	1145.8	1129.8	1124.8	1117.8	1119.8	1111.9	1085.9	1088.9	1076.9	1072.9	1068.9
45°	931.0	914.1	902.1	908.1	908.1	899.1	889.1	895.1	889.1	881.1	885.1
47.5°	767.2	751.2	745.2	744.2	751.2	745.2	735.2	737.2	736.2	733.2	731.2
50°	612.4	608.4	603.4	600.4	603.4	601.4	592.4	597.4	600.4	590.4	593.4
52.5°	466.5	466.5	465.5	458.5	464.5	458.5	457.5	459.5	456.5	452.5	451.5
55°	341.6	338.7	333.7	332.7	334.7	332.7	330.7	331.7	333.7	323.7	323.7
57.5°	233.8	231.8	228.8	228.8	232.8	227.8	224.8	228.8	224.8	220.8	220.8
60°	149.8	148.8	145.8	145.8	145.8	144.9	141.9	142.9	144.9	138.9	139.9
62.5°	89.9	86.9	85.9	84.9	85.9	84.9	84.9	83.9	82.9	82.9	79.9
65°	48.9	47.0	45.0	46.0	46.0	45.0	45.0	45.0	43.0	42.0	41.0
67.5°	25.0	23.0	23.0	22.0	22.0	22.0	22.0	21.0	21.0	21.0	20.0
70°	16.0	15.0	14.0	14.0	14.0	13.0	13.0	13.0	13.0	13.0	12.0
72.5°	11.0	10.0	9.0	9.0	9.0	8.0	8.0	8.0	8.0	7.0	7.0
75°	8.0	7.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
77.5°	5.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	2.0
80°	3.0	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
82.5°	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	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	0.0





TEST NUMBER: P244103

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBSW0LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1	3802.1
2.5°	3924.0	3916.0	3921.0	3957.9	3941.9	3936.9	3895.0	3932.0
5°	3970.9	3964.9	3964.9	4006.9	3987.9	3983.9	3942.9	3974.9
7.5°	4014.9	4008.9	4009.9	4052.8	4037.8	4031.9	3990.9	4022.9
10°	4071.8	4067.8	4068.8	4109.8	4093.8	4087.8	4045.8	4078.8
12.5°	4105.8	4099.8	4099.8	4143.7	4125.8	4116.8	4076.8	4108.8
15°	4079.8	4070.8	4070.8	4114.8	4094.8	4081.8	4046.8	4076.8
17.5°	3990.9	3981.9	3981.9	4019.9	4004.9	3985.9	3949.9	3977.9
20°	3867.0	3856.0	3853.0	3897.0	3876.0	3859.0	3827.1	3854.0
22.5°	3727.2	3722.2	3713.2	3757.1	3738.2	3720.2	3686.2	3707.2
25°	3559.3	3551.3	3542.4	3585.3	3566.3	3548.3	3521.4	3538.4
27.5°	3350.6	3351.6	3346.6	3380.5	3361.5	3351.6	3318.6	3346.6
30°	3097.8	3086.8	3082.8	3122.8	3104.8	3091.8	3050.9	3077.8
32.5°	2768.2	2752.2	2731.2	2776.1	2745.2	2734.2	2699.2	2738.2
35°	2288.6	2283.7	2264.7	2302.6	2285.6	2265.7	2243.7	2276.7
37.5°	1769.2	1773.2	1771.2	1781.2	1771.2	1758.2	1734.2	1722.2
40°	1350.6	1340.6	1332.6	1350.6	1329.6	1329.6	1315.6	1330.6
42.5°	1058.9	1054.9	1064.9	1068.9	1056.9	1054.9	1052.9	1051.9
45°	874.1	874.1	876.1	880.1	876.1	874.1	868.1	864.1
47.5°	720.3	724.3	720.3	733.2	726.3	724.3	712.3	717.3
50°	583.4	578.4	583.4	587.4	588.4	582.4	576.4	579.4
52.5°	452.5	444.5	442.5	448.5	444.5	444.5	440.5	439.5
55°	318.7	321.7	316.7	321.7	319.7	316.7	313.7	317.7
57.5°	215.8	216.8	214.8	217.8	212.8	213.8	212.8	211.8
60°	139.9	135.9	135.9	138.9	133.9	133.9	132.9	132.9
62.5°	79.9	78.9	78.9	77.9	76.9	76.9	76.9	74.9
65°	41.0	40.0	39.0	39.0	39.0	39.0	38.0	38.0
67.5°	20.0	19.0	19.0	20.0	19.0	19.0	19.0	19.0
70°	12.0	12.0	11.0	12.0	11.0	11.0	11.0	11.0
72.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
75°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	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

(END OF REPORT)