

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: P244102

Luminaire Tested: **LSR8B40D010 EC8B40835 8LBSWOLI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244102  
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: LSR8B40D010 EC8B40835 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: 4652.0 lumens  
Efficiency: N/A  
Efficacy: 113.7 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

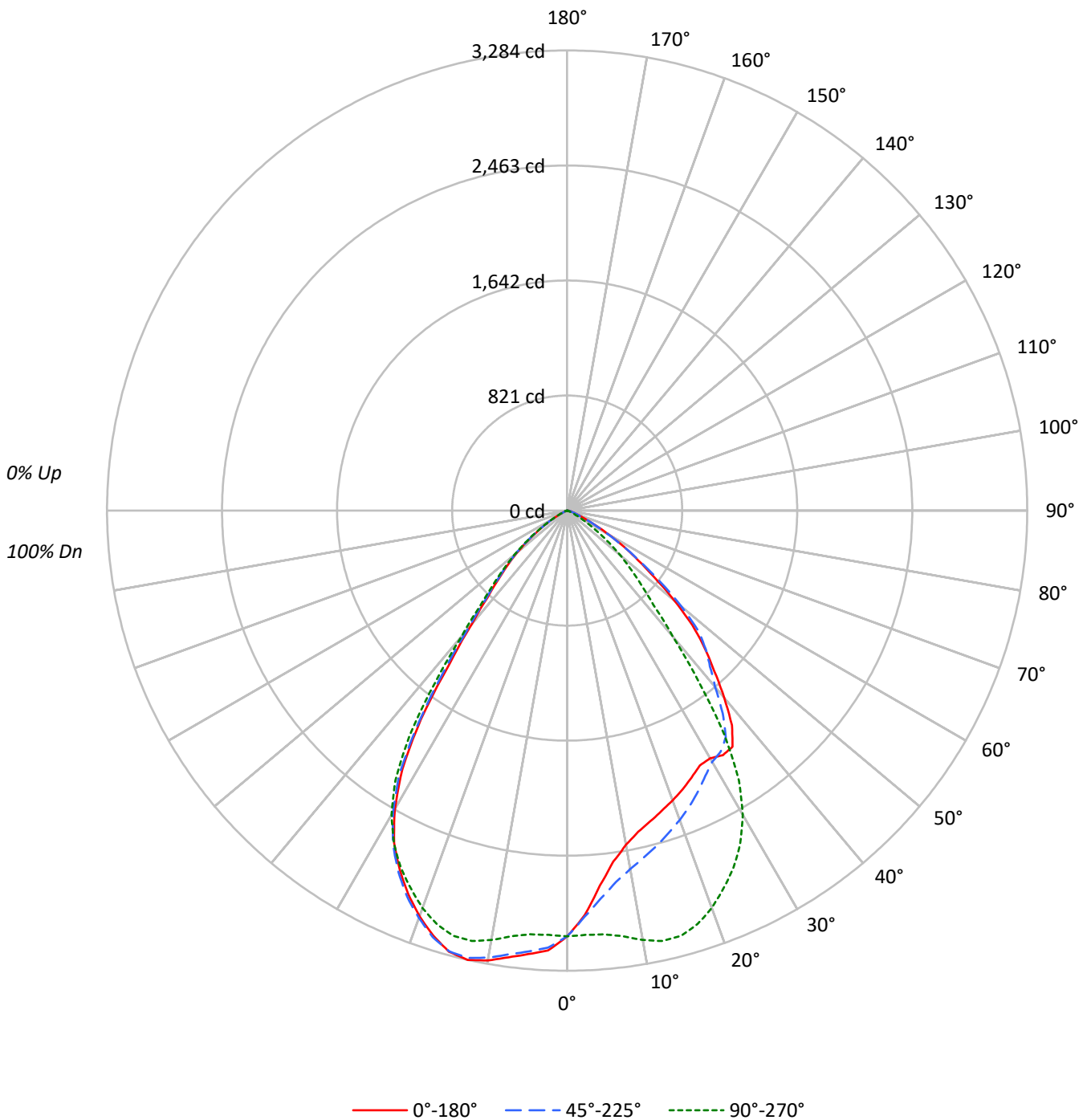
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	93715	93715	93715
5°	83146	93949	98347
10°	75806	97434	102083
15°	73263	100283	104028
20°	72213	99046	101091
25°	71505	95632	96230
30°	72670	89248	87600
35°	77460	73854	68505
40°	70199	47282	42814
45°	60591	32349	30121
50°	47805	23598	22216
55°	33182	14510	13650
60°	21129	7339	6550
65°	10543	2911	2211
70°	5833	1443	793
75°	4182	1048	381
80°	3410	710	142
85°	3680	566	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.2	6.1
10°-20°	818.1	17.6
20°-30°	1187.4	25.5
30°-40°	1169.5	25.1
40°-50°	733.1	15.8
50°-60°	353.8	7.6
60°-70°	85.6	1.8
70°-80°	17.3	0.4
80°-90°	4.0	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°	2288.8	49.2
0°-40°	3458.3	74.3
0°-60°	4545.1	97.7
0°-90°	4652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4652.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3039	3039	3039	3039	3039	
5°	2686	2777	3035	3158	3177	249
15°	2295	2475	3141	3256	3259	649
25°	2102	2211	2811	2849	2828	973
35°	2058	1974	1962	1850	1820	1245
45°	1389	1399	742	711	691	1062
55°	617	637	270	267	254	568
65°	144	143	40	34	30	165
75°	35	30	9	4	3	39
85°	10	8	2	0	0	11
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°	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1
2.5°	2888.9	2870.6	2836.2	2877.8	2877.8	2854.6	2900.9	2873.0	2895.3	2930.5	2899.3
5°	2686.1	2671.0	2642.2	2686.1	2691.7	2670.2	2726.0	2705.3	2738.0	2781.1	2777.2
7.5°	2525.6	2506.5	2480.1	2525.6	2534.4	2520.0	2573.5	2564.0	2607.1	2663.0	2672.5
10°	2421.0	2401.1	2377.9	2419.4	2425.8	2416.2	2470.5	2464.9	2507.3	2571.9	2597.5
12.5°	2346.8	2330.0	2304.4	2348.4	2355.5	2342.0	2393.1	2390.7	2434.6	2502.5	2534.4
15°	2294.9	2274.9	2251.7	2289.3	2298.9	2283.7	2332.4	2327.6	2372.3	2439.4	2475.3
17.5°	2246.2	2227.8	2203.8	2239.0	2248.6	2232.6	2280.5	2272.5	2310.8	2374.7	2411.4
20°	2200.6	2180.7	2159.1	2195.1	2200.6	2182.3	2230.2	2219.8	2254.1	2313.2	2349.2
22.5°	2153.5	2132.8	2110.4	2145.5	2151.1	2132.8	2176.7	2164.7	2196.6	2250.1	2282.9
25°	2101.6	2082.5	2060.1	2092.8	2097.6	2077.7	2124.0	2108.8	2136.8	2183.9	2211.0
27.5°	2049.7	2031.4	2006.6	2040.1	2042.5	2023.4	2065.7	2044.9	2068.1	2111.2	2134.4
30°	2040.9	2020.2	1994.6	2021.8	2022.6	1997.8	2037.7	2013.0	2025.8	2057.7	2071.3
32.5°	2068.9	2048.1	2021.8	2044.1	2041.7	2014.6	2052.9	2022.6	2026.6	2043.3	2040.1
35°	2057.7	2033.0	2001.8	2025.8	2025.8	1993.0	2031.4	1995.4	1991.4	1993.8	1973.9
37.5°	1930.8	1911.6	1882.0	1905.2	1902.8	1878.1	1907.6	1878.1	1864.5	1858.9	1823.0
40°	1743.9	1720.7	1698.4	1723.1	1725.5	1699.2	1737.5	1704.0	1700.0	1684.0	1641.7
42.5°	1554.7	1546.7	1525.1	1545.9	1557.1	1534.7	1566.6	1550.7	1553.1	1549.1	1509.1
45°	1389.4	1375.8	1359.8	1383.8	1391.0	1379.8	1411.7	1402.2	1411.7	1431.7	1399.0
47.5°	1211.3	1197.7	1180.2	1205.7	1218.5	1197.7	1224.9	1221.7	1236.1	1270.4	1267.2
50°	996.5	986.9	983.7	986.9	994.9	985.3	1004.5	1005.3	1014.9	1062.0	1065.2
52.5°	788.9	786.5	775.3	785.7	785.7	770.5	789.7	780.9	790.5	822.4	843.2
55°	617.2	614.8	607.7	617.2	606.9	601.3	606.9	598.1	590.9	615.6	637.2
57.5°	480.7	472.7	463.9	467.9	467.1	455.1	461.5	451.1	445.6	454.3	473.5
60°	342.6	340.2	332.2	336.2	339.4	330.6	337.0	332.2	322.6	329.8	330.6
62.5°	227.6	229.2	224.4	225.2	222.8	221.2	225.2	227.6	225.2	222.0	222.8
65°	144.5	143.7	142.9	143.7	145.3	142.1	144.5	146.1	143.7	143.7	142.9
67.5°	95.8	93.4	91.0	92.6	94.2	91.8	94.2	93.4	94.2	93.4	91.0
70°	64.7	63.9	63.1	63.9	63.9	62.3	63.9	63.1	63.9	63.1	60.7
72.5°	47.1	47.1	46.3	47.1	47.1	45.5	46.3	44.7	45.5	44.7	43.1
75°	35.1	35.1	34.3	35.1	34.3	33.5	34.3	33.5	31.9	31.9	30.3
77.5°	25.6	25.6	25.6	25.6	25.6	24.8	24.8	24.0	23.2	22.4	22.4
80°	19.2	18.4	18.4	18.4	18.4	17.6	18.4	17.6	16.8	16.0	15.2
82.5°	13.6	14.4	13.6	13.6	13.6	12.8	13.6	12.8	12.8	12.0	10.4
85°	10.4	10.4	10.4	10.4	10.4	9.6	9.6	9.6	8.8	8.8	8.0
87.5°	5.6	5.6	5.6	6.4	5.6	5.6	5.6	4.8	4.8	4.0	4.0
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°	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1
2.5°	2940.8	2944.8	2936.1	2949.6	3002.3	2960.0	2977.6	2983.2	3023.1	3030.3	3025.5
5°	2829.1	2846.6	2857.8	2888.1	2946.4	2916.1	2947.2	2967.2	3018.3	3035.1	3039.1
7.5°	2741.2	2778.0	2805.1	2854.6	2923.3	2900.1	2947.2	2980.0	3042.3	3063.8	3074.2
10°	2675.7	2731.6	2778.7	2846.6	2924.1	2908.9	2970.4	3016.7	3086.2	3111.7	3124.5
12.5°	2626.2	2694.1	2757.2	2843.4	2927.3	2920.1	2994.3	3047.0	3120.5	3146.1	3161.2
15°	2571.9	2650.2	2723.7	2820.3	2910.5	2908.9	2988.8	3044.6	3119.7	3141.3	3155.6
17.5°	2507.3	2591.1	2671.8	2776.4	2865.8	2867.4	2948.0	3003.1	3076.6	3094.2	3103.7
20°	2441.8	2524.8	2605.5	2713.3	2801.1	2803.5	2882.6	2933.7	3003.9	3018.3	3020.7
22.5°	2372.3	2449.8	2530.4	2637.4	2722.1	2723.7	2801.9	2849.8	2909.7	2916.9	2923.3
25°	2293.3	2369.1	2445.0	2551.2	2631.8	2636.6	2707.7	2750.0	2805.1	2810.7	2813.1
27.5°	2211.0	2273.3	2346.0	2437.0	2518.4	2515.2	2582.3	2630.2	2679.7	2676.5	2675.7
30°	2128.0	2179.9	2224.6	2312.4	2372.3	2374.7	2437.8	2460.9	2512.9	2506.5	2505.7
32.5°	2069.7	2083.3	2095.2	2140.0	2196.6	2176.7	2219.8	2248.6	2284.5	2282.1	2282.9
35°	1962.7	1937.9	1902.0	1908.4	1942.7	1911.6	1934.7	1933.9	1970.7	1961.9	1972.3
37.5°	1779.8	1709.6	1629.7	1584.2	1590.6	1551.5	1543.5	1562.6	1575.4	1550.7	1559.5
40°	1585.0	1481.2	1356.6	1252.8	1247.2	1198.5	1189.8	1170.6	1195.3	1174.6	1181.0
42.5°	1441.3	1303.9	1140.2	1014.1	986.9	946.2	922.3	919.1	926.2	911.9	907.9
45°	1331.1	1185.0	997.3	852.8	822.4	778.5	754.6	745.8	746.6	741.8	737.8
47.5°	1201.7	1054.8	864.8	717.0	682.7	641.2	617.2	611.6	614.8	608.5	603.7
50°	1022.9	891.1	717.8	582.9	552.6	522.2	503.0	497.5	496.7	491.9	488.7
52.5°	830.4	721.0	570.9	458.3	431.2	401.6	388.1	380.9	381.7	376.9	372.1
55°	642.8	574.9	442.4	346.5	321.8	298.6	285.9	277.1	274.7	269.9	267.5
57.5°	478.3	432.8	331.4	249.9	235.6	213.2	200.4	190.0	188.4	186.0	185.2
60°	335.4	302.6	233.2	178.1	161.3	147.7	134.9	124.6	119.8	119.0	116.6
62.5°	217.2	197.2	153.3	119.0	106.2	96.6	83.8	76.7	73.5	70.3	71.1
65°	134.9	119.8	95.8	76.7	69.5	62.3	52.7	46.3	43.1	39.9	40.7
67.5°	83.8	75.1	60.7	49.5	44.7	39.1	31.9	27.1	24.8	22.4	20.8
70°	56.7	48.7	41.5	35.1	31.9	27.9	23.2	19.2	17.6	16.0	14.4
72.5°	39.9	35.9	30.3	26.4	24.0	20.8	17.6	15.2	13.6	12.0	10.4
75°	28.7	25.6	22.4	19.2	17.6	16.0	13.6	12.0	10.4	8.8	7.2
77.5°	20.8	18.4	16.0	14.4	13.6	11.2	9.6	8.8	8.0	6.4	4.8
80°	14.4	12.8	10.4	9.6	9.6	8.0	7.2	6.4	5.6	4.0	3.2
82.5°	9.6	8.8	8.0	7.2	6.4	5.6	5.6	4.0	3.2	2.4	1.6
85°	7.2	6.4	5.6	4.8	4.8	4.0	3.2	2.4	2.4	1.6	0.8
87.5°	4.0	4.0	3.2	2.4	2.4	1.6	1.6	0.8	0.8	0.8	0.8
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°	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1
2.5°	3066.2	3068.6	3082.2	3071.8	3098.1	3117.3	3107.7	3129.3	3122.1	3120.5	3145.3
5°	3087.0	3092.6	3110.9	3101.3	3130.1	3150.8	3141.3	3165.2	3158.0	3156.4	3182.0
7.5°	3126.9	3132.5	3148.5	3140.5	3170.8	3189.2	3177.2	3203.5	3194.0	3193.2	3217.9
10°	3177.2	3185.2	3198.8	3190.8	3218.7	3234.7	3222.7	3248.3	3239.5	3235.5	3262.6
12.5°	3214.7	3220.3	3233.9	3227.5	3254.6	3266.6	3256.2	3281.0	3269.8	3266.6	3290.6
15°	3205.9	3211.5	3222.7	3217.1	3242.7	3253.9	3240.3	3267.4	3256.2	3249.9	3271.4
17.5°	3150.0	3153.2	3161.2	3155.6	3182.8	3190.0	3174.8	3201.9	3191.6	3180.4	3201.2
20°	3067.8	3066.2	3071.0	3068.6	3091.0	3095.0	3085.4	3105.3	3093.4	3087.0	3098.9
22.5°	2965.6	2964.0	2967.2	2960.8	2983.2	2985.6	2971.2	2995.1	2983.2	2971.2	2991.1
25°	2852.2	2843.4	2841.8	2844.2	2859.4	2861.8	2846.6	2864.2	2849.0	2839.4	2858.6
27.5°	2712.5	2701.3	2698.9	2701.3	2716.5	2705.3	2692.5	2705.3	2690.1	2681.3	2693.3
30°	2540.0	2524.0	2516.8	2512.1	2528.0	2524.0	2494.5	2508.9	2484.9	2472.1	2480.9
32.5°	2307.6	2298.9	2279.7	2268.5	2283.7	2253.3	2235.0	2235.0	2225.4	2203.8	2208.6
35°	1985.0	1971.5	1953.9	1944.3	1946.7	1906.0	1875.7	1882.0	1850.1	1844.5	1846.9
37.5°	1577.0	1554.7	1548.3	1528.3	1533.1	1497.2	1455.6	1456.4	1439.7	1422.1	1416.5
40°	1185.0	1181.0	1174.6	1157.8	1164.2	1125.1	1109.1	1109.9	1098.7	1085.9	1092.3
42.5°	915.9	903.1	899.1	893.5	895.1	888.7	868.0	870.4	860.8	857.6	854.4
45°	744.2	730.6	721.0	725.8	725.8	718.6	710.7	715.4	710.7	704.3	707.5
47.5°	613.2	600.5	595.7	594.9	600.5	595.7	587.7	589.3	588.5	586.1	584.5
50°	489.5	486.3	482.3	479.9	482.3	480.7	473.5	477.5	479.9	471.9	474.3
52.5°	372.9	372.9	372.1	366.5	371.3	366.5	365.7	367.3	364.9	361.7	360.9
55°	273.1	270.7	266.7	265.9	267.5	265.9	264.3	265.1	266.7	258.7	258.7
57.5°	186.8	185.2	182.9	182.9	186.0	182.1	179.7	182.9	179.7	176.5	176.5
60°	119.8	119.0	116.6	116.6	116.6	115.8	113.4	114.2	115.8	111.0	111.8
62.5°	71.9	69.5	68.7	67.9	68.7	67.9	67.9	67.1	66.3	66.3	63.9
65°	39.1	37.5	35.9	36.7	36.7	35.9	35.9	35.9	34.3	33.5	32.7
67.5°	20.0	18.4	18.4	17.6	17.6	17.6	17.6	16.8	16.8	16.8	16.0
70°	12.8	12.0	11.2	11.2	11.2	10.4	10.4	10.4	10.4	10.4	9.6
72.5°	8.8	8.0	7.2	7.2	7.2	6.4	6.4	6.4	6.4	5.6	5.6
75°	6.4	5.6	4.8	4.8	4.8	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	4.0	3.2	3.2	3.2	3.2	2.4	2.4	2.4	2.4	2.4	1.6
80°	2.4	2.4	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	0.8
82.5°	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0
87.5°	0.8	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: P244102

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBSW0LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1
2.5°	3136.5	3130.1	3134.1	3163.6	3150.8	3146.9	3113.3	3142.9
5°	3174.0	3169.2	3169.2	3202.7	3187.6	3184.4	3151.6	3177.2
7.5°	3209.1	3204.3	3205.1	3239.5	3227.5	3222.7	3190.0	3215.5
10°	3254.6	3251.5	3252.3	3285.0	3272.2	3267.4	3233.9	3260.2
12.5°	3281.8	3277.0	3277.0	3312.1	3297.8	3290.6	3258.6	3284.2
15°	3261.0	3253.9	3253.9	3289.0	3273.0	3262.6	3234.7	3258.6
17.5°	3190.0	3182.8	3182.8	3213.1	3201.2	3186.0	3157.2	3179.6
20°	3091.0	3082.2	3079.8	3114.9	3098.1	3084.6	3059.0	3080.6
22.5°	2979.2	2975.2	2968.0	3003.1	2988.0	2973.6	2946.4	2963.2
25°	2845.0	2838.6	2831.4	2865.8	2850.6	2836.2	2814.7	2828.3
27.5°	2678.1	2678.9	2674.9	2702.1	2686.9	2678.9	2652.6	2674.9
30°	2476.1	2467.3	2464.1	2496.1	2481.7	2471.3	2438.6	2460.2
32.5°	2212.6	2199.8	2183.1	2219.0	2194.3	2185.5	2157.5	2188.7
35°	1829.3	1825.4	1810.2	1840.5	1826.9	1811.0	1793.4	1819.8
37.5°	1414.1	1417.3	1415.7	1423.7	1415.7	1405.3	1386.2	1376.6
40°	1079.6	1071.6	1065.2	1079.6	1062.8	1062.8	1051.6	1063.6
42.5°	846.4	843.2	851.2	854.4	844.8	843.2	841.6	840.8
45°	698.7	698.7	700.3	703.5	700.3	698.7	693.9	690.7
47.5°	575.7	578.9	575.7	586.1	580.5	578.9	569.3	573.3
50°	466.3	462.3	466.3	469.5	470.3	465.5	460.7	463.1
52.5°	361.7	355.3	353.7	358.5	355.3	355.3	352.1	351.3
55°	254.7	257.1	253.1	257.1	255.5	253.1	250.7	253.9
57.5°	172.5	173.3	171.7	174.1	170.1	170.9	170.1	169.3
60°	111.8	108.6	108.6	111.0	107.0	107.0	106.2	106.2
62.5°	63.9	63.1	63.1	62.3	61.5	61.5	61.5	59.9
65°	32.7	31.9	31.1	31.1	31.1	31.1	30.3	30.3
67.5°	16.0	15.2	15.2	16.0	15.2	15.2	15.2	15.2
70°	9.6	9.6	8.8	9.6	8.8	8.8	8.8	8.8
72.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
75°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	2.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)