

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: P246053

Luminaire Tested: **LSR8B50D010 EC8B50840 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246053
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B50D010 EC8B50840 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5420.0 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

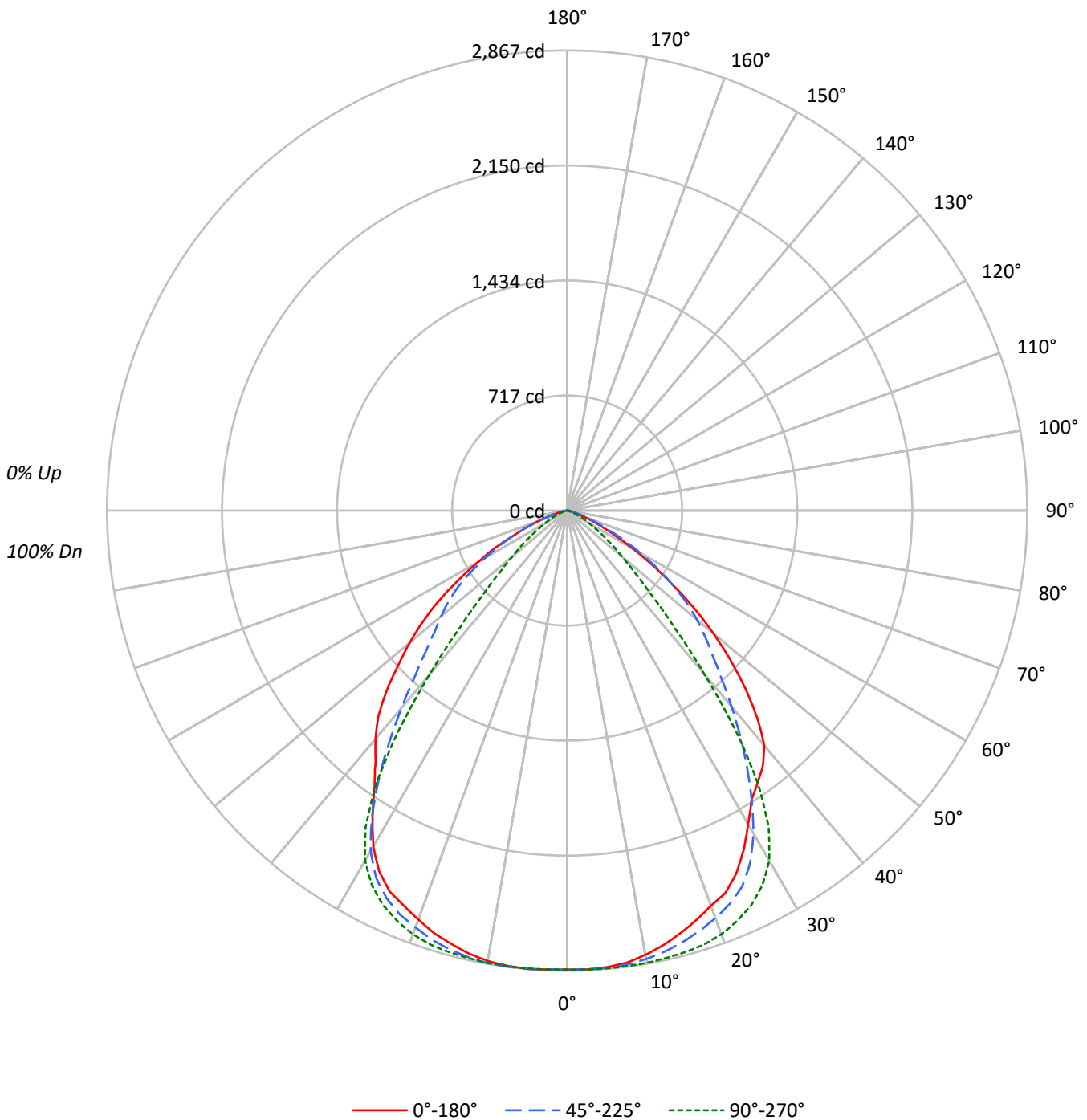
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	88183	88183	88183
5°	88377	88615	88711
10°	88006	89590	89208
15°	87028	90901	89186
20°	85986	92178	88956
25°	84870	92287	89048
30°	80290	89690	86029
35°	77893	77950	78759
40°	76929	53634	74768
45°	68545	32197	69482
50°	56996	21429	61415
55°	42746	14774	52073
60°	28968	9843	39285
65°	17475	6384	26990
70°	9692	3462	16607
75°	4384	1465	8602
80°	3818	1634	6002
85°	4352	2158	5979



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.9	5.0
10°-20°	792.6	14.6
20°-30°	1203.0	22.2
30°-40°	1263.5	23.3
40°-50°	947.3	17.5
50°-60°	607.8	11.2
60°-70°	260.0	4.8
70°-80°	61.4	1.1
80°-90°	11.4	0.2
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°	2268.5	41.9
0°-40°	3532.0	65.2
0°-60°	5087.1	93.9
0°-90°	5420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5420.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2860	2860	2860	2860	2860	
5°	2855	2860	2863	2867	2866	271
15°	2726	2783	2847	2829	2794	769
25°	2494	2582	2712	2663	2617	1140
35°	2069	1954	2071	2046	2092	1299
45°	1572	1285	738	1248	1593	1204
55°	795	795	275	829	969	721
65°	240	282	88	364	370	256
75°	37	43	12	74	72	54
85°	12	8	6	12	17	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7
2.5°	2861.2	2864.3	2862.8	2862.8	2861.2	2862.8	2862.8	2865.9	2865.9	2862.8	2861.2
5°	2855.1	2858.2	2858.2	2855.1	2855.1	2862.8	2858.2	2861.2	2861.2	2859.7	2859.7
7.5°	2841.3	2841.3	2847.4	2842.8	2842.8	2847.4	2845.9	2849.0	2852.0	2853.6	2853.6
10°	2810.6	2813.7	2815.2	2815.2	2816.7	2821.3	2824.4	2830.6	2833.6	2836.7	2838.2
12.5°	2772.2	2776.8	2778.3	2776.8	2781.4	2787.5	2795.2	2802.9	2807.5	2813.7	2818.3
15°	2726.1	2726.1	2729.2	2733.8	2736.9	2746.1	2753.8	2763.0	2775.3	2783.0	2790.6
17.5°	2675.5	2678.6	2683.2	2683.2	2689.3	2704.7	2709.3	2723.1	2736.9	2744.6	2759.9
20°	2620.3	2623.3	2627.9	2631.0	2638.7	2650.9	2660.1	2672.4	2687.8	2701.6	2716.9
22.5°	2577.3	2571.1	2574.2	2577.3	2585.0	2595.7	2606.4	2621.8	2637.1	2650.9	2666.3
25°	2494.4	2495.9	2500.5	2503.6	2512.8	2522.0	2534.3	2552.7	2566.5	2581.9	2598.7
27.5°	2382.3	2383.9	2391.5	2391.5	2399.2	2414.6	2422.2	2437.6	2456.0	2471.3	2491.3
30°	2254.9	2258.0	2258.0	2264.1	2268.7	2276.4	2284.1	2299.4	2308.6	2322.5	2350.1
32.5°	2138.3	2141.3	2139.8	2138.3	2133.6	2132.1	2130.6	2133.6	2136.7	2141.3	2152.1
35°	2069.2	2061.5	2055.4	2044.6	2032.4	2017.0	2003.2	1984.8	1967.9	1954.0	1938.7
37.5°	2003.2	2001.6	1992.4	1977.1	1952.5	1924.9	1892.7	1852.7	1812.8	1769.9	1728.4
40°	1911.1	1906.5	1898.8	1877.3	1849.7	1815.9	1772.9	1723.8	1659.3	1593.3	1525.8
42.5°	1754.5	1756.0	1746.8	1729.9	1703.9	1671.6	1627.1	1573.4	1504.3	1426.0	1338.5
45°	1571.8	1571.8	1568.8	1554.9	1536.5	1510.4	1476.7	1432.2	1364.6	1284.8	1191.1
47.5°	1381.5	1383.0	1378.4	1375.4	1367.7	1350.8	1326.2	1292.5	1244.9	1168.1	1074.5
50°	1188.1	1188.1	1195.8	1194.2	1194.2	1188.1	1177.4	1157.4	1116.0	1054.5	967.1
52.5°	994.7	997.8	1002.4	1008.5	1016.2	1028.4	1016.2	1007.0	980.9	933.3	858.1
55°	795.1	798.2	805.9	816.6	825.8	838.1	841.2	841.2	827.3	795.1	738.3
57.5°	624.8	620.1	626.3	635.5	647.8	660.1	669.3	680.0	678.5	657.0	610.9
60°	469.7	471.3	475.8	485.1	494.3	505.0	517.3	526.5	531.1	520.4	491.2
62.5°	342.3	342.3	348.4	357.6	362.3	377.6	385.3	389.9	394.5	392.9	374.5
65°	239.5	242.5	245.6	250.2	254.8	264.0	268.6	277.8	280.9	282.4	268.6
67.5°	168.9	164.2	167.3	170.4	175.0	181.1	190.3	190.3	194.9	194.9	185.7
70°	107.5	107.5	109.0	113.6	116.7	118.2	121.3	124.3	128.9	127.4	127.4
72.5°	72.2	70.6	72.2	73.7	75.2	79.8	79.8	81.4	84.4	86.0	79.8
75°	36.8	38.4	41.4	39.9	44.5	41.4	43.0	47.6	46.0	43.0	43.0
77.5°	30.7	30.7	30.7	29.2	32.2	32.2	30.7	33.8	32.2	32.2	30.7
80°	21.5	23.0	21.5	19.9	21.5	19.9	19.9	19.9	19.9	19.9	18.4
82.5°	16.9	13.8	15.4	13.8	15.4	15.4	13.8	12.3	12.3	13.8	12.3
85°	12.3	9.2	10.7	10.7	9.2	9.2	9.2	9.2	9.2	7.7	7.7
87.5°	7.7	4.6	4.6	4.6	6.1	6.1	6.1	4.6	6.1	6.1	3.1
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7
2.5°	2864.3	2862.8	2865.9	2864.3	2864.3	2862.8	2864.3	2862.8	2865.9	2859.7	2861.2
5°	2864.3	2861.2	2862.8	2864.3	2865.9	2862.8	2862.8	2862.8	2865.9	2862.8	2864.3
7.5°	2858.2	2856.6	2861.2	2864.3	2862.8	2861.2	2864.3	2862.8	2865.9	2864.3	2867.4
10°	2845.9	2847.4	2850.5	2855.1	2856.6	2858.2	2861.2	2861.2	2865.9	2859.7	2862.8
12.5°	2827.5	2833.6	2841.3	2844.3	2850.5	2850.5	2853.6	2855.1	2858.2	2856.6	2861.2
15°	2804.4	2812.1	2821.3	2829.0	2836.7	2841.3	2845.9	2847.4	2852.0	2847.4	2849.0
17.5°	2776.8	2786.0	2799.8	2809.0	2821.3	2825.9	2832.1	2835.1	2839.8	2836.7	2838.2
20°	2738.4	2749.2	2764.5	2778.3	2786.0	2796.8	2804.4	2809.0	2812.1	2809.0	2810.6
22.5°	2684.7	2700.1	2720.0	2730.8	2746.1	2755.3	2756.9	2767.6	2775.3	2767.6	2770.7
25°	2621.8	2637.1	2652.5	2675.5	2689.3	2700.1	2710.8	2712.4	2720.0	2718.5	2716.9
27.5°	2517.4	2537.4	2563.4	2581.9	2600.3	2617.2	2629.5	2632.5	2640.2	2637.1	2638.7
30°	2374.6	2396.1	2420.7	2449.9	2476.0	2492.8	2508.2	2518.9	2526.6	2522.0	2520.5
32.5°	2172.0	2193.5	2219.6	2248.8	2279.5	2304.0	2322.5	2336.3	2345.5	2342.4	2334.7
35°	1940.3	1946.4	1963.3	1986.3	2012.4	2038.5	2055.4	2070.7	2081.4	2084.5	2084.5
37.5°	1702.3	1682.4	1670.1	1670.1	1685.4	1696.2	1711.5	1720.7	1737.6	1743.7	1748.4
40°	1472.0	1426.0	1383.0	1350.8	1329.3	1327.8	1327.8	1332.4	1347.7	1367.7	1386.1
42.5°	1266.4	1192.7	1126.7	1066.8	1023.9	999.3	988.6	990.1	1002.4	1020.8	1051.5
45°	1102.1	1010.0	927.1	855.0	796.7	758.3	739.9	738.3	747.5	769.0	802.8
47.5°	974.7	876.5	782.8	699.9	637.0	595.6	574.1	568.0	574.1	594.0	634.0
50°	868.8	767.5	670.8	584.8	517.3	474.3	454.4	446.7	454.4	471.3	511.1
52.5°	770.6	666.2	575.6	492.7	420.6	383.7	362.3	357.6	362.3	382.2	414.5
55°	657.0	568.0	478.9	396.0	333.1	296.3	279.4	274.8	279.4	297.8	331.6
57.5°	544.9	468.2	389.9	314.7	261.0	228.7	213.4	207.2	218.0	230.2	270.2
60°	440.5	379.2	313.1	247.1	202.6	173.4	161.2	159.6	162.7	178.1	205.7
62.5°	345.4	294.7	242.5	188.8	152.0	139.7	124.3	122.8	125.9	135.1	156.6
65°	248.7	216.5	176.5	138.1	109.0	92.1	86.0	87.5	90.6	96.7	116.7
67.5°	173.4	150.4	122.8	96.7	75.2	67.5	61.4	59.9	61.4	72.2	82.9
70°	116.7	102.8	82.9	73.7	52.2	41.4	43.0	38.4	44.5	44.5	53.7
72.5°	76.7	67.5	55.2	43.0	36.8	29.2	29.2	27.6	30.7	32.2	39.9
75°	39.9	30.7	30.7	21.5	15.4	7.7	13.8	12.3	10.7	12.3	15.4
77.5°	27.6	23.0	21.5	16.9	15.4	12.3	12.3	12.3	12.3	13.8	15.4
80°	16.9	16.9	12.3	10.7	9.2	7.7	9.2	9.2	9.2	9.2	10.7
82.5°	10.7	9.2	9.2	7.7	7.7	6.1	6.1	6.1	6.1	6.1	9.2
85°	9.2	6.1	6.1	4.6	6.1	10.7	4.6	6.1	6.1	6.1	4.6
87.5°	3.1	4.6	4.6	4.6	3.1	1.5	3.1	4.6	4.6	7.7	6.1
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7
2.5°	2864.3	2865.9	2865.9	2864.3	2864.3	2861.2	2867.4	2862.8	2864.3	2870.4	2865.9
5°	2867.4	2868.9	2868.9	2867.4	2867.4	2867.4	2868.9	2868.9	2867.4	2865.9	2868.9
7.5°	2873.5	2872.0	2872.0	2868.9	2868.9	2865.9	2868.9	2864.3	2867.4	2864.3	2868.9
10°	2865.9	2867.4	2865.9	2864.3	2864.3	2862.8	2862.8	2858.2	2859.7	2855.1	2858.2
12.5°	2861.2	2859.7	2859.7	2856.6	2853.6	2850.5	2849.0	2844.3	2844.3	2833.6	2838.2
15°	2849.0	2850.5	2845.9	2839.8	2836.7	2829.0	2825.9	2819.8	2813.7	2806.0	2807.5
17.5°	2838.2	2833.6	2827.5	2821.3	2809.0	2802.9	2796.8	2787.5	2784.5	2775.3	2772.2
20°	2806.0	2802.9	2795.2	2784.5	2776.8	2763.0	2756.9	2747.7	2740.0	2730.8	2726.1
22.5°	2764.5	2761.4	2752.2	2741.5	2729.2	2723.1	2716.9	2700.1	2692.4	2683.2	2681.6
25°	2712.4	2707.7	2698.5	2686.3	2680.1	2663.2	2657.1	2644.8	2641.7	2632.5	2631.0
27.5°	2632.5	2626.4	2615.6	2600.3	2589.5	2578.8	2572.7	2563.4	2560.4	2551.2	2549.6
30°	2512.8	2505.1	2483.6	2477.5	2459.1	2448.3	2448.3	2436.0	2437.6	2431.5	2431.5
32.5°	2324.0	2311.7	2294.8	2282.5	2270.2	2264.1	2264.1	2259.5	2262.6	2262.6	2265.7
35°	2073.8	2056.9	2047.7	2040.0	2040.0	2046.1	2064.6	2069.2	2078.4	2086.1	2092.2
37.5°	1753.0	1751.4	1762.2	1771.4	1794.4	1820.5	1852.7	1880.4	1906.5	1924.9	1943.3
40°	1406.1	1444.4	1475.1	1518.1	1553.4	1604.1	1662.4	1710.0	1754.5	1786.8	1820.5
42.5°	1097.5	1146.6	1211.1	1274.0	1337.0	1406.1	1482.8	1548.8	1607.1	1651.7	1687.0
45°	855.0	922.5	1000.8	1080.6	1162.0	1248.0	1327.8	1395.3	1456.7	1502.8	1538.1
47.5°	689.2	762.9	851.9	939.4	1031.5	1122.1	1211.1	1269.5	1320.1	1356.9	1389.2
50°	569.5	647.8	741.4	841.2	933.3	1023.9	1100.6	1157.4	1198.8	1231.1	1251.0
52.5°	475.8	558.7	658.5	758.3	850.4	933.3	1002.4	1045.3	1079.1	1102.1	1120.5
55°	392.9	472.8	566.4	660.1	750.6	828.9	885.7	917.9	944.0	957.8	968.6
57.5°	320.8	394.5	480.5	566.4	644.7	709.2	753.7	785.9	798.2	808.9	807.4
60°	251.8	320.8	399.1	472.8	540.3	592.5	624.8	643.2	652.4	657.0	653.9
62.5°	198.0	261.0	320.8	385.3	434.4	478.9	509.6	509.6	514.2	515.8	520.4
65°	147.3	194.9	247.1	294.7	334.6	363.8	380.7	385.3	391.4	389.9	386.8
67.5°	109.0	144.3	182.6	218.0	245.6	264.0	276.3	287.1	285.5	282.4	280.9
70°	75.2	98.3	132.0	153.5	173.4	191.9	194.9	196.5	198.0	199.6	196.5
72.5°	52.2	69.1	87.5	105.9	118.2	125.9	133.6	135.1	135.1	135.1	133.6
75°	26.1	35.3	52.2	59.9	70.6	73.7	79.8	79.8	84.4	78.3	76.7
77.5°	23.0	27.6	36.8	43.0	47.6	52.2	53.7	58.3	56.8	53.7	55.2
80°	13.8	16.9	23.0	26.1	32.2	33.8	35.3	36.8	35.3	36.8	36.8
82.5°	10.7	12.3	15.4	15.4	19.9	19.9	21.5	21.5	23.0	23.0	23.0
85°	6.1	10.7	9.2	18.4	12.3	12.3	15.4	18.4	15.4	15.4	18.4
87.5°	6.1	6.1	4.6	6.1	6.1	6.1	7.7	9.2	9.2	10.7	9.2
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: P246053

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2859.7	2859.7	2859.7	2859.7
2.5°	2864.3	2867.4	2862.8	2861.2
5°	2868.9	2868.9	2865.9	2865.9
7.5°	2868.9	2868.9	2864.3	2861.2
10°	2856.6	2856.6	2852.0	2849.0
12.5°	2833.6	2833.6	2832.1	2827.5
15°	2804.4	2804.4	2798.3	2793.7
17.5°	2764.5	2767.6	2759.9	2759.9
20°	2721.6	2720.0	2713.9	2710.8
22.5°	2677.0	2674.0	2672.4	2663.2
25°	2629.5	2626.4	2621.8	2617.2
27.5°	2548.1	2546.6	2542.0	2535.8
30°	2423.8	2422.2	2416.1	2416.1
32.5°	2262.6	2261.0	2254.9	2256.5
35°	2095.3	2101.4	2098.3	2092.2
37.5°	1955.6	1960.2	1963.3	1960.2
40°	1838.9	1852.7	1854.3	1857.4
42.5°	1714.6	1733.0	1739.2	1742.2
45°	1565.7	1582.6	1596.4	1593.3
47.5°	1413.7	1426.0	1438.3	1429.1
50°	1267.9	1275.6	1280.2	1280.2
52.5°	1129.8	1129.8	1128.2	1129.8
55°	971.6	971.6	965.5	968.6
57.5°	805.9	808.9	804.3	796.7
60°	652.4	644.7	641.6	637.0
62.5°	508.1	508.1	497.4	511.1
65°	380.7	376.1	371.5	369.9
67.5°	276.3	274.8	270.2	268.6
70°	194.9	188.8	187.3	184.2
72.5°	130.5	130.5	127.4	127.4
75°	79.8	72.2	70.6	72.2
77.5°	55.2	53.7	53.7	52.2
80°	36.8	35.3	38.4	33.8
82.5°	23.0	24.6	23.0	24.6
85°	15.4	18.4	16.9	16.9
87.5°	9.2	9.2	9.2	9.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)