

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: P249499

Luminaire Tested: **LSR8B90D010 EC8B909727 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249499
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: LSR8B90D010 EC8B909727 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 2700 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5890.0 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

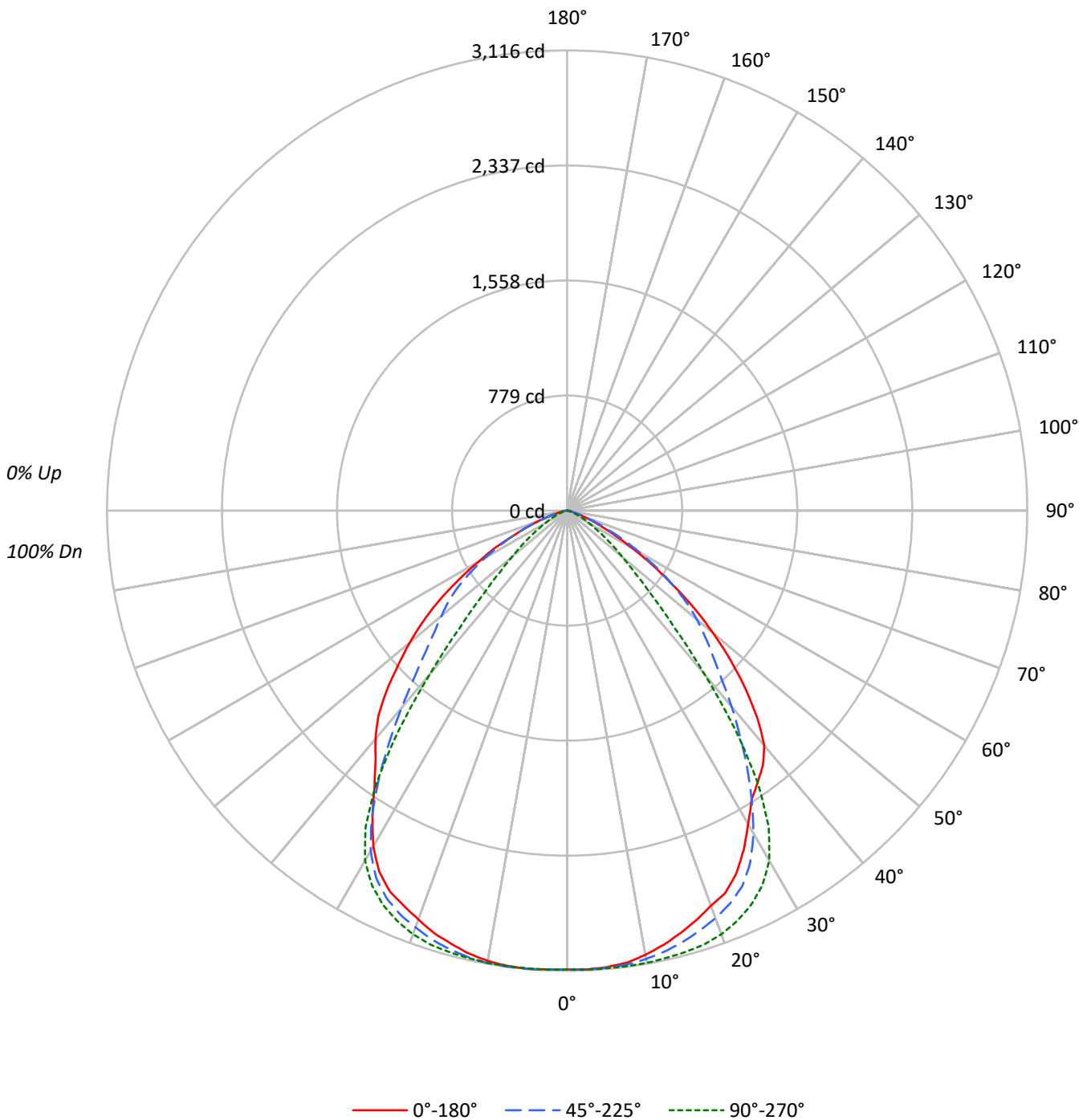
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90	90	90	90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79	79	79	79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70	70	70	70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62	62	62	62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55	55	55	55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50	50	50	50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45	45	45	45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41	41	41	41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37	37	37	37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34	34	34	34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.6	5.0
10°-20°	861.3	14.6
20°-30°	1307.3	22.2
30°-40°	1373.1	23.3
40°-50°	1029.4	17.5
50°-60°	660.5	11.2
60°-70°	282.6	4.8
70°-80°	66.7	1.1
80°-90°	12.4	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°	2465.2	41.9
0°-40°	3838.3	65.2
0°-60°	5528.3	93.9
0°-90°	5890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5890.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3108	3108	3108	3108	3108	
5°	3103	3108	3111	3116	3114	295
15°	2962	3024	3094	3074	3036	836
25°	2711	2806	2948	2894	2844	1238
35°	2249	2124	2250	2224	2274	1411
45°	1708	1396	802	1356	1732	1308
55°	864	864	299	901	1053	784
65°	260	307	95	395	402	278
75°	40	47	13	80	78	58
85°	13	8	7	13	18	14
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°	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7
2.5°	3109.4	3112.7	3111.0	3111.0	3109.4	3111.0	3111.0	3114.4	3114.4	3111.0	3109.4
5°	3102.7	3106.0	3106.0	3102.7	3102.7	3111.0	3106.0	3109.4	3109.4	3107.7	3107.7
7.5°	3087.7	3087.7	3094.3	3089.4	3089.4	3094.3	3092.7	3096.0	3099.4	3101.0	3101.0
10°	3054.3	3057.6	3059.3	3059.3	3061.0	3066.0	3069.3	3076.0	3079.3	3082.7	3084.3
12.5°	3012.6	3017.6	3019.3	3017.6	3022.6	3029.3	3037.6	3046.0	3051.0	3057.6	3062.7
15°	2962.5	2962.5	2965.9	2970.9	2974.3	2984.3	2992.6	3002.6	3015.9	3024.3	3032.6
17.5°	2907.5	2910.9	2915.8	2915.8	2922.5	2939.2	2944.2	2959.2	2974.3	2982.6	2999.3
20°	2847.5	2850.8	2855.8	2859.2	2867.5	2880.8	2890.8	2904.2	2920.9	2935.9	2952.5
22.5°	2800.7	2794.1	2797.4	2800.7	2809.1	2820.8	2832.5	2849.1	2865.8	2880.8	2897.5
25°	2710.7	2712.3	2717.4	2720.7	2730.7	2740.7	2754.1	2774.1	2789.1	2805.8	2824.1
27.5°	2588.9	2590.6	2598.9	2598.9	2607.2	2623.9	2632.3	2649.0	2669.0	2685.6	2707.4
30°	2450.5	2453.8	2453.8	2460.5	2465.4	2473.8	2482.1	2498.8	2508.8	2523.8	2553.9
32.5°	2323.7	2327.0	2325.3	2323.7	2318.7	2317.0	2315.3	2318.7	2322.0	2327.0	2338.7
35°	2248.6	2240.3	2233.6	2221.9	2208.6	2191.9	2176.9	2156.9	2138.5	2123.5	2106.8
37.5°	2176.9	2175.2	2165.2	2148.5	2121.8	2091.8	2056.8	2013.4	1970.0	1923.3	1878.3
40°	2076.8	2071.8	2063.4	2040.1	2010.1	1973.4	1926.7	1873.3	1803.2	1731.5	1658.1
42.5°	1906.6	1908.3	1898.3	1879.9	1851.6	1816.6	1768.2	1709.8	1634.8	1549.7	1454.6
45°	1708.1	1708.1	1704.8	1689.8	1669.8	1641.4	1604.7	1556.3	1483.0	1396.2	1294.4
47.5°	1501.3	1503.0	1497.9	1494.6	1486.3	1467.9	1441.2	1404.6	1352.8	1269.4	1167.7
50°	1291.1	1291.1	1299.5	1297.8	1297.8	1291.1	1279.5	1257.7	1212.7	1146.0	1050.9
52.5°	1080.9	1084.3	1089.3	1095.9	1104.3	1117.6	1104.3	1094.3	1065.9	1014.2	932.5
55°	864.1	867.4	875.7	887.4	897.5	910.8	914.1	914.1	899.1	864.1	802.4
57.5°	678.9	673.9	680.6	690.6	704.0	717.3	727.3	739.0	737.3	714.0	663.9
60°	510.4	512.1	517.1	527.1	537.1	548.8	562.2	572.2	577.2	565.5	533.8
62.5°	372.0	372.0	378.6	388.6	393.7	410.4	418.7	423.7	428.7	427.0	407.0
65°	260.2	263.5	266.9	271.9	276.9	286.9	291.9	301.9	305.3	306.9	291.9
67.5°	183.5	178.5	181.8	185.1	190.2	196.9	206.9	206.9	211.8	211.8	201.8
70°	116.8	116.8	118.4	123.4	126.8	128.4	131.8	135.1	140.1	138.4	138.4
72.5°	78.4	76.7	78.4	80.1	81.8	86.7	86.7	88.4	91.8	93.4	86.7
75°	40.0	41.7	45.0	43.4	48.4	45.0	46.7	51.7	50.0	46.7	46.7
77.5°	33.3	33.3	33.3	31.7	35.0	35.0	33.3	36.7	35.0	35.0	33.3
80°	23.3	25.0	23.3	21.7	23.3	21.7	21.7	21.7	21.7	21.7	20.0
82.5°	18.4	15.0	16.7	15.0	16.7	16.7	15.0	13.3	13.3	15.0	13.3
85°	13.3	10.0	11.7	11.7	10.0	10.0	10.0	10.0	10.0	8.3	8.3
87.5°	8.3	5.0	5.0	5.0	6.7	6.7	6.7	5.0	6.7	6.7	3.3
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°	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7
2.5°	3112.7	3111.0	3114.4	3112.7	3112.7	3111.0	3112.7	3111.0	3114.4	3107.7	3109.4
5°	3112.7	3109.4	3111.0	3112.7	3114.4	3111.0	3111.0	3111.0	3114.4	3111.0	3112.7
7.5°	3106.0	3104.3	3109.4	3112.7	3111.0	3109.4	3112.7	3111.0	3114.4	3112.7	3116.0
10°	3092.7	3094.3	3097.7	3102.7	3104.3	3106.0	3109.4	3109.4	3114.4	3107.7	3111.0
12.5°	3072.7	3079.3	3087.7	3091.0	3097.7	3097.7	3101.0	3102.7	3106.0	3104.3	3109.4
15°	3047.6	3056.0	3066.0	3074.3	3082.7	3087.7	3092.7	3094.3	3099.4	3094.3	3096.0
17.5°	3017.6	3027.6	3042.6	3052.6	3066.0	3071.0	3077.6	3081.0	3086.0	3082.7	3084.3
20°	2975.9	2987.6	3004.3	3019.3	3027.6	3039.3	3047.6	3052.6	3056.0	3052.6	3054.3
22.5°	2917.5	2934.2	2955.9	2967.6	2984.3	2994.3	2995.9	3007.6	3015.9	3007.6	3010.9
25°	2849.1	2865.8	2882.5	2907.5	2922.5	2934.2	2945.9	2947.6	2955.9	2954.2	2952.5
27.5°	2735.7	2757.4	2785.7	2805.8	2825.8	2844.1	2857.5	2860.8	2869.2	2865.8	2867.5
30°	2580.5	2603.9	2630.6	2662.3	2690.7	2709.0	2725.7	2737.4	2745.7	2740.7	2739.0
32.5°	2360.4	2383.7	2412.1	2443.8	2477.2	2503.8	2523.8	2538.9	2548.9	2545.5	2537.2
35°	2108.5	2115.2	2133.5	2158.5	2186.9	2215.2	2233.6	2250.3	2261.9	2265.3	2265.3
37.5°	1849.9	1828.3	1814.9	1814.9	1831.6	1843.2	1859.9	1869.9	1888.3	1895.0	1900.0
40°	1599.7	1549.7	1503.0	1467.9	1444.6	1442.9	1442.9	1447.9	1464.6	1486.3	1506.3
42.5°	1376.2	1296.1	1224.4	1159.3	1112.6	1085.9	1074.3	1075.9	1089.3	1109.3	1142.6
45°	1197.7	1097.6	1007.5	929.1	865.7	824.0	804.0	802.4	812.4	835.7	872.4
47.5°	1059.3	952.5	850.7	760.6	692.3	647.2	623.9	617.2	623.9	645.5	688.9
50°	944.2	834.1	729.0	635.5	562.2	515.5	493.8	485.4	493.8	512.1	555.5
52.5°	837.4	724.0	625.5	535.5	457.1	417.0	393.7	388.6	393.7	415.3	450.4
55°	714.0	617.2	520.4	430.4	362.0	322.0	303.6	298.6	303.6	323.6	360.3
57.5°	592.2	508.8	423.7	342.0	283.6	248.5	231.9	225.2	236.9	250.2	293.6
60°	478.7	412.0	340.3	268.6	220.2	188.5	175.1	173.5	176.8	193.5	223.5
62.5°	375.3	320.3	263.5	205.2	165.1	151.8	135.1	133.5	136.8	146.8	170.2
65°	270.2	235.2	191.8	150.1	118.4	100.1	93.4	95.1	98.4	105.1	126.8
67.5°	188.5	163.5	133.5	105.1	81.8	73.4	66.7	65.1	66.7	78.4	90.1
70°	126.8	111.8	90.1	80.1	56.7	45.0	46.7	41.7	48.4	48.4	58.4
72.5°	83.4	73.4	60.0	46.7	40.0	31.7	31.7	30.0	33.3	35.0	43.4
75°	43.4	33.3	33.3	23.3	16.7	8.3	15.0	13.3	11.7	13.3	16.7
77.5°	30.0	25.0	23.3	18.4	16.7	13.3	13.3	13.3	13.3	15.0	16.7
80°	18.4	18.4	13.3	11.7	10.0	8.3	10.0	10.0	10.0	10.0	11.7
82.5°	11.7	10.0	10.0	8.3	8.3	6.7	6.7	6.7	6.7	6.7	10.0
85°	10.0	6.7	6.7	5.0	6.7	11.7	5.0	6.7	6.7	6.7	5.0
87.5°	3.3	5.0	5.0	5.0	3.3	1.7	3.3	5.0	5.0	8.3	6.7
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°	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7	3107.7
2.5°	3112.7	3114.4	3114.4	3112.7	3112.7	3109.4	3116.0	3111.0	3112.7	3119.4	3114.4
5°	3116.0	3117.7	3117.7	3116.0	3116.0	3116.0	3117.7	3117.7	3116.0	3114.4	3117.7
7.5°	3122.7	3121.0	3121.0	3117.7	3117.7	3114.4	3117.7	3112.7	3116.0	3112.7	3117.7
10°	3114.4	3116.0	3114.4	3112.7	3112.7	3111.0	3111.0	3106.0	3107.7	3102.7	3106.0
12.5°	3109.4	3107.7	3107.7	3104.3	3101.0	3097.7	3096.0	3091.0	3091.0	3079.3	3084.3
15°	3096.0	3097.7	3092.7	3086.0	3082.7	3074.3	3071.0	3064.3	3057.6	3049.3	3051.0
17.5°	3084.3	3079.3	3072.7	3066.0	3052.6	3046.0	3039.3	3029.3	3025.9	3015.9	3012.6
20°	3049.3	3046.0	3037.6	3025.9	3017.6	3002.6	2995.9	2985.9	2977.6	2967.6	2962.5
22.5°	3004.3	3000.9	2990.9	2979.2	2965.9	2959.2	2952.5	2934.2	2925.8	2915.8	2914.2
25°	2947.6	2942.5	2932.5	2919.2	2912.5	2894.2	2887.5	2874.1	2870.8	2860.8	2859.2
27.5°	2860.8	2854.1	2842.5	2825.8	2814.1	2802.4	2795.8	2785.7	2782.4	2772.4	2770.7
30°	2730.7	2722.3	2699.0	2692.3	2672.3	2660.6	2660.6	2647.3	2649.0	2642.3	2642.3
32.5°	2525.5	2512.2	2493.8	2480.5	2467.1	2460.5	2460.5	2455.4	2458.8	2458.8	2462.1
35°	2253.6	2235.3	2225.2	2216.9	2216.9	2223.6	2243.6	2248.6	2258.6	2267.0	2273.6
37.5°	1905.0	1903.3	1915.0	1925.0	1950.0	1978.4	2013.4	2043.4	2071.8	2091.8	2111.8
40°	1528.0	1569.7	1603.0	1649.8	1688.1	1743.2	1806.6	1858.3	1906.6	1941.7	1978.4
42.5°	1192.7	1246.1	1316.1	1384.5	1452.9	1528.0	1611.4	1683.1	1746.5	1794.9	1833.2
45°	929.1	1002.5	1087.6	1174.4	1262.8	1356.2	1442.9	1516.3	1583.0	1633.1	1671.5
47.5°	749.0	829.1	925.8	1020.9	1121.0	1219.4	1316.1	1379.5	1434.6	1474.6	1509.7
50°	618.9	704.0	805.7	914.1	1014.2	1112.6	1196.0	1257.7	1302.8	1337.8	1359.5
52.5°	517.1	607.2	715.6	824.0	924.1	1014.2	1089.3	1136.0	1172.7	1197.7	1217.7
55°	427.0	513.8	615.5	717.3	815.7	900.8	962.5	997.5	1025.9	1040.9	1052.6
57.5°	348.6	428.7	522.1	615.5	700.6	770.7	819.1	854.1	867.4	879.1	877.4
60°	273.6	348.6	433.7	513.8	587.2	643.9	678.9	698.9	708.9	714.0	710.6
62.5°	215.2	283.6	348.6	418.7	472.1	520.4	553.8	553.8	558.8	560.5	565.5
65°	160.1	211.8	268.6	320.3	363.6	395.3	413.7	418.7	425.4	423.7	420.4
67.5°	118.4	156.8	198.5	236.9	266.9	286.9	300.2	312.0	310.3	306.9	305.3
70°	81.8	106.8	143.5	166.8	188.5	208.5	211.8	213.5	215.2	216.9	213.5
72.5°	56.7	75.1	95.1	115.1	128.4	136.8	145.1	146.8	146.8	146.8	145.1
75°	28.4	38.4	56.7	65.1	76.7	80.1	86.7	86.7	91.8	85.1	83.4
77.5°	25.0	30.0	40.0	46.7	51.7	56.7	58.4	63.4	61.7	58.4	60.0
80°	15.0	18.4	25.0	28.4	35.0	36.7	38.4	40.0	38.4	40.0	40.0
82.5°	11.7	13.3	16.7	16.7	21.7	21.7	23.3	23.3	25.0	25.0	25.0
85°	6.7	11.7	10.0	20.0	13.3	13.3	16.7	20.0	16.7	16.7	20.0
87.5°	6.7	6.7	5.0	6.7	6.7	6.7	8.3	10.0	10.0	11.7	10.0
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: P249499

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3107.7	3107.7	3107.7	3107.7
2.5°	3112.7	3116.0	3111.0	3109.4
5°	3117.7	3117.7	3114.4	3114.4
7.5°	3117.7	3117.7	3112.7	3109.4
10°	3104.3	3104.3	3099.4	3096.0
12.5°	3079.3	3079.3	3077.6	3072.7
15°	3047.6	3047.6	3040.9	3036.0
17.5°	3004.3	3007.6	2999.3	2999.3
20°	2957.6	2955.9	2949.2	2945.9
22.5°	2909.2	2905.8	2904.2	2894.2
25°	2857.5	2854.1	2849.1	2844.1
27.5°	2769.1	2767.4	2762.4	2755.7
30°	2633.9	2632.3	2625.6	2625.6
32.5°	2458.8	2457.1	2450.5	2452.1
35°	2277.0	2283.6	2280.3	2273.6
37.5°	2125.2	2130.2	2133.5	2130.2
40°	1998.4	2013.4	2015.1	2018.4
42.5°	1863.3	1883.3	1890.0	1893.3
45°	1701.5	1719.8	1734.8	1731.5
47.5°	1536.3	1549.7	1563.0	1553.0
50°	1377.9	1386.2	1391.2	1391.2
52.5°	1227.7	1227.7	1226.1	1227.7
55°	1055.9	1055.9	1049.3	1052.6
57.5°	875.7	879.1	874.1	865.7
60°	708.9	700.6	697.3	692.3
62.5°	552.2	552.2	540.5	555.5
65°	413.7	408.7	403.7	402.0
67.5°	300.2	298.6	293.6	291.9
70°	211.8	205.2	203.5	200.2
72.5°	141.8	141.8	138.4	138.4
75°	86.7	78.4	76.7	78.4
77.5°	60.0	58.4	58.4	56.7
80°	40.0	38.4	41.7	36.7
82.5°	25.0	26.7	25.0	26.7
85°	16.7	20.0	18.4	18.4
87.5°	10.0	10.0	10.0	10.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)