

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: P249508

Luminaire Tested: **LSR8B90D010 EC8B909730 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249508  
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 EC8B909730 8LBDW0B  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 3000 CCT WITH SPECULAR BLACK TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6232.0 lumens  
Efficiency: N/A  
Efficacy: 72.4 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

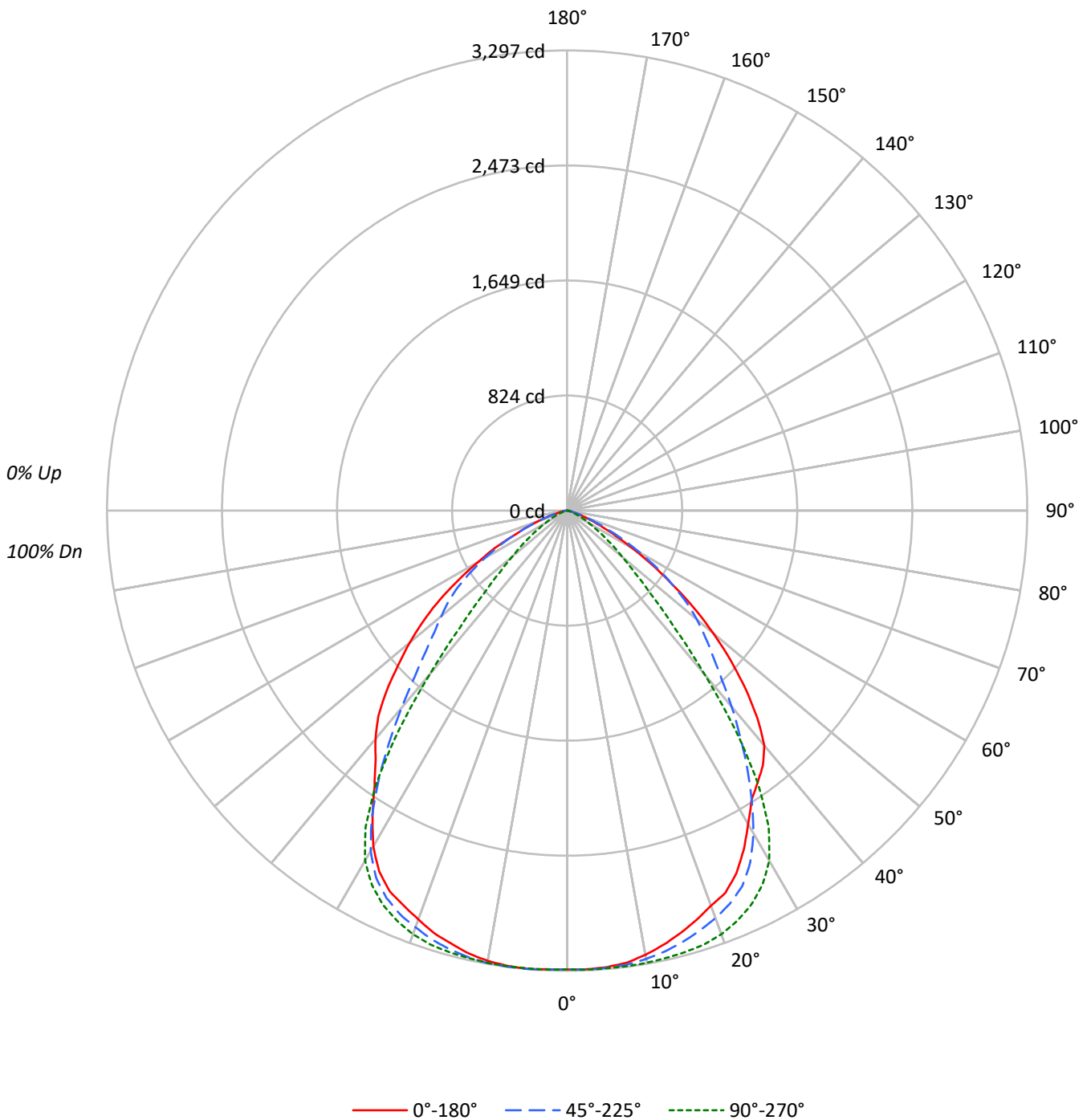
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	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°	313.8	5.0
10°-20°	911.3	14.6
20°-30°	1383.2	22.2
30°-40°	1452.8	23.3
40°-50°	1089.2	17.5
50°-60°	698.9	11.2
60°-70°	299.0	4.8
70°-80°	70.6	1.1
80°-90°	13.1	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°	2608.4	41.9
0°-40°	4061.2	65.2
0°-60°	5849.3	93.9
0°-90°	6232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6232.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3288	3288	3288	3288	3288	
5°	3283	3288	3292	3297	3295	312
15°	3135	3200	3274	3253	3212	884
25°	2868	2969	3119	3062	3009	1310
35°	2379	2247	2381	2353	2406	1493
45°	1807	1477	849	1435	1832	1384
55°	914	914	316	953	1114	829
65°	275	325	101	418	425	294
75°	42	49	14	85	83	62
85°	14	9	7	14	19	15
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°	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1
2.5°	3289.9	3293.4	3291.7	3291.7	3289.9	3291.7	3291.7	3295.2	3295.2	3291.7	3289.9
5°	3282.8	3286.4	3286.4	3282.8	3282.8	3291.7	3286.4	3289.9	3289.9	3288.1	3288.1
7.5°	3267.0	3267.0	3274.0	3268.7	3268.7	3274.0	3272.2	3275.8	3279.3	3281.1	3281.1
10°	3231.6	3235.2	3237.0	3237.0	3238.7	3244.0	3247.5	3254.6	3258.1	3261.7	3263.4
12.5°	3187.5	3192.8	3194.6	3192.8	3198.1	3205.2	3214.0	3222.8	3228.1	3235.2	3240.5
15°	3134.6	3134.6	3138.1	3143.4	3147.0	3157.5	3166.3	3176.9	3191.0	3199.9	3208.7
17.5°	3076.3	3079.9	3085.2	3085.2	3092.2	3109.9	3115.2	3131.1	3147.0	3155.8	3173.4
20°	3012.8	3016.3	3021.6	3025.2	3034.0	3048.1	3058.7	3072.8	3090.5	3106.4	3124.0
22.5°	2963.4	2956.3	2959.8	2963.4	2972.2	2984.6	2996.9	3014.5	3032.2	3048.1	3065.8
25°	2868.1	2869.8	2875.1	2878.6	2889.3	2899.8	2914.0	2935.1	2951.0	2968.7	2988.1
27.5°	2739.2	2741.0	2749.8	2749.8	2758.6	2776.3	2785.1	2802.8	2824.0	2841.6	2864.6
30°	2592.7	2596.2	2596.2	2603.3	2608.6	2617.4	2626.3	2643.9	2654.5	2670.4	2702.2
32.5°	2458.6	2462.1	2460.3	2458.6	2453.3	2451.5	2449.8	2453.3	2456.8	2462.1	2474.5
35°	2379.2	2370.3	2363.3	2350.9	2336.8	2319.2	2303.3	2282.1	2262.7	2246.8	2229.2
37.5°	2303.3	2301.5	2290.9	2273.3	2245.0	2213.3	2176.2	2130.3	2084.4	2035.0	1987.4
40°	2197.4	2192.1	2183.3	2158.6	2126.8	2087.9	2038.5	1982.1	1907.9	1832.0	1754.4
42.5°	2017.3	2019.1	2008.5	1989.1	1959.1	1922.0	1870.9	1809.1	1729.7	1639.6	1539.1
45°	1807.3	1807.3	1803.8	1787.9	1766.7	1736.7	1697.9	1646.7	1569.1	1477.3	1369.6
47.5°	1588.5	1590.2	1584.9	1581.4	1572.6	1553.2	1524.9	1486.1	1431.4	1343.1	1235.5
50°	1366.1	1366.1	1374.9	1373.1	1373.1	1366.1	1353.7	1330.8	1283.1	1212.5	1111.9
52.5°	1143.7	1147.2	1152.5	1159.6	1168.4	1182.5	1168.4	1157.8	1127.8	1073.1	986.6
55°	914.2	917.8	926.6	938.9	949.6	963.7	967.2	967.2	951.3	914.2	848.9
57.5°	718.4	713.0	720.1	730.7	744.8	758.9	769.5	781.9	780.1	755.4	702.5
60°	540.1	541.9	547.1	557.7	568.3	580.7	594.8	605.4	610.7	598.3	564.8
62.5°	393.6	393.6	400.6	411.2	416.5	434.2	443.0	448.3	453.6	451.8	430.6
65°	275.4	278.9	282.4	287.7	293.0	303.6	308.9	319.4	323.0	324.8	308.9
67.5°	194.2	188.9	192.4	195.9	201.2	208.3	218.9	218.9	224.1	224.1	213.6
70°	123.6	123.6	125.3	130.6	134.1	135.9	139.4	142.9	148.3	146.5	146.5
72.5°	83.0	81.2	83.0	84.7	86.5	91.8	91.8	93.5	97.1	98.9	91.8
75°	42.4	44.1	47.6	45.9	51.2	47.6	49.4	54.7	52.9	49.4	49.4
77.5°	35.3	35.3	35.3	33.6	37.1	37.1	35.3	38.8	37.1	37.1	35.3
80°	24.7	26.5	24.7	22.9	24.7	22.9	22.9	22.9	22.9	22.9	21.2
82.5°	19.4	15.9	17.7	15.9	17.7	17.7	15.9	14.1	14.1	15.9	14.1
85°	14.1	10.6	12.4	12.4	10.6	10.6	10.6	10.6	10.6	8.8	8.8
87.5°	8.8	5.3	5.3	5.3	7.0	7.0	7.0	5.3	7.0	7.0	3.5
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°	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1
2.5°	3293.4	3291.7	3295.2	3293.4	3293.4	3291.7	3293.4	3291.7	3295.2	3288.1	3289.9
5°	3293.4	3289.9	3291.7	3293.4	3295.2	3291.7	3291.7	3291.7	3295.2	3291.7	3293.4
7.5°	3286.4	3284.6	3289.9	3293.4	3291.7	3289.9	3293.4	3291.7	3295.2	3293.4	3296.9
10°	3272.2	3274.0	3277.5	3282.8	3284.6	3286.4	3289.9	3289.9	3295.2	3288.1	3291.7
12.5°	3251.1	3258.1	3267.0	3270.5	3277.5	3277.5	3281.1	3282.8	3286.4	3284.6	3289.9
15°	3224.6	3233.4	3244.0	3252.8	3261.7	3267.0	3272.2	3274.0	3279.3	3274.0	3275.8
17.5°	3192.8	3203.4	3219.3	3229.9	3244.0	3249.3	3256.3	3259.9	3265.2	3261.7	3263.4
20°	3148.7	3161.1	3178.7	3194.6	3203.4	3215.7	3224.6	3229.9	3233.4	3229.9	3231.6
22.5°	3086.9	3104.6	3127.5	3139.9	3157.5	3168.1	3169.9	3182.2	3191.0	3182.2	3185.8
25°	3014.5	3032.2	3049.9	3076.3	3092.2	3104.6	3116.9	3118.7	3127.5	3125.7	3124.0
27.5°	2894.5	2917.5	2947.5	2968.7	2989.8	3009.3	3023.4	3026.9	3035.7	3032.2	3034.0
30°	2730.4	2755.1	2783.4	2816.9	2846.9	2866.3	2883.9	2896.3	2905.1	2899.8	2898.1
32.5°	2497.4	2522.1	2552.2	2585.7	2621.0	2649.2	2670.4	2686.3	2696.9	2693.3	2684.5
35°	2230.9	2238.0	2257.4	2283.9	2313.9	2343.9	2363.3	2380.9	2393.3	2396.8	2396.8
37.5°	1957.4	1934.4	1920.3	1920.3	1937.9	1950.3	1967.9	1978.5	1997.9	2005.0	2010.3
40°	1692.6	1639.6	1590.2	1553.2	1528.5	1526.7	1526.7	1532.0	1549.6	1572.6	1593.8
42.5°	1456.1	1371.4	1295.5	1226.7	1177.2	1149.0	1136.7	1138.4	1152.5	1173.7	1209.0
45°	1267.2	1161.4	1066.0	983.1	916.0	871.9	850.7	848.9	859.5	884.2	923.1
47.5°	1120.8	1007.8	900.1	804.8	732.5	684.8	660.1	653.1	660.1	683.0	728.9
50°	999.0	882.5	771.3	672.4	594.8	545.4	522.4	513.6	522.4	541.9	587.7
52.5°	886.0	766.0	661.9	566.6	483.6	441.2	416.5	411.2	416.5	439.5	476.6
55°	755.4	653.1	550.7	455.4	383.0	340.6	321.2	315.9	321.2	342.4	381.2
57.5°	626.6	538.3	448.3	361.8	300.1	263.0	245.3	238.3	250.6	264.7	310.6
60°	506.5	436.0	360.0	284.2	233.0	199.4	185.3	183.5	187.1	204.7	236.5
62.5°	397.1	338.9	278.9	217.1	174.7	160.6	142.9	141.2	144.7	155.3	180.0
65°	285.9	248.9	203.0	158.8	125.3	105.9	98.9	100.6	104.1	111.2	134.1
67.5°	199.4	173.0	141.2	111.2	86.5	77.6	70.6	68.8	70.6	83.0	95.3
70°	134.1	118.2	95.3	84.7	60.0	47.6	49.4	44.1	51.2	51.2	61.8
72.5°	88.2	77.6	63.5	49.4	42.4	33.6	33.6	31.8	35.3	37.1	45.9
75°	45.9	35.3	35.3	24.7	17.7	8.8	15.9	14.1	12.4	14.1	17.7
77.5°	31.8	26.5	24.7	19.4	17.7	14.1	14.1	14.1	14.1	15.9	17.7
80°	19.4	19.4	14.1	12.4	10.6	8.8	10.6	10.6	10.6	10.6	12.4
82.5°	12.4	10.6	10.6	8.8	8.8	7.0	7.0	7.0	7.0	7.0	10.6
85°	10.6	7.0	7.0	5.3	7.0	12.4	5.3	7.0	7.0	7.0	5.3
87.5°	3.5	5.3	5.3	5.3	3.5	1.8	3.5	5.3	5.3	8.8	7.0
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1	3288.1
2.5°	3293.4	3295.2	3295.2	3293.4	3293.4	3289.9	3296.9	3291.7	3293.4	3300.5	3295.2
5°	3296.9	3298.7	3298.7	3296.9	3296.9	3296.9	3298.7	3298.7	3296.9	3295.2	3298.7
7.5°	3304.0	3302.2	3302.2	3298.7	3298.7	3295.2	3298.7	3293.4	3296.9	3293.4	3298.7
10°	3295.2	3296.9	3295.2	3293.4	3293.4	3291.7	3291.7	3286.4	3288.1	3282.8	3286.4
12.5°	3289.9	3288.1	3288.1	3284.6	3281.1	3277.5	3275.8	3270.5	3270.5	3258.1	3263.4
15°	3275.8	3277.5	3272.2	3265.2	3261.7	3252.8	3249.3	3242.2	3235.2	3226.4	3228.1
17.5°	3263.4	3258.1	3251.1	3244.0	3229.9	3222.8	3215.7	3205.2	3201.6	3191.0	3187.5
20°	3226.4	3222.8	3214.0	3201.6	3192.8	3176.9	3169.9	3159.3	3150.4	3139.9	3134.6
22.5°	3178.7	3175.2	3164.6	3152.2	3138.1	3131.1	3124.0	3104.6	3095.7	3085.2	3083.4
25°	3118.7	3113.4	3102.8	3088.7	3081.6	3062.2	3055.1	3041.0	3037.5	3026.9	3025.2
27.5°	3026.9	3019.9	3007.5	2989.8	2977.5	2965.1	2958.1	2947.5	2944.0	2933.4	2931.6
30°	2889.3	2880.4	2855.7	2848.7	2827.5	2815.1	2815.1	2801.0	2802.8	2795.7	2795.7
32.5°	2672.2	2658.0	2638.6	2624.5	2610.4	2603.3	2603.3	2598.0	2601.6	2601.6	2605.1
35°	2384.5	2365.1	2354.4	2345.6	2345.6	2352.7	2373.9	2379.2	2389.8	2398.6	2405.7
37.5°	2015.6	2013.8	2026.2	2036.8	2063.2	2093.3	2130.3	2162.1	2192.1	2213.3	2234.4
40°	1616.7	1660.8	1696.1	1745.6	1786.1	1844.4	1911.4	1966.2	2017.3	2054.4	2093.3
42.5°	1261.9	1318.4	1392.6	1464.9	1537.3	1616.7	1705.0	1780.9	1847.9	1899.1	1939.7
45°	983.1	1060.7	1150.8	1242.5	1336.1	1434.9	1526.7	1604.4	1675.0	1727.9	1768.5
47.5°	792.5	877.2	979.5	1080.2	1186.1	1290.2	1392.6	1459.6	1517.9	1560.2	1597.3
50°	654.8	744.8	852.5	967.2	1073.1	1177.2	1265.5	1330.8	1378.4	1415.5	1438.4
52.5°	547.1	642.4	757.2	871.9	977.8	1073.1	1152.5	1201.9	1240.8	1267.2	1288.4
55°	451.8	543.6	651.3	758.9	863.1	953.1	1018.4	1055.5	1085.4	1101.3	1113.7
57.5°	368.9	453.6	552.4	651.3	741.3	815.4	866.6	903.7	917.8	930.1	928.4
60°	289.5	368.9	458.9	543.6	621.3	681.3	718.4	739.5	750.1	755.4	751.9
62.5°	227.7	300.1	368.9	443.0	499.5	550.7	586.0	586.0	591.3	593.0	598.3
65°	169.4	224.1	284.2	338.9	384.7	418.3	437.7	443.0	450.1	448.3	444.8
67.5°	125.3	165.9	210.0	250.6	282.4	303.6	317.7	330.1	328.3	324.8	323.0
70°	86.5	113.0	151.8	176.5	199.4	220.6	224.1	225.9	227.7	229.4	225.9
72.5°	60.0	79.4	100.6	121.8	135.9	144.7	153.6	155.3	155.3	155.3	153.6
75°	30.0	40.6	60.0	68.8	81.2	84.7	91.8	91.8	97.1	90.0	88.2
77.5°	26.5	31.8	42.4	49.4	54.7	60.0	61.8	67.1	65.3	61.8	63.5
80°	15.9	19.4	26.5	30.0	37.1	38.8	40.6	42.4	40.6	42.4	42.4
82.5°	12.4	14.1	17.7	17.7	22.9	22.9	24.7	24.7	26.5	26.5	26.5
85°	7.0	12.4	10.6	21.2	14.1	14.1	17.7	21.2	17.7	17.7	21.2
87.5°	7.0	7.0	5.3	7.0	7.0	7.0	8.8	10.6	10.6	12.4	10.6
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: P249508

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0B

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3288.1	3288.1	3288.1	3288.1
2.5°	3293.4	3296.9	3291.7	3289.9
5°	3298.7	3298.7	3295.2	3295.2
7.5°	3298.7	3298.7	3293.4	3289.9
10°	3284.6	3284.6	3279.3	3275.8
12.5°	3258.1	3258.1	3256.3	3251.1
15°	3224.6	3224.6	3217.5	3212.2
17.5°	3178.7	3182.2	3173.4	3173.4
20°	3129.3	3127.5	3120.5	3116.9
22.5°	3078.1	3074.6	3072.8	3062.2
25°	3023.4	3019.9	3014.5	3009.3
27.5°	2929.9	2928.1	2922.8	2915.7
30°	2786.9	2785.1	2778.1	2778.1
32.5°	2601.6	2599.8	2592.7	2594.5
35°	2409.2	2416.2	2412.7	2405.7
37.5°	2248.6	2253.9	2257.4	2253.9
40°	2114.4	2130.3	2132.1	2135.6
42.5°	1971.5	1992.6	1999.7	2003.2
45°	1800.2	1819.7	1835.6	1832.0
47.5°	1625.5	1639.6	1653.8	1643.2
50°	1457.9	1466.7	1472.0	1472.0
52.5°	1299.0	1299.0	1297.3	1299.0
55°	1117.2	1117.2	1110.2	1113.7
57.5°	926.6	930.1	924.8	916.0
60°	750.1	741.3	737.7	732.5
62.5°	584.2	584.2	571.9	587.7
65°	437.7	432.4	427.1	425.3
67.5°	317.7	315.9	310.6	308.9
70°	224.1	217.1	215.3	211.8
72.5°	150.0	150.0	146.5	146.5
75°	91.8	83.0	81.2	83.0
77.5°	63.5	61.8	61.8	60.0
80°	42.4	40.6	44.1	38.8
82.5°	26.5	28.2	26.5	28.2
85°	17.7	21.2	19.4	19.4
87.5°	10.6	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)