

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: P249607

Luminaire Tested: **LSR8B90D010 EC8B909727 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249607  
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 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6581.0 lumens  
Efficiency: N/A  
Efficacy: 76.4 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

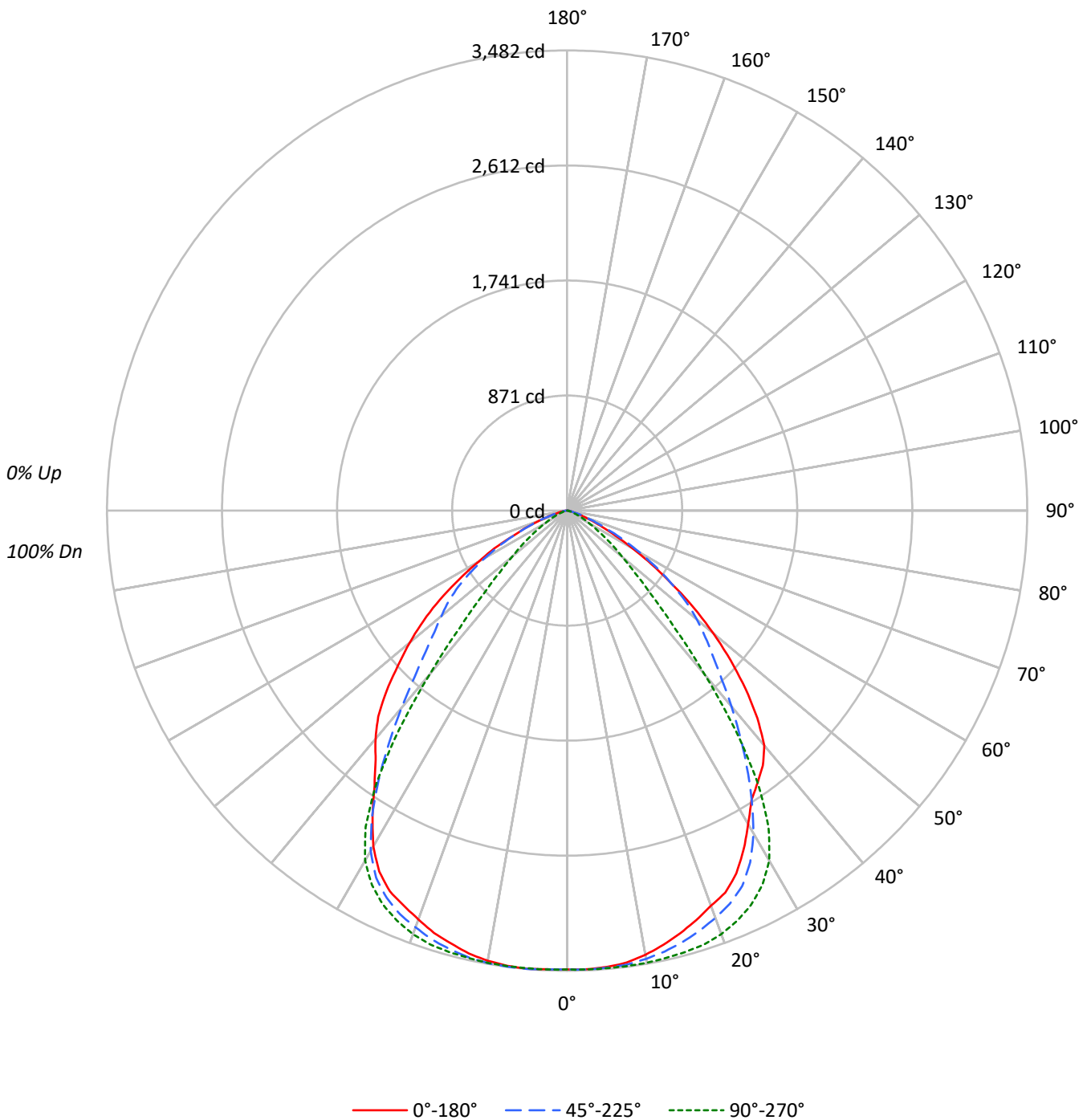
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P249607

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0MW

### Luminous Intensity Polar Plot





TEST NUMBER: P249607

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0MW

**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°			



TEST NUMBER: P249607

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	331.4	5.0
10°-20°	962.4	14.6
20°-30°	1460.7	22.2
30°-40°	1534.2	23.3
40°-50°	1150.2	17.5
50°-60°	738.0	11.2
60°-70°	315.7	4.8
70°-80°	74.6	1.1
80°-90°	13.9	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°	2754.4	41.9
0°-40°	4288.6	65.2
0°-60°	6176.8	93.9
0°-90°	6581.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6581.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3472	3472	3472	3472	3472	
5°	3467	3472	3476	3482	3480	329
15°	3310	3379	3457	3435	3392	934
25°	3029	3135	3293	3234	3178	1384
35°	2512	2373	2514	2484	2540	1577
45°	1908	1560	896	1515	1935	1462
55°	965	965	334	1006	1176	876
65°	291	343	106	442	449	310
75°	45	52	15	90	88	65
85°	15	9	7	15	20	16
90°	0	0	0	0	0	



TEST NUMBER: P249607

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0MW

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3
2.5°	3474.1	3477.9	3476.0	3476.0	3474.1	3476.0	3476.0	3479.7	3479.7	3476.0	3474.1
5°	3466.7	3470.4	3470.4	3466.7	3466.7	3476.0	3470.4	3474.1	3474.1	3472.3	3472.3
7.5°	3449.9	3449.9	3457.4	3451.8	3451.8	3457.4	3455.5	3459.2	3463.0	3464.8	3464.8
10°	3412.6	3416.4	3418.2	3418.2	3420.1	3425.7	3429.4	3436.9	3440.6	3444.3	3446.2
12.5°	3366.1	3371.6	3373.5	3371.6	3377.2	3384.7	3394.0	3403.3	3408.9	3416.4	3422.0
15°	3310.1	3310.1	3313.8	3319.4	3323.2	3334.4	3343.7	3354.8	3369.7	3379.1	3388.4
17.5°	3248.6	3252.4	3257.9	3257.9	3265.4	3284.0	3289.6	3306.4	3323.2	3332.5	3351.1
20°	3181.5	3185.2	3190.8	3194.6	3203.9	3218.8	3230.0	3244.9	3263.5	3280.3	3298.9
22.5°	3129.3	3121.9	3125.6	3129.3	3138.7	3151.7	3164.8	3183.4	3202.0	3218.8	3237.4
25°	3028.7	3030.5	3036.2	3039.8	3051.1	3062.2	3077.1	3099.5	3116.3	3134.9	3155.4
27.5°	2892.6	2894.5	2903.8	2903.8	2913.1	2931.8	2941.1	2959.7	2982.1	3000.7	3025.0
30°	2737.9	2741.6	2741.6	2749.1	2754.7	2764.0	2773.3	2792.0	2803.2	2819.9	2853.5
32.5°	2596.3	2600.0	2598.1	2596.3	2590.7	2588.8	2586.9	2590.7	2594.4	2600.0	2613.0
35°	2512.4	2503.1	2495.6	2482.6	2467.7	2449.0	2432.3	2409.9	2389.4	2372.6	2354.0
37.5°	2432.3	2430.4	2419.2	2400.6	2370.7	2337.2	2298.1	2249.6	2201.1	2149.0	2098.7
40°	2320.4	2314.8	2305.5	2279.4	2245.9	2204.9	2152.7	2093.1	2014.8	1934.6	1852.6
42.5°	2130.3	2132.2	2121.0	2100.5	2068.8	2029.7	1975.6	1910.4	1826.5	1731.5	1625.2
45°	1908.5	1908.5	1904.8	1888.0	1865.7	1834.0	1793.0	1738.9	1656.9	1560.0	1446.3
47.5°	1677.4	1679.3	1673.7	1670.0	1660.6	1640.2	1610.3	1569.3	1511.6	1418.3	1304.6
50°	1442.6	1442.6	1451.9	1450.0	1450.0	1442.6	1429.6	1405.3	1355.0	1280.4	1174.2
52.5°	1207.7	1211.5	1217.1	1224.5	1233.8	1248.7	1233.8	1222.7	1191.0	1133.2	1041.9
55°	965.4	969.2	978.5	991.5	1002.7	1017.7	1021.4	1021.4	1004.6	965.4	896.5
57.5°	758.6	753.0	760.5	771.6	786.5	801.4	812.6	825.7	823.8	797.7	741.8
60°	570.3	572.2	577.8	589.0	600.2	613.2	628.1	639.3	644.9	631.8	596.4
62.5°	415.6	415.6	423.1	434.2	439.9	458.5	467.8	473.4	479.0	477.1	454.8
65°	290.8	294.5	298.2	303.8	309.4	320.6	326.2	337.3	341.1	342.9	326.2
67.5°	205.0	199.4	203.2	206.9	212.5	219.9	231.1	231.1	236.7	236.7	225.5
70°	130.5	130.5	132.3	137.9	141.6	143.5	147.3	151.0	156.6	154.7	154.7
72.5°	87.6	85.7	87.6	89.5	91.3	96.9	96.9	98.8	102.5	104.4	96.9
75°	44.7	46.6	50.3	48.5	54.0	50.3	52.2	57.8	55.9	52.2	52.2
77.5°	37.3	37.3	37.3	35.4	39.1	39.1	37.3	41.0	39.1	39.1	37.3
80°	26.1	28.0	26.1	24.2	26.1	24.2	24.2	24.2	24.2	24.2	22.3
82.5°	20.5	16.8	18.7	16.8	18.7	18.7	16.8	14.9	14.9	16.8	14.9
85°	14.9	11.2	13.0	13.0	11.2	11.2	11.2	11.2	11.2	9.3	9.3
87.5°	9.3	5.6	5.6	5.6	7.4	7.4	7.4	5.6	7.4	7.4	3.7
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: P249607

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3
2.5°	3477.9	3476.0	3479.7	3477.9	3477.9	3476.0	3477.9	3476.0	3479.7	3472.3	3474.1
5°	3477.9	3474.1	3476.0	3477.9	3479.7	3476.0	3476.0	3476.0	3479.7	3476.0	3477.9
7.5°	3470.4	3468.5	3474.1	3477.9	3476.0	3474.1	3477.9	3476.0	3479.7	3477.9	3481.6
10°	3455.5	3457.4	3461.1	3466.7	3468.5	3470.4	3474.1	3474.1	3479.7	3472.3	3476.0
12.5°	3433.1	3440.6	3449.9	3453.6	3461.1	3461.1	3464.8	3466.7	3470.4	3468.5	3474.1
15°	3405.2	3414.5	3425.7	3435.0	3444.3	3449.9	3455.5	3457.4	3463.0	3457.4	3459.2
17.5°	3371.6	3382.8	3399.6	3410.7	3425.7	3431.3	3438.7	3442.4	3448.0	3444.3	3446.2
20°	3325.0	3338.1	3356.7	3373.5	3382.8	3395.8	3405.2	3410.7	3414.5	3410.7	3412.6
22.5°	3259.8	3278.4	3302.7	3315.7	3334.4	3345.5	3347.4	3360.4	3369.7	3360.4	3364.2
25°	3183.4	3202.0	3220.7	3248.6	3265.4	3278.4	3291.5	3293.4	3302.7	3300.8	3298.9
27.5°	3056.6	3080.9	3112.5	3134.9	3157.3	3177.8	3192.7	3196.4	3205.8	3202.0	3203.9
30°	2883.3	2909.4	2939.2	2974.6	3006.3	3026.8	3045.5	3058.5	3067.8	3062.2	3060.4
32.5°	2637.3	2663.4	2695.1	2730.5	2767.8	2797.6	2819.9	2836.7	2847.9	2844.2	2834.9
35°	2355.9	2363.3	2383.8	2411.8	2443.4	2475.1	2495.6	2514.3	2527.3	2531.0	2531.0
37.5°	2067.0	2042.8	2027.8	2027.8	2046.4	2059.5	2078.1	2089.3	2109.8	2117.3	2122.9
40°	1787.4	1731.5	1679.3	1640.2	1614.1	1612.2	1612.2	1617.8	1636.4	1660.6	1683.0
42.5°	1537.6	1448.2	1368.0	1295.3	1243.2	1213.3	1200.3	1202.2	1217.1	1239.4	1276.7
45°	1338.2	1226.4	1125.7	1038.1	967.3	920.7	898.4	896.5	907.7	933.7	974.8
47.5°	1183.5	1064.2	950.5	849.9	773.5	723.1	697.1	689.6	697.1	721.3	769.8
50°	1054.9	931.9	814.5	710.1	628.1	575.9	551.7	542.4	551.7	572.2	620.6
52.5°	935.6	808.9	698.9	598.3	510.7	465.9	439.9	434.2	439.9	464.1	503.2
55°	797.7	689.6	581.5	480.9	404.5	359.7	339.2	333.6	339.2	361.6	402.6
57.5°	661.7	568.5	473.4	382.1	316.9	277.7	259.1	251.6	264.6	279.6	328.0
60°	534.9	460.4	380.2	300.1	246.0	210.6	195.7	193.8	197.6	216.2	249.7
62.5°	419.4	357.9	294.5	229.3	184.5	169.6	151.0	149.1	152.8	164.0	190.1
65°	301.9	262.8	214.3	167.7	132.3	111.8	104.4	106.3	110.0	117.4	141.6
67.5°	210.6	182.6	149.1	117.4	91.3	82.0	74.6	72.7	74.6	87.6	100.6
70°	141.6	124.9	100.6	89.5	63.4	50.3	52.2	46.6	54.0	54.0	65.2
72.5°	93.2	82.0	67.1	52.2	44.7	35.4	35.4	33.6	37.3	39.1	48.5
75°	48.5	37.3	37.3	26.1	18.7	9.3	16.8	14.9	13.0	14.9	18.7
77.5°	33.6	28.0	26.1	20.5	18.7	14.9	14.9	14.9	14.9	16.8	18.7
80°	20.5	20.5	14.9	13.0	11.2	9.3	11.2	11.2	11.2	11.2	13.0
82.5°	13.0	11.2	11.2	9.3	9.3	7.4	7.4	7.4	7.4	7.4	11.2
85°	11.2	7.4	7.4	5.6	7.4	13.0	5.6	7.4	7.4	7.4	5.6
87.5°	3.7	5.6	5.6	5.6	3.7	1.9	3.7	5.6	5.6	9.3	7.4
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: P249607

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3	3472.3
2.5°	3477.9	3479.7	3479.7	3477.9	3477.9	3474.1	3481.6	3476.0	3477.9	3485.3	3479.7
5°	3481.6	3483.4	3483.4	3481.6	3481.6	3481.6	3483.4	3483.4	3481.6	3479.7	3483.4
7.5°	3489.0	3487.2	3487.2	3483.4	3483.4	3479.7	3483.4	3477.9	3481.6	3477.9	3483.4
10°	3479.7	3481.6	3479.7	3477.9	3477.9	3476.0	3476.0	3470.4	3472.3	3466.7	3470.4
12.5°	3474.1	3472.3	3472.3	3468.5	3464.8	3461.1	3459.2	3453.6	3453.6	3440.6	3446.2
15°	3459.2	3461.1	3455.5	3448.0	3444.3	3435.0	3431.3	3423.8	3416.4	3407.1	3408.9
17.5°	3446.2	3440.6	3433.1	3425.7	3410.7	3403.3	3395.8	3384.7	3380.9	3369.7	3366.1
20°	3407.1	3403.3	3394.0	3380.9	3371.6	3354.8	3347.4	3336.2	3326.9	3315.7	3310.1
22.5°	3356.7	3353.0	3341.8	3328.7	3313.8	3306.4	3298.9	3278.4	3269.1	3257.9	3256.1
25°	3293.4	3287.8	3276.6	3261.7	3254.2	3233.7	3226.2	3211.3	3207.6	3196.4	3194.6
27.5°	3196.4	3189.0	3175.9	3157.3	3144.2	3131.2	3123.8	3112.5	3108.8	3097.6	3095.8
30°	3051.1	3041.7	3015.6	3008.2	2985.8	2972.8	2972.8	2957.8	2959.7	2952.3	2952.3
32.5°	2821.8	2806.9	2786.4	2771.5	2756.6	2749.1	2749.1	2743.5	2747.2	2747.2	2751.0
35°	2518.0	2497.5	2486.3	2477.0	2477.0	2484.4	2506.8	2512.4	2523.6	2532.9	2540.4
37.5°	2128.4	2126.6	2139.7	2150.8	2178.8	2210.5	2249.6	2283.2	2314.8	2337.2	2359.6
40°	1707.2	1753.8	1791.1	1843.3	1886.1	1947.7	2018.5	2076.3	2130.3	2169.5	2210.5
42.5°	1332.6	1392.3	1470.6	1546.9	1623.4	1707.2	1800.5	1880.6	1951.4	2005.4	2048.3
45°	1038.1	1120.1	1215.2	1312.1	1410.9	1515.3	1612.2	1694.2	1768.8	1824.7	1867.5
47.5°	836.8	926.3	1034.4	1140.7	1252.5	1362.4	1470.6	1541.4	1602.9	1647.6	1686.8
50°	691.5	786.5	900.2	1021.4	1133.2	1243.2	1336.3	1405.3	1455.6	1494.8	1519.0
52.5°	577.8	678.4	799.6	920.7	1032.5	1133.2	1217.1	1269.3	1310.3	1338.2	1360.6
55°	477.1	574.1	687.8	801.4	911.4	1006.4	1075.4	1114.6	1146.2	1163.0	1176.0
57.5°	389.6	479.0	583.4	687.8	782.8	861.1	915.1	954.3	969.2	982.2	980.4
60°	305.7	389.6	484.6	574.1	656.1	719.4	758.6	780.9	792.1	797.7	794.0
62.5°	240.4	316.9	389.6	467.8	527.5	581.5	618.8	618.8	624.4	626.2	631.8
65°	178.9	236.7	300.1	357.9	406.3	441.7	462.2	467.8	475.3	473.4	469.7
67.5°	132.3	175.2	221.8	264.6	298.2	320.6	335.5	348.6	346.7	342.9	341.1
70°	91.3	119.3	160.3	186.4	210.6	233.0	236.7	238.6	240.4	242.3	238.6
72.5°	63.4	83.9	106.3	128.6	143.5	152.8	162.2	164.0	164.0	164.0	162.2
75°	31.7	42.9	63.4	72.7	85.7	89.5	96.9	96.9	102.5	95.0	93.2
77.5°	28.0	33.6	44.7	52.2	57.8	63.4	65.2	70.8	69.0	65.2	67.1
80°	16.8	20.5	28.0	31.7	39.1	41.0	42.9	44.7	42.9	44.7	44.7
82.5°	13.0	14.9	18.7	18.7	24.2	24.2	26.1	26.1	28.0	28.0	28.0
85°	7.4	13.0	11.2	22.3	14.9	14.9	18.7	22.3	18.7	18.7	22.3
87.5°	7.4	7.4	5.6	7.4	7.4	7.4	9.3	11.2	11.2	13.0	11.2
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: P249607

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3472.3	3472.3	3472.3	3472.3
2.5°	3477.9	3481.6	3476.0	3474.1
5°	3483.4	3483.4	3479.7	3479.7
7.5°	3483.4	3483.4	3477.9	3474.1
10°	3468.5	3468.5	3463.0	3459.2
12.5°	3440.6	3440.6	3438.7	3433.1
15°	3405.2	3405.2	3397.7	3392.1
17.5°	3356.7	3360.4	3351.1	3351.1
20°	3304.5	3302.7	3295.2	3291.5
22.5°	3250.5	3246.8	3244.9	3233.7
25°	3192.7	3189.0	3183.4	3177.8
27.5°	3093.9	3092.1	3086.5	3079.0
30°	2942.9	2941.1	2933.6	2933.6
32.5°	2747.2	2745.4	2737.9	2739.8
35°	2544.1	2551.6	2547.8	2540.4
37.5°	2374.5	2380.1	2383.8	2380.1
40°	2232.8	2249.6	2251.5	2255.2
42.5°	2081.9	2104.2	2111.7	2115.4
45°	1901.1	1921.6	1938.4	1934.6
47.5°	1716.5	1731.5	1746.4	1735.2
50°	1539.5	1548.8	1554.4	1554.4
52.5°	1371.8	1371.8	1369.9	1371.8
55°	1179.8	1179.8	1172.3	1176.0
57.5°	978.5	982.2	976.6	967.3
60°	792.1	782.8	779.1	773.5
62.5°	616.9	616.9	603.9	620.6
65°	462.2	456.6	451.0	449.2
67.5°	335.5	333.6	328.0	326.2
70°	236.7	229.3	227.4	223.6
72.5°	158.4	158.4	154.7	154.7
75°	96.9	87.6	85.7	87.6
77.5°	67.1	65.2	65.2	63.4
80°	44.7	42.9	46.6	41.0
82.5°	28.0	29.8	28.0	29.8
85°	18.7	22.3	20.5	20.5
87.5°	11.2	11.2	11.2	11.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)