

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: P249578

Luminaire Tested: **LSR8B70D010 EC8B70935 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249578  
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: LSR8B70D010 EC8B70935 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 3500 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6436.0 lumens  
Efficiency: N/A  
Efficacy: 84.8 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

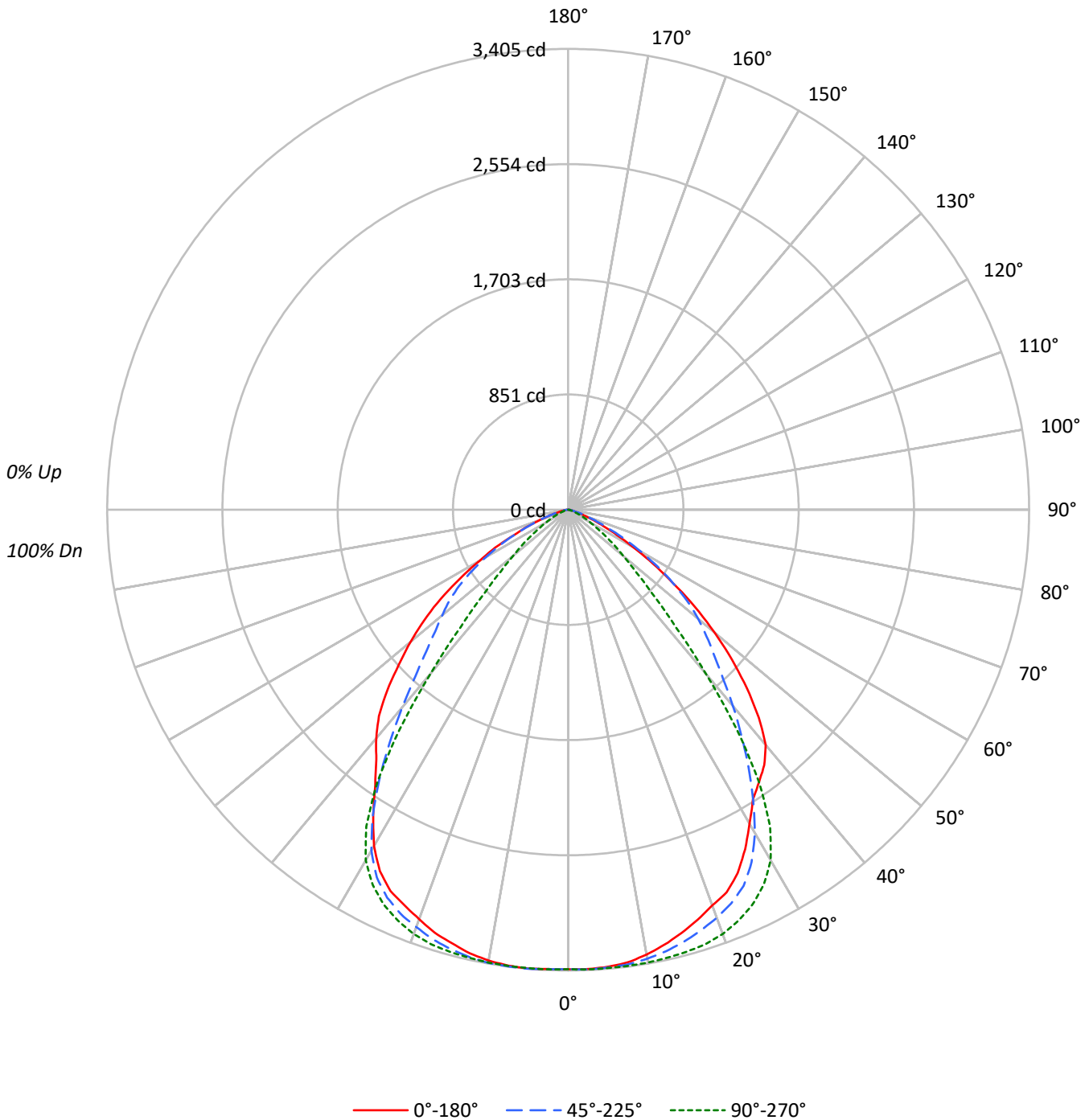
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	104714	104714	104714
5°	104944	105225	105340
10°	104501	106386	105929
15°	103345	107942	105905
20°	102102	109459	105633
25°	100776	109585	105740
30°	95341	106503	102156
35°	92496	92563	93523
40°	91348	63686	88780
45°	81396	38232	82508
50°	67680	25445	72928
55°	50762	17542	61831
60°	34401	11687	46655
65°	20751	7581	32053
70°	11504	4111	19718
75°	5218	1739	10211
80°	4528	1936	7121
85°	5166	2583	7112



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	324.1	5.0
10°-20°	941.2	14.6
20°-30°	1428.5	22.2
30°-40°	1500.4	23.3
40°-50°	1124.9	17.5
50°-60°	721.7	11.2
60°-70°	308.8	4.8
70°-80°	72.9	1.1
80°-90°	13.6	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°	2693.8	41.9
0°-40°	4194.1	65.2
0°-60°	6040.7	93.9
0°-90°	6436.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6436.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3396	3396	3396	3396	3396	
5°	3390	3396	3399	3405	3403	322
15°	3237	3305	3381	3359	3317	913
25°	2962	3066	3221	3162	3108	1353
35°	2457	2320	2459	2430	2484	1542
45°	1866	1526	877	1482	1892	1429
55°	944	944	326	984	1150	856
65°	284	335	104	432	439	304
75°	44	51	15	88	86	64
85°	15	9	7	15	20	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°	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8
2.5°	3397.6	3401.2	3399.4	3399.4	3397.6	3399.4	3399.4	3403.1	3403.1	3399.4	3397.6
5°	3390.3	3393.9	3393.9	3390.3	3390.3	3399.4	3393.9	3397.6	3397.6	3395.8	3395.8
7.5°	3373.9	3373.9	3381.2	3375.7	3375.7	3381.2	3379.3	3383.0	3386.7	3388.5	3388.5
10°	3337.4	3341.1	3342.9	3342.9	3344.7	3350.2	3353.8	3361.1	3364.8	3368.4	3370.2
12.5°	3291.9	3297.3	3299.2	3297.3	3302.8	3310.1	3319.2	3328.3	3333.8	3341.1	3346.6
15°	3237.2	3237.2	3240.8	3246.3	3250.0	3260.9	3270.0	3280.9	3295.5	3304.6	3313.7
17.5°	3177.0	3180.7	3186.1	3186.1	3193.5	3211.7	3217.1	3233.6	3250.0	3259.1	3277.3
20°	3111.4	3115.1	3120.5	3124.2	3133.3	3147.9	3158.8	3173.4	3191.6	3208.0	3226.2
22.5°	3060.4	3053.1	3056.7	3060.4	3069.5	3082.3	3095.0	3113.2	3131.5	3147.9	3166.1
25°	2961.9	2963.8	2969.3	2972.9	2983.8	2994.8	3009.3	3031.2	3047.6	3065.9	3085.9
27.5°	2828.9	2830.7	2839.8	2839.8	2848.9	2867.2	2876.3	2894.5	2916.4	2934.6	2958.3
30°	2677.6	2681.2	2681.2	2688.5	2694.0	2703.1	2712.2	2730.5	2741.4	2757.8	2790.6
32.5°	2539.1	2542.7	2540.9	2539.1	2533.6	2531.8	2530.0	2533.6	2537.3	2542.7	2555.5
35°	2457.1	2447.9	2440.7	2427.9	2413.3	2395.1	2378.7	2356.8	2336.7	2320.3	2302.1
37.5°	2378.7	2376.8	2365.9	2347.7	2318.5	2285.7	2247.5	2200.0	2152.6	2101.6	2052.4
40°	2269.3	2263.8	2254.7	2229.2	2196.4	2156.3	2105.3	2046.9	1970.4	1892.0	1811.8
42.5°	2083.4	2085.2	2074.3	2054.2	2023.3	1984.9	1932.1	1868.3	1786.3	1693.3	1589.4
45°	1866.5	1866.5	1862.8	1846.4	1824.6	1793.6	1753.5	1700.6	1620.4	1525.6	1414.4
47.5°	1640.5	1642.3	1636.8	1633.2	1624.0	1604.0	1574.9	1534.8	1478.2	1387.1	1275.9
50°	1410.8	1410.8	1419.9	1418.1	1418.1	1410.8	1398.1	1374.3	1325.1	1252.2	1148.3
52.5°	1181.1	1184.8	1190.3	1197.5	1206.6	1221.2	1206.6	1195.7	1164.7	1108.2	1018.9
55°	944.2	947.8	956.9	969.7	980.7	995.2	998.9	998.9	982.4	944.2	876.7
57.5°	741.9	736.4	743.7	754.6	769.2	783.8	794.7	807.5	805.6	780.1	725.5
60°	557.8	559.6	565.0	576.0	586.9	599.7	614.3	625.2	630.7	617.9	583.3
62.5°	406.5	406.5	413.7	424.7	430.2	448.4	457.5	463.0	468.4	466.6	444.7
65°	284.4	288.0	291.6	297.1	302.6	313.5	319.0	329.9	333.6	335.4	319.0
67.5°	200.5	195.0	198.7	202.3	207.8	215.1	226.0	226.0	231.5	231.5	220.5
70°	127.6	127.6	129.4	134.9	138.5	140.4	144.0	147.6	153.1	151.3	151.3
72.5°	85.7	83.8	85.7	87.5	89.3	94.8	94.8	96.6	100.3	102.1	94.8
75°	43.8	45.6	49.2	47.4	52.9	49.2	51.0	56.5	54.7	51.0	51.0
77.5°	36.4	36.4	36.4	34.7	38.3	38.3	36.4	40.1	38.3	38.3	36.4
80°	25.5	27.3	25.5	23.7	25.5	23.7	23.7	23.7	23.7	23.7	21.9
82.5°	20.1	16.4	18.2	16.4	18.2	18.2	16.4	14.6	14.6	16.4	14.6
85°	14.6	10.9	12.8	12.8	10.9	10.9	10.9	10.9	10.9	9.1	9.1
87.5°	9.1	5.5	5.5	5.5	7.3	7.3	7.3	5.5	7.3	7.3	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: P249578

CATALOG NUMBER: LSR8B70D010 EC8B70935 8LBDW0MWW

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8
2.5°	3401.2	3399.4	3403.1	3401.2	3401.2	3399.4	3401.2	3399.4	3403.1	3395.8	3397.6
5°	3401.2	3397.6	3399.4	3401.2	3403.1	3399.4	3399.4	3399.4	3403.1	3399.4	3401.2
7.5°	3393.9	3392.1	3397.6	3401.2	3399.4	3397.6	3401.2	3399.4	3403.1	3401.2	3404.9
10°	3379.3	3381.2	3384.8	3390.3	3392.1	3393.9	3397.6	3397.6	3403.1	3395.8	3399.4
12.5°	3357.5	3364.8	3373.9	3377.5	3384.8	3384.8	3388.5	3390.3	3393.9	3392.1	3397.6
15°	3330.2	3339.3	3350.2	3359.3	3368.4	3373.9	3379.3	3381.2	3386.7	3381.2	3383.0
17.5°	3297.3	3308.3	3324.7	3335.6	3350.2	3355.7	3362.9	3366.6	3372.1	3368.4	3370.2
20°	3251.7	3264.5	3282.7	3299.2	3308.3	3321.0	3330.2	3335.6	3339.3	3335.6	3337.4
22.5°	3188.0	3206.2	3229.9	3242.7	3260.9	3271.8	3273.6	3286.4	3295.5	3286.4	3290.1
25°	3113.2	3131.5	3149.7	3177.0	3193.5	3206.2	3219.0	3220.8	3229.9	3228.1	3226.2
27.5°	2989.3	3013.0	3044.0	3065.9	3087.7	3107.8	3122.4	3126.0	3135.1	3131.5	3133.3
30°	2819.8	2845.3	2874.5	2909.1	2940.1	2960.1	2978.4	2991.1	3000.2	2994.8	2992.9
32.5°	2579.2	2604.7	2635.7	2670.3	2706.8	2735.9	2757.8	2774.2	2785.1	2781.5	2772.4
35°	2304.0	2311.2	2331.3	2358.6	2389.6	2420.6	2440.7	2458.9	2471.6	2475.3	2475.3
37.5°	2021.4	1997.7	1983.2	1983.2	2001.4	2014.1	2032.4	2043.3	2063.4	2070.6	2076.1
40°	1748.0	1693.3	1642.3	1604.0	1578.5	1576.7	1576.7	1582.1	1600.4	1624.0	1645.9
42.5°	1503.8	1416.3	1337.9	1266.8	1215.8	1186.6	1173.9	1175.7	1190.3	1212.1	1248.6
45°	1308.7	1199.4	1100.9	1015.3	946.0	900.4	878.6	876.7	887.7	913.2	953.3
47.5°	1157.4	1040.8	929.6	831.2	756.5	707.2	681.7	674.4	681.7	705.4	752.8
50°	1031.7	911.4	796.5	694.5	614.3	563.2	539.5	530.4	539.5	559.6	607.0
52.5°	915.0	791.1	683.5	585.1	499.4	455.7	430.2	424.7	430.2	453.8	492.2
55°	780.1	674.4	568.7	470.3	395.6	351.8	331.7	326.3	331.7	353.6	393.7
57.5°	647.1	555.9	463.0	373.7	309.9	271.6	253.4	246.1	258.8	273.4	320.8
60°	523.1	450.2	371.8	293.5	240.6	206.0	191.4	189.5	193.2	211.4	244.2
62.5°	410.1	350.0	288.0	224.2	180.4	165.9	147.6	145.8	149.5	160.4	185.9
65°	295.3	257.0	209.6	164.0	129.4	109.4	102.1	103.9	107.5	114.8	138.5
67.5°	206.0	178.6	145.8	114.8	89.3	80.2	72.9	71.1	72.9	85.7	98.4
70°	138.5	122.1	98.4	87.5	62.0	49.2	51.0	45.6	52.9	52.9	63.8
72.5°	91.1	80.2	65.6	51.0	43.8	34.7	34.7	32.8	36.4	38.3	47.4
75°	47.4	36.4	36.4	25.5	18.2	9.1	16.4	14.6	12.8	14.6	18.2
77.5°	32.8	27.3	25.5	20.1	18.2	14.6	14.6	14.6	14.6	16.4	18.2
80°	20.1	20.1	14.6	12.8	10.9	9.1	10.9	10.9	10.9	10.9	12.8
82.5°	12.8	10.9	10.9	9.1	9.1	7.3	7.3	7.3	7.3	7.3	10.9
85°	10.9	7.3	7.3	5.5	7.3	12.8	5.5	7.3	7.3	7.3	5.5
87.5°	3.7	5.5	5.5	5.5	3.7	1.8	3.7	5.5	5.5	9.1	7.3
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: P249578

CATALOG NUMBER: LSR8B70D010 EC8B70935 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8	3395.8
2.5°	3401.2	3403.1	3403.1	3401.2	3401.2	3397.6	3404.9	3399.4	3401.2	3408.5	3403.1
5°	3404.9	3406.7	3406.7	3404.9	3404.9	3404.9	3406.7	3406.7	3404.9	3403.1	3406.7
7.5°	3412.2	3410.3	3410.3	3406.7	3406.7	3403.1	3406.7	3401.2	3404.9	3401.2	3406.7
10°	3403.1	3404.9	3403.1	3401.2	3401.2	3399.4	3399.4	3393.9	3395.8	3390.3	3393.9
12.5°	3397.6	3395.8	3395.8	3392.1	3388.5	3384.8	3383.0	3377.5	3377.5	3364.8	3370.2
15°	3383.0	3384.8	3379.3	3372.1	3368.4	3359.3	3355.7	3348.4	3341.1	3332.0	3333.8
17.5°	3370.2	3364.8	3357.5	3350.2	3335.6	3328.3	3321.0	3310.1	3306.4	3295.5	3291.9
20°	3332.0	3328.3	3319.2	3306.4	3297.3	3280.9	3273.6	3262.7	3253.6	3242.7	3237.2
22.5°	3282.7	3279.1	3268.2	3255.4	3240.8	3233.6	3226.2	3206.2	3197.1	3186.1	3184.3
25°	3220.8	3215.3	3204.4	3189.8	3182.5	3162.5	3155.1	3140.6	3136.9	3126.0	3124.2
27.5°	3126.0	3118.7	3106.0	3087.7	3075.0	3062.2	3054.9	3044.0	3040.3	3029.4	3027.6
30°	2983.8	2974.7	2949.2	2941.9	2920.0	2907.3	2907.3	2892.7	2894.5	2887.2	2887.2
32.5°	2759.6	2745.1	2725.0	2710.4	2695.8	2688.5	2688.5	2683.1	2686.7	2686.7	2690.4
35°	2462.5	2442.5	2431.5	2422.4	2422.4	2429.7	2451.6	2457.1	2468.0	2477.1	2484.4
37.5°	2081.5	2079.8	2092.5	2103.4	2130.8	2161.8	2200.0	2232.9	2263.8	2285.7	2307.6
40°	1669.6	1715.2	1751.6	1802.7	1844.6	1904.8	1974.0	2030.5	2083.4	2121.7	2161.8
42.5°	1303.2	1361.6	1438.2	1512.9	1587.6	1669.6	1760.8	1839.1	1908.4	1961.3	2003.2
45°	1015.3	1095.5	1188.4	1283.2	1379.8	1481.9	1576.7	1656.9	1729.8	1784.5	1826.4
47.5°	818.4	905.9	1011.6	1115.5	1224.9	1332.4	1438.2	1507.4	1567.5	1611.3	1649.6
50°	676.2	769.2	880.4	998.9	1108.2	1215.8	1306.9	1374.3	1423.6	1461.8	1485.5
52.5°	565.0	663.5	782.0	900.4	1009.8	1108.2	1190.3	1241.3	1281.4	1308.7	1330.6
55°	466.6	561.4	672.6	783.8	891.3	984.3	1051.7	1090.0	1121.0	1137.4	1150.1
57.5°	381.0	468.4	570.5	672.6	765.6	842.1	895.0	933.2	947.8	960.6	958.8
60°	298.9	381.0	473.9	561.4	641.6	703.6	741.9	763.7	774.6	780.1	776.5
62.5°	235.1	309.9	381.0	457.5	515.8	568.7	605.2	605.2	610.6	612.4	617.9
65°	175.0	231.5	293.5	350.0	397.3	432.0	452.1	457.5	464.8	463.0	459.3
67.5°	129.4	171.4	216.9	258.8	291.6	313.5	328.1	340.9	339.0	335.4	333.6
70°	89.3	116.7	156.8	182.3	206.0	227.9	231.5	233.3	235.1	237.0	233.3
72.5°	62.0	82.0	103.9	125.8	140.4	149.5	158.6	160.4	160.4	160.4	158.6
75°	31.0	41.9	62.0	71.1	83.8	87.5	94.8	94.8	100.3	92.9	91.1
77.5°	27.3	32.8	43.8	51.0	56.5	62.0	63.8	69.3	67.4	63.8	65.6
80°	16.4	20.1	27.3	31.0	38.3	40.1	41.9	43.8	41.9	43.8	43.8
82.5°	12.8	14.6	18.2	18.2	23.7	23.7	25.5	25.5	27.3	27.3	27.3
85°	7.3	12.8	10.9	21.9	14.6	14.6	18.2	21.9	18.2	18.2	21.9
87.5°	7.3	7.3	5.5	7.3	7.3	7.3	9.1	10.9	10.9	12.8	10.9
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: P249578

CATALOG NUMBER: LSR8B70D010 EC8B70935 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3395.8	3395.8	3395.8	3395.8
2.5°	3401.2	3404.9	3399.4	3397.6
5°	3406.7	3406.7	3403.1	3403.1
7.5°	3406.7	3406.7	3401.2	3397.6
10°	3392.1	3392.1	3386.7	3383.0
12.5°	3364.8	3364.8	3362.9	3357.5
15°	3330.2	3330.2	3322.8	3317.4
17.5°	3282.7	3286.4	3277.3	3277.3
20°	3231.7	3229.9	3222.6	3219.0
22.5°	3178.9	3175.2	3173.4	3162.5
25°	3122.4	3118.7	3113.2	3107.8
27.5°	3025.8	3023.9	3018.4	3011.2
30°	2878.1	2876.3	2869.0	2869.0
32.5°	2686.7	2684.9	2677.6	2679.4
35°	2488.0	2495.3	2491.7	2484.4
37.5°	2322.2	2327.6	2331.3	2327.6
40°	2183.6	2200.0	2201.9	2205.5
42.5°	2036.0	2057.9	2065.2	2068.8
45°	1859.2	1879.2	1895.7	1892.0
47.5°	1678.7	1693.3	1707.9	1697.0
50°	1505.6	1514.7	1520.2	1520.2
52.5°	1341.6	1341.6	1339.7	1341.6
55°	1153.8	1153.8	1146.5	1150.1
57.5°	956.9	960.6	955.1	946.0
60°	774.6	765.6	761.9	756.5
62.5°	603.3	603.3	590.6	607.0
65°	452.1	446.6	441.1	439.3
67.5°	328.1	326.3	320.8	319.0
70°	231.5	224.2	222.4	218.7
72.5°	154.9	154.9	151.3	151.3
75°	94.8	85.7	83.8	85.7
77.5°	65.6	63.8	63.8	62.0
80°	43.8	41.9	45.6	40.1
82.5°	27.3	29.2	27.3	29.2
85°	18.2	21.9	20.1	20.1
87.5°	10.9	10.9	10.9	10.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)