

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: P249400

Luminaire Tested: **LSR8B90D010 EC8B909730 8LBDW0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249400  
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 8LBDW0GPH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 3000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6884.0 lumens  
Efficiency: N/A  
Efficacy: 80.0 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

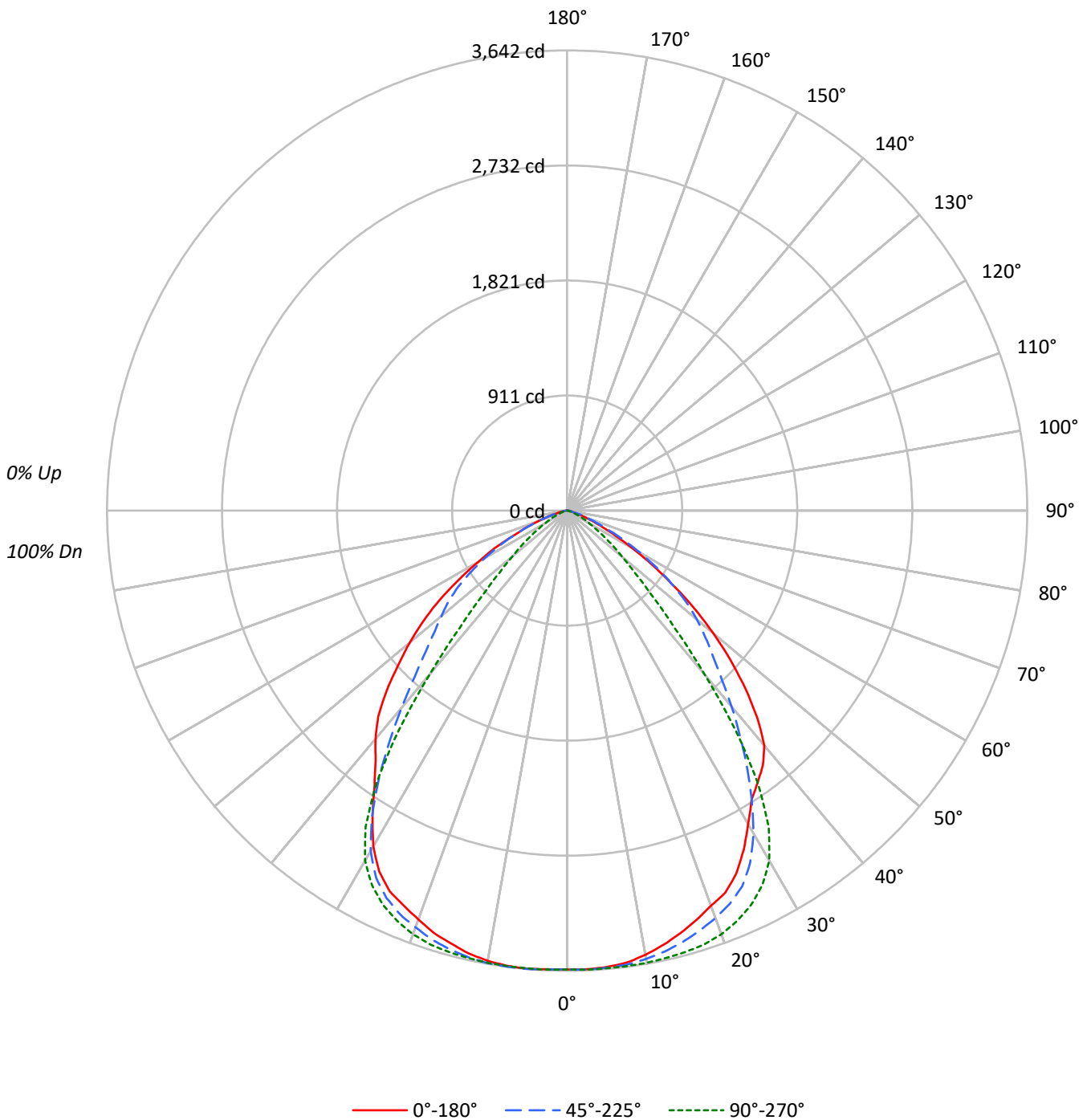
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P249400

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0GPH

### Luminous Intensity Polar Plot





TEST NUMBER: P249400

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0GPH

**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: P249400

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0GPH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	346.6	5.0
10°-20°	1006.7	14.6
20°-30°	1527.9	22.2
30°-40°	1604.8	23.3
40°-50°	1203.2	17.5
50°-60°	772.0	11.2
60°-70°	330.2	4.8
70°-80°	78.0	1.1
80°-90°	14.5	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°	2881.3	41.9
0°-40°	4486.1	65.2
0°-60°	6461.2	93.9
0°-90°	6884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6884.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3632	3632	3632	3632	3632	
5°	3626	3632	3636	3642	3640	344
15°	3462	3535	3616	3593	3548	977
25°	3168	3279	3445	3383	3324	1447
35°	2628	2482	2630	2599	2657	1649
45°	1996	1632	938	1585	2024	1529
55°	1010	1010	349	1053	1230	916
65°	304	359	111	462	470	325
75°	47	55	16	94	92	68
85°	16	10	8	16	22	16
90°	0	0	0	0	0	



TEST NUMBER: P249400

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0GPH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1
2.5°	3634.1	3638.0	3636.0	3636.0	3634.1	3636.0	3636.0	3640.0	3640.0	3636.0	3634.1
5°	3626.3	3630.2	3630.2	3626.3	3626.3	3636.0	3630.2	3634.1	3634.1	3632.1	3632.1
7.5°	3608.8	3608.8	3616.5	3610.7	3610.7	3616.5	3614.6	3618.5	3622.4	3624.4	3624.4
10°	3569.7	3573.6	3575.6	3575.6	3577.6	3583.4	3587.3	3595.1	3599.0	3602.9	3604.8
12.5°	3521.0	3526.9	3528.8	3526.9	3532.7	3540.5	3550.3	3560.0	3565.9	3573.6	3579.5
15°	3462.5	3462.5	3466.4	3472.3	3476.2	3487.9	3497.6	3509.3	3524.9	3534.7	3544.4
17.5°	3398.2	3402.1	3407.9	3407.9	3415.7	3435.2	3441.1	3458.6	3476.2	3485.9	3505.4
20°	3328.0	3331.9	3337.8	3341.7	3351.4	3367.0	3378.7	3394.3	3413.8	3431.3	3450.8
22.5°	3273.4	3265.6	3269.5	3273.4	3283.2	3296.8	3310.5	3329.9	3349.4	3367.0	3386.5
25°	3168.1	3170.1	3175.9	3179.8	3191.5	3203.2	3218.8	3242.2	3259.8	3279.3	3300.7
27.5°	3025.8	3027.8	3037.5	3037.5	3047.2	3066.7	3076.5	3096.0	3119.4	3138.9	3164.3
30°	2864.0	2867.9	2867.9	2875.7	2881.5	2891.3	2901.0	2920.5	2932.2	2949.8	2984.9
32.5°	2715.8	2719.7	2717.7	2715.8	2710.0	2708.0	2706.1	2710.0	2713.9	2719.7	2733.3
35°	2628.1	2618.3	2610.6	2596.9	2581.3	2561.8	2544.2	2520.9	2499.4	2481.8	2462.4
37.5°	2544.2	2542.3	2530.6	2511.1	2479.9	2444.8	2403.9	2353.2	2302.5	2247.9	2195.3
40°	2427.3	2421.4	2411.7	2384.4	2349.3	2306.4	2251.8	2189.4	2107.5	2023.7	1937.9
42.5°	2228.4	2230.4	2218.7	2197.2	2164.1	2123.1	2066.6	1998.4	1910.6	1811.2	1700.1
45°	1996.4	1996.4	1992.5	1974.9	1951.6	1918.4	1875.5	1819.0	1733.2	1631.8	1512.9
47.5°	1754.6	1756.6	1750.7	1746.9	1737.1	1715.7	1684.5	1641.6	1581.1	1483.6	1364.7
50°	1509.0	1509.0	1518.8	1516.8	1516.8	1509.0	1495.4	1470.0	1417.4	1339.4	1228.3
52.5°	1263.3	1267.3	1273.1	1280.9	1290.6	1306.2	1290.6	1278.9	1245.8	1185.3	1089.8
55°	1009.9	1013.8	1023.5	1037.2	1048.9	1064.5	1068.4	1068.4	1050.8	1009.9	937.8
57.5°	793.5	787.6	795.5	807.2	822.8	838.3	850.0	863.7	861.7	834.4	776.0
60°	596.6	598.5	604.4	616.1	627.8	641.4	657.0	668.7	674.6	660.9	623.9
62.5°	434.8	434.8	442.6	454.2	460.1	479.6	489.3	495.2	501.0	499.1	475.7
65°	304.2	308.0	311.9	317.8	323.6	335.3	341.2	352.9	356.8	358.7	341.2
67.5°	214.5	208.6	212.5	216.4	222.3	230.1	241.8	241.8	247.6	247.6	235.9
70°	136.5	136.5	138.4	144.3	148.2	150.1	154.0	157.9	163.8	161.8	161.8
72.5°	91.6	89.7	91.6	93.6	95.6	101.4	101.4	103.3	107.2	109.2	101.4
75°	46.8	48.8	52.6	50.7	56.5	52.6	54.6	60.4	58.5	54.6	54.6
77.5°	39.0	39.0	39.0	37.1	40.9	40.9	39.0	42.9	40.9	40.9	39.0
80°	27.3	29.2	27.3	25.3	27.3	25.3	25.3	25.3	25.3	25.3	23.4
82.5°	21.5	17.6	19.5	17.6	19.5	19.5	17.6	15.6	15.6	17.6	15.6
85°	15.6	11.7	13.6	13.6	11.7	11.7	11.7	11.7	11.7	9.7	9.7
87.5°	9.7	5.9	5.9	5.9	7.8	7.8	7.8	5.9	7.8	7.8	3.9
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: P249400

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1
2.5°	3638.0	3636.0	3640.0	3638.0	3638.0	3636.0	3638.0	3636.0	3640.0	3632.1	3634.1
5°	3638.0	3634.1	3636.0	3638.0	3640.0	3636.0	3636.0	3636.0	3640.0	3636.0	3638.0
7.5°	3630.2	3628.2	3634.1	3638.0	3636.0	3634.1	3638.0	3636.0	3640.0	3638.0	3641.9
10°	3614.6	3616.5	3620.4	3626.3	3628.2	3630.2	3634.1	3634.1	3640.0	3632.1	3636.0
12.5°	3591.2	3599.0	3608.8	3612.6	3620.4	3620.4	3624.4	3626.3	3630.2	3628.2	3634.1
15°	3562.0	3571.7	3583.4	3593.2	3602.9	3608.8	3614.6	3616.5	3622.4	3616.5	3618.5
17.5°	3526.9	3538.5	3556.1	3567.8	3583.4	3589.2	3597.0	3600.9	3606.8	3602.9	3604.8
20°	3478.1	3491.8	3511.3	3528.8	3538.5	3552.2	3562.0	3567.8	3571.7	3567.8	3569.7
22.5°	3409.9	3429.4	3454.7	3468.4	3487.9	3499.6	3501.5	3515.2	3524.9	3515.2	3519.1
25°	3329.9	3349.4	3369.0	3398.2	3415.7	3429.4	3443.0	3445.0	3454.7	3452.8	3450.8
27.5°	3197.4	3222.7	3255.8	3279.3	3302.6	3324.1	3339.7	3343.6	3353.4	3349.4	3351.4
30°	3016.0	3043.4	3074.6	3111.6	3144.7	3166.2	3185.7	3199.3	3209.0	3203.2	3201.3
32.5°	2758.7	2786.0	2819.2	2856.2	2895.2	2926.4	2949.8	2967.3	2979.0	2975.1	2965.4
35°	2464.3	2472.1	2493.6	2522.8	2555.9	2589.1	2610.6	2630.0	2643.7	2647.6	2647.6
37.5°	2162.1	2136.8	2121.2	2121.2	2140.7	2154.3	2173.8	2185.5	2207.0	2214.8	2220.6
40°	1869.7	1811.2	1756.6	1715.7	1688.4	1686.4	1686.4	1692.3	1711.8	1737.1	1760.5
42.5°	1608.4	1514.8	1431.0	1355.0	1300.4	1269.2	1255.6	1257.5	1273.1	1296.5	1335.5
45°	1399.8	1282.9	1177.6	1085.9	1011.8	963.1	939.7	937.8	949.5	976.7	1019.7
47.5°	1238.0	1113.2	994.3	889.0	809.1	756.4	729.2	721.4	729.2	754.5	805.2
50°	1103.5	974.8	852.0	742.8	657.0	602.5	577.1	567.3	577.1	598.5	649.2
52.5°	978.7	846.1	731.1	625.8	534.2	487.4	460.1	454.2	460.1	485.4	526.4
55°	834.4	721.4	608.3	503.0	423.1	376.3	354.8	349.0	354.8	378.2	421.1
57.5°	692.1	594.6	495.2	399.7	331.4	290.5	271.0	263.2	276.8	292.4	343.1
60°	559.5	481.6	397.7	313.9	257.4	220.3	204.7	202.7	206.7	226.2	261.2
62.5°	438.7	374.3	308.0	239.8	193.0	177.4	157.9	156.0	159.9	171.5	198.9
65°	315.8	274.9	224.2	175.5	138.4	117.0	109.2	111.1	115.0	122.8	148.2
67.5°	220.3	191.1	156.0	122.8	95.6	85.8	78.0	76.0	78.0	91.6	105.3
70°	148.2	130.6	105.3	93.6	66.3	52.6	54.6	48.8	56.5	56.5	68.2
72.5°	97.5	85.8	70.2	54.6	46.8	37.1	37.1	35.1	39.0	40.9	50.7
75°	50.7	39.0	39.0	27.3	19.5	9.7	17.6	15.6	13.6	15.6	19.5
77.5°	35.1	29.2	27.3	21.5	19.5	15.6	15.6	15.6	15.6	17.6	19.5
80°	21.5	21.5	15.6	13.6	11.7	9.7	11.7	11.7	11.7	11.7	13.6
82.5°	13.6	11.7	11.7	9.7	9.7	7.8	7.8	7.8	7.8	7.8	11.7
85°	11.7	7.8	7.8	5.9	7.8	13.6	5.9	7.8	7.8	7.8	5.9
87.5°	3.9	5.9	5.9	5.9	3.9	2.0	3.9	5.9	5.9	9.7	7.8
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: P249400

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1	3632.1
2.5°	3638.0	3640.0	3640.0	3638.0	3638.0	3634.1	3641.9	3636.0	3638.0	3645.8	3640.0
5°	3641.9	3643.8	3643.8	3641.9	3641.9	3641.9	3643.8	3643.8	3641.9	3640.0	3643.8
7.5°	3649.7	3647.7	3647.7	3643.8	3643.8	3640.0	3643.8	3638.0	3641.9	3638.0	3643.8
10°	3640.0	3641.9	3640.0	3638.0	3638.0	3636.0	3636.0	3630.2	3632.1	3626.3	3630.2
12.5°	3634.1	3632.1	3632.1	3628.2	3624.4	3620.4	3618.5	3612.6	3612.6	3599.0	3604.8
15°	3618.5	3620.4	3614.6	3606.8	3602.9	3593.2	3589.2	3581.4	3573.6	3563.9	3565.9
17.5°	3604.8	3599.0	3591.2	3583.4	3567.8	3560.0	3552.2	3540.5	3536.6	3524.9	3521.0
20°	3563.9	3560.0	3550.3	3536.6	3526.9	3509.3	3501.5	3489.8	3480.1	3468.4	3462.5
22.5°	3511.3	3507.3	3495.7	3482.0	3466.4	3458.6	3450.8	3429.4	3419.6	3407.9	3406.0
25°	3445.0	3439.1	3427.4	3411.8	3404.0	3382.6	3374.8	3359.2	3355.3	3343.6	3341.7
27.5°	3343.6	3335.8	3322.2	3302.6	3289.0	3275.4	3267.6	3255.8	3252.0	3240.2	3238.3
30°	3191.5	3181.8	3154.5	3146.7	3123.3	3109.6	3109.6	3094.0	3096.0	3088.2	3088.2
32.5°	2951.7	2936.1	2914.7	2899.1	2883.5	2875.7	2875.7	2869.8	2873.7	2873.7	2877.6
35°	2633.9	2612.5	2600.8	2591.0	2591.0	2598.8	2622.2	2628.1	2639.8	2649.5	2657.3
37.5°	2226.4	2224.5	2238.2	2249.9	2279.1	2312.3	2353.2	2388.3	2421.4	2444.8	2468.2
40°	1785.8	1834.6	1873.6	1928.2	1973.0	2037.3	2111.4	2171.9	2228.4	2269.4	2312.3
42.5°	1394.0	1456.4	1538.3	1618.2	1698.1	1785.8	1883.4	1967.2	2041.3	2097.8	2142.6
45°	1085.9	1171.7	1271.2	1372.5	1475.9	1585.1	1686.4	1772.2	1850.2	1908.7	1953.5
47.5°	875.4	969.0	1082.0	1193.2	1310.1	1425.2	1538.3	1612.3	1676.7	1723.5	1764.4
50°	723.3	822.8	941.7	1068.4	1185.3	1300.4	1397.9	1470.0	1522.7	1563.6	1588.9
52.5°	604.4	709.6	836.4	963.1	1080.1	1185.3	1273.1	1327.7	1370.6	1399.8	1423.2
55°	499.1	600.5	719.4	838.3	953.4	1052.8	1124.9	1165.9	1199.0	1216.5	1230.2
57.5°	407.5	501.0	610.2	719.4	818.8	900.7	957.3	998.2	1013.8	1027.4	1025.5
60°	319.8	407.5	506.9	600.5	686.3	752.5	793.5	816.9	828.6	834.4	830.5
62.5°	251.5	331.4	407.5	489.3	551.7	608.3	647.3	647.3	653.1	655.1	660.9
65°	187.1	247.6	313.9	374.3	425.0	462.1	483.5	489.3	497.2	495.2	491.3
67.5°	138.4	183.3	232.0	276.8	311.9	335.3	350.9	364.6	362.6	358.7	356.8
70°	95.6	124.8	167.7	195.0	220.3	243.7	247.6	249.5	251.5	253.5	249.5
72.5°	66.3	87.7	111.1	134.5	150.1	159.9	169.6	171.5	171.5	171.5	169.6
75°	33.2	44.8	66.3	76.0	89.7	93.6	101.4	101.4	107.2	99.4	97.5
77.5°	29.2	35.1	46.8	54.6	60.4	66.3	68.2	74.1	72.1	68.2	70.2
80°	17.6	21.5	29.2	33.2	40.9	42.9	44.8	46.8	44.8	46.8	46.8
82.5°	13.6	15.6	19.5	19.5	25.3	25.3	27.3	27.3	29.2	29.2	29.2
85°	7.8	13.6	11.7	23.4	15.6	15.6	19.5	23.4	19.5	19.5	23.4
87.5°	7.8	7.8	5.9	7.8	7.8	7.8	9.7	11.7	11.7	13.6	11.7
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: P249400

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3632.1	3632.1	3632.1	3632.1
2.5°	3638.0	3641.9	3636.0	3634.1
5°	3643.8	3643.8	3640.0	3640.0
7.5°	3643.8	3643.8	3638.0	3634.1
10°	3628.2	3628.2	3622.4	3618.5
12.5°	3599.0	3599.0	3597.0	3591.2
15°	3562.0	3562.0	3554.1	3548.3
17.5°	3511.3	3515.2	3505.4	3505.4
20°	3456.7	3454.7	3446.9	3443.0
22.5°	3400.1	3396.2	3394.3	3382.6
25°	3339.7	3335.8	3329.9	3324.1
27.5°	3236.4	3234.4	3228.6	3220.8
30°	3078.4	3076.5	3068.7	3068.7
32.5°	2873.7	2871.8	2864.0	2866.0
35°	2661.2	2669.0	2665.1	2657.3
37.5°	2483.8	2489.7	2493.6	2489.7
40°	2335.6	2353.2	2355.1	2359.1
42.5°	2177.7	2201.1	2208.9	2212.8
45°	1988.6	2010.1	2027.6	2023.7
47.5°	1795.6	1811.2	1826.8	1815.1
50°	1610.4	1620.1	1626.0	1626.0
52.5°	1434.9	1434.9	1433.0	1434.9
55°	1234.1	1234.1	1226.3	1230.2
57.5°	1023.5	1027.4	1021.6	1011.8
60°	828.6	818.8	814.9	809.1
62.5°	645.3	645.3	631.7	649.2
65°	483.5	477.7	471.8	469.8
67.5°	350.9	349.0	343.1	341.2
70°	247.6	239.8	237.9	233.9
72.5°	165.7	165.7	161.8	161.8
75°	101.4	91.6	89.7	91.6
77.5°	70.2	68.2	68.2	66.3
80°	46.8	44.8	48.8	42.9
82.5°	29.2	31.2	29.2	31.2
85°	19.5	23.4	21.5	21.5
87.5°	11.7	11.7	11.7	11.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)