

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: P249157

Luminaire Tested: **LSR8B90D010 EC8B90940 8LBDW0H**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249157  
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 EC8B90940 8LBDW0H  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH SEMI-SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8515.0 lumens  
Efficiency: N/A  
Efficacy: 98.9 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

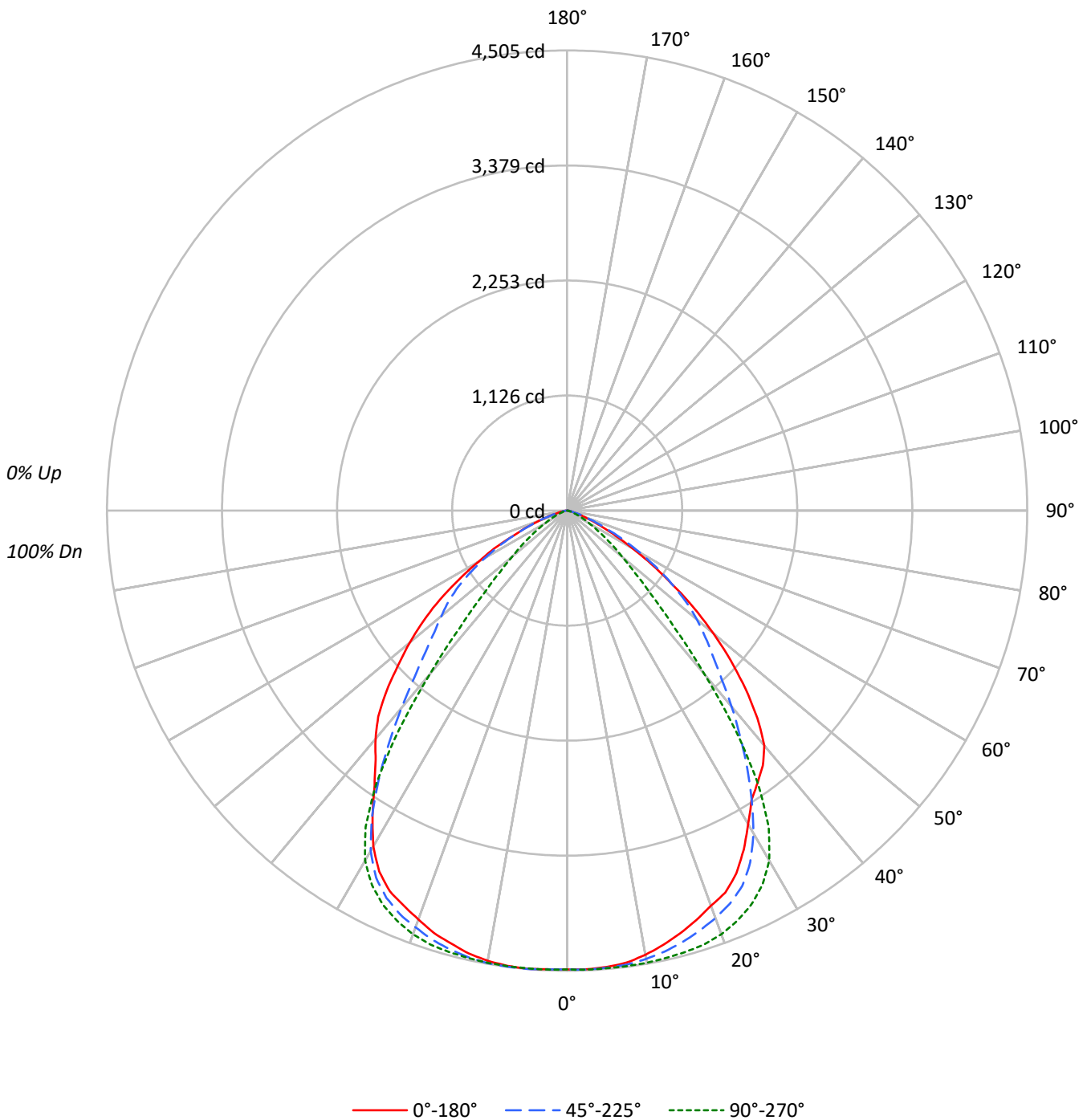
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	138538	138538	138538
5°	138842	139216	139368
10°	138258	140751	140146
15°	136728	142809	140115
20°	135084	144817	139754
25°	133330	144984	139897
30°	126140	140906	135156
35°	122374	122460	123733
40°	120858	84260	117461
45°	107688	50582	109162
50°	89541	33667	96483
55°	67159	23209	81809
60°	45508	15467	61722
65°	27449	10033	42407
70°	15219	5437	26092
75°	6898	2299	13511
80°	6002	2575	9412
85°	6828	3397	9411



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	428.8	5.0
10°-20°	1245.2	14.6
20°-30°	1890.0	22.2
30°-40°	1985.0	23.3
40°-50°	1488.2	17.5
50°-60°	954.9	11.2
60°-70°	408.5	4.8
70°-80°	96.5	1.1
80°-90°	18.0	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°	3563.9	41.9
0°-40°	5548.9	65.2
0°-60°	7992.1	93.9
0°-90°	8515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8515.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4493	4493	4493	4493	4493	
5°	4485	4493	4498	4505	4502	426
15°	4283	4372	4473	4444	4389	1208
25°	3919	4056	4261	4184	4112	1790
35°	3251	3070	3253	3214	3287	2040
45°	2469	2018	1160	1961	2503	1891
55°	1249	1249	432	1302	1522	1133
65°	376	444	138	572	581	402
75°	58	68	19	116	113	84
85°	19	12	10	19	27	20
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°	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7
2.5°	4495.1	4499.9	4497.5	4497.5	4495.1	4497.5	4497.5	4502.4	4502.4	4497.5	4495.1
5°	4485.4	4490.3	4490.3	4485.4	4485.4	4497.5	4490.3	4495.1	4495.1	4492.7	4492.7
7.5°	4463.8	4463.8	4473.4	4466.2	4466.2	4473.4	4471.0	4475.8	4480.6	4483.1	4483.1
10°	4415.5	4420.3	4422.8	4422.8	4425.2	4432.4	4437.2	4446.9	4451.7	4456.5	4458.9
12.5°	4355.3	4362.5	4364.9	4362.5	4369.7	4379.3	4391.4	4403.5	4410.7	4420.3	4427.6
15°	4282.9	4282.9	4287.7	4295.0	4299.8	4314.2	4326.3	4340.7	4360.0	4372.1	4384.2
17.5°	4203.3	4208.2	4215.4	4215.4	4225.0	4249.1	4256.4	4278.1	4299.8	4311.8	4336.0
20°	4116.5	4121.3	4128.6	4133.4	4145.4	4164.7	4179.2	4198.5	4222.6	4244.3	4268.4
22.5°	4049.0	4039.3	4044.1	4049.0	4061.0	4077.9	4094.8	4118.9	4143.0	4164.7	4188.9
25°	3918.7	3921.1	3928.4	3933.2	3947.7	3962.2	3981.5	4010.4	4032.1	4056.2	4082.7
27.5°	3742.7	3745.1	3757.2	3757.2	3769.2	3793.3	3805.4	3829.5	3858.5	3882.6	3913.9
30°	3542.6	3547.3	3547.3	3557.0	3564.2	3576.3	3588.4	3612.5	3626.9	3648.7	3692.1
32.5°	3359.3	3364.1	3361.6	3359.3	3352.0	3349.6	3347.2	3352.0	3356.9	3364.1	3380.9
35°	3250.8	3238.7	3229.1	3212.2	3192.9	3168.8	3147.0	3118.1	3091.6	3069.9	3045.8
37.5°	3147.0	3144.6	3130.2	3106.0	3067.4	3024.1	2973.4	2910.7	2848.0	2780.5	2715.4
40°	3002.4	2995.1	2983.1	2949.3	2905.9	2852.8	2785.3	2708.2	2606.8	2503.2	2397.1
42.5°	2756.4	2758.8	2744.3	2717.8	2676.8	2626.1	2556.2	2471.8	2363.3	2240.3	2102.9
45°	2469.4	2469.4	2464.6	2442.9	2413.9	2372.9	2319.9	2250.0	2143.9	2018.4	1871.3
47.5°	2170.4	2172.8	2165.5	2160.8	2148.7	2122.2	2083.6	2030.5	1955.8	1835.2	1688.1
50°	1866.5	1866.5	1878.6	1876.2	1876.2	1866.5	1849.7	1818.3	1753.2	1656.7	1519.3
52.5°	1562.7	1567.5	1574.8	1584.4	1596.4	1615.7	1596.4	1582.0	1541.0	1466.2	1348.1
55°	1249.2	1254.0	1266.0	1282.9	1297.4	1316.7	1321.5	1321.5	1299.8	1249.2	1159.9
57.5°	981.5	974.3	983.9	998.4	1017.7	1037.0	1051.4	1068.3	1065.9	1032.1	959.8
60°	737.9	740.4	747.6	762.1	776.5	793.4	812.7	827.2	834.4	817.5	771.7
62.5°	537.8	537.8	547.4	561.9	569.1	593.2	605.3	612.5	619.7	617.3	588.4
65°	376.2	381.0	385.8	393.1	400.3	414.8	422.0	436.5	441.3	443.7	422.0
67.5°	265.3	258.0	262.9	267.7	274.9	284.6	299.0	299.0	306.2	306.2	291.8
70°	168.8	168.8	171.2	178.4	183.3	185.7	190.5	195.3	202.6	200.1	200.1
72.5°	113.4	110.9	113.4	115.8	118.2	125.4	125.4	127.8	132.6	135.1	125.4
75°	57.9	60.3	65.1	62.7	69.9	65.1	67.5	74.8	72.3	67.5	67.5
77.5°	48.2	48.2	48.2	45.8	50.6	50.6	48.2	53.0	50.6	50.6	48.2
80°	33.8	36.2	33.8	31.3	33.8	31.3	31.3	31.3	31.3	31.3	28.9
82.5°	26.6	21.7	24.1	21.7	24.1	24.1	21.7	19.3	19.3	21.7	19.3
85°	19.3	14.5	16.9	16.9	14.5	14.5	14.5	14.5	14.5	12.0	12.0
87.5°	12.0	7.3	7.3	7.3	9.6	9.6	9.6	7.3	9.6	9.6	4.8
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°	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7
2.5°	4499.9	4497.5	4502.4	4499.9	4499.9	4497.5	4499.9	4497.5	4502.4	4492.7	4495.1
5°	4499.9	4495.1	4497.5	4499.9	4502.4	4497.5	4497.5	4497.5	4502.4	4497.5	4499.9
7.5°	4490.3	4487.8	4495.1	4499.9	4497.5	4495.1	4499.9	4497.5	4502.4	4499.9	4504.7
10°	4471.0	4473.4	4478.2	4485.4	4487.8	4490.3	4495.1	4495.1	4502.4	4492.7	4497.5
12.5°	4442.1	4451.7	4463.8	4468.5	4478.2	4478.2	4483.1	4485.4	4490.3	4487.8	4495.1
15°	4405.9	4417.9	4432.4	4444.5	4456.5	4463.8	4471.0	4473.4	4480.6	4473.4	4475.8
17.5°	4362.5	4376.9	4398.6	4413.1	4432.4	4439.6	4449.3	4454.1	4461.3	4456.5	4458.9
20°	4302.2	4319.1	4343.2	4364.9	4376.9	4393.8	4405.9	4413.1	4417.9	4413.1	4415.5
22.5°	4217.8	4241.9	4273.2	4290.1	4314.2	4328.7	4331.1	4348.0	4360.0	4348.0	4352.8
25°	4118.9	4143.0	4167.1	4203.3	4225.0	4241.9	4258.8	4261.2	4273.2	4270.8	4268.4
27.5°	3954.9	3986.3	4027.2	4056.2	4085.1	4111.7	4131.0	4135.8	4147.8	4143.0	4145.4
30°	3730.6	3764.4	3803.0	3848.8	3889.8	3916.3	3940.4	3957.3	3969.4	3962.2	3959.7
32.5°	3412.3	3446.1	3487.1	3532.9	3581.2	3619.7	3648.7	3670.4	3684.8	3680.0	3667.9
35°	3048.2	3057.8	3084.4	3120.5	3161.5	3202.5	3229.1	3253.1	3270.0	3274.9	3274.9
37.5°	2674.4	2643.1	2623.8	2623.8	2647.8	2664.7	2688.9	2703.3	2729.9	2739.5	2746.7
40°	2312.6	2240.3	2172.8	2122.2	2088.4	2086.0	2086.0	2093.2	2117.3	2148.7	2177.6
42.5°	1989.5	1873.7	1770.1	1676.0	1608.5	1569.9	1553.0	1555.5	1574.8	1603.7	1651.9
45°	1731.5	1586.8	1456.6	1343.2	1251.6	1191.3	1162.4	1159.9	1174.4	1208.2	1261.3
47.5°	1531.3	1377.0	1229.9	1099.6	1000.8	935.7	901.9	892.3	901.9	933.2	996.0
50°	1364.9	1205.8	1053.9	918.8	812.7	745.2	713.8	701.8	713.8	740.4	803.0
52.5°	1210.6	1046.6	904.3	774.1	660.8	602.9	569.1	561.9	569.1	600.4	651.1
55°	1032.1	892.3	752.4	622.2	523.3	465.4	438.9	431.7	438.9	467.9	520.9
57.5°	856.1	735.5	612.5	494.4	410.0	359.3	335.2	325.5	342.4	361.7	424.4
60°	692.1	595.7	491.9	388.3	318.3	272.5	253.2	250.8	255.6	279.7	323.1
62.5°	542.6	463.0	381.0	296.6	238.7	219.4	195.3	192.9	197.7	212.2	246.0
65°	390.7	340.1	277.3	217.0	171.2	144.7	135.1	137.5	142.3	151.9	183.3
67.5°	272.5	236.3	192.9	151.9	118.2	106.1	96.5	94.1	96.5	113.4	130.2
70°	183.3	161.6	130.2	115.8	82.0	65.1	67.5	60.3	69.9	69.9	84.4
72.5°	120.6	106.1	86.8	67.5	57.9	45.8	45.8	43.4	48.2	50.6	62.7
75°	62.7	48.2	48.2	33.8	24.1	12.0	21.7	19.3	16.9	19.3	24.1
77.5°	43.4	36.2	33.8	26.6	24.1	19.3	19.3	19.3	19.3	21.7	24.1
80°	26.6	26.6	19.3	16.9	14.5	12.0	14.5	14.5	14.5	14.5	16.9
82.5°	16.9	14.5	14.5	12.0	12.0	9.6	9.6	9.6	9.6	9.6	14.5
85°	14.5	9.6	9.6	7.3	9.6	16.9	7.3	9.6	9.6	9.6	7.3
87.5°	4.8	7.3	7.3	7.3	4.8	2.4	4.8	7.3	7.3	12.0	9.6
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°	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7	4492.7
2.5°	4499.9	4502.4	4502.4	4499.9	4499.9	4495.1	4504.7	4497.5	4499.9	4509.6	4502.4
5°	4504.7	4507.1	4507.1	4504.7	4504.7	4504.7	4507.1	4507.1	4504.7	4502.4	4507.1
7.5°	4514.4	4512.0	4512.0	4507.1	4507.1	4502.4	4507.1	4499.9	4504.7	4499.9	4507.1
10°	4502.4	4504.7	4502.4	4499.9	4499.9	4497.5	4497.5	4490.3	4492.7	4485.4	4490.3
12.5°	4495.1	4492.7	4492.7	4487.8	4483.1	4478.2	4475.8	4468.5	4468.5	4451.7	4458.9
15°	4475.8	4478.2	4471.0	4461.3	4456.5	4444.5	4439.6	4430.0	4420.3	4408.3	4410.7
17.5°	4458.9	4451.7	4442.1	4432.4	4413.1	4403.5	4393.8	4379.3	4374.5	4360.0	4355.3
20°	4408.3	4403.5	4391.4	4374.5	4362.5	4340.7	4331.1	4316.7	4304.6	4290.1	4282.9
22.5°	4343.2	4338.3	4323.9	4307.0	4287.7	4278.1	4268.4	4241.9	4229.8	4215.4	4212.9
25°	4261.2	4253.9	4239.5	4220.2	4210.5	4184.0	4174.3	4155.0	4150.3	4135.8	4133.4
27.5°	4135.8	4126.1	4109.3	4085.1	4068.2	4051.4	4041.8	4027.2	4022.5	4007.9	4005.6
30°	3947.7	3935.6	3901.9	3892.2	3863.3	3846.4	3846.4	3827.1	3829.5	3819.9	3819.9
32.5°	3651.1	3631.8	3605.2	3585.9	3566.6	3557.0	3557.0	3549.8	3554.6	3554.6	3559.4
35°	3258.0	3231.5	3217.0	3204.9	3204.9	3214.5	3243.5	3250.8	3265.2	3277.3	3286.9
37.5°	2753.9	2751.6	2768.5	2782.9	2819.1	2860.1	2910.7	2954.1	2995.1	3024.1	3053.0
40°	2209.0	2269.3	2317.5	2385.0	2440.4	2520.0	2611.7	2686.4	2756.4	2807.0	2860.1
42.5°	1724.2	1801.4	1902.7	2001.6	2100.4	2209.0	2329.6	2433.2	2524.9	2594.8	2650.3
45°	1343.2	1449.3	1572.3	1697.7	1825.5	1960.6	2086.0	2192.1	2288.6	2360.9	2416.4
47.5°	1082.8	1198.5	1338.4	1475.9	1620.5	1762.8	1902.7	1994.4	2073.9	2131.8	2182.5
50°	894.7	1017.7	1164.8	1321.5	1466.2	1608.5	1729.1	1818.3	1883.4	1934.0	1965.4
52.5°	747.6	877.8	1034.6	1191.3	1336.0	1466.2	1574.8	1642.3	1695.3	1731.5	1760.4
55°	617.3	742.8	889.9	1037.0	1179.2	1302.2	1391.4	1442.1	1483.1	1504.8	1521.7
57.5°	504.0	619.7	754.8	889.9	1012.8	1114.2	1184.1	1234.7	1254.0	1270.9	1268.5
60°	395.5	504.0	627.0	742.8	848.9	930.8	981.5	1010.4	1024.9	1032.1	1027.3
62.5°	311.1	410.0	504.0	605.3	682.5	752.4	800.7	800.7	807.9	810.3	817.5
65°	231.5	306.2	388.3	463.0	525.7	571.5	598.1	605.3	615.0	612.5	607.7
67.5°	171.2	226.7	286.9	342.4	385.8	414.8	434.1	451.0	448.6	443.7	441.3
70°	118.2	154.4	207.4	241.2	272.5	301.5	306.2	308.7	311.1	313.5	308.7
72.5°	82.0	108.5	137.5	166.4	185.7	197.7	209.8	212.2	212.2	212.2	209.8
75°	41.0	55.5	82.0	94.1	110.9	115.8	125.4	125.4	132.6	123.0	120.6
77.5°	36.2	43.4	57.9	67.5	74.8	82.0	84.4	91.6	89.2	84.4	86.8
80°	21.7	26.6	36.2	41.0	50.6	53.0	55.5	57.9	55.5	57.9	57.9
82.5°	16.9	19.3	24.1	24.1	31.3	31.3	33.8	33.8	36.2	36.2	36.2
85°	9.6	16.9	14.5	28.9	19.3	19.3	24.1	28.9	24.1	24.1	28.9
87.5°	9.6	9.6	7.3	9.6	9.6	9.6	12.0	14.5	14.5	16.9	14.5
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: P249157

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBDW0H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4492.7	4492.7	4492.7	4492.7
2.5°	4499.9	4504.7	4497.5	4495.1
5°	4507.1	4507.1	4502.4	4502.4
7.5°	4507.1	4507.1	4499.9	4495.1
10°	4487.8	4487.8	4480.6	4475.8
12.5°	4451.7	4451.7	4449.3	4442.1
15°	4405.9	4405.9	4396.2	4389.0
17.5°	4343.2	4348.0	4336.0	4336.0
20°	4275.7	4273.2	4263.6	4258.8
22.5°	4205.7	4200.9	4198.5	4184.0
25°	4131.0	4126.1	4118.9	4111.7
27.5°	4003.2	4000.7	3993.5	3983.9
30°	3807.8	3805.4	3795.8	3795.8
32.5°	3554.6	3552.2	3542.6	3545.0
35°	3291.7	3301.4	3296.6	3286.9
37.5°	3072.3	3079.5	3084.4	3079.5
40°	2889.0	2910.7	2913.1	2918.0
42.5°	2693.7	2722.6	2732.3	2737.1
45°	2459.7	2486.3	2508.0	2503.2
47.5°	2221.0	2240.3	2259.6	2245.1
50°	1991.9	2004.0	2011.2	2011.2
52.5°	1774.9	1774.9	1772.5	1774.9
55°	1526.5	1526.5	1516.9	1521.7
57.5°	1266.0	1270.9	1263.6	1251.6
60°	1024.9	1012.8	1008.0	1000.8
62.5°	798.2	798.2	781.4	803.0
65°	598.1	590.8	583.6	581.2
67.5°	434.1	431.7	424.4	422.0
70°	306.2	296.6	294.2	289.4
72.5°	205.0	205.0	200.1	200.1
75°	125.4	113.4	110.9	113.4
77.5°	86.8	84.4	84.4	82.0
80°	57.9	55.5	60.3	53.0
82.5°	36.2	38.6	36.2	38.6
85°	24.1	28.9	26.6	26.6
87.5°	14.5	14.5	14.5	14.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)