

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: P249517

Luminaire Tested: **LSR8B90D010 EC8B90827 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249517  
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 EC8B90827 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 2700 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8867.0 lumens  
Efficiency: N/A  
Efficacy: 103.0 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

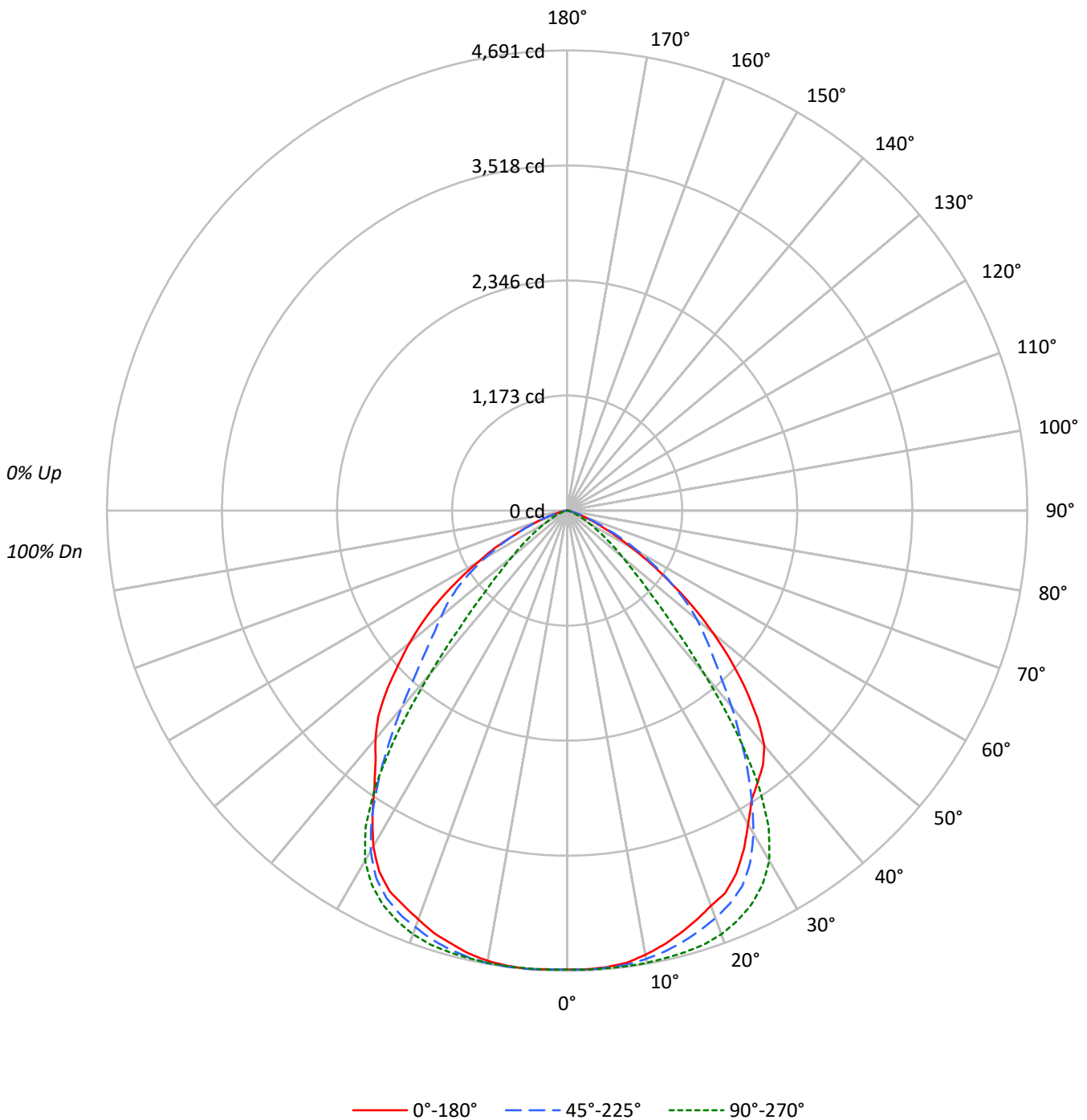
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	144265	144265	144265
5°	144580	144970	145128
10°	143973	146568	145939
15°	142378	148712	145906
20°	140669	150803	145529
25°	138842	150979	145678
30°	131353	146732	140743
35°	127433	127523	128849
40°	125854	87742	122316
45°	112141	52675	113672
50°	93245	35059	100474
55°	69933	24166	85190
60°	47389	16103	64275
65°	28588	10449	44158
70°	15850	5662	27165
75°	7184	2395	14059
80°	6233	2681	9802
85°	7112	3538	9765



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	446.5	5.0
10°-20°	1296.7	14.6
20°-30°	1968.1	22.2
30°-40°	2067.1	23.3
40°-50°	1549.8	17.5
50°-60°	994.4	11.2
60°-70°	425.4	4.8
70°-80°	100.5	1.1
80°-90°	18.7	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°	3711.2	41.9
0°-40°	5778.3	65.2
0°-60°	8322.4	93.9
0°-90°	8867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8867.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4678	4678	4678	4678	4678	
5°	4671	4678	4683	4691	4688	444
15°	4460	4553	4658	4628	4570	1258
25°	4081	4224	4437	4357	4282	1864
35°	3385	3197	3388	3347	3423	2125
45°	2572	2102	1208	2042	2607	1969
55°	1301	1301	450	1356	1585	1180
65°	392	462	143	595	605	418
75°	60	70	20	121	118	88
85°	20	12	10	20	28	21
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°	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4
2.5°	4680.9	4686.0	4683.4	4683.4	4680.9	4683.4	4683.4	4688.5	4688.5	4683.4	4680.9
5°	4670.8	4675.9	4675.9	4670.8	4670.8	4683.4	4675.9	4680.9	4680.9	4678.4	4678.4
7.5°	4648.3	4648.3	4658.3	4650.8	4650.8	4658.3	4655.8	4660.8	4665.9	4668.4	4668.4
10°	4598.0	4603.1	4605.6	4605.6	4608.1	4615.6	4620.6	4630.7	4635.7	4640.7	4643.3
12.5°	4535.3	4542.8	4545.3	4542.8	4550.4	4560.4	4573.0	4585.5	4593.1	4603.1	4610.6
15°	4459.9	4459.9	4464.9	4472.5	4477.5	4492.6	4505.1	4520.2	4540.3	4552.9	4565.4
17.5°	4377.1	4382.1	4389.6	4389.6	4399.7	4424.8	4432.3	4454.9	4477.5	4490.1	4515.2
20°	4286.7	4291.7	4299.2	4304.3	4316.8	4336.9	4351.9	4372.0	4397.2	4419.8	4444.8
22.5°	4216.3	4206.3	4211.3	4216.3	4228.9	4246.5	4264.1	4289.1	4314.3	4336.9	4362.0
25°	4080.7	4083.2	4090.8	4095.8	4110.9	4125.9	4146.0	4176.1	4198.8	4223.9	4251.5
27.5°	3897.4	3899.9	3912.5	3912.5	3925.0	3950.2	3962.7	3987.8	4018.0	4043.1	4075.7
30°	3689.0	3694.0	3694.0	3704.1	3711.6	3724.2	3736.7	3761.8	3776.9	3799.5	3844.7
32.5°	3498.2	3503.1	3500.6	3498.2	3490.6	3488.1	3485.6	3490.6	3495.6	3503.1	3520.7
35°	3385.2	3372.6	3362.5	3345.0	3324.9	3299.7	3277.1	3247.0	3219.4	3196.8	3171.7
37.5°	3277.1	3274.6	3259.6	3234.4	3194.2	3149.1	3096.4	3031.0	2965.7	2895.4	2827.7
40°	3126.5	3118.9	3106.4	3071.2	3026.0	2970.8	2900.5	2820.1	2714.6	2606.6	2496.2
42.5°	2870.3	2872.8	2857.8	2830.1	2787.5	2734.7	2661.9	2574.0	2461.0	2332.9	2189.8
45°	2571.5	2571.5	2566.5	2543.8	2513.7	2471.0	2415.8	2343.0	2232.5	2101.9	1948.7
47.5°	2260.1	2262.6	2255.1	2250.1	2237.5	2209.9	2169.7	2114.5	2036.6	1911.0	1757.8
50°	1943.7	1943.7	1956.2	1953.7	1953.7	1943.7	1926.1	1893.4	1825.7	1725.2	1582.1
52.5°	1627.3	1632.3	1639.9	1649.9	1662.4	1682.5	1662.4	1647.4	1604.7	1526.8	1403.8
55°	1300.8	1305.8	1318.4	1336.0	1351.1	1371.2	1376.1	1376.1	1353.5	1300.8	1207.9
57.5°	1022.1	1014.5	1024.6	1039.7	1059.8	1079.8	1094.9	1112.5	1110.0	1074.8	999.5
60°	768.4	771.0	778.5	793.6	808.6	826.2	846.3	861.3	868.9	851.3	803.6
62.5°	560.0	560.0	570.0	585.1	592.6	617.8	630.3	637.9	645.4	642.8	612.7
65°	391.8	396.8	401.8	409.3	416.8	431.9	439.5	454.5	459.6	462.1	439.5
67.5°	276.3	268.7	273.7	278.7	286.3	296.4	311.4	311.4	318.9	318.9	303.8
70°	175.8	175.8	178.3	185.8	190.9	193.4	198.4	203.4	210.9	208.4	208.4
72.5°	118.0	115.5	118.0	120.6	123.1	130.6	130.6	133.1	138.1	140.6	130.6
75°	60.3	62.8	67.8	65.3	72.8	67.8	70.3	77.9	75.3	70.3	70.3
77.5°	50.2	50.2	50.2	47.7	52.7	52.7	50.2	55.2	52.7	52.7	50.2
80°	35.1	37.7	35.1	32.6	35.1	32.6	32.6	32.6	32.6	32.6	30.1
82.5°	27.6	22.6	25.1	22.6	25.1	25.1	22.6	20.1	20.1	22.6	20.1
85°	20.1	15.1	17.6	17.6	15.1	15.1	15.1	15.1	15.1	12.5	12.5
87.5°	12.5	7.6	7.6	7.6	10.0	10.0	10.0	7.6	10.0	10.0	5.0
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4
2.5°	4686.0	4683.4	4688.5	4686.0	4686.0	4683.4	4686.0	4683.4	4688.5	4678.4	4680.9
5°	4686.0	4680.9	4683.4	4686.0	4688.5	4683.4	4683.4	4683.4	4688.5	4683.4	4686.0
7.5°	4675.9	4673.4	4680.9	4686.0	4683.4	4680.9	4686.0	4683.4	4688.5	4686.0	4690.9
10°	4655.8	4658.3	4663.3	4670.8	4673.4	4675.9	4680.9	4680.9	4688.5	4678.4	4683.4
12.5°	4625.7	4635.7	4648.3	4653.3	4663.3	4663.3	4668.4	4670.8	4675.9	4673.4	4680.9
15°	4588.0	4600.6	4615.6	4628.2	4640.7	4648.3	4655.8	4658.3	4665.9	4658.3	4660.8
17.5°	4542.8	4557.8	4580.5	4595.5	4615.6	4623.2	4633.2	4638.2	4645.8	4640.7	4643.3
20°	4480.0	4497.6	4522.7	4545.3	4557.8	4575.4	4588.0	4595.5	4600.6	4595.5	4598.0
22.5°	4392.1	4417.3	4449.9	4467.5	4492.6	4507.6	4510.2	4527.7	4540.3	4527.7	4532.8
25°	4289.1	4314.3	4339.4	4377.1	4399.7	4417.3	4434.8	4437.4	4449.9	4447.4	4444.8
27.5°	4118.4	4151.1	4193.7	4223.9	4254.0	4281.6	4301.7	4306.7	4319.3	4314.3	4316.8
30°	3884.8	3920.0	3960.2	4007.9	4050.6	4078.2	4103.3	4120.9	4133.4	4125.9	4123.4
32.5°	3553.4	3588.5	3631.2	3678.9	3729.2	3769.3	3799.5	3822.1	3837.2	3832.1	3819.6
35°	3174.2	3184.2	3211.9	3249.5	3292.2	3334.9	3362.5	3387.6	3405.2	3410.2	3410.2
37.5°	2785.0	2752.3	2732.2	2732.2	2757.3	2774.9	2800.0	2815.1	2842.7	2852.7	2860.3
40°	2408.2	2332.9	2262.6	2209.9	2174.7	2172.2	2172.2	2179.7	2204.9	2237.5	2267.6
42.5°	2071.8	1951.2	1843.2	1745.3	1675.0	1634.8	1617.2	1619.8	1639.9	1670.0	1720.2
45°	1803.1	1652.4	1516.8	1398.7	1303.3	1240.5	1210.4	1207.9	1223.0	1258.1	1313.4
47.5°	1594.6	1433.9	1280.7	1145.1	1042.2	974.3	939.2	929.2	939.2	971.8	1037.1
50°	1421.4	1255.6	1097.4	956.8	846.3	776.0	743.3	730.8	743.3	771.0	836.2
52.5°	1260.6	1089.9	941.7	806.1	688.1	627.8	592.6	585.1	592.6	625.3	678.1
55°	1074.8	929.2	783.5	647.9	545.0	484.7	457.0	449.5	457.0	487.2	542.4
57.5°	891.5	765.9	637.9	514.8	426.9	374.1	349.1	339.0	356.6	376.7	442.0
60°	720.7	620.3	512.3	404.3	331.5	283.8	263.7	261.1	266.2	291.3	336.5
62.5°	565.1	482.2	396.8	308.9	248.6	228.5	203.4	200.9	205.9	221.0	256.2
65°	406.8	354.1	288.8	226.0	178.3	150.7	140.6	143.2	148.1	158.2	190.9
67.5°	283.8	246.1	200.9	158.2	123.1	110.5	100.5	97.9	100.5	118.0	135.6
70°	190.9	168.2	135.6	120.6	85.4	67.8	70.3	62.8	72.8	72.8	87.9
72.5°	125.5	110.5	90.4	70.3	60.3	47.7	47.7	45.2	50.2	52.7	65.3
75°	65.3	50.2	50.2	35.1	25.1	12.5	22.6	20.1	17.6	20.1	25.1
77.5°	45.2	37.7	35.1	27.6	25.1	20.1	20.1	20.1	20.1	22.6	25.1
80°	27.6	27.6	20.1	17.6	15.1	12.5	15.1	15.1	15.1	15.1	17.6
82.5°	17.6	15.1	15.1	12.5	12.5	10.0	10.0	10.0	10.0	10.0	15.1
85°	15.1	10.0	10.0	7.6	10.0	17.6	7.6	10.0	10.0	10.0	7.6
87.5°	5.0	7.6	7.6	7.6	5.0	2.5	5.0	7.6	7.6	12.5	10.0
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°	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4	4678.4
2.5°	4686.0	4688.5	4688.5	4686.0	4686.0	4680.9	4690.9	4683.4	4686.0	4696.0	4688.5
5°	4690.9	4693.5	4693.5	4690.9	4690.9	4690.9	4693.5	4693.5	4690.9	4688.5	4693.5
7.5°	4701.0	4698.5	4698.5	4693.5	4693.5	4688.5	4693.5	4686.0	4690.9	4686.0	4693.5
10°	4688.5	4690.9	4688.5	4686.0	4686.0	4683.4	4683.4	4675.9	4678.4	4670.8	4675.9
12.5°	4680.9	4678.4	4678.4	4673.4	4668.4	4663.3	4660.8	4653.3	4653.3	4635.7	4643.3
15°	4660.8	4663.3	4655.8	4645.8	4640.7	4628.2	4623.2	4613.1	4603.1	4590.5	4593.1
17.5°	4643.3	4635.7	4625.7	4615.6	4595.5	4585.5	4575.4	4560.4	4555.3	4540.3	4535.3
20°	4590.5	4585.5	4573.0	4555.3	4542.8	4520.2	4510.2	4495.1	4482.5	4467.5	4459.9
22.5°	4522.7	4517.7	4502.6	4485.0	4464.9	4454.9	4444.8	4417.3	4404.7	4389.6	4387.1
25°	4437.4	4429.8	4414.7	4394.6	4384.6	4357.0	4346.9	4326.8	4321.8	4306.7	4304.3
27.5°	4306.7	4296.7	4279.1	4254.0	4236.4	4218.9	4208.8	4193.7	4188.7	4173.6	4171.2
30°	4110.9	4098.3	4063.1	4053.1	4023.0	4005.4	4005.4	3985.3	3987.8	3977.8	3977.8
32.5°	3802.0	3781.9	3754.3	3734.2	3714.1	3704.1	3704.1	3696.5	3701.5	3701.5	3706.6
35°	3392.7	3365.1	3350.0	3337.4	3337.4	3347.4	3377.6	3385.2	3400.2	3412.7	3422.8
37.5°	2867.8	2865.3	2882.9	2898.0	2935.6	2978.3	3031.0	3076.3	3118.9	3149.1	3179.2
40°	2300.3	2363.1	2413.3	2483.6	2541.3	2624.2	2719.6	2797.5	2870.3	2923.1	2978.3
42.5°	1795.5	1875.9	1981.4	2084.3	2187.3	2300.3	2425.9	2533.8	2629.3	2702.1	2759.8
45°	1398.7	1509.2	1637.3	1767.9	1901.0	2041.7	2172.2	2282.7	2383.2	2458.5	2516.3
47.5°	1127.5	1248.1	1393.7	1536.9	1687.5	1835.7	1981.4	2076.8	2159.6	2219.9	2272.7
50°	931.6	1059.8	1212.9	1376.1	1526.8	1675.0	1800.5	1893.4	1961.3	2014.0	2046.6
52.5°	778.5	914.1	1077.3	1240.5	1391.2	1526.8	1639.9	1710.2	1765.4	1803.1	1833.2
55°	642.8	773.5	926.7	1079.8	1228.0	1356.0	1448.9	1501.7	1544.4	1567.0	1584.6
57.5°	524.9	645.4	786.0	926.7	1054.7	1160.2	1233.0	1285.7	1305.8	1323.4	1320.9
60°	411.9	524.9	652.9	773.5	884.0	969.3	1022.1	1052.2	1067.2	1074.8	1069.8
62.5°	323.9	426.9	524.9	630.3	710.7	783.5	833.8	833.8	841.3	843.8	851.3
65°	241.1	318.9	404.3	482.2	547.4	595.2	622.8	630.3	640.4	637.9	632.8
67.5°	178.3	236.1	298.8	356.6	401.8	431.9	452.0	469.6	467.1	462.1	459.6
70°	123.1	160.7	216.0	251.1	283.8	313.9	318.9	321.4	323.9	326.5	321.4
72.5°	85.4	113.0	143.2	173.3	193.4	205.9	218.5	221.0	221.0	221.0	218.5
75°	42.7	57.8	85.4	97.9	115.5	120.6	130.6	130.6	138.1	128.1	125.5
77.5°	37.7	45.2	60.3	70.3	77.9	85.4	87.9	95.4	92.9	87.9	90.4
80°	22.6	27.6	37.7	42.7	52.7	55.2	57.8	60.3	57.8	60.3	60.3
82.5°	17.6	20.1	25.1	25.1	32.6	32.6	35.1	35.1	37.7	37.7	37.7
85°	10.0	17.6	15.1	30.1	20.1	20.1	25.1	30.1	25.1	25.1	30.1
87.5°	10.0	10.0	7.6	10.0	10.0	10.0	12.5	15.1	15.1	17.6	15.1
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: P249517

CATALOG NUMBER: LSR8B90D010 EC8B90827 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4678.4	4678.4	4678.4	4678.4
2.5°	4686.0	4690.9	4683.4	4680.9
5°	4693.5	4693.5	4688.5	4688.5
7.5°	4693.5	4693.5	4686.0	4680.9
10°	4673.4	4673.4	4665.9	4660.8
12.5°	4635.7	4635.7	4633.2	4625.7
15°	4588.0	4588.0	4577.9	4570.4
17.5°	4522.7	4527.7	4515.2	4515.2
20°	4452.4	4449.9	4439.9	4434.8
22.5°	4379.6	4374.6	4372.0	4357.0
25°	4301.7	4296.7	4289.1	4281.6
27.5°	4168.7	4166.1	4158.6	4148.6
30°	3965.2	3962.7	3952.7	3952.7
32.5°	3701.5	3699.0	3689.0	3691.5
35°	3427.8	3437.9	3432.8	3422.8
37.5°	3199.3	3206.8	3211.9	3206.8
40°	3008.4	3031.0	3033.6	3038.6
42.5°	2805.1	2835.2	2845.2	2850.2
45°	2561.4	2589.1	2611.7	2606.6
47.5°	2312.8	2332.9	2353.0	2337.9
50°	2074.3	2086.8	2094.4	2094.4
52.5°	1848.3	1848.3	1845.8	1848.3
55°	1589.6	1589.6	1579.6	1584.6
57.5°	1318.4	1323.4	1315.9	1303.3
60°	1067.2	1054.7	1049.7	1042.2
62.5°	831.2	831.2	813.7	836.2
65°	622.8	615.3	607.7	605.2
67.5°	452.0	449.5	442.0	439.5
70°	318.9	308.9	306.4	301.3
72.5°	213.5	213.5	208.4	208.4
75°	130.6	118.0	115.5	118.0
77.5°	90.4	87.9	87.9	85.4
80°	60.3	57.8	62.8	55.2
82.5°	37.7	40.2	37.7	40.2
85°	25.1	30.1	27.6	27.6
87.5°	15.1	15.1	15.1	15.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)