

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: P249778

Luminaire Tested: **LSR8B90D010 EC8B909730 8LBSW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249778
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13955)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B909730 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 3000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7341.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.15
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

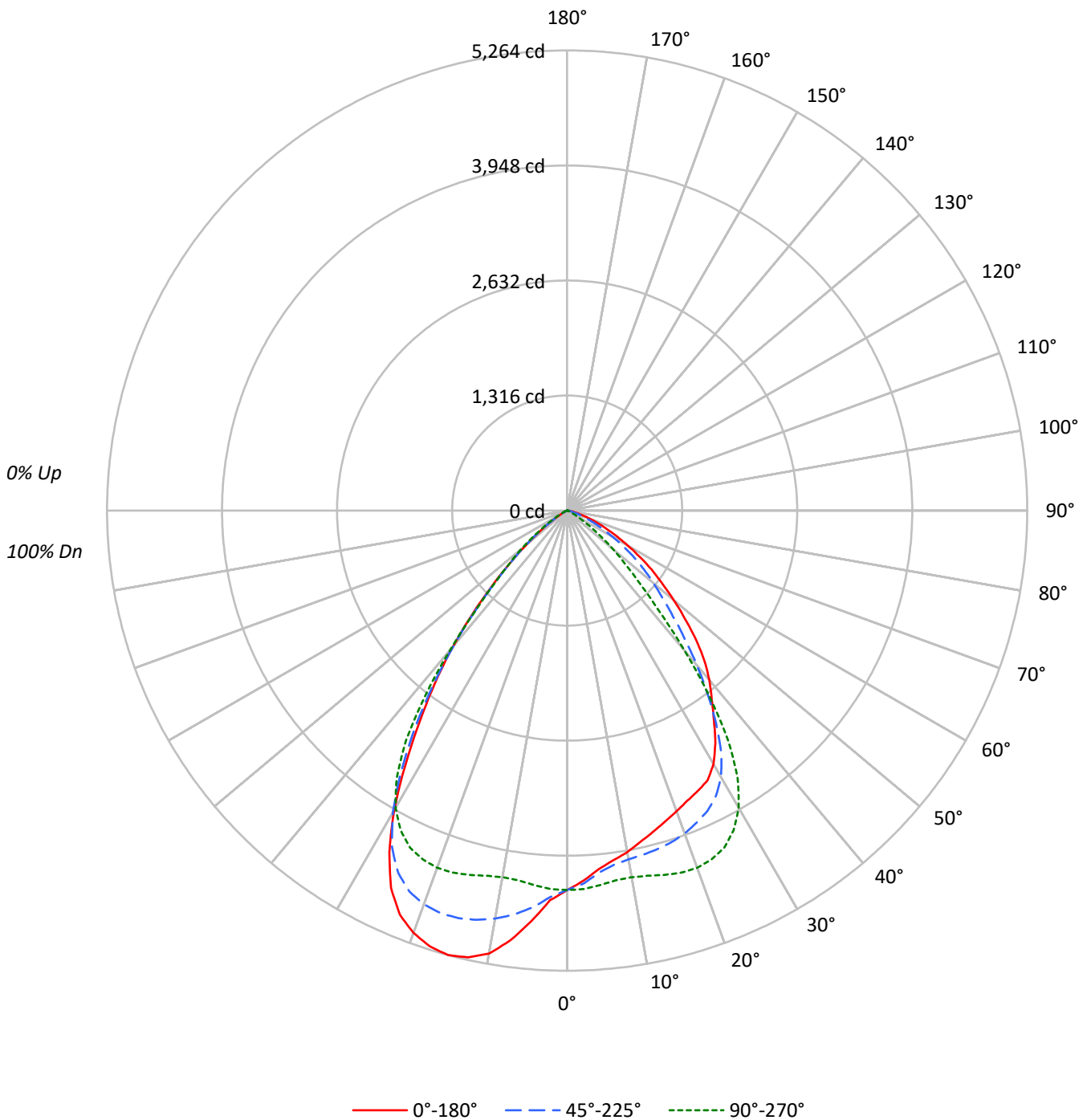
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60
6	80	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38

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°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.3	5.7
10°-20°	1248.9	17.0
20°-30°	1912.6	26.1
30°-40°	1875.0	25.5
40°-50°	1129.1	15.4
50°-60°	519.7	7.1
60°-70°	182.6	2.5
70°-80°	47.8	0.7
80°-90°	8.1	0.1
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°	3578.8	48.8
0°-40°	5453.7	74.3
0°-60°	7102.6	96.8
0°-90°	7341.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7341.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4341	4341	4341	4341	4341	
5°	4120	4158	4300	4558	4714	389
15°	3803	4008	4314	4826	5264	1075
25°	3538	3793	4254	4574	4765	1629
35°	2927	2968	3213	3028	2931	1833
45°	2079	1712	1160	1168	1199	1594
55°	1181	935	333	262	252	1053
65°	501	347	53	26	28	510
75°	130	75	4	0	0	157
85°	20	10	2	0	0	28
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°	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7
2.5°	4239.3	4243.4	4243.4	4243.4	4251.5	4253.6	4251.5	4253.6	4257.6	4271.8	4277.9
5°	4119.7	4113.6	4117.7	4115.6	4125.8	4131.9	4127.8	4133.9	4148.1	4158.2	4168.3
7.5°	4034.5	4034.5	4034.5	4038.5	4044.6	4056.8	4054.8	4058.8	4073.0	4087.2	4101.4
10°	3967.5	3965.5	3965.5	3975.6	3983.7	3997.9	4002.0	4014.2	4032.4	4050.7	4066.9
12.5°	3880.3	3882.4	3892.5	3902.7	3920.9	3943.2	3955.4	3971.6	4000.0	4030.4	4048.7
15°	3803.2	3805.2	3813.4	3833.6	3856.0	3882.4	3908.7	3935.1	3969.6	4008.1	4040.6
17.5°	3728.2	3730.2	3736.3	3758.7	3787.0	3821.5	3851.9	3886.4	3931.1	3975.6	4016.2
20°	3659.2	3657.2	3667.3	3687.6	3724.2	3756.6	3787.0	3827.6	3876.3	3931.1	3977.6
22.5°	3592.3	3592.3	3602.4	3622.7	3655.2	3687.6	3720.1	3762.7	3811.3	3864.1	3918.9
25°	3537.5	3535.5	3549.7	3559.9	3584.2	3616.6	3651.1	3685.6	3734.3	3793.1	3845.8
27.5°	3478.7	3476.7	3478.7	3490.9	3513.2	3537.5	3563.9	3594.3	3634.9	3683.6	3734.3
30°	3348.9	3350.9	3350.9	3361.1	3373.3	3399.6	3413.8	3444.2	3480.7	3521.3	3566.0
32.5°	3156.2	3158.2	3158.2	3162.3	3172.4	3184.6	3196.8	3219.1	3247.4	3281.9	3322.5
35°	2927.0	2927.0	2924.9	2927.0	2933.1	2933.1	2943.2	2933.1	2947.3	2967.6	2998.0
37.5°	2716.0	2711.9	2707.9	2703.8	2697.7	2687.6	2673.4	2649.1	2643.0	2634.9	2636.9
40°	2529.4	2527.4	2515.2	2505.0	2484.8	2460.5	2426.0	2383.4	2348.9	2308.3	2273.9
42.5°	2322.5	2320.4	2310.3	2292.1	2269.8	2233.3	2178.5	2121.7	2052.8	1991.9	1929.0
45°	2079.1	2085.2	2071.0	2050.7	2024.3	1989.8	1929.0	1860.0	1791.0	1712.0	1632.8
47.5°	1825.5	1823.5	1813.4	1801.2	1778.9	1744.4	1703.9	1628.8	1555.8	1482.8	1401.6
50°	1590.2	1582.1	1578.1	1565.9	1551.8	1523.4	1480.7	1419.8	1355.0	1286.0	1210.9
52.5°	1367.2	1367.2	1357.0	1348.9	1336.7	1314.4	1277.9	1229.2	1174.5	1109.5	1030.4
55°	1180.6	1176.5	1166.4	1156.2	1144.0	1129.8	1097.4	1056.8	998.0	935.1	866.1
57.5°	981.8	979.7	975.7	963.5	957.4	943.2	906.7	866.1	815.5	760.7	703.8
60°	803.3	795.2	787.0	778.9	768.8	754.6	730.2	695.7	653.1	604.5	547.7
62.5°	643.0	655.1	630.9	630.9	610.6	598.4	576.1	555.8	511.1	466.5	417.9
65°	501.0	501.0	490.8	482.7	470.6	456.4	434.1	413.8	381.3	346.8	312.3
67.5°	383.4	381.3	371.2	363.1	352.9	344.8	328.6	304.2	279.9	251.6	223.1
70°	281.9	279.9	277.9	263.7	255.6	245.5	233.3	217.1	198.8	178.5	152.1
72.5°	202.8	202.8	196.8	190.7	182.6	174.4	162.3	152.1	135.9	121.7	103.4
75°	129.8	127.8	127.8	117.6	117.6	105.4	97.3	91.3	83.2	75.1	58.9
77.5°	93.3	91.3	89.3	85.2	81.2	77.1	71.0	62.9	56.8	48.7	42.6
80°	62.9	58.9	56.8	56.8	50.7	48.7	50.7	38.6	36.5	30.4	26.4
82.5°	38.6	38.6	36.5	36.5	34.5	32.5	26.4	26.4	24.4	22.3	18.3
85°	20.3	26.4	18.3	20.3	18.3	20.3	18.3	14.2	12.2	10.1	10.1
87.5°	12.2	8.1	8.1	12.2	10.1	8.1	8.1	8.1	6.1	4.1	4.1
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°	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7
2.5°	4273.9	4288.1	4286.0	4304.3	4310.4	4324.6	4324.6	4334.7	4340.7	4354.9	4367.1
5°	4172.4	4194.7	4200.8	4223.1	4241.4	4263.7	4277.9	4300.2	4320.5	4350.9	4379.3
7.5°	4109.6	4127.8	4140.0	4166.3	4186.6	4210.9	4235.3	4265.7	4294.1	4330.6	4371.2
10°	4079.1	4103.5	4121.7	4148.1	4172.4	4198.8	4223.1	4257.6	4290.1	4336.7	4381.3
12.5°	4071.0	4099.4	4121.7	4158.2	4182.5	4210.9	4239.3	4277.9	4312.4	4361.0	4411.8
15°	4071.0	4109.6	4140.0	4180.5	4208.9	4245.4	4275.9	4314.4	4352.9	4403.6	4452.3
17.5°	4062.9	4109.6	4148.1	4194.7	4231.2	4267.8	4306.3	4342.8	4383.3	4432.1	4486.8
20°	4030.4	4089.3	4135.9	4190.6	4229.2	4269.8	4308.4	4348.8	4391.5	4442.2	4488.9
22.5°	3973.6	4042.6	4095.4	4154.1	4198.8	4239.3	4277.9	4318.5	4365.1	4413.8	4462.5
25°	3898.6	3963.5	4020.3	4081.1	4125.8	4170.3	4206.9	4253.6	4296.2	4342.8	4381.3
27.5°	3785.0	3853.9	3908.7	3971.6	4012.1	4054.8	4085.2	4123.8	4164.3	4202.8	4233.3
30°	3614.6	3677.5	3734.3	3791.0	3831.6	3862.1	3894.5	3925.0	3951.3	3977.6	4004.0
32.5°	3365.1	3421.9	3476.7	3529.4	3561.9	3588.2	3612.5	3630.8	3645.0	3659.2	3661.2
35°	3022.4	3068.9	3103.4	3150.1	3180.6	3204.9	3204.9	3213.0	3211.0	3204.9	3198.8
37.5°	2639.0	2657.2	2671.4	2689.6	2691.6	2691.6	2679.5	2669.4	2653.2	2649.1	2636.9
40°	2239.4	2215.0	2196.7	2172.4	2158.2	2127.8	2101.5	2083.2	2056.8	2052.8	2048.7
42.5°	1860.0	1803.2	1752.5	1710.0	1661.3	1618.6	1580.1	1551.8	1531.5	1529.4	1531.5
45°	1551.8	1486.8	1411.7	1353.0	1298.2	1245.4	1194.7	1160.3	1142.0	1137.9	1142.0
47.5°	1318.5	1243.4	1170.4	1103.4	1044.6	985.8	935.1	888.4	866.1	860.0	858.0
50°	1133.9	1056.8	979.7	910.7	845.8	787.0	724.1	679.5	651.1	641.0	632.9
52.5°	953.4	884.4	805.3	734.3	669.3	600.4	535.5	484.7	456.4	444.3	436.1
55°	795.2	726.2	653.1	584.2	515.2	446.3	381.3	332.6	302.2	288.0	277.9
57.5°	634.9	570.0	507.1	438.2	381.3	314.4	249.5	206.9	180.5	164.3	156.2
60°	490.8	440.2	385.4	328.6	273.8	219.1	166.3	125.7	105.4	93.3	83.2
62.5°	371.2	328.6	292.0	243.4	200.8	154.1	113.6	81.2	62.9	52.8	48.7
65°	267.8	235.3	202.8	172.4	142.0	107.5	77.1	52.8	36.5	30.4	28.4
67.5°	190.7	164.3	139.9	119.6	97.3	77.1	54.8	36.5	28.4	24.4	22.3
70°	133.8	113.6	97.3	79.1	64.9	50.7	42.6	26.4	16.2	18.3	14.2
72.5°	89.3	75.1	67.0	54.8	44.6	36.5	26.4	18.3	18.3	14.2	12.2
75°	48.7	44.6	34.5	26.4	22.3	20.3	8.1	4.1	2.0	6.1	2.0
77.5°	34.5	30.4	26.4	22.3	18.3	14.2	8.1	8.1	6.1	8.1	4.1
80°	22.3	18.3	16.2	16.2	10.1	6.1	4.1	4.1	6.1	2.0	2.0
82.5°	14.2	12.2	10.1	10.1	10.1	6.1	6.1	6.1	6.1	4.1	4.1
85°	8.1	6.1	4.1	4.1	2.0	4.1	0.0	2.0	2.0	0.0	0.0
87.5°	4.1	2.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0
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°	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7	4340.7
2.5°	4375.2	4383.3	4393.5	4401.6	4419.9	4423.9	4432.1	4440.2	4446.3	4452.3	4454.4
5°	4403.6	4434.1	4462.5	4492.9	4531.4	4557.8	4588.2	4614.6	4641.0	4663.3	4679.5
7.5°	4411.8	4458.4	4501.1	4553.7	4610.5	4659.3	4709.9	4760.6	4813.4	4854.0	4888.4
10°	4428.0	4484.8	4539.5	4602.4	4675.5	4740.3	4803.2	4870.2	4937.1	4993.9	5044.7
12.5°	4456.4	4519.3	4578.1	4647.1	4722.1	4795.1	4864.1	4939.1	5010.2	5073.0	5129.8
15°	4503.1	4561.8	4618.7	4683.6	4758.6	4825.6	4894.5	4967.5	5038.6	5103.4	5156.2
17.5°	4533.4	4588.2	4645.0	4703.8	4766.7	4827.6	4892.5	4957.4	5022.3	5081.1	5129.8
20°	4533.4	4586.2	4628.8	4681.6	4740.3	4793.1	4845.9	4902.6	4959.4	5008.1	5054.8
22.5°	4497.0	4547.6	4580.1	4620.7	4671.4	4716.0	4744.4	4807.3	4849.9	4892.5	4926.9
25°	4411.8	4448.3	4474.7	4503.1	4543.6	4574.0	4598.4	4634.9	4677.5	4693.7	4718.0
27.5°	4257.6	4284.0	4298.2	4304.3	4324.6	4340.7	4344.8	4361.0	4379.3	4383.3	4393.5
30°	4014.2	4016.2	4010.1	4008.1	3997.9	3985.8	3983.7	3981.7	3973.6	3965.5	3967.5
32.5°	3647.0	3636.9	3612.5	3586.2	3559.9	3531.5	3515.2	3494.9	3482.7	3470.6	3456.4
35°	3172.4	3148.1	3113.6	3081.1	3050.7	3028.4	2991.9	2979.7	2967.6	2951.3	2947.3
37.5°	2614.6	2600.4	2567.9	2543.6	2527.4	2517.2	2499.0	2486.8	2486.8	2480.7	2476.7
40°	2038.5	2034.5	2022.3	2028.4	2020.3	2024.3	2022.3	2018.2	2028.4	2028.4	2032.5
42.5°	1529.4	1531.5	1537.6	1541.6	1553.8	1555.8	1565.9	1565.9	1572.0	1578.1	1582.1
45°	1137.9	1146.1	1146.1	1154.2	1166.4	1168.4	1172.4	1174.5	1178.5	1188.7	1192.7
47.5°	853.9	855.9	855.9	858.0	862.0	866.1	864.1	866.1	872.2	868.1	872.2
50°	630.9	632.9	626.8	620.7	626.8	626.8	624.8	618.7	624.8	616.7	620.7
52.5°	430.1	428.0	421.9	424.0	419.9	417.9	417.9	413.8	413.8	413.8	405.7
55°	271.8	271.8	267.8	267.8	265.7	261.7	259.7	257.6	255.6	253.6	253.6
57.5°	152.1	154.1	148.1	146.0	148.1	146.0	142.0	142.0	142.0	135.9	139.9
60°	83.2	81.2	79.1	77.1	75.1	77.1	77.1	73.1	73.1	73.1	75.1
62.5°	44.6	44.6	42.6	42.6	40.6	40.6	44.6	38.6	40.6	38.6	40.6
65°	24.4	30.4	22.3	22.3	28.4	26.4	24.4	24.4	26.4	22.3	24.4
67.5°	26.4	18.3	16.2	18.3	16.2	16.2	16.2	20.3	18.3	14.2	18.3
70°	12.2	14.2	14.2	10.1	16.2	8.1	14.2	8.1	12.2	10.1	12.2
72.5°	12.2	12.2	12.2	8.1	12.2	8.1	10.1	10.1	8.1	8.1	12.2
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	4.1	4.1	2.0	2.0	2.0	2.0	4.1	4.1	4.1	0.0	2.0
80°	4.1	4.1	0.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0	4.1
82.5°	2.0	4.1	2.0	2.0	4.1	4.1	4.1	2.0	2.0	2.0	2.0
85°	0.0	2.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	2.0
87.5°	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0
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: P249778

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4340.7	4340.7	4340.7	4340.7
2.5°	4456.4	4458.4	4462.5	4460.5
5°	4691.7	4707.9	4716.0	4714.0
7.5°	4912.7	4941.2	4957.4	4957.4
10°	5083.1	5115.6	5139.9	5144.0
12.5°	5174.4	5211.0	5243.4	5235.3
15°	5200.8	5237.4	5269.7	5263.7
17.5°	5170.4	5206.9	5231.3	5227.2
20°	5087.2	5117.6	5142.0	5139.9
22.5°	4957.4	4983.8	5004.1	5002.0
25°	4738.3	4756.6	4772.8	4764.7
27.5°	4401.6	4407.7	4417.8	4405.7
30°	3953.4	3957.4	3961.5	3959.4
32.5°	3450.3	3448.2	3444.2	3440.1
35°	2941.2	2941.2	2943.2	2931.0
37.5°	2478.7	2476.7	2482.8	2476.7
40°	2036.5	2034.5	2042.6	2032.5
42.5°	1588.2	1594.3	1596.3	1596.3
45°	1194.7	1196.8	1198.8	1198.8
47.5°	872.2	874.2	884.4	872.2
50°	616.7	618.7	620.7	616.7
52.5°	407.7	409.8	407.7	401.6
55°	249.5	251.6	251.6	251.6
57.5°	133.8	135.9	135.9	133.8
60°	73.1	71.0	73.1	69.0
62.5°	38.6	42.6	40.6	36.5
65°	24.4	24.4	24.4	28.4
67.5°	20.3	16.2	18.3	14.2
70°	12.2	14.2	14.2	10.1
72.5°	10.1	10.1	10.1	12.2
75°	0.0	0.0	0.0	0.0
77.5°	4.1	4.1	4.1	2.0
80°	2.0	0.0	2.0	0.0
82.5°	2.0	2.0	4.1	2.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)