

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: P249771

Luminaire Tested: **LSR8B90D010 EC8B90927 8LBSW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249771  
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 EC8B90927 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7806.4 lumens  
Efficiency: N/A  
Efficacy: 90.7 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

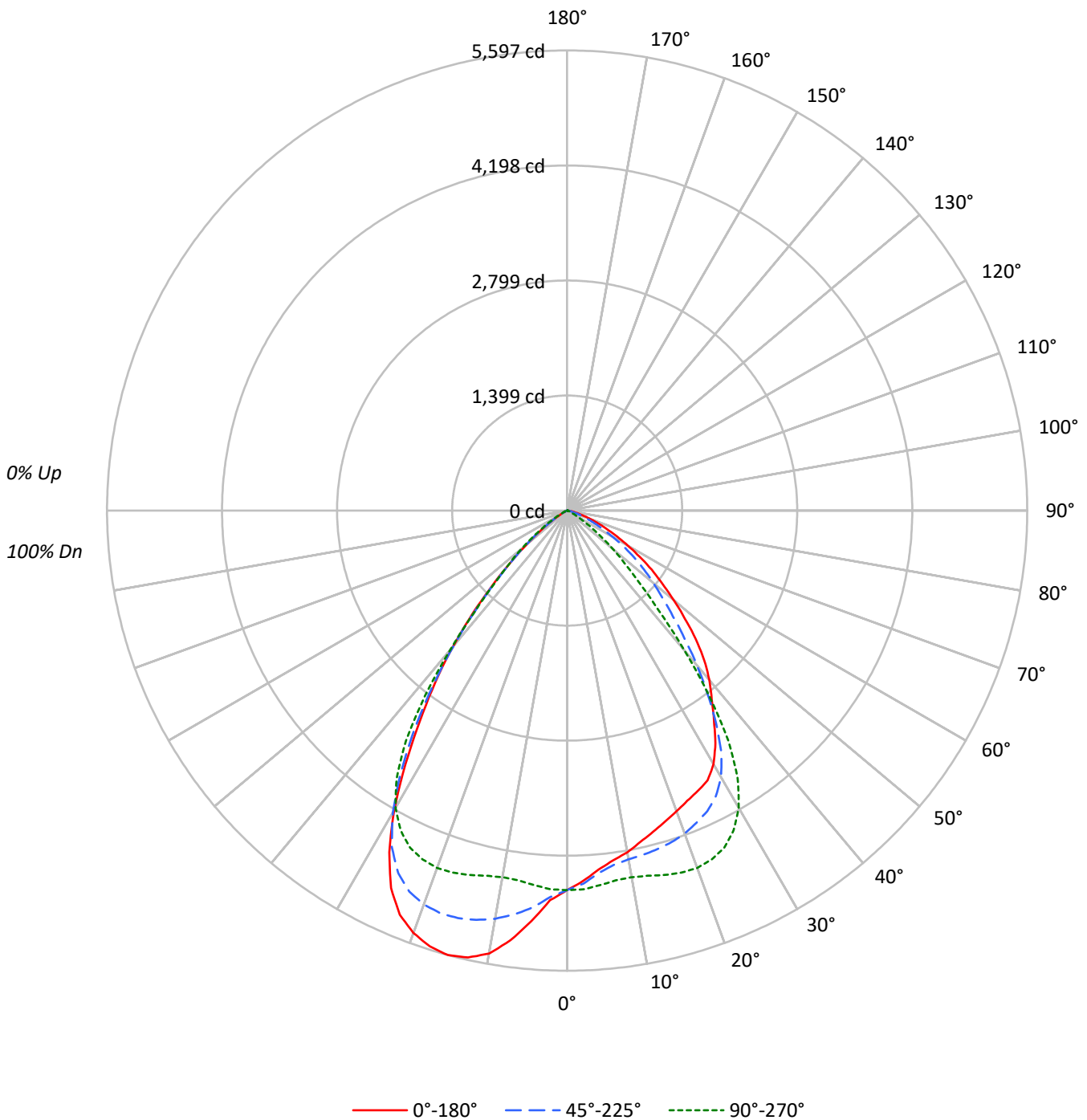
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	443.7	5.7
10°-20°	1328.1	17.0
20°-30°	2033.8	26.1
30°-40°	1993.8	25.5
40°-50°	1200.7	15.4
50°-60°	552.6	7.1
60°-70°	194.1	2.5
70°-80°	50.8	0.7
80°-90°	8.7	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°	3805.7	48.8
0°-40°	5799.5	74.3
0°-60°	7552.8	96.8
0°-90°	7806.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7806.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4616	4616	4616	4616	4616	
5°	4381	4422	4573	4847	5013	414
15°	4044	4262	4588	5132	5597	1143
25°	3762	4034	4523	4864	5067	1733
35°	3112	3156	3417	3220	3117	1949
45°	2211	1820	1234	1242	1275	1695
55°	1255	994	354	278	268	1120
65°	533	369	56	28	30	543
75°	138	80	4	0	0	167
85°	22	11	2	0	0	30
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°	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9
2.5°	4508.1	4512.4	4512.4	4512.4	4521.0	4523.3	4521.0	4523.3	4527.4	4542.6	4549.0
5°	4380.9	4374.3	4378.7	4376.5	4387.3	4393.8	4389.4	4395.9	4411.0	4421.8	4432.6
7.5°	4290.3	4290.3	4290.3	4294.6	4301.0	4313.9	4311.8	4316.1	4331.2	4346.3	4361.4
10°	4219.1	4217.0	4217.0	4227.6	4236.3	4251.4	4255.8	4268.7	4288.0	4307.5	4324.7
12.5°	4126.3	4128.5	4139.2	4150.1	4169.5	4193.1	4206.2	4223.4	4253.6	4285.9	4305.4
15°	4044.4	4046.5	4055.2	4076.7	4100.4	4128.5	4156.4	4184.6	4221.2	4262.2	4296.7
17.5°	3964.5	3966.6	3973.2	3996.9	4027.2	4063.8	4096.1	4132.8	4180.3	4227.6	4270.8
20°	3891.2	3889.0	3899.8	3921.4	3960.2	3994.8	4027.2	4070.2	4122.0	4180.3	4229.8
22.5°	3819.9	3819.9	3830.8	3852.3	3886.9	3921.4	3956.0	4001.2	4052.9	4109.1	4167.3
25°	3761.8	3759.6	3774.7	3785.5	3811.4	3845.9	3882.6	3919.3	3971.0	4033.6	4089.6
27.5°	3699.2	3697.1	3699.2	3712.2	3735.9	3761.8	3789.8	3822.2	3865.4	3917.1	3971.0
30°	3561.2	3563.3	3563.3	3574.1	3587.1	3615.1	3630.2	3662.6	3701.4	3744.6	3792.0
32.5°	3356.3	3358.4	3358.4	3362.7	3373.5	3386.5	3399.4	3423.2	3453.3	3490.0	3533.2
35°	3112.5	3112.5	3110.3	3112.5	3119.1	3119.1	3129.8	3119.1	3134.1	3155.7	3188.0
37.5°	2888.2	2883.8	2879.5	2875.3	2868.8	2858.1	2842.9	2817.0	2810.5	2801.9	2804.1
40°	2689.8	2687.6	2674.7	2663.9	2642.3	2616.4	2579.7	2534.5	2497.8	2454.6	2418.0
42.5°	2469.8	2467.6	2456.8	2437.3	2413.7	2374.9	2316.6	2256.3	2183.0	2118.2	2051.3
45°	2210.8	2217.4	2202.3	2180.7	2152.7	2116.0	2051.3	1977.9	1904.6	1820.5	1736.3
47.5°	1941.3	1939.2	1928.4	1915.4	1891.7	1855.0	1811.9	1732.0	1654.4	1576.8	1490.5
50°	1691.1	1682.4	1678.0	1665.2	1650.2	1619.9	1574.6	1509.9	1440.9	1367.6	1287.7
52.5°	1453.8	1453.8	1443.0	1434.4	1421.4	1397.7	1358.9	1307.1	1248.9	1179.8	1095.8
55°	1255.4	1251.0	1240.3	1229.5	1216.5	1201.4	1167.0	1123.8	1061.2	994.4	921.0
57.5°	1044.0	1041.8	1037.5	1024.5	1018.1	1002.9	964.2	921.0	867.2	808.9	748.5
60°	854.2	845.6	836.9	828.2	817.5	802.5	776.5	739.8	694.6	642.8	582.4
62.5°	683.8	696.7	670.8	670.8	649.2	636.3	612.6	591.1	543.5	496.1	444.4
65°	532.8	532.8	522.0	513.3	500.4	485.3	461.6	440.0	405.4	368.8	332.1
67.5°	407.7	405.4	394.8	386.1	375.3	366.6	349.4	323.6	297.7	267.5	237.3
70°	299.8	297.7	295.4	280.3	271.8	261.0	248.1	230.8	211.4	189.8	161.8
72.5°	215.7	215.7	209.2	202.7	194.2	185.5	172.6	161.8	144.6	129.5	110.0
75°	138.0	135.9	135.9	125.1	125.1	112.2	103.5	97.1	88.4	79.8	62.6
77.5°	99.2	97.1	95.0	90.6	86.3	81.9	75.5	66.8	60.4	51.8	45.2
80°	66.8	62.6	60.4	60.4	53.9	51.8	53.9	41.1	38.8	32.3	28.0
82.5°	41.1	41.1	38.8	38.8	36.7	34.5	28.0	28.0	25.9	23.7	19.5
85°	21.6	28.0	19.5	21.6	19.5	21.6	19.5	15.1	12.9	10.7	10.7
87.5°	12.9	8.7	8.7	12.9	10.7	8.7	8.7	8.7	6.5	4.4	4.4
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°	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9
2.5°	4544.8	4559.8	4557.7	4577.2	4583.6	4598.7	4598.7	4609.5	4615.9	4631.1	4644.0
5°	4436.9	4460.6	4467.2	4490.8	4510.2	4534.0	4549.0	4572.8	4594.4	4626.8	4656.9
7.5°	4370.1	4389.4	4402.3	4430.5	4452.1	4477.8	4503.8	4536.1	4566.3	4605.2	4648.4
10°	4337.7	4363.7	4383.0	4411.0	4436.9	4465.0	4490.8	4527.4	4562.0	4611.7	4659.1
12.5°	4329.1	4359.3	4383.0	4421.8	4447.7	4477.8	4508.1	4549.0	4585.7	4637.5	4691.5
15°	4329.1	4370.1	4402.3	4445.6	4475.7	4514.5	4546.9	4587.9	4628.9	4682.8	4734.6
17.5°	4320.4	4370.1	4411.0	4460.6	4499.4	4538.4	4579.3	4618.1	4661.2	4713.1	4771.2
20°	4285.9	4348.5	4398.1	4456.3	4497.3	4540.5	4581.4	4624.5	4669.9	4723.8	4773.4
22.5°	4225.5	4298.8	4355.0	4417.5	4465.0	4508.1	4549.0	4592.2	4641.9	4693.6	4745.4
25°	4145.7	4214.7	4275.2	4339.8	4387.3	4434.8	4473.6	4523.3	4568.5	4618.1	4659.1
27.5°	4024.9	4098.3	4156.4	4223.4	4266.4	4311.8	4344.2	4385.1	4428.3	4469.3	4501.7
30°	3843.8	3910.6	3971.0	4031.3	4074.5	4106.9	4141.3	4173.8	4201.9	4229.8	4257.9
32.5°	3578.4	3638.8	3697.1	3753.1	3787.6	3815.8	3841.5	3861.0	3876.1	3891.2	3893.3
35°	3213.9	3263.5	3300.2	3349.8	3382.2	3408.1	3408.1	3416.6	3414.5	3408.1	3401.6
37.5°	2806.3	2825.7	2840.7	2860.2	2862.2	2862.2	2849.4	2838.6	2821.4	2817.0	2804.1
40°	2381.3	2355.4	2336.0	2310.2	2295.0	2262.6	2234.7	2215.2	2187.2	2183.0	2178.6
42.5°	1977.9	1917.6	1863.7	1818.3	1766.6	1721.2	1680.3	1650.2	1628.6	1626.3	1628.6
45°	1650.2	1581.1	1501.2	1438.8	1380.5	1324.4	1270.5	1233.8	1214.3	1210.0	1214.3
47.5°	1402.1	1322.2	1244.6	1173.4	1110.8	1048.3	994.4	944.8	921.0	914.5	912.4
50°	1205.8	1123.8	1041.8	968.4	899.4	836.9	770.1	722.6	692.4	681.6	673.0
52.5°	1013.8	940.5	856.4	780.9	711.8	638.4	569.5	515.5	485.3	472.4	463.7
55°	845.6	772.2	694.6	621.2	547.9	474.5	405.4	353.7	321.4	306.3	295.4
57.5°	675.1	606.2	539.3	466.0	405.4	334.3	265.3	220.0	191.9	174.7	166.2
60°	522.0	468.1	409.8	349.4	291.3	233.0	176.8	133.8	112.2	99.2	88.4
62.5°	394.8	349.4	310.6	258.8	213.5	163.9	120.8	86.3	66.8	56.1	51.8
65°	284.7	250.2	215.7	183.4	151.0	114.3	81.9	56.1	38.8	32.3	30.2
67.5°	202.7	174.7	148.8	127.2	103.5	81.9	58.3	38.8	30.2	25.9	23.7
70°	142.3	120.8	103.5	84.1	69.0	53.9	45.2	28.0	17.2	19.5	15.1
72.5°	95.0	79.8	71.2	58.3	47.4	38.8	28.0	19.5	19.5	15.1	12.9
75°	51.8	47.4	36.7	28.0	23.7	21.6	8.7	4.4	2.1	6.5	2.1
77.5°	36.7	32.3	28.0	23.7	19.5	15.1	8.7	8.7	6.5	8.7	4.4
80°	23.7	19.5	17.2	17.2	10.7	6.5	4.4	4.4	6.5	2.1	2.1
82.5°	15.1	12.9	10.7	10.7	10.7	6.5	6.5	6.5	6.5	4.4	4.4
85°	8.7	6.5	4.4	4.4	2.1	4.4	0.0	2.1	2.1	0.0	0.0
87.5°	4.4	2.1	2.1	2.1	2.1	0.0	0.0	2.1	0.0	2.1	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°	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9	4615.9
2.5°	4652.6	4661.2	4672.0	4680.7	4700.1	4704.3	4713.1	4721.6	4728.2	4734.6	4736.8
5°	4682.8	4715.2	4745.4	4777.7	4818.7	4846.7	4879.1	4907.1	4935.2	4958.9	4976.1
7.5°	4691.5	4741.0	4786.4	4842.4	4902.8	4954.6	5008.5	5062.4	5118.5	5161.7	5198.3
10°	4708.7	4769.1	4827.4	4894.2	4971.8	5040.8	5107.7	5178.9	5250.2	5310.4	5364.4
12.5°	4738.8	4805.8	4868.3	4941.7	5021.4	5099.1	5172.4	5252.3	5327.8	5394.6	5455.0
15°	4788.6	4851.0	4911.5	4980.5	5060.2	5131.5	5204.8	5282.4	5357.9	5427.0	5483.0
17.5°	4820.8	4879.1	4939.4	5002.1	5068.9	5133.6	5202.6	5271.6	5340.7	5403.3	5455.0
20°	4820.8	4877.0	4922.2	4978.3	5040.8	5096.9	5153.1	5213.5	5273.8	5325.5	5375.2
22.5°	4782.0	4835.9	4870.5	4913.7	4967.6	5015.0	5045.2	5112.0	5157.3	5202.6	5239.2
25°	4691.5	4730.3	4758.3	4788.6	4831.7	4863.9	4889.9	4928.7	4974.0	4991.3	5017.2
27.5°	4527.4	4555.6	4570.7	4577.2	4598.7	4615.9	4620.3	4637.5	4656.9	4661.2	4672.0
30°	4268.7	4270.8	4264.3	4262.2	4251.4	4238.6	4236.3	4234.2	4225.5	4217.0	4219.1
32.5°	3878.2	3867.5	3841.5	3813.6	3785.5	3755.4	3738.0	3716.4	3703.5	3690.7	3675.5
35°	3373.5	3347.7	3311.0	3276.5	3244.2	3220.3	3181.5	3168.6	3155.7	3138.4	3134.1
37.5°	2780.3	2765.2	2730.7	2704.8	2687.6	2676.8	2657.4	2644.5	2644.5	2638.0	2633.6
40°	2167.8	2163.5	2150.5	2157.0	2148.4	2152.7	2150.5	2146.2	2157.0	2157.0	2161.4
42.5°	1626.3	1628.6	1635.1	1639.2	1652.3	1654.4	1665.2	1665.2	1671.8	1678.0	1682.4
45°	1210.0	1218.7	1218.7	1227.4	1240.3	1242.4	1246.7	1248.9	1253.1	1264.0	1268.2
47.5°	908.1	910.2	910.2	912.4	916.6	921.0	918.9	921.0	927.6	923.2	927.6
50°	670.8	673.0	666.4	660.0	666.4	666.4	664.3	657.9	664.3	655.8	660.0
52.5°	457.3	455.1	448.6	450.8	446.5	444.4	444.4	440.0	440.0	440.0	431.4
55°	289.1	289.1	284.7	284.7	282.6	278.2	276.1	273.9	271.8	269.7	269.7
57.5°	161.8	163.9	157.5	155.2	157.5	155.2	151.0	151.0	151.0	144.6	148.8
60°	88.4	86.3	84.1	81.9	79.8	81.9	81.9	77.7	77.7	77.7	79.8
62.5°	47.4	47.4	45.2	45.2	43.2	43.2	47.4	41.1	43.2	41.1	43.2
65°	25.9	32.3	23.7	23.7	30.2	28.0	25.9	25.9	28.0	23.7	25.9
67.5°	28.0	19.5	17.2	19.5	17.2	17.2	17.2	21.6	19.5	15.1	19.5
70°	12.9	15.1	15.1	10.7	17.2	8.7	15.1	8.7	12.9	10.7	12.9
72.5°	12.9	12.9	12.9	8.7	12.9	8.7	10.7	10.7	8.7	8.7	12.9
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°	4.4	4.4	2.1	2.1	2.1	2.1	4.4	4.4	4.4	0.0	2.1
80°	4.4	4.4	0.0	2.1	0.0	0.0	2.1	0.0	2.1	0.0	4.4
82.5°	2.1	4.4	2.1	2.1	4.4	4.4	4.4	2.1	2.1	2.1	2.1
85°	0.0	2.1	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	2.1
87.5°	0.0	2.1	0.0	0.0	0.0	0.0	2.1	2.1	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: P249771

CATALOG NUMBER: LSR8B90D010 EC8B90927 8LBSWOLI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4615.9	4615.9	4615.9	4615.9
2.5°	4738.8	4741.0	4745.4	4743.2
5°	4989.0	5006.4	5015.0	5012.9
7.5°	5224.2	5254.4	5271.6	5271.6
10°	5405.4	5439.9	5465.8	5470.1
12.5°	5502.4	5541.3	5575.8	5567.2
15°	5530.5	5569.3	5603.8	5597.3
17.5°	5498.2	5536.9	5562.9	5558.5
20°	5409.8	5442.1	5468.0	5465.8
22.5°	5271.6	5299.8	5321.4	5319.1
25°	5038.8	5058.1	5075.3	5066.8
27.5°	4680.7	4687.1	4697.9	4685.0
30°	4204.0	4208.3	4212.6	4210.4
32.5°	3669.1	3666.8	3662.6	3658.3
35°	3127.6	3127.6	3129.8	3116.8
37.5°	2635.8	2633.6	2640.2	2633.6
40°	2165.6	2163.5	2172.0	2161.4
42.5°	1689.0	1695.4	1697.5	1697.5
45°	1270.5	1272.6	1274.7	1274.7
47.5°	927.6	929.7	940.5	927.6
50°	655.8	657.9	660.0	655.8
52.5°	433.6	435.7	433.6	427.0
55°	265.3	267.5	267.5	267.5
57.5°	142.3	144.6	144.6	142.3
60°	77.7	75.5	77.7	73.4
62.5°	41.1	45.2	43.2	38.8
65°	25.9	25.9	25.9	30.2
67.5°	21.6	17.2	19.5	15.1
70°	12.9	15.1	15.1	10.7
72.5°	10.7	10.7	10.7	12.9
75°	0.0	0.0	0.0	0.0
77.5°	4.4	4.4	4.4	2.1
80°	2.1	0.0	2.1	0.0
82.5°	2.1	2.1	4.4	2.1
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)