

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: P249750

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBSWOLI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249750  
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 EC8B90935 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 3500 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8498.0 lumens  
Efficiency: N/A  
Efficacy: 98.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.15  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

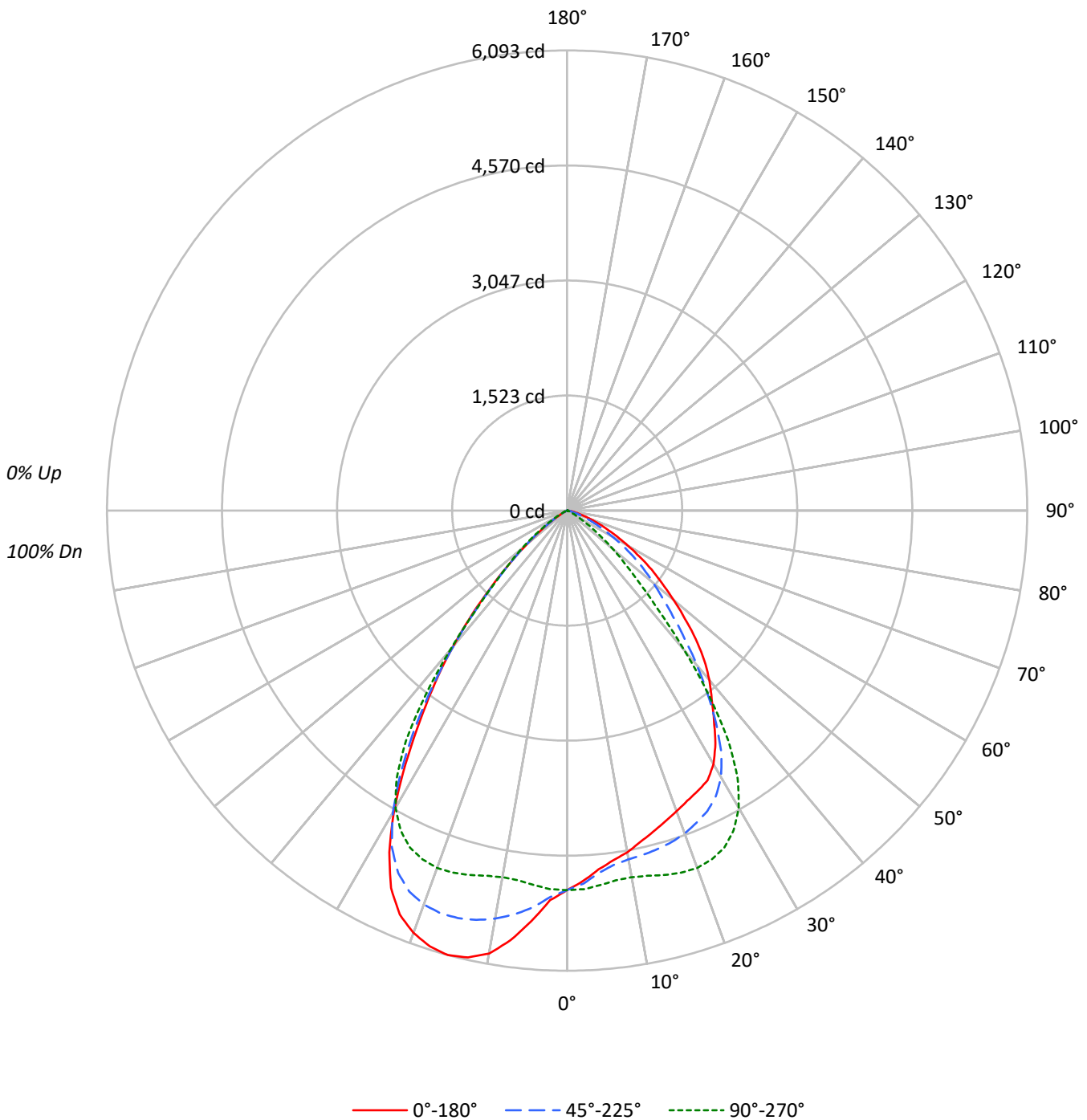
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	154949	154949	154949
5°	147620	154086	168917
10°	143813	154324	186454
15°	140552	159439	194520
20°	139002	165202	195251
25°	139329	167535	187667
30°	138037	161783	163203
35°	127550	140010	127727
40°	117868	97072	94709
45°	104958	58571	60516
50°	88313	37735	34248
55°	73470	20704	15655
60°	57349	8980	4921
65°	42320	4458	2401
70°	29428	2750	1055
75°	17907	560	0
80°	12928	835	0
85°	8314	814	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	483.1	5.7
10°-20°	1445.7	17.0
20°-30°	2214.0	26.1
30°-40°	2170.5	25.5
40°-50°	1307.1	15.4
50°-60°	601.6	7.1
60°-70°	211.3	2.5
70°-80°	55.3	0.7
80°-90°	9.4	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°	4142.8	48.8
0°-40°	6313.3	74.3
0°-60°	8222.0	96.8
0°-90°	8498.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8498.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5025	5025	5025	5025	5025	
5°	4769	4814	4978	5276	5457	450
15°	4403	4640	4994	5586	6093	1244
25°	4095	4391	4924	5295	5516	1886
35°	3388	3435	3719	3506	3393	2122
45°	2407	1982	1343	1352	1388	1846
55°	1367	1082	385	303	291	1219
65°	580	402	61	30	33	591
75°	150	87	5	0	0	182
85°	24	12	2	0	0	32
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°	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9
2.5°	4907.5	4912.2	4912.2	4912.2	4921.6	4924.0	4921.6	4924.0	4928.6	4945.1	4952.1
5°	4769.0	4761.9	4766.6	4764.2	4776.0	4783.1	4778.3	4785.4	4801.8	4813.6	4825.3
7.5°	4670.4	4670.4	4670.4	4675.0	4682.1	4696.2	4693.9	4698.5	4714.9	4731.4	4747.8
10°	4592.9	4590.5	4590.5	4602.2	4611.6	4628.0	4632.8	4646.9	4668.0	4689.1	4707.9
12.5°	4491.9	4494.3	4506.0	4517.8	4538.8	4564.6	4578.8	4597.6	4630.5	4665.6	4686.8
15°	4402.7	4405.0	4414.4	4437.8	4463.7	4494.3	4524.7	4555.3	4595.2	4639.8	4677.4
17.5°	4315.8	4318.1	4325.1	4351.0	4383.9	4423.8	4459.0	4498.9	4550.6	4602.2	4649.2
20°	4235.9	4233.6	4245.3	4268.8	4311.1	4348.6	4383.9	4430.9	4487.2	4550.6	4604.6
22.5°	4158.4	4158.4	4170.2	4193.7	4231.3	4268.8	4306.4	4355.7	4412.0	4473.1	4536.5
25°	4095.0	4092.7	4109.1	4120.9	4149.1	4186.6	4226.6	4266.5	4322.8	4391.0	4451.9
27.5°	4027.0	4024.7	4027.0	4041.1	4066.9	4095.0	4125.6	4160.8	4207.8	4264.2	4322.8
30°	3876.7	3879.0	3879.0	3890.8	3904.9	3935.4	3951.8	3987.1	4029.3	4076.3	4128.0
32.5°	3653.6	3655.9	3655.9	3660.7	3672.4	3686.5	3700.6	3726.4	3759.3	3799.2	3846.2
35°	3388.3	3388.3	3385.9	3388.3	3395.4	3395.4	3407.1	3395.4	3411.8	3435.3	3470.5
37.5°	3144.1	3139.4	3134.7	3130.0	3122.9	3111.2	3094.8	3066.6	3059.5	3050.2	3052.5
40°	2928.1	2925.8	2911.7	2899.9	2876.4	2848.3	2808.3	2759.0	2719.1	2672.2	2632.2
42.5°	2688.6	2686.2	2674.5	2653.3	2627.5	2585.3	2521.9	2456.1	2376.3	2305.9	2233.1
45°	2406.8	2413.8	2397.4	2373.9	2343.4	2303.4	2233.1	2153.1	2073.3	1981.8	1890.2
47.5°	2113.2	2110.9	2099.2	2085.1	2059.3	2019.4	1972.4	1885.5	1801.0	1716.5	1622.5
50°	1840.9	1831.5	1826.8	1812.8	1796.3	1763.5	1714.1	1643.6	1568.5	1488.7	1401.8
52.5°	1582.6	1582.6	1570.8	1561.5	1547.4	1521.5	1479.3	1423.0	1359.6	1284.4	1192.8
55°	1366.6	1361.9	1350.2	1338.4	1324.3	1307.9	1270.4	1223.4	1155.2	1082.5	1002.6
57.5°	1136.5	1134.1	1129.4	1115.3	1108.3	1091.8	1049.6	1002.6	944.0	880.6	814.8
60°	929.9	920.5	911.0	901.6	889.9	873.5	845.3	805.4	756.1	699.7	634.0
62.5°	744.4	758.4	730.3	730.3	706.8	692.7	666.9	643.4	591.7	540.1	483.7
65°	580.0	580.0	568.2	558.8	544.7	528.3	502.5	479.0	441.4	401.5	361.6
67.5°	443.8	441.4	429.7	420.3	408.5	399.2	380.4	352.2	324.1	291.2	258.2
70°	326.4	324.1	321.6	305.2	295.8	284.1	270.0	251.3	230.1	206.6	176.1
72.5°	234.8	234.8	227.8	220.7	211.4	201.9	187.9	176.1	157.3	140.9	119.7
75°	150.3	148.0	148.0	136.2	136.2	122.1	112.7	105.6	96.3	86.9	68.1
77.5°	108.1	105.6	103.3	98.6	93.9	89.2	82.2	72.8	65.7	56.3	49.3
80°	72.8	68.1	65.7	65.7	58.7	56.3	58.7	44.7	42.2	35.2	30.5
82.5°	44.7	44.7	42.2	42.2	39.9	37.6	30.5	30.5	28.2	25.8	21.2
85°	23.5	30.5	21.2	23.5	21.2	23.5	21.2	16.4	14.1	11.7	11.7
87.5°	14.1	9.4	9.4	14.1	11.7	9.4	9.4	9.4	7.1	4.7	4.7
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°	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9
2.5°	4947.5	4963.9	4961.5	4982.6	4989.7	5006.1	5006.1	5017.8	5024.9	5041.3	5055.4
5°	4830.0	4855.8	4862.9	4888.7	4909.9	4935.7	4952.1	4977.9	5001.4	5036.7	5069.5
7.5°	4757.3	4778.3	4792.4	4823.0	4846.5	4874.6	4902.8	4938.0	4970.9	5013.2	5060.2
10°	4722.0	4750.2	4771.3	4801.8	4830.0	4860.6	4888.7	4928.6	4966.2	5020.2	5071.9
12.5°	4712.6	4745.5	4771.3	4813.6	4841.7	4874.6	4907.5	4952.1	4992.0	5048.4	5107.1
15°	4712.6	4757.3	4792.4	4839.4	4872.3	4914.5	4949.8	4994.3	5039.0	5097.7	5154.0
17.5°	4703.2	4757.3	4801.8	4855.8	4898.1	4940.4	4985.0	5027.3	5074.2	5130.6	5193.9
20°	4665.6	4733.8	4787.7	4851.1	4895.8	4942.7	4987.4	5034.3	5083.6	5142.3	5196.3
22.5°	4599.9	4679.8	4740.8	4808.9	4860.6	4907.5	4952.1	4999.1	5053.1	5109.5	5165.8
25°	4513.0	4588.1	4653.9	4724.3	4776.0	4827.6	4870.0	4924.0	4973.3	5027.3	5071.9
27.5°	4381.5	4461.3	4524.7	4597.6	4644.5	4693.9	4729.0	4773.7	4820.7	4865.2	4900.5
30°	4184.3	4257.1	4322.8	4388.5	4435.5	4470.8	4508.3	4543.6	4574.1	4604.6	4635.1
32.5°	3895.4	3961.3	4024.7	4085.6	4123.2	4153.8	4181.9	4203.1	4219.5	4235.9	4238.3
35°	3498.7	3552.6	3592.5	3646.6	3681.8	3710.0	3710.0	3719.3	3717.0	3710.0	3702.9
37.5°	3054.9	3076.0	3092.4	3113.6	3115.9	3115.9	3101.9	3090.1	3071.3	3066.6	3052.5
40°	2592.3	2564.1	2542.9	2514.8	2498.4	2463.1	2432.7	2411.5	2381.0	2376.3	2371.6
42.5°	2153.1	2087.4	2028.8	1979.5	1923.1	1873.7	1829.2	1796.3	1772.8	1770.4	1772.8
45°	1796.3	1721.1	1634.2	1566.2	1502.8	1441.7	1383.0	1343.1	1322.0	1317.2	1322.0
47.5°	1526.3	1439.4	1354.8	1277.3	1209.3	1141.1	1082.5	1028.4	1002.6	995.6	993.3
50°	1312.6	1223.4	1134.1	1054.2	979.2	911.0	838.2	786.6	753.8	742.0	732.6
52.5°	1103.6	1023.8	932.2	850.0	774.8	695.0	619.9	561.1	528.3	514.3	504.8
55°	920.5	840.7	756.1	676.3	596.4	516.6	441.4	385.1	349.9	333.4	321.6
57.5°	734.9	659.8	587.0	507.2	441.4	364.0	288.8	239.5	209.0	190.2	180.8
60°	568.2	509.5	446.1	380.4	317.0	253.6	192.5	145.6	122.1	108.1	96.3
62.5°	429.7	380.4	338.1	281.7	232.4	178.4	131.5	93.9	72.8	61.1	56.3
65°	310.0	272.4	234.8	199.6	164.4	124.5	89.2	61.1	42.2	35.2	32.9
67.5°	220.7	190.2	162.0	138.5	112.7	89.2	63.4	42.2	32.9	28.2	25.8
70°	154.9	131.5	112.7	91.6	75.1	58.7	49.3	30.5	18.7	21.2	16.4
72.5°	103.3	86.9	77.5	63.4	51.6	42.2	30.5	21.2	21.2	16.4	14.1
75°	56.3	51.6	39.9	30.5	25.8	23.5	9.4	4.7	2.3	7.1	2.3
77.5°	39.9	35.2	30.5	25.8	21.2	16.4	9.4	9.4	7.1	9.4	4.7
80°	25.8	21.2	18.7	18.7	11.7	7.1	4.7	4.7	7.1	2.3	2.3
82.5°	16.4	14.1	11.7	11.7	11.7	7.1	7.1	7.1	7.1	4.7	4.7
85°	9.4	7.1	4.7	4.7	2.3	4.7	0.0	2.3	2.3	0.0	0.0
87.5°	4.7	2.3	2.3	2.3	2.3	0.0	0.0	2.3	0.0	2.3	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°	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9	5024.9
2.5°	5064.8	5074.2	5086.0	5095.3	5116.5	5121.1	5130.6	5140.0	5147.0	5154.0	5156.4
5°	5097.7	5132.9	5165.8	5201.0	5245.6	5276.2	5311.4	5341.9	5372.4	5398.2	5417.0
7.5°	5107.1	5161.1	5210.5	5271.4	5337.2	5393.6	5452.3	5510.9	5572.0	5619.0	5658.9
10°	5125.9	5191.6	5255.0	5327.8	5412.4	5487.4	5560.2	5637.7	5715.3	5781.0	5839.7
12.5°	5158.7	5231.5	5299.7	5379.5	5466.4	5550.9	5630.7	5717.6	5799.8	5872.6	5938.3
15°	5212.8	5280.8	5346.6	5421.7	5508.6	5586.1	5666.0	5750.4	5832.7	5907.8	5968.9
17.5°	5248.0	5311.4	5377.1	5445.2	5518.0	5588.4	5663.5	5738.7	5813.8	5882.0	5938.3
20°	5248.0	5309.0	5358.3	5419.4	5487.4	5548.5	5609.6	5675.3	5741.1	5797.4	5851.4
22.5°	5205.7	5264.4	5302.0	5348.9	5407.6	5459.3	5492.2	5565.0	5614.3	5663.5	5703.5
25°	5107.1	5149.4	5179.9	5212.8	5259.7	5294.9	5323.1	5365.4	5414.7	5433.5	5461.6
27.5°	4928.6	4959.2	4975.6	4982.6	5006.1	5024.9	5029.6	5048.4	5069.5	5074.2	5086.0
30°	4646.9	4649.2	4642.2	4639.8	4628.0	4614.0	4611.6	4609.3	4599.9	4590.5	4592.9
32.5°	4221.8	4210.1	4181.9	4151.5	4120.9	4088.1	4069.2	4045.7	4031.6	4017.6	4001.2
35°	3672.4	3644.3	3604.3	3566.7	3531.6	3505.7	3463.4	3449.3	3435.3	3416.5	3411.8
37.5°	3026.7	3010.2	2972.6	2944.5	2925.8	2914.0	2892.8	2878.8	2878.8	2871.7	2867.0
40°	2359.8	2355.1	2341.0	2348.1	2338.7	2343.4	2341.0	2336.3	2348.1	2348.1	2352.8
42.5°	1770.4	1772.8	1779.9	1784.5	1798.6	1801.0	1812.8	1812.8	1819.8	1826.8	1831.5
45°	1317.2	1326.7	1326.7	1336.1	1350.2	1352.5	1357.1	1359.6	1364.2	1376.0	1380.6
47.5°	988.5	990.8	990.8	993.3	997.9	1002.6	1000.3	1002.6	1009.7	1005.0	1009.7
50°	730.3	732.6	725.5	718.5	725.5	725.5	723.2	716.2	723.2	713.9	718.5
52.5°	497.8	495.4	488.4	490.8	486.0	483.7	483.7	479.0	479.0	479.0	469.6
55°	314.7	314.7	310.0	310.0	307.6	302.9	300.6	298.2	295.8	293.5	293.5
57.5°	176.1	178.4	171.5	169.0	171.5	169.0	164.4	164.4	164.4	157.3	162.0
60°	96.3	93.9	91.6	89.2	86.9	89.2	89.2	84.6	84.6	84.6	86.9
62.5°	51.6	51.6	49.3	49.3	47.0	47.0	51.6	44.7	47.0	44.7	47.0
65°	28.2	35.2	25.8	25.8	32.9	30.5	28.2	28.2	30.5	25.8	28.2
67.5°	30.5	21.2	18.7	21.2	18.7	18.7	18.7	23.5	21.2	16.4	21.2
70°	14.1	16.4	16.4	11.7	18.7	9.4	16.4	9.4	14.1	11.7	14.1
72.5°	14.1	14.1	14.1	9.4	14.1	9.4	11.7	11.7	9.4	9.4	14.1
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°	4.7	4.7	2.3	2.3	2.3	2.3	4.7	4.7	4.7	0.0	2.3
80°	4.7	4.7	0.0	2.3	0.0	0.0	2.3	0.0	2.3	0.0	4.7
82.5°	2.3	4.7	2.3	2.3	4.7	4.7	4.7	2.3	2.3	2.3	2.3
85°	0.0	2.3	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	2.3
87.5°	0.0	2.3	0.0	0.0	0.0	0.0	2.3	2.3	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: P249750

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBSWOLI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5024.9	5024.9	5024.9	5024.9
2.5°	5158.7	5161.1	5165.8	5163.5
5°	5431.1	5449.9	5459.3	5457.0
7.5°	5687.0	5720.0	5738.7	5738.7
10°	5884.3	5921.9	5950.0	5954.7
12.5°	5989.9	6032.3	6069.9	6060.4
15°	6020.5	6062.8	6100.3	6093.2
17.5°	5985.3	6027.5	6055.7	6051.0
20°	5889.0	5924.2	5952.4	5950.0
22.5°	5738.7	5769.3	5792.8	5790.3
25°	5485.1	5506.3	5525.0	5515.7
27.5°	5095.3	5102.4	5114.1	5100.1
30°	4576.4	4581.1	4585.8	4583.5
32.5°	3994.1	3991.7	3987.1	3982.3
35°	3404.8	3404.8	3407.1	3393.0
37.5°	2869.3	2867.0	2874.1	2867.0
40°	2357.5	2355.1	2364.5	2352.8
42.5°	1838.6	1845.6	1847.9	1847.9
45°	1383.0	1385.4	1387.7	1387.7
47.5°	1009.7	1012.0	1023.8	1009.7
50°	713.9	716.2	718.5	713.9
52.5°	471.9	474.4	471.9	464.9
55°	288.8	291.2	291.2	291.2
57.5°	154.9	157.3	157.3	154.9
60°	84.6	82.2	84.6	79.8
62.5°	44.7	49.3	47.0	42.2
65°	28.2	28.2	28.2	32.9
67.5°	23.5	18.7	21.2	16.4
70°	14.1	16.4	16.4	11.7
72.5°	11.7	11.7	11.7	14.1
75°	0.0	0.0	0.0	0.0
77.5°	4.7	4.7	4.7	2.3
80°	2.3	0.0	2.3	0.0
82.5°	2.3	2.3	4.7	2.3
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)