

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: P248338

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBDW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P248338  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B90830 8LBDW0LI  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9527.0 lumens  
Efficiency: N/A  
Efficacy: 110.7 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

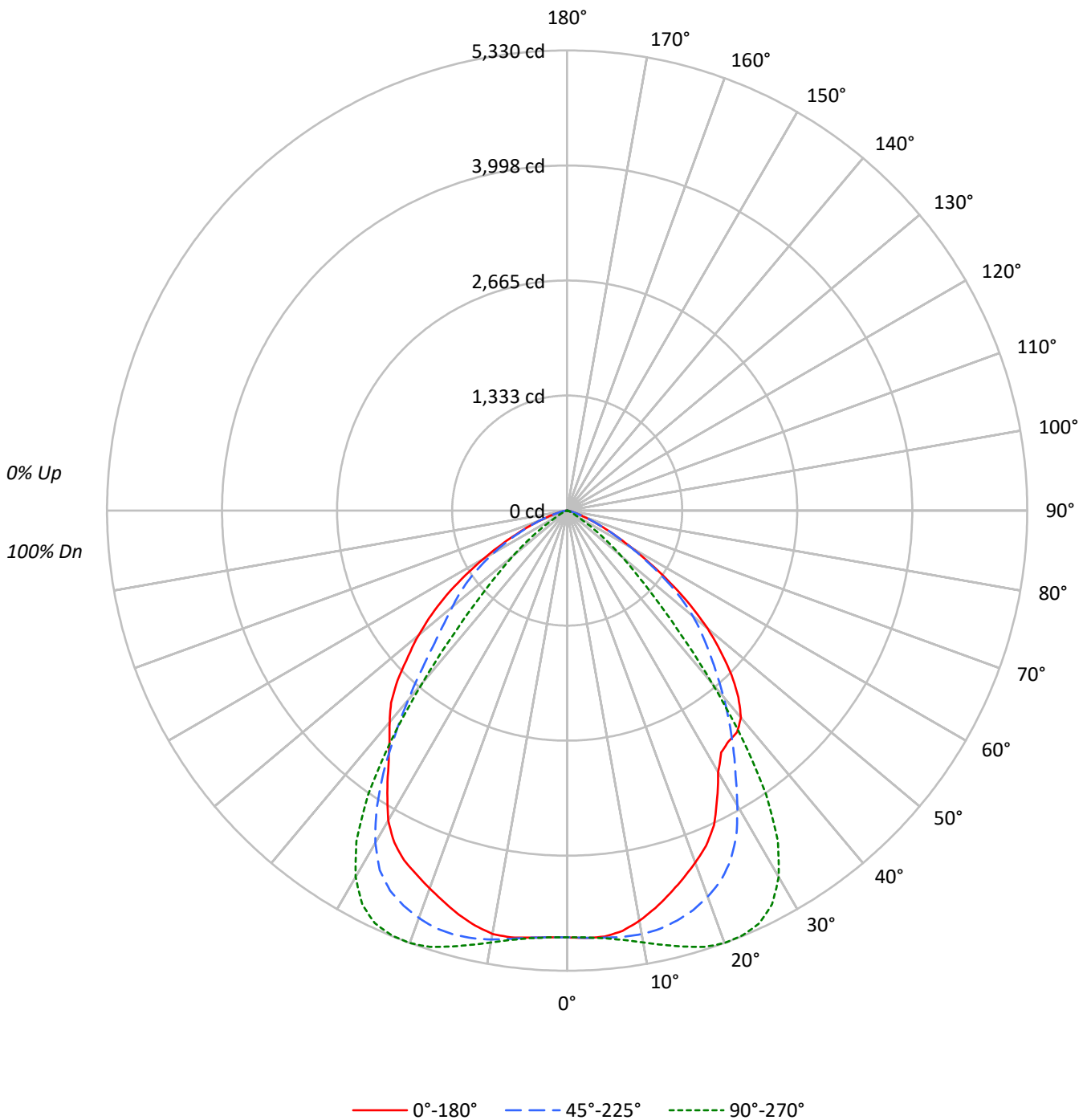
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	92	90					90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45					45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41					41			
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38					38			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

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

	0°	90°	180°
0°	152402	152402	152402
5°	153309	153879	153715
10°	151055	159024	155903
15°	146640	166906	154679
20°	142386	174922	152801
25°	136916	179402	152091
30°	124606	174487	147583
35°	122746	151190	135783
40°	126083	104858	128724
45°	117374	63377	121037
50°	101808	39136	107852
55°	78132	20451	91529
60°	53230	8252	69080
65°	33111	4210	47661
70°	17978	2606	29094
75°	9377	1251	17192
80°	4191	1403	9305
85°	2795	920	8350



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	475.3	5.0
10°-20°	1408.0	14.8
20°-30°	2148.0	22.5
30°-40°	2241.5	23.5
40°-50°	1683.7	17.7
50°-60°	1035.9	10.9
60°-70°	421.6	4.4
70°-80°	99.3	1.0
80°-90°	13.7	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°	4031.3	42.3
0°-40°	6272.8	65.8
0°-60°	8992.4	94.4
0°-90°	9527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9527.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4942	4942	4942	4942	4942	
5°	4953	4966	4971	4966	4966	469
15°	4593	4916	5228	5084	4845	1294
25°	4024	4475	5273	4856	4470	1829
35°	3261	3353	4016	3712	3607	2059
45°	2692	2330	1453	2170	2776	2054
55°	1453	1380	380	1380	1702	1306
65°	454	459	58	616	653	473
75°	79	79	10	139	144	95
85°	8	8	3	18	24	11
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°	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3
2.5°	4955.4	4947.5	4955.4	4955.4	4958.1	4952.8	4955.4	4958.1	4952.8	4952.8	4952.8
5°	4952.8	4947.5	4952.8	4950.2	4955.4	4955.4	4960.7	4960.7	4965.9	4965.9	4973.8
7.5°	4910.8	4900.4	4910.8	4918.7	4923.9	4934.4	4947.5	4958.1	4968.5	4979.0	4992.1
10°	4824.2	4824.2	4832.1	4847.9	4863.6	4881.9	4905.6	4931.8	4958.1	4981.6	5005.2
12.5°	4716.7	4708.8	4724.5	4745.5	4769.2	4798.0	4834.8	4874.1	4916.1	4963.3	5000.0
15°	4593.4	4585.5	4603.9	4624.9	4653.7	4695.7	4740.3	4792.8	4853.1	4916.1	4976.4
17.5°	4467.5	4464.8	4483.2	4512.1	4535.7	4580.3	4638.0	4700.9	4769.2	4853.1	4931.8
20°	4339.0	4336.3	4354.7	4378.3	4409.8	4451.7	4509.5	4582.9	4664.2	4758.7	4850.5
22.5°	4205.1	4207.8	4223.5	4249.7	4276.0	4320.5	4380.9	4454.4	4543.5	4645.9	4748.2
25°	4024.1	4011.0	4032.0	4058.3	4102.8	4139.5	4197.3	4276.0	4367.8	4475.4	4596.0
27.5°	3761.8	3759.2	3777.6	3801.1	3840.5	3885.1	3948.1	4029.4	4126.4	4244.5	4362.5
30°	3499.5	3504.7	3512.6	3536.2	3562.4	3607.0	3670.0	3738.2	3830.0	3942.8	4068.7
32.5°	3321.1	3321.1	3331.6	3347.3	3365.7	3389.3	3433.9	3483.7	3554.6	3633.3	3725.1
35°	3260.7	3250.3	3260.7	3263.4	3266.0	3271.3	3279.1	3294.9	3318.4	3352.6	3386.7
37.5°	3234.6	3226.7	3226.7	3216.2	3203.0	3187.3	3166.3	3142.7	3116.5	3082.4	3056.2
40°	3132.2	3127.0	3121.7	3111.2	3082.4	3050.9	3016.8	2961.7	2901.4	2817.4	2733.5
42.5°	2935.5	2930.2	2927.6	2906.6	2880.4	2843.6	2804.3	2746.6	2670.5	2563.0	2442.3
45°	2691.5	2681.0	2673.2	2654.8	2636.4	2604.9	2568.2	2515.7	2439.7	2329.5	2185.2
47.5°	2408.2	2402.9	2400.3	2392.5	2374.1	2355.7	2332.1	2290.2	2221.9	2117.0	1967.5
50°	2122.2	2111.8	2117.0	2114.4	2106.5	2093.4	2077.6	2048.8	1996.3	1901.9	1765.5
52.5°	1794.3	1794.3	1791.7	1799.6	1802.2	1799.6	1802.2	1770.7	1726.1	1655.3	1539.9
55°	1453.3	1453.3	1461.2	1471.7	1482.2	1484.8	1482.2	1469.1	1437.6	1379.8	1277.5
57.5°	1133.2	1128.0	1143.8	1159.5	1170.0	1180.5	1172.6	1162.1	1143.8	1096.5	1017.8
60°	863.1	863.1	873.5	884.1	894.5	905.0	902.4	899.8	884.1	852.5	789.6
62.5°	634.8	637.4	637.4	645.3	655.8	666.3	674.2	666.3	658.4	637.4	595.5
65°	453.8	451.2	453.8	461.7	469.6	480.1	485.3	482.7	474.8	459.1	427.6
67.5°	304.3	301.7	312.1	314.8	320.0	330.6	327.9	330.6	327.9	314.8	288.6
70°	199.4	194.1	199.4	196.7	204.6	207.3	212.5	215.1	212.5	204.6	196.7
72.5°	123.3	120.7	123.3	125.9	128.6	131.1	136.4	136.4	133.8	128.6	118.0
75°	78.7	70.8	73.4	68.2	73.4	73.4	78.7	81.3	78.7	78.7	73.4
77.5°	47.2	47.2	47.2	47.2	47.2	47.2	47.2	49.9	52.4	47.2	44.6
80°	23.6	23.6	26.3	26.3	26.3	28.9	26.3	26.3	26.3	28.9	21.0
82.5°	18.4	15.7	15.7	15.7	18.4	15.7	15.7	15.7	15.7	15.7	15.7
85°	7.9	10.5	7.9	5.3	7.9	7.9	10.5	7.9	7.9	7.9	10.5
87.5°	2.6	2.6	0.0	0.0	0.0	2.6	0.0	2.6	2.6	5.3	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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3
2.5°	4955.4	4950.2	4950.2	4947.5	4952.8	4947.5	4950.2	4947.5	4947.5	4952.8	4947.5
5°	4973.8	4976.4	4971.2	4968.5	4976.4	4976.4	4976.4	4971.2	4971.2	4973.8	4971.2
7.5°	5000.0	5005.2	5007.9	5010.5	5015.8	5018.4	5018.4	5015.8	5013.1	5021.0	5010.5
10°	5028.9	5036.8	5052.5	5060.4	5073.5	5073.5	5078.7	5078.7	5073.5	5078.7	5076.1
12.5°	5018.4	5065.6	5091.8	5110.2	5128.5	5144.3	5149.5	5152.2	5149.5	5160.1	5149.5
15°	5036.8	5076.1	5118.1	5149.5	5183.6	5202.0	5207.2	5228.2	5233.5	5236.1	5220.4
17.5°	5007.9	5078.7	5123.3	5170.5	5220.4	5254.5	5285.9	5299.1	5301.7	5306.9	5285.9
20°	4942.3	5021.0	5089.2	5157.4	5215.1	5267.6	5293.8	5330.5	5320.1	5341.1	5312.2
22.5°	4853.1	4942.3	5028.9	5118.1	5178.4	5241.4	5296.5	5322.6	5335.8	5335.8	5304.3
25°	4711.5	4816.4	4910.8	5002.6	5094.5	5170.5	5233.5	5272.8	5280.7	5278.1	5241.4
27.5°	4491.1	4603.9	4714.1	4819.0	4931.8	5021.0	5094.5	5141.6	5154.8	5154.8	5115.4
30°	4186.8	4307.5	4415.0	4540.9	4656.4	4756.1	4858.4	4900.4	4923.9	4923.9	4879.4
32.5°	3824.8	3927.1	4026.8	4150.1	4276.0	4388.8	4485.8	4543.5	4572.4	4569.8	4530.4
35°	3431.3	3481.1	3557.2	3649.0	3761.8	3866.7	3961.2	4016.3	4066.1	4063.5	4026.8
37.5°	3037.8	3024.7	3032.6	3066.6	3137.4	3210.9	3284.4	3336.9	3378.8	3397.2	3389.3
40°	2652.2	2583.9	2518.3	2494.8	2500.0	2526.2	2565.6	2604.9	2652.2	2675.8	2686.3
42.5°	2305.9	2190.5	2075.0	1988.5	1938.6	1922.9	1941.2	1954.3	1983.2	2017.3	2051.4
45°	2027.8	1873.1	1720.9	1587.1	1503.2	1453.3	1442.8	1453.3	1469.1	1503.2	1547.8
47.5°	1799.6	1618.6	1448.1	1298.5	1175.2	1109.7	1091.3	1086.1	1101.8	1133.2	1193.6
50°	1597.6	1416.6	1227.7	1054.5	926.0	852.5	826.4	815.8	834.2	857.8	912.9
52.5°	1377.2	1198.8	1004.7	836.8	703.0	627.0	598.1	582.4	592.8	624.4	679.4
55°	1138.5	973.2	797.5	624.4	495.8	425.0	390.8	380.4	390.8	425.0	480.1
57.5°	899.8	760.8	613.8	451.2	335.8	265.0	230.8	220.4	249.2	262.3	320.0
60°	703.0	590.3	464.3	330.6	230.8	175.7	141.7	133.8	146.9	170.5	217.7
62.5°	527.3	456.4	356.8	236.1	170.5	112.8	94.4	86.6	94.4	112.8	149.6
65°	383.0	327.9	249.2	173.1	115.4	84.0	63.0	57.7	65.6	78.7	110.2
67.5°	262.3	220.4	173.1	120.7	78.7	52.4	44.6	44.6	47.2	57.7	81.3
70°	170.5	144.3	110.2	78.7	52.4	39.3	34.1	28.9	34.1	42.0	55.1
72.5°	107.6	91.8	70.8	55.1	39.3	28.9	23.6	21.0	26.3	31.5	42.0
75°	65.6	49.9	36.7	28.9	21.0	21.0	21.0	10.5	13.1	21.0	26.3
77.5°	39.3	34.1	28.9	23.6	18.4	10.5	10.5	10.5	13.1	15.7	23.6
80°	21.0	18.4	13.1	13.1	10.5	7.9	10.5	7.9	5.3	13.1	15.7
82.5°	13.1	10.5	10.5	10.5	13.1	5.3	7.9	5.3	7.9	10.5	7.9
85°	7.9	7.9	7.9	5.3	13.1	5.3	5.3	2.6	2.6	5.3	5.3
87.5°	0.0	2.6	2.6	0.0	2.6	0.0	2.6	2.6	2.6	2.6	2.6
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°	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3	4942.3
2.5°	4950.2	4947.5	4950.2	4947.5	4947.5	4947.5	4950.2	4950.2	4947.5	4947.5	4952.8
5°	4971.2	4971.2	4971.2	4968.5	4965.9	4965.9	4971.2	4971.2	4963.3	4971.2	4971.2
7.5°	5015.8	5007.9	5015.8	5005.2	5000.0	5002.6	5005.2	5000.0	4994.8	4997.4	4997.4
10°	5073.5	5065.6	5065.6	5057.7	5049.8	5044.6	5039.4	5026.2	5013.1	5010.5	5000.0
12.5°	5141.6	5128.5	5120.7	5104.9	5091.8	5073.5	5057.7	5036.8	5010.5	4992.1	4973.8
15°	5209.9	5188.9	5170.5	5144.3	5115.4	5083.9	5049.8	5015.8	4973.8	4937.1	4905.6
17.5°	5264.9	5236.1	5202.0	5160.1	5118.1	5070.8	5021.0	4971.2	4910.8	4863.6	4826.9
20°	5283.3	5241.4	5196.8	5141.6	5086.6	5021.0	4958.1	4892.5	4824.2	4774.4	4732.4
22.5°	5259.7	5209.9	5154.8	5097.1	5023.6	4952.8	4879.4	4803.2	4742.9	4674.7	4635.4
25°	5194.1	5133.8	5073.5	5005.2	4934.4	4855.7	4777.1	4698.4	4624.9	4588.1	4538.3
27.5°	5060.4	4994.8	4929.2	4858.4	4777.1	4698.4	4617.0	4540.9	4478.0	4428.1	4399.3
30°	4824.2	4748.2	4672.1	4596.0	4525.2	4443.9	4367.8	4304.8	4241.9	4202.5	4173.7
32.5°	4462.2	4394.0	4318.0	4244.5	4178.9	4110.7	4047.7	3992.7	3948.1	3921.8	3900.8
35°	3974.3	3906.1	3848.4	3795.9	3740.8	3712.0	3672.6	3641.1	3622.8	3612.3	3609.7
37.5°	3360.4	3321.1	3302.7	3292.3	3281.7	3273.9	3279.1	3292.3	3302.7	3321.1	3342.1
40°	2704.6	2738.7	2749.2	2785.9	2820.0	2864.6	2914.5	2972.2	3019.4	3079.7	3121.7
42.5°	2106.5	2169.5	2242.9	2321.6	2405.6	2486.9	2586.6	2678.4	2762.3	2838.4	2904.0
45°	1618.6	1715.6	1825.8	1938.6	2051.4	2169.5	2290.2	2402.9	2502.6	2583.9	2652.2
47.5°	1261.8	1369.4	1511.0	1650.1	1786.5	1925.5	2059.3	2177.3	2261.3	2340.0	2400.3
50°	999.5	1122.8	1277.5	1437.6	1587.1	1734.0	1875.6	1985.8	2069.8	2132.8	2177.3
52.5°	773.8	920.8	1078.2	1246.1	1406.1	1566.1	1697.3	1799.6	1867.8	1922.9	1957.0
55°	577.1	721.4	889.3	1062.4	1225.1	1379.8	1503.2	1592.4	1652.7	1684.2	1702.5
57.5°	417.1	548.3	716.1	889.3	1036.2	1183.1	1282.8	1364.1	1398.2	1416.6	1424.5
60°	304.3	425.0	574.5	724.0	863.1	981.1	1067.7	1122.8	1149.0	1159.5	1156.9
62.5°	223.0	327.9	456.4	582.4	695.2	792.2	860.4	897.2	910.3	915.5	907.7
65°	170.5	251.8	362.0	459.1	545.7	616.5	666.3	690.0	697.8	695.2	690.0
67.5°	125.9	188.9	270.2	343.7	406.6	461.7	488.0	508.9	514.1	506.3	498.4
70°	89.2	139.0	196.7	246.6	293.8	325.3	354.1	356.8	356.8	354.1	348.9
72.5°	63.0	97.1	133.8	167.9	196.7	220.4	230.8	238.7	236.1	233.5	228.3
75°	42.0	60.3	97.1	104.9	131.1	139.0	149.6	149.6	152.1	144.3	144.3
77.5°	26.3	42.0	57.7	68.2	78.7	89.2	94.4	94.4	97.1	94.4	94.4
80°	15.7	26.3	31.5	47.2	47.2	55.1	57.7	60.3	55.1	63.0	55.1
82.5°	10.5	15.7	23.6	23.6	28.9	34.1	34.1	36.7	36.7	34.1	34.1
85°	7.9	10.5	13.1	15.7	15.7	18.4	15.7	15.7	18.4	21.0	18.4
87.5°	2.6	5.3	2.6	5.3	5.3	10.5	7.9	7.9	7.9	10.5	10.5
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: P248338

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4942.3	4942.3	4942.3	4942.3
2.5°	4947.5	4950.2	4947.5	4947.5
5°	4971.2	4968.5	4971.2	4965.9
7.5°	4989.5	4989.5	4986.9	4986.9
10°	4989.5	4979.0	4979.0	4979.0
12.5°	4950.2	4937.1	4929.2	4923.9
15°	4881.9	4858.4	4847.9	4845.2
17.5°	4792.8	4771.8	4758.7	4750.8
20°	4690.5	4669.5	4653.7	4656.4
22.5°	4601.2	4577.7	4567.2	4561.9
25°	4512.1	4483.2	4475.4	4470.1
27.5°	4367.8	4352.1	4344.2	4336.3
30°	4147.4	4139.5	4126.4	4144.8
32.5°	3893.0	3879.8	3869.4	3877.3
35°	3612.3	3604.4	3612.3	3607.0
37.5°	3355.2	3363.1	3373.6	3378.8
40°	3153.2	3182.0	3192.6	3197.8
42.5°	2951.2	2985.3	3006.3	3019.4
45°	2702.0	2736.1	2759.7	2775.5
47.5°	2444.9	2473.8	2497.4	2494.8
50°	2211.5	2227.2	2237.7	2248.2
52.5°	1975.3	1975.3	1977.9	1977.9
55°	1707.8	1702.5	1699.9	1702.5
57.5°	1413.9	1408.7	1406.1	1398.2
60°	1146.4	1130.7	1120.1	1120.1
62.5°	897.2	878.8	871.0	868.3
65°	674.2	671.5	655.8	653.2
67.5°	488.0	477.4	467.0	469.6
70°	343.7	327.9	327.9	322.7
72.5°	223.0	215.1	212.5	212.5
75°	139.0	139.0	133.8	144.3
77.5°	91.8	91.8	89.2	91.8
80°	55.1	55.1	55.1	52.4
82.5°	34.1	36.7	34.1	34.1
85°	18.4	21.0	15.7	23.6
87.5°	10.5	13.1	10.5	13.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)