

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: P248329

Luminaire Tested: **LSR8B90D010 EC8B90827 8LBDW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P248329  
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 EC8B90827 8LBDW0LI  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 2700 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9294.0 lumens  
Efficiency: N/A  
Efficacy: 107.9 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

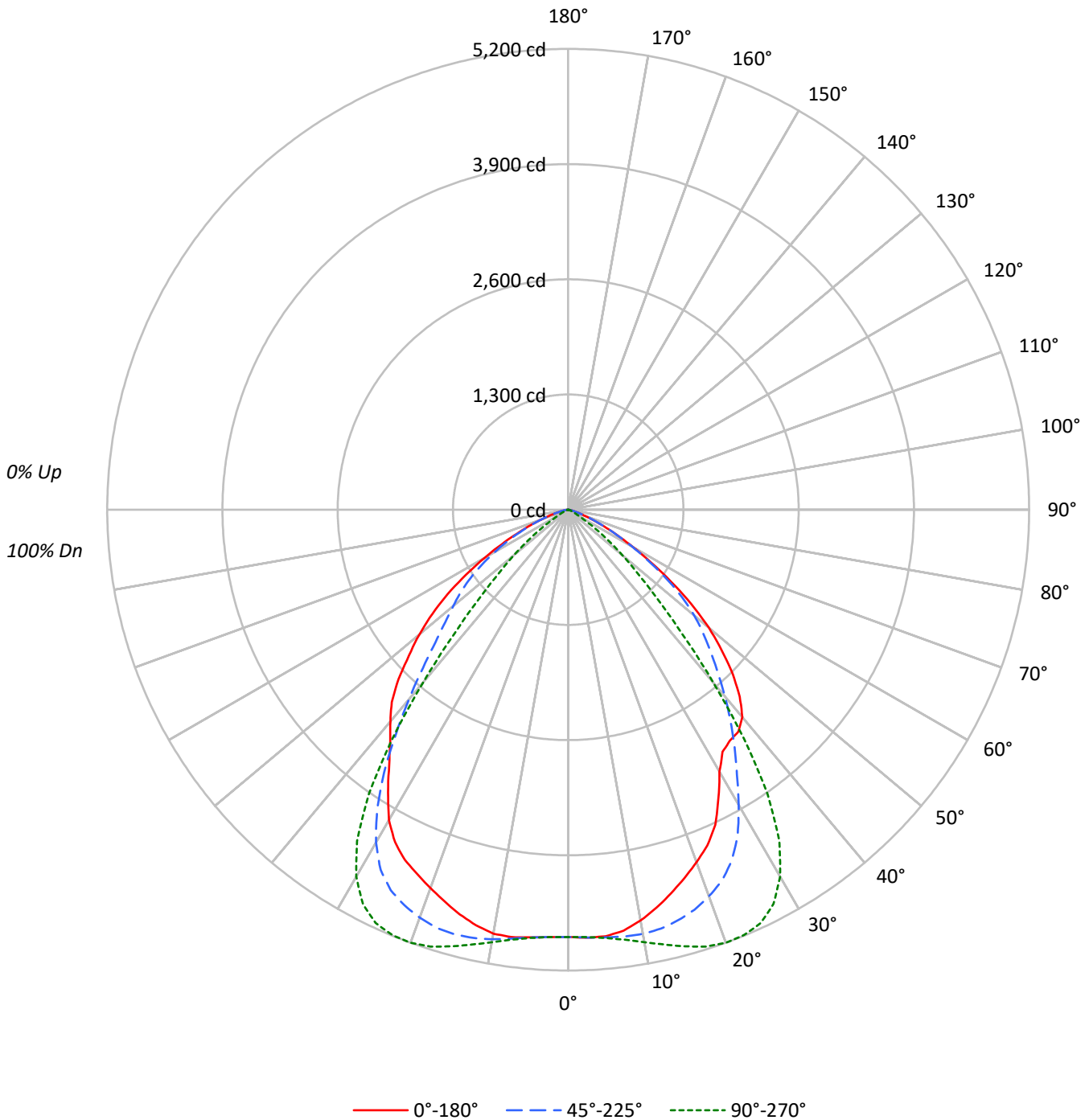
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	90°	180°
0°	148674	148674	148674
5°	149561	150115	149954
10°	147361	155135	152092
15°	143055	162826	150896
20°	138904	170646	149064
25°	133568	175017	148372
30°	121558	170218	143972
35°	119746	147494	132462
40°	123000	102293	125576
45°	114505	61825	118076
50°	99318	38182	105214
55°	76218	19951	89292
60°	51928	8048	67390
65°	32302	4108	46493
70°	17536	2542	28382
75°	9150	1215	16775
80°	4084	1367	9092
85°	2724	920	8138



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	463.7	5.0
10°-20°	1373.6	14.8
20°-30°	2095.5	22.5
30°-40°	2186.7	23.5
40°-50°	1642.5	17.7
50°-60°	1010.6	10.9
60°-70°	411.3	4.4
70°-80°	96.9	1.0
80°-90°	13.3	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°	3932.7	42.3
0°-40°	6119.4	65.8
0°-60°	8772.5	94.4
0°-90°	9294.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9294.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4821	4821	4821	4821	4821	
5°	4832	4844	4850	4844	4844	457
15°	4481	4796	5100	4960	4727	1262
25°	3926	4366	5144	4737	4361	1785
35°	3181	3271	3918	3621	3519	2009
45°	2626	2272	1418	2116	2708	2003
55°	1418	1346	371	1346	1661	1274
65°	443	448	56	601	637	462
75°	77	77	10	136	141	92
85°	8	8	3	18	23	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°	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4
2.5°	4834.2	4826.5	4834.2	4834.2	4836.8	4831.7	4834.2	4836.8	4831.7	4831.7	4831.7
5°	4831.7	4826.5	4831.7	4829.1	4834.2	4834.2	4839.4	4839.4	4844.4	4844.4	4852.1
7.5°	4790.7	4780.5	4790.7	4798.4	4803.5	4813.8	4826.5	4836.8	4847.0	4857.3	4870.1
10°	4706.2	4706.2	4713.9	4729.3	4744.6	4762.5	4785.6	4811.2	4836.8	4859.8	4882.8
12.5°	4601.4	4593.7	4609.0	4629.5	4652.5	4680.7	4716.5	4754.9	4795.8	4841.9	4877.8
15°	4481.1	4473.4	4491.3	4511.8	4539.9	4580.9	4624.4	4675.6	4734.4	4795.8	4854.7
17.5°	4358.2	4355.6	4373.6	4401.7	4424.8	4468.2	4524.6	4586.0	4652.5	4734.4	4811.2
20°	4232.9	4230.3	4248.2	4271.2	4301.9	4342.9	4399.2	4470.8	4550.1	4642.3	4731.9
22.5°	4102.3	4104.9	4120.2	4145.8	4171.4	4214.9	4273.7	4345.4	4432.4	4532.2	4632.0
25°	3925.7	3912.9	3933.4	3959.0	4002.5	4038.3	4094.7	4171.4	4261.0	4365.9	4483.6
27.5°	3669.8	3667.2	3685.2	3708.2	3746.6	3790.1	3851.5	3930.8	4025.5	4140.7	4255.8
30°	3413.9	3419.0	3426.7	3449.7	3475.3	3518.8	3580.2	3646.8	3736.4	3846.4	3969.2
32.5°	3239.9	3239.9	3250.1	3265.5	3283.4	3306.4	3349.9	3398.5	3467.7	3544.4	3634.0
35°	3181.0	3170.8	3181.0	3183.6	3186.1	3191.3	3198.9	3214.3	3237.3	3270.6	3303.9
37.5°	3155.4	3147.7	3147.7	3137.5	3124.7	3109.4	3088.9	3065.8	3040.3	3007.0	2981.4
40°	3055.6	3050.5	3045.4	3035.2	3007.0	2976.3	2943.0	2889.3	2830.4	2748.5	2666.6
42.5°	2863.7	2858.6	2856.0	2835.5	2809.9	2774.1	2735.7	2679.4	2605.2	2500.3	2382.6
45°	2625.7	2615.4	2607.8	2589.9	2571.9	2541.2	2505.4	2454.2	2380.0	2272.5	2131.8
47.5°	2349.3	2344.2	2341.6	2334.0	2316.1	2298.1	2275.1	2234.1	2167.6	2065.2	1919.4
50°	2070.3	2060.1	2065.2	2062.7	2055.0	2042.2	2026.8	1998.7	1947.5	1855.4	1722.3
52.5°	1750.4	1750.4	1747.9	1755.6	1758.1	1755.6	1758.1	1727.4	1683.9	1614.8	1502.2
55°	1417.7	1417.7	1425.4	1435.7	1445.9	1448.5	1445.9	1433.1	1402.4	1346.1	1246.3
57.5°	1105.5	1100.4	1115.8	1131.1	1141.4	1151.6	1143.9	1133.7	1115.8	1069.7	992.9
60°	842.0	842.0	852.2	862.4	872.6	882.9	880.3	877.8	862.4	831.7	770.3
62.5°	619.3	621.9	621.9	629.6	639.8	650.0	657.7	650.0	642.3	621.9	580.9
65°	442.7	440.1	442.7	450.4	458.1	468.3	473.5	470.9	463.2	447.8	417.2
67.5°	296.9	294.3	304.5	307.1	312.2	322.5	319.9	322.5	319.9	307.1	281.5
70°	194.5	189.4	194.5	191.9	199.6	202.2	207.3	209.8	207.3	199.6	191.9
72.5°	120.3	117.7	120.3	122.9	125.4	127.9	133.1	133.1	130.5	125.4	115.2
75°	76.8	69.1	71.6	66.6	71.6	71.6	76.8	79.3	76.8	76.8	71.6
77.5°	46.1	46.1	46.1	46.1	46.1	46.1	46.1	48.7	51.2	46.1	43.5
80°	23.0	23.0	25.6	25.6	25.6	28.2	25.6	25.6	25.6	28.2	20.5
82.5°	17.9	15.3	15.3	15.3	17.9	15.3	15.3	15.3	15.3	15.3	15.3
85°	7.7	10.2	7.7	5.1	7.7	7.7	10.2	7.7	7.7	7.7	10.2
87.5°	2.6	2.6	0.0	0.0	0.0	2.6	0.0	2.6	2.6	5.1	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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4
2.5°	4834.2	4829.1	4829.1	4826.5	4831.7	4826.5	4829.1	4826.5	4826.5	4831.7	4826.5
5°	4852.1	4854.7	4849.6	4847.0	4854.7	4854.7	4854.7	4849.6	4849.6	4852.1	4849.6
7.5°	4877.8	4882.8	4885.4	4888.0	4893.1	4895.7	4895.7	4893.1	4890.5	4898.2	4888.0
10°	4905.9	4913.6	4928.9	4936.6	4949.4	4949.4	4954.5	4954.5	4949.4	4954.5	4952.0
12.5°	4895.7	4941.7	4967.3	4985.2	5003.1	5018.5	5023.6	5026.2	5023.6	5033.9	5023.6
15°	4913.6	4952.0	4992.9	5023.6	5056.8	5074.8	5079.9	5100.4	5105.5	5108.1	5092.7
17.5°	4885.4	4954.5	4998.0	5044.1	5092.7	5126.0	5156.7	5169.5	5172.1	5177.1	5156.7
20°	4821.4	4898.2	4964.7	5031.3	5087.6	5138.7	5164.4	5200.2	5190.0	5210.4	5182.3
22.5°	4734.4	4821.4	4905.9	4992.9	5051.8	5113.2	5166.9	5192.5	5205.3	5205.3	5174.6
25°	4596.2	4698.6	4790.7	4880.3	4969.9	5044.1	5105.5	5143.9	5151.6	5149.0	5113.2
27.5°	4381.3	4491.3	4598.8	4701.2	4811.2	4898.2	4969.9	5015.9	5028.7	5028.7	4990.3
30°	4084.4	4202.1	4307.1	4429.8	4542.5	4639.7	4739.6	4780.5	4803.5	4803.5	4760.0
32.5°	3731.2	3831.0	3928.3	4048.6	4171.4	4281.4	4376.1	4432.4	4460.6	4458.0	4419.6
35°	3347.4	3396.0	3470.2	3559.8	3669.8	3772.2	3864.3	3918.1	3966.7	3964.1	3928.3
37.5°	2963.5	2950.7	2958.4	2991.6	3060.7	3132.4	3204.0	3255.3	3296.2	3314.1	3306.4
40°	2587.3	2520.8	2456.8	2433.8	2438.8	2464.5	2502.8	2541.2	2587.3	2610.4	2620.6
42.5°	2249.5	2136.9	2024.3	1939.8	1891.2	1875.8	1893.8	1906.5	1934.7	1968.0	2001.3
45°	1978.2	1827.3	1678.8	1548.3	1466.4	1417.7	1407.5	1417.7	1433.1	1466.4	1509.9
47.5°	1755.6	1579.0	1412.7	1266.8	1146.5	1082.5	1064.6	1059.5	1074.8	1105.5	1164.4
50°	1558.5	1381.9	1197.7	1028.8	903.4	831.7	806.1	795.9	813.8	836.8	890.6
52.5°	1343.5	1169.5	980.2	816.4	685.9	611.7	583.5	568.1	578.3	609.1	662.8
55°	1110.7	949.4	778.0	609.1	483.7	414.6	381.3	371.1	381.3	414.6	468.3
57.5°	877.8	742.1	598.8	440.1	327.6	258.5	225.2	215.0	243.1	255.9	312.2
60°	685.9	575.8	453.0	322.5	225.2	171.4	138.2	130.5	143.3	166.3	212.4
62.5°	514.4	445.3	348.0	230.3	166.3	110.0	92.1	84.5	92.1	110.0	145.9
65°	373.6	319.9	243.1	168.9	112.6	81.9	61.4	56.3	64.0	76.8	107.5
67.5°	255.9	215.0	168.9	117.7	76.8	51.2	43.5	43.5	46.1	56.3	79.3
70°	166.3	140.8	107.5	76.8	51.2	38.4	33.3	28.2	33.3	41.0	53.7
72.5°	104.9	89.5	69.1	53.7	38.4	28.2	23.0	20.5	25.6	30.7	41.0
75°	64.0	48.7	35.8	28.2	20.5	20.5	20.5	10.2	12.8	20.5	25.6
77.5°	38.4	33.3	28.2	23.0	17.9	10.2	10.2	10.2	12.8	15.3	23.0
80°	20.5	17.9	12.8	12.8	10.2	7.7	10.2	7.7	5.1	12.8	15.3
82.5°	12.8	10.2	10.2	10.2	12.8	5.1	7.7	5.1	7.7	10.2	7.7
85°	7.7	7.7	7.7	5.1	12.8	5.1	5.1	2.6	2.6	5.1	5.1
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°	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4	4821.4
2.5°	4829.1	4826.5	4829.1	4826.5	4826.5	4826.5	4829.1	4829.1	4826.5	4826.5	4831.7
5°	4849.6	4849.6	4849.6	4847.0	4844.4	4844.4	4849.6	4849.6	4841.9	4849.6	4849.6
7.5°	4893.1	4885.4	4893.1	4882.8	4877.8	4880.3	4882.8	4877.8	4872.6	4875.2	4875.2
10°	4949.4	4941.7	4941.7	4934.0	4926.3	4921.2	4916.1	4903.3	4890.5	4888.0	4877.8
12.5°	5015.9	5003.1	4995.5	4980.1	4967.3	4949.4	4934.0	4913.6	4888.0	4870.1	4852.1
15°	5082.5	5062.0	5044.1	5018.5	4990.3	4959.6	4926.3	4893.1	4852.1	4816.3	4785.6
17.5°	5136.2	5108.1	5074.8	5033.9	4992.9	4946.8	4898.2	4849.6	4790.7	4744.6	4708.8
20°	5154.1	5113.2	5069.7	5015.9	4962.2	4898.2	4836.8	4772.8	4706.2	4657.7	4616.7
22.5°	5131.1	5082.5	5028.7	4972.4	4900.7	4831.7	4760.0	4685.8	4626.9	4560.4	4522.0
25°	5067.1	5008.3	4949.4	4882.8	4813.8	4737.0	4660.2	4583.4	4511.8	4475.9	4427.3
27.5°	4936.6	4872.6	4808.6	4739.6	4660.2	4583.4	4504.1	4429.8	4368.5	4319.8	4291.7
30°	4706.2	4632.0	4557.8	4483.6	4414.5	4335.2	4261.0	4199.5	4138.1	4099.7	4071.6
32.5°	4353.1	4286.6	4212.4	4140.7	4076.7	4010.2	3948.8	3895.0	3851.5	3825.9	3805.4
35°	3877.1	3810.6	3754.3	3703.1	3649.3	3621.2	3582.8	3552.1	3534.2	3524.0	3521.4
37.5°	3278.2	3239.9	3221.9	3211.7	3201.5	3193.8	3198.9	3211.7	3221.9	3239.9	3260.3
40°	2638.5	2671.7	2682.0	2717.8	2751.1	2794.6	2843.2	2899.5	2945.6	3004.4	3045.4
42.5°	2055.0	2116.4	2188.1	2264.8	2346.7	2426.1	2523.3	2612.9	2694.8	2769.0	2833.0
45°	1579.0	1673.7	1781.2	1891.2	2001.3	2116.4	2234.1	2344.2	2441.4	2520.8	2587.3
47.5°	1230.9	1335.9	1474.1	1609.7	1742.8	1878.4	2008.9	2124.1	2206.0	2282.7	2341.6
50°	975.0	1095.3	1246.3	1402.4	1548.3	1691.6	1829.8	1937.3	2019.2	2080.6	2124.1
52.5°	754.9	898.3	1051.8	1215.6	1371.7	1527.8	1655.7	1755.6	1822.1	1875.8	1909.1
55°	563.0	703.8	867.6	1036.5	1195.1	1346.1	1466.4	1553.4	1612.3	1643.0	1660.9
57.5°	406.9	534.9	698.6	867.6	1010.8	1154.2	1251.4	1330.8	1364.0	1381.9	1389.6
60°	296.9	414.6	560.4	706.3	842.0	957.1	1041.6	1095.3	1120.9	1131.1	1128.6
62.5°	217.5	319.9	445.3	568.1	678.2	772.8	839.4	875.2	888.0	893.1	885.5
65°	166.3	245.7	353.2	447.8	532.3	601.4	650.0	673.1	680.7	678.2	673.1
67.5°	122.9	184.3	263.6	335.3	396.7	450.4	476.0	496.5	501.6	493.9	486.2
70°	87.0	135.6	191.9	240.6	286.6	317.3	345.5	348.0	348.0	345.5	340.4
72.5°	61.4	94.7	130.5	163.8	191.9	215.0	225.2	232.9	230.3	227.7	222.7
75°	41.0	58.9	94.7	102.4	127.9	135.6	145.9	145.9	148.4	140.8	140.8
77.5°	25.6	41.0	56.3	66.6	76.8	87.0	92.1	92.1	94.7	92.1	92.1
80°	15.3	25.6	30.7	46.1	46.1	53.7	56.3	58.9	53.7	61.4	53.7
82.5°	10.2	15.3	23.0	23.0	28.2	33.3	33.3	35.8	35.8	33.3	33.3
85°	7.7	10.2	12.8	15.3	15.3	17.9	15.3	15.3	17.9	20.5	17.9
87.5°	2.6	5.1	2.6	5.1	5.1	10.2	7.7	7.7	7.7	10.2	10.2
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: P248329

CATALOG NUMBER: LSR8B90D010 EC8B90827 8LBDW0LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4821.4	4821.4	4821.4	4821.4
2.5°	4826.5	4829.1	4826.5	4826.5
5°	4849.6	4847.0	4849.6	4844.4
7.5°	4867.5	4867.5	4864.9	4864.9
10°	4867.5	4857.3	4857.3	4857.3
12.5°	4829.1	4816.3	4808.6	4803.5
15°	4762.5	4739.6	4729.3	4726.7
17.5°	4675.6	4655.1	4642.3	4634.6
20°	4575.7	4555.3	4539.9	4542.5
22.5°	4488.7	4465.7	4455.5	4450.3
25°	4401.7	4373.6	4365.9	4360.8
27.5°	4261.0	4245.6	4237.9	4230.3
30°	4046.0	4038.3	4025.5	4043.4
32.5°	3797.8	3784.9	3774.7	3782.4
35°	3524.0	3516.3	3524.0	3518.8
37.5°	3273.2	3280.8	3291.1	3296.2
40°	3076.1	3104.2	3114.5	3119.6
42.5°	2879.1	2912.3	2932.8	2945.6
45°	2635.9	2669.2	2692.2	2707.6
47.5°	2385.1	2413.3	2436.3	2433.8
50°	2157.4	2172.7	2182.9	2193.2
52.5°	1927.0	1927.0	1929.6	1929.6
55°	1666.0	1660.9	1658.3	1660.9
57.5°	1379.4	1374.3	1371.7	1364.0
60°	1118.4	1103.0	1092.7	1092.7
62.5°	875.2	857.3	849.7	847.1
65°	657.7	655.1	639.8	637.2
67.5°	476.0	465.8	455.5	458.1
70°	335.3	319.9	319.9	314.8
72.5°	217.5	209.8	207.3	207.3
75°	135.6	135.6	130.5	140.8
77.5°	89.5	89.5	87.0	89.5
80°	53.7	53.7	53.7	51.2
82.5°	33.3	35.8	33.3	33.3
85°	17.9	20.5	15.3	23.0
87.5°	10.2	12.8	10.2	12.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)