

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: P249121

Luminaire Tested: **LSR8B90D010 EC8B90850 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249121
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90850 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 5000 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9683.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

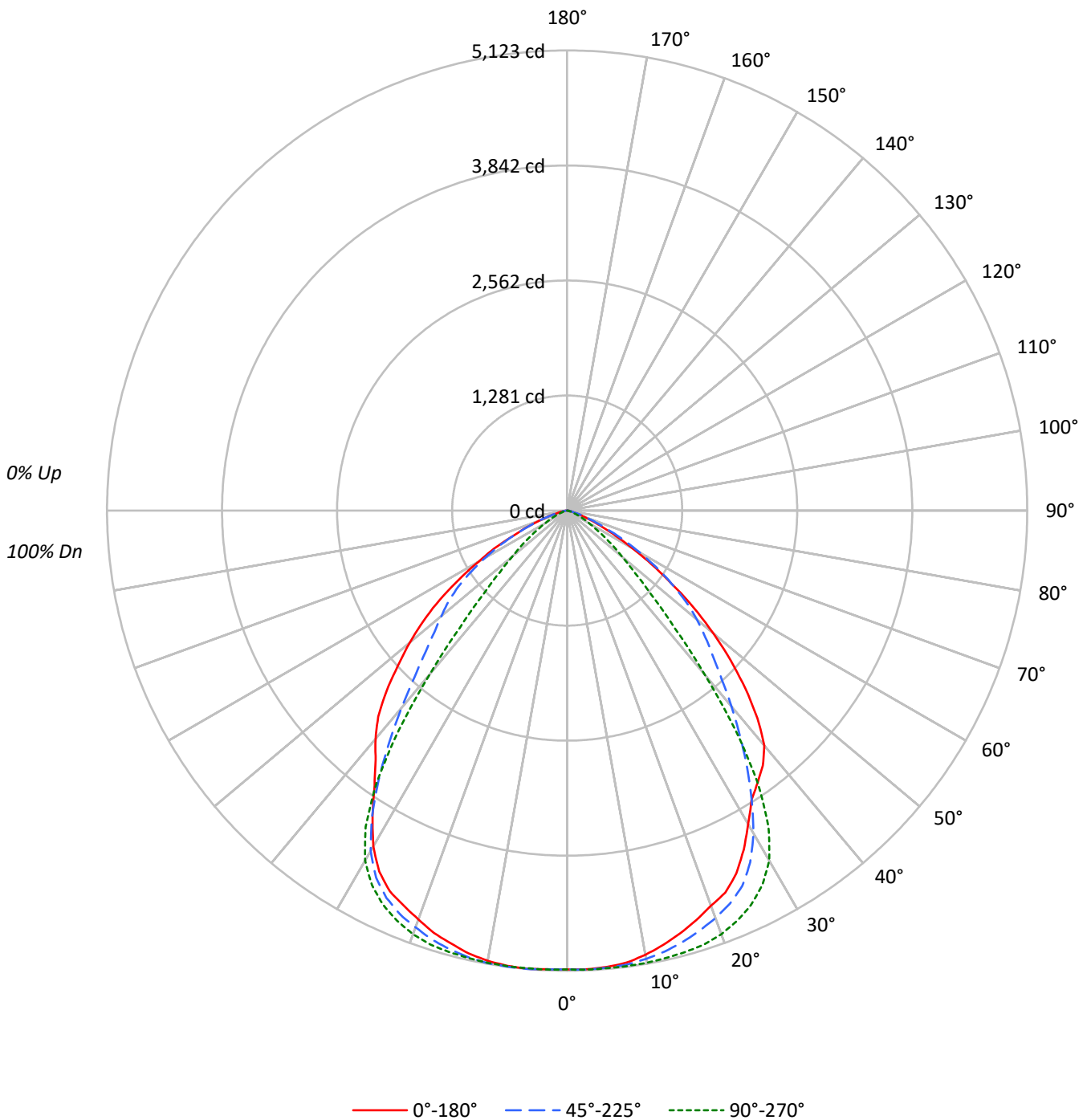
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	91	90				90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62				62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55				55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50				50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45				45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41				41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	157540	157540	157540
5°	157888	158312	158482
10°	157224	160058	159372
15°	155480	162398	159333
20°	153615	164680	158925
25°	151622	164871	159087
30°	143442	160234	153693
35°	139159	139261	140706
40°	137435	95816	133571
45°	122459	57525	124133
50°	101827	38282	109719
55°	76368	26392	93029
60°	51756	17589	70190
65°	31214	11404	48223
70°	17311	6185	29671
75°	7840	2609	15357
80°	6819	2912	10708
85°	7748	3856	10685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	487.6	5.0
10°-20°	1416.0	14.6
20°-30°	2149.2	22.2
30°-40°	2257.3	23.3
40°-50°	1692.4	17.5
50°-60°	1085.9	11.2
60°-70°	464.5	4.8
70°-80°	109.7	1.1
80°-90°	20.4	0.2
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°	4052.8	41.9
0°-40°	6310.1	65.2
0°-60°	9088.3	93.9
0°-90°	9683.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9683.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5109	5109	5109	5109	5109	
5°	5101	5109	5114	5123	5120	485
15°	4870	4972	5087	5054	4991	1374
25°	4456	4613	4846	4758	4676	2036
35°	3697	3491	3699	3656	3738	2320
45°	2808	2295	1319	2230	2846	2151
55°	1420	1420	491	1481	1730	1289
65°	428	505	156	650	661	457
75°	66	77	22	132	129	96
85°	22	14	11	22	30	23
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°	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9
2.5°	5111.7	5117.2	5114.4	5114.4	5111.7	5114.4	5114.4	5119.9	5119.9	5114.4	5111.7
5°	5100.7	5106.2	5106.2	5100.7	5100.7	5114.4	5106.2	5111.7	5111.7	5108.9	5108.9
7.5°	5076.1	5076.1	5087.0	5078.8	5078.8	5087.0	5084.2	5089.8	5095.3	5098.0	5098.0
10°	5021.2	5026.7	5029.4	5029.4	5032.2	5040.4	5045.9	5056.9	5062.3	5067.8	5070.6
12.5°	4952.7	4960.9	4963.6	4960.9	4969.1	4980.0	4993.8	5007.5	5015.7	5026.7	5034.9
15°	4870.3	4870.3	4875.8	4884.1	4889.6	4906.0	4919.7	4936.2	4958.1	4971.9	4985.5
17.5°	4779.9	4785.4	4793.6	4793.6	4804.6	4832.0	4840.2	4864.9	4889.6	4903.3	4930.7
20°	4681.2	4686.6	4694.9	4700.4	4714.1	4736.0	4752.4	4774.4	4801.8	4826.5	4853.9
22.5°	4604.3	4593.4	4598.8	4604.3	4618.1	4637.3	4656.5	4683.9	4711.3	4736.0	4763.4
25°	4456.3	4459.0	4467.3	4472.7	4489.2	4505.6	4527.6	4560.5	4585.2	4612.6	4642.7
27.5°	4256.1	4258.8	4272.5	4272.5	4286.2	4313.7	4327.4	4354.8	4387.7	4415.1	4450.8
30°	4028.5	4033.9	4033.9	4044.9	4053.1	4066.9	4080.6	4108.0	4124.4	4149.1	4198.5
32.5°	3820.1	3825.5	3822.8	3820.1	3811.8	3809.1	3806.3	3811.8	3817.3	3825.5	3844.7
35°	3696.7	3682.9	3672.0	3652.8	3630.9	3603.4	3578.7	3545.8	3515.6	3491.0	3463.6
37.5°	3578.7	3576.0	3559.5	3532.1	3488.2	3438.9	3381.3	3310.0	3238.7	3161.9	3087.9
40°	3414.2	3405.9	3392.3	3353.9	3304.5	3244.2	3167.4	3079.6	2964.4	2846.5	2725.9
42.5°	3134.5	3137.2	3120.8	3090.6	3044.0	2986.4	2906.8	2810.9	2687.5	2547.6	2391.3
45°	2808.1	2808.1	2802.6	2777.9	2745.1	2698.4	2638.1	2558.6	2437.9	2295.3	2128.0
47.5°	2468.1	2470.8	2462.6	2457.1	2443.4	2413.3	2369.4	2309.1	2224.0	2086.9	1919.6
50°	2122.6	2122.6	2136.3	2133.5	2133.5	2122.6	2103.4	2067.7	1993.7	1884.0	1727.7
52.5°	1777.0	1782.5	1790.8	1801.7	1815.4	1837.3	1815.4	1799.0	1752.3	1667.3	1533.0
55°	1420.5	1426.0	1439.7	1458.9	1475.4	1497.3	1502.8	1502.8	1478.1	1420.5	1319.1
57.5°	1116.1	1107.9	1118.9	1135.3	1157.3	1179.2	1195.7	1214.8	1212.1	1173.7	1091.5
60°	839.2	841.9	850.1	866.6	883.0	902.2	924.2	940.6	948.9	929.7	877.5
62.5°	611.6	611.6	622.5	638.9	647.2	674.6	688.3	696.6	704.8	702.0	669.1
65°	427.8	433.3	438.8	447.0	455.2	471.6	479.9	496.3	501.8	504.6	479.9
67.5°	301.7	293.4	298.9	304.4	312.6	323.6	340.1	340.1	348.3	348.3	331.8
70°	192.0	192.0	194.7	202.9	208.4	211.2	216.7	222.1	230.4	227.6	227.6
72.5°	128.9	126.1	128.9	131.6	134.4	142.6	142.6	145.3	150.8	153.6	142.6
75°	65.8	68.6	74.0	71.3	79.5	74.0	76.8	85.0	82.3	76.8	76.8
77.5°	54.8	54.8	54.8	52.1	57.6	57.6	54.8	60.3	57.6	57.6	54.8
80°	38.4	41.1	38.4	35.6	38.4	35.6	35.6	35.6	35.6	35.6	32.9
82.5°	30.2	24.7	27.4	24.7	27.4	27.4	24.7	21.9	21.9	24.7	21.9
85°	21.9	16.4	19.2	19.2	16.4	16.4	16.4	16.4	16.4	13.7	13.7
87.5°	13.7	8.3	8.3	8.3	10.9	10.9	10.9	8.3	10.9	10.9	5.5
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°	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9
2.5°	5117.2	5114.4	5119.9	5117.2	5117.2	5114.4	5117.2	5114.4	5119.9	5108.9	5111.7
5°	5117.2	5111.7	5114.4	5117.2	5119.9	5114.4	5114.4	5114.4	5119.9	5114.4	5117.2
7.5°	5106.2	5103.4	5111.7	5117.2	5114.4	5111.7	5117.2	5114.4	5119.9	5117.2	5122.6
10°	5084.2	5087.0	5092.5	5100.7	5103.4	5106.2	5111.7	5111.7	5119.9	5108.9	5114.4
12.5°	5051.4	5062.3	5076.1	5081.5	5092.5	5092.5	5098.0	5100.7	5106.2	5103.4	5111.7
15°	5010.2	5023.9	5040.4	5054.1	5067.8	5076.1	5084.2	5087.0	5095.3	5087.0	5089.8
17.5°	4960.9	4977.3	5002.0	5018.4	5040.4	5048.6	5059.6	5065.1	5073.3	5067.8	5070.6
20°	4892.3	4911.5	4938.9	4963.6	4977.3	4996.5	5010.2	5018.4	5023.9	5018.4	5021.2
22.5°	4796.3	4823.8	4859.4	4878.6	4906.0	4922.5	4925.2	4944.4	4958.1	4944.4	4949.9
25°	4683.9	4711.3	4738.7	4779.9	4804.6	4823.8	4843.0	4845.7	4859.4	4856.6	4853.9
27.5°	4497.4	4533.1	4579.7	4612.6	4645.5	4675.7	4697.6	4703.1	4716.8	4711.3	4714.1
30°	4242.3	4280.8	4324.7	4376.7	4423.4	4453.5	4481.0	4500.1	4513.8	4505.6	4502.9
32.5°	3880.4	3918.8	3965.4	4017.5	4072.4	4116.2	4149.1	4173.8	4190.3	4184.8	4171.1
35°	3466.3	3477.3	3507.5	3548.6	3595.2	3641.8	3672.0	3699.4	3718.6	3724.1	3724.1
37.5°	3041.2	3005.6	2983.7	2983.7	3011.1	3030.2	3057.7	3074.1	3104.3	3115.3	3123.5
40°	2629.9	2547.6	2470.8	2413.3	2374.9	2372.1	2372.1	2380.3	2407.8	2443.4	2476.3
42.5°	2262.4	2130.8	2012.9	1905.9	1829.2	1785.3	1766.1	1768.8	1790.8	1823.6	1878.5
45°	1969.0	1804.5	1656.4	1527.5	1423.3	1354.7	1321.8	1319.1	1335.5	1373.9	1434.3
47.5°	1741.4	1565.9	1398.6	1250.5	1138.1	1064.0	1025.6	1014.7	1025.6	1061.3	1132.6
50°	1552.2	1371.2	1198.4	1044.8	924.2	847.4	811.7	798.0	811.7	841.9	913.2
52.5°	1376.6	1190.2	1028.4	880.3	751.4	685.6	647.2	638.9	647.2	682.8	740.4
55°	1173.7	1014.7	855.6	707.5	595.1	529.3	499.1	490.9	499.1	532.0	592.4
57.5°	973.6	836.4	696.6	562.2	466.2	408.6	381.2	370.2	389.4	411.3	482.7
60°	787.0	677.4	559.4	441.5	362.0	309.9	287.9	285.2	290.7	318.1	367.4
62.5°	617.1	526.5	433.3	337.3	271.5	249.5	222.1	219.4	224.9	241.3	279.7
65°	444.3	386.7	315.4	246.8	194.7	164.5	153.6	156.3	161.8	172.8	208.4
67.5°	309.9	268.7	219.4	172.8	134.4	120.6	109.7	107.0	109.7	128.9	148.1
70°	208.4	183.7	148.1	131.6	93.3	74.0	76.8	68.6	79.5	79.5	96.0
72.5°	137.1	120.6	98.7	76.8	65.8	52.1	52.1	49.4	54.8	57.6	71.3
75°	71.3	54.8	54.8	38.4	27.4	13.7	24.7	21.9	19.2	21.9	27.4
77.5°	49.4	41.1	38.4	30.2	27.4	21.9	21.9	21.9	21.9	24.7	27.4
80°	30.2	30.2	21.9	19.2	16.4	13.7	16.4	16.4	16.4	16.4	19.2
82.5°	19.2	16.4	16.4	13.7	13.7	10.9	10.9	10.9	10.9	10.9	16.4
85°	16.4	10.9	10.9	8.3	10.9	19.2	8.3	10.9	10.9	10.9	8.3
87.5°	5.5	8.3	8.3	8.3	5.5	2.8	5.5	8.3	8.3	13.7	10.9
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°	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9	5108.9
2.5°	5117.2	5119.9	5119.9	5117.2	5117.2	5111.7	5122.6	5114.4	5117.2	5128.1	5119.9
5°	5122.6	5125.4	5125.4	5122.6	5122.6	5122.6	5125.4	5125.4	5122.6	5119.9	5125.4
7.5°	5133.6	5130.9	5130.9	5125.4	5125.4	5119.9	5125.4	5117.2	5122.6	5117.2	5125.4
10°	5119.9	5122.6	5119.9	5117.2	5117.2	5114.4	5114.4	5106.2	5108.9	5100.7	5106.2
12.5°	5111.7	5108.9	5108.9	5103.4	5098.0	5092.5	5089.8	5081.5	5081.5	5062.3	5070.6
15°	5089.8	5092.5	5084.2	5073.3	5067.8	5054.1	5048.6	5037.6	5026.7	5013.0	5015.7
17.5°	5070.6	5062.3	5051.4	5040.4	5018.4	5007.5	4996.5	4980.0	4974.5	4958.1	4952.7
20°	5013.0	5007.5	4993.8	4974.5	4960.9	4936.2	4925.2	4908.8	4895.0	4878.6	4870.3
22.5°	4938.9	4933.4	4917.0	4897.8	4875.8	4864.9	4853.9	4823.8	4810.0	4793.6	4790.8
25°	4845.7	4837.5	4821.0	4799.1	4788.1	4757.9	4746.9	4725.0	4719.6	4703.1	4700.4
27.5°	4703.1	4692.1	4672.9	4645.5	4626.3	4607.1	4596.2	4579.7	4574.2	4557.7	4555.0
30°	4489.2	4475.4	4437.1	4426.1	4393.2	4374.0	4374.0	4352.1	4354.8	4343.9	4343.9
32.5°	4151.9	4129.9	4099.8	4077.8	4055.9	4044.9	4044.9	4036.7	4042.2	4042.2	4047.7
35°	3704.9	3674.7	3658.2	3644.5	3644.5	3655.5	3688.4	3696.7	3713.1	3726.8	3737.8
37.5°	3131.7	3129.0	3148.2	3164.6	3205.8	3252.4	3310.0	3359.4	3405.9	3438.9	3471.8
40°	2512.0	2580.5	2635.4	2712.2	2775.2	2865.7	2969.9	3054.9	3134.5	3192.1	3252.4
42.5°	1960.7	2048.5	2163.7	2276.1	2388.6	2512.0	2649.1	2767.0	2871.2	2950.7	3013.8
45°	1527.5	1648.1	1788.0	1930.6	2075.9	2229.5	2372.1	2492.8	2602.5	2684.7	2747.8
47.5°	1231.3	1362.9	1522.0	1678.3	1842.8	2004.6	2163.7	2267.9	2358.4	2424.2	2481.8
50°	1017.4	1157.3	1324.6	1502.8	1667.3	1829.2	1966.2	2067.7	2141.8	2199.3	2235.0
52.5°	850.1	998.2	1176.5	1354.7	1519.2	1667.3	1790.8	1867.5	1927.9	1969.0	2001.9
55°	702.0	844.7	1011.9	1179.2	1341.0	1480.8	1582.3	1639.9	1686.5	1711.2	1730.4
57.5°	573.2	704.8	858.3	1011.9	1151.8	1267.0	1346.5	1404.1	1426.0	1445.2	1442.5
60°	449.8	573.2	713.0	844.7	965.3	1058.5	1116.1	1149.0	1165.5	1173.7	1168.2
62.5°	353.8	466.2	573.2	688.3	776.1	855.6	910.5	910.5	918.7	921.4	929.7
65°	263.2	348.3	441.5	526.5	597.8	649.9	680.1	688.3	699.3	696.6	691.1
67.5°	194.7	257.8	326.3	389.4	438.8	471.6	493.6	512.8	510.1	504.6	501.8
70°	134.4	175.5	235.9	274.2	309.9	342.8	348.3	351.0	353.8	356.5	351.0
72.5°	93.3	123.4	156.3	189.2	211.2	224.9	238.6	241.3	241.3	241.3	238.6
75°	46.6	63.1	93.3	107.0	126.1	131.6	142.6	142.6	150.8	139.8	137.1
77.5°	41.1	49.4	65.8	76.8	85.0	93.3	96.0	104.2	101.5	96.0	98.7
80°	24.7	30.2	41.1	46.6	57.6	60.3	63.1	65.8	63.1	65.8	65.8
82.5°	19.2	21.9	27.4	27.4	35.6	35.6	38.4	38.4	41.1	41.1	41.1
85°	10.9	19.2	16.4	32.9	21.9	21.9	27.4	32.9	27.4	27.4	32.9
87.5°	10.9	10.9	8.3	10.9	10.9	10.9	13.7	16.4	16.4	19.2	16.4
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: P249121

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5108.9	5108.9	5108.9	5108.9
2.5°	5117.2	5122.6	5114.4	5111.7
5°	5125.4	5125.4	5119.9	5119.9
7.5°	5125.4	5125.4	5117.2	5111.7
10°	5103.4	5103.4	5095.3	5089.8
12.5°	5062.3	5062.3	5059.6	5051.4
15°	5010.2	5010.2	4999.2	4991.0
17.5°	4938.9	4944.4	4930.7	4930.7
20°	4862.1	4859.4	4848.5	4843.0
22.5°	4782.6	4777.1	4774.4	4757.9
25°	4697.6	4692.1	4683.9	4675.7
27.5°	4552.3	4549.5	4541.3	4530.3
30°	4330.1	4327.4	4316.4	4316.4
32.5°	4042.2	4039.4	4028.5	4031.2
35°	3743.3	3754.3	3748.8	3737.8
37.5°	3493.7	3502.0	3507.5	3502.0
40°	3285.3	3310.0	3312.7	3318.2
42.5°	3063.2	3096.1	3107.1	3112.5
45°	2797.1	2827.3	2852.0	2846.5
47.5°	2525.7	2547.6	2569.5	2553.1
50°	2265.2	2278.9	2287.1	2287.1
52.5°	2018.4	2018.4	2015.6	2018.4
55°	1735.9	1735.9	1724.9	1730.4
57.5°	1439.7	1445.2	1437.0	1423.3
60°	1165.5	1151.8	1146.3	1138.1
62.5°	907.7	907.7	888.5	913.2
65°	680.1	671.9	663.6	660.9
67.5°	493.6	490.9	482.7	479.9
70°	348.3	337.3	334.6	329.1
72.5°	233.1	233.1	227.6	227.6
75°	142.6	128.9	126.1	128.9
77.5°	98.7	96.0	96.0	93.3
80°	65.8	63.1	68.6	60.3
82.5°	41.1	43.9	41.1	43.9
85°	27.4	32.9	30.2	30.2
87.5°	16.4	16.4	16.4	16.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)