

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: P248410

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248410
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 EC8B90950 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 5000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9136.0 lumens
Efficiency: N/A
Efficacy: 106.1 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

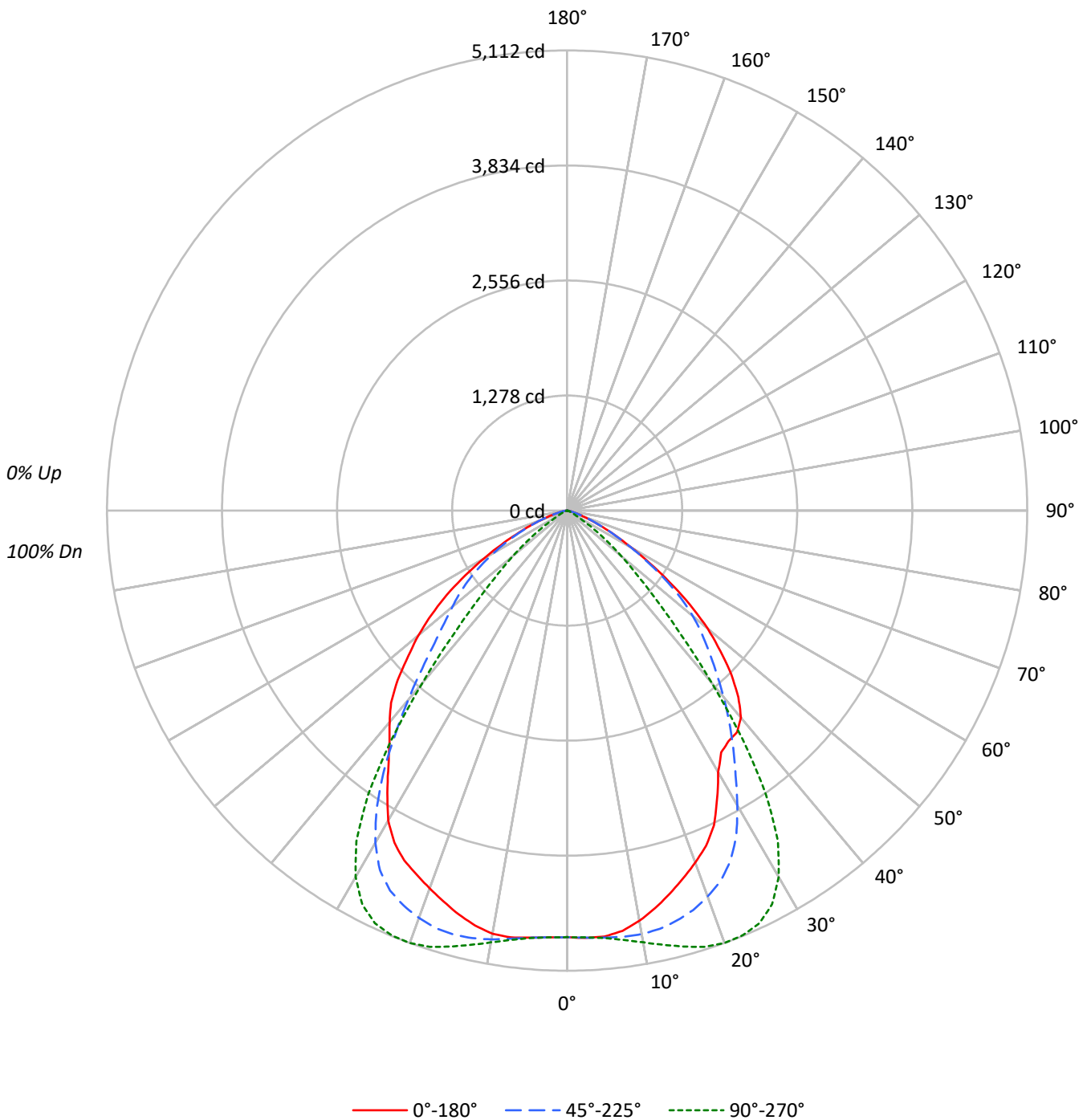
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0LI

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°	146146	146146	146146
5°	147017	147561	147407
10°	144856	152499	149505
15°	140622	160058	148332
20°	136541	167745	146530
25°	131299	172040	145848
30°	119489	167323	141526
35°	117710	144987	130211
40°	120911	100554	123439
45°	112560	60774	116070
50°	97629	37529	103425
55°	74922	19612	87771
60°	51040	7913	66249
65°	31754	4035	45705
70°	17238	2497	27895
75°	8995	1191	16489
80°	4031	1350	8932
85°	2689	885	8031



TEST NUMBER: P248410

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	455.8	5.0
10°-20°	1350.2	14.8
20°-30°	2059.9	22.5
30°-40°	2149.5	23.5
40°-50°	1614.6	17.7
50°-60°	993.4	10.9
60°-70°	404.3	4.4
70°-80°	95.3	1.0
80°-90°	13.1	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°	3865.9	42.3
0°-40°	6015.4	65.8
0°-60°	8623.3	94.4
0°-90°	9136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9136.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4739	4739	4739	4739	4739	
5°	4750	4762	4767	4762	4762	449
15°	4405	4714	5014	4875	4646	1241
25°	3859	4292	5056	4656	4287	1754
35°	3127	3215	3852	3560	3459	1974
45°	2581	2234	1394	2080	2662	1969
55°	1394	1323	365	1323	1633	1253
65°	435	440	55	591	626	454
75°	76	76	10	133	138	91
85°	8	8	2	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°	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4
2.5°	4752.1	4744.5	4752.1	4752.1	4754.6	4749.5	4752.1	4754.6	4749.5	4749.5	4749.5
5°	4749.5	4744.5	4749.5	4747.0	4752.1	4752.1	4757.1	4757.1	4762.1	4762.1	4769.7
7.5°	4709.3	4699.2	4709.3	4716.8	4721.8	4731.9	4744.5	4754.6	4764.6	4774.7	4787.3
10°	4626.2	4626.2	4633.8	4648.9	4664.0	4681.6	4704.2	4729.4	4754.6	4777.2	4799.8
12.5°	4523.1	4515.6	4530.6	4550.8	4573.4	4601.1	4636.3	4674.1	4714.3	4759.6	4794.8
15°	4404.9	4397.3	4414.9	4435.1	4462.8	4503.0	4545.8	4596.1	4653.9	4714.3	4772.2
17.5°	4284.1	4281.6	4299.2	4326.9	4349.6	4392.3	4447.7	4508.0	4573.4	4653.9	4729.4
20°	4160.9	4158.4	4176.0	4198.6	4228.8	4269.0	4324.4	4394.8	4472.8	4563.4	4651.4
22.5°	4032.6	4035.1	4050.2	4075.3	4100.5	4143.2	4201.1	4271.6	4357.1	4455.2	4553.3
25°	3859.0	3846.4	3866.5	3891.7	3934.4	3969.6	4025.0	4100.5	4188.5	4291.7	4407.4
27.5°	3607.4	3604.9	3622.5	3645.1	3682.9	3725.6	3786.0	3864.0	3957.1	4070.3	4183.5
30°	3355.8	3360.9	3368.5	3391.1	3416.2	3459.0	3519.4	3584.8	3672.8	3781.0	3901.8
32.5°	3184.8	3184.8	3194.9	3210.0	3227.6	3250.2	3293.0	3340.8	3408.7	3484.2	3572.2
35°	3126.9	3116.9	3126.9	3129.4	3132.0	3137.0	3144.5	3159.7	3182.3	3215.0	3247.7
37.5°	3101.8	3094.2	3094.2	3084.2	3071.6	3056.5	3036.4	3013.7	2988.6	2955.9	2930.7
40°	3003.7	2998.6	2993.6	2983.6	2955.9	2925.7	2893.0	2840.1	2782.3	2701.8	2621.3
42.5°	2815.0	2810.0	2807.5	2787.3	2762.2	2726.9	2689.2	2633.9	2560.9	2457.8	2342.0
45°	2581.1	2571.0	2563.5	2545.9	2528.2	2498.0	2462.8	2412.5	2339.5	2233.9	2095.5
47.5°	2309.4	2304.3	2301.8	2294.3	2276.7	2259.0	2236.4	2196.2	2130.7	2030.1	1886.7
50°	2035.1	2025.1	2030.1	2027.6	2020.1	2007.5	1992.4	1964.7	1914.4	1823.8	1693.0
52.5°	1720.7	1720.7	1718.2	1725.7	1728.2	1725.7	1728.2	1698.1	1655.3	1587.3	1476.7
55°	1393.6	1393.6	1401.2	1411.3	1421.3	1423.9	1421.3	1408.8	1378.6	1323.2	1225.1
57.5°	1086.7	1081.7	1096.8	1111.9	1122.0	1132.0	1124.5	1114.4	1096.8	1051.5	976.1
60°	827.6	827.6	837.7	847.8	857.8	867.9	865.4	862.9	847.8	817.6	757.2
62.5°	608.8	611.3	611.3	618.9	628.9	639.0	646.5	639.0	631.4	611.3	571.0
65°	435.2	432.7	435.2	442.8	450.3	460.4	465.4	462.9	455.3	440.2	410.1
67.5°	291.8	289.3	299.3	301.9	306.9	317.0	314.5	317.0	314.5	301.9	276.7
70°	191.2	186.1	191.2	188.7	196.2	198.8	203.7	206.3	203.7	196.2	188.7
72.5°	118.2	115.7	118.2	120.8	123.3	125.8	130.8	130.8	128.3	123.3	113.2
75°	75.5	67.9	70.4	65.4	70.4	70.4	75.5	78.0	75.5	75.5	70.4
77.5°	45.3	45.3	45.3	45.3	45.3	45.3	45.3	47.8	50.3	45.3	42.8
80°	22.7	22.7	25.2	25.2	25.2	27.7	25.2	25.2	25.2	27.7	20.1
82.5°	17.6	15.1	15.1	15.1	17.6	15.1	15.1	15.1	15.1	15.1	15.1
85°	7.6	10.0	7.6	5.0	7.6	7.6	10.0	7.6	7.6	7.6	10.0
87.5°	2.5	2.5	0.0	0.0	0.0	2.5	0.0	2.5	2.5	5.0	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: P248410

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4
2.5°	4752.1	4747.0	4747.0	4744.5	4749.5	4744.5	4747.0	4744.5	4744.5	4749.5	4744.5
5°	4769.7	4772.2	4767.1	4764.6	4772.2	4772.2	4772.2	4767.1	4767.1	4769.7	4767.1
7.5°	4794.8	4799.8	4802.3	4804.9	4809.9	4812.4	4812.4	4809.9	4807.4	4815.0	4804.9
10°	4822.5	4830.0	4845.1	4852.7	4865.2	4865.2	4870.3	4870.3	4865.2	4870.3	4867.8
12.5°	4812.4	4857.7	4882.9	4900.5	4918.1	4933.1	4938.2	4940.7	4938.2	4948.3	4938.2
15°	4830.0	4867.8	4908.0	4938.2	4970.9	4988.5	4993.5	5013.7	5018.7	5021.2	5006.1
17.5°	4802.3	4870.3	4913.0	4958.3	5006.1	5038.8	5069.0	5081.6	5084.1	5089.1	5069.0
20°	4739.4	4815.0	4880.3	4945.8	5001.1	5051.4	5076.6	5111.8	5101.7	5121.9	5094.2
22.5°	4653.9	4739.4	4822.5	4908.0	4965.9	5026.3	5079.1	5104.2	5116.8	5116.8	5086.6
25°	4518.1	4618.7	4709.3	4797.3	4885.4	4958.3	5018.7	5056.4	5064.0	5061.5	5026.3
27.5°	4306.8	4414.9	4520.6	4621.2	4729.4	4815.0	4885.4	4930.6	4943.2	4943.2	4905.5
30°	4014.9	4130.7	4233.8	4354.5	4465.3	4560.9	4659.0	4699.2	4721.8	4721.8	4679.1
32.5°	3667.8	3765.9	3861.5	3979.7	4100.5	4208.7	4301.7	4357.1	4384.8	4382.2	4344.5
35°	3290.5	3338.2	3411.2	3499.3	3607.4	3708.0	3798.6	3851.5	3899.2	3896.7	3861.5
37.5°	2913.1	2900.5	2908.1	2940.8	3008.7	3079.2	3149.6	3199.9	3240.1	3257.8	3250.2
40°	2543.3	2477.9	2415.0	2392.4	2397.4	2422.6	2460.3	2498.0	2543.3	2566.0	2576.0
42.5°	2211.2	2100.6	1989.8	1906.9	1859.0	1844.0	1861.6	1874.1	1901.8	1934.5	1967.2
45°	1944.6	1796.2	1650.2	1522.0	1441.5	1393.6	1383.6	1393.6	1408.8	1441.5	1484.2
47.5°	1725.7	1552.1	1388.6	1245.2	1127.0	1064.1	1046.5	1041.5	1056.6	1086.7	1144.6
50°	1532.0	1358.4	1177.3	1011.3	888.0	817.6	792.4	782.3	800.0	822.6	875.4
52.5°	1320.7	1149.6	963.5	802.5	674.2	601.3	573.6	558.5	568.5	598.7	651.5
55°	1091.8	933.3	764.7	598.7	475.4	407.5	374.8	364.8	374.8	407.5	460.4
57.5°	862.9	729.5	588.6	432.7	322.0	254.1	221.3	211.3	239.0	251.6	306.9
60°	674.2	566.0	445.3	317.0	221.3	168.5	135.8	128.3	140.9	163.5	208.8
62.5°	505.7	437.7	342.1	226.4	163.5	108.2	90.5	83.0	90.5	108.2	143.4
65°	367.3	314.5	239.0	166.0	110.7	80.5	60.4	55.3	62.9	75.5	105.7
67.5°	251.6	211.3	166.0	115.7	75.5	50.3	42.8	42.8	45.3	55.3	78.0
70°	163.5	138.4	105.7	75.5	50.3	37.7	32.7	27.7	32.7	40.3	52.8
72.5°	103.2	88.0	67.9	52.8	37.7	27.7	22.7	20.1	25.2	30.2	40.3
75°	62.9	47.8	35.2	27.7	20.1	20.1	20.1	10.0	12.6	20.1	25.2
77.5°	37.7	32.7	27.7	22.7	17.6	10.0	10.0	10.0	12.6	15.1	22.7
80°	20.1	17.6	12.6	12.6	10.0	7.6	10.0	7.6	5.0	12.6	15.1
82.5°	12.6	10.0	10.0	10.0	12.6	5.0	7.6	5.0	7.6	10.0	7.6
85°	7.6	7.6	7.6	5.0	12.6	5.0	5.0	2.5	2.5	5.0	5.0
87.5°	0.0	2.5	2.5	0.0	2.5	0.0	2.5	2.5	2.5	2.5	2.5
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: P248410

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4	4739.4
2.5°	4747.0	4744.5	4747.0	4744.5	4744.5	4744.5	4747.0	4747.0	4744.5	4744.5	4749.5
5°	4767.1	4767.1	4767.1	4764.6	4762.1	4762.1	4767.1	4767.1	4759.6	4767.1	4767.1
7.5°	4809.9	4802.3	4809.9	4799.8	4794.8	4797.3	4799.8	4794.8	4789.8	4792.3	4792.3
10°	4865.2	4857.7	4857.7	4850.2	4842.6	4837.6	4832.6	4819.9	4807.4	4804.9	4794.8
12.5°	4930.6	4918.1	4910.6	4895.4	4882.9	4865.2	4850.2	4830.0	4804.9	4787.3	4769.7
15°	4996.1	4975.9	4958.3	4933.1	4905.5	4875.3	4842.6	4809.9	4769.7	4734.4	4704.2
17.5°	5048.9	5021.2	4988.5	4948.3	4908.0	4862.7	4815.0	4767.1	4709.3	4664.0	4628.8
20°	5066.5	5026.3	4983.5	4930.6	4877.8	4815.0	4754.6	4691.7	4626.2	4578.5	4538.2
22.5°	5043.9	4996.1	4943.2	4887.9	4817.4	4749.5	4679.1	4606.1	4548.2	4482.9	4445.1
25°	4981.0	4923.1	4865.2	4799.8	4731.9	4656.5	4581.0	4505.5	4435.1	4399.8	4352.1
27.5°	4852.7	4789.8	4726.9	4659.0	4581.0	4505.5	4427.5	4354.5	4294.2	4246.4	4218.8
30°	4626.2	4553.3	4480.4	4407.4	4339.5	4261.5	4188.5	4128.1	4067.8	4030.0	4002.4
32.5°	4279.1	4213.7	4140.8	4070.3	4007.4	3942.0	3881.6	3828.8	3786.0	3760.9	3740.7
35°	3811.2	3745.8	3690.4	3640.1	3587.3	3559.6	3521.9	3491.7	3474.1	3464.0	3461.5
37.5°	3222.5	3184.8	3167.2	3157.1	3147.0	3139.5	3144.5	3157.1	3167.2	3184.8	3204.9
40°	2593.6	2626.3	2636.4	2671.6	2704.3	2747.1	2794.9	2850.2	2895.5	2953.3	2993.6
42.5°	2020.1	2080.4	2150.9	2226.3	2306.8	2384.8	2480.4	2568.4	2649.0	2721.9	2784.8
45°	1552.1	1645.2	1750.9	1859.0	1967.2	2080.4	2196.2	2304.3	2399.9	2477.9	2543.3
47.5°	1210.0	1313.2	1449.0	1582.4	1713.2	1846.5	1974.8	2088.0	2168.5	2243.9	2301.8
50°	958.4	1076.7	1225.1	1378.6	1522.0	1662.8	1798.7	1904.3	1984.9	2045.2	2088.0
52.5°	742.1	883.0	1033.9	1194.9	1348.4	1501.8	1627.6	1725.7	1791.1	1844.0	1876.6
55°	553.4	691.8	852.8	1018.8	1174.8	1323.2	1441.5	1527.0	1584.9	1615.0	1632.6
57.5°	400.0	525.8	686.8	852.8	993.7	1134.6	1230.1	1308.1	1340.8	1358.4	1366.0
60°	291.8	407.5	550.9	694.3	827.6	940.8	1023.9	1076.7	1101.9	1111.9	1109.4
62.5°	213.8	314.5	437.7	558.5	666.6	759.7	825.1	860.3	873.0	877.9	870.4
65°	163.5	241.5	347.2	440.2	523.3	591.2	639.0	661.6	669.1	666.6	661.6
67.5°	120.8	181.2	259.1	329.6	389.9	442.8	467.9	488.1	493.0	485.5	478.0
70°	85.6	133.3	188.7	236.5	281.7	312.0	339.6	342.1	342.1	339.6	334.6
72.5°	60.4	93.1	128.3	161.0	188.7	211.3	221.3	228.9	226.4	223.9	218.9
75°	40.3	57.9	93.1	100.6	125.8	133.3	143.4	143.4	145.9	138.4	138.4
77.5°	25.2	40.3	55.3	65.4	75.5	85.6	90.5	90.5	93.1	90.5	90.5
80°	15.1	25.2	30.2	45.3	45.3	52.8	55.3	57.9	52.8	60.4	52.8
82.5°	10.0	15.1	22.7	22.7	27.7	32.7	32.7	35.2	35.2	32.7	32.7
85°	7.6	10.0	12.6	15.1	15.1	17.6	15.1	15.1	17.6	20.1	17.6
87.5°	2.5	5.0	2.5	5.0	5.0	10.0	7.6	7.6	7.6	10.0	10.0
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: P248410

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4739.4	4739.4	4739.4	4739.4
2.5°	4744.5	4747.0	4744.5	4744.5
5°	4767.1	4764.6	4767.1	4762.1
7.5°	4784.7	4784.7	4782.2	4782.2
10°	4784.7	4774.7	4774.7	4774.7
12.5°	4747.0	4734.4	4726.9	4721.8
15°	4681.6	4659.0	4648.9	4646.4
17.5°	4596.1	4575.9	4563.4	4555.8
20°	4498.0	4477.8	4462.8	4465.3
22.5°	4412.4	4389.8	4379.7	4374.7
25°	4326.9	4299.2	4291.7	4286.6
27.5°	4188.5	4173.4	4165.9	4158.4
30°	3977.2	3969.6	3957.1	3974.7
32.5°	3733.2	3720.6	3710.6	3718.1
35°	3464.0	3456.5	3464.0	3459.0
37.5°	3217.5	3225.0	3235.1	3240.1
40°	3023.8	3051.5	3061.5	3066.5
42.5°	2830.1	2862.8	2882.9	2895.5
45°	2591.1	2623.8	2646.4	2661.6
47.5°	2344.6	2372.3	2394.9	2392.4
50°	2120.7	2135.8	2145.8	2155.9
52.5°	1894.2	1894.2	1896.8	1896.8
55°	1637.7	1632.6	1630.1	1632.6
57.5°	1355.9	1350.9	1348.4	1340.8
60°	1099.3	1084.3	1074.2	1074.2
62.5°	860.3	842.7	835.2	832.7
65°	646.5	644.0	628.9	626.4
67.5°	467.9	457.8	447.8	450.3
70°	329.6	314.5	314.5	309.4
72.5°	213.8	206.3	203.7	203.7
75°	133.3	133.3	128.3	138.4
77.5°	88.0	88.0	85.6	88.0
80°	52.8	52.8	52.8	50.3
82.5°	32.7	35.2	32.7	32.7
85°	17.6	20.1	15.1	22.7
87.5°	10.0	12.6	10.0	12.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)