

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: P248356

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248356
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 EC8B90840 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9842.0 lumens
Efficiency: N/A
Efficacy: 114.3 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

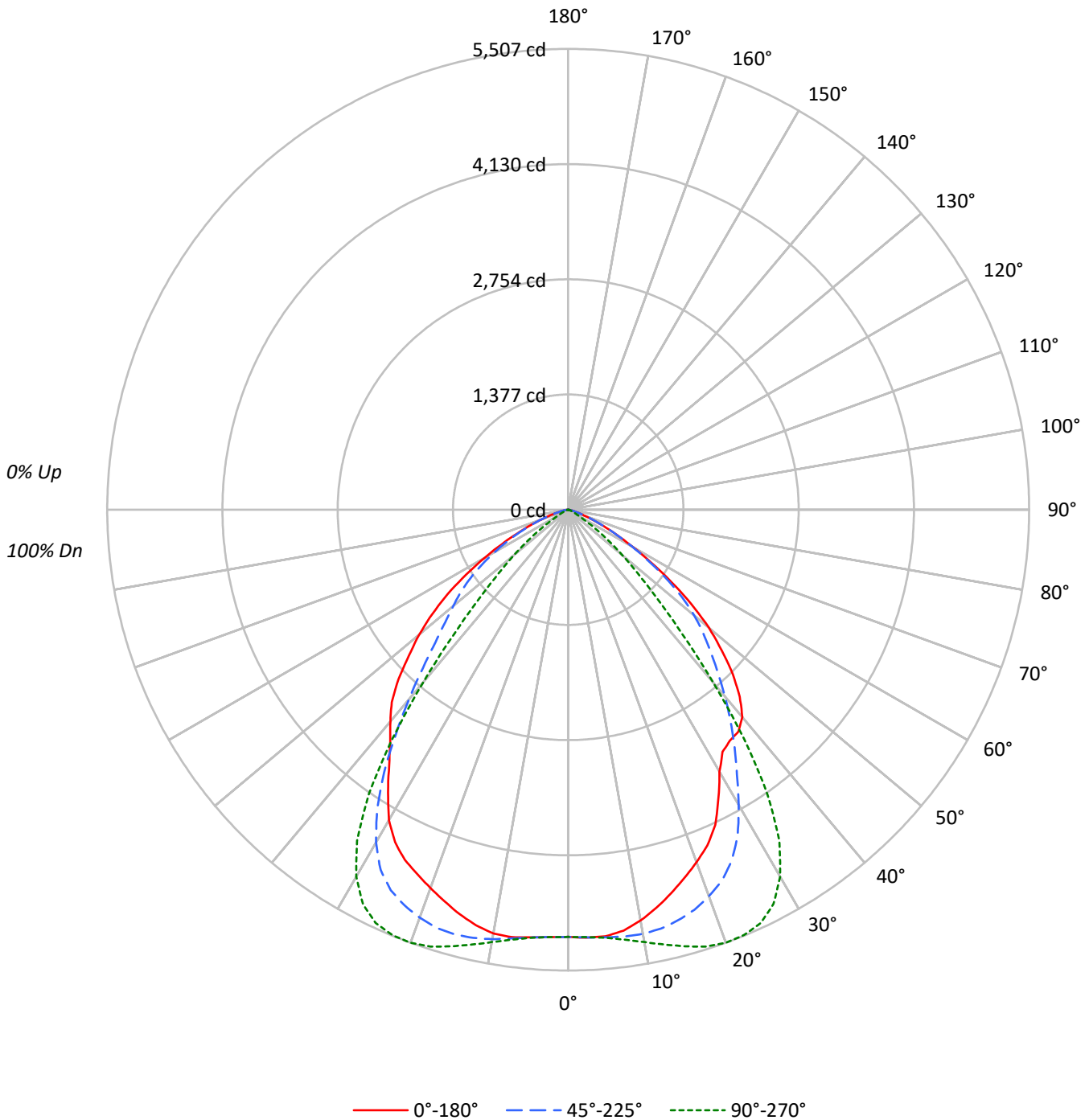
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	157441	157441	157441
5°	158380	158965	158798
10°	156050	164285	161060
15°	151489	172425	159793
20°	147091	180707	157852
25°	141445	185336	157120
30°	128725	180255	152461
35°	126808	156190	140274
40°	130254	108327	132979
45°	121255	65470	125036
50°	105176	40431	111417
55°	80712	21128	94556
60°	54987	8523	71368
65°	34206	4349	49237
70°	18573	2687	30050
75°	9686	1287	17764
80°	4333	1456	9625
85°	2901	955	8633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	491.0	5.0
10°-20°	1454.6	14.8
20°-30°	2219.1	22.5
30°-40°	2315.6	23.5
40°-50°	1739.3	17.7
50°-60°	1070.2	10.9
60°-70°	435.5	4.4
70°-80°	102.6	1.0
80°-90°	14.1	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°	4164.6	42.3
0°-40°	6480.2	65.8
0°-60°	9289.7	94.4
0°-90°	9842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9842.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5106	5106	5106	5106	5106	
5°	5117	5130	5136	5130	5130	484
15°	4745	5079	5401	5252	5005	1337
25°	4157	4623	5447	5016	4618	1890
35°	3369	3463	4149	3835	3726	2127
45°	2780	2406	1501	2241	2867	2121
55°	1501	1426	393	1426	1759	1350
65°	469	474	60	637	675	489
75°	81	81	11	144	149	98
85°	8	8	3	19	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°	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7
2.5°	5119.3	5111.1	5119.3	5119.3	5122.0	5116.6	5119.3	5122.0	5116.6	5116.6	5116.6
5°	5116.6	5111.1	5116.6	5113.8	5119.3	5119.3	5124.7	5124.7	5130.1	5130.1	5138.2
7.5°	5073.2	5062.4	5073.2	5081.3	5086.7	5097.6	5111.1	5122.0	5132.8	5143.7	5157.2
10°	4983.7	4983.7	4991.9	5008.1	5024.4	5043.4	5067.8	5094.9	5122.0	5146.3	5170.7
12.5°	4872.7	4864.5	4880.8	4902.4	4926.8	4956.7	4994.6	5035.3	5078.6	5127.4	5165.4
15°	4745.3	4737.1	4756.1	4777.8	4807.6	4851.0	4897.1	4951.2	5013.6	5078.6	5141.0
17.5°	4615.2	4612.5	4631.4	4661.3	4685.7	4731.7	4791.4	4856.4	4926.8	5013.6	5094.9
20°	4482.4	4479.7	4498.7	4523.1	4555.6	4598.9	4658.6	4734.4	4818.4	4916.0	5010.9
22.5°	4344.2	4346.9	4363.1	4390.3	4417.4	4463.4	4525.7	4601.7	4693.8	4799.5	4905.2
25°	4157.2	4143.7	4165.3	4192.5	4238.5	4276.4	4336.1	4417.4	4512.2	4623.3	4748.0
27.5°	3886.2	3883.5	3902.5	3926.8	3967.5	4013.6	4078.6	4162.6	4262.9	4384.8	4506.8
30°	3615.2	3620.6	3628.8	3653.2	3680.2	3726.3	3791.3	3861.8	3956.7	4073.2	4203.3
32.5°	3430.9	3430.9	3441.8	3458.0	3477.0	3501.4	3547.5	3598.9	3672.1	3753.4	3848.2
35°	3368.6	3357.7	3368.6	3371.3	3374.0	3379.4	3387.5	3403.8	3428.2	3463.4	3498.7
37.5°	3341.5	3333.3	3333.3	3322.5	3308.9	3292.7	3271.0	3246.6	3219.6	3184.3	3157.2
40°	3235.8	3230.4	3224.9	3214.1	3184.3	3151.8	3116.5	3059.6	2997.3	2910.6	2823.9
42.5°	3032.6	3027.1	3024.4	3002.7	2975.6	2937.7	2897.0	2837.4	2758.8	2647.7	2523.0
45°	2780.5	2769.6	2761.6	2742.6	2723.6	2691.1	2653.1	2598.9	2520.3	2406.5	2257.5
47.5°	2487.8	2482.4	2479.7	2471.6	2452.6	2433.6	2409.2	2365.9	2295.4	2187.0	2032.5
50°	2192.4	2181.6	2187.0	2184.3	2176.2	2162.6	2146.3	2116.6	2062.3	1964.8	1823.9
52.5°	1853.6	1853.6	1851.0	1859.1	1861.8	1859.1	1861.8	1829.3	1783.2	1710.0	1590.8
55°	1501.3	1501.3	1509.5	1520.4	1531.2	1533.9	1531.2	1517.6	1485.1	1425.5	1319.8
57.5°	1170.7	1165.3	1181.6	1197.8	1208.7	1219.5	1211.4	1200.5	1181.6	1132.8	1051.5
60°	891.6	891.6	902.4	913.3	924.1	935.0	932.3	929.5	913.3	880.7	815.7
62.5°	655.8	658.5	658.5	666.7	677.5	688.4	696.5	688.4	680.2	658.5	615.2
65°	468.8	466.1	468.8	477.0	485.1	495.9	501.4	498.7	490.5	474.3	441.8
67.5°	314.4	311.7	322.5	325.2	330.6	341.5	338.8	341.5	338.8	325.2	298.1
70°	206.0	200.5	206.0	203.2	211.4	214.1	219.5	222.2	219.5	211.4	203.2
72.5°	127.4	124.7	127.4	130.1	132.8	135.5	140.9	140.9	138.2	132.8	121.9
75°	81.3	73.1	75.9	70.5	75.9	75.9	81.3	84.0	81.3	81.3	75.9
77.5°	48.8	48.8	48.8	48.8	48.8	48.8	48.8	51.5	54.2	48.8	46.1
80°	24.4	24.4	27.1	27.1	27.1	29.8	27.1	27.1	27.1	29.8	21.7
82.5°	19.0	16.2	16.2	16.2	19.0	16.2	16.2	16.2	16.2	16.2	16.2
85°	8.2	10.8	8.2	5.4	8.2	8.2	10.8	8.2	8.2	8.2	10.8
87.5°	2.7	2.7	0.0	0.0	0.0	2.7	0.0	2.7	2.7	5.4	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°	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7
2.5°	5119.3	5113.8	5113.8	5111.1	5116.6	5111.1	5113.8	5111.1	5111.1	5116.6	5111.1
5°	5138.2	5141.0	5135.5	5132.8	5141.0	5141.0	5141.0	5135.5	5135.5	5138.2	5135.5
7.5°	5165.4	5170.7	5173.5	5176.2	5181.6	5184.3	5184.3	5181.6	5178.9	5187.0	5176.2
10°	5195.1	5203.3	5219.5	5227.7	5241.2	5241.2	5246.7	5246.7	5241.2	5246.7	5243.9
12.5°	5184.3	5233.1	5260.2	5279.1	5298.1	5314.4	5319.8	5322.5	5319.8	5330.7	5319.8
15°	5203.3	5243.9	5287.3	5319.8	5355.0	5374.0	5379.4	5401.1	5406.5	5409.2	5393.0
17.5°	5173.5	5246.7	5292.7	5341.5	5393.0	5428.2	5460.7	5474.3	5477.0	5482.4	5460.7
20°	5105.7	5187.0	5257.5	5328.0	5387.6	5441.7	5468.9	5506.8	5496.0	5517.7	5487.8
22.5°	5013.6	5105.7	5195.1	5287.3	5349.6	5414.7	5471.6	5498.6	5512.2	5512.2	5479.7
25°	4867.2	4975.6	5073.2	5168.0	5262.9	5341.5	5406.5	5447.2	5455.3	5452.6	5414.7
27.5°	4639.6	4756.1	4869.9	4978.4	5094.9	5187.0	5262.9	5311.6	5325.2	5325.2	5284.6
30°	4325.2	4449.9	4561.0	4691.0	4810.3	4913.3	5019.0	5062.4	5086.7	5086.7	5040.7
32.5°	3951.2	4056.9	4159.9	4287.3	4417.4	4533.9	4634.2	4693.8	4723.6	4720.9	4680.2
35°	3544.7	3596.2	3674.8	3769.7	3886.2	3994.6	4092.1	4149.1	4200.5	4197.8	4159.9
37.5°	3138.2	3124.7	3132.8	3168.0	3241.2	3317.1	3393.0	3447.2	3490.5	3509.5	3501.4
40°	2739.9	2669.4	2601.6	2577.3	2582.6	2609.8	2650.4	2691.1	2739.9	2764.3	2775.1
42.5°	2382.1	2262.9	2143.6	2054.2	2002.7	1986.5	2005.4	2018.9	2048.8	2084.0	2119.3
45°	2094.9	1935.0	1777.8	1639.6	1552.9	1501.3	1490.5	1501.3	1517.6	1552.9	1598.9
47.5°	1859.1	1672.1	1496.0	1341.5	1214.1	1146.4	1127.4	1122.0	1138.2	1170.7	1233.0
50°	1650.4	1463.4	1268.3	1089.4	956.7	880.7	853.7	842.8	861.8	886.2	943.1
52.5°	1422.8	1238.5	1038.0	864.5	726.3	647.7	617.9	601.6	612.4	645.0	701.9
55°	1176.1	1005.4	823.8	645.0	512.2	439.0	403.8	393.0	403.8	439.0	495.9
57.5°	929.5	785.9	634.1	466.1	346.9	273.7	238.5	227.6	257.5	271.0	330.6
60°	726.3	609.8	479.7	341.5	238.5	181.6	146.3	138.2	151.8	176.1	224.9
62.5°	544.7	471.5	368.6	243.9	176.1	116.5	97.5	89.5	97.5	116.5	154.5
65°	395.7	338.8	257.5	178.8	119.2	86.7	65.0	59.6	67.8	81.3	113.9
67.5°	271.0	227.6	178.8	124.7	81.3	54.2	46.1	46.1	48.8	59.6	84.0
70°	176.1	149.1	113.9	81.3	54.2	40.6	35.2	29.8	35.2	43.4	56.9
72.5°	111.1	94.8	73.1	56.9	40.6	29.8	24.4	21.7	27.1	32.5	43.4
75°	67.8	51.5	37.9	29.8	21.7	21.7	21.7	10.8	13.5	21.7	27.1
77.5°	40.6	35.2	29.8	24.4	19.0	10.8	10.8	10.8	13.5	16.2	24.4
80°	21.7	19.0	13.5	13.5	10.8	8.2	10.8	8.2	5.4	13.5	16.2
82.5°	13.5	10.8	10.8	10.8	13.5	5.4	8.2	5.4	8.2	10.8	8.2
85°	8.2	8.2	8.2	5.4	13.5	5.4	5.4	2.7	2.7	5.4	5.4
87.5°	0.0	2.7	2.7	0.0	2.7	0.0	2.7	2.7	2.7	2.7	2.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7	5105.7
2.5°	5113.8	5111.1	5113.8	5111.1	5111.1	5111.1	5113.8	5113.8	5111.1	5111.1	5116.6
5°	5135.5	5135.5	5135.5	5132.8	5130.1	5130.1	5135.5	5135.5	5127.4	5135.5	5135.5
7.5°	5181.6	5173.5	5181.6	5170.7	5165.4	5168.0	5170.7	5165.4	5159.9	5162.6	5162.6
10°	5241.2	5233.1	5233.1	5225.0	5216.8	5211.4	5206.0	5192.4	5178.9	5176.2	5165.4
12.5°	5311.6	5298.1	5290.0	5273.7	5260.2	5241.2	5225.0	5203.3	5176.2	5157.2	5138.2
15°	5382.1	5360.4	5341.5	5314.4	5284.6	5252.0	5216.8	5181.6	5138.2	5100.3	5067.8
17.5°	5439.0	5409.2	5374.0	5330.7	5287.3	5238.5	5187.0	5135.5	5073.2	5024.4	4986.5
20°	5458.0	5414.7	5368.6	5311.6	5254.7	5187.0	5122.0	5054.2	4983.7	4932.3	4888.9
22.5°	5433.7	5382.1	5325.2	5265.6	5189.7	5116.6	5040.7	4962.1	4899.7	4829.3	4788.7
25°	5365.9	5303.6	5241.2	5170.7	5097.6	5016.3	4935.0	4853.7	4777.8	4739.8	4688.4
27.5°	5227.7	5159.9	5092.2	5019.0	4935.0	4853.7	4769.7	4691.0	4626.1	4574.5	4544.8
30°	4983.7	4905.2	4826.6	4748.0	4674.8	4590.8	4512.2	4447.2	4382.1	4341.5	4311.7
32.5°	4609.7	4539.3	4460.7	4384.8	4317.1	4246.6	4181.6	4124.7	4078.6	4051.5	4029.8
35°	4105.7	4035.2	3975.6	3921.4	3864.5	3834.7	3794.1	3761.5	3742.5	3731.7	3729.0
37.5°	3471.5	3430.9	3411.9	3401.1	3390.2	3382.1	3387.5	3401.1	3411.9	3430.9	3452.6
40°	2794.0	2829.3	2840.1	2878.1	2913.3	2959.4	3010.9	3070.5	3119.2	3181.6	3224.9
42.5°	2176.2	2241.2	2317.1	2398.4	2485.1	2569.1	2672.1	2766.9	2853.7	2932.2	3000.0
45°	1672.1	1772.3	1886.2	2002.7	2119.3	2241.2	2365.9	2482.4	2585.4	2669.4	2739.9
47.5°	1303.5	1414.7	1561.0	1704.6	1845.5	1989.2	2127.4	2249.3	2336.0	2417.3	2479.7
50°	1032.5	1159.9	1319.8	1485.1	1639.6	1791.3	1937.6	2051.5	2138.2	2203.3	2249.3
52.5°	799.4	951.2	1113.8	1287.3	1452.6	1617.9	1753.4	1859.1	1929.6	1986.5	2021.7
55°	596.2	745.3	918.7	1097.6	1265.6	1425.5	1552.9	1645.0	1707.4	1739.8	1758.8
57.5°	430.9	566.4	739.8	918.7	1070.4	1222.2	1325.2	1409.2	1444.4	1463.4	1471.6
60°	314.4	439.0	593.5	748.0	891.6	1013.6	1103.0	1159.9	1187.0	1197.8	1195.1
62.5°	230.4	338.8	471.5	601.6	718.1	818.4	888.9	926.8	940.4	945.8	937.7
65°	176.1	260.1	374.0	474.3	563.7	636.8	688.4	712.8	720.9	718.1	712.8
67.5°	130.1	195.1	279.2	355.0	420.1	477.0	504.1	525.8	531.1	523.1	514.9
70°	92.2	143.6	203.2	254.8	303.5	336.1	365.8	368.6	368.6	365.8	360.5
72.5°	65.0	100.3	138.2	173.5	203.2	227.6	238.5	246.6	243.9	241.2	235.8
75°	43.4	62.3	100.3	108.4	135.5	143.6	154.5	154.5	157.2	149.1	149.1
77.5°	27.1	43.4	59.6	70.5	81.3	92.2	97.5	97.5	100.3	97.5	97.5
80°	16.2	27.1	32.5	48.8	48.8	56.9	59.6	62.3	56.9	65.0	56.9
82.5°	10.8	16.2	24.4	24.4	29.8	35.2	35.2	37.9	37.9	35.2	35.2
85°	8.2	10.8	13.5	16.2	16.2	19.0	16.2	16.2	19.0	21.7	19.0
87.5°	2.7	5.4	2.7	5.4	5.4	10.8	8.2	8.2	8.2	10.8	10.8
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: P248356

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5105.7	5105.7	5105.7	5105.7
2.5°	5111.1	5113.8	5111.1	5111.1
5°	5135.5	5132.8	5135.5	5130.1
7.5°	5154.5	5154.5	5151.8	5151.8
10°	5154.5	5143.7	5143.7	5143.7
12.5°	5113.8	5100.3	5092.2	5086.7
15°	5043.4	5019.0	5008.1	5005.4
17.5°	4951.2	4929.6	4916.0	4907.9
20°	4845.5	4823.9	4807.6	4810.3
22.5°	4753.4	4729.0	4718.2	4712.7
25°	4661.3	4631.4	4623.3	4617.9
27.5°	4512.2	4496.0	4487.8	4479.7
30°	4284.6	4276.4	4262.9	4281.8
32.5°	4021.7	4008.1	3997.3	4005.5
35°	3731.7	3723.6	3731.7	3726.3
37.5°	3466.2	3474.3	3485.1	3490.5
40°	3257.5	3287.3	3298.1	3303.5
42.5°	3048.8	3084.0	3105.7	3119.2
45°	2791.3	2826.5	2850.9	2867.2
47.5°	2525.8	2555.6	2579.9	2577.3
50°	2284.6	2300.8	2311.6	2322.5
52.5°	2040.6	2040.6	2043.3	2043.3
55°	1764.2	1758.8	1756.1	1758.8
57.5°	1460.7	1455.3	1452.6	1444.4
60°	1184.3	1168.1	1157.2	1157.2
62.5°	926.8	907.9	899.8	897.0
65°	696.5	693.7	677.5	674.8
67.5°	504.1	493.2	482.4	485.1
70°	355.0	338.8	338.8	333.3
72.5°	230.4	222.2	219.5	219.5
75°	143.6	143.6	138.2	149.1
77.5°	94.8	94.8	92.2	94.8
80°	56.9	56.9	56.9	54.2
82.5°	35.2	37.9	35.2	35.2
85°	19.0	21.7	16.2	24.4
87.5°	10.8	13.5	10.8	13.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)