

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: P249337

Luminaire Tested: **LSR8B90D010 EC8B90850 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249337
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 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 5000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9465.0 lumens
Efficiency: N/A
Efficacy: 109.9 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

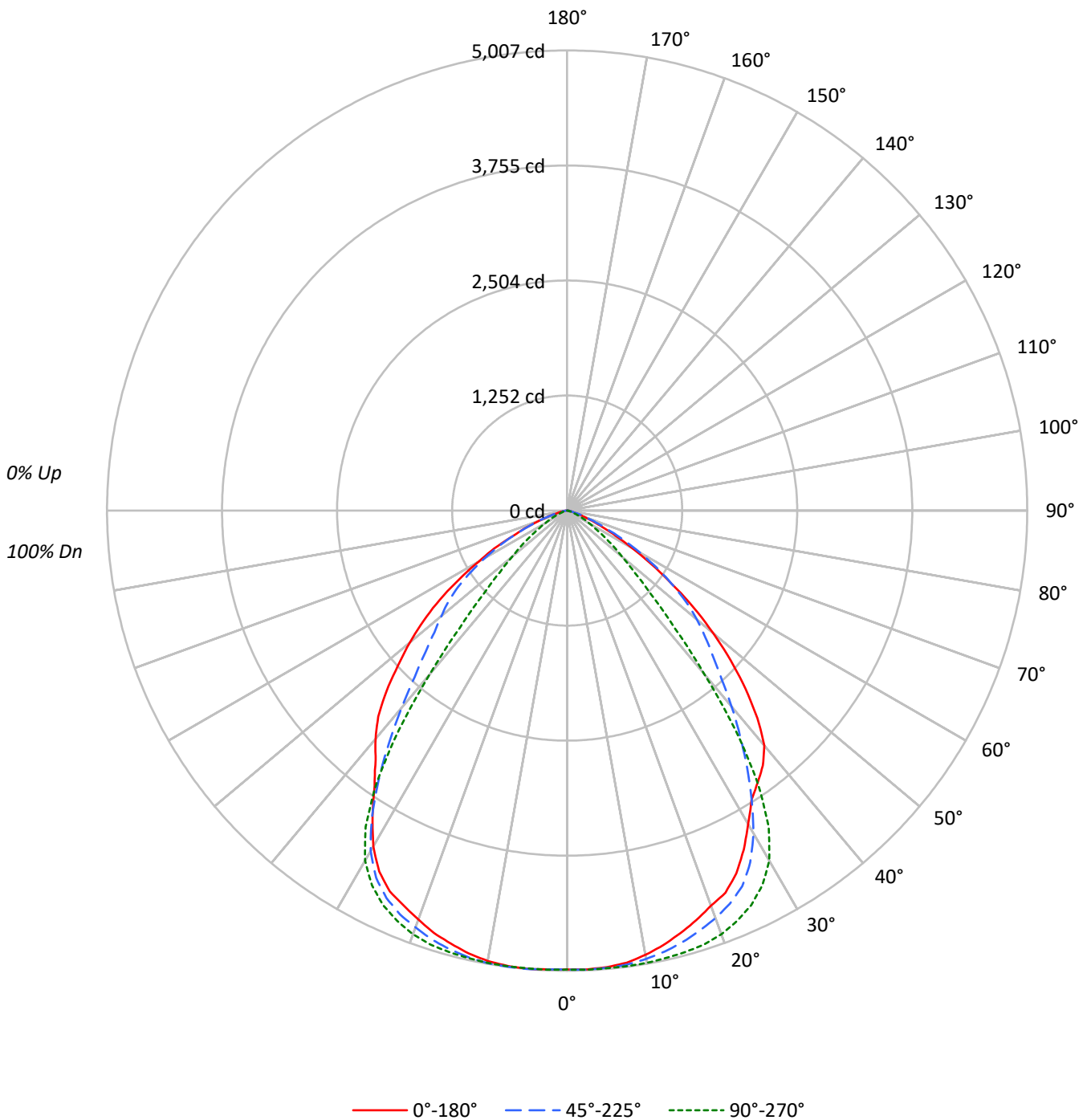
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P249337

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0GPH

Luminous Intensity Polar Plot





TEST NUMBER: P249337

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0GPH

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	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°	153993	153993	153993
5°	154334	154749	154916
10°	153682	156454	155784
15°	151981	158743	155748
20°	150156	160972	155344
25°	148206	161159	155504
30°	140212	156627	150232
35°	136027	136125	137541
40°	134340	93659	130564
45°	119703	56230	121338
50°	99534	37424	107248
55°	74648	25800	90932
60°	50590	17194	68611
65°	30514	11149	47135
70°	16923	6041	29004
75°	7661	2550	15012
80°	6659	2859	10477
85°	7571	3786	10437



TEST NUMBER: P249337

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0GPH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	476.6	5.0
10°-20°	1384.1	14.6
20°-30°	2100.8	22.2
30°-40°	2206.5	23.3
40°-50°	1654.3	17.5
50°-60°	1061.4	11.2
60°-70°	454.1	4.8
70°-80°	107.3	1.1
80°-90°	20.0	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°	3961.5	41.9
0°-40°	6168.0	65.2
0°-60°	8883.7	93.9
0°-90°	9465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9465.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4994	4994	4994	4994	4994	
5°	4986	4994	4999	5007	5005	474
15°	4761	4860	4972	4940	4879	1343
25°	4356	4509	4737	4651	4570	1990
35°	3614	3412	3616	3573	3654	2268
45°	2745	2244	1289	2179	2782	2102
55°	1388	1388	480	1448	1691	1259
65°	418	493	153	635	646	446
75°	64	75	21	129	126	94
85°	21	13	11	21	30	23
90°	0	0	0	0	0	



TEST NUMBER: P249337

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0GPH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9
2.5°	4996.6	5002.0	4999.3	4999.3	4996.6	4999.3	4999.3	5004.7	5004.7	4999.3	4996.6
5°	4985.9	4991.2	4991.2	4985.9	4985.9	4999.3	4991.2	4996.6	4996.6	4993.9	4993.9
7.5°	4961.8	4961.8	4972.5	4964.5	4964.5	4972.5	4969.8	4975.2	4980.5	4983.2	4983.2
10°	4908.1	4913.5	4916.2	4916.2	4918.9	4926.9	4932.3	4943.0	4948.3	4953.7	4956.4
12.5°	4841.2	4849.2	4851.9	4849.2	4857.2	4867.9	4881.4	4894.7	4902.8	4913.5	4921.6
15°	4760.7	4760.7	4766.1	4774.1	4779.5	4795.6	4809.0	4825.0	4846.5	4859.9	4873.3
17.5°	4672.3	4677.6	4685.6	4685.6	4696.4	4723.2	4731.2	4755.4	4779.5	4792.9	4819.7
20°	4575.8	4581.1	4589.2	4594.5	4607.9	4629.4	4645.4	4666.9	4693.7	4717.9	4744.6
22.5°	4500.7	4490.0	4495.3	4500.7	4514.1	4532.9	4551.6	4578.4	4605.2	4629.4	4656.2
25°	4355.9	4358.6	4366.7	4372.0	4388.1	4404.2	4425.7	4457.8	4481.9	4508.8	4538.2
27.5°	4160.3	4163.0	4176.3	4176.3	4189.7	4216.6	4229.9	4256.8	4289.0	4315.7	4350.6
30°	3937.8	3943.1	3943.1	3953.9	3961.9	3975.3	3988.7	4015.5	4031.6	4055.7	4104.0
32.5°	3734.1	3739.4	3736.7	3734.1	3726.0	3723.3	3720.6	3726.0	3731.4	3739.4	3758.1
35°	3613.5	3600.0	3589.3	3570.6	3549.1	3522.3	3498.2	3466.0	3436.5	3412.4	3385.6
37.5°	3498.2	3495.5	3479.4	3452.6	3409.7	3361.5	3305.2	3235.5	3165.7	3090.7	3018.4
40°	3337.3	3329.3	3315.9	3278.4	3230.1	3171.1	3096.1	3010.3	2897.7	2782.4	2664.5
42.5°	3063.9	3066.6	3050.5	3021.0	2975.5	2919.1	2841.4	2747.6	2627.0	2490.2	2337.5
45°	2744.9	2744.9	2739.5	2715.4	2683.3	2637.7	2578.7	2501.0	2383.1	2243.6	2080.1
47.5°	2412.5	2415.2	2407.1	2401.8	2388.4	2358.9	2316.0	2257.1	2174.0	2039.9	1876.4
50°	2074.8	2074.8	2088.2	2085.5	2085.5	2074.8	2056.0	2021.1	1948.8	1841.6	1688.8
52.5°	1737.0	1742.4	1750.5	1761.1	1774.5	1796.0	1774.5	1758.5	1712.9	1629.8	1498.5
55°	1388.5	1393.9	1407.3	1426.0	1442.2	1463.6	1468.9	1468.9	1444.8	1388.5	1289.4
57.5°	1091.0	1082.9	1093.7	1109.8	1131.2	1152.7	1168.7	1187.5	1184.8	1147.3	1066.9
60°	820.3	823.0	831.0	847.1	863.2	881.9	903.4	919.4	927.5	908.7	857.8
62.5°	597.8	597.8	608.5	624.5	632.6	659.4	672.8	680.9	688.9	686.2	654.1
65°	418.2	423.5	428.9	437.0	445.0	461.0	469.1	485.2	490.5	493.2	469.1
67.5°	294.9	286.8	292.2	297.5	305.6	316.3	332.4	332.4	340.4	340.4	324.3
70°	187.7	187.7	190.3	198.3	203.7	206.4	211.8	217.1	225.2	222.5	222.5
72.5°	126.0	123.3	126.0	128.7	131.4	139.4	139.4	142.1	147.4	150.1	139.4
75°	64.3	67.0	72.3	69.7	77.7	72.3	75.0	83.1	80.4	75.0	75.0
77.5°	53.6	53.6	53.6	51.0	56.3	56.3	53.6	59.0	56.3	56.3	53.6
80°	37.5	40.2	37.5	34.8	37.5	34.8	34.8	34.8	34.8	34.8	32.1
82.5°	29.5	24.1	26.8	24.1	26.8	26.8	24.1	21.4	21.4	24.1	21.4
85°	21.4	16.1	18.8	18.8	16.1	16.1	16.1	16.1	16.1	13.4	13.4
87.5°	13.4	8.1	8.1	8.1	10.7	10.7	10.7	8.1	10.7	10.7	5.4
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: P249337

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9
2.5°	5002.0	4999.3	5004.7	5002.0	5002.0	4999.3	5002.0	4999.3	5004.7	4993.9	4996.6
5°	5002.0	4996.6	4999.3	5002.0	5004.7	4999.3	4999.3	4999.3	5004.7	4999.3	5002.0
7.5°	4991.2	4988.5	4996.6	5002.0	4999.3	4996.6	5002.0	4999.3	5004.7	5002.0	5007.3
10°	4969.8	4972.5	4977.9	4985.9	4988.5	4991.2	4996.6	4996.6	5004.7	4993.9	4999.3
12.5°	4937.6	4948.3	4961.8	4967.1	4977.9	4977.9	4983.2	4985.9	4991.2	4988.5	4996.6
15°	4897.4	4910.8	4926.9	4940.3	4953.7	4961.8	4969.8	4972.5	4980.5	4972.5	4975.2
17.5°	4849.2	4865.2	4889.4	4905.4	4926.9	4935.0	4945.6	4951.0	4959.1	4953.7	4956.4
20°	4782.1	4801.0	4827.7	4851.9	4865.2	4884.0	4897.4	4905.4	4910.8	4905.4	4908.1
22.5°	4688.3	4715.2	4750.0	4768.8	4795.6	4811.6	4814.3	4833.1	4846.5	4833.1	4838.5
25°	4578.4	4605.2	4632.1	4672.3	4696.4	4715.2	4733.9	4736.6	4750.0	4747.3	4744.6
27.5°	4396.1	4431.0	4476.6	4508.8	4540.9	4570.4	4591.9	4597.2	4610.6	4605.2	4607.9
30°	4146.8	4184.4	4227.3	4278.2	4323.8	4353.2	4380.1	4398.8	4412.2	4404.2	4401.5
32.5°	3793.0	3830.6	3876.1	3927.0	3980.7	4023.5	4055.7	4079.9	4095.9	4090.6	4077.2
35°	3388.3	3399.0	3428.5	3468.7	3514.2	3559.8	3589.3	3616.1	3634.8	3640.2	3640.2
37.5°	2972.8	2937.9	2916.5	2916.5	2943.3	2962.0	2988.8	3004.9	3034.4	3045.1	3053.2
40°	2570.7	2490.2	2415.2	2358.9	2321.4	2318.7	2318.7	2326.7	2353.5	2388.4	2420.6
42.5°	2211.5	2082.8	1967.6	1863.0	1788.0	1745.1	1726.3	1729.0	1750.5	1782.6	1836.2
45°	1924.7	1763.8	1619.1	1493.1	1391.2	1324.2	1292.0	1289.4	1305.4	1342.9	1402.0
47.5°	1702.2	1530.6	1367.1	1222.3	1112.5	1040.1	1002.5	991.8	1002.5	1037.4	1107.1
50°	1517.2	1340.3	1171.4	1021.3	903.4	828.3	793.4	780.1	793.4	823.0	892.6
52.5°	1345.6	1163.4	1005.2	860.5	734.5	670.1	632.6	624.5	632.6	667.4	723.8
55°	1147.3	991.8	836.3	691.6	581.7	517.4	487.9	479.9	487.9	520.1	579.0
57.5°	951.6	817.6	680.9	549.5	455.7	399.4	372.6	361.9	380.6	402.1	471.8
60°	769.3	662.1	546.8	431.6	353.9	302.9	281.4	278.8	284.1	311.0	359.2
62.5°	603.2	514.7	423.5	329.7	265.4	243.9	217.1	214.5	219.8	235.9	273.4
65°	434.3	378.0	308.3	241.2	190.3	160.8	150.1	152.8	158.1	168.9	203.7
67.5°	302.9	262.7	214.5	168.9	131.4	117.9	107.2	104.5	107.2	126.0	144.8
70°	203.7	179.6	144.8	128.7	91.2	72.3	75.0	67.0	77.7	77.7	93.8
72.5°	134.0	117.9	96.5	75.0	64.3	51.0	51.0	48.3	53.6	56.3	69.7
75°	69.7	53.6	53.6	37.5	26.8	13.4	24.1	21.4	18.8	21.4	26.8
77.5°	48.3	40.2	37.5	29.5	26.8	21.4	21.4	21.4	21.4	24.1	26.8
80°	29.5	29.5	21.4	18.8	16.1	13.4	16.1	16.1	16.1	16.1	18.8
82.5°	18.8	16.1	16.1	13.4	13.4	10.7	10.7	10.7	10.7	10.7	16.1
85°	16.1	10.7	10.7	8.1	10.7	18.8	8.1	10.7	10.7	10.7	8.1
87.5°	5.4	8.1	8.1	8.1	5.4	2.7	5.4	8.1	8.1	13.4	10.7
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: P249337

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9	4993.9
2.5°	5002.0	5004.7	5004.7	5002.0	5002.0	4996.6	5007.3	4999.3	5002.0	5012.7	5004.7
5°	5007.3	5010.0	5010.0	5007.3	5007.3	5007.3	5010.0	5010.0	5007.3	5004.7	5010.0
7.5°	5018.1	5015.4	5015.4	5010.0	5010.0	5004.7	5010.0	5002.0	5007.3	5002.0	5010.0
10°	5004.7	5007.3	5004.7	5002.0	5002.0	4999.3	4999.3	4991.2	4993.9	4985.9	4991.2
12.5°	4996.6	4993.9	4993.9	4988.5	4983.2	4977.9	4975.2	4967.1	4967.1	4948.3	4956.4
15°	4975.2	4977.9	4969.8	4959.1	4953.7	4940.3	4935.0	4924.2	4913.5	4900.1	4902.8
17.5°	4956.4	4948.3	4937.6	4926.9	4905.4	4894.7	4884.0	4867.9	4862.5	4846.5	4841.2
20°	4900.1	4894.7	4881.4	4862.5	4849.2	4825.0	4814.3	4798.3	4784.8	4768.8	4760.7
22.5°	4827.7	4822.3	4806.3	4787.5	4766.1	4755.4	4744.6	4715.2	4701.7	4685.6	4683.0
25°	4736.6	4728.5	4712.5	4691.0	4680.3	4650.8	4640.1	4618.6	4613.3	4597.2	4594.5
27.5°	4597.2	4586.5	4567.7	4540.9	4522.1	4503.4	4492.7	4476.6	4471.2	4455.1	4452.5
30°	4388.1	4374.7	4337.2	4326.5	4294.3	4275.5	4275.5	4254.1	4256.8	4246.1	4246.1
32.5°	4058.4	4037.0	4007.5	3986.0	3964.6	3953.9	3953.9	3945.8	3951.2	3951.2	3956.6
35°	3621.5	3592.0	3575.9	3562.5	3562.5	3573.2	3605.4	3613.5	3629.5	3642.9	3653.7
37.5°	3061.2	3058.6	3077.3	3093.4	3133.6	3179.2	3235.5	3283.7	3329.3	3361.5	3393.6
40°	2455.4	2522.4	2576.0	2651.1	2712.7	2801.2	2903.1	2986.2	3063.9	3120.2	3179.2
42.5°	1916.6	2002.4	2115.0	2224.9	2334.8	2455.4	2589.5	2704.7	2806.6	2884.3	2946.0
45°	1493.1	1611.0	1747.8	1887.1	2029.2	2179.3	2318.7	2436.7	2543.9	2624.3	2686.0
47.5°	1203.6	1332.3	1487.7	1640.5	1801.4	1959.5	2115.0	2216.9	2305.3	2369.6	2426.0
50°	994.5	1131.2	1294.7	1468.9	1629.8	1788.0	1922.0	2021.1	2093.6	2149.8	2184.7
52.5°	831.0	975.7	1150.0	1324.2	1485.0	1629.8	1750.5	1825.5	1884.5	1924.7	1956.8
55°	686.2	825.6	989.2	1152.7	1310.8	1447.5	1546.7	1603.0	1648.5	1672.7	1691.4
57.5°	560.3	688.9	839.0	989.2	1125.8	1238.5	1316.2	1372.5	1393.9	1412.7	1410.0
60°	439.6	560.3	697.0	825.6	943.6	1034.7	1091.0	1123.2	1139.2	1147.3	1141.9
62.5°	345.8	455.7	560.3	672.8	758.6	836.3	890.0	890.0	898.0	900.7	908.7
65°	257.3	340.4	431.6	514.7	584.3	635.3	664.8	672.8	683.6	680.9	675.5
67.5°	190.3	252.0	319.0	380.6	428.9	461.0	482.5	501.3	498.6	493.2	490.5
70°	131.4	171.6	230.5	268.1	302.9	335.1	340.4	343.1	345.8	348.5	343.1
72.5°	91.2	120.6	152.8	185.0	206.4	219.8	233.2	235.9	235.9	235.9	233.2
75°	45.6	61.7	91.2	104.5	123.3	128.7	139.4	139.4	147.4	136.7	134.0
77.5°	40.2	48.3	64.3	75.0	83.1	91.2	93.8	101.9	99.2	93.8	96.5
80°	24.1	29.5	40.2	45.6	56.3	59.0	61.7	64.3	61.7	64.3	64.3
82.5°	18.8	21.4	26.8	26.8	34.8	34.8	37.5	37.5	40.2	40.2	40.2
85°	10.7	18.8	16.1	32.1	21.4	21.4	26.8	32.1	26.8	26.8	32.1
87.5°	10.7	10.7	8.1	10.7	10.7	10.7	13.4	16.1	16.1	18.8	16.1
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: P249337

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4993.9	4993.9	4993.9	4993.9
2.5°	5002.0	5007.3	4999.3	4996.6
5°	5010.0	5010.0	5004.7	5004.7
7.5°	5010.0	5010.0	5002.0	4996.6
10°	4988.5	4988.5	4980.5	4975.2
12.5°	4948.3	4948.3	4945.6	4937.6
15°	4897.4	4897.4	4886.7	4878.7
17.5°	4827.7	4833.1	4819.7	4819.7
20°	4752.7	4750.0	4739.3	4733.9
22.5°	4675.0	4669.6	4666.9	4650.8
25°	4591.9	4586.5	4578.4	4570.4
27.5°	4449.8	4447.1	4439.0	4428.3
30°	4232.6	4229.9	4219.2	4219.2
32.5°	3951.2	3948.5	3937.8	3940.5
35°	3659.0	3669.7	3664.4	3653.7
37.5°	3415.0	3423.1	3428.5	3423.1
40°	3211.3	3235.5	3238.2	3243.5
42.5°	2994.2	3026.4	3037.1	3042.4
45°	2734.2	2763.7	2787.8	2782.4
47.5°	2468.8	2490.2	2511.7	2495.6
50°	2214.2	2227.6	2235.6	2235.6
52.5°	1972.9	1972.9	1970.2	1972.9
55°	1696.8	1696.8	1686.1	1691.4
57.5°	1407.3	1412.7	1404.6	1391.2
60°	1139.2	1125.8	1120.5	1112.5
62.5°	887.3	887.3	868.5	892.6
65°	664.8	656.7	648.7	646.0
67.5°	482.5	479.9	471.8	469.1
70°	340.4	329.7	327.0	321.7
72.5°	227.9	227.9	222.5	222.5
75°	139.4	126.0	123.3	126.0
77.5°	96.5	93.8	93.8	91.2
80°	64.3	61.7	67.0	59.0
82.5°	40.2	42.9	40.2	42.9
85°	26.8	32.1	29.5	29.5
87.5°	16.1	16.1	16.1	16.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)