

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: P249220

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBDW0WMH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249220
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 EC8B90840 8LBDW0WMH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH WARM HAZE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9448.0 lumens
Efficiency: N/A
Efficacy: 109.7 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

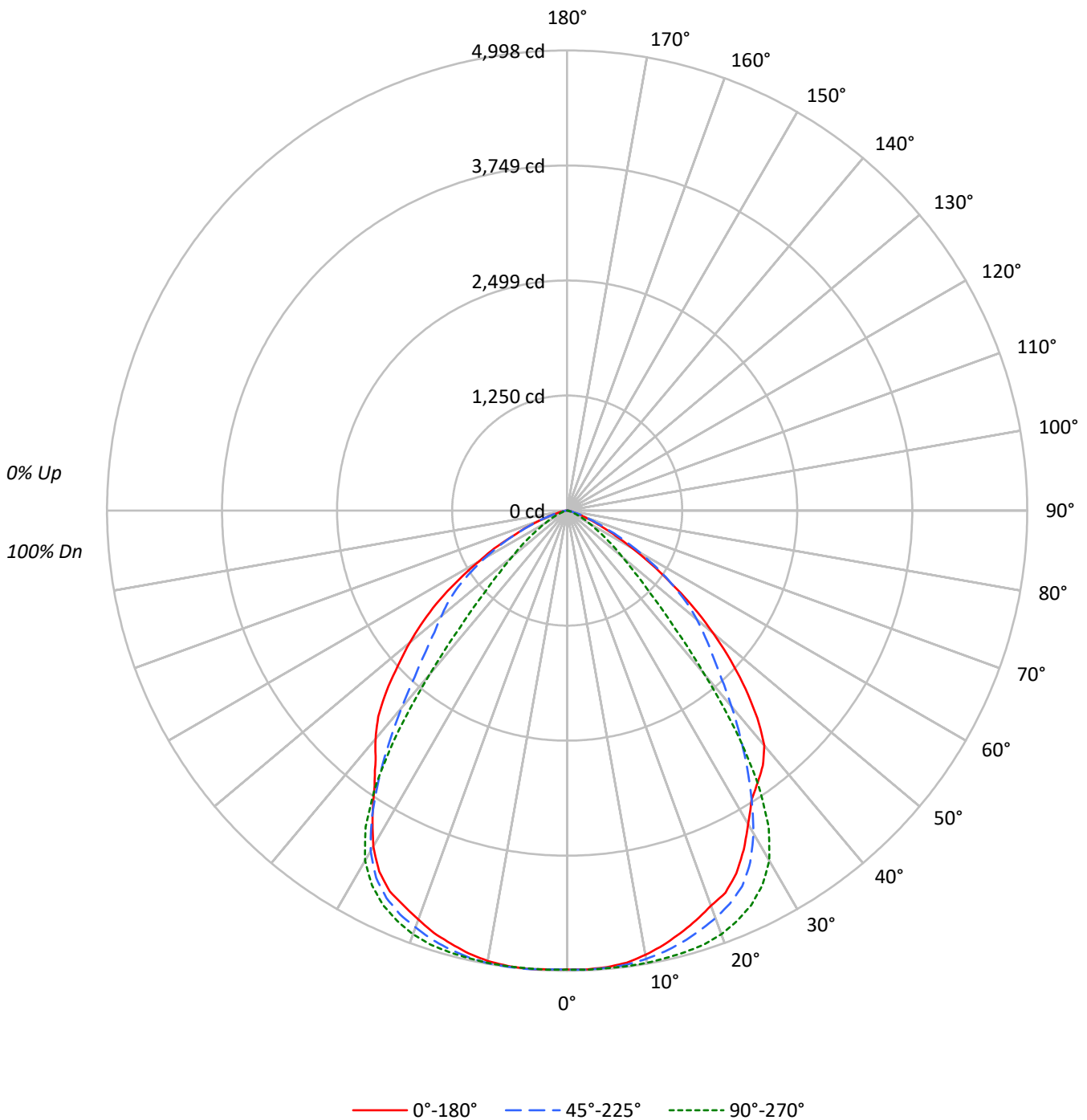
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	153719	153719	153719
5°	154055	154470	154637
10°	153407	156172	155502
15°	151707	158455	155467
20°	149887	160683	155066
25°	147940	160869	155225
30°	139959	156345	149965
35°	135783	135880	137292
40°	134098	93490	130330
45°	119489	56125	121120
50°	99356	37356	107056
55°	74513	25752	90771
60°	50498	17163	68487
65°	30456	11127	47048
70°	16887	6032	28950
75°	7649	2550	14988
80°	6659	2841	10459
85°	7571	3786	10437



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.7	5.0
10°-20°	1381.6	14.6
20°-30°	2097.0	22.2
30°-40°	2202.5	23.3
40°-50°	1651.3	17.5
50°-60°	1059.5	11.2
60°-70°	453.2	4.8
70°-80°	107.1	1.1
80°-90°	19.9	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°	3954.4	41.9
0°-40°	6156.9	65.2
0°-60°	8867.8	93.9
0°-90°	9448.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9448.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4985	4985	4985	4985	4985	
5°	4977	4985	4990	4998	4996	473
15°	4752	4851	4964	4932	4870	1340
25°	4348	4501	4728	4642	4562	1986
35°	3607	3406	3610	3567	3647	2264
45°	2740	2240	1287	2175	2777	2098
55°	1386	1386	479	1445	1688	1257
65°	417	492	152	634	645	446
75°	64	75	21	128	126	94
85°	21	13	11	21	30	23
90°	0	0	0	0	0	



TEST NUMBER: P249220

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0
2.5°	4987.6	4993.0	4990.3	4990.3	4987.6	4990.3	4990.3	4995.7	4995.7	4990.3	4987.6
5°	4976.9	4982.3	4982.3	4976.9	4976.9	4990.3	4982.3	4987.6	4987.6	4985.0	4985.0
7.5°	4952.9	4952.9	4963.5	4955.6	4955.6	4963.5	4960.9	4966.2	4971.6	4974.3	4974.3
10°	4899.3	4904.7	4907.4	4907.4	4910.1	4918.0	4923.4	4934.1	4939.4	4944.8	4947.5
12.5°	4832.5	4840.5	4843.1	4840.5	4848.5	4859.2	4872.6	4886.0	4894.0	4904.7	4912.7
15°	4752.1	4752.1	4757.5	4765.6	4770.9	4787.0	4800.3	4816.4	4837.8	4851.2	4864.5
17.5°	4663.9	4669.2	4677.2	4677.2	4688.0	4714.7	4722.7	4746.8	4770.9	4784.3	4811.1
20°	4567.6	4572.9	4580.9	4586.3	4599.6	4621.1	4637.1	4658.5	4685.3	4709.4	4736.1
22.5°	4492.6	4481.9	4487.2	4492.6	4506.0	4524.7	4543.5	4570.2	4597.0	4621.1	4647.8
25°	4348.1	4350.8	4358.8	4364.1	4380.3	4396.3	4417.7	4449.8	4473.9	4500.7	4530.1
27.5°	4152.8	4155.5	4168.8	4168.8	4182.2	4209.0	4222.3	4249.1	4281.3	4308.0	4342.8
30°	3930.7	3936.0	3936.0	3946.8	3954.8	3968.2	3981.5	4008.3	4024.3	4048.4	4096.6
32.5°	3727.4	3732.7	3730.0	3727.4	3719.3	3716.6	3713.9	3719.3	3724.7	3732.7	3751.4
35°	3607.0	3593.5	3582.9	3564.1	3542.7	3516.0	3491.9	3459.8	3430.3	3406.2	3379.5
37.5°	3491.9	3489.2	3473.1	3446.4	3403.5	3355.4	3299.2	3229.7	3160.1	3085.2	3012.9
40°	3331.3	3323.3	3309.9	3272.5	3224.3	3165.4	3090.5	3004.9	2892.5	2777.4	2659.7
42.5°	3058.4	3061.1	3045.0	3015.6	2970.1	2913.9	2836.3	2742.7	2622.3	2485.8	2333.3
45°	2740.0	2740.0	2734.6	2710.5	2678.4	2632.9	2574.1	2496.5	2378.8	2239.6	2076.4
47.5°	2408.2	2410.9	2402.8	2397.5	2384.1	2354.7	2311.9	2253.0	2170.1	2036.2	1873.0
50°	2071.1	2071.1	2084.4	2081.7	2081.7	2071.1	2052.3	2017.5	1945.3	1838.2	1685.8
52.5°	1733.9	1739.3	1747.3	1758.0	1771.3	1792.7	1771.3	1755.3	1709.8	1626.8	1495.8
55°	1386.0	1391.4	1404.8	1423.5	1439.6	1461.0	1466.3	1466.3	1442.2	1386.0	1287.0
57.5°	1089.1	1081.0	1091.7	1107.8	1129.2	1150.6	1166.6	1185.4	1182.7	1145.2	1065.0
60°	818.8	821.5	829.5	845.6	861.6	880.3	901.7	917.8	925.8	907.1	856.2
62.5°	596.7	596.7	607.4	623.4	631.5	658.3	671.6	679.7	687.7	685.0	652.9
65°	417.4	422.8	428.1	436.2	444.2	460.2	468.3	484.3	489.7	492.3	468.3
67.5°	294.4	286.3	291.7	297.0	305.0	315.8	331.8	331.8	339.8	339.8	323.8
70°	187.3	187.3	190.0	198.0	203.4	206.0	211.4	216.7	224.8	222.1	222.1
72.5°	125.8	123.1	125.8	128.5	131.1	139.1	139.1	141.8	147.2	149.9	139.1
75°	64.2	66.9	72.2	69.6	77.6	72.2	74.9	83.0	80.3	74.9	74.9
77.5°	53.5	53.5	53.5	50.9	56.2	56.2	53.5	58.9	56.2	56.2	53.5
80°	37.5	40.1	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	16.0	18.7	18.7	16.0	16.0	16.0	16.0	16.0	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: P249220

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0WMH

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0
2.5°	4993.0	4990.3	4995.7	4993.0	4993.0	4990.3	4993.0	4990.3	4995.7	4985.0	4987.6
5°	4993.0	4987.6	4990.3	4993.0	4995.7	4990.3	4990.3	4990.3	4995.7	4990.3	4993.0
7.5°	4982.3	4979.6	4987.6	4993.0	4990.3	4987.6	4993.0	4990.3	4995.7	4993.0	4998.3
10°	4960.9	4963.5	4968.9	4976.9	4979.6	4982.3	4987.6	4987.6	4995.7	4985.0	4990.3
12.5°	4928.8	4939.4	4952.9	4958.2	4968.9	4968.9	4974.3	4976.9	4982.3	4979.6	4987.6
15°	4888.6	4902.0	4918.0	4931.5	4944.8	4952.9	4960.9	4963.5	4971.6	4963.5	4966.2
17.5°	4840.5	4856.5	4880.6	4896.6	4918.0	4926.1	4936.8	4942.1	4950.2	4944.8	4947.5
20°	4773.5	4792.3	4819.0	4843.1	4856.5	4875.2	4888.6	4896.6	4902.0	4896.6	4899.3
22.5°	4679.9	4706.7	4741.5	4760.2	4787.0	4803.0	4805.7	4824.4	4837.8	4824.4	4829.8
25°	4570.2	4597.0	4623.7	4663.9	4688.0	4706.7	4725.4	4728.1	4741.5	4738.8	4736.1
27.5°	4388.2	4423.1	4468.5	4500.7	4532.7	4562.2	4583.6	4588.9	4602.3	4597.0	4599.6
30°	4139.4	4176.9	4219.7	4270.5	4316.0	4345.4	4372.2	4390.9	4404.3	4396.3	4393.6
32.5°	3786.2	3823.7	3869.2	3920.0	3973.5	4016.3	4048.4	4072.5	4088.6	4083.2	4069.9
35°	3382.2	3392.9	3422.3	3462.5	3507.9	3553.4	3582.9	3609.6	3628.3	3633.7	3633.7
37.5°	2967.4	2932.7	2911.3	2911.3	2938.0	2956.7	2983.5	2999.5	3029.0	3039.7	3047.7
40°	2566.0	2485.8	2410.9	2354.7	2317.2	2314.6	2314.6	2322.5	2349.3	2384.1	2416.2
42.5°	2207.5	2079.1	1964.0	1859.7	1784.8	1741.9	1723.2	1725.9	1747.3	1779.4	1832.9
45°	1921.2	1760.7	1616.2	1490.4	1388.7	1321.8	1289.7	1287.0	1303.1	1340.5	1399.5
47.5°	1699.1	1527.8	1364.6	1220.1	1110.5	1038.2	1000.7	990.1	1000.7	1035.5	1105.1
50°	1514.5	1337.9	1169.3	1019.5	901.7	826.8	792.0	778.7	792.0	821.5	891.0
52.5°	1343.2	1161.3	1003.4	858.9	733.2	668.9	631.5	623.4	631.5	666.2	722.5
55°	1145.2	990.1	834.8	690.3	580.7	516.4	487.0	479.0	487.0	519.1	578.0
57.5°	949.9	816.1	679.7	548.5	454.9	398.7	371.9	361.2	379.9	401.3	470.9
60°	767.9	660.9	545.8	430.8	353.2	302.3	280.9	278.3	283.6	310.4	358.5
62.5°	602.1	513.8	422.8	329.1	264.9	243.5	216.7	214.1	219.4	235.4	273.0
65°	433.5	377.3	307.7	240.8	190.0	160.5	149.9	152.5	157.9	168.6	203.4
67.5°	302.3	262.2	214.1	168.6	131.1	117.7	107.0	104.4	107.0	125.8	144.5
70°	203.4	179.3	144.5	128.5	91.0	72.2	74.9	66.9	77.6	77.6	93.6
72.5°	133.8	117.7	96.3	74.9	64.2	50.9	50.9	48.2	53.5	56.2	69.6
75°	69.6	53.5	53.5	37.5	26.8	13.4	24.1	21.4	18.7	21.4	26.8
77.5°	48.2	40.1	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	18.7	16.0	13.4	16.0	16.0	16.0	16.0	18.7
82.5°	18.7	16.0	16.0	13.4	13.4	10.7	10.7	10.7	10.7	10.7	16.0
85°	16.0	10.7	10.7	8.1	10.7	18.7	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: P249220

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0WMH

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0	4985.0
2.5°	4993.0	4995.7	4995.7	4993.0	4993.0	4987.6	4998.3	4990.3	4993.0	5003.7	4995.7
5°	4998.3	5001.0	5001.0	4998.3	4998.3	4998.3	5001.0	5001.0	4998.3	4995.7	5001.0
7.5°	5009.0	5006.4	5006.4	5001.0	5001.0	4995.7	5001.0	4993.0	4998.3	4993.0	5001.0
10°	4995.7	4998.3	4995.7	4993.0	4993.0	4990.3	4990.3	4982.3	4985.0	4976.9	4982.3
12.5°	4987.6	4985.0	4985.0	4979.6	4974.3	4968.9	4966.2	4958.2	4958.2	4939.4	4947.5
15°	4966.2	4968.9	4960.9	4950.2	4944.8	4931.5	4926.1	4915.4	4904.7	4891.3	4894.0
17.5°	4947.5	4939.4	4928.8	4918.0	4896.6	4886.0	4875.2	4859.2	4853.8	4837.8	4832.5
20°	4891.3	4886.0	4872.6	4853.8	4840.5	4816.4	4805.7	4789.6	4776.2	4760.2	4752.1
22.5°	4819.0	4813.7	4797.6	4778.9	4757.5	4746.8	4736.1	4706.7	4693.3	4677.2	4674.5
25°	4728.1	4720.1	4704.0	4682.6	4671.9	4642.5	4631.7	4610.3	4605.0	4588.9	4586.3
27.5°	4588.9	4578.2	4559.5	4532.7	4514.0	4495.3	4484.6	4468.5	4463.2	4447.1	4444.5
30°	4380.3	4366.8	4329.4	4318.7	4286.6	4267.8	4267.8	4246.4	4249.1	4238.4	4238.4
32.5°	4051.1	4029.7	4000.3	3978.8	3957.4	3946.8	3946.8	3938.7	3944.1	3944.1	3949.4
35°	3615.0	3585.6	3569.5	3556.1	3556.1	3566.8	3598.9	3607.0	3623.0	3636.4	3647.1
37.5°	3055.7	3053.1	3071.8	3087.8	3128.0	3173.5	3229.7	3277.8	3323.3	3355.4	3387.5
40°	2451.0	2517.9	2571.4	2646.4	2707.8	2796.2	2897.8	2980.8	3058.4	3114.6	3173.5
42.5°	1913.2	1998.8	2111.2	2220.9	2330.6	2451.0	2584.8	2699.9	2801.5	2879.1	2940.7
45°	1490.4	1608.1	1744.6	1883.8	2025.6	2175.4	2314.6	2432.3	2539.3	2619.6	2681.1
47.5°	1201.4	1329.9	1485.0	1637.6	1798.1	1956.0	2111.2	2212.9	2301.1	2365.4	2421.6
50°	992.7	1129.2	1292.4	1466.3	1626.8	1784.8	1918.5	2017.5	2089.8	2146.0	2180.7
52.5°	829.5	974.0	1147.9	1321.8	1482.3	1626.8	1747.3	1822.2	1881.1	1921.2	1953.3
55°	685.0	824.2	987.4	1150.6	1308.5	1444.9	1543.9	1600.1	1645.6	1669.7	1688.4
57.5°	559.3	687.7	837.5	987.4	1123.8	1236.2	1313.8	1370.0	1391.4	1410.1	1407.4
60°	438.9	559.3	695.7	824.2	941.9	1032.8	1089.1	1121.1	1137.2	1145.2	1139.9
62.5°	345.2	454.9	559.3	671.6	757.2	834.8	888.4	888.4	896.4	899.1	907.1
65°	256.8	339.8	430.8	513.8	583.3	634.2	663.6	671.6	682.3	679.7	674.3
67.5°	190.0	251.5	318.4	379.9	428.1	460.2	481.6	500.4	497.7	492.3	489.7
70°	131.1	171.3	230.1	267.6	302.3	334.5	339.8	342.5	345.2	347.9	342.5
72.5°	91.0	120.4	152.5	184.6	206.0	219.4	232.8	235.4	235.4	235.4	232.8
75°	45.5	61.5	91.0	104.4	123.1	128.5	139.1	139.1	147.2	136.4	133.8
77.5°	40.1	48.2	64.2	74.9	83.0	91.0	93.6	101.7	99.0	93.6	96.3
80°	24.1	29.5	40.1	45.5	56.2	58.9	61.5	64.2	61.5	64.2	64.2
82.5°	18.7	21.4	26.8	26.8	34.8	34.8	37.5	37.5	40.1	40.1	40.1
85°	10.7	18.7	16.0	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	16.0	16.0	18.7	16.0
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: P249220

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0WMH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4985.0	4985.0	4985.0	4985.0
2.5°	4993.0	4998.3	4990.3	4987.6
5°	5001.0	5001.0	4995.7	4995.7
7.5°	5001.0	5001.0	4993.0	4987.6
10°	4979.6	4979.6	4971.6	4966.2
12.5°	4939.4	4939.4	4936.8	4928.8
15°	4888.6	4888.6	4877.9	4869.9
17.5°	4819.0	4824.4	4811.1	4811.1
20°	4744.1	4741.5	4730.8	4725.4
22.5°	4666.6	4661.2	4658.5	4642.5
25°	4583.6	4578.2	4570.2	4562.2
27.5°	4441.8	4439.1	4431.1	4420.4
30°	4225.0	4222.3	4211.7	4211.7
32.5°	3944.1	3941.4	3930.7	3933.4
35°	3652.4	3663.1	3657.8	3647.1
37.5°	3408.9	3417.0	3422.3	3417.0
40°	3205.6	3229.7	3232.3	3237.7
42.5°	2988.8	3020.9	3031.7	3037.0
45°	2729.3	2758.7	2782.8	2777.4
47.5°	2464.4	2485.8	2507.2	2491.1
50°	2210.2	2223.6	2231.6	2231.6
52.5°	1969.4	1969.4	1966.7	1969.4
55°	1693.8	1693.8	1683.1	1688.4
57.5°	1404.8	1410.1	1402.1	1388.7
60°	1137.2	1123.8	1118.5	1110.5
62.5°	885.7	885.7	867.0	891.0
65°	663.6	655.6	647.5	644.8
67.5°	481.6	479.0	470.9	468.3
70°	339.8	329.1	326.4	321.1
72.5°	227.4	227.4	222.1	222.1
75°	139.1	125.8	123.1	125.8
77.5°	96.3	93.6	93.6	91.0
80°	64.2	61.5	66.9	58.9
82.5°	40.1	42.8	40.1	42.8
85°	26.8	32.1	29.5	29.5
87.5°	16.0	16.0	16.0	16.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)