

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: P249445

Luminaire Tested: **LSR8B90D010 EC8B90850 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249445
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 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 5000 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8569.0 lumens
Efficiency: N/A
Efficacy: 99.5 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

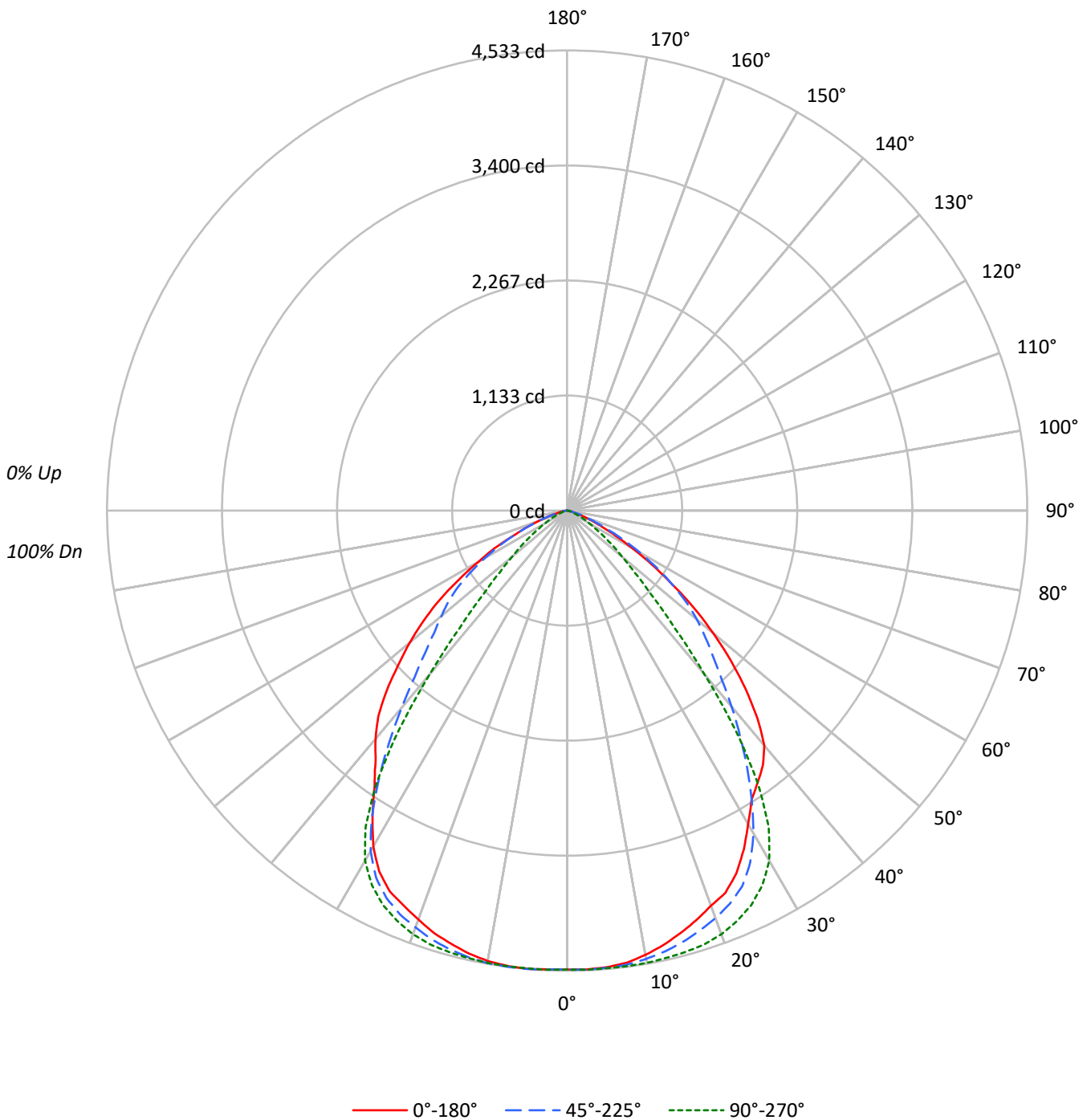
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	139417	139417	139417
5°	139724	140098	140250
10°	139135	141643	141036
15°	137593	143716	141002
20°	135941	145736	140640
25°	134177	145902	140785
30°	126938	141800	136011
35°	123149	123240	124519
40°	121623	84795	118206
45°	108373	50905	109851
50°	90112	33878	97097
55°	67584	23354	82325
60°	45798	15566	62117
65°	27625	10098	42670
70°	15318	5473	26254
75°	6946	2311	13594
80°	6038	2575	9483
85°	6864	3432	9447



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	431.5	5.0
10°-20°	1253.1	14.6
20°-30°	1901.9	22.2
30°-40°	1997.6	23.3
40°-50°	1497.7	17.5
50°-60°	960.9	11.2
60°-70°	411.1	4.8
70°-80°	97.1	1.1
80°-90°	18.1	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°	3586.5	41.9
0°-40°	5584.1	65.2
0°-60°	8042.7	93.9
0°-90°	8569.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8569.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4521	4521	4521	4521	4521	
5°	4514	4521	4526	4533	4531	429
15°	4310	4400	4502	4473	4417	1216
25°	3944	4082	4288	4211	4138	1802
35°	3271	3089	3274	3235	3308	2053
45°	2485	2031	1167	1973	2519	1903
55°	1257	1257	434	1310	1531	1140
65°	379	446	138	575	585	404
75°	58	68	19	116	114	85
85°	19	12	10	19	27	20
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°	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2
2.5°	4523.6	4528.5	4526.0	4526.0	4523.6	4526.0	4526.0	4530.9	4530.9	4526.0	4523.6
5°	4513.9	4518.7	4518.7	4513.9	4513.9	4526.0	4518.7	4523.6	4523.6	4521.2	4521.2
7.5°	4492.1	4492.1	4501.8	4494.5	4494.5	4501.8	4499.3	4504.2	4509.1	4511.5	4511.5
10°	4443.5	4448.4	4450.8	4450.8	4453.2	4460.5	4465.4	4475.1	4479.9	4484.8	4487.2
12.5°	4382.9	4390.1	4392.6	4390.1	4397.4	4407.1	4419.3	4431.4	4438.7	4448.4	4455.7
15°	4310.0	4310.0	4314.9	4322.2	4327.1	4341.6	4353.7	4368.3	4387.7	4399.9	4412.0
17.5°	4230.0	4234.8	4242.1	4242.1	4251.8	4276.1	4283.4	4305.2	4327.1	4339.2	4363.5
20°	4142.6	4147.4	4154.7	4159.6	4171.7	4191.1	4205.7	4225.1	4249.4	4271.2	4295.5
22.5°	4074.6	4065.0	4069.8	4074.6	4086.8	4103.8	4120.8	4145.0	4169.3	4191.1	4215.4
25°	3943.6	3946.0	3953.3	3958.1	3972.7	3987.3	4006.7	4035.8	4057.6	4081.9	4108.6
27.5°	3766.4	3768.9	3781.0	3781.0	3793.1	3817.4	3829.5	3853.8	3882.9	3907.2	3938.8
30°	3565.0	3569.8	3569.8	3579.6	3586.8	3599.0	3611.1	3635.4	3649.9	3671.8	3715.5
32.5°	3380.6	3385.4	3383.0	3380.6	3373.3	3370.9	3368.4	3373.3	3378.2	3385.4	3402.4
35°	3271.4	3259.2	3249.5	3232.6	3213.1	3188.9	3167.0	3137.9	3111.2	3089.3	3065.1
37.5°	3167.0	3164.6	3150.0	3125.7	3086.9	3043.3	2992.3	2929.2	2866.1	2798.1	2732.6
40°	3021.4	3014.1	3002.0	2968.0	2924.3	2870.9	2803.0	2725.3	2623.4	2519.0	2412.3
42.5°	2773.8	2776.3	2761.7	2735.0	2693.8	2642.8	2572.4	2487.5	2378.3	2254.5	2116.2
45°	2485.1	2485.1	2480.2	2458.4	2429.3	2388.0	2334.6	2264.2	2157.5	2031.2	1883.2
47.5°	2184.1	2186.6	2179.3	2174.5	2162.3	2135.6	2096.8	2043.4	1968.2	1846.8	1698.8
50°	1878.4	1878.4	1890.5	1888.1	1888.1	1878.4	1861.4	1829.8	1764.3	1667.2	1528.9
52.5°	1572.6	1577.4	1584.7	1594.4	1606.5	1626.0	1606.5	1592.0	1550.7	1475.5	1356.6
55°	1257.1	1262.0	1274.1	1291.1	1305.7	1325.1	1329.9	1329.9	1308.0	1257.1	1167.3
57.5°	987.7	980.4	990.2	1004.7	1024.1	1043.6	1058.1	1075.1	1072.6	1038.7	965.9
60°	742.6	745.0	752.3	766.9	781.4	798.4	817.8	832.4	839.7	822.7	776.6
62.5°	541.2	541.2	550.9	565.4	572.7	597.0	609.1	616.4	623.7	621.2	592.1
65°	378.6	383.4	388.3	395.6	402.8	417.4	424.7	439.2	444.1	446.5	424.7
67.5°	267.0	259.7	264.5	269.4	276.7	286.4	300.9	300.9	308.2	308.2	293.6
70°	169.9	169.9	172.3	179.6	184.4	186.9	191.7	196.6	203.9	201.4	201.4
72.5°	114.1	111.6	114.1	116.5	118.9	126.2	126.2	128.6	133.5	135.9	126.2
75°	58.3	60.7	65.5	63.1	70.4	65.5	67.9	75.2	72.8	67.9	67.9
77.5°	48.5	48.5	48.5	46.1	50.9	50.9	48.5	53.4	50.9	50.9	48.5
80°	34.0	36.4	34.0	31.5	34.0	31.5	31.5	31.5	31.5	31.5	29.1
82.5°	26.7	21.9	24.3	21.9	24.3	24.3	21.9	19.4	19.4	21.9	19.4
85°	19.4	14.5	17.0	17.0	14.5	14.5	14.5	14.5	14.5	12.1	12.1
87.5°	12.1	7.3	7.3	7.3	9.7	9.7	9.7	7.3	9.7	9.7	4.9
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2
2.5°	4528.5	4526.0	4530.9	4528.5	4528.5	4526.0	4528.5	4526.0	4530.9	4521.2	4523.6
5°	4528.5	4523.6	4526.0	4528.5	4530.9	4526.0	4526.0	4526.0	4530.9	4526.0	4528.5
7.5°	4518.7	4516.3	4523.6	4528.5	4526.0	4523.6	4528.5	4526.0	4530.9	4528.5	4533.3
10°	4499.3	4501.8	4506.6	4513.9	4516.3	4518.7	4523.6	4523.6	4530.9	4521.2	4526.0
12.5°	4470.2	4479.9	4492.1	4496.9	4506.6	4506.6	4511.5	4513.9	4518.7	4516.3	4523.6
15°	4433.8	4445.9	4460.5	4472.7	4484.8	4492.1	4499.3	4501.8	4509.1	4501.8	4504.2
17.5°	4390.1	4404.7	4426.5	4441.1	4460.5	4467.8	4477.5	4482.3	4489.6	4484.8	4487.2
20°	4329.4	4346.5	4370.7	4392.6	4404.7	4421.7	4433.8	4441.1	4445.9	4441.1	4443.5
22.5°	4244.5	4268.8	4300.3	4317.3	4341.6	4356.2	4358.6	4375.6	4387.7	4375.6	4380.4
25°	4145.0	4169.3	4193.6	4230.0	4251.8	4268.8	4285.8	4288.2	4300.3	4297.9	4295.5
27.5°	3980.0	4011.6	4052.8	4081.9	4111.0	4137.8	4157.2	4162.0	4174.2	4169.3	4171.7
30°	3754.3	3788.3	3827.1	3873.2	3914.5	3941.1	3965.4	3982.4	3994.5	3987.3	3984.8
32.5°	3434.0	3467.9	3509.2	3555.3	3603.9	3642.6	3671.8	3693.6	3708.2	3703.3	3691.2
35°	3067.5	3077.2	3103.9	3140.3	3181.5	3222.8	3249.5	3273.8	3290.8	3295.6	3295.6
37.5°	2691.4	2659.8	2640.4	2640.4	2664.6	2681.6	2705.9	2720.5	2747.2	2756.9	2764.2
40°	2327.3	2254.5	2186.6	2135.6	2101.7	2099.2	2099.2	2106.5	2130.8	2162.3	2191.4
42.5°	2002.1	1885.6	1781.3	1686.6	1618.7	1579.9	1562.9	1565.3	1584.7	1613.8	1662.4
45°	1742.5	1596.9	1465.8	1351.7	1259.5	1198.8	1169.7	1167.3	1181.9	1215.8	1269.3
47.5°	1541.0	1385.7	1237.7	1106.6	1007.2	941.6	907.6	898.0	907.6	939.2	1002.3
50°	1373.6	1213.4	1060.5	924.6	817.8	749.9	718.3	706.2	718.3	745.0	808.1
52.5°	1218.3	1053.2	910.1	779.0	664.9	606.7	572.7	565.4	572.7	604.3	655.3
55°	1038.7	898.0	757.2	626.1	526.6	468.4	441.7	434.4	441.7	470.8	524.2
57.5°	861.6	740.2	616.4	497.5	412.6	361.6	337.3	327.6	344.6	364.0	427.1
60°	696.5	599.4	495.1	390.7	320.4	274.2	254.8	252.4	257.2	281.5	325.2
62.5°	546.1	466.0	383.4	298.5	240.3	220.8	196.6	194.2	199.0	213.5	247.6
65°	393.2	342.2	279.1	218.4	172.3	145.6	135.9	138.4	143.2	152.9	184.4
67.5°	274.2	237.8	194.2	152.9	118.9	106.8	97.1	94.7	97.1	114.1	131.1
70°	184.4	162.6	131.1	116.5	82.5	65.5	67.9	60.7	70.4	70.4	84.9
72.5°	121.3	106.8	87.3	67.9	58.3	46.1	46.1	43.7	48.5	50.9	63.1
75°	63.1	48.5	48.5	34.0	24.3	12.1	21.9	19.4	17.0	19.4	24.3
77.5°	43.7	36.4	34.0	26.7	24.3	19.4	19.4	19.4	19.4	21.9	24.3
80°	26.7	26.7	19.4	17.0	14.5	12.1	14.5	14.5	14.5	14.5	17.0
82.5°	17.0	14.5	14.5	12.1	12.1	9.7	9.7	9.7	9.7	9.7	14.5
85°	14.5	9.7	9.7	7.3	9.7	17.0	7.3	9.7	9.7	9.7	7.3
87.5°	4.9	7.3	7.3	7.3	4.9	2.4	4.9	7.3	7.3	12.1	9.7
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°	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2
2.5°	4528.5	4530.9	4530.9	4528.5	4528.5	4523.6	4533.3	4526.0	4528.5	4538.2	4530.9
5°	4533.3	4535.7	4535.7	4533.3	4533.3	4533.3	4535.7	4535.7	4533.3	4530.9	4535.7
7.5°	4543.0	4540.6	4540.6	4535.7	4535.7	4530.9	4535.7	4528.5	4533.3	4528.5	4535.7
10°	4530.9	4533.3	4530.9	4528.5	4528.5	4526.0	4526.0	4518.7	4521.2	4513.9	4518.7
12.5°	4523.6	4521.2	4521.2	4516.3	4511.5	4506.6	4504.2	4496.9	4496.9	4479.9	4487.2
15°	4504.2	4506.6	4499.3	4489.6	4484.8	4472.7	4467.8	4458.1	4448.4	4436.3	4438.7
17.5°	4487.2	4479.9	4470.2	4460.5	4441.1	4431.4	4421.7	4407.1	4402.2	4387.7	4382.9
20°	4436.3	4431.4	4419.3	4402.2	4390.1	4368.3	4358.6	4344.0	4331.9	4317.3	4310.0
22.5°	4370.7	4365.8	4351.3	4334.3	4314.9	4305.2	4295.5	4268.8	4256.6	4242.1	4239.7
25°	4288.2	4280.9	4266.4	4247.0	4237.2	4210.6	4200.8	4181.4	4176.6	4162.0	4159.6
27.5°	4162.0	4152.3	4135.3	4111.0	4094.0	4077.1	4067.4	4052.8	4048.0	4033.4	4031.0
30°	3972.7	3960.6	3926.6	3916.9	3887.8	3870.8	3870.8	3851.4	3853.8	3844.1	3844.1
32.5°	3674.2	3654.8	3628.1	3608.7	3589.3	3579.6	3579.6	3572.3	3577.1	3577.1	3582.0
35°	3278.6	3252.0	3237.4	3225.3	3225.3	3234.9	3264.1	3271.4	3285.9	3298.1	3307.8
37.5°	2771.4	2769.0	2786.0	2800.6	2837.0	2878.2	2929.2	2972.9	3014.1	3043.3	3072.3
40°	2223.0	2283.7	2332.2	2400.2	2455.9	2536.0	2628.2	2703.5	2773.8	2824.8	2878.2
42.5°	1735.2	1812.8	1914.8	2014.2	2113.8	2223.0	2344.3	2448.7	2540.9	2611.3	2667.1
45°	1351.7	1458.5	1582.3	1708.5	1837.1	1973.0	2099.2	2206.0	2303.1	2375.9	2431.7
47.5°	1089.6	1206.1	1346.9	1485.2	1630.8	1774.0	1914.8	2007.0	2087.0	2145.3	2196.3
50°	900.3	1024.1	1172.2	1329.9	1475.5	1618.7	1740.0	1829.8	1895.4	1946.3	1977.8
52.5°	752.3	883.3	1041.1	1198.8	1344.4	1475.5	1584.7	1652.7	1706.1	1742.5	1771.6
55°	621.2	747.5	895.5	1043.6	1186.7	1310.5	1400.3	1451.3	1492.5	1514.3	1531.3
57.5°	507.2	623.7	759.6	895.5	1019.3	1121.2	1191.6	1242.5	1262.0	1278.9	1276.5
60°	398.0	507.2	631.0	747.5	854.2	936.7	987.7	1016.8	1031.4	1038.7	1033.8
62.5°	313.1	412.6	507.2	609.1	686.8	757.2	805.7	805.7	813.0	815.4	822.7
65°	233.0	308.2	390.7	466.0	529.0	575.2	601.9	609.1	618.9	616.4	611.6
67.5°	172.3	228.1	288.8	344.6	388.3	417.4	436.8	453.8	451.4	446.5	444.1
70°	118.9	155.3	208.7	242.7	274.2	303.4	308.2	310.6	313.1	315.5	310.6
72.5°	82.5	109.2	138.4	167.5	186.9	199.0	211.2	213.5	213.5	213.5	211.2
75°	41.3	55.8	82.5	94.7	111.6	116.5	126.2	126.2	133.5	123.7	121.3
77.5°	36.4	43.7	58.3	67.9	75.2	82.5	84.9	92.2	89.8	84.9	87.3
80°	21.9	26.7	36.4	41.3	50.9	53.4	55.8	58.3	55.8	58.3	58.3
82.5°	17.0	19.4	24.3	24.3	31.5	31.5	34.0	34.0	36.4	36.4	36.4
85°	9.7	17.0	14.5	29.1	19.4	19.4	24.3	29.1	24.3	24.3	29.1
87.5°	9.7	9.7	7.3	9.7	9.7	9.7	12.1	14.5	14.5	17.0	14.5
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: P249445

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4521.2	4521.2	4521.2	4521.2
2.5°	4528.5	4533.3	4526.0	4523.6
5°	4535.7	4535.7	4530.9	4530.9
7.5°	4535.7	4535.7	4528.5	4523.6
10°	4516.3	4516.3	4509.1	4504.2
12.5°	4479.9	4479.9	4477.5	4470.2
15°	4433.8	4433.8	4424.1	4416.8
17.5°	4370.7	4375.6	4363.5	4363.5
20°	4302.8	4300.3	4290.7	4285.8
22.5°	4232.4	4227.5	4225.1	4210.6
25°	4157.2	4152.3	4145.0	4137.8
27.5°	4028.6	4026.1	4018.8	4009.1
30°	3831.9	3829.5	3819.8	3819.8
32.5°	3577.1	3574.7	3565.0	3567.5
35°	3312.6	3322.3	3317.5	3307.8
37.5°	3091.8	3099.1	3103.9	3099.1
40°	2907.3	2929.2	2931.6	2936.5
42.5°	2710.8	2739.9	2749.6	2754.4
45°	2475.3	2502.1	2523.9	2519.0
47.5°	2235.1	2254.5	2273.9	2259.4
50°	2004.6	2016.7	2024.0	2024.0
52.5°	1786.2	1786.2	1783.7	1786.2
55°	1536.2	1536.2	1526.5	1531.3
57.5°	1274.1	1278.9	1271.6	1259.5
60°	1031.4	1019.3	1014.4	1007.2
62.5°	803.3	803.3	786.3	808.1
65°	601.9	594.6	587.3	584.8
67.5°	436.8	434.4	427.1	424.7
70°	308.2	298.5	296.1	291.2
72.5°	206.3	206.3	201.4	201.4
75°	126.2	114.1	111.6	114.1
77.5°	87.3	84.9	84.9	82.5
80°	58.3	55.8	60.7	53.4
82.5°	36.4	38.8	36.4	38.8
85°	24.3	29.1	26.7	26.7
87.5°	14.5	14.5	14.5	14.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)