

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: P249148

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249148
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 EC8B90935 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8152.0 lumens
Efficiency: N/A
Efficacy: 94.7 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

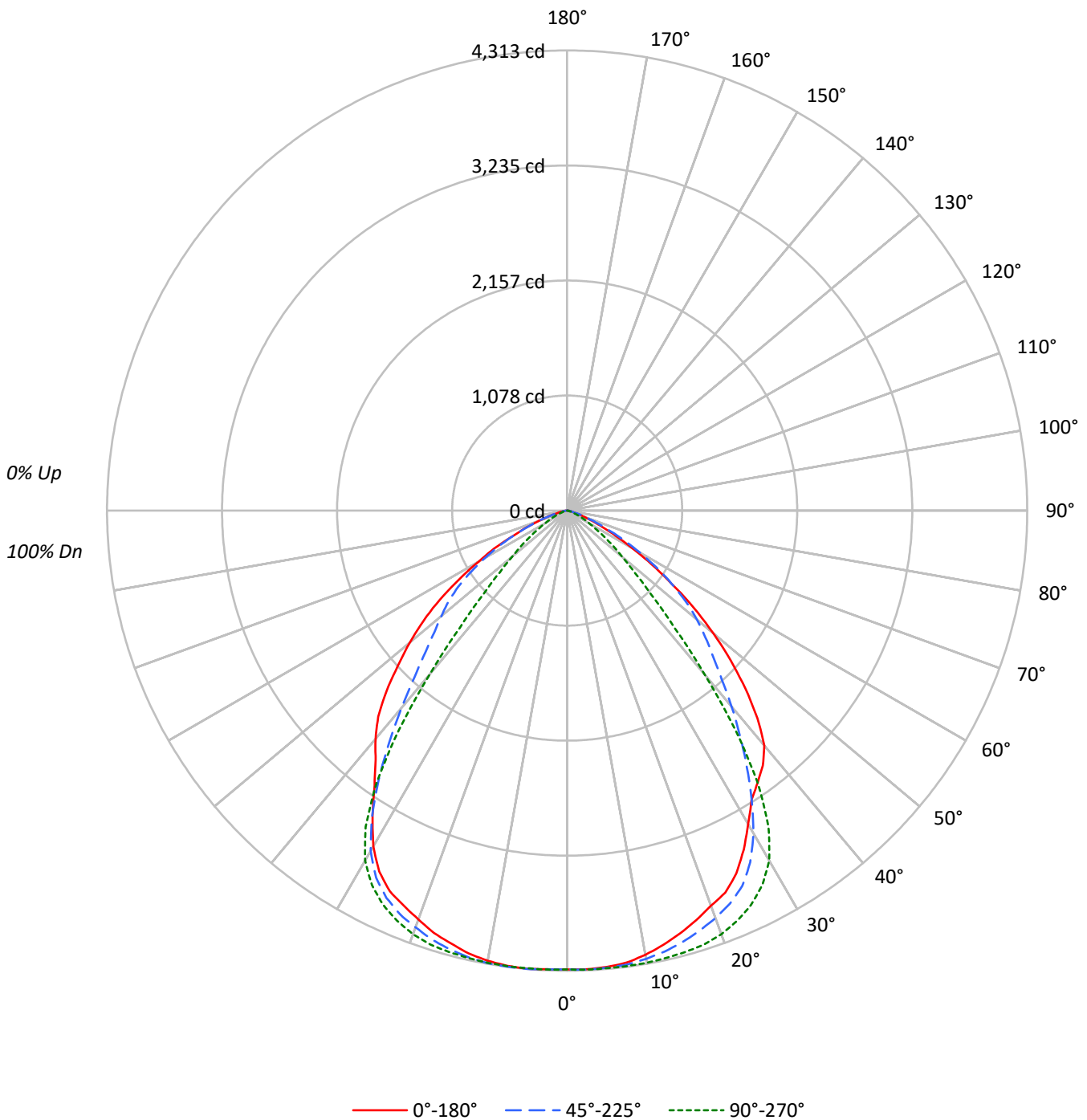
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	132633	132633	132633
5°	132923	133282	133425
10°	132365	134751	134172
15°	130898	136721	134142
20°	129325	138645	133795
25°	127648	138801	133933
30°	120760	134900	129391
35°	117156	117243	118459
40°	115706	80669	112453
45°	103096	48428	104509
50°	85727	32228	92372
55°	64293	22220	78320
60°	43572	14808	59089
65°	26282	9602	40598
70°	14570	5202	24974
75°	6600	2204	12927
80°	5736	2451	9021
85°	6545	3255	8987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	410.5	5.0
10°-20°	1192.1	14.6
20°-30°	1809.4	22.2
30°-40°	1900.4	23.3
40°-50°	1424.8	17.5
50°-60°	914.2	11.2
60°-70°	391.1	4.8
70°-80°	92.4	1.1
80°-90°	17.2	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°	3412.0	41.9
0°-40°	5312.4	65.2
0°-60°	7651.4	93.9
0°-90°	8152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8152.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4301	4301	4301	4301	4301	
5°	4294	4301	4306	4313	4310	408
15°	4100	4186	4283	4255	4202	1157
25°	3752	3883	4080	4006	3936	1714
35°	3112	2939	3114	3078	3147	1953
45°	2364	1932	1110	1877	2396	1811
55°	1196	1196	413	1247	1457	1085
65°	360	425	132	547	556	385
75°	55	65	18	111	108	81
85°	18	12	9	18	25	19
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°	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2
2.5°	4303.5	4308.1	4305.8	4305.8	4303.5	4305.8	4305.8	4310.4	4310.4	4305.8	4303.5
5°	4294.2	4298.8	4298.8	4294.2	4294.2	4305.8	4298.8	4303.5	4303.5	4301.2	4301.2
7.5°	4273.5	4273.5	4282.7	4275.8	4275.8	4282.7	4280.4	4285.0	4289.6	4291.9	4291.9
10°	4227.3	4231.9	4234.2	4234.2	4236.5	4243.4	4248.1	4257.3	4261.9	4266.5	4268.8
12.5°	4169.6	4176.5	4178.8	4176.5	4183.4	4192.6	4204.2	4215.7	4222.7	4231.9	4238.8
15°	4100.3	4100.3	4104.9	4111.9	4116.5	4130.3	4141.9	4155.7	4174.2	4185.7	4197.3
17.5°	4024.1	4028.8	4035.6	4035.6	4044.9	4068.0	4074.9	4095.7	4116.5	4128.0	4151.1
20°	3941.0	3945.6	3952.6	3957.2	3968.7	3987.2	4001.0	4019.5	4042.6	4063.4	4086.4
22.5°	3876.3	3867.1	3871.7	3876.3	3887.9	3904.1	3920.2	3943.3	3966.4	3987.2	4010.3
25°	3751.7	3754.0	3760.9	3765.5	3779.4	3793.2	3811.7	3839.4	3860.2	3883.3	3908.7
27.5°	3583.2	3585.5	3597.0	3597.0	3608.5	3631.6	3643.2	3666.3	3694.0	3717.0	3747.1
30°	3391.5	3396.1	3396.1	3405.4	3412.3	3423.9	3435.4	3458.5	3472.3	3493.1	3534.7
32.5°	3216.1	3220.7	3218.3	3216.1	3209.1	3206.8	3204.5	3209.1	3213.8	3220.7	3236.8
35°	3112.2	3100.6	3091.4	3075.2	3056.8	3033.7	3012.9	2985.2	2959.8	2939.0	2915.9
37.5°	3012.9	3010.6	2996.7	2973.6	2936.7	2895.2	2846.7	2786.6	2726.6	2662.0	2599.7
40°	2874.4	2867.4	2855.9	2823.6	2782.0	2731.2	2666.6	2592.7	2495.7	2396.5	2294.9
42.5°	2638.9	2641.2	2627.3	2601.9	2562.7	2514.2	2447.2	2366.5	2262.6	2144.8	2013.2
45°	2364.1	2364.1	2359.5	2338.7	2311.0	2271.8	2221.0	2154.1	2052.5	1932.4	1791.6
47.5°	2077.8	2080.2	2073.2	2068.6	2057.1	2031.7	1994.7	1944.0	1872.4	1756.9	1616.1
50°	1787.0	1787.0	1798.5	1796.2	1796.2	1787.0	1770.8	1740.8	1678.5	1586.1	1454.5
52.5°	1496.0	1500.7	1507.6	1516.8	1528.4	1546.8	1528.4	1514.5	1475.3	1403.7	1290.6
55°	1195.9	1200.5	1212.1	1228.2	1242.1	1260.6	1265.2	1265.2	1244.4	1195.9	1110.5
57.5°	939.7	932.7	942.0	955.8	974.3	992.8	1006.6	1022.8	1020.5	988.1	918.9
60°	706.5	708.8	715.7	729.6	743.4	759.6	778.0	791.9	798.8	782.7	738.8
62.5°	514.9	514.9	524.1	537.9	544.9	568.0	579.5	586.4	593.3	591.0	563.3
65°	360.2	364.8	369.4	376.3	383.2	397.1	404.0	417.9	422.5	424.8	404.0
67.5°	254.0	247.0	251.7	256.2	263.2	272.5	286.3	286.3	293.2	293.2	279.3
70°	161.6	161.6	163.9	170.8	175.5	177.8	182.4	187.0	193.9	191.6	191.6
72.5°	108.5	106.2	108.5	110.8	113.2	120.0	120.0	122.4	127.0	129.3	120.0
75°	55.4	57.7	62.3	60.0	66.9	62.3	64.6	71.6	69.3	64.6	64.6
77.5°	46.2	46.2	46.2	43.9	48.5	48.5	46.2	50.8	48.5	48.5	46.2
80°	32.3	34.6	32.3	30.0	32.3	30.0	30.0	30.0	30.0	30.0	27.7
82.5°	25.4	20.8	23.1	20.8	23.1	23.1	20.8	18.5	18.5	20.8	18.5
85°	18.5	13.8	16.2	16.2	13.8	13.8	13.8	13.8	13.8	11.5	11.5
87.5°	11.5	6.9	6.9	6.9	9.2	9.2	9.2	6.9	9.2	9.2	4.6
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°	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2
2.5°	4308.1	4305.8	4310.4	4308.1	4308.1	4305.8	4308.1	4305.8	4310.4	4301.2	4303.5
5°	4308.1	4303.5	4305.8	4308.1	4310.4	4305.8	4305.8	4305.8	4310.4	4305.8	4308.1
7.5°	4298.8	4296.5	4303.5	4308.1	4305.8	4303.5	4308.1	4305.8	4310.4	4308.1	4312.7
10°	4280.4	4282.7	4287.3	4294.2	4296.5	4298.8	4303.5	4303.5	4310.4	4301.2	4305.8
12.5°	4252.7	4261.9	4273.5	4278.1	4287.3	4287.3	4291.9	4294.2	4298.8	4296.5	4303.5
15°	4218.1	4229.6	4243.4	4255.0	4266.5	4273.5	4280.4	4282.7	4289.6	4282.7	4285.0
17.5°	4176.5	4190.3	4211.1	4225.0	4243.4	4250.4	4259.6	4264.2	4271.2	4266.5	4268.8
20°	4118.7	4135.0	4158.0	4178.8	4190.3	4206.5	4218.1	4225.0	4229.6	4225.0	4227.3
22.5°	4038.0	4061.1	4091.1	4107.2	4130.3	4144.2	4146.5	4162.6	4174.2	4162.6	4167.3
25°	3943.3	3966.4	3989.5	4024.1	4044.9	4061.1	4077.2	4079.5	4091.1	4088.8	4086.4
27.5°	3786.3	3816.3	3855.6	3883.3	3911.0	3936.4	3954.9	3959.4	3971.0	3966.4	3968.7
30°	3571.6	3603.9	3640.9	3684.7	3724.0	3749.4	3772.5	3788.6	3800.1	3793.2	3790.9
32.5°	3266.9	3299.2	3338.4	3382.3	3428.5	3465.4	3493.1	3513.9	3527.7	3523.1	3511.6
35°	2918.3	2927.5	2952.9	2987.5	3026.7	3066.0	3091.4	3114.5	3130.6	3135.2	3135.2
37.5°	2560.4	2530.4	2511.9	2511.9	2535.0	2551.1	2574.2	2588.1	2613.5	2622.7	2629.6
40°	2214.0	2144.8	2080.2	2031.7	1999.4	1997.1	1997.1	2004.0	2027.1	2057.1	2084.8
42.5°	1904.7	1793.9	1694.6	1604.6	1539.9	1503.0	1486.8	1489.2	1507.6	1535.3	1581.5
45°	1657.7	1519.2	1394.5	1286.0	1198.2	1140.5	1112.8	1110.5	1124.3	1156.7	1207.5
47.5°	1466.0	1318.3	1177.4	1052.8	958.1	895.8	863.5	854.3	863.5	893.5	953.5
50°	1306.7	1154.4	1008.9	879.6	778.0	713.4	683.4	671.8	683.4	708.8	768.8
52.5°	1159.0	1002.0	865.8	741.1	632.6	577.2	544.9	537.9	544.9	574.9	623.4
55°	988.1	854.3	720.3	595.6	501.0	445.6	420.2	413.3	420.2	447.9	498.7
57.5°	819.6	704.2	586.4	473.3	392.5	344.0	320.9	311.7	327.8	346.3	406.3
60°	662.6	570.3	471.0	371.7	304.8	260.9	242.4	240.1	244.7	267.8	309.3
62.5°	519.5	443.3	364.8	284.0	228.6	210.1	187.0	184.7	189.3	203.1	235.5
65°	374.0	325.6	265.5	207.8	163.9	138.5	129.3	131.6	136.2	145.5	175.5
67.5°	260.9	226.2	184.7	145.5	113.2	101.6	92.4	90.0	92.4	108.5	124.7
70°	175.5	154.7	124.7	110.8	78.5	62.3	64.6	57.7	66.9	66.9	80.8
72.5°	115.4	101.6	83.1	64.6	55.4	43.9	43.9	41.6	46.2	48.5	60.0
75°	60.0	46.2	46.2	32.3	23.1	11.5	20.8	18.5	16.2	18.5	23.1
77.5°	41.6	34.6	32.3	25.4	23.1	18.5	18.5	18.5	18.5	20.8	23.1
80°	25.4	25.4	18.5	16.2	13.8	11.5	13.8	13.8	13.8	13.8	16.2
82.5°	16.2	13.8	13.8	11.5	11.5	9.2	9.2	9.2	9.2	9.2	13.8
85°	13.8	9.2	9.2	6.9	9.2	16.2	6.9	9.2	9.2	9.2	6.9
87.5°	4.6	6.9	6.9	6.9	4.6	2.3	4.6	6.9	6.9	11.5	9.2
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°	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2	4301.2
2.5°	4308.1	4310.4	4310.4	4308.1	4308.1	4303.5	4312.7	4305.8	4308.1	4317.3	4310.4
5°	4312.7	4315.0	4315.0	4312.7	4312.7	4312.7	4315.0	4315.0	4312.7	4310.4	4315.0
7.5°	4321.9	4319.6	4319.6	4315.0	4315.0	4310.4	4315.0	4308.1	4312.7	4308.1	4315.0
10°	4310.4	4312.7	4310.4	4308.1	4308.1	4305.8	4305.8	4298.8	4301.2	4294.2	4298.8
12.5°	4303.5	4301.2	4301.2	4296.5	4291.9	4287.3	4285.0	4278.1	4278.1	4261.9	4268.8
15°	4285.0	4287.3	4280.4	4271.2	4266.5	4255.0	4250.4	4241.1	4231.9	4220.4	4222.7
17.5°	4268.8	4261.9	4252.7	4243.4	4225.0	4215.7	4206.5	4192.6	4188.0	4174.2	4169.6
20°	4220.4	4215.7	4204.2	4188.0	4176.5	4155.7	4146.5	4132.6	4121.1	4107.2	4100.3
22.5°	4158.0	4153.4	4139.5	4123.4	4104.9	4095.7	4086.4	4061.1	4049.5	4035.6	4033.3
25°	4079.5	4072.6	4058.8	4040.3	4031.0	4005.7	3996.4	3977.9	3973.3	3959.4	3957.2
27.5°	3959.4	3950.2	3934.1	3911.0	3894.8	3878.7	3869.5	3855.6	3851.0	3837.1	3834.8
30°	3779.4	3767.8	3735.5	3726.3	3698.6	3682.4	3682.4	3663.9	3666.3	3657.0	3657.0
32.5°	3495.4	3477.0	3451.5	3433.1	3414.6	3405.4	3405.4	3398.4	3403.1	3403.1	3407.7
35°	3119.1	3093.7	3079.8	3068.3	3068.3	3077.5	3105.2	3112.2	3126.0	3137.6	3146.8
37.5°	2636.5	2634.3	2650.4	2664.3	2698.9	2738.2	2786.6	2828.2	2867.4	2895.2	2922.8
40°	2114.8	2172.5	2218.7	2283.4	2336.4	2412.6	2500.3	2571.9	2638.9	2687.4	2738.2
42.5°	1650.7	1724.6	1821.6	1916.2	2010.9	2114.8	2230.3	2329.5	2417.2	2484.2	2537.3
45°	1286.0	1387.5	1505.3	1625.4	1747.7	1877.0	1997.1	2098.6	2191.0	2260.3	2313.4
47.5°	1036.6	1147.4	1281.3	1412.9	1551.5	1687.7	1821.6	1909.3	1985.5	2040.9	2089.4
50°	856.5	974.3	1115.1	1265.2	1403.7	1539.9	1655.4	1740.8	1803.1	1851.6	1881.6
52.5°	715.7	840.4	990.5	1140.5	1279.0	1403.7	1507.6	1572.3	1623.0	1657.7	1685.3
55°	591.0	711.1	851.9	992.8	1129.0	1246.7	1332.1	1380.6	1419.8	1440.6	1456.8
57.5°	482.5	593.3	722.6	851.9	969.7	1066.7	1133.6	1182.1	1200.5	1216.7	1214.4
60°	378.7	482.5	600.3	711.1	812.7	891.1	939.7	967.3	981.2	988.1	983.5
62.5°	297.8	392.5	482.5	579.5	653.4	720.3	766.5	766.5	773.4	775.7	782.7
65°	221.6	293.2	371.7	443.3	503.3	547.2	572.6	579.5	588.7	586.4	581.8
67.5°	163.9	217.0	274.7	327.8	369.4	397.1	415.5	431.8	429.4	424.8	422.5
70°	113.2	147.8	198.6	230.9	260.9	288.6	293.2	295.5	297.8	300.1	295.5
72.5°	78.5	103.9	131.6	159.3	177.8	189.3	200.9	203.1	203.1	203.1	200.9
75°	39.3	53.1	78.5	90.0	106.2	110.8	120.0	120.0	127.0	117.7	115.4
77.5°	34.6	41.6	55.4	64.6	71.6	78.5	80.8	87.7	85.4	80.8	83.1
80°	20.8	25.4	34.6	39.3	48.5	50.8	53.1	55.4	53.1	55.4	55.4
82.5°	16.2	18.5	23.1	23.1	30.0	30.0	32.3	32.3	34.6	34.6	34.6
85°	9.2	16.2	13.8	27.7	18.5	18.5	23.1	27.7	23.1	23.1	27.7
87.5°	9.2	9.2	6.9	9.2	9.2	9.2	11.5	13.8	13.8	16.2	13.8
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: P249148

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4301.2	4301.2	4301.2	4301.2
2.5°	4308.1	4312.7	4305.8	4303.5
5°	4315.0	4315.0	4310.4	4310.4
7.5°	4315.0	4315.0	4308.1	4303.5
10°	4296.5	4296.5	4289.6	4285.0
12.5°	4261.9	4261.9	4259.6	4252.7
15°	4218.1	4218.1	4208.8	4201.9
17.5°	4158.0	4162.6	4151.1	4151.1
20°	4093.4	4091.1	4081.9	4077.2
22.5°	4026.4	4021.8	4019.5	4005.7
25°	3954.9	3950.2	3943.3	3936.4
27.5°	3832.5	3830.2	3823.2	3814.0
30°	3645.5	3643.2	3633.9	3633.9
32.5°	3403.1	3400.7	3391.5	3393.9
35°	3151.4	3160.7	3156.0	3146.8
37.5°	2941.3	2948.3	2952.9	2948.3
40°	2765.8	2786.6	2789.0	2793.6
42.5°	2578.9	2606.5	2615.8	2620.4
45°	2354.9	2380.3	2401.1	2396.5
47.5°	2126.3	2144.8	2163.3	2149.4
50°	1907.0	1918.5	1925.5	1925.5
52.5°	1699.2	1699.2	1696.9	1699.2
55°	1461.4	1461.4	1452.2	1456.8
57.5°	1212.1	1216.7	1209.8	1198.2
60°	981.2	969.7	965.0	958.1
62.5°	764.2	764.2	748.1	768.8
65°	572.6	565.6	558.7	556.4
67.5°	415.5	413.3	406.3	404.0
70°	293.2	284.0	281.7	277.0
72.5°	196.2	196.2	191.6	191.6
75°	120.0	108.5	106.2	108.5
77.5°	83.1	80.8	80.8	78.5
80°	55.4	53.1	57.7	50.8
82.5°	34.6	36.9	34.6	36.9
85°	23.1	27.7	25.4	25.4
87.5°	13.8	13.8	13.8	13.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)