

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: P249607

Luminaire Tested: **LSR8B90D010 EC8B90927 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249607
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 EC8B90927 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 2700 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7403.6 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

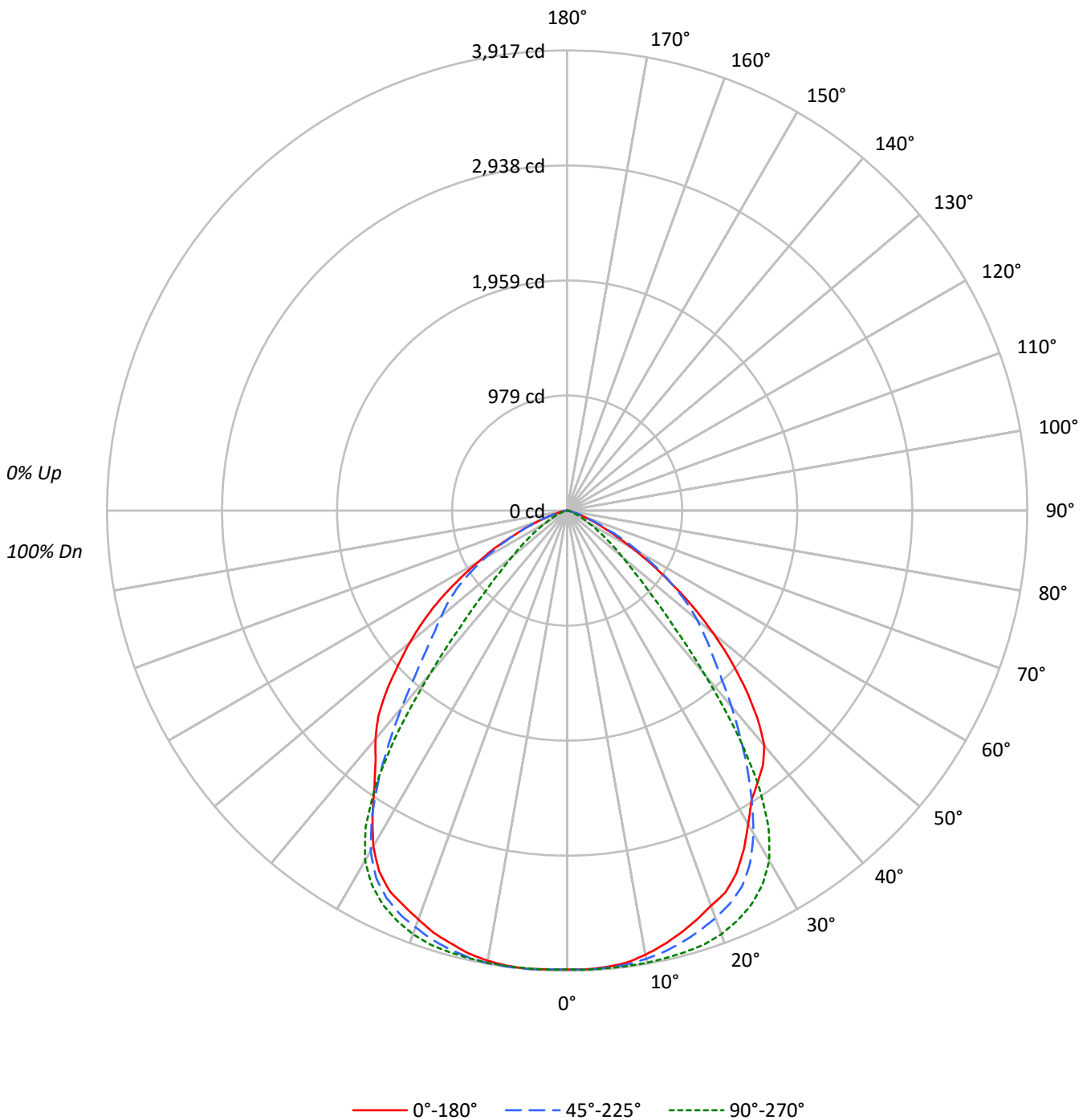
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.8	5.0
10°-20°	1082.7	14.6
20°-30°	1643.3	22.2
30°-40°	1725.9	23.3
40°-50°	1294.0	17.5
50°-60°	830.3	11.2
60°-70°	355.2	4.8
70°-80°	83.9	1.1
80°-90°	15.6	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°	3098.7	41.9
0°-40°	4824.7	65.2
0°-60°	6948.9	93.9
0°-90°	7403.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7403.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3906	3906	3906	3906	3906	
5°	3900	3906	3910	3917	3915	370
15°	3724	3802	3890	3864	3816	1050
25°	3407	3527	3705	3638	3575	1557
35°	2826	2669	2829	2795	2858	1774
45°	2147	1755	1009	1705	2176	1644
55°	1086	1086	375	1132	1323	985
65°	327	386	120	497	505	349
75°	50	59	17	101	99	73
85°	17	10	8	17	23	18
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°	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3
2.5°	3908.4	3912.6	3910.5	3910.5	3908.4	3910.5	3910.5	3914.7	3914.7	3910.5	3908.4
5°	3900.0	3904.2	3904.2	3900.0	3900.0	3910.5	3904.2	3908.4	3908.4	3906.3	3906.3
7.5°	3881.1	3881.1	3889.6	3883.3	3883.3	3889.6	3887.4	3891.6	3895.9	3897.9	3897.9
10°	3839.2	3843.4	3845.5	3845.5	3847.6	3853.9	3858.1	3866.5	3870.7	3874.8	3877.0
12.5°	3786.9	3793.0	3795.2	3793.0	3799.4	3807.8	3818.2	3828.7	3835.0	3843.4	3849.8
15°	3723.9	3723.9	3728.0	3734.3	3738.6	3751.2	3761.7	3774.2	3790.9	3801.5	3812.0
17.5°	3654.7	3659.0	3665.1	3665.1	3673.6	3694.5	3700.8	3719.7	3738.6	3749.1	3770.0
20°	3579.2	3583.4	3589.6	3593.9	3604.4	3621.2	3633.8	3650.5	3671.4	3690.3	3711.3
22.5°	3520.5	3512.1	3516.3	3520.5	3531.0	3545.7	3560.4	3581.3	3602.2	3621.2	3642.1
25°	3407.3	3409.3	3415.7	3419.8	3432.5	3445.0	3461.7	3486.9	3505.8	3526.8	3549.8
27.5°	3254.2	3256.3	3266.8	3266.8	3277.2	3298.3	3308.7	3329.7	3354.9	3375.8	3403.1
30°	3080.1	3084.3	3084.3	3092.7	3099.0	3109.5	3120.0	3141.0	3153.6	3172.4	3210.2
32.5°	2920.8	2925.0	2922.9	2920.8	2914.5	2912.4	2910.3	2914.5	2918.7	2925.0	2939.6
35°	2826.5	2816.0	2807.5	2792.9	2776.2	2755.1	2736.3	2711.1	2688.1	2669.2	2648.2
37.5°	2736.3	2734.2	2721.6	2700.7	2667.0	2629.4	2585.4	2530.8	2476.2	2417.6	2361.0
40°	2610.5	2604.2	2593.7	2564.3	2526.6	2480.5	2421.8	2354.7	2266.6	2176.4	2084.2
42.5°	2396.6	2398.7	2386.1	2363.1	2327.4	2283.4	2222.5	2149.2	2054.8	1947.9	1828.4
45°	2147.1	2147.1	2142.9	2124.0	2098.9	2063.2	2017.1	1956.3	1864.0	1755.0	1627.1
47.5°	1887.1	1889.2	1882.9	1878.8	1868.2	1845.2	1811.6	1765.5	1700.6	1595.6	1467.7
50°	1622.9	1622.9	1633.4	1631.2	1631.2	1622.9	1608.3	1581.0	1524.4	1440.4	1321.0
52.5°	1358.7	1362.9	1369.2	1377.6	1388.0	1404.8	1388.0	1375.5	1339.9	1274.9	1172.1
55°	1086.1	1090.4	1100.8	1115.4	1128.0	1144.9	1149.1	1149.1	1130.2	1086.1	1008.6
57.5°	853.4	847.1	855.6	868.0	884.8	901.6	914.2	928.9	926.8	897.4	834.5
60°	641.6	643.7	650.0	662.6	675.2	689.8	706.6	719.2	725.5	710.8	670.9
62.5°	467.6	467.6	476.0	488.5	494.9	515.8	526.3	532.6	538.9	536.7	511.6
65°	327.2	331.3	335.5	341.8	348.1	360.7	367.0	379.5	383.7	385.8	367.0
67.5°	230.6	224.3	228.6	232.8	239.1	247.4	260.0	260.0	266.3	266.3	253.7
70°	146.8	146.8	148.8	155.1	159.3	161.4	165.7	169.9	176.2	174.0	174.0
72.5°	98.6	96.4	98.6	100.7	102.7	109.0	109.0	111.2	115.3	117.4	109.0
75°	50.3	52.4	56.6	54.6	60.8	56.6	58.7	65.0	62.9	58.7	58.7
77.5°	42.0	42.0	42.0	39.8	44.0	44.0	42.0	46.1	44.0	44.0	42.0
80°	29.4	31.5	29.4	27.2	29.4	27.2	27.2	27.2	27.2	27.2	25.1
82.5°	23.1	18.9	21.0	18.9	21.0	21.0	18.9	16.8	16.8	18.9	16.8
85°	16.8	12.6	14.6	14.6	12.6	12.6	12.6	12.6	12.6	10.5	10.5
87.5°	10.5	6.3	6.3	6.3	8.3	8.3	8.3	6.3	8.3	8.3	4.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3
2.5°	3912.6	3910.5	3914.7	3912.6	3912.6	3910.5	3912.6	3910.5	3914.7	3906.3	3908.4
5°	3912.6	3908.4	3910.5	3912.6	3914.7	3910.5	3910.5	3910.5	3914.7	3910.5	3912.6
7.5°	3904.2	3902.1	3908.4	3912.6	3910.5	3908.4	3912.6	3910.5	3914.7	3912.6	3916.8
10°	3887.4	3889.6	3893.7	3900.0	3902.1	3904.2	3908.4	3908.4	3914.7	3906.3	3910.5
12.5°	3862.2	3870.7	3881.1	3885.3	3893.7	3893.7	3897.9	3900.0	3904.2	3902.1	3908.4
15°	3830.8	3841.3	3853.9	3864.4	3874.8	3881.1	3887.4	3889.6	3895.9	3889.6	3891.6
17.5°	3793.0	3805.6	3824.6	3837.0	3853.9	3860.2	3868.5	3872.7	3879.0	3874.8	3877.0
20°	3740.6	3755.4	3776.3	3795.2	3805.6	3820.3	3830.8	3837.0	3841.3	3837.0	3839.2
22.5°	3667.3	3688.2	3715.5	3730.2	3751.2	3763.7	3765.8	3780.4	3790.9	3780.4	3784.7
25°	3581.3	3602.2	3623.3	3654.7	3673.6	3688.2	3702.9	3705.1	3715.5	3713.4	3711.3
27.5°	3438.7	3466.0	3501.6	3526.8	3552.0	3575.0	3591.8	3596.0	3606.5	3602.2	3604.4
30°	3243.7	3273.1	3306.6	3346.4	3382.1	3405.2	3426.2	3440.8	3451.3	3445.0	3443.0
32.5°	2967.0	2996.3	3032.0	3071.8	3113.8	3147.3	3172.4	3191.3	3203.9	3199.7	3189.3
35°	2650.4	2658.7	2681.8	2713.3	2748.8	2784.5	2807.5	2828.6	2843.2	2847.4	2847.4
37.5°	2325.4	2298.2	2281.3	2281.3	2302.2	2316.9	2337.9	2350.5	2373.5	2382.0	2388.3
40°	2010.8	1947.9	1889.2	1845.2	1815.9	1813.7	1813.7	1820.0	1841.0	1868.2	1893.4
42.5°	1729.8	1629.2	1539.0	1457.2	1398.6	1365.0	1350.3	1352.5	1369.2	1394.3	1436.3
45°	1505.5	1379.7	1266.4	1167.9	1088.2	1035.8	1010.7	1008.6	1021.2	1050.4	1096.6
47.5°	1331.4	1197.2	1069.3	956.1	870.2	813.5	784.2	775.8	784.2	811.5	866.0
50°	1186.8	1048.4	916.3	798.9	706.6	647.9	620.7	610.2	620.7	643.7	698.2
52.5°	1052.6	910.0	786.3	673.1	574.5	524.1	494.9	488.5	494.9	522.1	566.1
55°	897.4	775.8	654.2	541.0	455.1	404.7	381.6	375.3	381.6	406.8	452.9
57.5°	744.4	639.6	532.6	429.9	356.5	312.4	291.5	283.0	297.7	314.6	369.0
60°	601.8	517.9	427.7	337.6	276.8	236.9	220.2	218.0	222.3	243.2	280.9
62.5°	471.8	402.6	331.3	258.0	207.6	190.8	169.9	167.7	171.9	184.5	213.9
65°	339.6	295.7	241.1	188.7	148.8	125.8	117.4	119.6	123.8	132.1	159.3
67.5°	236.9	205.4	167.7	132.1	102.7	92.2	83.9	81.8	83.9	98.6	113.2
70°	159.3	140.5	113.2	100.7	71.3	56.6	58.7	52.4	60.8	60.8	73.4
72.5°	104.8	92.2	75.5	58.7	50.3	39.8	39.8	37.8	42.0	44.0	54.6
75°	54.6	42.0	42.0	29.4	21.0	10.5	18.9	16.8	14.6	16.8	21.0
77.5°	37.8	31.5	29.4	23.1	21.0	16.8	16.8	16.8	16.8	18.9	21.0
80°	23.1	23.1	16.8	14.6	12.6	10.5	12.6	12.6	12.6	12.6	14.6
82.5°	14.6	12.6	12.6	10.5	10.5	8.3	8.3	8.3	8.3	8.3	12.6
85°	12.6	8.3	8.3	6.3	8.3	14.6	6.3	8.3	8.3	8.3	6.3
87.5°	4.2	6.3	6.3	6.3	4.2	2.1	4.2	6.3	6.3	10.5	8.3
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°	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3	3906.3
2.5°	3912.6	3914.7	3914.7	3912.6	3912.6	3908.4	3916.8	3910.5	3912.6	3921.0	3914.7
5°	3916.8	3918.8	3918.8	3916.8	3916.8	3916.8	3918.8	3918.8	3916.8	3914.7	3918.8
7.5°	3925.1	3923.1	3923.1	3918.8	3918.8	3914.7	3918.8	3912.6	3916.8	3912.6	3918.8
10°	3914.7	3916.8	3914.7	3912.6	3912.6	3910.5	3910.5	3904.2	3906.3	3900.0	3904.2
12.5°	3908.4	3906.3	3906.3	3902.1	3897.9	3893.7	3891.6	3885.3	3885.3	3870.7	3877.0
15°	3891.6	3893.7	3887.4	3879.0	3874.8	3864.4	3860.2	3851.8	3843.4	3833.0	3835.0
17.5°	3877.0	3870.7	3862.2	3853.9	3837.0	3828.7	3820.3	3807.8	3803.5	3790.9	3786.9
20°	3833.0	3828.7	3818.2	3803.5	3793.0	3774.2	3765.8	3753.2	3742.8	3730.2	3723.9
22.5°	3776.3	3772.1	3759.5	3744.8	3728.0	3719.7	3711.3	3688.2	3677.7	3665.1	3663.1
25°	3705.1	3698.8	3686.2	3669.4	3661.0	3637.9	3629.5	3612.7	3608.6	3596.0	3593.9
27.5°	3596.0	3587.6	3572.9	3552.0	3537.2	3522.6	3514.3	3501.6	3497.4	3484.8	3482.8
30°	3432.5	3421.9	3392.6	3384.2	3359.0	3344.4	3344.4	3327.5	3329.7	3321.3	3321.3
32.5°	3174.5	3157.8	3134.7	3117.9	3101.2	3092.7	3092.7	3086.4	3090.6	3090.6	3094.9
35°	2832.8	2809.7	2797.1	2786.6	2786.6	2795.0	2820.2	2826.5	2839.0	2849.5	2858.0
37.5°	2394.5	2392.4	2407.2	2419.6	2451.2	2486.8	2530.8	2568.6	2604.2	2629.4	2654.5
40°	1920.6	1973.0	2015.0	2073.7	2121.9	2191.2	2270.8	2335.8	2396.6	2440.7	2486.8
42.5°	1499.2	1566.3	1654.4	1740.3	1826.3	1920.6	2025.6	2115.7	2195.3	2256.1	2304.3
45°	1167.9	1260.1	1367.1	1476.1	1587.3	1704.7	1813.7	1906.0	1989.9	2052.8	2100.9
47.5°	941.4	1042.1	1163.7	1283.3	1409.1	1532.7	1654.4	1734.1	1803.3	1853.6	1897.6
50°	777.9	884.8	1012.7	1149.1	1274.9	1398.6	1503.3	1581.0	1637.6	1681.6	1708.9
52.5°	650.0	763.2	899.6	1035.8	1161.6	1274.9	1369.2	1428.0	1474.1	1505.5	1530.7
55°	536.7	645.9	773.8	901.6	1025.3	1132.2	1209.8	1253.9	1289.5	1308.4	1323.0
57.5°	438.3	538.9	656.3	773.8	880.6	968.7	1029.5	1073.6	1090.4	1105.0	1103.0
60°	343.9	438.3	545.2	645.9	738.1	809.3	853.4	878.5	891.1	897.4	893.2
62.5°	270.4	356.5	438.3	526.3	593.4	654.2	696.2	696.2	702.4	704.5	710.8
65°	201.3	266.3	337.6	402.6	457.1	496.9	520.0	526.3	534.7	532.6	528.4
67.5°	148.8	197.1	249.5	297.7	335.5	360.7	377.4	392.2	390.0	385.8	383.7
70°	102.7	134.2	180.3	209.7	236.9	262.1	266.3	268.4	270.4	272.6	268.4
72.5°	71.3	94.4	119.6	144.7	161.4	171.9	182.5	184.5	184.5	184.5	182.5
75°	35.7	48.3	71.3	81.8	96.4	100.7	109.0	109.0	115.3	106.9	104.8
77.5°	31.5	37.8	50.3	58.7	65.0	71.3	73.4	79.6	77.6	73.4	75.5
80°	18.9	23.1	31.5	35.7	44.0	46.1	48.3	50.3	48.3	50.3	50.3
82.5°	14.6	16.8	21.0	21.0	27.2	27.2	29.4	29.4	31.5	31.5	31.5
85°	8.3	14.6	12.6	25.1	16.8	16.8	21.0	25.1	21.0	21.0	25.1
87.5°	8.3	8.3	6.3	8.3	8.3	8.3	10.5	12.6	12.6	14.6	12.6
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: P249607

CATALOG NUMBER: LSR8B90D010 EC8B90927 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3906.3	3906.3	3906.3	3906.3
2.5°	3912.6	3916.8	3910.5	3908.4
5°	3918.8	3918.8	3914.7	3914.7
7.5°	3918.8	3918.8	3912.6	3908.4
10°	3902.1	3902.1	3895.9	3891.6
12.5°	3870.7	3870.7	3868.5	3862.2
15°	3830.8	3830.8	3822.4	3816.1
17.5°	3776.3	3780.4	3770.0	3770.0
20°	3717.6	3715.5	3707.1	3702.9
22.5°	3656.8	3652.6	3650.5	3637.9
25°	3591.8	3587.6	3581.3	3575.0
27.5°	3480.6	3478.6	3472.3	3463.9
30°	3310.8	3308.7	3300.3	3300.3
32.5°	3090.6	3088.6	3080.1	3082.3
35°	2862.1	2870.5	2866.3	2858.0
37.5°	2671.3	2677.6	2681.8	2677.6
40°	2511.9	2530.8	2532.9	2537.1
42.5°	2342.1	2367.2	2375.7	2379.8
45°	2138.7	2161.8	2180.7	2176.4
47.5°	1931.1	1947.9	1964.7	1952.1
50°	1731.9	1742.4	1748.7	1748.7
52.5°	1543.3	1543.3	1541.1	1543.3
55°	1327.3	1327.3	1318.8	1323.0
57.5°	1100.8	1105.0	1098.7	1088.2
60°	891.1	880.6	876.5	870.2
62.5°	694.0	694.0	679.4	698.2
65°	520.0	513.7	507.4	505.4
67.5°	377.4	375.3	369.0	367.0
70°	266.3	258.0	255.8	251.6
72.5°	178.2	178.2	174.0	174.0
75°	109.0	98.6	96.4	98.6
77.5°	75.5	73.4	73.4	71.3
80°	50.3	48.3	52.4	46.1
82.5°	31.5	33.5	31.5	33.5
85°	21.0	25.1	23.1	23.1
87.5°	12.6	12.6	12.6	12.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)