

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: P249472

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249472
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 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7214.0 lumens
Efficiency: N/A
Efficacy: 83.8 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

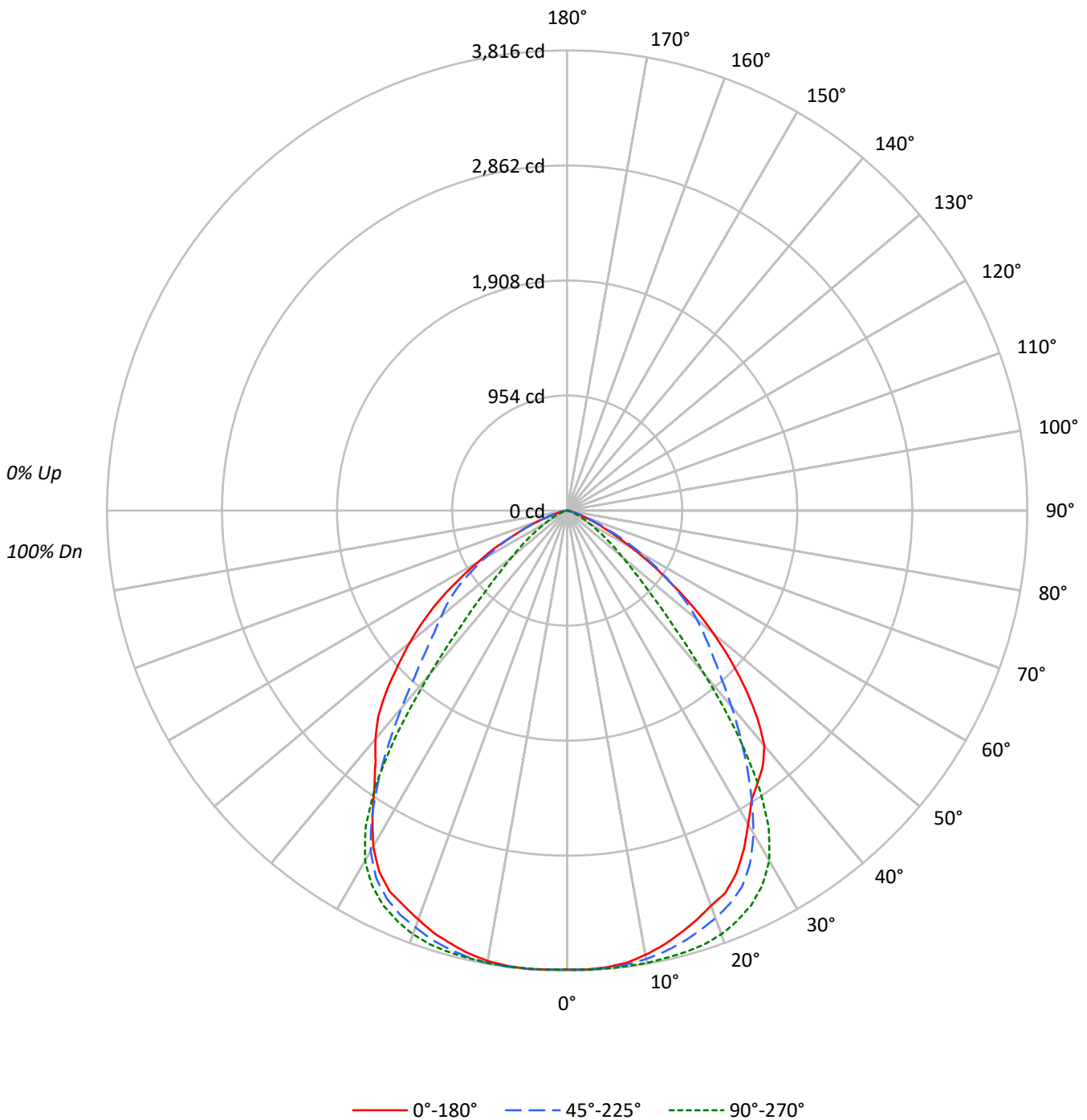
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	52	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°	117369	117369	117369
5°	117629	117944	118071
10°	117135	119246	118735
15°	115837	120989	118707
20°	114447	122690	118401
25°	112960	122830	118523
30°	106866	119379	114504
35°	103676	103751	104828
40°	102390	71386	99512
45°	91235	42855	92482
50°	75864	28520	81741
55°	56896	19661	69309
60°	38558	13105	52292
65°	23254	8500	35928
70°	12893	4607	22107
75°	5838	1942	11438
80°	5079	2166	7973
85°	5767	2866	7961



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.3	5.0
10°-20°	1054.9	14.6
20°-30°	1601.2	22.2
30°-40°	1681.7	23.3
40°-50°	1260.9	17.5
50°-60°	809.0	11.2
60°-70°	346.1	4.8
70°-80°	81.7	1.1
80°-90°	15.2	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°	3019.4	41.9
0°-40°	4701.1	65.2
0°-60°	6771.0	93.9
0°-90°	7214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7214.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3806	3806	3806	3806	3806	
5°	3800	3806	3810	3816	3814	361
15°	3628	3704	3790	3765	3718	1023
25°	3320	3436	3610	3545	3484	1517
35°	2754	2601	2756	2723	2785	1729
45°	2092	1710	983	1661	2121	1602
55°	1058	1058	366	1103	1289	960
65°	319	376	116	484	492	340
75°	49	57	16	98	96	71
85°	16	10	8	16	22	17
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°	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2
2.5°	3808.3	3812.4	3810.3	3810.3	3808.3	3810.3	3810.3	3814.4	3814.4	3810.3	3808.3
5°	3800.1	3804.2	3804.2	3800.1	3800.1	3810.3	3804.2	3808.3	3808.3	3806.2	3806.2
7.5°	3781.8	3781.8	3789.9	3783.8	3783.8	3789.9	3787.9	3792.0	3796.0	3798.1	3798.1
10°	3740.9	3745.0	3747.0	3747.0	3749.1	3755.2	3759.3	3767.5	3771.5	3775.6	3777.7
12.5°	3689.8	3695.9	3698.0	3695.9	3702.1	3710.2	3720.5	3730.7	3736.8	3745.0	3751.1
15°	3628.5	3628.5	3632.6	3638.7	3642.8	3655.1	3665.3	3677.5	3693.9	3704.1	3714.3
17.5°	3561.1	3565.2	3571.3	3571.3	3579.5	3599.9	3606.0	3624.4	3642.8	3653.0	3673.5
20°	3487.6	3491.6	3497.8	3501.9	3512.1	3528.4	3540.6	3557.0	3577.4	3595.8	3616.2
22.5°	3430.3	3422.2	3426.2	3430.3	3440.6	3454.9	3469.2	3489.6	3510.0	3528.4	3548.8
25°	3320.0	3322.0	3328.2	3332.2	3344.5	3356.8	3373.1	3397.6	3416.0	3436.5	3458.9
27.5°	3170.9	3172.9	3183.1	3183.1	3193.3	3213.8	3224.0	3244.4	3268.9	3289.3	3315.9
30°	3001.3	3005.3	3005.3	3013.5	3019.6	3029.9	3040.1	3060.5	3072.8	3091.2	3128.0
32.5°	2846.0	2850.1	2848.0	2846.0	2839.9	2837.8	2835.8	2839.9	2844.0	2850.1	2864.4
35°	2754.1	2743.8	2735.7	2721.4	2705.1	2684.6	2666.2	2641.7	2619.2	2600.8	2580.4
37.5°	2666.2	2664.2	2651.9	2631.5	2598.8	2562.0	2519.1	2466.0	2412.9	2355.7	2300.5
40°	2543.6	2537.5	2527.3	2498.7	2461.9	2417.0	2359.8	2294.4	2208.5	2120.7	2030.8
42.5°	2335.2	2337.3	2325.0	2302.5	2267.8	2224.9	2165.7	2094.2	2002.2	1898.0	1781.6
45°	2092.1	2092.1	2088.0	2069.6	2045.1	2010.4	1965.4	1906.2	1816.3	1710.0	1585.4
47.5°	1838.8	1840.8	1834.7	1830.6	1820.4	1797.9	1765.2	1720.3	1656.9	1554.8	1430.1
50°	1581.4	1581.4	1591.6	1589.5	1589.5	1581.4	1567.1	1540.5	1485.3	1403.6	1287.2
52.5°	1323.9	1328.0	1334.2	1342.3	1352.5	1368.8	1352.5	1340.3	1305.5	1242.2	1142.1
55°	1058.3	1062.4	1072.6	1086.9	1099.2	1115.5	1119.6	1119.6	1101.2	1058.3	982.7
57.5°	831.5	825.4	833.6	845.8	862.2	878.5	890.8	905.1	903.0	874.4	813.1
60°	625.2	627.2	633.3	645.6	657.9	672.2	688.5	700.8	706.9	692.6	653.8
62.5°	455.6	455.6	463.8	476.0	482.2	502.6	512.8	519.0	525.1	523.0	498.5
65°	318.7	322.8	326.9	333.0	339.1	351.4	357.5	369.8	373.9	375.9	357.5
67.5°	224.8	218.6	222.7	226.8	232.9	241.1	253.4	253.4	259.5	259.5	247.2
70°	143.0	143.0	145.1	151.2	155.3	157.3	161.4	165.5	171.6	169.6	169.6
72.5°	96.0	94.0	96.0	98.1	100.1	106.2	106.2	108.3	112.4	114.4	106.2
75°	49.0	51.1	55.1	53.1	59.2	55.1	57.2	63.3	61.3	57.2	57.2
77.5°	40.8	40.8	40.8	38.8	42.9	42.9	40.8	44.9	42.9	42.9	40.8
80°	28.6	30.6	28.6	26.5	28.6	26.5	26.5	26.5	26.5	26.5	24.5
82.5°	22.5	18.4	20.4	18.4	20.4	20.4	18.4	16.3	16.3	18.4	16.3
85°	16.3	12.2	14.3	14.3	12.2	12.2	12.2	12.2	12.2	10.2	10.2
87.5°	10.2	6.1	6.1	6.1	8.1	8.1	8.1	6.1	8.1	8.1	4.1
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°	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2
2.5°	3812.4	3810.3	3814.4	3812.4	3812.4	3810.3	3812.4	3810.3	3814.4	3806.2	3808.3
5°	3812.4	3808.3	3810.3	3812.4	3814.4	3810.3	3810.3	3810.3	3814.4	3810.3	3812.4
7.5°	3804.2	3802.1	3808.3	3812.4	3810.3	3808.3	3812.4	3810.3	3814.4	3812.4	3816.4
10°	3787.9	3789.9	3794.0	3800.1	3802.1	3804.2	3808.3	3808.3	3814.4	3806.2	3810.3
12.5°	3763.4	3771.5	3781.8	3785.8	3794.0	3794.0	3798.1	3800.1	3804.2	3802.1	3808.3
15°	3732.7	3742.9	3755.2	3765.4	3775.6	3781.8	3787.9	3789.9	3796.0	3789.9	3792.0
17.5°	3695.9	3708.2	3726.6	3738.8	3755.2	3761.3	3769.5	3773.6	3779.7	3775.6	3777.7
20°	3644.8	3659.2	3679.6	3698.0	3708.2	3722.5	3732.7	3738.8	3742.9	3738.8	3740.9
22.5°	3573.3	3593.8	3620.3	3634.6	3655.1	3667.3	3669.4	3683.7	3693.9	3683.7	3687.8
25°	3489.6	3510.0	3530.4	3561.1	3579.5	3593.8	3608.1	3610.1	3620.3	3618.3	3616.2
27.5°	3350.6	3377.2	3411.9	3436.5	3461.0	3483.5	3499.8	3503.9	3514.1	3510.0	3512.1
30°	3160.6	3189.3	3222.0	3260.7	3295.5	3317.9	3338.4	3352.7	3362.9	3356.8	3354.7
32.5°	2891.0	2919.6	2954.3	2993.1	3034.0	3066.6	3091.2	3109.6	3121.8	3117.7	3107.5
35°	2582.5	2590.6	2613.1	2643.8	2678.5	2713.2	2735.7	2756.1	2770.4	2774.5	2774.5
37.5°	2265.8	2239.2	2222.9	2222.9	2243.3	2257.6	2278.0	2290.3	2312.8	2320.9	2327.1
40°	1959.3	1898.0	1840.8	1797.9	1769.3	1767.3	1767.3	1773.4	1793.8	1820.4	1844.9
42.5°	1685.5	1587.5	1499.6	1419.9	1362.7	1330.1	1315.8	1317.8	1334.2	1358.6	1399.5
45°	1466.9	1344.4	1234.0	1138.0	1060.4	1009.3	984.8	982.7	995.0	1023.6	1068.6
47.5°	1297.4	1166.6	1042.0	931.6	847.9	792.7	764.1	756.0	764.1	790.7	843.8
50°	1156.4	1021.6	892.8	778.4	688.5	631.3	604.7	594.5	604.7	627.2	680.3
52.5°	1025.6	886.7	766.2	655.8	559.8	510.8	482.2	476.0	482.2	508.7	551.6
55°	874.4	756.0	637.4	527.1	443.4	394.3	371.8	365.7	371.8	396.4	441.3
57.5°	725.3	623.1	519.0	418.8	347.3	304.4	284.0	275.8	290.1	306.4	359.6
60°	586.3	504.7	416.8	328.9	269.7	230.9	214.5	212.5	216.6	237.0	273.8
62.5°	459.7	392.3	322.8	251.3	202.3	185.9	165.5	163.5	167.5	179.8	208.4
65°	331.0	288.1	235.0	183.9	145.1	122.6	114.4	116.5	120.5	128.7	155.3
67.5°	230.9	200.2	163.5	128.7	100.1	89.9	81.7	79.7	81.7	96.0	110.3
70°	155.3	136.9	110.3	98.1	69.5	55.1	57.2	51.1	59.2	59.2	71.5
72.5°	102.1	89.9	73.5	57.2	49.0	38.8	38.8	36.8	40.8	42.9	53.1
75°	53.1	40.8	40.8	28.6	20.4	10.2	18.4	16.3	14.3	16.3	20.4
77.5°	36.8	30.6	28.6	22.5	20.4	16.3	16.3	16.3	16.3	18.4	20.4
80°	22.5	22.5	16.3	14.3	12.2	10.2	12.2	12.2	12.2	12.2	14.3
82.5°	14.3	12.2	12.2	10.2	10.2	8.1	8.1	8.1	8.1	8.1	12.2
85°	12.2	8.1	8.1	6.1	8.1	14.3	6.1	8.1	8.1	8.1	6.1
87.5°	4.1	6.1	6.1	6.1	4.1	2.0	4.1	6.1	6.1	10.2	8.1
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°	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2	3806.2
2.5°	3812.4	3814.4	3814.4	3812.4	3812.4	3808.3	3816.4	3810.3	3812.4	3820.5	3814.4
5°	3816.4	3818.5	3818.5	3816.4	3816.4	3816.4	3818.5	3818.5	3816.4	3814.4	3818.5
7.5°	3824.6	3822.6	3822.6	3818.5	3818.5	3814.4	3818.5	3812.4	3816.4	3812.4	3818.5
10°	3814.4	3816.4	3814.4	3812.4	3812.4	3810.3	3810.3	3804.2	3806.2	3800.1	3804.2
12.5°	3808.3	3806.2	3806.2	3802.1	3798.1	3794.0	3792.0	3785.8	3785.8	3771.5	3777.7
15°	3792.0	3794.0	3787.9	3779.7	3775.6	3765.4	3761.3	3753.1	3745.0	3734.8	3736.8
17.5°	3777.7	3771.5	3763.4	3755.2	3738.8	3730.7	3722.5	3710.2	3706.1	3693.9	3689.8
20°	3734.8	3730.7	3720.5	3706.1	3695.9	3677.5	3669.4	3657.1	3646.9	3634.6	3628.5
22.5°	3679.6	3675.5	3663.2	3648.9	3632.6	3624.4	3616.2	3593.8	3583.5	3571.3	3569.2
25°	3610.1	3604.0	3591.7	3575.4	3567.2	3544.7	3536.5	3520.2	3516.2	3503.9	3501.9
27.5°	3503.9	3495.7	3481.4	3461.0	3446.7	3432.4	3424.2	3411.9	3407.9	3395.6	3393.6
30°	3344.5	3334.3	3305.7	3297.5	3273.0	3258.7	3258.7	3242.4	3244.4	3236.3	3236.3
32.5°	3093.2	3076.9	3054.4	3038.0	3021.7	3013.5	3013.5	3007.4	3011.5	3011.5	3015.6
35°	2760.2	2737.7	2725.4	2715.2	2715.2	2723.4	2747.9	2754.1	2766.3	2776.5	2784.7
37.5°	2333.2	2331.2	2345.5	2357.7	2388.4	2423.1	2466.0	2502.8	2537.5	2562.0	2586.5
40°	1871.5	1922.5	1963.4	2020.6	2067.6	2135.0	2212.6	2276.0	2335.2	2378.2	2423.1
42.5°	1460.8	1526.2	1612.0	1695.7	1779.5	1871.5	1973.6	2061.5	2139.1	2198.3	2245.3
45°	1138.0	1227.9	1332.1	1438.3	1546.6	1661.0	1767.3	1857.2	1938.9	2000.2	2047.2
47.5°	917.3	1015.4	1133.9	1250.4	1372.9	1493.5	1612.0	1689.6	1757.0	1806.1	1849.0
50°	758.0	862.2	986.8	1119.6	1242.2	1362.7	1464.9	1540.5	1595.7	1638.5	1665.1
52.5°	633.3	743.7	876.5	1009.3	1131.8	1242.2	1334.2	1391.3	1436.3	1466.9	1491.4
55°	523.0	629.3	753.9	878.5	999.1	1103.2	1178.8	1221.8	1256.5	1274.9	1289.2
57.5°	427.0	525.1	639.5	753.9	858.1	943.9	1003.2	1046.1	1062.4	1076.7	1074.7
60°	335.1	427.0	531.2	629.3	719.2	788.6	831.5	856.0	868.3	874.4	870.3
62.5°	263.6	347.3	427.0	512.8	578.2	637.4	678.3	678.3	684.4	686.5	692.6
65°	196.1	259.5	328.9	392.3	445.4	484.2	506.7	512.8	521.0	519.0	514.9
67.5°	145.1	192.1	243.1	290.1	326.9	351.4	367.7	382.1	380.0	375.9	373.9
70°	100.1	130.8	175.7	204.3	230.9	255.4	259.5	261.5	263.6	265.6	261.5
72.5°	69.5	91.9	116.5	141.0	157.3	167.5	177.8	179.8	179.8	179.8	177.8
75°	34.7	47.0	69.5	79.7	94.0	98.1	106.2	106.2	112.4	104.2	102.1
77.5°	30.6	36.8	49.0	57.2	63.3	69.5	71.5	77.6	75.6	71.5	73.5
80°	18.4	22.5	30.6	34.7	42.9	44.9	47.0	49.0	47.0	49.0	49.0
82.5°	14.3	16.3	20.4	20.4	26.5	26.5	28.6	28.6	30.6	30.6	30.6
85°	8.1	14.3	12.2	24.5	16.3	16.3	20.4	24.5	20.4	20.4	24.5
87.5°	8.1	8.1	6.1	8.1	8.1	8.1	10.2	12.2	12.2	14.3	12.2
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: P249472

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3806.2	3806.2	3806.2	3806.2
2.5°	3812.4	3816.4	3810.3	3808.3
5°	3818.5	3818.5	3814.4	3814.4
7.5°	3818.5	3818.5	3812.4	3808.3
10°	3802.1	3802.1	3796.0	3792.0
12.5°	3771.5	3771.5	3769.5	3763.4
15°	3732.7	3732.7	3724.5	3718.4
17.5°	3679.6	3683.7	3673.5	3673.5
20°	3622.4	3620.3	3612.2	3608.1
22.5°	3563.1	3559.0	3557.0	3544.7
25°	3499.8	3495.7	3489.6	3483.5
27.5°	3391.5	3389.5	3383.3	3375.2
30°	3226.0	3224.0	3215.8	3215.8
32.5°	3011.5	3009.4	3001.3	3003.3
35°	2788.8	2797.0	2792.9	2784.7
37.5°	2602.9	2609.0	2613.1	2609.0
40°	2447.6	2466.0	2468.0	2472.1
42.5°	2282.1	2306.6	2314.8	2318.9
45°	2083.9	2106.4	2124.8	2120.7
47.5°	1881.7	1898.0	1914.3	1902.1
50°	1687.6	1697.8	1703.9	1703.9
52.5°	1503.7	1503.7	1501.7	1503.7
55°	1293.3	1293.3	1285.1	1289.2
57.5°	1072.6	1076.7	1070.6	1060.4
60°	868.3	858.1	854.0	847.9
62.5°	676.3	676.3	662.0	680.3
65°	506.7	500.6	494.4	492.4
67.5°	367.7	365.7	359.6	357.5
70°	259.5	251.3	249.3	245.2
72.5°	173.7	173.7	169.6	169.6
75°	106.2	96.0	94.0	96.0
77.5°	73.5	71.5	71.5	69.5
80°	49.0	47.0	51.1	44.9
82.5°	30.6	32.7	30.6	32.7
85°	20.4	24.5	22.5	22.5
87.5°	12.2	12.2	12.2	12.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)