

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: P249283

Luminaire Tested: **LSR8B90D010 EC8B90927 8LBDW0WMH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249283  
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 8LBDW0WMH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH WARM HAZE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7449.7 lumens  
Efficiency: N/A  
Efficacy: 86.5 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

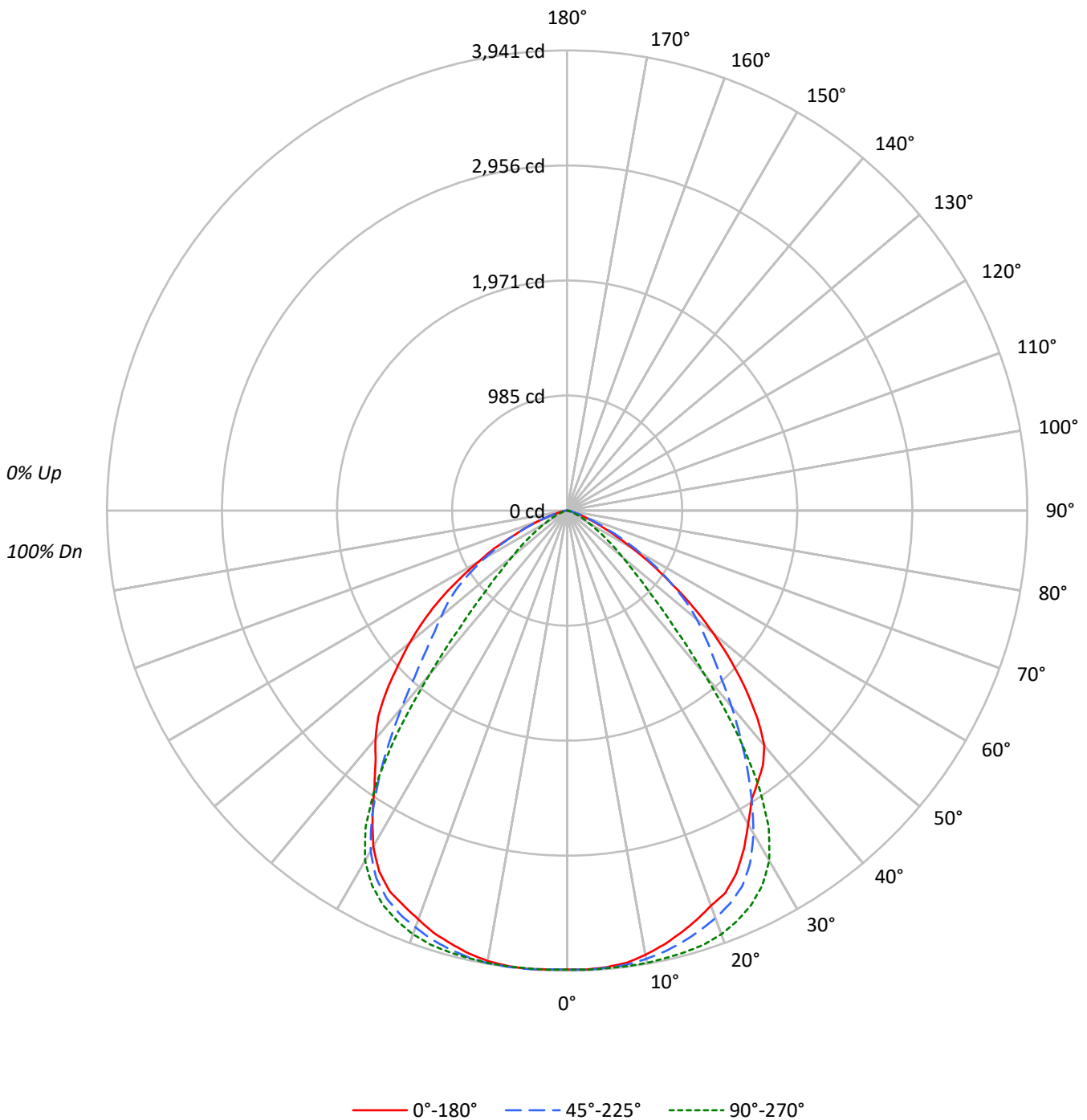
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	375.1	5.0
10°-20°	1089.4	14.6
20°-30°	1653.5	22.2
30°-40°	1736.7	23.3
40°-50°	1302.1	17.5
50°-60°	835.4	11.2
60°-70°	357.4	4.8
70°-80°	84.4	1.1
80°-90°	15.7	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°	3118.1	41.9
0°-40°	4854.7	65.2
0°-60°	6992.2	93.9
0°-90°	7449.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7449.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3931	3931	3931	3931	3931	
5°	3924	3931	3935	3941	3939	373
15°	3747	3825	3914	3888	3840	1057
25°	3428	3549	3728	3661	3597	1566
35°	2844	2686	2846	2812	2876	1785
45°	2160	1766	1015	1715	2190	1655
55°	1093	1093	378	1139	1331	991
65°	329	388	120	500	508	351
75°	51	59	17	101	99	74
85°	17	11	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°	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6
2.5°	3932.8	3936.9	3934.9	3934.9	3932.8	3934.9	3934.9	3939.1	3939.1	3934.9	3932.8
5°	3924.3	3928.5	3928.5	3924.3	3924.3	3934.9	3928.5	3932.8	3932.8	3930.6	3930.6
7.5°	3905.3	3905.3	3913.8	3907.5	3907.5	3913.8	3911.6	3915.9	3920.1	3922.2	3922.2
10°	3863.1	3867.3	3869.4	3869.4	3871.6	3877.9	3882.2	3890.6	3894.8	3899.0	3901.0
12.5°	3810.4	3816.7	3818.8	3816.7	3823.1	3831.4	3842.1	3852.6	3859.0	3867.3	3873.7
15°	3747.0	3747.0	3751.3	3757.6	3761.9	3774.5	3785.1	3797.7	3814.5	3825.1	3835.7
17.5°	3677.5	3681.7	3688.0	3688.0	3696.4	3717.6	3723.9	3742.9	3761.9	3772.4	3793.5
20°	3601.6	3605.7	3612.0	3616.3	3626.8	3643.6	3656.4	3673.2	3694.4	3713.4	3734.4
22.5°	3542.4	3534.0	3538.2	3542.4	3553.0	3567.7	3582.6	3603.6	3624.8	3643.6	3664.8
25°	3428.4	3430.6	3437.0	3441.2	3453.9	3466.5	3483.3	3508.6	3527.7	3548.8	3572.0
27.5°	3274.5	3276.6	3287.1	3287.1	3297.7	3318.8	3329.3	3350.5	3375.8	3396.8	3424.3
30°	3099.4	3103.5	3103.5	3112.0	3118.3	3129.0	3139.4	3160.6	3173.2	3192.2	3230.2
32.5°	2939.1	2943.2	2941.1	2939.1	2932.6	2930.5	2928.5	2932.6	2936.9	2943.2	2958.0
35°	2844.1	2833.5	2825.1	2810.4	2793.5	2772.3	2753.3	2728.0	2704.8	2685.8	2664.8
37.5°	2753.3	2751.2	2738.6	2717.4	2683.7	2645.8	2601.5	2546.5	2491.8	2432.7	2375.7
40°	2626.8	2620.5	2609.9	2580.3	2542.4	2495.9	2436.9	2369.4	2280.7	2190.0	2097.2
42.5°	2411.5	2413.7	2401.0	2377.8	2341.9	2297.6	2236.4	2162.6	2067.6	1960.0	1839.8
45°	2160.5	2160.5	2156.3	2137.3	2112.0	2076.1	2029.6	1968.5	1875.7	1765.9	1637.2
47.5°	1898.9	1900.9	1894.6	1890.4	1879.9	1856.7	1823.0	1776.5	1711.1	1605.6	1476.9
50°	1633.0	1633.0	1643.5	1641.5	1641.5	1633.0	1618.3	1590.9	1533.8	1449.4	1329.2
52.5°	1367.2	1371.4	1377.8	1386.1	1396.7	1413.6	1396.7	1384.1	1348.2	1282.7	1179.4
55°	1092.9	1097.1	1107.7	1122.4	1135.1	1152.0	1156.2	1156.2	1137.1	1092.9	1014.9
57.5°	858.7	852.4	860.8	873.4	890.3	907.2	919.9	934.6	932.5	903.0	839.7
60°	645.6	647.8	654.1	666.7	679.4	694.1	711.0	723.7	730.0	715.3	675.1
62.5°	470.5	470.5	478.9	491.6	497.9	519.1	529.5	535.9	542.2	540.1	514.8
65°	329.2	333.3	337.6	343.9	350.2	362.9	369.2	381.8	386.1	388.2	369.2
67.5°	232.1	225.8	230.0	234.2	240.5	249.0	261.7	261.7	268.0	268.0	255.3
70°	147.7	147.7	149.8	156.2	160.3	162.5	166.7	170.9	177.2	175.2	175.2
72.5°	99.2	97.1	99.2	101.2	103.4	109.7	109.7	111.8	116.1	118.1	109.7
75°	50.6	52.8	56.9	54.9	61.2	56.9	59.1	65.4	63.3	59.1	59.1
77.5°	42.2	42.2	42.2	40.2	44.3	44.3	42.2	46.5	44.3	44.3	42.2
80°	29.5	31.6	29.5	27.4	29.5	27.4	27.4	27.4	27.4	27.4	25.3
82.5°	23.2	19.0	21.2	19.0	21.2	21.2	19.0	16.9	16.9	19.0	16.9
85°	16.9	12.6	14.7	14.7	12.6	12.6	12.6	12.6	12.6	10.6	10.6
87.5°	10.6	6.3	6.3	6.3	8.4	8.4	8.4	6.3	8.4	8.4	4.3
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6
2.5°	3936.9	3934.9	3939.1	3936.9	3936.9	3934.9	3936.9	3934.9	3939.1	3930.6	3932.8
5°	3936.9	3932.8	3934.9	3936.9	3939.1	3934.9	3934.9	3934.9	3939.1	3934.9	3936.9
7.5°	3928.5	3926.4	3932.8	3936.9	3934.9	3932.8	3936.9	3934.9	3939.1	3936.9	3941.2
10°	3911.6	3913.8	3918.0	3924.3	3926.4	3928.5	3932.8	3932.8	3939.1	3930.6	3934.9
12.5°	3886.3	3894.8	3905.3	3909.5	3918.0	3918.0	3922.2	3924.3	3928.5	3926.4	3932.8
15°	3854.7	3865.3	3877.9	3888.4	3899.0	3905.3	3911.6	3913.8	3920.1	3913.8	3915.9
17.5°	3816.7	3829.4	3848.4	3861.0	3877.9	3884.2	3892.6	3896.9	3903.2	3899.0	3901.0
20°	3763.9	3778.8	3799.8	3818.8	3829.4	3844.1	3854.7	3861.0	3865.3	3861.0	3863.1
22.5°	3690.1	3711.3	3738.6	3753.4	3774.5	3787.2	3789.3	3804.1	3814.5	3804.1	3808.2
25°	3603.6	3624.8	3645.8	3677.5	3696.4	3711.3	3726.0	3728.1	3738.6	3736.6	3734.4
27.5°	3460.2	3487.6	3523.4	3548.8	3574.0	3597.3	3614.2	3618.3	3628.9	3624.8	3626.8
30°	3263.8	3293.4	3327.3	3367.4	3403.2	3426.4	3447.4	3462.3	3472.8	3466.5	3464.3
32.5°	2985.4	3015.0	3050.9	3090.9	3133.1	3166.9	3192.2	3211.2	3223.8	3219.6	3209.1
35°	2666.8	2675.2	2698.5	2730.2	2766.0	2801.8	2825.1	2846.1	2860.9	2865.2	2865.2
37.5°	2339.8	2312.4	2295.6	2295.6	2316.6	2331.3	2352.5	2365.1	2388.4	2396.8	2403.1
40°	2023.3	1960.0	1900.9	1856.7	1827.1	1825.0	1825.0	1831.3	1852.4	1879.9	1905.2
42.5°	1740.6	1639.4	1548.7	1466.3	1407.3	1373.5	1358.8	1360.9	1377.8	1403.1	1445.2
45°	1514.8	1388.2	1274.4	1175.2	1095.0	1042.2	1017.0	1014.9	1027.5	1057.0	1103.5
47.5°	1339.8	1204.8	1076.1	962.1	875.6	818.7	789.1	780.6	789.1	816.5	871.4
50°	1194.2	1054.9	922.0	803.8	711.0	651.9	624.5	614.0	624.5	647.8	702.6
52.5°	1059.1	915.6	791.2	677.2	578.1	527.4	497.9	491.6	497.9	525.4	569.7
55°	903.0	780.6	658.2	544.3	457.9	407.2	384.0	377.7	384.0	409.3	455.7
57.5°	749.0	643.5	535.9	432.6	358.7	314.3	293.3	284.8	299.6	316.5	371.4
60°	605.5	521.1	430.4	339.6	278.6	238.4	221.5	219.4	223.6	244.8	282.7
62.5°	474.8	405.1	333.3	259.5	208.9	192.0	170.9	168.9	173.0	185.6	215.2
65°	341.8	297.6	242.7	189.9	149.8	126.6	118.1	120.3	124.4	133.0	160.3
67.5°	238.4	206.8	168.9	133.0	103.4	92.8	84.4	82.2	84.4	99.2	114.0
70°	160.3	141.3	114.0	101.2	71.8	56.9	59.1	52.8	61.2	61.2	73.8
72.5°	105.5	92.8	75.9	59.1	50.6	40.2	40.2	38.0	42.2	44.3	54.9
75°	54.9	42.2	42.2	29.5	21.2	10.6	19.0	16.9	14.7	16.9	21.2
77.5°	38.0	31.6	29.5	23.2	21.2	16.9	16.9	16.9	16.9	19.0	21.2
80°	23.2	23.2	16.9	14.7	12.6	10.6	12.6	12.6	12.6	12.6	14.7
82.5°	14.7	12.6	12.6	10.6	10.6	8.4	8.4	8.4	8.4	8.4	12.6
85°	12.6	8.4	8.4	6.3	8.4	14.7	6.3	8.4	8.4	8.4	6.3
87.5°	4.3	6.3	6.3	6.3	4.3	2.1	4.3	6.3	6.3	10.6	8.4
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°	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6	3930.6
2.5°	3936.9	3939.1	3939.1	3936.9	3936.9	3932.8	3941.2	3934.9	3936.9	3945.4	3939.1
5°	3941.2	3943.2	3943.2	3941.2	3941.2	3941.2	3943.2	3943.2	3941.2	3939.1	3943.2
7.5°	3949.6	3947.5	3947.5	3943.2	3943.2	3939.1	3943.2	3936.9	3941.2	3936.9	3943.2
10°	3939.1	3941.2	3939.1	3936.9	3936.9	3934.9	3934.9	3928.5	3930.6	3924.3	3928.5
12.5°	3932.8	3930.6	3930.6	3926.4	3922.2	3918.0	3915.9	3909.5	3909.5	3894.8	3901.0
15°	3915.9	3918.0	3911.6	3903.2	3899.0	3888.4	3884.2	3875.7	3867.3	3856.8	3859.0
17.5°	3901.0	3894.8	3886.3	3877.9	3861.0	3852.6	3844.1	3831.4	3827.2	3814.5	3810.4
20°	3856.8	3852.6	3842.1	3827.2	3816.7	3797.7	3789.3	3776.6	3766.0	3753.4	3747.0
22.5°	3799.8	3795.6	3782.9	3768.2	3751.3	3742.9	3734.4	3711.3	3700.7	3688.0	3685.8
25°	3728.1	3721.7	3709.1	3692.2	3683.8	3660.6	3652.1	3635.2	3631.0	3618.3	3616.3
27.5°	3618.3	3609.9	3595.2	3574.0	3559.3	3544.5	3536.1	3523.4	3519.2	3506.5	3504.5
30°	3453.9	3443.3	3413.7	3405.3	3380.0	3365.2	3365.2	3348.3	3350.5	3342.0	3342.0
32.5°	3194.3	3177.5	3154.2	3137.3	3120.4	3112.0	3112.0	3105.7	3110.0	3110.0	3114.1
35°	2850.4	2827.2	2814.5	2804.0	2804.0	2812.4	2837.7	2844.1	2856.7	2867.3	2875.7
37.5°	2409.4	2407.4	2422.1	2434.7	2466.5	2502.3	2546.5	2584.6	2620.5	2645.8	2671.1
40°	1932.6	1985.4	2027.6	2086.6	2135.1	2204.8	2285.0	2350.4	2411.5	2455.9	2502.3
42.5°	1508.5	1576.0	1664.7	1751.2	1837.7	1932.6	2038.2	2128.8	2209.0	2270.1	2318.7
45°	1175.2	1268.0	1375.6	1485.3	1597.2	1715.3	1825.0	1917.9	2002.3	2065.5	2114.1
47.5°	947.4	1048.6	1170.9	1291.3	1417.8	1542.3	1664.7	1744.9	1814.4	1865.1	1909.5
50°	782.8	890.3	1019.0	1156.2	1282.7	1407.3	1512.8	1590.9	1647.8	1692.1	1719.6
52.5°	654.1	767.9	905.2	1042.2	1168.9	1282.7	1377.8	1436.9	1483.2	1514.8	1540.1
55°	540.1	649.8	778.5	907.2	1031.7	1139.3	1217.4	1261.7	1297.6	1316.5	1331.3
57.5°	441.0	542.2	660.4	778.5	886.2	974.8	1035.9	1080.2	1097.1	1111.8	1109.8
60°	346.0	441.0	548.6	649.8	742.7	814.4	858.7	884.0	896.6	903.0	898.8
62.5°	272.1	358.7	441.0	529.5	597.0	658.2	700.5	700.5	706.8	708.9	715.3
65°	202.5	268.0	339.6	405.1	459.9	500.1	523.2	529.5	538.0	535.9	531.7
67.5°	149.8	198.3	251.1	299.6	337.6	362.9	379.8	394.5	392.4	388.2	386.1
70°	103.4	135.0	181.5	210.9	238.4	263.7	268.0	270.0	272.1	274.3	270.0
72.5°	71.8	95.0	120.3	145.6	162.5	173.0	183.6	185.6	185.6	185.6	183.6
75°	35.9	48.5	71.8	82.2	97.1	101.2	109.7	109.7	116.1	107.6	105.5
77.5°	31.6	38.0	50.6	59.1	65.4	71.8	73.8	80.2	78.1	73.8	75.9
80°	19.0	23.2	31.6	35.9	44.3	46.5	48.5	50.6	48.5	50.6	50.6
82.5°	14.7	16.9	21.2	21.2	27.4	27.4	29.5	29.5	31.6	31.6	31.6
85°	8.4	14.7	12.6	25.3	16.9	16.9	21.2	25.3	21.2	21.2	25.3
87.5°	8.4	8.4	6.3	8.4	8.4	8.4	10.6	12.6	12.6	14.7	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: P249283

CATALOG NUMBER: LSR8B90D010 EC8B90927 8LBDW0WMH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3930.6	3930.6	3930.6	3930.6
2.5°	3936.9	3941.2	3934.9	3932.8
5°	3943.2	3943.2	3939.1	3939.1
7.5°	3943.2	3943.2	3936.9	3932.8
10°	3926.4	3926.4	3920.1	3915.9
12.5°	3894.8	3894.8	3892.6	3886.3
15°	3854.7	3854.7	3846.3	3840.0
17.5°	3799.8	3804.1	3793.5	3793.5
20°	3740.7	3738.6	3730.3	3726.0
22.5°	3679.5	3675.4	3673.2	3660.6
25°	3614.2	3609.9	3603.6	3597.3
27.5°	3502.4	3500.2	3493.9	3485.5
30°	3331.5	3329.3	3320.9	3320.9
32.5°	3110.0	3107.8	3099.4	3101.5
35°	2879.9	2888.4	2884.2	2875.7
37.5°	2688.0	2694.3	2698.5	2694.3
40°	2527.5	2546.5	2548.7	2553.0
42.5°	2356.8	2382.0	2390.5	2394.7
45°	2152.0	2175.3	2194.2	2190.0
47.5°	1943.1	1960.0	1977.0	1964.2
50°	1742.7	1753.3	1759.6	1759.6
52.5°	1552.8	1552.8	1550.7	1552.8
55°	1335.5	1335.5	1327.2	1331.3
57.5°	1107.7	1111.8	1105.5	1095.0
60°	896.6	886.2	881.9	875.6
62.5°	698.4	698.4	683.7	702.6
65°	523.2	516.9	510.5	508.5
67.5°	379.8	377.7	371.4	369.2
70°	268.0	259.5	257.4	253.1
72.5°	179.3	179.3	175.2	175.2
75°	109.7	99.2	97.1	99.2
77.5°	75.9	73.8	73.8	71.8
80°	50.6	48.5	52.8	46.5
82.5°	31.6	33.8	31.6	33.8
85°	21.2	25.3	23.2	23.2
87.5°	12.6	12.6	12.6	12.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)