

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: P249771

Luminaire Tested: **LSR8B90D010 EC8B909727 8LBSW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249771  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13955)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B909727 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6939.0 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.15  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

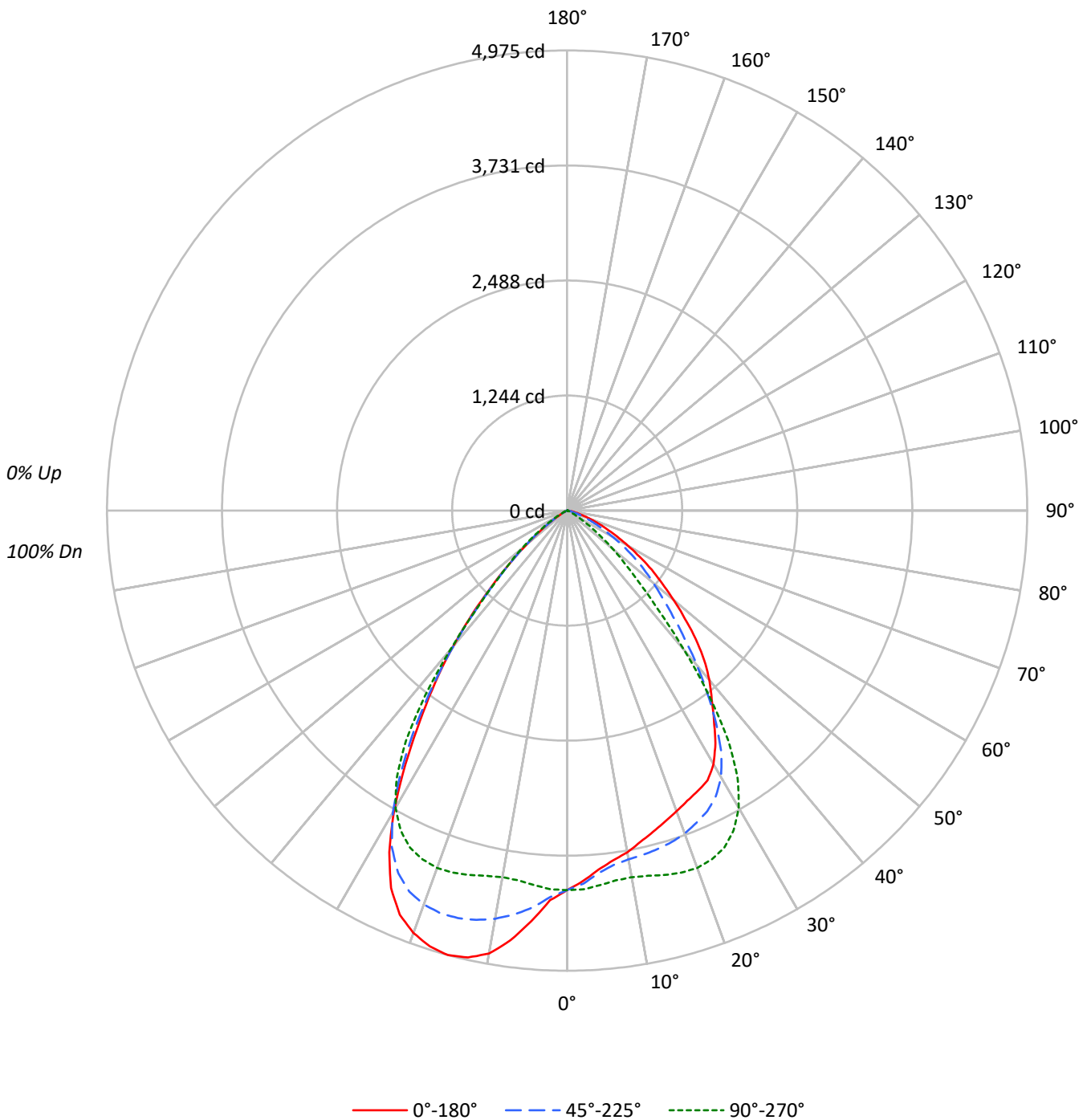
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60
6	80	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38

**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°	394.4	5.7
10°-20°	1180.5	17.0
20°-30°	1807.8	26.1
30°-40°	1772.3	25.5
40°-50°	1067.3	15.4
50°-60°	491.2	7.1
60°-70°	172.6	2.5
70°-80°	45.1	0.7
80°-90°	7.7	0.1
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°	3382.8	48.8
0°-40°	5155.1	74.3
0°-60°	6713.6	96.8
0°-90°	6939.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6939.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4103	4103	4103	4103	4103	
5°	3894	3930	4065	4308	4456	368
15°	3595	3789	4078	4561	4975	1016
25°	3344	3585	4021	4324	4504	1540
35°	2767	2805	3037	2862	2770	1733
45°	1965	1618	1097	1104	1133	1507
55°	1116	884	314	247	238	996
65°	474	328	50	25	27	482
75°	123	71	4	0	0	149
85°	19	10	2	0	0	26
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°	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0
2.5°	4007.2	4011.0	4011.0	4011.0	4018.7	4020.7	4018.7	4020.7	4024.4	4037.9	4043.6
5°	3894.1	3888.3	3892.2	3890.2	3899.8	3905.6	3901.7	3907.5	3920.9	3930.5	3940.1
7.5°	3813.6	3813.6	3813.6	3817.4	3823.1	3834.6	3832.7	3836.5	3850.0	3863.4	3876.8
10°	3750.3	3748.4	3748.4	3757.9	3765.6	3779.0	3782.9	3794.4	3811.6	3828.9	3844.2
12.5°	3667.8	3669.8	3679.3	3689.0	3706.2	3727.2	3738.8	3754.1	3781.0	3809.7	3827.0
15°	3595.0	3596.9	3604.6	3623.7	3644.8	3669.8	3694.6	3719.6	3752.2	3788.6	3819.3
17.5°	3524.0	3525.9	3531.7	3552.8	3579.7	3612.3	3641.0	3673.6	3715.8	3757.9	3796.3
20°	3458.8	3456.9	3466.5	3485.7	3520.2	3550.9	3579.7	3618.0	3664.0	3715.8	3759.8
22.5°	3395.5	3395.5	3405.2	3424.3	3455.0	3485.7	3516.4	3556.6	3602.6	3652.5	3704.3
25°	3343.8	3341.9	3355.3	3364.9	3387.9	3418.6	3451.2	3483.8	3529.8	3585.4	3635.2
27.5°	3288.2	3286.3	3288.2	3299.7	3320.8	3343.8	3368.7	3397.5	3435.9	3481.9	3529.8
30°	3165.5	3167.4	3167.4	3177.0	3188.5	3213.4	3226.8	3255.6	3290.1	3328.5	3370.7
32.5°	2983.4	2985.2	2985.2	2989.1	2998.7	3010.2	3021.7	3042.8	3069.6	3102.2	3140.6
35°	2766.7	2766.7	2764.7	2766.7	2772.5	2772.5	2782.0	2772.5	2785.9	2805.1	2833.8
37.5°	2567.3	2563.4	2559.6	2555.8	2550.0	2540.5	2527.0	2504.0	2498.2	2490.6	2492.5
40°	2390.9	2389.0	2377.5	2367.9	2348.7	2325.7	2293.1	2252.9	2220.3	2181.9	2149.3
42.5°	2195.4	2193.4	2183.8	2166.5	2145.5	2111.0	2059.2	2005.6	1940.4	1882.8	1823.4
45°	1965.2	1971.0	1957.6	1938.4	1913.5	1880.9	1823.4	1758.1	1693.0	1618.2	1543.4
47.5°	1725.6	1723.7	1714.1	1702.6	1681.5	1648.9	1610.6	1539.6	1470.6	1401.6	1324.9
50°	1503.2	1495.5	1491.6	1480.2	1466.8	1439.9	1399.6	1342.1	1280.8	1215.6	1144.6
52.5°	1292.3	1292.3	1282.7	1275.0	1263.5	1242.4	1207.9	1161.9	1110.1	1048.7	974.0
55°	1115.9	1112.0	1102.5	1092.9	1081.3	1067.9	1037.3	998.9	943.3	883.9	818.7
57.5°	928.0	926.0	922.2	910.7	905.0	891.5	857.1	818.7	770.8	719.0	665.3
60°	759.3	751.6	743.9	736.2	726.7	713.3	690.2	657.6	617.4	571.4	517.7
62.5°	607.8	619.3	596.3	596.3	577.1	565.6	544.5	525.4	483.1	441.0	395.0
65°	473.6	473.6	464.0	456.3	444.8	431.4	410.3	391.1	360.4	327.8	295.2
67.5°	362.4	360.4	350.9	343.2	333.6	325.9	310.6	287.6	264.6	237.8	210.9
70°	266.5	264.6	262.6	249.2	241.6	232.0	220.5	205.2	187.9	168.7	143.8
72.5°	191.7	191.7	186.0	180.2	172.6	164.9	153.4	143.8	128.5	115.1	97.8
75°	122.7	120.8	120.8	111.2	111.2	99.7	92.0	86.3	78.6	70.9	55.6
77.5°	88.2	86.3	84.4	80.5	76.7	72.8	67.1	59.4	53.7	46.0	40.2
80°	59.4	55.6	53.7	53.7	47.9	46.0	47.9	36.5	34.5	28.7	24.9
82.5°	36.5	36.5	34.5	34.5	32.6	30.7	24.9	24.9	23.0	21.1	17.3
85°	19.2	24.9	17.3	19.2	17.3	19.2	17.3	13.4	11.5	9.5	9.5
87.5°	11.5	7.7	7.7	11.5	9.5	7.7	7.7	7.7	5.8	3.9	3.9
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°	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0
2.5°	4039.8	4053.2	4051.3	4068.6	4074.3	4087.7	4087.7	4097.3	4103.0	4116.5	4128.0
5°	3943.9	3965.0	3970.8	3991.8	4009.1	4030.2	4043.6	4064.7	4083.9	4112.7	4139.5
7.5°	3884.5	3901.7	3913.2	3938.2	3957.4	3980.3	4003.4	4032.1	4058.9	4093.5	4131.9
10°	3855.7	3878.8	3896.0	3920.9	3943.9	3968.9	3991.8	4024.4	4055.1	4099.3	4141.4
12.5°	3848.1	3874.9	3896.0	3930.5	3953.5	3980.3	4007.2	4043.6	4076.2	4122.2	4170.2
15°	3848.1	3884.5	3913.2	3951.6	3978.4	4012.9	4041.7	4078.1	4114.6	4162.5	4208.5
17.5°	3840.4	3884.5	3920.9	3965.0	3999.5	4034.1	4070.5	4105.0	4143.3	4189.4	4241.1
20°	3809.7	3865.3	3909.4	3961.2	3997.6	4036.0	4072.4	4110.7	4151.0	4198.9	4243.0
22.5°	3756.0	3821.2	3871.1	3926.7	3968.9	4007.2	4043.6	4082.0	4126.1	4172.1	4218.1
25°	3685.1	3746.4	3800.2	3857.6	3899.8	3942.0	3976.5	4020.7	4060.9	4105.0	4141.4
27.5°	3577.7	3642.9	3694.6	3754.1	3792.4	3832.7	3861.5	3897.9	3936.3	3972.7	4001.5
30°	3416.7	3476.1	3529.8	3583.4	3621.8	3650.6	3681.2	3710.0	3735.0	3759.8	3784.8
32.5°	3180.8	3234.5	3286.3	3336.1	3366.8	3391.8	3414.7	3432.0	3445.4	3458.8	3460.7
35°	2856.8	2900.9	2933.5	2977.6	3006.4	3029.4	3029.4	3037.0	3035.1	3029.4	3023.6
37.5°	2494.5	2511.7	2525.1	2542.4	2544.2	2544.2	2532.8	2523.2	2507.9	2504.0	2492.5
40°	2116.7	2093.7	2076.4	2053.5	2040.0	2011.2	1986.4	1969.1	1944.2	1940.4	1936.5
42.5°	1758.1	1704.5	1656.6	1616.3	1570.3	1530.0	1493.6	1466.8	1447.6	1445.6	1447.6
45°	1466.8	1405.4	1334.4	1278.9	1227.1	1177.2	1129.3	1096.7	1079.4	1075.6	1079.4
47.5°	1246.3	1175.3	1106.3	1043.0	987.4	931.8	883.9	839.8	818.7	812.9	811.0
50°	1071.8	998.9	926.0	860.8	799.5	743.9	684.5	642.3	615.5	605.9	598.2
52.5°	901.2	836.0	761.2	694.1	632.7	567.5	506.2	458.2	431.4	419.9	412.2
55°	751.6	686.4	617.4	552.2	487.0	421.8	360.4	314.4	285.7	272.3	262.6
57.5°	600.1	538.8	479.4	414.2	360.4	297.2	235.8	195.6	170.6	155.3	147.7
60°	464.0	416.1	364.3	310.6	258.9	207.1	157.2	118.9	99.7	88.2	78.6
62.5°	350.9	310.6	276.1	230.0	189.8	145.7	107.4	76.7	59.4	49.9	46.0
65°	253.1	222.4	191.7	163.0	134.2	101.6	72.8	49.9	34.5	28.7	26.8
67.5°	180.2	155.3	132.3	113.1	92.0	72.8	51.8	34.5	26.8	23.0	21.1
70°	126.5	107.4	92.0	74.8	61.3	47.9	40.2	24.9	15.3	17.3	13.4
72.5°	84.4	70.9	63.3	51.8	42.1	34.5	24.9	17.3	17.3	13.4	11.5
75°	46.0	42.1	32.6	24.9	21.1	19.2	7.7	3.9	1.9	5.8	1.9
77.5°	32.6	28.7	24.9	21.1	17.3	13.4	7.7	7.7	5.8	7.7	3.9
80°	21.1	17.3	15.3	15.3	9.5	5.8	3.9	3.9	5.8	1.9	1.9
82.5°	13.4	11.5	9.5	9.5	9.5	5.8	5.8	5.8	5.8	3.9	3.9
85°	7.7	5.8	3.9	3.9	1.9	3.9	0.0	1.9	1.9	0.0	0.0
87.5°	3.9	1.9	1.9	1.9	1.9	0.0	0.0	1.9	0.0	1.9	0.0
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°	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0	4103.0
2.5°	4135.6	4143.3	4152.9	4160.6	4177.9	4181.6	4189.4	4197.0	4202.8	4208.5	4210.5
5°	4162.5	4191.3	4218.1	4246.8	4283.3	4308.2	4337.0	4361.9	4386.8	4407.9	4423.2
7.5°	4170.2	4214.2	4254.6	4304.4	4358.0	4404.1	4452.0	4499.9	4549.8	4588.2	4620.7
10°	4185.5	4239.2	4291.0	4350.4	4419.4	4480.7	4540.2	4603.5	4666.8	4720.4	4768.4
12.5°	4212.3	4271.8	4327.4	4392.6	4463.5	4532.5	4597.7	4668.7	4735.8	4795.2	4848.9
15°	4256.5	4312.0	4365.8	4427.1	4498.0	4561.3	4626.5	4695.5	4762.6	4824.0	4873.8
17.5°	4285.2	4337.0	4390.6	4446.3	4505.7	4563.2	4624.5	4685.9	4747.3	4802.9	4848.9
20°	4285.2	4335.1	4375.3	4425.2	4480.7	4530.6	4580.5	4634.2	4687.8	4733.8	4778.0
22.5°	4250.7	4298.6	4329.3	4367.7	4415.6	4457.8	4484.6	4544.0	4584.3	4624.5	4657.1
25°	4170.2	4204.7	4229.6	4256.5	4294.8	4323.5	4346.6	4381.1	4421.3	4436.7	4459.7
27.5°	4024.4	4049.4	4062.8	4068.6	4087.7	4103.0	4106.9	4122.2	4139.5	4143.3	4152.9
30°	3794.4	3796.3	3790.5	3788.6	3779.0	3767.6	3765.6	3763.7	3756.0	3748.4	3750.3
32.5°	3447.3	3437.8	3414.7	3389.9	3364.9	3338.1	3322.7	3303.5	3292.0	3280.6	3267.1
35°	2998.7	2975.7	2943.1	2912.4	2883.7	2862.5	2828.0	2816.5	2805.1	2789.7	2785.9
37.5°	2471.4	2458.0	2427.3	2404.3	2389.0	2379.4	2362.1	2350.7	2350.7	2344.9	2341.0
40°	1926.9	1923.1	1911.6	1917.3	1909.7	1913.5	1911.6	1907.7	1917.3	1917.3	1921.2
42.5°	1445.6	1447.6	1453.4	1457.1	1468.7	1470.6	1480.2	1480.2	1486.0	1491.6	1495.5
45°	1075.6	1083.3	1083.3	1091.0	1102.5	1104.4	1108.2	1110.1	1113.9	1123.6	1127.3
47.5°	807.2	809.1	809.1	811.0	814.8	818.7	816.8	818.7	824.5	820.6	824.5
50°	596.3	598.2	592.4	586.7	592.4	592.4	590.5	584.8	590.5	582.9	586.7
52.5°	406.5	404.5	398.8	400.7	396.9	395.0	395.0	391.1	391.1	391.1	383.5
55°	257.0	257.0	253.1	253.1	251.2	247.3	245.4	243.5	241.6	239.7	239.7
57.5°	143.8	145.7	140.0	138.0	140.0	138.0	134.2	134.2	134.2	128.5	132.3
60°	78.6	76.7	74.8	72.8	70.9	72.8	72.8	69.1	69.1	69.1	70.9
62.5°	42.1	42.1	40.2	40.2	38.4	38.4	42.1	36.5	38.4	36.5	38.4
65°	23.0	28.7	21.1	21.1	26.8	24.9	23.0	23.0	24.9	21.1	23.0
67.5°	24.9	17.3	15.3	17.3	15.3	15.3	15.3	19.2	17.3	13.4	17.3
70°	11.5	13.4	13.4	9.5	15.3	7.7	13.4	7.7	11.5	9.5	11.5
72.5°	11.5	11.5	11.5	7.7	11.5	7.7	9.5	9.5	7.7	7.7	11.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.9	3.9	1.9	1.9	1.9	1.9	3.9	3.9	3.9	0.0	1.9
80°	3.9	3.9	0.0	1.9	0.0	0.0	1.9	0.0	1.9	0.0	3.9
82.5°	1.9	3.9	1.9	1.9	3.9	3.9	3.9	1.9	1.9	1.9	1.9
85°	0.0	1.9	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	1.9
87.5°	0.0	1.9	0.0	0.0	0.0	0.0	1.9	1.9	0.0	0.0	0.0
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: P249771

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBSWOLI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4103.0	4103.0	4103.0	4103.0
2.5°	4212.3	4214.2	4218.1	4216.2
5°	4434.7	4450.1	4457.8	4455.9
7.5°	4643.7	4670.6	4685.9	4685.9
10°	4804.8	4835.5	4858.5	4862.3
12.5°	4891.0	4925.6	4956.3	4948.6
15°	4916.0	4950.5	4981.2	4975.4
17.5°	4887.3	4921.7	4944.8	4940.9
20°	4808.7	4837.4	4860.4	4858.5
22.5°	4685.9	4710.9	4730.1	4728.1
25°	4478.9	4496.1	4511.4	4503.8
27.5°	4160.6	4166.3	4175.9	4164.4
30°	3736.9	3740.7	3744.5	3742.6
32.5°	3261.4	3259.4	3255.6	3251.8
35°	2780.1	2780.1	2782.0	2770.5
37.5°	2342.9	2341.0	2346.8	2341.0
40°	1925.0	1923.1	1930.7	1921.2
42.5°	1501.3	1507.0	1508.9	1508.9
45°	1129.3	1131.2	1133.1	1133.1
47.5°	824.5	826.4	836.0	824.5
50°	582.9	584.8	586.7	582.9
52.5°	385.4	387.3	385.4	379.6
55°	235.8	237.8	237.8	237.8
57.5°	126.5	128.5	128.5	126.5
60°	69.1	67.1	69.1	65.2
62.5°	36.5	40.2	38.4	34.5
65°	23.0	23.0	23.0	26.8
67.5°	19.2	15.3	17.3	13.4
70°	11.5	13.4	13.4	9.5
72.5°	9.5	9.5	9.5	11.5
75°	0.0	0.0	0.0	0.0
77.5°	3.9	3.9	3.9	1.9
80°	1.9	0.0	1.9	0.0
82.5°	1.9	1.9	3.9	1.9
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)