

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: P249364

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249364
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 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7969.0 lumens
Efficiency: N/A
Efficacy: 92.6 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

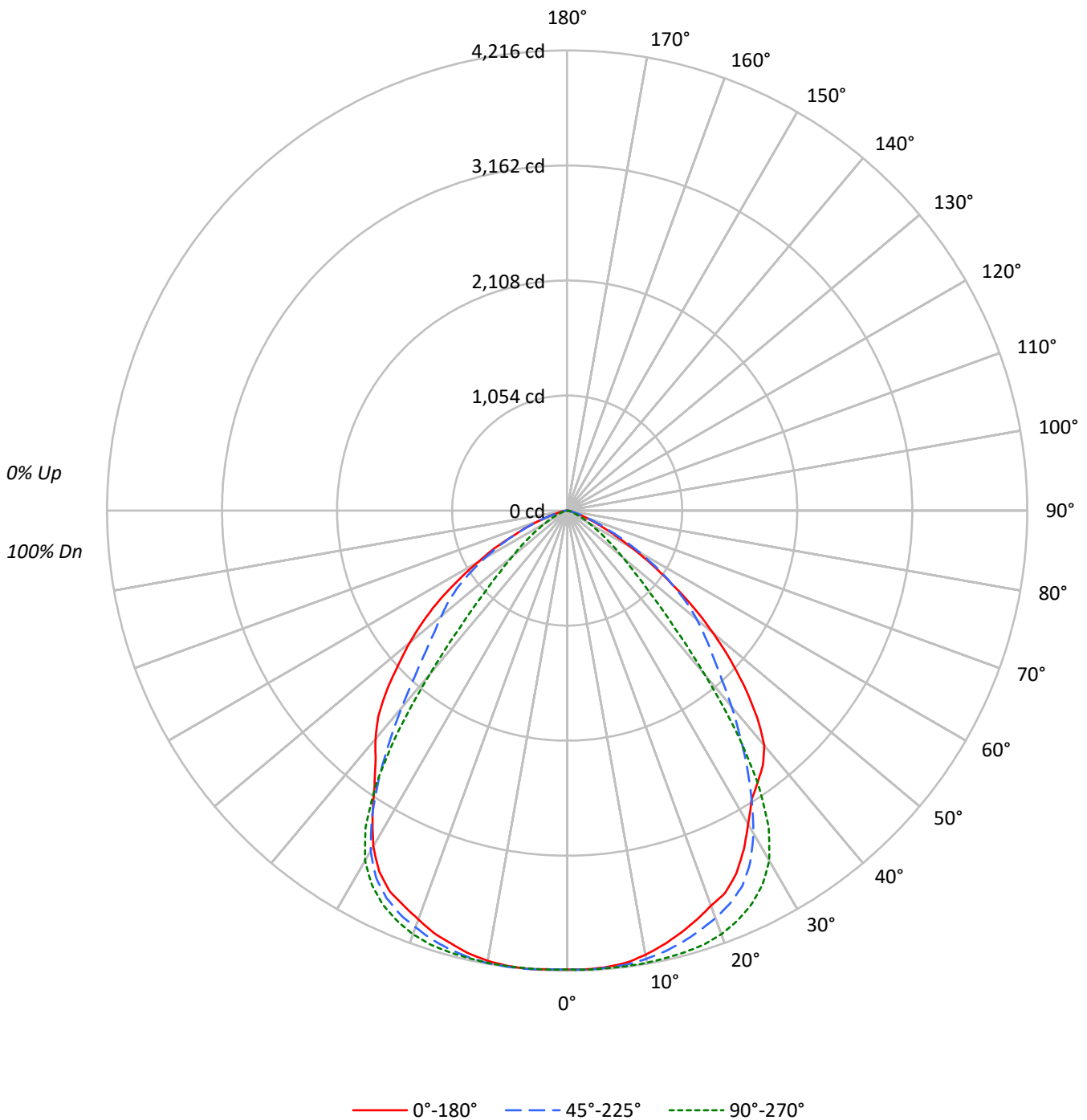
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	129654	129654	129654
5°	129939	130289	130431
10°	129394	131727	131160
15°	127958	133650	131131
20°	126424	135531	130792
25°	124783	135688	130925
30°	118050	131873	126489
35°	114525	114608	115801
40°	113106	78857	109930
45°	100785	47342	102163
50°	83804	31509	90299
55°	62853	21720	76562
60°	42591	14475	57763
65°	25691	9391	39686
70°	14245	5085	24415
75°	6458	2156	12641
80°	5612	2397	8808
85°	6404	3184	8774



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.3	5.0
10°-20°	1165.3	14.6
20°-30°	1768.8	22.2
30°-40°	1857.7	23.3
40°-50°	1392.8	17.5
50°-60°	893.7	11.2
60°-70°	382.3	4.8
70°-80°	90.3	1.1
80°-90°	16.8	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°	3335.4	41.9
0°-40°	5193.1	65.2
0°-60°	7479.6	93.9
0°-90°	7969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7969.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4205	4205	4205	4205	4205	
5°	4198	4205	4209	4216	4214	399
15°	4008	4092	4186	4160	4108	1131
25°	3668	3796	3988	3916	3848	1675
35°	3042	2873	3044	3008	3076	1909
45°	2311	1889	1086	1835	2343	1770
55°	1169	1169	404	1219	1424	1060
65°	352	415	129	535	544	376
75°	54	63	18	108	106	79
85°	18	11	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°	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6
2.5°	4206.9	4211.4	4209.1	4209.1	4206.9	4209.1	4209.1	4213.7	4213.7	4209.1	4206.9
5°	4197.8	4202.3	4202.3	4197.8	4197.8	4209.1	4202.3	4206.9	4206.9	4204.6	4204.6
7.5°	4177.5	4177.5	4186.5	4179.8	4179.8	4186.5	4184.3	4188.8	4193.3	4195.6	4195.6
10°	4132.4	4136.9	4139.2	4139.2	4141.4	4148.2	4152.7	4161.7	4166.2	4170.7	4173.0
12.5°	4076.0	4082.7	4085.0	4082.7	4089.5	4098.5	4109.8	4121.1	4127.9	4136.9	4143.7
15°	4008.2	4008.2	4012.8	4019.5	4024.1	4037.6	4048.9	4062.4	4080.5	4091.8	4103.0
17.5°	3933.8	3938.3	3945.1	3945.1	3954.1	3976.6	3983.4	4003.8	4024.1	4035.3	4057.9
20°	3852.6	3857.0	3863.8	3868.3	3879.6	3897.7	3911.2	3929.3	3951.8	3972.2	3994.7
22.5°	3789.3	3780.3	3784.8	3789.3	3800.6	3816.4	3832.2	3854.8	3877.4	3897.7	3920.3
25°	3667.5	3669.7	3676.5	3681.0	3694.6	3708.1	3726.2	3753.2	3773.5	3796.1	3820.9
27.5°	3502.7	3505.0	3516.3	3516.3	3527.5	3550.1	3561.4	3584.0	3611.1	3633.6	3663.0
30°	3315.4	3319.9	3319.9	3328.9	3335.7	3347.0	3358.3	3380.8	3394.4	3414.7	3455.3
32.5°	3143.9	3148.4	3146.1	3143.9	3137.1	3134.8	3132.6	3137.1	3141.6	3148.4	3164.2
35°	3042.3	3031.0	3022.0	3006.2	2988.2	2965.6	2945.2	2918.2	2893.3	2873.0	2850.5
37.5°	2945.2	2943.0	2929.5	2906.9	2870.8	2830.2	2782.8	2724.1	2665.4	2602.2	2541.3
40°	2809.8	2803.0	2791.8	2760.2	2719.6	2669.9	2606.7	2534.5	2439.7	2342.7	2243.4
42.5°	2579.6	2581.9	2568.4	2543.5	2505.2	2457.7	2392.3	2313.3	2211.8	2096.6	1968.0
45°	2311.1	2311.1	2306.5	2286.2	2259.2	2220.8	2171.1	2105.7	2006.4	1889.0	1751.3
47.5°	2031.2	2033.5	2026.7	2022.2	2010.9	1986.1	1950.0	1900.3	1830.4	1717.5	1579.8
50°	1746.9	1746.9	1758.1	1755.9	1755.9	1746.9	1731.1	1701.7	1640.8	1550.5	1421.9
52.5°	1462.5	1467.0	1473.8	1482.8	1494.1	1512.1	1494.1	1480.5	1442.1	1372.2	1261.6
55°	1169.1	1173.6	1184.9	1200.7	1214.2	1232.3	1236.8	1236.8	1216.4	1169.1	1085.6
57.5°	918.6	911.8	920.8	934.4	952.4	970.5	984.0	999.8	997.5	966.0	898.3
60°	690.6	692.9	699.6	713.2	726.7	742.5	760.6	774.1	780.9	765.1	722.2
62.5°	503.3	503.3	512.3	525.8	532.6	555.2	566.5	573.3	580.0	577.7	550.7
65°	352.1	356.6	361.1	367.9	374.6	388.2	395.0	408.5	413.0	415.3	395.0
67.5°	248.3	241.5	246.0	250.5	257.3	266.3	279.9	279.9	286.6	286.6	273.1
70°	158.0	158.0	160.3	167.0	171.5	173.8	178.3	182.8	189.6	187.3	187.3
72.5°	106.1	103.8	106.1	108.3	110.6	117.3	117.3	119.6	124.1	126.4	117.3
75°	54.2	56.4	60.9	58.7	65.4	60.9	63.2	70.0	67.7	63.2	63.2
77.5°	45.1	45.1	45.1	42.9	47.4	47.4	45.1	49.6	47.4	47.4	45.1
80°	31.6	33.9	31.6	29.3	31.6	29.3	29.3	29.3	29.3	29.3	27.1
82.5°	24.8	20.3	22.6	20.3	22.6	22.6	20.3	18.1	18.1	20.3	18.1
85°	18.1	13.5	15.8	15.8	13.5	13.5	13.5	13.5	13.5	11.3	11.3
87.5°	11.3	6.8	6.8	6.8	9.0	9.0	9.0	6.8	9.0	9.0	4.5
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°	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6
2.5°	4211.4	4209.1	4213.7	4211.4	4211.4	4209.1	4211.4	4209.1	4213.7	4204.6	4206.9
5°	4211.4	4206.9	4209.1	4211.4	4213.7	4209.1	4209.1	4209.1	4213.7	4209.1	4211.4
7.5°	4202.3	4200.1	4206.9	4211.4	4209.1	4206.9	4211.4	4209.1	4213.7	4211.4	4215.9
10°	4184.3	4186.5	4191.1	4197.8	4200.1	4202.3	4206.9	4206.9	4213.7	4204.6	4209.1
12.5°	4157.2	4166.2	4177.5	4182.0	4191.1	4191.1	4195.6	4197.8	4202.3	4200.1	4206.9
15°	4123.4	4134.6	4148.2	4159.5	4170.7	4177.5	4184.3	4186.5	4193.3	4186.5	4188.8
17.5°	4082.7	4096.3	4116.6	4130.1	4148.2	4155.0	4164.0	4168.5	4175.3	4170.7	4173.0
20°	4026.3	4042.1	4064.7	4085.0	4096.3	4112.0	4123.4	4130.1	4134.6	4130.1	4132.4
22.5°	3947.3	3969.9	3999.2	4015.0	4037.6	4051.1	4053.4	4069.2	4080.5	4069.2	4073.7
25°	3854.8	3877.4	3899.9	3933.8	3954.1	3969.9	3985.7	3988.0	3999.2	3997.0	3994.7
27.5°	3701.3	3730.7	3769.0	3796.1	3823.2	3848.0	3866.1	3870.6	3881.9	3877.4	3879.6
30°	3491.4	3523.0	3559.2	3602.0	3640.4	3665.2	3687.8	3703.6	3714.8	3708.1	3705.8
32.5°	3193.5	3225.1	3263.5	3306.3	3351.5	3387.6	3414.7	3435.0	3448.5	3444.0	3432.8
35°	2852.7	2861.8	2886.6	2920.5	2958.8	2997.2	3022.0	3044.5	3060.3	3064.9	3064.9
37.5°	2502.9	2473.6	2455.5	2455.5	2478.1	2493.9	2516.4	2530.0	2554.8	2563.8	2570.6
40°	2164.3	2096.6	2033.5	1986.1	1954.5	1952.2	1952.2	1959.0	1981.6	2010.9	2038.0
42.5°	1861.9	1753.6	1656.6	1568.5	1505.4	1469.3	1453.5	1455.7	1473.8	1500.8	1546.0
45°	1620.5	1485.0	1363.2	1257.1	1171.3	1114.9	1087.8	1085.6	1099.1	1130.7	1180.4
47.5°	1433.1	1288.7	1151.0	1029.1	936.6	875.7	844.1	835.1	844.1	873.4	932.1
50°	1277.4	1128.5	986.3	859.9	760.6	697.4	668.0	656.8	668.0	692.9	751.5
52.5°	1132.9	979.5	846.3	724.5	618.4	564.2	532.6	525.8	532.6	561.9	609.4
55°	966.0	835.1	704.1	582.3	489.8	435.6	410.7	404.0	410.7	437.9	487.5
57.5°	801.2	688.4	573.3	462.7	383.7	336.3	313.7	304.7	320.5	338.5	397.2
60°	647.7	557.5	460.4	363.4	297.9	255.0	237.0	234.7	239.2	261.8	302.4
62.5°	507.8	433.3	356.6	277.6	223.4	205.4	182.8	180.6	185.1	198.6	230.2
65°	365.6	318.2	259.5	203.1	160.3	135.4	126.4	128.7	133.1	142.2	171.5
67.5°	255.0	221.2	180.6	142.2	110.6	99.3	90.3	88.0	90.3	106.1	121.9
70°	171.5	151.2	121.9	108.3	76.8	60.9	63.2	56.4	65.4	65.4	79.0
72.5°	112.8	99.3	81.2	63.2	54.2	42.9	42.9	40.6	45.1	47.4	58.7
75°	58.7	45.1	45.1	31.6	22.6	11.3	20.3	18.1	15.8	18.1	22.6
77.5°	40.6	33.9	31.6	24.8	22.6	18.1	18.1	18.1	18.1	20.3	22.6
80°	24.8	24.8	18.1	15.8	13.5	11.3	13.5	13.5	13.5	13.5	15.8
82.5°	15.8	13.5	13.5	11.3	11.3	9.0	9.0	9.0	9.0	9.0	13.5
85°	13.5	9.0	9.0	6.8	9.0	15.8	6.8	9.0	9.0	9.0	6.8
87.5°	4.5	6.8	6.8	6.8	4.5	2.3	4.5	6.8	6.8	11.3	9.0
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°	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6	4204.6
2.5°	4211.4	4213.7	4213.7	4211.4	4211.4	4206.9	4215.9	4209.1	4211.4	4220.4	4213.7
5°	4215.9	4218.1	4218.1	4215.9	4215.9	4215.9	4218.1	4218.1	4215.9	4213.7	4218.1
7.5°	4224.9	4222.7	4222.7	4218.1	4218.1	4213.7	4218.1	4211.4	4215.9	4211.4	4218.1
10°	4213.7	4215.9	4213.7	4211.4	4211.4	4209.1	4209.1	4202.3	4204.6	4197.8	4202.3
12.5°	4206.9	4204.6	4204.6	4200.1	4195.6	4191.1	4188.8	4182.0	4182.0	4166.2	4173.0
15°	4188.8	4191.1	4184.3	4175.3	4170.7	4159.5	4155.0	4145.9	4136.9	4125.6	4127.9
17.5°	4173.0	4166.2	4157.2	4148.2	4130.1	4121.1	4112.0	4098.5	4094.0	4080.5	4076.0
20°	4125.6	4121.1	4109.8	4094.0	4082.7	4062.4	4053.4	4039.9	4028.6	4015.0	4008.2
22.5°	4064.7	4060.1	4046.6	4030.8	4012.8	4003.8	3994.7	3969.9	3958.6	3945.1	3942.8
25°	3988.0	3981.2	3967.6	3949.6	3940.5	3915.7	3906.7	3888.6	3884.1	3870.6	3868.3
27.5°	3870.6	3861.6	3845.8	3823.2	3807.4	3791.6	3782.6	3769.0	3764.5	3750.9	3748.7
30°	3694.6	3683.2	3651.7	3642.7	3615.5	3599.7	3599.7	3581.7	3584.0	3575.0	3575.0
32.5°	3417.0	3398.9	3374.1	3356.0	3337.9	3328.9	3328.9	3322.1	3326.7	3326.7	3331.2
35°	3049.1	3024.3	3010.7	2999.4	2999.4	3008.4	3035.5	3042.3	3055.9	3067.1	3076.2
37.5°	2577.4	2575.1	2590.9	2604.5	2638.3	2676.7	2724.1	2764.7	2803.0	2830.2	2857.2
40°	2067.3	2123.8	2168.9	2232.1	2284.0	2358.5	2444.2	2514.2	2579.6	2627.1	2676.7
42.5°	1613.7	1685.9	1780.7	1873.2	1965.8	2067.3	2180.2	2277.2	2363.0	2428.4	2480.3
45°	1257.1	1356.4	1471.5	1588.9	1708.5	1834.9	1952.2	2051.5	2141.8	2209.5	2261.4
47.5°	1013.3	1121.7	1252.6	1381.2	1516.6	1649.8	1780.7	1866.5	1940.9	1995.1	2042.5
50°	837.3	952.4	1090.1	1236.8	1372.2	1505.4	1618.2	1701.7	1762.7	1810.0	1839.4
52.5°	699.6	821.5	968.2	1114.9	1250.3	1372.2	1473.8	1537.0	1586.6	1620.5	1647.5
55°	577.7	695.1	832.8	970.5	1103.6	1218.7	1302.2	1349.6	1388.0	1408.3	1424.1
57.5°	471.7	580.0	706.4	832.8	947.9	1042.7	1108.2	1155.5	1173.6	1189.4	1187.1
60°	370.2	471.7	586.8	695.1	794.4	871.1	918.6	945.6	959.2	966.0	961.4
62.5°	291.1	383.7	471.7	566.5	638.7	704.1	749.3	749.3	756.1	758.3	765.1
65°	216.6	286.6	363.4	433.3	492.0	534.9	559.7	566.5	575.5	573.3	568.7
67.5°	160.3	212.2	268.5	320.5	361.1	388.2	406.2	422.1	419.8	415.3	413.0
70°	110.6	144.5	194.1	225.7	255.0	282.1	286.6	288.9	291.1	293.4	288.9
72.5°	76.8	101.6	128.7	155.7	173.8	185.1	196.4	198.6	198.6	198.6	196.4
75°	38.4	51.9	76.8	88.0	103.8	108.3	117.3	117.3	124.1	115.1	112.8
77.5°	33.9	40.6	54.2	63.2	70.0	76.8	79.0	85.8	83.5	79.0	81.2
80°	20.3	24.8	33.9	38.4	47.4	49.6	51.9	54.2	51.9	54.2	54.2
82.5°	15.8	18.1	22.6	22.6	29.3	29.3	31.6	31.6	33.9	33.9	33.9
85°	9.0	15.8	13.5	27.1	18.1	18.1	22.6	27.1	22.6	22.6	27.1
87.5°	9.0	9.0	6.8	9.0	9.0	9.0	11.3	13.5	13.5	15.8	13.5
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: P249364

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4204.6	4204.6	4204.6	4204.6
2.5°	4211.4	4215.9	4209.1	4206.9
5°	4218.1	4218.1	4213.7	4213.7
7.5°	4218.1	4218.1	4211.4	4206.9
10°	4200.1	4200.1	4193.3	4188.8
12.5°	4166.2	4166.2	4164.0	4157.2
15°	4123.4	4123.4	4114.3	4107.6
17.5°	4064.7	4069.2	4057.9	4057.9
20°	4001.5	3999.2	3990.2	3985.7
22.5°	3936.1	3931.5	3929.3	3915.7
25°	3866.1	3861.6	3854.8	3848.0
27.5°	3746.5	3744.2	3737.4	3728.4
30°	3563.6	3561.4	3552.4	3552.4
32.5°	3326.7	3324.4	3315.4	3317.7
35°	3080.7	3089.7	3085.2	3076.2
37.5°	2875.3	2882.1	2886.6	2882.1
40°	2703.8	2724.1	2726.3	2730.9
42.5°	2521.0	2548.0	2557.1	2561.6
45°	2302.0	2326.9	2347.2	2342.7
47.5°	2078.6	2096.6	2114.7	2101.2
50°	1864.2	1875.5	1882.3	1882.3
52.5°	1661.1	1661.1	1658.8	1661.1
55°	1428.6	1428.6	1419.6	1424.1
57.5°	1184.9	1189.4	1182.6	1171.3
60°	959.2	947.9	943.4	936.6
62.5°	747.1	747.1	731.3	751.5
65°	559.7	552.9	546.2	543.9
67.5°	406.2	404.0	397.2	395.0
70°	286.6	277.6	275.3	270.8
72.5°	191.8	191.8	187.3	187.3
75°	117.3	106.1	103.8	106.1
77.5°	81.2	79.0	79.0	76.8
80°	54.2	51.9	56.4	49.6
82.5°	33.9	36.1	33.9	36.1
85°	22.6	27.1	24.8	24.8
87.5°	13.5	13.5	13.5	13.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)