

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: P248419

Luminaire Tested: **LSR8B90D010 EC8B90927 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248419
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90927 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE 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: 7760.3 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

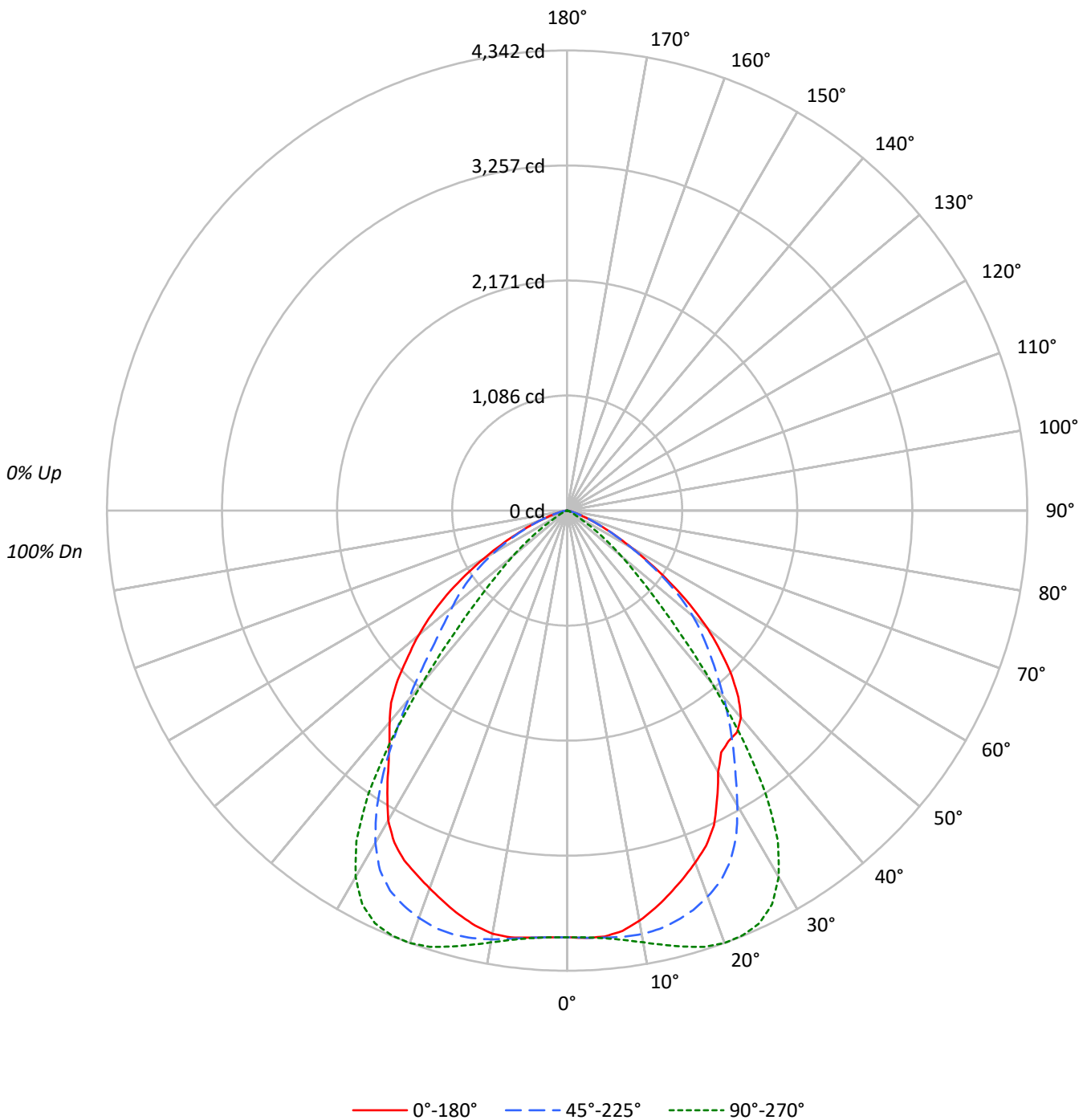
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	90
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38
10	60	48	41	36	59	48	41	36	47	41	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°	387.1	5.0
10°-20°	1146.9	14.8
20°-30°	1749.7	22.5
30°-40°	1825.8	23.5
40°-50°	1371.4	17.7
50°-60°	843.8	10.9
60°-70°	343.4	4.4
70°-80°	80.9	1.0
80°-90°	11.1	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°	3283.7	42.3
0°-40°	5109.6	65.8
0°-60°	7324.8	94.4
0°-90°	7760.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7760.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4026	4026	4026	4026	4026	
5°	4034	4045	4049	4045	4045	382
15°	3742	4004	4259	4141	3947	1054
25°	3278	3645	4295	3955	3641	1490
35°	2656	2731	3272	3024	2938	1677
45°	2192	1898	1184	1767	2261	1673
55°	1184	1124	310	1124	1387	1064
65°	370	374	47	502	532	386
75°	64	64	8	113	118	77
85°	6	6	2	15	19	9
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°	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7
2.5°	4036.5	4030.0	4036.5	4036.5	4038.6	4034.4	4036.5	4038.6	4034.4	4034.4	4034.4
5°	4034.4	4030.0	4034.4	4032.2	4036.5	4036.5	4040.8	4040.8	4044.9	4044.9	4051.5
7.5°	4000.2	3991.6	4000.2	4006.6	4010.7	4019.4	4030.0	4038.6	4047.1	4055.7	4066.3
10°	3929.6	3929.6	3936.0	3948.9	3961.7	3976.6	3995.9	4017.3	4038.6	4057.8	4077.0
12.5°	3842.0	3835.6	3848.4	3865.5	3884.7	3908.2	3938.2	3970.2	4004.4	4042.8	4072.8
15°	3741.5	3735.1	3750.1	3767.2	3790.7	3824.9	3861.2	3904.0	3953.1	4004.4	4053.6
17.5°	3639.0	3636.9	3651.8	3675.4	3694.6	3730.8	3777.9	3829.2	3884.7	3953.1	4017.3
20°	3534.3	3532.2	3547.1	3566.4	3592.0	3626.2	3673.2	3733.0	3799.2	3876.2	3951.0
22.5°	3425.3	3427.4	3440.2	3461.6	3483.0	3519.3	3568.5	3628.4	3700.9	3784.3	3867.6
25°	3277.9	3267.2	3284.3	3305.7	3341.9	3371.8	3418.9	3483.0	3557.8	3645.4	3743.8
27.5°	3064.2	3062.0	3077.0	3096.2	3128.3	3164.6	3215.9	3282.2	3361.2	3457.4	3553.5
30°	2850.5	2854.8	2861.2	2880.5	2901.8	2938.2	2989.5	3045.0	3119.7	3211.6	3314.2
32.5°	2705.2	2705.2	2713.7	2726.5	2741.5	2760.8	2797.1	2837.7	2895.4	2959.5	3034.2
35°	2656.0	2647.6	2656.0	2658.2	2660.3	2664.7	2671.0	2683.9	2703.0	2730.8	2758.6
37.5°	2634.8	2628.3	2628.3	2619.8	2609.1	2596.3	2579.2	2559.9	2538.6	2510.8	2489.4
40°	2551.4	2547.1	2542.8	2534.3	2510.8	2485.1	2457.3	2412.5	2363.3	2294.9	2226.6
42.5°	2391.1	2386.8	2384.7	2367.6	2346.2	2316.3	2284.2	2237.3	2175.3	2087.7	1989.3
45°	2192.4	2183.8	2177.4	2162.5	2147.5	2121.9	2091.9	2049.2	1987.2	1897.5	1780.0
47.5°	1961.7	1957.3	1955.1	1948.8	1933.9	1918.8	1899.7	1865.5	1809.9	1724.4	1602.7
50°	1728.7	1720.1	1724.4	1722.3	1715.8	1705.2	1692.3	1668.8	1626.1	1549.2	1438.1
52.5°	1461.6	1461.6	1459.5	1465.9	1468.0	1465.9	1468.0	1442.4	1406.0	1348.3	1254.3
55°	1183.7	1183.7	1190.2	1198.8	1207.4	1209.5	1207.4	1196.7	1171.0	1124.0	1040.6
57.5°	923.1	918.9	931.6	944.4	953.0	961.5	955.1	946.6	931.6	893.1	829.1
60°	703.0	703.0	711.6	720.1	728.7	737.2	735.1	732.9	720.1	694.5	643.2
62.5°	517.1	519.2	519.2	525.7	534.2	542.8	549.1	542.8	536.3	519.2	485.0
65°	369.7	367.5	369.7	376.1	382.5	391.0	395.3	393.2	386.8	374.0	348.3
67.5°	247.8	245.7	254.2	256.4	260.7	269.2	267.1	269.2	267.1	256.4	235.1
70°	162.5	158.1	162.5	160.2	166.7	168.9	173.0	175.2	173.0	166.7	160.2
72.5°	100.5	98.3	100.5	102.6	104.7	106.8	111.2	111.2	109.0	104.7	96.2
75°	64.1	57.7	59.8	55.6	59.8	59.8	64.1	66.3	64.1	64.1	59.8
77.5°	38.5	38.5	38.5	38.5	38.5	38.5	38.5	40.6	42.8	38.5	36.3
80°	19.2	19.2	21.4	21.4	21.4	23.5	21.4	21.4	21.4	23.5	17.1
82.5°	15.0	12.8	12.8	12.8	15.0	12.8	12.8	12.8	12.8	12.8	12.8
85°	6.4	8.5	6.4	4.3	6.4	6.4	8.5	6.4	6.4	6.4	8.5
87.5°	2.1	2.1	0.0	0.0	0.0	2.1	0.0	2.1	2.1	4.3	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: P248419

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7
2.5°	4036.5	4032.2	4032.2	4030.0	4034.4	4030.0	4032.2	4030.0	4030.0	4034.4	4030.0
5°	4051.5	4053.6	4049.3	4047.1	4053.6	4053.6	4053.6	4049.3	4049.3	4051.5	4049.3
7.5°	4072.8	4077.0	4079.1	4081.3	4085.7	4087.8	4087.8	4085.7	4083.4	4089.9	4081.3
10°	4096.2	4102.7	4115.5	4122.0	4132.6	4132.6	4136.8	4136.8	4132.6	4136.8	4134.7
12.5°	4087.8	4126.2	4147.5	4162.5	4177.5	4190.3	4194.6	4196.7	4194.6	4203.1	4194.6
15°	4102.7	4134.7	4168.9	4194.6	4222.3	4237.3	4241.6	4258.7	4263.0	4265.1	4252.3
17.5°	4079.1	4136.8	4173.2	4211.7	4252.3	4280.1	4305.7	4316.4	4318.5	4322.8	4305.7
20°	4025.7	4089.9	4145.4	4201.0	4248.0	4290.8	4312.1	4342.0	4333.5	4350.6	4327.1
22.5°	3953.1	4025.7	4096.2	4168.9	4218.1	4269.4	4314.3	4335.6	4346.3	4346.3	4320.7
25°	3837.7	3923.2	4000.2	4074.9	4149.7	4211.7	4263.0	4295.0	4301.4	4299.3	4269.4
27.5°	3658.3	3750.1	3839.8	3925.4	4017.3	4089.9	4149.7	4188.2	4198.8	4198.8	4166.8
30°	3410.3	3508.6	3596.3	3698.8	3792.8	3874.0	3957.4	3991.6	4010.7	4010.7	3974.5
32.5°	3115.5	3198.8	3280.0	3380.4	3483.0	3574.9	3654.0	3700.9	3724.4	3722.3	3690.3
35°	2795.0	2835.6	2897.5	2972.4	3064.2	3149.7	3226.6	3271.5	3312.1	3309.9	3280.0
37.5°	2474.4	2463.8	2470.2	2498.0	2555.7	2615.5	2675.2	2718.1	2752.2	2767.2	2760.8
40°	2160.3	2104.8	2051.3	2032.1	2036.4	2057.7	2089.8	2121.9	2160.3	2179.6	2188.1
42.5°	1878.3	1784.2	1690.2	1619.7	1579.0	1566.3	1581.2	1591.9	1615.4	1643.2	1671.0
45°	1651.7	1525.7	1401.8	1292.7	1224.4	1183.7	1175.3	1183.7	1196.7	1224.4	1260.8
47.5°	1465.9	1318.4	1179.6	1057.7	957.3	903.9	889.0	884.7	897.4	923.1	972.2
50°	1301.3	1153.9	1000.0	858.9	754.3	694.5	673.1	664.5	679.5	698.7	743.6
52.5°	1121.9	976.5	818.4	681.6	572.6	510.8	487.2	474.4	482.8	508.6	553.4
55°	927.3	792.8	649.6	508.6	403.9	346.2	318.4	309.8	318.4	346.2	391.0
57.5°	732.9	619.6	500.0	367.5	273.5	215.8	188.0	179.4	203.1	213.6	260.7
60°	572.6	480.8	378.2	269.2	188.0	143.1	115.4	109.0	119.7	138.8	177.3
62.5°	429.5	371.8	290.6	192.3	138.8	91.9	77.0	70.5	77.0	91.9	121.8
65°	312.0	267.1	203.1	141.0	94.0	68.4	51.3	47.0	53.4	64.1	89.8
67.5°	213.6	179.4	141.0	98.3	64.1	42.8	36.3	36.3	38.5	47.0	66.3
70°	138.8	117.6	89.8	64.1	42.8	32.1	27.8	23.5	27.8	34.2	44.9
72.5°	87.6	74.8	57.7	44.9	32.1	23.5	19.2	17.1	21.4	25.6	34.2
75°	53.4	40.6	29.9	23.5	17.1	17.1	17.1	8.5	10.7	17.1	21.4
77.5°	32.1	27.8	23.5	19.2	15.0	8.5	8.5	8.5	10.7	12.8	19.2
80°	17.1	15.0	10.7	10.7	8.5	6.4	8.5	6.4	4.3	10.7	12.8
82.5°	10.7	8.5	8.5	8.5	10.7	4.3	6.4	4.3	6.4	8.5	6.4
85°	6.4	6.4	6.4	4.3	10.7	4.3	4.3	2.1	2.1	4.3	4.3
87.5°	0.0	2.1	2.1	0.0	2.1	0.0	2.1	2.1	2.1	2.1	2.1
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: P248419

CATALOG NUMBER: LSR8B90D010 EC8B90927 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7	4025.7
2.5°	4032.2	4030.0	4032.2	4030.0	4030.0	4030.0	4032.2	4032.2	4030.0	4030.0	4034.4
5°	4049.3	4049.3	4049.3	4047.1	4044.9	4044.9	4049.3	4049.3	4042.8	4049.3	4049.3
7.5°	4085.7	4079.1	4085.7	4077.0	4072.8	4074.9	4077.0	4072.8	4068.6	4070.7	4070.7
10°	4132.6	4126.2	4126.2	4119.8	4113.3	4109.1	4104.9	4094.1	4083.4	4081.3	4072.8
12.5°	4188.2	4177.5	4171.0	4158.2	4147.5	4132.6	4119.8	4102.7	4081.3	4066.3	4051.5
15°	4243.7	4226.6	4211.7	4190.3	4166.8	4141.1	4113.3	4085.7	4051.5	4021.5	3995.9
17.5°	4288.6	4265.1	4237.3	4203.1	4168.9	4130.4	4089.9	4049.3	4000.2	3961.7	3931.8
20°	4303.6	4269.4	4233.0	4188.2	4143.3	4089.9	4038.6	3985.2	3929.6	3889.0	3854.8
22.5°	4284.3	4243.7	4198.8	4151.8	4092.0	4034.4	3974.5	3912.5	3863.4	3807.8	3775.7
25°	4230.9	4181.7	4132.6	4077.0	4019.4	3955.3	3891.2	3827.0	3767.2	3737.2	3696.8
27.5°	4122.0	4068.6	4015.1	3957.4	3891.2	3827.0	3760.8	3698.8	3647.6	3607.0	3583.5
30°	3929.6	3867.6	3805.6	3743.8	3686.0	3619.8	3557.8	3506.5	3455.2	3423.2	3399.6
32.5°	3634.8	3579.2	3517.2	3457.4	3404.0	3348.4	3297.2	3252.3	3215.9	3194.5	3177.5
35°	3237.3	3181.7	3134.7	3092.0	3047.1	3023.7	2991.6	2965.8	2951.0	2942.4	2940.3
37.5°	2737.2	2705.2	2690.2	2681.8	2673.1	2666.8	2671.0	2681.8	2690.2	2705.2	2722.3
40°	2203.1	2230.9	2239.4	2269.4	2297.0	2333.4	2374.0	2421.0	2459.5	2508.6	2542.8
42.5°	1715.8	1767.2	1827.0	1891.1	1959.4	2025.7	2106.9	2181.7	2250.1	2312.0	2365.4
45°	1318.4	1397.5	1487.2	1579.0	1671.0	1767.2	1865.5	1957.3	2038.5	2104.8	2160.3
47.5°	1027.8	1115.4	1230.9	1344.0	1455.2	1568.5	1677.4	1773.6	1842.0	1906.0	1955.1
50°	814.2	914.5	1040.6	1171.0	1292.7	1412.4	1527.8	1617.5	1685.9	1737.2	1773.6
52.5°	630.3	750.0	878.2	1015.0	1145.4	1275.6	1382.5	1465.9	1521.4	1566.3	1594.0
55°	470.1	587.6	724.4	865.5	997.9	1124.0	1224.4	1297.1	1346.2	1371.8	1386.8
57.5°	339.8	446.6	583.3	724.4	844.0	963.7	1044.9	1111.2	1139.0	1153.9	1160.3
60°	247.8	346.2	468.0	589.7	703.0	799.2	869.7	914.5	935.9	944.4	942.3
62.5°	181.7	267.1	371.8	474.4	566.2	645.3	700.9	730.8	741.5	745.8	739.4
65°	138.8	205.1	294.9	374.0	444.5	502.1	542.8	562.1	568.4	566.2	562.1
67.5°	102.6	153.9	220.2	279.9	331.2	376.1	397.5	414.6	418.8	412.4	406.0
70°	72.7	113.3	160.2	200.9	239.3	264.9	288.4	290.6	290.6	288.4	284.2
72.5°	51.3	79.1	109.0	136.8	160.2	179.4	188.0	194.4	192.3	190.1	186.0
75°	34.2	49.2	79.1	85.5	106.8	113.3	121.8	121.8	123.9	117.6	117.6
77.5°	21.4	34.2	47.0	55.6	64.1	72.7	77.0	77.0	79.1	77.0	77.0
80°	12.8	21.4	25.6	38.5	38.5	44.9	47.0	49.2	44.9	51.3	44.9
82.5°	8.5	12.8	19.2	19.2	23.5	27.8	27.8	29.9	29.9	27.8	27.8
85°	6.4	8.5	10.7	12.8	12.8	15.0	12.8	12.8	15.0	17.1	15.0
87.5°	2.1	4.3	2.1	4.3	4.3	8.5	6.4	6.4	6.4	8.5	8.5
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: P248419

CATALOG NUMBER: LSR8B90D010 EC8B90927 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4025.7	4025.7	4025.7	4025.7
2.5°	4030.0	4032.2	4030.0	4030.0
5°	4049.3	4047.1	4049.3	4044.9
7.5°	4064.2	4064.2	4062.0	4062.0
10°	4064.2	4055.7	4055.7	4055.7
12.5°	4032.2	4021.5	4015.1	4010.7
15°	3976.6	3957.4	3948.9	3946.7
17.5°	3904.0	3886.9	3876.2	3869.8
20°	3820.6	3803.5	3790.7	3792.8
22.5°	3747.9	3728.8	3720.2	3715.9
25°	3675.4	3651.8	3645.4	3641.2
27.5°	3557.8	3545.0	3538.6	3532.2
30°	3378.3	3371.8	3361.2	3376.1
32.5°	3171.0	3160.4	3151.8	3158.2
35°	2942.4	2936.0	2942.4	2938.2
37.5°	2733.0	2739.4	2747.9	2752.2
40°	2568.5	2592.0	2600.5	2604.7
42.5°	2403.9	2431.7	2448.8	2459.5
45°	2201.0	2228.6	2247.9	2260.8
47.5°	1991.5	2015.0	2034.2	2032.1
50°	1801.4	1814.2	1822.7	1831.3
52.5°	1609.0	1609.0	1611.1	1611.1
55°	1391.1	1386.8	1384.6	1386.8
57.5°	1151.8	1147.5	1145.4	1139.0
60°	933.8	921.0	912.4	912.4
62.5°	730.8	715.8	709.4	707.3
65°	549.1	547.0	534.2	532.0
67.5°	397.5	388.9	380.4	382.5
70°	279.9	267.1	267.1	262.8
72.5°	181.7	175.2	173.0	173.0
75°	113.3	113.3	109.0	117.6
77.5°	74.8	74.8	72.7	74.8
80°	44.9	44.9	44.9	42.8
82.5°	27.8	29.9	27.8	27.8
85°	15.0	17.1	12.8	19.2
87.5°	8.5	10.7	8.5	10.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)