

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: P249616

Luminaire Tested: **LSR8B90D010 EC8B90930 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249616
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 EC8B90930 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 3000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7805.5 lumens
Efficiency: N/A
Efficacy: 90.7 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

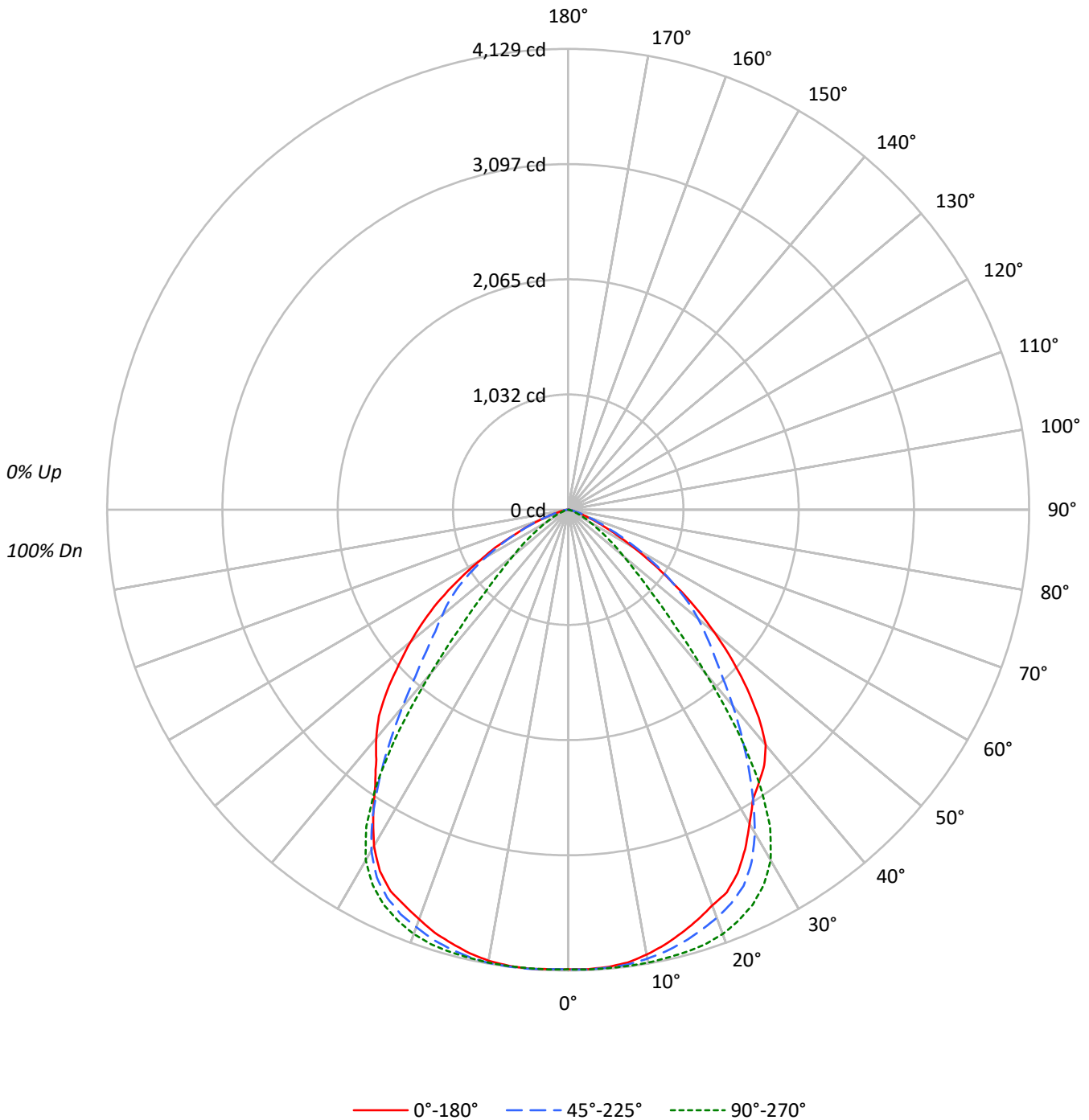
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	393.0	5.0
10°-20°	1141.4	14.6
20°-30°	1732.5	22.2
30°-40°	1819.6	23.3
40°-50°	1364.2	17.5
50°-60°	875.3	11.2
60°-70°	374.5	4.8
70°-80°	88.5	1.1
80°-90°	16.5	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°	3267.0	41.9
0°-40°	5086.6	65.2
0°-60°	7326.2	93.9
0°-90°	7805.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7805.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4118	4118	4118	4118	4118	
5°	4112	4118	4123	4129	4127	391
15°	3926	4008	4101	4074	4023	1107
25°	3592	3718	3906	3835	3769	1641
35°	2980	2814	2982	2947	3013	1870
45°	2264	1850	1063	1797	2295	1734
55°	1145	1145	396	1194	1395	1039
65°	345	407	126	524	533	368
75°	53	62	18	106	104	77
85°	18	11	9	18	24	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°	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3
2.5°	4120.6	4124.9	4122.8	4122.8	4120.6	4122.8	4122.8	4127.2	4127.2	4122.8	4120.6
5°	4111.7	4116.1	4116.1	4111.7	4111.7	4122.8	4116.1	4120.6	4120.6	4118.3	4118.3
7.5°	4091.9	4091.9	4100.6	4094.0	4094.0	4100.6	4098.5	4102.9	4107.3	4109.5	4109.5
10°	4047.6	4052.1	4054.2	4054.2	4056.5	4063.1	4067.5	4076.4	4080.8	4085.1	4087.4
12.5°	3992.3	3998.9	4001.2	3998.9	4005.7	4014.4	4025.5	4036.6	4043.2	4052.1	4058.7
15°	3926.0	3926.0	3930.5	3937.1	3941.5	3954.8	3965.8	3979.1	3996.7	4007.8	4018.9
17.5°	3853.1	3857.5	3864.1	3864.1	3872.9	3895.0	3901.8	3921.6	3941.5	3952.5	3974.7
20°	3773.5	3777.9	3784.6	3789.0	3800.1	3817.7	3831.0	3848.6	3870.8	3890.7	3912.7
22.5°	3711.6	3702.8	3707.1	3711.6	3722.7	3738.2	3753.7	3775.6	3797.8	3817.7	3839.9
25°	3592.2	3594.5	3601.1	3605.5	3618.8	3632.0	3649.8	3676.2	3696.2	3718.2	3742.6
27.5°	3430.8	3433.1	3444.2	3444.2	3455.1	3477.2	3488.3	3510.4	3537.0	3559.1	3587.9
30°	3247.4	3251.8	3251.8	3260.7	3267.3	3278.4	3289.4	3311.4	3324.8	3344.6	3384.4
32.5°	3079.4	3083.8	3081.5	3079.4	3072.8	3070.5	3068.3	3072.8	3077.1	3083.8	3099.2
35°	2980.0	2968.9	2960.0	2944.5	2926.8	2904.7	2884.8	2858.3	2834.0	2814.0	2792.0
37.5°	2884.8	2882.7	2869.3	2847.2	2811.9	2772.1	2725.7	2668.2	2610.7	2548.8	2489.2
40°	2752.2	2745.6	2734.6	2703.6	2663.7	2615.2	2553.3	2482.5	2389.6	2294.6	2197.4
42.5°	2526.7	2528.9	2515.6	2491.3	2453.8	2407.3	2343.2	2265.9	2166.4	2053.7	1927.7
45°	2263.6	2263.6	2259.3	2239.3	2212.9	2175.2	2126.6	2062.5	1965.2	1850.2	1715.4
47.5°	1989.6	1991.8	1985.1	1980.7	1969.6	1945.4	1910.0	1861.3	1792.8	1682.3	1547.4
50°	1711.0	1711.0	1722.1	1719.8	1719.8	1711.0	1695.5	1666.8	1607.1	1518.7	1392.7
52.5°	1432.4	1436.9	1443.5	1452.4	1463.4	1481.1	1463.4	1450.1	1412.6	1344.1	1235.8
55°	1145.1	1149.5	1160.6	1176.0	1189.4	1207.0	1211.4	1211.4	1191.5	1145.1	1063.3
57.5°	899.7	893.1	902.0	915.2	932.9	950.6	963.8	979.3	977.1	946.1	879.9
60°	676.4	678.7	685.3	698.6	711.8	727.3	745.0	758.2	764.9	749.4	707.4
62.5°	493.0	493.0	501.8	515.1	521.7	543.8	554.9	561.5	568.1	565.9	539.4
65°	344.9	349.3	353.7	360.4	366.9	380.2	386.9	400.1	404.6	406.8	386.9
67.5°	243.1	236.5	241.0	245.4	252.0	260.9	274.1	274.1	280.7	280.7	267.5
70°	154.7	154.7	156.9	163.6	168.0	170.2	174.7	179.0	185.6	183.5	183.5
72.5°	103.9	101.7	103.9	106.2	108.3	114.9	114.9	117.1	121.6	123.8	114.9
75°	53.0	55.3	59.6	57.5	64.1	59.6	61.9	68.5	66.4	61.9	61.9
77.5°	44.2	44.2	44.2	42.0	46.4	46.4	44.2	48.7	46.4	46.4	44.2
80°	30.9	33.2	30.9	28.7	30.9	28.7	28.7	28.7	28.7	28.7	26.5
82.5°	24.3	20.0	22.1	20.0	22.1	22.1	20.0	17.7	17.7	20.0	17.7
85°	17.7	13.2	15.5	15.5	13.2	13.2	13.2	13.2	13.2	11.0	11.0
87.5°	11.0	6.6	6.6	6.6	8.9	8.9	8.9	6.6	8.9	8.9	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°	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3
2.5°	4124.9	4122.8	4127.2	4124.9	4124.9	4122.8	4124.9	4122.8	4127.2	4118.3	4120.6
5°	4124.9	4120.6	4122.8	4124.9	4127.2	4122.8	4122.8	4122.8	4127.2	4122.8	4124.9
7.5°	4116.1	4114.0	4120.6	4124.9	4122.8	4120.6	4124.9	4122.8	4127.2	4124.9	4129.4
10°	4098.5	4100.6	4105.1	4111.7	4114.0	4116.1	4120.6	4120.6	4127.2	4118.3	4122.8
12.5°	4071.9	4080.8	4091.9	4096.2	4105.1	4105.1	4109.5	4111.7	4116.1	4114.0	4120.6
15°	4038.7	4049.8	4063.1	4074.2	4085.1	4091.9	4098.5	4100.6	4107.3	4100.6	4102.9
17.5°	3998.9	4012.2	4032.1	4045.4	4063.1	4069.7	4078.5	4083.0	4089.6	4085.1	4087.4
20°	3943.7	3959.3	3981.2	4001.2	4012.2	4027.6	4038.7	4045.4	4049.8	4045.4	4047.6
22.5°	3866.3	3888.4	3917.2	3932.7	3954.8	3968.0	3970.2	3985.7	3996.7	3985.7	3990.2
25°	3775.6	3797.8	3819.9	3853.1	3872.9	3888.4	3903.9	3906.1	3917.2	3915.0	3912.7
27.5°	3625.4	3654.1	3691.7	3718.2	3744.7	3769.1	3786.7	3791.1	3802.2	3797.8	3800.1
30°	3419.7	3450.8	3486.2	3528.1	3565.7	3590.0	3612.1	3627.6	3638.7	3632.0	3629.8
32.5°	3128.0	3159.0	3196.5	3238.6	3282.7	3318.0	3344.6	3364.6	3377.8	3373.3	3362.3
35°	2794.2	2803.1	2827.4	2860.6	2898.1	2935.7	2960.0	2982.1	2997.6	3002.0	3002.0
37.5°	2451.5	2422.8	2405.1	2405.1	2427.2	2442.7	2464.9	2478.1	2502.4	2511.3	2517.9
40°	2119.9	2053.7	1991.8	1945.4	1914.4	1912.2	1912.2	1918.8	1940.9	1969.6	1996.2
42.5°	1823.8	1717.6	1622.5	1536.3	1474.5	1439.1	1423.7	1425.9	1443.5	1470.1	1514.2
45°	1587.2	1454.6	1335.2	1231.3	1147.3	1092.0	1065.5	1063.3	1076.5	1107.4	1156.2
47.5°	1403.7	1262.2	1127.4	1008.0	917.4	857.7	826.7	818.0	826.7	855.4	912.9
50°	1251.3	1105.3	966.1	842.2	745.0	683.1	654.3	643.3	654.3	678.7	736.2
52.5°	1109.7	959.4	829.0	709.6	605.7	552.7	521.7	515.1	521.7	550.4	596.9
55°	946.1	818.0	689.8	570.4	479.7	426.7	402.3	395.7	402.3	428.9	477.5
57.5°	784.8	674.3	561.5	453.2	375.9	329.3	307.3	298.4	313.9	331.6	389.1
60°	634.4	546.0	451.0	355.9	291.8	249.8	232.0	229.9	234.3	256.5	296.2
62.5°	497.4	424.4	349.3	272.0	218.8	201.1	179.0	176.9	181.3	194.5	225.5
65°	358.2	311.8	254.2	199.0	156.9	132.6	123.8	126.0	130.4	139.2	168.0
67.5°	249.8	216.6	176.9	139.2	108.3	97.3	88.4	86.2	88.4	103.9	119.4
70°	168.0	148.1	119.4	106.2	75.2	59.6	61.9	55.3	64.1	64.1	77.3
72.5°	110.5	97.3	79.6	61.9	53.0	42.0	42.0	39.8	44.2	46.4	57.5
75°	57.5	44.2	44.2	30.9	22.1	11.0	20.0	17.7	15.5	17.7	22.1
77.5°	39.8	33.2	30.9	24.3	22.1	17.7	17.7	17.7	17.7	20.0	22.1
80°	24.3	24.3	17.7	15.5	13.2	11.0	13.2	13.2	13.2	13.2	15.5
82.5°	15.5	13.2	13.2	11.0	11.0	8.9	8.9	8.9	8.9	8.9	13.2
85°	13.2	8.9	8.9	6.6	8.9	15.5	6.6	8.9	8.9	8.9	6.6
87.5°	4.5	6.6	6.6	6.6	4.5	2.2	4.5	6.6	6.6	11.0	8.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3	4118.3
2.5°	4124.9	4127.2	4127.2	4124.9	4124.9	4120.6	4129.4	4122.8	4124.9	4133.8	4127.2
5°	4129.4	4131.6	4131.6	4129.4	4129.4	4129.4	4131.6	4131.6	4129.4	4127.2	4131.6
7.5°	4138.3	4136.0	4136.0	4131.6	4131.6	4127.2	4131.6	4124.9	4129.4	4124.9	4131.6
10°	4127.2	4129.4	4127.2	4124.9	4124.9	4122.8	4122.8	4116.1	4118.3	4111.7	4116.1
12.5°	4120.6	4118.3	4118.3	4114.0	4109.5	4105.1	4102.9	4096.2	4096.2	4080.8	4087.4
15°	4102.9	4105.1	4098.5	4089.6	4085.1	4074.2	4069.7	4060.8	4052.1	4041.0	4043.2
17.5°	4087.4	4080.8	4071.9	4063.1	4045.4	4036.6	4027.6	4014.4	4010.0	3996.7	3992.3
20°	4041.0	4036.6	4025.5	4010.0	3998.9	3979.1	3970.2	3957.0	3945.9	3932.7	3926.0
22.5°	3981.2	3976.9	3963.6	3948.2	3930.5	3921.6	3912.7	3888.4	3877.4	3864.1	3862.0
25°	3906.1	3899.5	3886.3	3868.6	3859.7	3835.4	3826.5	3808.8	3804.4	3791.1	3789.0
27.5°	3791.1	3782.4	3766.9	3744.7	3729.2	3713.8	3705.0	3691.7	3687.3	3674.0	3671.8
30°	3618.8	3607.7	3576.8	3567.9	3541.4	3525.9	3525.9	3508.2	3510.4	3501.7	3501.7
32.5°	3346.9	3329.1	3304.8	3287.1	3269.5	3260.7	3260.7	3254.0	3258.4	3258.4	3262.9
35°	2986.6	2962.2	2948.9	2937.9	2937.9	2946.7	2973.2	2980.0	2993.2	3004.2	3013.0
37.5°	2524.5	2522.4	2537.8	2551.1	2584.2	2621.8	2668.2	2708.0	2745.6	2772.1	2798.6
40°	2024.9	2080.2	2124.4	2186.3	2237.1	2310.0	2394.1	2462.6	2526.7	2573.1	2621.8
42.5°	1580.6	1651.3	1744.2	1834.7	1925.4	2024.9	2135.5	2230.5	2314.5	2378.6	2429.4
45°	1231.3	1328.6	1441.4	1556.3	1673.4	1797.2	1912.2	2009.4	2097.8	2164.2	2215.0
47.5°	992.5	1098.7	1226.8	1352.9	1485.5	1615.9	1744.2	1828.1	1901.1	1954.1	2000.6
50°	820.1	932.9	1067.8	1211.4	1344.1	1474.5	1585.0	1666.8	1726.5	1772.9	1801.7
52.5°	685.3	804.7	948.4	1092.0	1224.7	1344.1	1443.5	1505.4	1554.0	1587.2	1613.7
55°	565.9	680.9	815.8	950.6	1081.0	1193.8	1275.5	1322.0	1359.5	1379.4	1394.9
57.5°	462.1	568.1	691.9	815.8	928.4	1021.3	1085.5	1131.9	1149.5	1164.9	1162.8
60°	362.5	462.1	574.7	680.9	778.1	853.3	899.7	926.3	939.5	946.1	941.8
62.5°	285.2	375.9	462.1	554.9	625.6	689.8	733.9	733.9	740.5	742.8	749.4
65°	212.2	280.7	355.9	424.4	481.9	524.0	548.3	554.9	563.8	561.5	557.0
67.5°	156.9	207.8	263.0	313.9	353.7	380.2	397.8	413.4	411.2	406.8	404.6
70°	108.3	141.5	190.1	221.1	249.8	276.3	280.7	282.9	285.2	287.4	282.9
72.5°	75.2	99.4	126.0	152.6	170.2	181.3	192.4	194.5	194.5	194.5	192.4
75°	37.6	50.9	75.2	86.2	101.7	106.2	114.9	114.9	121.6	112.8	110.5
77.5°	33.2	39.8	53.0	61.9	68.5	75.2	77.3	84.0	81.8	77.3	79.6
80°	20.0	24.3	33.2	37.6	46.4	48.7	50.9	53.0	50.9	53.0	53.0
82.5°	15.5	17.7	22.1	22.1	28.7	28.7	30.9	30.9	33.2	33.2	33.2
85°	8.9	15.5	13.2	26.5	17.7	17.7	22.1	26.5	22.1	22.1	26.5
87.5°	8.9	8.9	6.6	8.9	8.9	8.9	11.0	13.2	13.2	15.5	13.2
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: P249616

CATALOG NUMBER: LSR8B90D010 EC8B90930 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4118.3	4118.3	4118.3	4118.3
2.5°	4124.9	4129.4	4122.8	4120.6
5°	4131.6	4131.6	4127.2	4127.2
7.5°	4131.6	4131.6	4124.9	4120.6
10°	4114.0	4114.0	4107.3	4102.9
12.5°	4080.8	4080.8	4078.5	4071.9
15°	4038.7	4038.7	4029.9	4023.3
17.5°	3981.2	3985.7	3974.7	3974.7
20°	3919.4	3917.2	3908.4	3903.9
22.5°	3855.3	3850.9	3848.6	3835.4
25°	3786.7	3782.4	3775.6	3769.1
27.5°	3669.6	3667.4	3660.7	3651.9
30°	3490.6	3488.3	3479.5	3479.5
32.5°	3258.4	3256.2	3247.4	3249.6
35°	3017.5	3026.4	3021.9	3013.0
37.5°	2816.3	2822.9	2827.4	2822.9
40°	2648.3	2668.2	2670.4	2674.8
42.5°	2469.2	2495.8	2504.7	2509.0
45°	2254.8	2279.1	2299.1	2294.6
47.5°	2036.0	2053.7	2071.3	2058.0
50°	1826.0	1837.0	1843.6	1843.6
52.5°	1627.0	1627.0	1624.8	1627.0
55°	1399.3	1399.3	1390.5	1394.9
57.5°	1160.6	1164.9	1158.3	1147.3
60°	939.5	928.4	924.0	917.4
62.5°	731.7	731.7	716.2	736.2
65°	548.3	541.6	534.9	532.7
67.5°	397.8	395.7	389.1	386.9
70°	280.7	272.0	269.7	265.2
72.5°	187.9	187.9	183.5	183.5
75°	114.9	103.9	101.7	103.9
77.5°	79.6	77.3	77.3	75.2
80°	53.0	50.9	55.3	48.7
82.5°	33.2	35.4	33.2	35.4
85°	22.1	26.5	24.3	24.3
87.5°	13.2	13.2	13.2	13.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)