

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: P249481

Luminaire Tested: **LSR8B90D010 EC8B90940 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249481
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 EC8B90940 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7535.0 lumens
Efficiency: N/A
Efficacy: 87.5 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

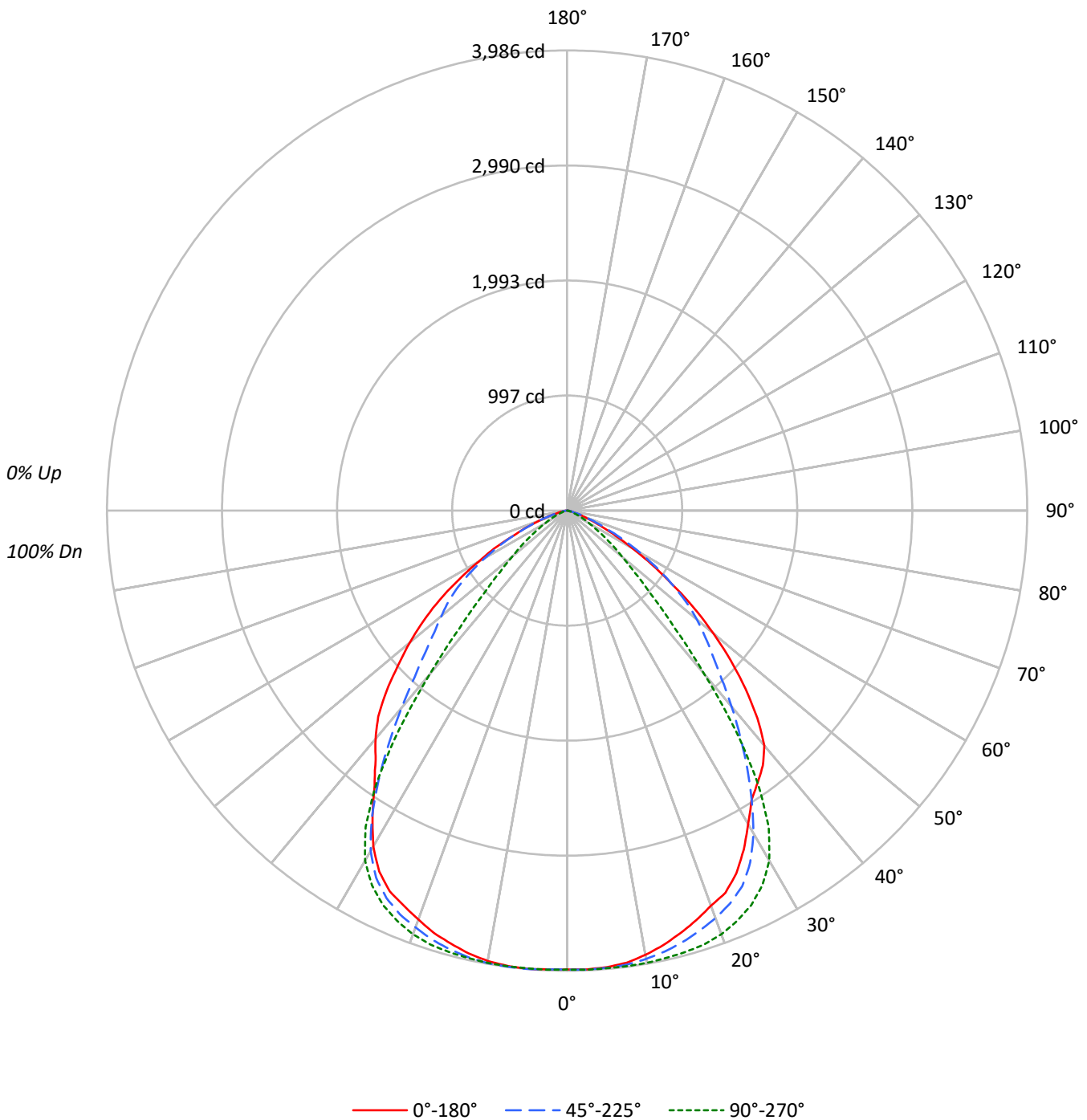
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	122593	122593	122593
5°	122863	123194	123327
10°	122345	124553	124017
15°	120989	126372	123990
20°	119536	128150	123668
25°	117985	128298	123797
30°	111620	124691	119599
35°	108287	108366	109492
40°	106947	74562	103940
45°	95295	44760	96599
50°	79237	29791	85382
55°	59428	20537	72390
60°	40272	13685	54617
65°	24290	8880	37526
70°	13470	4815	23090
75°	6100	2037	11950
80°	5310	2273	8328
85°	6050	3007	8314



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	379.4	5.0
10°-20°	1101.9	14.6
20°-30°	1672.4	22.2
30°-40°	1756.6	23.3
40°-50°	1317.0	17.5
50°-60°	845.0	11.2
60°-70°	361.5	4.8
70°-80°	85.4	1.1
80°-90°	15.9	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°	3153.7	41.9
0°-40°	4910.3	65.2
0°-60°	7072.2	93.9
0°-90°	7535.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7535.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3976	3976	3976	3976	3976	
5°	3969	3976	3980	3986	3984	377
15°	3790	3869	3958	3933	3884	1069
25°	3468	3589	3771	3702	3638	1584
35°	2877	2716	2879	2845	2909	1805
45°	2185	1786	1026	1735	2215	1674
55°	1105	1105	382	1152	1346	1003
65°	333	393	122	506	514	355
75°	51	60	17	102	100	75
85°	17	11	8	17	24	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°	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6
2.5°	3977.8	3982.0	3979.9	3979.9	3977.8	3979.9	3979.9	3984.2	3984.2	3979.9	3977.8
5°	3969.2	3973.5	3973.5	3969.2	3969.2	3979.9	3973.5	3977.8	3977.8	3975.6	3975.6
7.5°	3950.0	3950.0	3958.5	3952.2	3952.2	3958.5	3956.4	3960.7	3965.0	3967.1	3967.1
10°	3907.3	3911.6	3913.7	3913.7	3915.9	3922.3	3926.5	3935.1	3939.3	3943.6	3945.7
12.5°	3854.0	3860.4	3862.5	3860.4	3866.8	3875.3	3886.0	3896.7	3903.1	3911.6	3918.0
15°	3789.9	3789.9	3794.2	3800.6	3804.9	3817.7	3828.4	3841.2	3858.2	3868.9	3879.6
17.5°	3719.6	3723.8	3730.2	3730.2	3738.8	3760.1	3766.5	3785.7	3804.9	3815.6	3836.9
20°	3642.7	3647.0	3653.4	3657.7	3668.3	3685.4	3698.2	3715.3	3736.6	3755.8	3777.1
22.5°	3583.0	3574.4	3578.7	3583.0	3593.7	3608.6	3623.5	3644.8	3666.2	3685.4	3706.8
25°	3467.7	3469.9	3476.3	3480.5	3493.4	3506.1	3523.2	3548.8	3568.0	3589.4	3612.8
27.5°	3312.0	3314.1	3324.8	3324.8	3335.4	3356.8	3367.4	3388.8	3414.4	3435.7	3463.5
30°	3134.8	3139.1	3139.1	3147.6	3154.0	3164.7	3175.4	3196.7	3209.5	3228.7	3267.2
32.5°	2972.7	2976.9	2974.8	2972.7	2966.2	2964.1	2962.0	2966.2	2970.5	2976.9	2991.8
35°	2876.6	2865.9	2857.4	2842.5	2825.4	2804.1	2784.8	2759.3	2735.8	2716.5	2695.2
37.5°	2784.8	2782.7	2769.9	2748.6	2714.4	2676.0	2631.2	2575.7	2520.2	2460.5	2402.9
40°	2656.8	2650.4	2639.7	2609.9	2571.4	2524.5	2464.8	2396.5	2306.8	2215.1	2121.2
42.5°	2439.1	2441.3	2428.5	2405.0	2368.7	2323.9	2262.0	2187.3	2091.3	1982.5	1860.8
45°	2185.2	2185.2	2180.9	2161.7	2136.1	2099.8	2052.9	1991.0	1897.1	1786.1	1656.0
47.5°	1920.6	1922.7	1916.3	1912.1	1901.4	1877.9	1843.8	1796.8	1730.7	1623.9	1493.8
50°	1651.7	1651.7	1662.4	1660.2	1660.2	1651.7	1636.8	1609.0	1551.4	1466.0	1344.4
52.5°	1382.8	1387.1	1393.5	1402.0	1412.7	1429.8	1412.7	1399.9	1363.6	1297.4	1192.9
55°	1105.4	1109.7	1120.3	1135.3	1148.1	1165.2	1169.4	1169.4	1150.2	1105.4	1026.4
57.5°	868.5	862.1	870.7	883.5	900.6	917.6	930.4	945.4	943.2	913.3	849.3
60°	653.0	655.1	661.5	674.4	687.2	702.1	719.2	732.0	738.4	723.4	682.9
62.5°	475.9	475.9	484.4	497.2	503.6	525.0	535.6	542.0	548.4	546.3	520.7
65°	332.9	337.2	341.4	347.9	354.2	367.0	373.4	386.2	390.5	392.7	373.4
67.5°	234.8	228.3	232.6	236.8	243.3	251.8	264.6	264.6	271.0	271.0	258.2
70°	149.4	149.4	151.5	157.9	162.2	164.3	168.6	172.8	179.3	177.1	177.1
72.5°	100.3	98.2	100.3	102.4	104.6	111.0	111.0	113.1	117.4	119.5	111.0
75°	51.2	53.4	57.6	55.5	61.9	57.6	59.7	66.2	64.0	59.7	59.7
77.5°	42.7	42.7	42.7	40.6	44.8	44.8	42.7	46.9	44.8	44.8	42.7
80°	29.9	32.0	29.9	27.7	29.9	27.7	27.7	27.7	27.7	27.7	25.6
82.5°	23.5	19.2	21.4	19.2	21.4	21.4	19.2	17.1	17.1	19.2	17.1
85°	17.1	12.8	14.9	14.9	12.8	12.8	12.8	12.8	12.8	10.7	10.7
87.5°	10.7	6.4	6.4	6.4	8.5	8.5	8.5	6.4	8.5	8.5	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°	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6
2.5°	3982.0	3979.9	3984.2	3982.0	3982.0	3979.9	3982.0	3979.9	3984.2	3975.6	3977.8
5°	3982.0	3977.8	3979.9	3982.0	3984.2	3979.9	3979.9	3979.9	3984.2	3979.9	3982.0
7.5°	3973.5	3971.3	3977.8	3982.0	3979.9	3977.8	3982.0	3979.9	3984.2	3982.0	3986.3
10°	3956.4	3958.5	3962.8	3969.2	3971.3	3973.5	3977.8	3977.8	3984.2	3975.6	3979.9
12.5°	3930.8	3939.3	3950.0	3954.3	3962.8	3962.8	3967.1	3969.2	3973.5	3971.3	3977.8
15°	3898.8	3909.5	3922.3	3933.0	3943.6	3950.0	3956.4	3958.5	3965.0	3958.5	3960.7
17.5°	3860.4	3873.2	3892.4	3905.2	3922.3	3928.7	3937.2	3941.5	3947.9	3943.6	3945.7
20°	3807.0	3822.0	3843.3	3862.5	3873.2	3888.1	3898.8	3905.2	3909.5	3905.2	3907.3
22.5°	3732.3	3753.7	3781.4	3796.4	3817.7	3830.5	3832.6	3847.6	3858.2	3847.6	3851.9
25°	3644.8	3666.2	3687.5	3719.6	3738.8	3753.7	3768.6	3770.8	3781.4	3779.3	3777.1
27.5°	3499.7	3527.5	3563.7	3589.4	3615.0	3638.5	3655.5	3659.8	3670.5	3666.2	3668.3
30°	3301.3	3331.2	3365.3	3405.8	3442.1	3465.6	3486.9	3501.9	3512.5	3506.1	3504.0
32.5°	3019.6	3049.5	3085.8	3126.3	3169.0	3203.1	3228.7	3247.9	3260.7	3256.5	3245.8
35°	2697.4	2705.9	2729.4	2761.4	2797.6	2833.9	2857.4	2878.7	2893.7	2897.9	2897.9
37.5°	2366.6	2338.9	2321.8	2321.8	2343.1	2358.0	2379.4	2392.2	2415.7	2424.2	2430.6
40°	2046.5	1982.5	1922.7	1877.9	1848.1	1845.9	1845.9	1852.3	1873.6	1901.4	1927.0
42.5°	1760.5	1658.1	1566.4	1483.1	1423.4	1389.2	1374.3	1376.4	1393.5	1419.1	1461.8
45°	1532.2	1404.2	1288.9	1188.6	1107.5	1054.2	1028.6	1026.4	1039.2	1069.1	1116.1
47.5°	1355.1	1218.5	1088.3	973.1	885.6	828.0	798.1	789.6	798.1	825.8	881.3
50°	1207.8	1067.0	932.6	813.0	719.2	659.4	631.6	621.0	631.6	655.1	710.6
52.5°	1071.2	926.1	800.3	685.0	584.7	533.5	503.6	497.2	503.6	531.3	576.2
55°	913.3	789.6	665.8	550.6	463.1	411.9	388.4	382.0	388.4	414.0	461.0
57.5°	757.6	650.9	542.0	437.5	362.8	317.9	296.6	288.1	303.0	320.1	375.6
60°	612.4	527.1	435.3	343.6	281.7	241.1	224.1	221.9	226.2	247.6	285.9
62.5°	480.2	409.7	337.2	262.5	211.3	194.2	172.8	170.7	175.0	187.8	217.7
65°	345.7	300.9	245.4	192.0	151.5	128.0	119.5	121.7	125.9	134.5	162.2
67.5°	241.1	209.1	170.7	134.5	104.6	93.9	85.4	83.2	85.4	100.3	115.2
70°	162.2	143.0	115.2	102.4	72.6	57.6	59.7	53.4	61.9	61.9	74.7
72.5°	106.7	93.9	76.8	59.7	51.2	40.6	40.6	38.4	42.7	44.8	55.5
75°	55.5	42.7	42.7	29.9	21.4	10.7	19.2	17.1	14.9	17.1	21.4
77.5°	38.4	32.0	29.9	23.5	21.4	17.1	17.1	17.1	17.1	19.2	21.4
80°	23.5	23.5	17.1	14.9	12.8	10.7	12.8	12.8	12.8	12.8	14.9
82.5°	14.9	12.8	12.8	10.7	10.7	8.5	8.5	8.5	8.5	8.5	12.8
85°	12.8	8.5	8.5	6.4	8.5	14.9	6.4	8.5	8.5	8.5	6.4
87.5°	4.3	6.4	6.4	6.4	4.3	2.1	4.3	6.4	6.4	10.7	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6	3975.6
2.5°	3982.0	3984.2	3984.2	3982.0	3982.0	3977.8	3986.3	3979.9	3982.0	3990.5	3984.2
5°	3986.3	3988.4	3988.4	3986.3	3986.3	3986.3	3988.4	3988.4	3986.3	3984.2	3988.4
7.5°	3994.8	3992.7	3992.7	3988.4	3988.4	3984.2	3988.4	3982.0	3986.3	3982.0	3988.4
10°	3984.2	3986.3	3984.2	3982.0	3982.0	3979.9	3979.9	3973.5	3975.6	3969.2	3973.5
12.5°	3977.8	3975.6	3975.6	3971.3	3967.1	3962.8	3960.7	3954.3	3954.3	3939.3	3945.7
15°	3960.7	3962.8	3956.4	3947.9	3943.6	3933.0	3928.7	3920.1	3911.6	3900.9	3903.1
17.5°	3945.7	3939.3	3930.8	3922.3	3905.2	3896.7	3888.1	3875.3	3871.0	3858.2	3854.0
20°	3900.9	3896.7	3886.0	3871.0	3860.4	3841.2	3832.6	3819.9	3809.2	3796.4	3789.9
22.5°	3843.3	3839.0	3826.2	3811.3	3794.2	3785.7	3777.1	3753.7	3743.0	3730.2	3728.1
25°	3770.8	3764.4	3751.6	3734.5	3725.9	3702.5	3693.9	3676.8	3672.6	3659.8	3657.7
27.5°	3659.8	3651.3	3636.3	3615.0	3600.0	3585.1	3576.6	3563.7	3559.5	3546.7	3544.6
30°	3493.4	3482.7	3452.8	3444.3	3418.6	3403.7	3403.7	3386.6	3388.8	3380.3	3380.3
32.5°	3230.9	3213.8	3190.3	3173.2	3156.1	3147.6	3147.6	3141.2	3145.5	3145.5	3149.8
35°	2883.0	2859.6	2846.7	2836.1	2836.1	2844.6	2870.2	2876.6	2889.4	2900.1	2908.6
37.5°	2437.0	2434.9	2449.8	2462.6	2494.6	2530.9	2575.7	2614.2	2650.4	2676.0	2701.6
40°	1954.7	2008.1	2050.8	2110.5	2159.6	2230.0	2311.1	2377.3	2439.1	2484.0	2530.9
42.5°	1525.8	1594.1	1683.7	1771.2	1858.7	1954.7	2061.5	2153.2	2234.3	2296.2	2345.2
45°	1188.6	1282.5	1391.4	1502.3	1615.4	1735.0	1845.9	1939.8	2025.2	2089.2	2138.3
47.5°	958.1	1060.6	1184.3	1306.0	1434.0	1559.9	1683.7	1764.8	1835.2	1886.4	1931.3
50°	791.7	900.6	1030.7	1169.4	1297.4	1423.4	1530.1	1609.0	1666.7	1711.5	1739.2
52.5°	661.5	776.8	915.5	1054.2	1182.2	1297.4	1393.5	1453.3	1500.2	1532.2	1557.8
55°	546.3	657.3	787.5	917.6	1043.5	1152.3	1231.3	1276.1	1312.4	1331.6	1346.5
57.5°	446.0	548.4	667.9	787.5	896.3	985.9	1047.8	1092.6	1109.7	1124.6	1122.5
60°	350.0	446.0	554.8	657.3	751.2	823.7	868.5	894.1	906.9	913.3	909.1
62.5°	275.3	362.8	446.0	535.6	603.9	665.8	708.5	708.5	714.9	717.0	723.4
65°	204.8	271.0	343.6	409.7	465.2	505.8	529.3	535.6	544.2	542.0	537.8
67.5°	151.5	200.6	253.9	303.0	341.4	367.0	384.1	399.1	396.9	392.7	390.5
70°	104.6	136.6	183.5	213.4	241.1	266.8	271.0	273.1	275.3	277.4	273.1
72.5°	72.6	96.0	121.7	147.2	164.3	175.0	185.7	187.8	187.8	187.8	185.7
75°	36.3	49.1	72.6	83.2	98.2	102.4	111.0	111.0	117.4	108.8	106.7
77.5°	32.0	38.4	51.2	59.7	66.2	72.6	74.7	81.1	78.9	74.7	76.8
80°	19.2	23.5	32.0	36.3	44.8	46.9	49.1	51.2	49.1	51.2	51.2
82.5°	14.9	17.1	21.4	21.4	27.7	27.7	29.9	29.9	32.0	32.0	32.0
85°	8.5	14.9	12.8	25.6	17.1	17.1	21.4	25.6	21.4	21.4	25.6
87.5°	8.5	8.5	6.4	8.5	8.5	8.5	10.7	12.8	12.8	14.9	12.8
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: P249481

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3975.6	3975.6	3975.6	3975.6
2.5°	3982.0	3986.3	3979.9	3977.8
5°	3988.4	3988.4	3984.2	3984.2
7.5°	3988.4	3988.4	3982.0	3977.8
10°	3971.3	3971.3	3965.0	3960.7
12.5°	3939.3	3939.3	3937.2	3930.8
15°	3898.8	3898.8	3890.2	3883.9
17.5°	3843.3	3847.6	3836.9	3836.9
20°	3783.6	3781.4	3772.9	3768.6
22.5°	3721.7	3717.4	3715.3	3702.5
25°	3655.5	3651.3	3644.8	3638.5
27.5°	3542.4	3540.3	3533.9	3525.4
30°	3369.6	3367.4	3358.9	3358.9
32.5°	3145.5	3143.4	3134.8	3137.0
35°	2912.9	2921.4	2917.2	2908.6
37.5°	2718.7	2725.1	2729.4	2725.1
40°	2556.5	2575.7	2577.9	2582.1
42.5°	2383.7	2409.3	2417.8	2422.1
45°	2176.6	2200.1	2219.4	2215.1
47.5°	1965.4	1982.5	1999.5	1986.7
50°	1762.7	1773.3	1779.8	1779.8
52.5°	1570.6	1570.6	1568.5	1570.6
55°	1350.8	1350.8	1342.3	1346.5
57.5°	1120.3	1124.6	1118.2	1107.5
60°	906.9	896.3	892.0	885.6
62.5°	706.4	706.4	691.4	710.6
65°	529.3	522.8	516.4	514.3
67.5°	384.1	382.0	375.6	373.4
70°	271.0	262.5	260.3	256.1
72.5°	181.4	181.4	177.1	177.1
75°	111.0	100.3	98.2	100.3
77.5°	76.8	74.7	74.7	72.6
80°	51.2	49.1	53.4	46.9
82.5°	32.0	34.1	32.0	34.1
85°	21.4	25.6	23.5	23.5
87.5°	12.8	12.8	12.8	12.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)