

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: P249110

Luminaire Tested: **LSR8B70D010 EC8B70840 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249110
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: LSR8B70D010 EC8B70840 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7583.0 lumens
Efficiency: N/A
Efficacy: 99.9 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

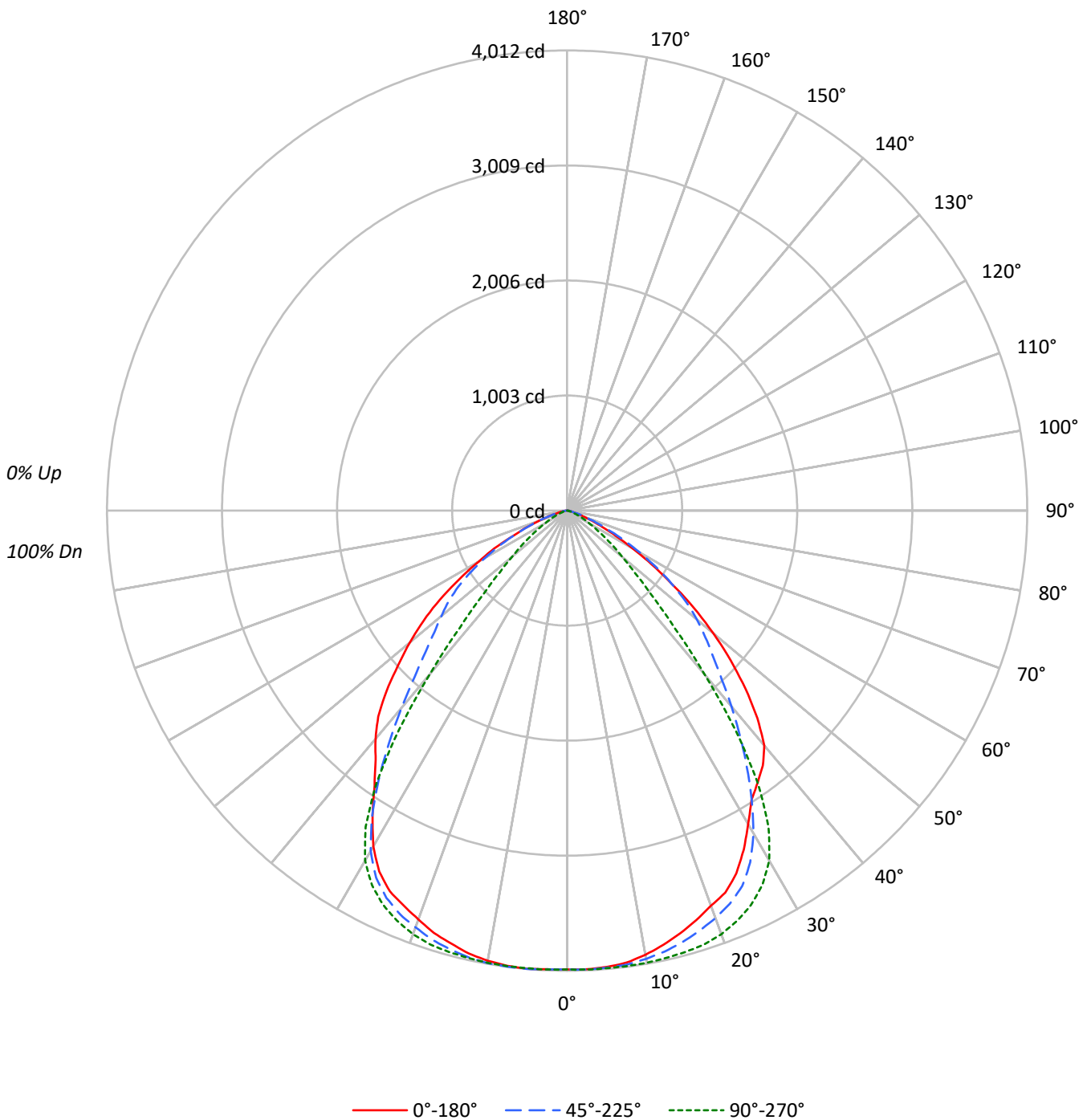
Input Watts (W): 75.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P249110

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0H

Luminous Intensity Polar Plot





TEST NUMBER: P249110

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0H

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°	123373	123373	123373
5°	123646	123977	124114
10°	123125	125345	124807
15°	121762	127179	124779
20°	120298	128967	124455
25°	118737	129115	124583
30°	112332	125485	120361
35°	108980	109059	110192
40°	107627	75037	104604
45°	95901	45048	97213
50°	79740	29983	85924
55°	59804	20666	72852
60°	40531	13771	54969
65°	24443	8931	37759
70°	13551	4842	23234
75°	6136	2049	12021
80°	5345	2291	8382
85°	6085	3043	8350



TEST NUMBER: P249110

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	381.8	5.0
10°-20°	1108.9	14.6
20°-30°	1683.1	22.2
30°-40°	1767.8	23.3
40°-50°	1325.3	17.5
50°-60°	850.4	11.2
60°-70°	363.8	4.8
70°-80°	85.9	1.1
80°-90°	16.0	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°	3173.8	41.9
0°-40°	4941.6	65.2
0°-60°	7117.3	93.9
0°-90°	7583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7583.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4001	4001	4001	4001	4001	
5°	3994	4001	4005	4012	4010	379
15°	3814	3894	3984	3958	3909	1076
25°	3490	3612	3795	3726	3662	1594
35°	2895	2734	2897	2863	2927	1817
45°	2199	1798	1033	1746	2229	1684
55°	1112	1112	384	1160	1355	1009
65°	335	395	122	509	518	358
75°	52	60	17	103	101	75
85°	17	11	9	17	24	18
90°	0	0	0	0	0	



TEST NUMBER: P249110

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9
2.5°	4003.1	4007.4	4005.2	4005.2	4003.1	4005.2	4005.2	4009.6	4009.6	4005.2	4003.1
5°	3994.5	3998.8	3998.8	3994.5	3994.5	4005.2	3998.8	4003.1	4003.1	4000.9	4000.9
7.5°	3975.2	3975.2	3983.8	3977.3	3977.3	3983.8	3981.6	3985.9	3990.2	3992.4	3992.4
10°	3932.2	3936.5	3938.7	3938.7	3940.8	3947.2	3951.5	3960.2	3964.4	3968.7	3970.9
12.5°	3878.6	3885.0	3887.1	3885.0	3891.4	3900.0	3910.8	3921.5	3927.9	3936.5	3943.0
15°	3814.1	3814.1	3818.4	3824.9	3829.2	3842.0	3852.8	3865.6	3882.8	3893.6	3904.3
17.5°	3743.2	3747.6	3754.0	3754.0	3762.6	3784.0	3790.5	3809.8	3829.2	3839.9	3861.4
20°	3665.9	3670.2	3676.7	3681.0	3691.7	3708.9	3721.8	3738.9	3760.4	3779.8	3801.2
22.5°	3605.8	3597.2	3601.5	3605.8	3616.6	3631.6	3646.6	3668.1	3689.5	3708.9	3730.4
25°	3489.8	3492.0	3498.4	3502.7	3515.6	3528.5	3545.7	3571.4	3590.8	3612.2	3635.8
27.5°	3333.1	3335.2	3345.9	3345.9	3356.7	3378.1	3388.9	3410.4	3436.2	3457.6	3485.5
30°	3154.8	3159.1	3159.1	3167.7	3174.1	3184.9	3195.6	3217.1	3230.0	3249.3	3288.0
32.5°	2991.6	2995.9	2993.7	2991.6	2985.1	2983.0	2980.8	2985.1	2989.4	2995.9	3010.9
35°	2895.0	2884.2	2875.6	2860.6	2843.4	2821.9	2802.6	2776.8	2753.2	2733.9	2712.4
37.5°	2802.6	2800.4	2787.6	2766.1	2731.7	2693.1	2648.0	2592.1	2536.3	2476.2	2418.2
40°	2673.7	2667.3	2656.6	2626.5	2587.8	2540.6	2480.5	2411.7	2321.5	2229.2	2134.7
42.5°	2454.7	2456.8	2443.9	2420.3	2383.8	2338.7	2276.4	2201.3	2104.6	1995.1	1872.7
45°	2199.1	2199.1	2194.8	2175.5	2149.7	2113.2	2066.0	2003.7	1909.2	1797.5	1666.5
47.5°	1932.8	1935.0	1928.5	1924.2	1913.5	1889.9	1855.5	1808.3	1741.7	1634.3	1503.3
50°	1662.2	1662.2	1673.0	1670.8	1670.8	1662.2	1647.2	1619.3	1561.3	1475.4	1353.0
52.5°	1391.6	1395.9	1402.4	1411.0	1421.7	1438.9	1421.7	1408.8	1372.3	1305.7	1200.5
55°	1112.4	1116.7	1127.5	1142.5	1155.4	1172.6	1176.9	1176.9	1157.5	1112.4	1033.0
57.5°	874.1	867.6	876.2	889.1	906.3	923.5	936.3	951.4	949.2	919.2	854.7
60°	657.2	659.3	665.7	678.7	691.5	706.6	723.7	736.6	743.1	728.0	687.2
62.5°	478.9	478.9	487.5	500.4	506.8	528.3	539.0	545.5	551.9	549.8	524.0
65°	335.0	339.3	343.6	350.1	356.5	369.4	375.8	388.7	393.0	395.2	375.8
67.5°	236.3	229.8	234.1	238.4	244.8	253.4	266.3	266.3	272.7	272.7	259.8
70°	150.3	150.3	152.5	158.9	163.2	165.4	169.7	173.9	180.4	178.2	178.2
72.5°	100.9	98.8	100.9	103.1	105.3	111.7	111.7	113.8	118.1	120.3	111.7
75°	51.5	53.7	58.0	55.9	62.3	58.0	60.1	66.6	64.4	60.1	60.1
77.5°	42.9	42.9	42.9	40.8	45.1	45.1	42.9	47.2	45.1	45.1	42.9
80°	30.1	32.2	30.1	27.9	30.1	27.9	27.9	27.9	27.9	27.9	25.7
82.5°	23.6	19.3	21.5	19.3	21.5	21.5	19.3	17.2	17.2	19.3	17.2
85°	17.2	12.9	15.0	15.0	12.9	12.9	12.9	12.9	12.9	10.7	10.7
87.5°	10.7	6.5	6.5	6.5	8.6	8.6	8.6	6.5	8.6	8.6	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



TEST NUMBER: P249110

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0H

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9
2.5°	4007.4	4005.2	4009.6	4007.4	4007.4	4005.2	4007.4	4005.2	4009.6	4000.9	4003.1
5°	4007.4	4003.1	4005.2	4007.4	4009.6	4005.2	4005.2	4005.2	4009.6	4005.2	4007.4
7.5°	3998.8	3996.6	4003.1	4007.4	4005.2	4003.1	4007.4	4005.2	4009.6	4007.4	4011.7
10°	3981.6	3983.8	3988.1	3994.5	3996.6	3998.8	4003.1	4003.1	4009.6	4000.9	4005.2
12.5°	3955.9	3964.4	3975.2	3979.4	3988.1	3988.1	3992.4	3994.5	3998.8	3996.6	4003.1
15°	3923.6	3934.4	3947.2	3958.0	3968.7	3975.2	3981.6	3983.8	3990.2	3983.8	3985.9
17.5°	3885.0	3897.8	3917.2	3930.1	3947.2	3953.7	3962.3	3966.6	3973.0	3968.7	3970.9
20°	3831.3	3846.3	3867.8	3887.1	3897.8	3912.9	3923.6	3930.1	3934.4	3930.1	3932.2
22.5°	3756.1	3777.6	3805.5	3820.5	3842.0	3854.9	3857.1	3872.1	3882.8	3872.1	3876.4
25°	3668.1	3689.5	3711.0	3743.2	3762.6	3777.6	3792.6	3794.8	3805.5	3803.4	3801.2
27.5°	3522.0	3550.0	3586.4	3612.2	3638.0	3661.6	3678.8	3683.1	3693.8	3689.5	3691.7
30°	3322.3	3352.4	3386.8	3427.5	3464.1	3487.7	3509.1	3524.2	3534.9	3528.5	3526.3
32.5°	3038.8	3068.9	3105.4	3146.2	3189.2	3223.5	3249.3	3268.6	3281.5	3277.2	3266.5
35°	2714.6	2723.1	2746.8	2779.0	2815.5	2852.0	2875.6	2897.1	2912.1	2916.4	2916.4
37.5°	2381.7	2353.8	2336.6	2336.6	2358.0	2373.1	2394.6	2407.4	2431.1	2439.6	2446.1
40°	2059.5	1995.1	1935.0	1889.9	1859.8	1857.7	1857.7	1864.1	1885.6	1913.5	1939.3
42.5°	1771.8	1668.7	1576.3	1492.6	1432.5	1398.1	1383.1	1385.2	1402.4	1428.1	1471.1
45°	1542.0	1413.1	1297.1	1196.2	1114.6	1060.9	1035.1	1033.0	1045.9	1075.9	1123.2
47.5°	1363.7	1226.3	1095.3	979.3	891.3	833.3	803.2	794.6	803.2	831.1	887.0
50°	1215.5	1073.8	938.5	818.2	723.7	663.6	635.7	625.0	635.7	659.3	715.1
52.5°	1078.1	932.0	805.3	689.4	588.4	536.9	506.8	500.4	506.8	534.7	579.9
55°	919.2	794.6	670.0	554.1	466.0	414.5	390.9	384.4	390.9	416.7	463.9
57.5°	762.4	655.0	545.5	440.2	365.1	320.0	298.5	289.9	304.9	322.1	378.0
60°	616.3	530.5	438.1	345.8	283.5	242.7	225.5	223.3	227.6	249.1	287.8
62.5°	483.2	412.3	339.3	264.2	212.6	195.4	173.9	171.8	176.1	189.0	219.1
65°	347.9	302.8	247.0	193.3	152.5	128.8	120.3	122.4	126.7	135.3	163.2
67.5°	242.7	210.5	171.8	135.3	105.3	94.5	85.9	83.8	85.9	100.9	116.0
70°	163.2	143.9	116.0	103.1	73.0	58.0	60.1	53.7	62.3	62.3	75.1
72.5°	107.4	94.5	77.3	60.1	51.5	40.8	40.8	38.7	42.9	45.1	55.9
75°	55.9	42.9	42.9	30.1	21.5	10.7	19.3	17.2	15.0	17.2	21.5
77.5°	38.7	32.2	30.1	23.6	21.5	17.2	17.2	17.2	17.2	19.3	21.5
80°	23.6	23.6	17.2	15.0	12.9	10.7	12.9	12.9	12.9	12.9	15.0
82.5°	15.0	12.9	12.9	10.7	10.7	8.6	8.6	8.6	8.6	8.6	12.9
85°	12.9	8.6	8.6	6.5	8.6	15.0	6.5	8.6	8.6	8.6	6.5
87.5°	4.3	6.5	6.5	6.5	4.3	2.2	4.3	6.5	6.5	10.7	8.6
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: P249110

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0H

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9	4000.9
2.5°	4007.4	4009.6	4009.6	4007.4	4007.4	4003.1	4011.7	4005.2	4007.4	4016.0	4009.6
5°	4011.7	4013.8	4013.8	4011.7	4011.7	4011.7	4013.8	4013.8	4011.7	4009.6	4013.8
7.5°	4020.3	4018.1	4018.1	4013.8	4013.8	4009.6	4013.8	4007.4	4011.7	4007.4	4013.8
10°	4009.6	4011.7	4009.6	4007.4	4007.4	4005.2	4005.2	3998.8	4000.9	3994.5	3998.8
12.5°	4003.1	4000.9	4000.9	3996.6	3992.4	3988.1	3985.9	3979.4	3979.4	3964.4	3970.9
15°	3985.9	3988.1	3981.6	3973.0	3968.7	3958.0	3953.7	3945.1	3936.5	3925.8	3927.9
17.5°	3970.9	3964.4	3955.9	3947.2	3930.1	3921.5	3912.9	3900.0	3895.7	3882.8	3878.6
20°	3925.8	3921.5	3910.8	3895.7	3885.0	3865.6	3857.1	3844.2	3833.4	3820.5	3814.1
22.5°	3867.8	3863.5	3850.6	3835.6	3818.4	3809.8	3801.2	3777.6	3766.8	3754.0	3751.8
25°	3794.8	3788.3	3775.5	3758.3	3749.7	3726.1	3717.4	3700.3	3696.0	3683.1	3681.0
27.5°	3683.1	3674.5	3659.5	3638.0	3623.0	3607.9	3599.4	3586.4	3582.2	3569.3	3567.2
30°	3515.6	3504.8	3474.8	3466.2	3440.4	3425.4	3425.4	3408.2	3410.4	3401.8	3401.8
32.5°	3251.4	3234.3	3210.6	3193.4	3176.3	3167.7	3167.7	3161.2	3165.5	3165.5	3169.8
35°	2901.4	2877.8	2864.9	2854.1	2854.1	2862.7	2888.5	2895.0	2907.8	2918.6	2927.2
37.5°	2452.5	2450.4	2465.4	2478.3	2510.5	2547.0	2592.1	2630.8	2667.3	2693.1	2718.8
40°	1967.2	2020.9	2063.8	2124.0	2173.3	2244.2	2325.8	2392.4	2454.7	2499.8	2547.0
42.5°	1535.5	1604.2	1694.5	1782.5	1870.5	1967.2	2074.6	2166.9	2248.5	2310.8	2360.2
45°	1196.2	1290.7	1400.2	1511.9	1625.7	1746.0	1857.7	1952.2	2038.1	2102.5	2151.9
47.5°	964.3	1067.4	1191.9	1314.3	1443.2	1569.9	1694.5	1776.1	1846.9	1898.4	1943.6
50°	796.7	906.3	1037.3	1176.9	1305.7	1432.5	1539.8	1619.3	1677.3	1722.4	1750.3
52.5°	665.7	781.7	921.3	1060.9	1189.7	1305.7	1402.4	1462.5	1509.8	1542.0	1567.7
55°	549.8	661.5	792.5	923.5	1050.2	1159.7	1239.1	1284.3	1320.7	1340.1	1355.1
57.5°	448.9	551.9	672.2	792.5	902.0	992.2	1054.5	1099.6	1116.7	1131.8	1129.6
60°	352.2	448.9	558.4	661.5	756.0	828.9	874.1	899.8	912.7	919.2	914.9
62.5°	277.0	365.1	448.9	539.0	607.8	670.0	713.0	713.0	719.4	721.6	728.0
65°	206.1	272.7	345.8	412.3	468.1	509.0	532.6	539.0	547.7	545.5	541.2
67.5°	152.5	201.9	255.5	304.9	343.6	369.4	386.5	401.6	399.5	395.2	393.0
70°	105.3	137.5	184.7	214.8	242.7	268.5	272.7	274.9	277.0	279.2	274.9
72.5°	73.0	96.6	122.4	148.2	165.4	176.1	186.9	189.0	189.0	189.0	186.9
75°	36.5	49.4	73.0	83.8	98.8	103.1	111.7	111.7	118.1	109.5	107.4
77.5°	32.2	38.7	51.5	60.1	66.6	73.0	75.1	81.6	79.5	75.1	77.3
80°	19.3	23.6	32.2	36.5	45.1	47.2	49.4	51.5	49.4	51.5	51.5
82.5°	15.0	17.2	21.5	21.5	27.9	27.9	30.1	30.1	32.2	32.2	32.2
85°	8.6	15.0	12.9	25.7	17.2	17.2	21.5	25.7	21.5	21.5	25.7
87.5°	8.6	8.6	6.5	8.6	8.6	8.6	10.7	12.9	12.9	15.0	12.9
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: P249110

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4000.9	4000.9	4000.9	4000.9
2.5°	4007.4	4011.7	4005.2	4003.1
5°	4013.8	4013.8	4009.6	4009.6
7.5°	4013.8	4013.8	4007.4	4003.1
10°	3996.6	3996.6	3990.2	3985.9
12.5°	3964.4	3964.4	3962.3	3955.9
15°	3923.6	3923.6	3915.0	3908.6
17.5°	3867.8	3872.1	3861.4	3861.4
20°	3807.7	3805.5	3796.9	3792.6
22.5°	3745.4	3741.1	3738.9	3726.1
25°	3678.8	3674.5	3668.1	3661.6
27.5°	3565.0	3562.8	3556.4	3547.8
30°	3391.0	3388.9	3380.3	3380.3
32.5°	3165.5	3163.4	3154.8	3157.0
35°	2931.4	2940.1	2935.7	2927.2
37.5°	2736.0	2742.5	2746.8	2742.5
40°	2572.8	2592.1	2594.3	2598.6
42.5°	2398.9	2424.6	2433.2	2437.5
45°	2190.5	2214.2	2233.5	2229.2
47.5°	1977.9	1995.1	2012.3	1999.4
50°	1773.9	1784.6	1791.1	1791.1
52.5°	1580.6	1580.6	1578.5	1580.6
55°	1359.4	1359.4	1350.8	1355.1
57.5°	1127.5	1131.8	1125.3	1114.6
60°	912.7	902.0	897.7	891.3
62.5°	710.9	710.9	695.8	715.1
65°	532.6	526.2	519.7	517.5
67.5°	386.5	384.4	378.0	375.8
70°	272.7	264.2	262.0	257.7
72.5°	182.6	182.6	178.2	178.2
75°	111.7	100.9	98.8	100.9
77.5°	77.3	75.1	75.1	73.0
80°	51.5	49.4	53.7	47.2
82.5°	32.2	34.4	32.2	34.4
85°	21.5	25.7	23.6	23.6
87.5°	12.9	12.9	12.9	12.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)