

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: P249308

Luminaire Tested: **LSR8B70D010 EC8B70830 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249308
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 EC8B70830 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7175.0 lumens
Efficiency: N/A
Efficacy: 94.5 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

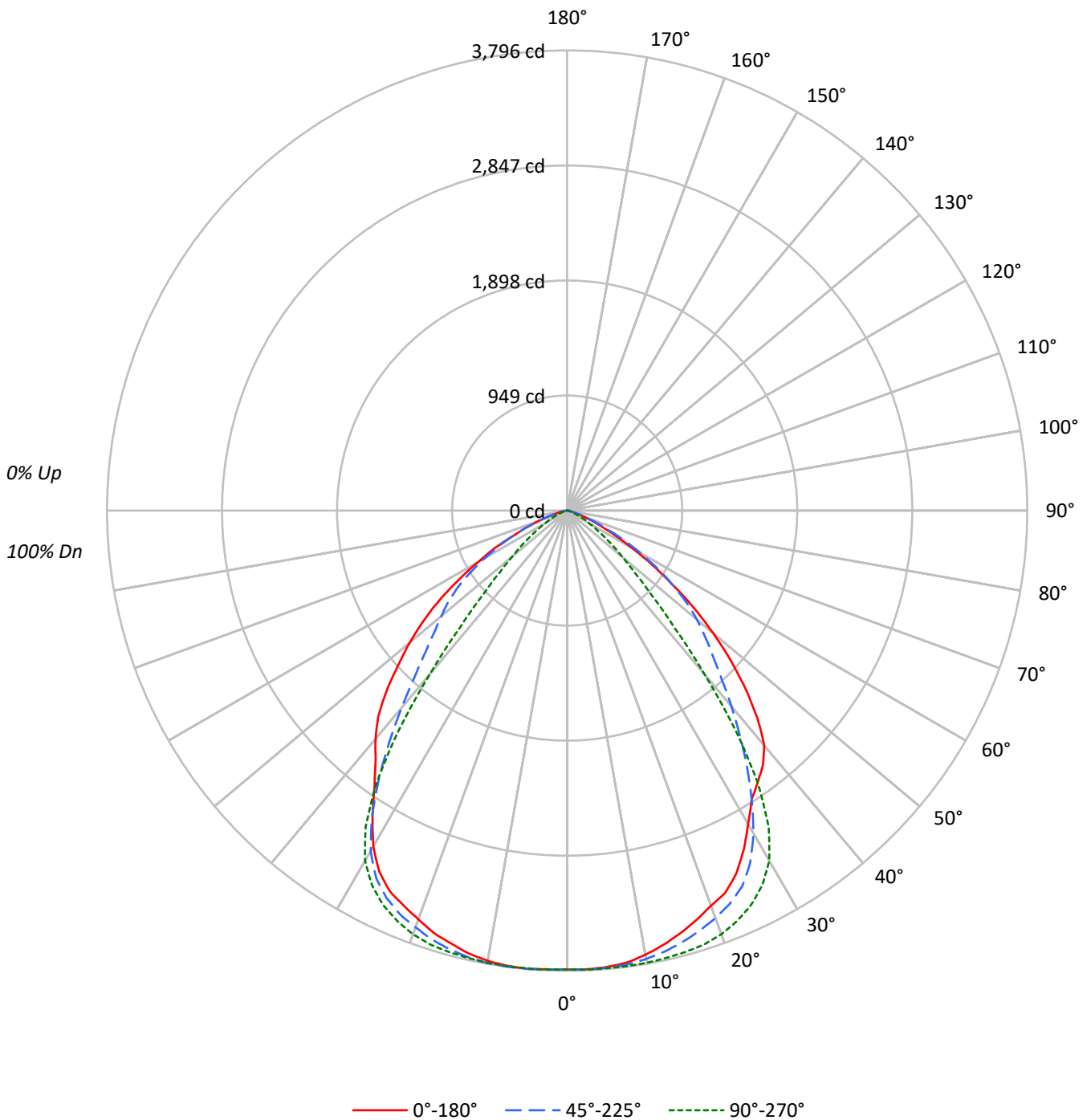
Input Watts (W): 75.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P249308

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0GPH

Luminous Intensity Polar Plot





TEST NUMBER: P249308

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0GPH

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°	116737	116737	116737
5°	116994	117307	117434
10°	116499	118601	118093
15°	115211	120335	118065
20°	113827	122027	117761
25°	112348	122167	117880
30°	106290	118734	113884
35°	103115	103190	104263
40°	101838	71000	98976
45°	90742	42624	91980
50°	75452	28366	81299
55°	56589	19558	68933
60°	38348	13031	52009
65°	23130	8449	35731
70°	12830	4580	21981
75°	5814	1942	11378
80°	5043	2166	7938
85°	5767	2866	7925



TEST NUMBER: P249308

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0GPH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.3	5.0
10°-20°	1049.2	14.6
20°-30°	1592.5	22.2
30°-40°	1672.6	23.3
40°-50°	1254.0	17.5
50°-60°	804.6	11.2
60°-70°	344.2	4.8
70°-80°	81.3	1.1
80°-90°	15.1	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°	3003.1	41.9
0°-40°	4675.7	65.2
0°-60°	6734.4	93.9
0°-90°	7175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7175.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3786	3786	3786	3786	3786	
5°	3780	3786	3790	3796	3794	359
15°	3609	3684	3769	3745	3698	1018
25°	3302	3418	3591	3526	3465	1509
35°	2739	2587	2741	2709	2770	1719
45°	2081	1701	977	1652	2109	1594
55°	1053	1053	364	1097	1282	955
65°	317	374	116	482	490	338
75°	49	57	16	98	96	71
85°	16	10	8	16	22	17
90°	0	0	0	0	0	



TEST NUMBER: P249308

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0GPH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7
2.5°	3787.7	3791.8	3789.7	3789.7	3787.7	3789.7	3789.7	3793.8	3793.8	3789.7	3787.7
5°	3779.6	3783.6	3783.6	3779.6	3779.6	3789.7	3783.6	3787.7	3787.7	3785.7	3785.7
7.5°	3761.3	3761.3	3769.4	3763.3	3763.3	3769.4	3767.4	3771.5	3775.5	3777.6	3777.6
10°	3720.6	3724.7	3726.8	3726.8	3728.8	3734.9	3738.9	3747.1	3751.1	3755.2	3757.2
12.5°	3669.9	3675.9	3678.0	3675.9	3682.1	3690.2	3700.3	3710.5	3716.6	3724.7	3730.8
15°	3608.9	3608.9	3612.9	3619.1	3623.1	3635.3	3645.5	3657.6	3673.9	3684.1	3694.2
17.5°	3541.8	3545.9	3552.0	3552.0	3560.1	3580.4	3586.5	3604.8	3623.1	3633.3	3653.6
20°	3468.7	3472.7	3478.8	3482.9	3493.1	3509.3	3521.5	3537.8	3558.1	3576.4	3596.7
22.5°	3411.8	3403.7	3407.7	3411.8	3422.0	3436.2	3450.4	3470.7	3491.0	3509.3	3529.7
25°	3302.0	3304.1	3310.2	3314.2	3326.5	3338.6	3354.9	3379.3	3397.6	3417.9	3440.2
27.5°	3153.7	3155.8	3165.9	3165.9	3176.0	3196.4	3206.5	3226.9	3251.3	3271.6	3298.0
30°	2985.1	2989.1	2989.1	2997.3	3003.3	3013.5	3023.7	3044.0	3056.2	3074.5	3111.1
32.5°	2830.6	2834.7	2832.6	2830.6	2824.5	2822.5	2820.4	2824.5	2828.6	2834.7	2848.9
35°	2739.2	2729.0	2720.9	2706.7	2690.4	2670.1	2651.8	2627.4	2605.1	2586.8	2566.5
37.5°	2651.8	2649.8	2637.6	2617.2	2584.7	2548.2	2505.5	2452.7	2399.8	2342.9	2288.1
40°	2529.9	2523.8	2513.6	2485.2	2448.6	2403.9	2347.0	2282.0	2196.6	2109.2	2019.8
42.5°	2322.6	2324.6	2312.5	2290.1	2255.6	2212.9	2153.9	2082.8	1991.4	1887.7	1771.9
45°	2080.8	2080.8	2076.7	2058.4	2034.1	1999.5	1954.8	1895.9	1806.5	1700.8	1576.8
47.5°	1828.8	1830.9	1824.7	1820.7	1810.5	1788.2	1755.7	1711.0	1648.0	1546.4	1422.4
50°	1572.8	1572.8	1583.0	1580.9	1580.9	1572.8	1558.6	1532.1	1477.3	1396.0	1280.2
52.5°	1316.7	1320.8	1326.9	1335.0	1345.2	1361.4	1345.2	1333.0	1298.5	1235.5	1135.9
55°	1052.6	1056.7	1066.8	1081.0	1093.3	1109.5	1113.5	1113.5	1095.2	1052.6	977.4
57.5°	827.1	820.9	829.1	841.3	857.5	873.8	886.0	900.2	898.2	869.7	808.8
60°	621.8	623.8	629.9	642.1	654.3	668.5	684.8	697.0	703.1	688.9	650.2
62.5°	453.2	453.2	461.3	473.4	479.6	499.9	510.0	516.1	522.2	520.2	495.8
65°	317.0	321.0	325.1	331.2	337.3	349.5	355.6	367.8	371.9	373.9	355.6
67.5°	223.5	217.4	221.5	225.5	231.6	239.8	252.0	252.0	258.1	258.1	245.9
70°	142.3	142.3	144.3	150.4	154.4	156.5	160.5	164.6	170.7	168.7	168.7
72.5°	95.5	93.5	95.5	97.6	99.6	105.7	105.7	107.7	111.8	113.8	105.7
75°	48.8	50.8	54.8	52.9	58.9	54.8	56.9	63.0	61.0	56.9	56.9
77.5°	40.6	40.6	40.6	38.6	42.7	42.7	40.6	44.7	42.7	42.7	40.6
80°	28.4	30.5	28.4	26.4	28.4	26.4	26.4	26.4	26.4	26.4	24.4
82.5°	22.4	18.3	20.3	18.3	20.3	20.3	18.3	16.3	16.3	18.3	16.3
85°	16.3	12.2	14.2	14.2	12.2	12.2	12.2	12.2	12.2	10.1	10.1
87.5°	10.1	6.1	6.1	6.1	8.1	8.1	8.1	6.1	8.1	8.1	4.1
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: P249308

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7
2.5°	3791.8	3789.7	3793.8	3791.8	3791.8	3789.7	3791.8	3789.7	3793.8	3785.7	3787.7
5°	3791.8	3787.7	3789.7	3791.8	3793.8	3789.7	3789.7	3789.7	3793.8	3789.7	3791.8
7.5°	3783.6	3781.6	3787.7	3791.8	3789.7	3787.7	3791.8	3789.7	3793.8	3791.8	3795.8
10°	3767.4	3769.4	3773.5	3779.6	3781.6	3783.6	3787.7	3787.7	3793.8	3785.7	3789.7
12.5°	3743.0	3751.1	3761.3	3765.3	3773.5	3773.5	3777.6	3779.6	3783.6	3781.6	3787.7
15°	3712.5	3722.7	3734.9	3745.0	3755.2	3761.3	3767.4	3769.4	3775.5	3769.4	3771.5
17.5°	3675.9	3688.1	3706.4	3718.6	3734.9	3741.0	3749.1	3753.2	3759.3	3755.2	3757.2
20°	3625.1	3639.4	3659.7	3678.0	3688.1	3702.3	3712.5	3718.6	3722.7	3718.6	3720.6
22.5°	3554.0	3574.4	3600.8	3615.0	3635.3	3647.5	3649.5	3663.8	3673.9	3663.8	3667.8
25°	3470.7	3491.0	3511.4	3541.8	3560.1	3574.4	3588.6	3590.6	3600.8	3598.7	3596.7
27.5°	3332.5	3359.0	3393.5	3417.9	3442.3	3464.6	3480.9	3484.9	3495.1	3491.0	3493.1
30°	3143.5	3172.0	3204.5	3243.1	3277.7	3300.0	3320.3	3334.6	3344.7	3338.6	3336.6
32.5°	2875.3	2903.8	2938.3	2976.9	3017.6	3050.1	3074.5	3092.8	3104.9	3100.9	3090.7
35°	2568.5	2576.6	2599.0	2629.5	2664.0	2698.5	2720.9	2741.2	2755.4	2759.5	2759.5
37.5°	2253.5	2227.1	2210.9	2210.9	2231.2	2245.4	2265.7	2277.9	2300.3	2308.4	2314.5
40°	1948.7	1887.7	1830.9	1788.2	1759.8	1757.7	1757.7	1763.8	1784.1	1810.5	1834.9
42.5°	1676.4	1578.9	1491.5	1412.3	1355.4	1322.9	1308.6	1310.7	1326.9	1351.3	1391.9
45°	1459.0	1337.1	1227.4	1131.8	1054.6	1003.8	979.4	977.4	989.6	1018.0	1062.8
47.5°	1290.3	1160.3	1036.3	926.6	843.3	788.4	760.0	751.9	760.0	786.4	839.2
50°	1150.1	1016.0	888.0	774.2	684.8	627.9	601.5	591.3	601.5	623.8	676.6
52.5°	1020.1	881.9	762.0	652.3	556.8	508.0	479.6	473.4	479.6	506.0	548.7
55°	869.7	751.9	634.0	524.3	441.0	392.2	369.8	363.8	369.8	394.2	438.9
57.5°	721.4	619.8	516.1	416.6	345.5	302.7	282.5	274.3	288.5	304.8	357.6
60°	583.2	501.9	414.5	327.2	268.2	229.6	213.4	211.3	215.4	235.7	272.3
62.5°	457.2	390.2	321.0	249.9	201.2	184.9	164.6	162.6	166.6	178.8	207.3
65°	329.2	286.5	233.7	182.9	144.3	121.9	113.8	115.8	119.9	128.0	154.4
67.5°	229.6	199.1	162.6	128.0	99.6	89.4	81.3	79.3	81.3	95.5	109.7
70°	154.4	136.1	109.7	97.6	69.1	54.8	56.9	50.8	58.9	58.9	71.1
72.5°	101.6	89.4	73.1	56.9	48.8	38.6	38.6	36.6	40.6	42.7	52.9
75°	52.9	40.6	40.6	28.4	20.3	10.1	18.3	16.3	14.2	16.3	20.3
77.5°	36.6	30.5	28.4	22.4	20.3	16.3	16.3	16.3	16.3	18.3	20.3
80°	22.4	22.4	16.3	14.2	12.2	10.1	12.2	12.2	12.2	12.2	14.2
82.5°	14.2	12.2	12.2	10.1	10.1	8.1	8.1	8.1	8.1	8.1	12.2
85°	12.2	8.1	8.1	6.1	8.1	14.2	6.1	8.1	8.1	8.1	6.1
87.5°	4.1	6.1	6.1	6.1	4.1	2.0	4.1	6.1	6.1	10.1	8.1
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: P249308

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7	3785.7
2.5°	3791.8	3793.8	3793.8	3791.8	3791.8	3787.7	3795.8	3789.7	3791.8	3799.9	3793.8
5°	3795.8	3797.9	3797.9	3795.8	3795.8	3795.8	3797.9	3797.9	3795.8	3793.8	3797.9
7.5°	3804.0	3801.9	3801.9	3797.9	3797.9	3793.8	3797.9	3791.8	3795.8	3791.8	3797.9
10°	3793.8	3795.8	3793.8	3791.8	3791.8	3789.7	3789.7	3783.6	3785.7	3779.6	3783.6
12.5°	3787.7	3785.7	3785.7	3781.6	3777.6	3773.5	3771.5	3765.3	3765.3	3751.1	3757.2
15°	3771.5	3773.5	3767.4	3759.3	3755.2	3745.0	3741.0	3732.8	3724.7	3714.6	3716.6
17.5°	3757.2	3751.1	3743.0	3734.9	3718.6	3710.5	3702.3	3690.2	3686.1	3673.9	3669.9
20°	3714.6	3710.5	3700.3	3686.1	3675.9	3657.6	3649.5	3637.4	3627.2	3615.0	3608.9
22.5°	3659.7	3655.6	3643.4	3629.2	3612.9	3604.8	3596.7	3574.4	3564.2	3552.0	3549.9
25°	3590.6	3584.5	3572.3	3556.1	3547.9	3525.6	3517.4	3501.2	3497.1	3484.9	3482.9
27.5°	3484.9	3476.8	3462.6	3442.3	3428.0	3413.8	3405.7	3393.5	3389.4	3377.2	3375.2
30°	3326.5	3316.3	3287.8	3279.7	3255.3	3241.1	3241.1	3224.8	3226.9	3218.8	3218.8
32.5°	3076.5	3060.2	3037.9	3021.6	3005.4	2997.3	2997.3	2991.1	2995.2	2995.2	2999.3
35°	2745.3	2722.9	2710.7	2700.6	2700.6	2708.7	2733.1	2739.2	2751.4	2761.5	2769.7
37.5°	2320.6	2318.6	2332.8	2345.0	2375.4	2410.0	2452.7	2489.3	2523.8	2548.2	2572.5
40°	1861.3	1912.2	1952.8	2009.7	2056.4	2123.5	2200.7	2263.7	2322.6	2365.3	2410.0
42.5°	1452.9	1517.9	1603.3	1686.6	1769.9	1861.3	1963.0	2050.3	2127.5	2186.5	2233.2
45°	1131.8	1221.2	1324.9	1430.6	1538.3	1652.1	1757.7	1847.1	1928.4	1989.4	2036.1
47.5°	912.4	1009.9	1127.8	1243.6	1365.5	1485.4	1603.3	1680.5	1747.5	1796.3	1839.0
50°	753.9	857.5	981.5	1113.5	1235.5	1355.4	1457.0	1532.1	1587.0	1629.7	1656.1
52.5°	629.9	739.6	871.7	1003.8	1125.7	1235.5	1326.9	1383.8	1428.5	1459.0	1483.4
55°	520.2	625.9	749.8	873.8	993.7	1097.3	1172.5	1215.2	1249.7	1268.0	1282.2
57.5°	424.7	522.2	636.0	749.8	853.5	938.8	997.7	1040.4	1056.7	1070.9	1068.8
60°	333.3	424.7	528.3	625.9	715.3	784.3	827.1	851.4	863.6	869.7	865.6
62.5°	262.1	345.5	424.7	510.0	575.1	634.0	674.7	674.7	680.7	682.8	688.9
65°	195.1	258.1	327.2	390.2	443.0	481.6	504.0	510.0	518.2	516.1	512.1
67.5°	144.3	191.0	241.8	288.5	325.1	349.5	365.7	380.0	378.0	373.9	371.9
70°	99.6	130.1	174.8	203.2	229.6	254.0	258.1	260.1	262.1	264.2	260.1
72.5°	69.1	91.4	115.8	140.2	156.5	166.6	176.8	178.8	178.8	178.8	176.8
75°	34.6	46.7	69.1	79.3	93.5	97.6	105.7	105.7	111.8	103.6	101.6
77.5°	30.5	36.6	48.8	56.9	63.0	69.1	71.1	77.2	75.2	71.1	73.1
80°	18.3	22.4	30.5	34.6	42.7	44.7	46.7	48.8	46.7	48.8	48.8
82.5°	14.2	16.3	20.3	20.3	26.4	26.4	28.4	28.4	30.5	30.5	30.5
85°	8.1	14.2	12.2	24.4	16.3	16.3	20.3	24.4	20.3	20.3	24.4
87.5°	8.1	8.1	6.1	8.1	8.1	8.1	10.1	12.2	12.2	14.2	12.2
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: P249308

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3785.7	3785.7	3785.7	3785.7
2.5°	3791.8	3795.8	3789.7	3787.7
5°	3797.9	3797.9	3793.8	3793.8
7.5°	3797.9	3797.9	3791.8	3787.7
10°	3781.6	3781.6	3775.5	3771.5
12.5°	3751.1	3751.1	3749.1	3743.0
15°	3712.5	3712.5	3704.4	3698.3
17.5°	3659.7	3663.8	3653.6	3653.6
20°	3602.8	3600.8	3592.7	3588.6
22.5°	3543.9	3539.8	3537.8	3525.6
25°	3480.9	3476.8	3470.7	3464.6
27.5°	3373.2	3371.2	3365.0	3356.9
30°	3208.6	3206.5	3198.4	3198.4
32.5°	2995.2	2993.2	2985.1	2987.1
35°	2773.7	2781.9	2777.8	2769.7
37.5°	2588.8	2594.9	2599.0	2594.9
40°	2434.4	2452.7	2454.7	2458.8
42.5°	2269.8	2294.2	2302.3	2306.3
45°	2072.7	2095.0	2113.3	2109.2
47.5°	1871.5	1887.7	1904.0	1891.8
50°	1678.5	1688.6	1694.7	1694.7
52.5°	1495.6	1495.6	1493.6	1495.6
55°	1286.3	1286.3	1278.2	1282.2
57.5°	1066.8	1070.9	1064.8	1054.6
60°	863.6	853.5	849.4	843.3
62.5°	672.6	672.6	658.4	676.6
65°	504.0	497.9	491.7	489.7
67.5°	365.7	363.8	357.6	355.6
70°	258.1	249.9	247.9	243.8
72.5°	172.7	172.7	168.7	168.7
75°	105.7	95.5	93.5	95.5
77.5°	73.1	71.1	71.1	69.1
80°	48.8	46.7	50.8	44.7
82.5°	30.5	32.5	30.5	32.5
85°	20.3	24.4	22.4	22.4
87.5°	12.2	12.2	12.2	12.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)