

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: P249391

Luminaire Tested: **LSR8B90D010 EC8B90927 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249391
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 EC8B90927 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 2700 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7320.4 lumens
Efficiency: N/A
Efficacy: 85.0 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

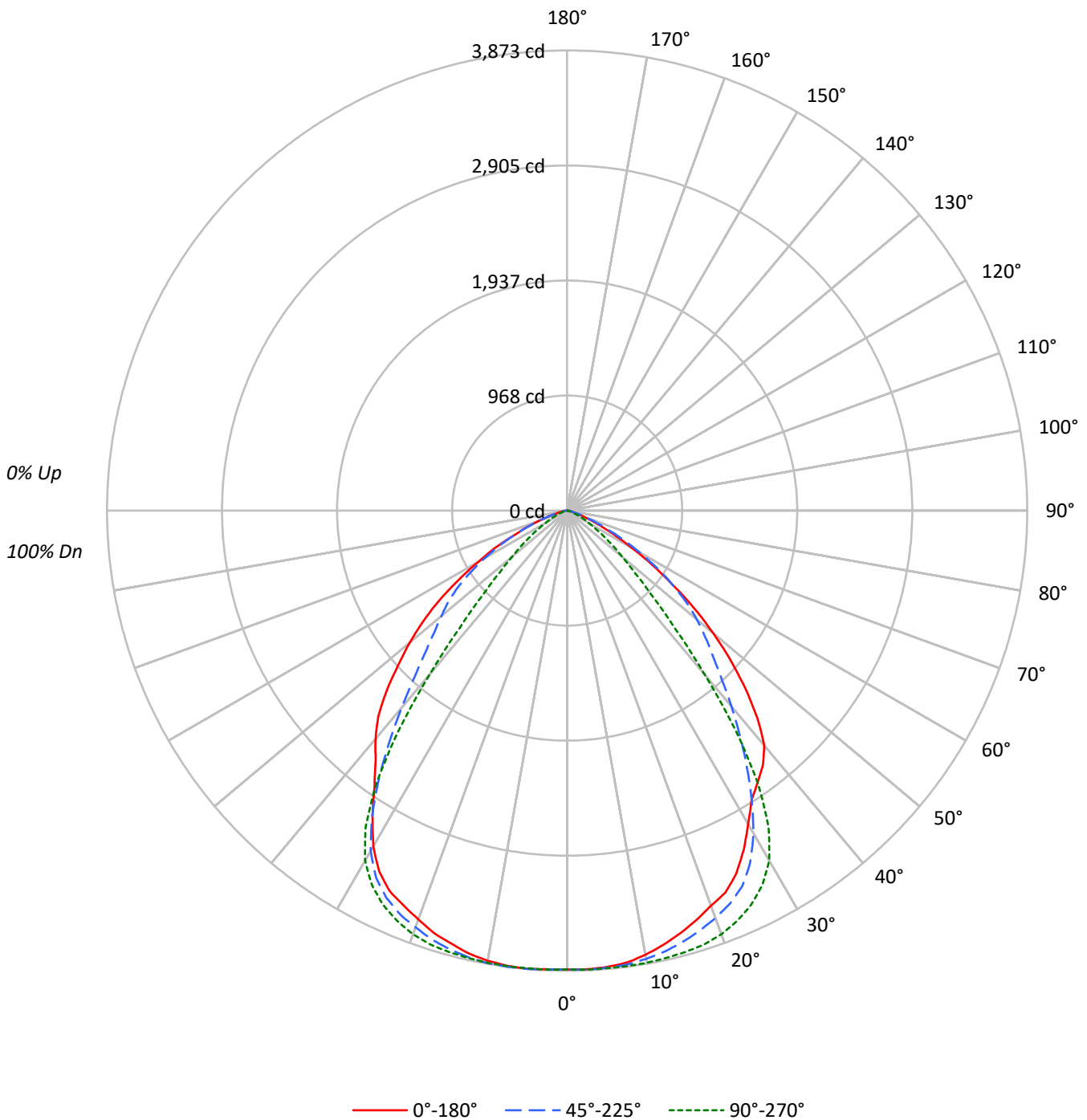
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	368.6	5.0
10°-20°	1070.5	14.6
20°-30°	1624.8	22.2
30°-40°	1706.5	23.3
40°-50°	1279.4	17.5
50°-60°	820.9	11.2
60°-70°	351.2	4.8
70°-80°	83.0	1.1
80°-90°	15.4	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°	3063.9	41.9
0°-40°	4770.4	65.2
0°-60°	6870.8	93.9
0°-90°	7320.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7320.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3862	3862	3862	3862	3862	
5°	3856	3862	3866	3873	3871	366
15°	3682	3759	3846	3821	3773	1039
25°	3369	3487	3663	3597	3535	1539
35°	2795	2639	2797	2764	2826	1754
45°	2123	1735	997	1686	2152	1626
55°	1074	1074	371	1120	1308	974
65°	323	382	118	491	500	345
75°	50	58	16	100	97	72
85°	16	10	8	16	23	17
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°	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4
2.5°	3864.5	3868.6	3866.5	3866.5	3864.5	3866.5	3866.5	3870.7	3870.7	3866.5	3864.5
5°	3856.2	3860.3	3860.3	3856.2	3856.2	3866.5	3860.3	3864.5	3864.5	3862.4	3862.4
7.5°	3837.5	3837.5	3845.8	3839.6	3839.6	3845.8	3843.7	3847.8	3852.0	3854.1	3854.1
10°	3796.0	3800.1	3802.3	3802.3	3804.3	3810.5	3814.6	3823.0	3827.1	3831.3	3833.3
12.5°	3744.2	3750.4	3752.6	3750.4	3756.6	3764.9	3775.3	3785.6	3791.9	3800.1	3806.4
15°	3682.0	3682.0	3686.2	3692.4	3696.5	3709.0	3719.4	3731.7	3748.4	3758.7	3769.1
17.5°	3613.6	3617.8	3624.0	3624.0	3632.3	3653.0	3659.2	3677.8	3696.5	3706.9	3727.7
20°	3539.0	3543.1	3549.4	3553.5	3563.9	3580.4	3592.9	3609.4	3630.2	3648.8	3669.5
22.5°	3480.9	3472.6	3476.7	3480.9	3491.3	3505.8	3520.4	3541.0	3561.8	3580.4	3601.1
25°	3368.9	3371.1	3377.2	3381.4	3393.9	3406.3	3422.8	3447.7	3466.4	3487.2	3509.9
27.5°	3217.6	3219.8	3230.1	3230.1	3240.5	3261.2	3271.5	3292.2	3317.2	3337.9	3364.9
30°	3045.6	3049.6	3049.6	3058.0	3064.2	3074.5	3084.9	3105.7	3118.0	3136.7	3174.1
32.5°	2888.0	2892.2	2890.0	2888.0	2881.8	2879.7	2877.6	2881.8	2886.0	2892.2	2906.7
35°	2794.7	2784.3	2776.0	2761.5	2744.9	2724.2	2705.5	2680.6	2657.8	2639.1	2618.4
37.5°	2705.5	2703.5	2691.0	2670.3	2637.1	2599.8	2556.2	2502.3	2448.5	2390.4	2334.5
40°	2581.1	2574.9	2564.5	2535.5	2498.2	2452.6	2394.6	2328.2	2241.1	2152.0	2060.8
42.5°	2369.7	2371.7	2359.4	2336.5	2301.3	2257.6	2197.6	2125.0	2031.8	1926.0	1807.9
45°	2123.0	2123.0	2118.8	2100.2	2075.3	2040.1	1994.4	1934.3	1843.1	1735.2	1608.8
47.5°	1865.9	1868.0	1861.8	1857.6	1847.2	1824.4	1791.2	1745.7	1681.4	1577.7	1451.2
50°	1604.7	1604.7	1615.0	1612.9	1612.9	1604.7	1590.2	1563.2	1507.3	1424.2	1306.1
52.5°	1343.5	1347.6	1353.8	1362.1	1372.5	1389.0	1372.5	1360.0	1324.8	1260.4	1159.0
55°	1073.9	1078.1	1088.4	1103.0	1115.4	1132.0	1136.1	1136.1	1117.5	1073.9	997.2
57.5°	843.9	837.6	845.9	858.3	874.9	891.4	903.9	918.4	916.3	887.3	825.2
60°	634.4	636.5	642.7	655.2	667.6	682.1	698.6	711.1	717.3	702.8	663.4
62.5°	462.4	462.4	470.6	483.1	489.3	510.0	520.3	526.6	532.8	530.7	505.9
65°	323.4	327.6	331.8	338.0	344.1	356.5	362.8	375.2	379.3	381.5	362.8
67.5°	228.0	221.8	226.0	230.1	236.4	244.7	257.1	257.1	263.2	263.2	250.9
70°	145.1	145.1	147.3	153.5	157.6	159.6	163.8	168.0	174.2	172.1	172.1
72.5°	97.4	95.4	97.4	99.6	101.6	107.8	107.8	109.9	114.1	116.1	107.8
75°	49.7	51.9	55.9	53.9	60.1	55.9	58.0	64.2	62.2	58.0	58.0
77.5°	41.4	41.4	41.4	39.4	43.5	43.5	41.4	45.6	43.5	43.5	41.4
80°	29.0	31.0	29.0	26.9	29.0	26.9	26.9	26.9	26.9	26.9	24.9
82.5°	22.8	18.7	20.7	18.7	20.7	20.7	18.7	16.5	16.5	18.7	16.5
85°	16.5	12.4	14.5	14.5	12.4	12.4	12.4	12.4	12.4	10.4	10.4
87.5°	10.4	6.2	6.2	6.2	8.3	8.3	8.3	6.2	8.3	8.3	4.2
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°	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4
2.5°	3868.6	3866.5	3870.7	3868.6	3868.6	3866.5	3868.6	3866.5	3870.7	3862.4	3864.5
5°	3868.6	3864.5	3866.5	3868.6	3870.7	3866.5	3866.5	3866.5	3870.7	3866.5	3868.6
7.5°	3860.3	3858.2	3864.5	3868.6	3866.5	3864.5	3868.6	3866.5	3870.7	3868.6	3872.7
10°	3843.7	3845.8	3850.0	3856.2	3858.2	3860.3	3864.5	3864.5	3870.7	3862.4	3866.5
12.5°	3818.8	3827.1	3837.5	3841.6	3850.0	3850.0	3854.1	3856.2	3860.3	3858.2	3864.5
15°	3787.8	3798.1	3810.5	3821.0	3831.3	3837.5	3843.7	3845.8	3852.0	3845.8	3847.8
17.5°	3750.4	3762.9	3781.5	3794.0	3810.5	3816.8	3825.0	3829.2	3835.5	3831.3	3833.3
20°	3698.6	3713.2	3733.9	3752.6	3762.9	3777.3	3787.8	3794.0	3798.1	3794.0	3796.0
22.5°	3626.0	3646.8	3673.7	3688.2	3709.0	3721.4	3723.5	3738.0	3748.4	3738.0	3742.2
25°	3541.0	3561.8	3582.6	3613.6	3632.3	3646.8	3661.3	3663.3	3673.7	3671.7	3669.5
27.5°	3400.1	3427.0	3462.2	3487.2	3512.0	3534.9	3551.4	3555.6	3565.9	3561.8	3563.9
30°	3207.3	3236.3	3269.5	3308.8	3344.1	3366.9	3387.6	3402.1	3412.5	3406.3	3404.2
32.5°	2933.5	2962.6	2997.9	3037.3	3078.7	3111.9	3136.7	3155.4	3167.9	3163.7	3153.4
35°	2620.6	2628.8	2651.6	2682.8	2718.0	2753.2	2776.0	2796.8	2811.3	2815.4	2815.4
37.5°	2299.2	2272.3	2255.6	2255.6	2276.3	2290.8	2311.6	2324.0	2346.9	2355.2	2361.4
40°	1988.2	1926.0	1868.0	1824.4	1795.4	1793.4	1793.4	1799.6	1820.2	1847.2	1872.1
42.5°	1710.3	1610.9	1521.8	1440.9	1382.9	1349.7	1335.1	1337.3	1353.8	1378.7	1420.1
45°	1488.6	1364.2	1252.2	1154.8	1076.0	1024.2	999.3	997.2	1009.7	1038.6	1084.3
47.5°	1316.5	1183.8	1057.3	945.3	860.4	804.4	775.4	767.1	775.4	802.4	856.2
50°	1173.5	1036.6	906.0	789.9	698.6	640.7	613.7	603.3	613.7	636.5	690.4
52.5°	1040.7	899.8	777.5	665.6	568.0	518.3	489.3	483.1	489.3	516.3	559.8
55°	887.3	767.1	646.9	534.8	449.9	400.2	377.3	371.1	377.3	402.2	447.9
57.5°	736.0	632.4	526.6	425.0	352.5	308.9	288.2	279.9	294.4	311.0	364.8
60°	595.0	512.1	422.9	333.8	273.7	234.2	217.7	215.6	219.7	240.5	277.8
62.5°	466.5	398.0	327.6	255.0	205.2	188.7	168.0	165.8	170.0	182.5	211.5
65°	335.9	292.4	238.4	186.5	147.3	124.4	116.1	118.2	122.3	130.6	157.6
67.5°	234.2	203.2	165.8	130.6	101.6	91.2	82.9	80.9	82.9	97.4	111.9
70°	157.6	138.9	111.9	99.6	70.5	55.9	58.0	51.9	60.1	60.1	72.6
72.5°	103.6	91.2	74.6	58.0	49.7	39.4	39.4	37.4	41.4	43.5	53.9
75°	53.9	41.4	41.4	29.0	20.7	10.4	18.7	16.5	14.5	16.5	20.7
77.5°	37.4	31.0	29.0	22.8	20.7	16.5	16.5	16.5	16.5	18.7	20.7
80°	22.8	22.8	16.5	14.5	12.4	10.4	12.4	12.4	12.4	12.4	14.5
82.5°	14.5	12.4	12.4	10.4	10.4	8.3	8.3	8.3	8.3	8.3	12.4
85°	12.4	8.3	8.3	6.2	8.3	14.5	6.2	8.3	8.3	8.3	6.2
87.5°	4.2	6.2	6.2	6.2	4.2	2.0	4.2	6.2	6.2	10.4	8.3
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4	3862.4
2.5°	3868.6	3870.7	3870.7	3868.6	3868.6	3864.5	3872.7	3866.5	3868.6	3876.9	3870.7
5°	3872.7	3874.8	3874.8	3872.7	3872.7	3872.7	3874.8	3874.8	3872.7	3870.7	3874.8
7.5°	3881.0	3879.0	3879.0	3874.8	3874.8	3870.7	3874.8	3868.6	3872.7	3868.6	3874.8
10°	3870.7	3872.7	3870.7	3868.6	3868.6	3866.5	3866.5	3860.3	3862.4	3856.2	3860.3
12.5°	3864.5	3862.4	3862.4	3858.2	3854.1	3850.0	3847.8	3841.6	3841.6	3827.1	3833.3
15°	3847.8	3850.0	3843.7	3835.5	3831.3	3821.0	3816.8	3808.5	3800.1	3789.8	3791.9
17.5°	3833.3	3827.1	3818.8	3810.5	3794.0	3785.6	3777.3	3764.9	3760.8	3748.4	3744.2
20°	3789.8	3785.6	3775.3	3760.8	3750.4	3731.7	3723.5	3711.0	3700.7	3688.2	3682.0
22.5°	3733.9	3729.7	3717.2	3702.7	3686.2	3677.8	3669.5	3646.8	3636.3	3624.0	3621.8
25°	3663.3	3657.2	3644.7	3628.1	3619.8	3597.0	3588.8	3572.1	3568.0	3555.6	3553.5
27.5°	3555.6	3547.2	3532.7	3512.0	3497.5	3483.0	3474.7	3462.2	3458.1	3445.6	3443.6
30°	3393.9	3383.4	3354.4	3346.2	3321.2	3306.7	3306.7	3290.2	3292.2	3284.0	3284.0
32.5°	3138.9	3122.2	3099.4	3082.8	3066.3	3058.0	3058.0	3051.8	3056.0	3056.0	3060.1
35°	2800.9	2778.1	2765.6	2755.2	2755.2	2763.6	2788.4	2794.7	2807.1	2817.5	2825.8
37.5°	2367.6	2365.5	2380.0	2392.4	2423.6	2458.8	2502.3	2539.7	2574.9	2599.8	2624.6
40°	1899.0	1950.9	1992.4	2050.4	2098.0	2166.5	2245.3	2309.5	2369.7	2413.2	2458.8
42.5°	1482.3	1548.7	1635.8	1720.7	1805.7	1899.0	2002.7	2091.8	2170.7	2230.8	2278.5
45°	1154.8	1245.9	1351.8	1459.6	1569.4	1685.6	1793.4	1884.5	1967.5	2029.7	2077.3
47.5°	930.8	1030.4	1150.6	1268.8	1393.2	1515.5	1635.8	1714.5	1782.9	1832.7	1876.3
50°	769.2	874.9	1001.4	1136.1	1260.4	1382.9	1486.5	1563.2	1619.2	1662.8	1689.6
52.5°	642.7	754.6	889.4	1024.2	1148.5	1260.4	1353.8	1411.9	1457.4	1488.6	1513.5
55°	530.7	638.6	765.0	891.4	1013.8	1119.5	1196.2	1239.8	1275.0	1293.6	1308.1
57.5°	433.4	532.8	648.9	765.0	870.8	957.8	1018.0	1061.4	1078.1	1092.6	1090.5
60°	340.0	433.4	539.0	638.6	729.8	800.2	843.9	868.6	881.1	887.3	883.1
62.5°	267.4	352.5	433.4	520.3	586.7	646.9	688.3	688.3	694.5	696.6	702.8
65°	199.0	263.2	333.8	398.0	451.9	491.4	514.1	520.3	528.6	526.6	522.4
67.5°	147.3	194.8	246.7	294.4	331.8	356.5	373.2	387.7	385.7	381.5	379.3
70°	101.6	132.8	178.3	207.3	234.2	259.2	263.2	265.4	267.4	269.6	265.4
72.5°	70.5	93.3	118.2	143.1	159.6	170.0	180.3	182.5	182.5	182.5	180.3
75°	35.2	47.7	70.5	80.9	95.4	99.6	107.8	107.8	114.1	105.8	103.6
77.5°	31.0	37.4	49.7	58.0	64.2	70.5	72.6	78.8	76.7	72.6	74.6
80°	18.7	22.8	31.0	35.2	43.5	45.6	47.7	49.7	47.7	49.7	49.7
82.5°	14.5	16.5	20.7	20.7	26.9	26.9	29.0	29.0	31.0	31.0	31.0
85°	8.3	14.5	12.4	24.9	16.5	16.5	20.7	24.9	20.7	20.7	24.9
87.5°	8.3	8.3	6.2	8.3	8.3	8.3	10.4	12.4	12.4	14.5	12.4
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: P249391

CATALOG NUMBER: LSR8B90D010 EC8B90927 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3862.4	3862.4	3862.4	3862.4
2.5°	3868.6	3872.7	3866.5	3864.5
5°	3874.8	3874.8	3870.7	3870.7
7.5°	3874.8	3874.8	3868.6	3864.5
10°	3858.2	3858.2	3852.0	3847.8
12.5°	3827.1	3827.1	3825.0	3818.8
15°	3787.8	3787.8	3779.4	3773.2
17.5°	3733.9	3738.0	3727.7	3727.7
20°	3675.8	3673.7	3665.5	3661.3
22.5°	3615.6	3611.5	3609.4	3597.0
25°	3551.4	3547.2	3541.0	3534.9
27.5°	3441.5	3439.5	3433.2	3425.0
30°	3273.5	3271.5	3263.2	3263.2
32.5°	3056.0	3053.8	3045.6	3047.6
35°	2829.9	2838.3	2834.1	2825.8
37.5°	2641.3	2647.5	2651.6	2647.5
40°	2483.7	2502.3	2504.5	2508.6
42.5°	2315.8	2340.7	2349.0	2353.0
45°	2114.7	2137.5	2156.2	2152.0
47.5°	1909.4	1926.0	1942.5	1930.2
50°	1712.5	1722.8	1729.0	1729.0
52.5°	1526.0	1526.0	1523.8	1526.0
55°	1312.3	1312.3	1304.1	1308.1
57.5°	1088.4	1092.6	1086.3	1076.0
60°	881.1	870.8	866.6	860.4
62.5°	686.2	686.2	671.7	690.4
65°	514.1	507.9	501.8	499.6
67.5°	373.2	371.1	364.8	362.8
70°	263.2	255.0	252.9	248.7
72.5°	176.2	176.2	172.1	172.1
75°	107.8	97.4	95.4	97.4
77.5°	74.6	72.6	72.6	70.5
80°	49.7	47.7	51.9	45.6
82.5°	31.0	33.2	31.0	33.2
85°	20.7	24.9	22.8	22.8
87.5°	12.4	12.4	12.4	12.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)