

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 EC8B909730 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 EC8B909730 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: 6963.0 lumens
Efficiency: N/A
Efficacy: 80.9 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

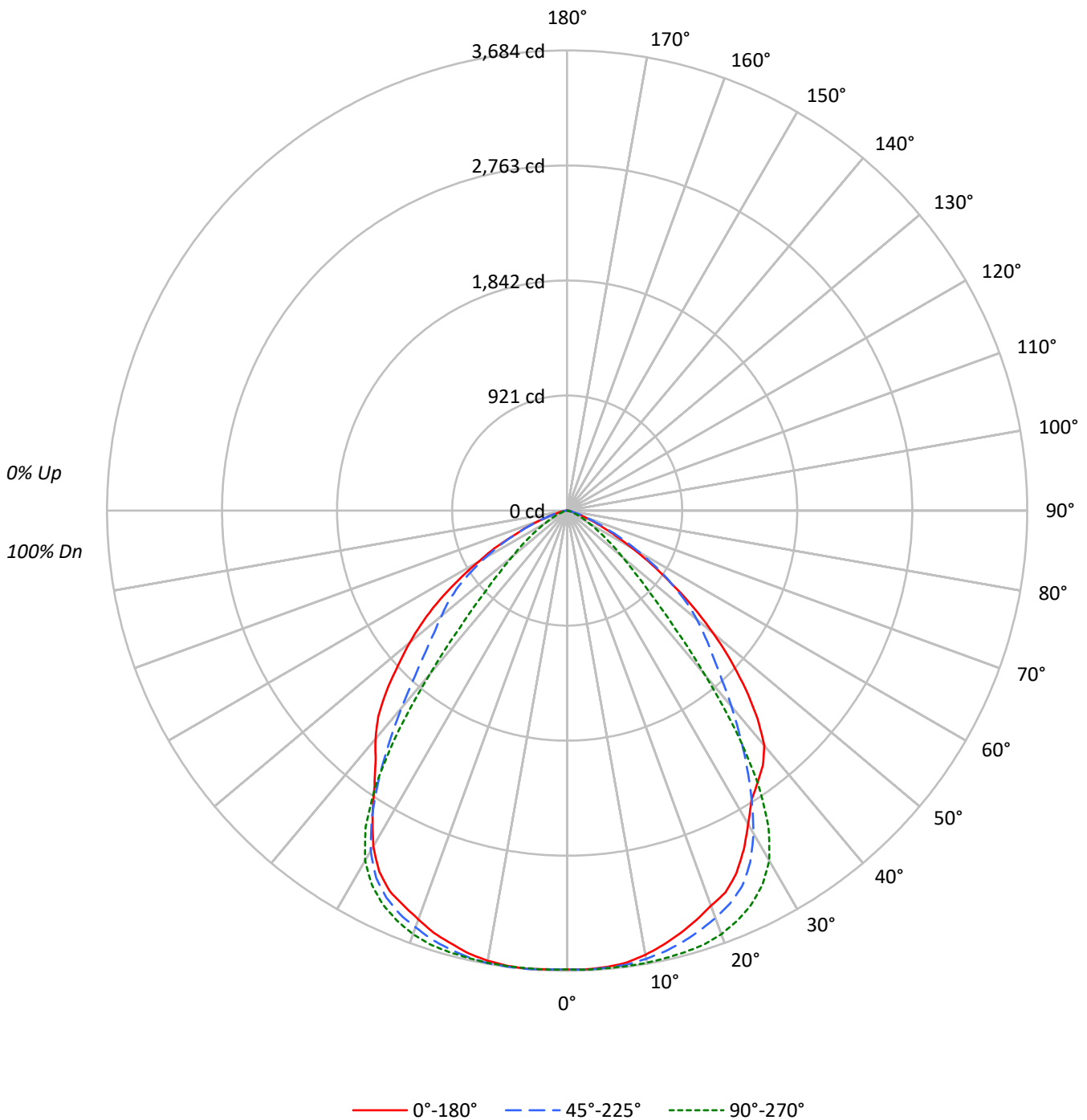
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	350.6	5.0
10°-20°	1018.2	14.6
20°-30°	1545.5	22.2
30°-40°	1623.2	23.3
40°-50°	1217.0	17.5
50°-60°	780.8	11.2
60°-70°	334.0	4.8
70°-80°	78.9	1.1
80°-90°	14.7	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°	2914.3	41.9
0°-40°	4537.5	65.2
0°-60°	6535.4	93.9
0°-90°	6963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6963.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3674	3674	3674	3674	3674	
5°	3668	3674	3678	3684	3682	348
15°	3502	3575	3658	3634	3589	988
25°	3204	3317	3484	3421	3362	1464
35°	2658	2510	2660	2629	2688	1668
45°	2019	1650	948	1603	2047	1546
55°	1022	1022	353	1065	1244	927
65°	308	363	112	467	475	328
75°	47	55	16	95	93	69
85°	16	10	8	16	22	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°	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8
2.5°	3675.8	3679.7	3677.8	3677.8	3675.8	3677.8	3677.8	3681.7	3681.7	3677.8	3675.8
5°	3667.9	3671.8	3671.8	3667.9	3667.9	3677.8	3671.8	3675.8	3675.8	3673.8	3673.8
7.5°	3650.2	3650.2	3658.0	3652.1	3652.1	3658.0	3656.1	3660.0	3664.0	3665.9	3665.9
10°	3610.7	3614.7	3616.6	3616.6	3618.6	3624.5	3628.5	3636.4	3640.3	3644.2	3646.2
12.5°	3561.4	3567.3	3569.3	3567.3	3573.3	3581.1	3591.0	3600.9	3606.8	3614.7	3620.6
15°	3502.2	3502.2	3506.2	3512.1	3516.1	3527.9	3537.7	3549.6	3565.3	3575.2	3585.1
17.5°	3437.2	3441.1	3447.0	3447.0	3454.9	3474.6	3480.6	3498.3	3516.1	3525.9	3545.7
20°	3366.2	3370.1	3376.1	3380.0	3389.9	3405.6	3417.5	3433.2	3453.0	3470.7	3490.4
22.5°	3311.0	3303.1	3307.0	3311.0	3320.9	3334.7	3348.5	3368.1	3387.9	3405.6	3425.4
25°	3204.5	3206.5	3212.4	3216.3	3228.2	3240.0	3255.8	3279.4	3297.2	3316.9	3338.6
27.5°	3060.5	3062.5	3072.4	3072.4	3082.2	3101.9	3111.8	3131.5	3155.2	3174.9	3200.6
30°	2896.9	2900.8	2900.8	2908.7	2914.6	2924.5	2934.3	2954.0	2965.9	2983.6	3019.1
32.5°	2747.0	2750.9	2748.9	2747.0	2741.1	2739.1	2737.1	2741.1	2745.0	2750.9	2764.7
35°	2658.3	2648.4	2640.5	2626.7	2610.9	2591.2	2573.4	2549.8	2528.1	2510.3	2490.6
37.5°	2573.4	2571.5	2559.6	2539.9	2508.4	2472.9	2431.5	2380.2	2328.9	2273.7	2220.5
40°	2455.1	2449.2	2439.4	2411.8	2376.2	2332.9	2277.7	2214.5	2131.7	2046.9	1960.2
42.5°	2254.0	2255.9	2244.1	2222.4	2188.9	2147.5	2090.3	2021.3	1932.6	1832.0	1719.6
45°	2019.3	2019.3	2015.4	1997.6	1974.0	1940.4	1897.1	1839.9	1753.1	1650.5	1530.2
47.5°	1774.8	1776.8	1770.8	1766.9	1757.0	1735.4	1703.8	1660.4	1599.3	1500.7	1380.4
50°	1526.3	1526.3	1536.2	1534.2	1534.2	1526.3	1512.5	1486.9	1433.6	1354.8	1242.4
52.5°	1277.8	1281.8	1287.7	1295.6	1305.4	1321.2	1305.4	1293.6	1260.1	1199.0	1102.4
55°	1021.5	1025.4	1035.3	1049.1	1061.0	1076.7	1080.6	1080.6	1062.9	1021.5	948.5
57.5°	802.6	796.7	804.6	816.4	832.2	848.0	859.8	873.6	871.6	844.0	784.9
60°	603.4	605.4	611.3	623.2	635.0	648.8	664.6	676.4	682.3	668.5	631.0
62.5°	439.8	439.8	447.6	459.5	465.4	485.1	495.0	500.9	506.8	504.8	481.2
65°	307.7	311.6	315.5	321.5	327.3	339.2	345.1	356.9	360.9	362.9	345.1
67.5°	216.9	211.0	215.0	218.9	224.8	232.7	244.5	244.5	250.4	250.4	238.6
70°	138.0	138.0	140.0	145.9	149.9	151.8	155.8	159.7	165.6	163.7	163.7
72.5°	92.7	90.7	92.7	94.7	96.6	102.5	102.5	104.5	108.5	110.4	102.5
75°	47.3	49.3	53.2	51.3	57.2	53.2	55.2	61.1	59.2	55.2	55.2
77.5°	39.4	39.4	39.4	37.5	41.4	41.4	39.4	43.4	41.4	41.4	39.4
80°	27.6	29.6	27.6	25.6	27.6	25.6	25.6	25.6	25.6	25.6	23.6
82.5°	21.7	17.8	19.7	17.8	19.7	19.7	17.8	15.8	15.8	17.8	15.8
85°	15.8	11.8	13.8	13.8	11.8	11.8	11.8	11.8	11.8	9.8	9.8
87.5°	9.8	5.9	5.9	5.9	7.9	7.9	7.9	5.9	7.9	7.9	4.0
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 EC8B909730 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8
2.5°	3679.7	3677.8	3681.7	3679.7	3679.7	3677.8	3679.7	3677.8	3681.7	3673.8	3675.8
5°	3679.7	3675.8	3677.8	3679.7	3681.7	3677.8	3677.8	3677.8	3681.7	3677.8	3679.7
7.5°	3671.8	3669.9	3675.8	3679.7	3677.8	3675.8	3679.7	3677.8	3681.7	3679.7	3683.7
10°	3656.1	3658.0	3662.0	3667.9	3669.9	3671.8	3675.8	3675.8	3681.7	3673.8	3677.8
12.5°	3632.4	3640.3	3650.2	3654.1	3662.0	3662.0	3665.9	3667.9	3671.8	3669.9	3675.8
15°	3602.8	3612.7	3624.5	3634.4	3644.2	3650.2	3656.1	3658.0	3664.0	3658.0	3660.0
17.5°	3567.3	3579.1	3596.9	3608.7	3624.5	3630.4	3638.3	3642.3	3648.2	3644.2	3646.2
20°	3518.0	3531.9	3551.5	3569.3	3579.1	3592.9	3602.8	3608.7	3612.7	3608.7	3610.7
22.5°	3449.0	3468.7	3494.4	3508.2	3527.9	3539.7	3541.7	3555.5	3565.3	3555.5	3559.5
25°	3368.1	3387.9	3407.6	3437.2	3454.9	3468.7	3482.5	3484.5	3494.4	3492.4	3490.4
27.5°	3234.1	3259.7	3293.2	3316.9	3340.5	3362.3	3378.0	3381.9	3391.8	3387.9	3389.9
30°	3050.6	3078.3	3109.9	3147.3	3180.8	3202.5	3222.2	3236.0	3245.9	3240.0	3238.0
32.5°	2790.4	2818.0	2851.5	2889.0	2928.4	2959.9	2983.6	3001.4	3013.2	3009.2	2999.4
35°	2492.6	2500.5	2522.2	2551.8	2585.3	2618.8	2640.5	2660.2	2674.0	2678.0	2678.0
37.5°	2186.9	2161.3	2145.5	2145.5	2165.2	2179.0	2198.8	2210.6	2232.3	2240.2	2246.1
40°	1891.1	1832.0	1776.8	1735.4	1707.8	1705.8	1705.8	1711.7	1731.4	1757.0	1780.7
42.5°	1626.9	1532.2	1447.4	1370.5	1315.3	1283.8	1270.0	1272.0	1287.7	1311.4	1350.8
45°	1415.9	1297.6	1191.1	1098.4	1023.5	974.1	950.5	948.5	960.3	987.9	1031.4
47.5°	1252.2	1126.0	1005.7	899.2	818.4	765.1	737.5	729.7	737.5	763.1	814.4
50°	1116.2	986.0	861.8	751.3	664.6	609.4	583.7	573.9	583.7	605.4	656.7
52.5°	989.9	855.8	739.5	633.0	540.3	493.0	465.4	459.5	465.4	491.0	532.5
55°	844.0	729.7	615.3	508.8	427.9	380.6	358.9	353.0	358.9	382.6	426.0
57.5°	700.1	601.5	500.9	404.3	335.3	293.8	274.1	266.2	280.0	295.8	347.1
60°	565.9	487.1	402.3	317.5	260.3	222.8	207.0	205.1	209.0	228.8	264.2
62.5°	443.7	378.6	311.6	242.6	195.2	179.4	159.7	157.8	161.7	173.5	201.2
65°	319.5	278.1	226.8	177.5	140.0	118.3	110.4	112.4	116.3	124.2	149.9
67.5°	222.8	193.2	157.8	124.2	96.6	86.8	78.9	76.9	78.9	92.7	106.5
70°	149.9	132.1	106.5	94.7	67.1	53.2	55.2	49.3	57.2	57.2	69.0
72.5°	98.6	86.8	71.0	55.2	47.3	37.5	37.5	35.5	39.4	41.4	51.3
75°	51.3	39.4	39.4	27.6	19.7	9.8	17.8	15.8	13.8	15.8	19.7
77.5°	35.5	29.6	27.6	21.7	19.7	15.8	15.8	15.8	15.8	17.8	19.7
80°	21.7	21.7	15.8	13.8	11.8	9.8	11.8	11.8	11.8	11.8	13.8
82.5°	13.8	11.8	11.8	9.8	9.8	7.9	7.9	7.9	7.9	7.9	11.8
85°	11.8	7.9	7.9	5.9	7.9	13.8	5.9	7.9	7.9	7.9	5.9
87.5°	4.0	5.9	5.9	5.9	4.0	2.0	4.0	5.9	5.9	9.8	7.9
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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CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8	3673.8
2.5°	3679.7	3681.7	3681.7	3679.7	3679.7	3675.8	3683.7	3677.8	3679.7	3687.6	3681.7
5°	3683.7	3685.6	3685.6	3683.7	3683.7	3683.7	3685.6	3685.6	3683.7	3681.7	3685.6
7.5°	3691.6	3689.6	3689.6	3685.6	3685.6	3681.7	3685.6	3679.7	3683.7	3679.7	3685.6
10°	3681.7	3683.7	3681.7	3679.7	3679.7	3677.8	3677.8	3671.8	3673.8	3667.9	3671.8
12.5°	3675.8	3673.8	3673.8	3669.9	3665.9	3662.0	3660.0	3654.1	3654.1	3640.3	3646.2
15°	3660.0	3662.0	3656.1	3648.2	3644.2	3634.4	3630.4	3622.5	3614.7	3604.8	3606.8
17.5°	3646.2	3640.3	3632.4	3624.5	3608.7	3600.9	3592.9	3581.1	3577.2	3565.3	3561.4
20°	3604.8	3600.9	3591.0	3577.2	3567.3	3549.6	3541.7	3529.9	3520.0	3508.2	3502.2
22.5°	3551.5	3547.6	3535.8	3522.0	3506.2	3498.3	3490.4	3468.7	3458.9	3447.0	3445.1
25°	3484.5	3478.6	3466.8	3451.0	3443.1	3421.4	3413.5	3397.7	3393.8	3381.9	3380.0
27.5°	3381.9	3374.1	3360.3	3340.5	3326.7	3312.9	3305.1	3293.2	3289.3	3277.4	3275.5
30°	3228.2	3218.3	3190.7	3182.8	3159.1	3145.3	3145.3	3129.5	3131.5	3123.7	3123.7
32.5°	2985.6	2969.8	2948.1	2932.3	2916.6	2908.7	2908.7	2902.8	2906.7	2906.7	2910.7
35°	2664.2	2642.5	2630.6	2620.8	2620.8	2628.6	2652.3	2658.3	2670.1	2679.9	2687.8
37.5°	2252.0	2250.1	2263.9	2275.7	2305.3	2338.8	2380.2	2415.7	2449.2	2472.9	2496.5
40°	1806.3	1855.7	1895.1	1950.3	1995.6	2060.7	2135.7	2196.8	2254.0	2295.4	2338.8
42.5°	1410.0	1473.1	1555.9	1636.7	1717.6	1806.3	1905.0	1989.7	2064.7	2121.9	2167.2
45°	1098.4	1185.2	1285.8	1388.3	1492.8	1603.2	1705.8	1792.5	1871.4	1930.6	1975.9
47.5°	885.4	980.1	1094.4	1206.9	1325.2	1441.5	1555.9	1630.8	1695.9	1743.2	1784.7
50°	731.6	832.2	952.5	1080.6	1199.0	1315.3	1413.9	1486.9	1540.1	1581.5	1607.2
52.5°	611.3	717.8	846.0	974.1	1092.5	1199.0	1287.7	1342.9	1386.3	1415.9	1439.5
55°	504.8	607.4	727.7	848.0	964.3	1064.9	1137.8	1179.3	1212.8	1230.5	1244.3
57.5°	412.2	506.8	617.2	727.7	828.2	911.1	968.3	1009.7	1025.4	1039.2	1037.3
60°	323.4	412.2	512.7	607.4	694.1	761.2	802.6	826.3	838.1	844.0	840.1
62.5°	254.4	335.3	412.2	495.0	558.1	615.3	654.7	654.7	660.6	662.6	668.5
65°	189.3	250.4	317.5	378.6	429.9	467.4	489.1	495.0	502.9	500.9	496.9
67.5°	140.0	185.4	234.6	280.0	315.5	339.2	354.9	368.8	366.8	362.9	360.9
70°	96.6	126.2	169.6	197.2	222.8	246.5	250.4	252.4	254.4	256.4	252.4
72.5°	67.1	88.7	112.4	136.1	151.8	161.7	171.6	173.5	173.5	173.5	171.6
75°	33.5	45.4	67.1	76.9	90.7	94.7	102.5	102.5	108.5	100.6	98.6
77.5°	29.6	35.5	47.3	55.2	61.1	67.1	69.0	74.9	73.0	69.0	71.0
80°	17.8	21.7	29.6	33.5	41.4	43.4	45.4	47.3	45.4	47.3	47.3
82.5°	13.8	15.8	19.7	19.7	25.6	25.6	27.6	27.6	29.6	29.6	29.6
85°	7.9	13.8	11.8	23.6	15.8	15.8	19.7	23.6	19.7	19.7	23.6
87.5°	7.9	7.9	5.9	7.9	7.9	7.9	9.8	11.8	11.8	13.8	11.8
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: P249616

CATALOG NUMBER: LSR8B90D010 EC8B909730 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3673.8	3673.8	3673.8	3673.8
2.5°	3679.7	3683.7	3677.8	3675.8
5°	3685.6	3685.6	3681.7	3681.7
7.5°	3685.6	3685.6	3679.7	3675.8
10°	3669.9	3669.9	3664.0	3660.0
12.5°	3640.3	3640.3	3638.3	3632.4
15°	3602.8	3602.8	3594.9	3589.0
17.5°	3551.5	3555.5	3545.7	3545.7
20°	3496.3	3494.4	3486.5	3482.5
22.5°	3439.2	3435.2	3433.2	3421.4
25°	3378.0	3374.1	3368.1	3362.3
27.5°	3273.5	3271.5	3265.6	3257.7
30°	3113.8	3111.8	3103.9	3103.9
32.5°	2906.7	2904.7	2896.9	2898.8
35°	2691.8	2699.7	2695.7	2687.8
37.5°	2512.3	2518.2	2522.2	2518.2
40°	2362.4	2380.2	2382.2	2386.1
42.5°	2202.7	2226.4	2234.3	2238.2
45°	2011.4	2033.1	2050.9	2046.9
47.5°	1816.2	1832.0	1847.7	1835.9
50°	1628.9	1638.7	1644.6	1644.6
52.5°	1451.4	1451.4	1449.4	1451.4
55°	1248.3	1248.3	1240.4	1244.3
57.5°	1035.3	1039.2	1033.3	1023.5
60°	838.1	828.2	824.3	818.4
62.5°	652.7	652.7	638.9	656.7
65°	489.1	483.1	477.2	475.2
67.5°	354.9	353.0	347.1	345.1
70°	250.4	242.6	240.6	236.6
72.5°	167.6	167.6	163.7	163.7
75°	102.5	92.7	90.7	92.7
77.5°	71.0	69.0	69.0	67.1
80°	47.3	45.4	49.3	43.4
82.5°	29.6	31.6	29.6	31.6
85°	19.7	23.6	21.7	21.7
87.5°	11.8	11.8	11.8	11.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)