

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: P249292

Luminaire Tested: **LSR8B90D010 EC8B90930 8LBDW0WMH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249292
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 EC8B90930 8LBDW0WMH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 3000 CCT WITH WARM HAZE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7853.7 lumens
Efficiency: N/A
Efficacy: 91.2 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

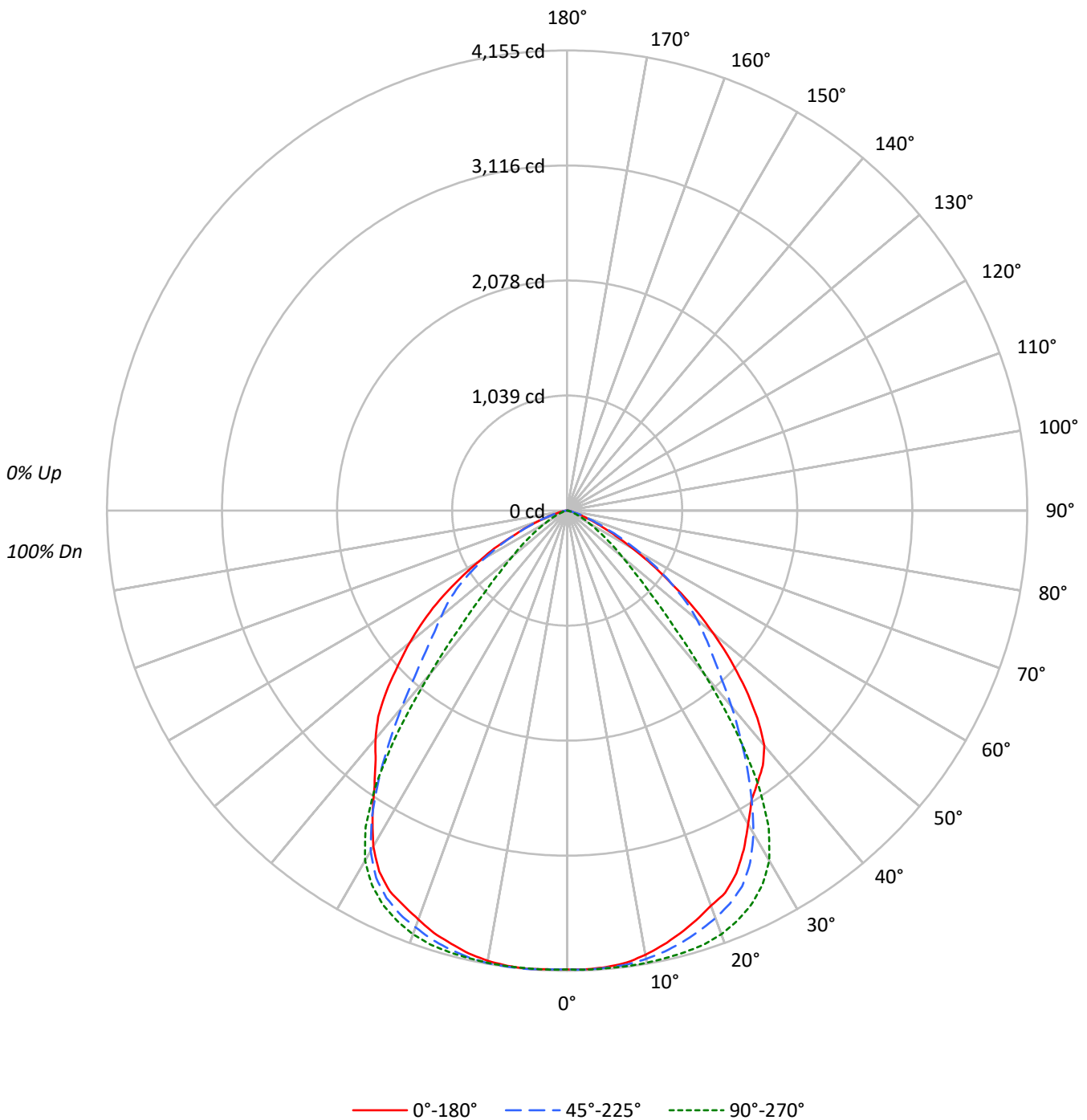
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	395.5	5.0
10°-20°	1148.5	14.6
20°-30°	1743.2	22.2
30°-40°	1830.9	23.3
40°-50°	1372.7	17.5
50°-60°	880.7	11.2
60°-70°	376.8	4.8
70°-80°	89.0	1.1
80°-90°	16.6	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°	3287.1	41.9
0°-40°	5118.0	65.2
0°-60°	7371.4	93.9
0°-90°	7853.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7853.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4144	4144	4144	4144	4144	
5°	4137	4144	4148	4155	4153	393
15°	3950	4033	4126	4099	4048	1114
25°	3614	3741	3930	3859	3792	1651
35°	2998	2831	3000	2965	3032	1882
45°	2278	1862	1070	1808	2309	1744
55°	1152	1152	398	1201	1404	1045
65°	347	409	127	527	536	370
75°	53	62	18	107	105	78
85°	18	11	9	18	24	19
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°	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8
2.5°	4146.0	4150.5	4148.3	4148.3	4146.0	4148.3	4148.3	4152.7	4152.7	4148.3	4146.0
5°	4137.1	4141.5	4141.5	4137.1	4137.1	4148.3	4141.5	4146.0	4146.0	4143.8	4143.8
7.5°	4117.1	4117.1	4126.0	4119.3	4119.3	4126.0	4123.7	4128.2	4132.7	4134.9	4134.9
10°	4072.6	4077.1	4079.3	4079.3	4081.6	4088.2	4092.7	4101.5	4106.0	4110.4	4112.6
12.5°	4017.0	4023.7	4025.8	4023.7	4030.3	4039.2	4050.4	4061.5	4068.2	4077.1	4083.8
15°	3950.3	3950.3	3954.7	3961.4	3965.9	3979.2	3990.3	4003.7	4021.5	4032.6	4043.7
17.5°	3876.9	3881.4	3888.0	3888.0	3896.9	3919.1	3925.9	3945.8	3965.9	3977.0	3999.3
20°	3796.8	3801.2	3807.9	3812.4	3823.5	3841.3	3854.7	3872.4	3894.7	3914.8	3937.0
22.5°	3734.5	3725.6	3730.0	3734.5	3745.7	3761.2	3776.8	3799.0	3821.3	3841.3	3863.5
25°	3614.4	3616.7	3623.3	3627.8	3641.1	3654.5	3672.3	3699.0	3718.9	3741.2	3765.7
27.5°	3452.0	3454.2	3465.3	3465.3	3476.4	3498.8	3509.9	3532.2	3558.8	3581.0	3610.0
30°	3267.5	3271.9	3271.9	3280.8	3287.4	3298.5	3309.6	3331.9	3345.3	3365.4	3405.4
32.5°	3098.4	3102.8	3100.6	3098.4	3091.7	3089.5	3087.2	3091.7	3096.2	3102.8	3118.4
35°	2998.3	2987.1	2978.3	2962.7	2945.0	2922.7	2902.6	2875.9	2851.5	2831.4	2809.2
37.5°	2902.6	2900.4	2887.0	2864.8	2829.2	2789.3	2742.5	2684.7	2626.8	2564.5	2504.5
40°	2769.2	2762.5	2751.4	2720.2	2680.2	2631.3	2569.0	2497.8	2404.4	2308.8	2210.9
42.5°	2542.3	2544.6	2531.2	2506.7	2468.9	2422.1	2357.7	2279.9	2179.8	2066.3	1939.6
45°	2277.6	2277.6	2273.2	2253.1	2226.5	2188.6	2139.8	2075.2	1977.3	1861.6	1726.0
47.5°	2001.8	2004.0	1997.4	1992.9	1981.8	1957.4	1921.7	1872.9	1803.9	1692.6	1557.0
50°	1721.6	1721.6	1732.7	1730.5	1730.5	1721.6	1706.0	1677.1	1617.0	1528.0	1401.2
52.5°	1441.3	1445.8	1452.5	1461.3	1472.4	1490.3	1472.4	1459.1	1421.3	1352.4	1243.4
55°	1152.2	1156.6	1167.7	1183.3	1196.7	1214.5	1218.9	1218.9	1198.8	1152.2	1069.9
57.5°	905.3	898.6	907.6	920.9	938.6	956.4	969.8	985.4	983.1	952.0	885.3
60°	680.7	682.8	689.5	702.9	716.2	731.8	749.6	763.0	769.6	754.1	711.7
62.5°	496.0	496.0	504.9	518.2	525.0	547.2	558.3	565.0	571.6	569.4	542.7
65°	347.1	351.4	355.9	362.5	369.3	382.6	389.2	402.6	407.0	409.3	389.2
67.5°	244.7	238.0	242.5	246.8	253.6	262.5	275.8	275.8	282.5	282.5	269.2
70°	155.7	155.7	157.9	164.6	169.0	171.3	175.8	180.1	186.9	184.6	184.6
72.5°	104.6	102.3	104.6	106.8	109.0	115.7	115.7	117.9	122.3	124.5	115.7
75°	53.4	55.6	60.1	57.8	64.5	60.1	62.2	68.9	66.7	62.2	62.2
77.5°	44.5	44.5	44.5	42.3	46.7	46.7	44.5	48.9	46.7	46.7	44.5
80°	31.2	33.4	31.2	28.9	31.2	28.9	28.9	28.9	28.9	28.9	26.7
82.5°	24.4	20.1	22.3	20.1	22.3	22.3	20.1	17.8	17.8	20.1	17.8
85°	17.8	13.3	15.6	15.6	13.3	13.3	13.3	13.3	13.3	11.1	11.1
87.5°	11.1	6.7	6.7	6.7	8.9	8.9	8.9	6.7	8.9	8.9	4.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8
2.5°	4150.5	4148.3	4152.7	4150.5	4150.5	4148.3	4150.5	4148.3	4152.7	4143.8	4146.0
5°	4150.5	4146.0	4148.3	4150.5	4152.7	4148.3	4148.3	4148.3	4152.7	4148.3	4150.5
7.5°	4141.5	4139.3	4146.0	4150.5	4148.3	4146.0	4150.5	4148.3	4152.7	4150.5	4154.9
10°	4123.7	4126.0	4130.4	4137.1	4139.3	4141.5	4146.0	4146.0	4152.7	4143.8	4148.3
12.5°	4097.0	4106.0	4117.1	4121.5	4130.4	4130.4	4134.9	4137.1	4141.5	4139.3	4146.0
15°	4063.7	4074.8	4088.2	4099.3	4110.4	4117.1	4123.7	4126.0	4132.7	4126.0	4128.2
17.5°	4023.7	4037.1	4057.0	4070.4	4088.2	4094.9	4103.8	4108.2	4114.9	4110.4	4112.6
20°	3968.0	3983.7	4005.9	4025.8	4037.1	4052.5	4063.7	4070.4	4074.8	4070.4	4072.6
22.5°	3890.2	3912.5	3941.3	3956.9	3979.2	3992.6	3994.8	4010.4	4021.5	4010.4	4014.7
25°	3799.0	3821.3	3843.6	3876.9	3896.9	3912.5	3928.1	3930.2	3941.3	3939.2	3937.0
27.5°	3647.7	3676.8	3714.4	3741.2	3767.9	3792.3	3810.2	3814.5	3825.7	3821.3	3823.5
30°	3440.9	3472.1	3507.7	3549.9	3587.8	3612.2	3634.4	3650.0	3661.1	3654.5	3652.2
32.5°	3147.3	3178.5	3216.3	3258.5	3303.0	3338.6	3365.4	3385.3	3398.6	3394.2	3383.1
35°	2811.5	2820.3	2844.9	2878.2	2915.9	2953.8	2978.3	3000.5	3016.1	3020.5	3020.5
37.5°	2466.8	2437.8	2420.0	2420.0	2442.2	2457.8	2480.0	2493.3	2517.9	2526.7	2533.5
40°	2133.0	2066.3	2004.0	1957.4	1926.2	1924.0	1924.0	1930.6	1952.9	1981.8	2008.5
42.5°	1835.0	1728.2	1632.6	1545.9	1483.6	1448.0	1432.4	1434.7	1452.5	1479.2	1523.6
45°	1597.0	1463.6	1343.4	1238.9	1154.4	1098.8	1072.1	1069.9	1083.2	1114.4	1163.3
47.5°	1412.5	1270.0	1134.3	1014.3	923.0	862.9	831.9	823.0	831.9	860.8	918.7
50°	1258.9	1112.1	972.0	847.5	749.6	687.3	658.4	647.3	658.4	682.8	740.6
52.5°	1116.5	965.3	834.1	714.0	609.5	556.0	525.0	518.2	525.0	553.8	600.5
55°	952.0	823.0	694.0	573.8	482.7	429.3	404.8	398.2	404.8	431.5	480.5
57.5°	789.6	678.4	565.0	455.9	378.1	331.4	309.2	300.2	315.8	333.6	391.5
60°	638.3	549.4	453.8	358.2	293.6	251.3	233.5	231.3	235.7	258.1	298.1
62.5°	500.5	427.1	351.4	273.6	220.2	202.5	180.1	178.0	182.4	195.7	226.9
65°	360.3	313.7	255.8	200.2	157.9	133.4	124.5	126.8	131.3	140.1	169.0
67.5°	251.3	217.9	178.0	140.1	109.0	97.9	89.0	86.8	89.0	104.6	120.1
70°	169.0	149.0	120.1	106.8	75.7	60.1	62.2	55.6	64.5	64.5	77.8
72.5°	111.2	97.9	80.0	62.2	53.4	42.3	42.3	40.0	44.5	46.7	57.8
75°	57.8	44.5	44.5	31.2	22.3	11.1	20.1	17.8	15.6	17.8	22.3
77.5°	40.0	33.4	31.2	24.4	22.3	17.8	17.8	17.8	17.8	20.1	22.3
80°	24.4	24.4	17.8	15.6	13.3	11.1	13.3	13.3	13.3	13.3	15.6
82.5°	15.6	13.3	13.3	11.1	11.1	8.9	8.9	8.9	8.9	8.9	13.3
85°	13.3	8.9	8.9	6.7	8.9	15.6	6.7	8.9	8.9	8.9	6.7
87.5°	4.5	6.7	6.7	6.7	4.5	2.2	4.5	6.7	6.7	11.1	8.9
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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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8	4143.8
2.5°	4150.5	4152.7	4152.7	4150.5	4150.5	4146.0	4154.9	4148.3	4150.5	4159.4	4152.7
5°	4154.9	4157.1	4157.1	4154.9	4154.9	4154.9	4157.1	4157.1	4154.9	4152.7	4157.1
7.5°	4163.8	4161.6	4161.6	4157.1	4157.1	4152.7	4157.1	4150.5	4154.9	4150.5	4157.1
10°	4152.7	4154.9	4152.7	4150.5	4150.5	4148.3	4148.3	4141.5	4143.8	4137.1	4141.5
12.5°	4146.0	4143.8	4143.8	4139.3	4134.9	4130.4	4128.2	4121.5	4121.5	4106.0	4112.6
15°	4128.2	4130.4	4123.7	4114.9	4110.4	4099.3	4094.9	4085.9	4077.1	4066.0	4068.2
17.5°	4112.6	4106.0	4097.0	4088.2	4070.4	4061.5	4052.5	4039.2	4034.8	4021.5	4017.0
20°	4066.0	4061.5	4050.4	4034.8	4023.7	4003.7	3994.8	3981.5	3970.2	3956.9	3950.3
22.5°	4005.9	4001.4	3988.1	3972.5	3954.7	3945.8	3937.0	3912.5	3901.3	3888.0	3885.7
25°	3930.2	3923.6	3910.3	3892.4	3883.5	3859.0	3850.2	3832.4	3828.0	3814.5	3812.4
27.5°	3814.5	3805.7	3790.1	3767.9	3752.3	3736.7	3727.9	3714.4	3710.1	3696.7	3694.5
30°	3641.1	3629.9	3598.9	3590.0	3563.2	3547.6	3547.6	3529.9	3532.2	3523.2	3523.2
32.5°	3367.5	3349.8	3325.2	3307.4	3289.7	3280.8	3280.8	3274.1	3278.6	3278.6	3283.0
35°	3005.0	2980.5	2967.2	2956.1	2956.1	2964.9	2991.6	2998.3	3011.7	3022.8	3031.6
37.5°	2540.1	2537.9	2553.4	2566.8	2600.2	2637.9	2684.7	2724.7	2762.5	2789.3	2815.8
40°	2037.4	2093.0	2137.5	2199.9	2251.0	2324.3	2408.8	2477.9	2542.3	2589.1	2637.9
42.5°	1590.4	1661.5	1754.9	1846.1	1937.3	2037.4	2148.6	2244.2	2328.8	2393.3	2444.5
45°	1238.9	1336.8	1450.2	1565.9	1683.7	1808.4	1924.0	2021.8	2110.8	2177.5	2228.7
47.5°	998.7	1105.4	1234.4	1361.2	1494.7	1625.9	1754.9	1839.4	1912.9	1966.2	2013.0
50°	825.2	938.6	1074.4	1218.9	1352.4	1483.6	1594.7	1677.1	1737.1	1783.8	1812.8
52.5°	689.5	809.6	954.2	1098.8	1232.2	1352.4	1452.5	1514.7	1563.7	1597.0	1623.7
55°	569.4	685.0	820.8	956.4	1087.7	1201.0	1283.3	1330.1	1367.8	1387.9	1403.5
57.5°	464.9	571.6	696.1	820.8	934.2	1027.6	1092.1	1138.8	1156.6	1172.2	1170.0
60°	364.8	464.9	578.3	685.0	782.9	858.6	905.3	932.0	945.3	952.0	947.5
62.5°	287.0	378.1	464.9	558.3	629.4	694.0	738.5	738.5	745.1	747.4	754.1
65°	213.6	282.5	358.2	427.1	484.8	527.1	551.6	558.3	567.2	565.0	560.5
67.5°	157.9	209.1	264.7	315.8	355.9	382.6	400.3	416.0	413.8	409.3	407.0
70°	109.0	142.4	191.4	222.4	251.3	278.0	282.5	284.7	287.0	289.1	284.7
72.5°	75.7	100.1	126.8	153.5	171.3	182.4	193.5	195.7	195.7	195.7	193.5
75°	37.8	51.1	75.7	86.8	102.3	106.8	115.7	115.7	122.3	113.4	111.2
77.5°	33.4	40.0	53.4	62.2	68.9	75.7	77.8	84.5	82.3	77.8	80.0
80°	20.1	24.4	33.4	37.8	46.7	48.9	51.1	53.4	51.1	53.4	53.4
82.5°	15.6	17.8	22.3	22.3	28.9	28.9	31.2	31.2	33.4	33.4	33.4
85°	8.9	15.6	13.3	26.7	17.8	17.8	22.3	26.7	22.3	22.3	26.7
87.5°	8.9	8.9	6.7	8.9	8.9	8.9	11.1	13.3	13.3	15.6	13.3
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: P249292

CATALOG NUMBER: LSR8B90D010 EC8B90930 8LBDW0WMH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4143.8	4143.8	4143.8	4143.8
2.5°	4150.5	4154.9	4148.3	4146.0
5°	4157.1	4157.1	4152.7	4152.7
7.5°	4157.1	4157.1	4150.5	4146.0
10°	4139.3	4139.3	4132.7	4128.2
12.5°	4106.0	4106.0	4103.8	4097.0
15°	4063.7	4063.7	4054.8	4048.2
17.5°	4005.9	4010.4	3999.3	3999.3
20°	3943.6	3941.3	3932.5	3928.1
22.5°	3879.1	3874.6	3872.4	3859.0
25°	3810.2	3805.7	3799.0	3792.3
27.5°	3692.2	3690.0	3683.4	3674.5
30°	3512.1	3509.9	3501.0	3501.0
32.5°	3278.6	3276.3	3267.5	3269.7
35°	3036.1	3045.0	3040.6	3031.6
37.5°	2833.7	2840.4	2844.9	2840.4
40°	2664.6	2684.7	2686.9	2691.4
42.5°	2484.5	2511.2	2520.1	2524.5
45°	2268.7	2293.2	2313.2	2308.8
47.5°	2048.5	2066.3	2084.2	2070.8
50°	1837.2	1848.3	1855.0	1855.0
52.5°	1637.1	1637.1	1634.9	1637.1
55°	1408.0	1408.0	1399.1	1403.5
57.5°	1167.7	1172.2	1165.5	1154.4
60°	945.3	934.2	929.8	923.0
62.5°	736.3	736.3	720.7	740.6
65°	551.6	544.9	538.3	536.1
67.5°	400.3	398.2	391.5	389.2
70°	282.5	273.6	271.4	266.9
72.5°	189.1	189.1	184.6	184.6
75°	115.7	104.6	102.3	104.6
77.5°	80.0	77.8	77.8	75.7
80°	53.4	51.1	55.6	48.9
82.5°	33.4	35.6	33.4	35.6
85°	22.3	26.7	24.4	24.4
87.5°	13.3	13.3	13.3	13.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)