

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: P249418

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249418
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 EC8B90830 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8135.0 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

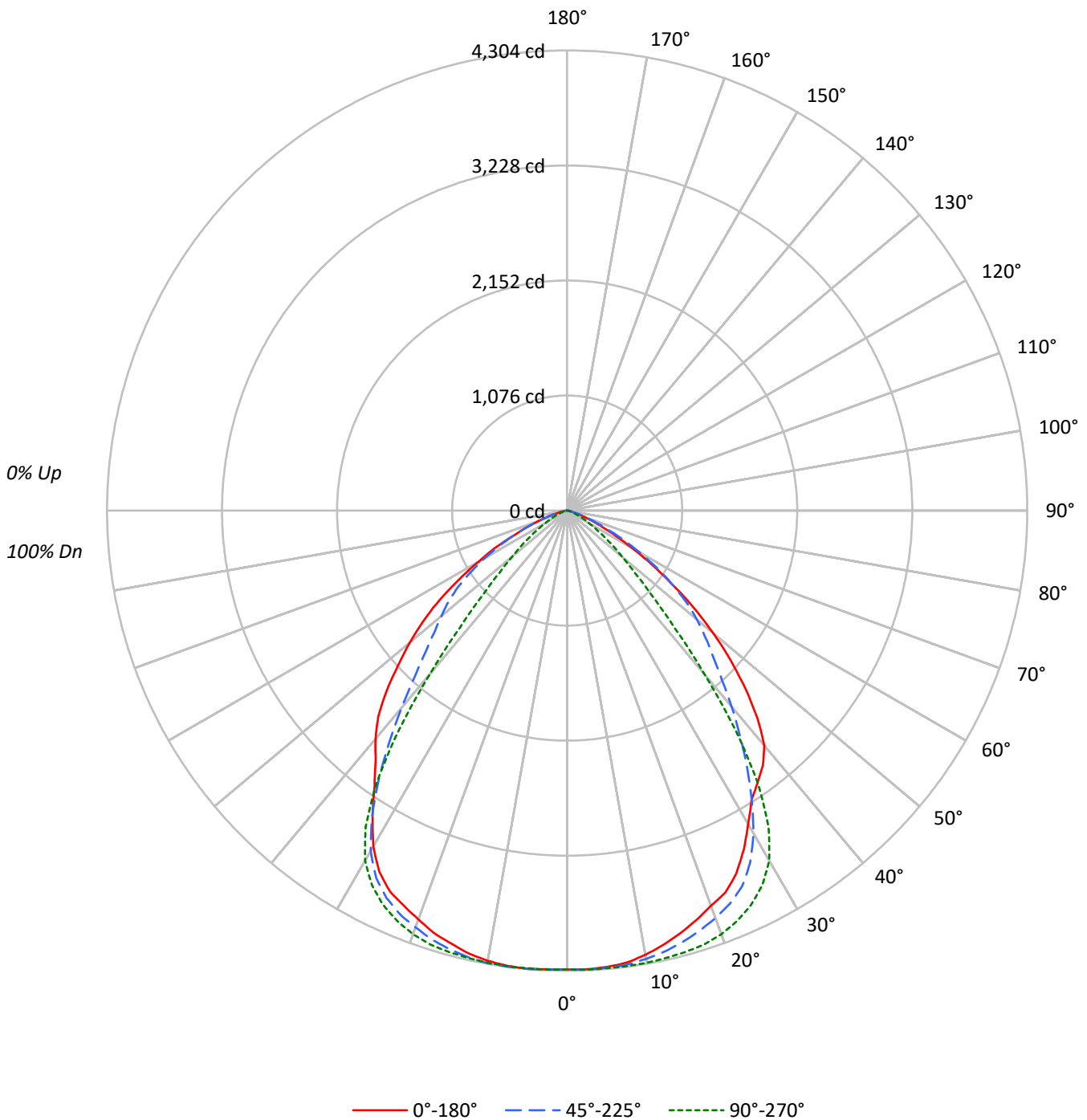
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	132356	132356	132356
5°	132648	133004	133146
10°	132090	134469	133893
15°	130624	136437	133861
20°	129056	138353	133516
25°	127379	138512	133654
30°	120511	134618	129124
35°	116912	116998	118214
40°	115464	80500	112220
45°	102883	48328	104291
50°	85545	32161	92180
55°	64159	22171	78153
60°	43479	14777	58965
65°	26224	9580	40510
70°	14543	5193	24929
75°	6589	2192	12903
80°	5718	2451	9003
85°	6510	3255	8987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.6	5.0
10°-20°	1189.6	14.6
20°-30°	1805.6	22.2
30°-40°	1896.4	23.3
40°-50°	1421.8	17.5
50°-60°	912.3	11.2
60°-70°	390.3	4.8
70°-80°	92.2	1.1
80°-90°	17.1	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°	3404.9	41.9
0°-40°	5301.3	65.2
0°-60°	7635.4	93.9
0°-90°	8135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8135.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4292	4292	4292	4292	4292	
5°	4285	4292	4297	4304	4301	407
15°	4092	4177	4274	4246	4193	1154
25°	3744	3875	4071	3997	3928	1710
35°	3106	2933	3108	3071	3140	1949
45°	2359	1928	1108	1873	2392	1807
55°	1193	1193	412	1244	1454	1083
65°	359	424	131	546	555	384
75°	55	64	18	111	108	81
85°	18	12	9	18	25	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°	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2
2.5°	4294.5	4299.1	4296.8	4296.8	4294.5	4296.8	4296.8	4301.4	4301.4	4296.8	4294.5
5°	4285.3	4289.9	4289.9	4285.3	4285.3	4296.8	4289.9	4294.5	4294.5	4292.2	4292.2
7.5°	4264.6	4264.6	4273.8	4266.9	4266.9	4273.8	4271.4	4276.1	4280.7	4283.0	4283.0
10°	4218.5	4223.1	4225.4	4225.4	4227.7	4234.6	4239.2	4248.4	4253.0	4257.6	4259.9
12.5°	4160.9	4167.8	4170.1	4167.8	4174.7	4183.9	4195.4	4206.9	4213.9	4223.1	4230.0
15°	4091.7	4091.7	4096.3	4103.3	4107.9	4121.7	4133.2	4147.0	4165.5	4177.0	4188.5
17.5°	4015.7	4020.4	4027.2	4027.2	4036.5	4059.5	4066.4	4087.2	4107.9	4119.4	4142.5
20°	3932.8	3937.4	3944.3	3948.9	3960.4	3978.9	3992.7	4011.1	4034.2	4054.9	4077.9
22.5°	3868.3	3859.1	3863.6	3868.3	3879.8	3895.9	3912.1	3935.1	3958.1	3978.9	4001.9
25°	3743.8	3746.2	3753.1	3757.7	3771.5	3785.3	3803.8	3831.4	3852.1	3875.2	3900.5
27.5°	3575.7	3578.0	3589.5	3589.5	3601.0	3624.1	3635.6	3658.6	3686.3	3709.3	3739.3
30°	3384.5	3389.0	3389.0	3398.3	3405.2	3416.7	3428.2	3451.3	3465.1	3485.8	3527.3
32.5°	3209.4	3213.9	3211.6	3209.4	3202.4	3200.1	3197.8	3202.4	3207.1	3213.9	3230.1
35°	3105.7	3094.1	3085.0	3068.8	3050.4	3027.3	3006.6	2979.0	2953.6	2932.9	2909.9
37.5°	3006.6	3004.3	2990.5	2967.4	2930.6	2889.1	2840.7	2780.8	2720.9	2656.4	2594.2
40°	2868.4	2861.4	2849.9	2817.7	2776.2	2725.5	2661.0	2587.3	2490.5	2391.5	2290.1
42.5°	2633.4	2635.7	2621.9	2596.5	2557.4	2508.9	2442.1	2361.5	2257.9	2140.3	2009.0
45°	2359.2	2359.2	2354.6	2333.8	2306.2	2267.0	2216.4	2149.6	2048.2	1928.4	1787.8
47.5°	2073.5	2075.8	2068.9	2064.3	2052.8	2027.5	1990.6	1939.9	1868.5	1753.3	1612.7
50°	1783.2	1783.2	1794.7	1792.4	1792.4	1783.2	1767.1	1737.1	1675.0	1582.8	1451.5
52.5°	1492.9	1497.5	1504.5	1513.7	1525.2	1543.6	1525.2	1511.4	1472.2	1400.8	1287.9
55°	1193.4	1198.0	1209.5	1225.7	1239.5	1258.0	1262.5	1262.5	1241.8	1193.4	1108.2
57.5°	937.7	930.8	940.0	953.8	972.3	990.7	1004.5	1020.6	1018.3	986.1	917.0
60°	705.0	707.3	714.2	728.1	741.9	758.0	776.4	790.2	797.2	781.0	737.2
62.5°	513.8	513.8	523.0	536.8	543.7	566.8	578.3	585.2	592.1	589.8	562.2
65°	359.4	364.0	368.6	375.6	382.4	396.2	403.2	417.0	421.6	423.9	403.2
67.5°	253.5	246.5	251.1	255.7	262.6	271.9	285.7	285.7	292.6	292.6	278.8
70°	161.3	161.3	163.6	170.5	175.1	177.4	182.0	186.6	193.5	191.2	191.2
72.5°	108.3	106.0	108.3	110.6	112.9	119.8	119.8	122.1	126.7	129.0	119.8
75°	55.3	57.6	62.2	59.9	66.8	62.2	64.5	71.4	69.1	64.5	64.5
77.5°	46.1	46.1	46.1	43.8	48.4	48.4	46.1	50.7	48.4	48.4	46.1
80°	32.2	34.6	32.2	29.9	32.2	29.9	29.9	29.9	29.9	29.9	27.6
82.5°	25.4	20.7	23.1	20.7	23.1	23.1	20.7	18.4	18.4	20.7	18.4
85°	18.4	13.8	16.1	16.1	13.8	13.8	13.8	13.8	13.8	11.5	11.5
87.5°	11.5	6.9	6.9	6.9	9.2	9.2	9.2	6.9	9.2	9.2	4.6
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°	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2
2.5°	4299.1	4296.8	4301.4	4299.1	4299.1	4296.8	4299.1	4296.8	4301.4	4292.2	4294.5
5°	4299.1	4294.5	4296.8	4299.1	4301.4	4296.8	4296.8	4296.8	4301.4	4296.8	4299.1
7.5°	4289.9	4287.6	4294.5	4299.1	4296.8	4294.5	4299.1	4296.8	4301.4	4299.1	4303.7
10°	4271.4	4273.8	4278.4	4285.3	4287.6	4289.9	4294.5	4294.5	4301.4	4292.2	4296.8
12.5°	4243.8	4253.0	4264.6	4269.1	4278.4	4278.4	4283.0	4285.3	4289.9	4287.6	4294.5
15°	4209.3	4220.8	4234.6	4246.1	4257.6	4264.6	4271.4	4273.8	4280.7	4273.8	4276.1
17.5°	4167.8	4181.6	4202.3	4216.1	4234.6	4241.5	4250.7	4255.3	4262.3	4257.6	4259.9
20°	4110.2	4126.3	4149.3	4170.1	4181.6	4197.7	4209.3	4216.1	4220.8	4216.1	4218.5
22.5°	4029.5	4052.6	4082.5	4098.7	4121.7	4135.5	4137.8	4154.0	4165.5	4154.0	4158.6
25°	3935.1	3958.1	3981.2	4015.7	4036.5	4052.6	4068.7	4071.0	4082.5	4080.2	4077.9
27.5°	3778.4	3808.4	3847.5	3875.2	3902.8	3928.2	3946.6	3951.2	3962.7	3958.1	3960.4
30°	3564.1	3596.4	3633.3	3677.0	3716.2	3741.5	3764.6	3780.7	3792.2	3785.3	3783.0
32.5°	3260.1	3292.3	3331.5	3375.2	3421.3	3458.1	3485.8	3506.6	3520.4	3515.8	3504.3
35°	2912.2	2921.4	2946.7	2981.3	3020.4	3059.6	3085.0	3108.0	3124.1	3128.7	3128.7
37.5°	2555.1	2525.1	2506.7	2506.7	2529.7	2545.8	2568.9	2582.7	2608.0	2617.2	2624.2
40°	2209.4	2140.3	2075.8	2027.5	1995.2	1992.9	1992.9	1999.8	2022.8	2052.8	2080.4
42.5°	1900.7	1790.1	1691.1	1601.2	1536.7	1499.9	1483.7	1486.0	1504.5	1532.1	1578.2
45°	1654.2	1516.0	1391.6	1283.3	1195.7	1138.1	1110.5	1108.2	1122.0	1154.2	1205.0
47.5°	1463.0	1315.5	1175.0	1050.6	956.1	893.9	861.7	852.5	861.7	891.6	951.5
50°	1304.0	1152.0	1006.8	877.8	776.4	711.9	681.9	670.4	681.9	707.3	767.2
52.5°	1156.5	999.9	864.0	739.6	631.3	576.0	543.7	536.8	543.7	573.7	622.1
55°	986.1	852.5	718.8	594.4	500.0	444.7	419.3	412.4	419.3	447.0	497.7
57.5°	817.9	702.7	585.2	472.3	391.7	343.3	320.3	311.0	327.1	345.6	405.5
60°	661.2	569.1	470.0	370.9	304.1	260.3	241.9	239.6	244.2	267.3	308.7
62.5°	518.4	442.4	364.0	283.4	228.1	209.7	186.6	184.3	188.9	202.7	235.0
65°	373.2	324.9	265.0	207.3	163.6	138.2	129.0	131.3	135.9	145.2	175.1
67.5°	260.3	225.8	184.3	145.2	112.9	101.4	92.2	89.9	92.2	108.3	124.4
70°	175.1	154.3	124.4	110.6	78.4	62.2	64.5	57.6	66.8	66.8	80.6
72.5°	115.2	101.4	82.9	64.5	55.3	43.8	43.8	41.5	46.1	48.4	59.9
75°	59.9	46.1	46.1	32.2	23.1	11.5	20.7	18.4	16.1	18.4	23.1
77.5°	41.5	34.6	32.2	25.4	23.1	18.4	18.4	18.4	18.4	20.7	23.1
80°	25.4	25.4	18.4	16.1	13.8	11.5	13.8	13.8	13.8	13.8	16.1
82.5°	16.1	13.8	13.8	11.5	11.5	9.2	9.2	9.2	9.2	9.2	13.8
85°	13.8	9.2	9.2	6.9	9.2	16.1	6.9	9.2	9.2	9.2	6.9
87.5°	4.6	6.9	6.9	6.9	4.6	2.3	4.6	6.9	6.9	11.5	9.2
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2	4292.2
2.5°	4299.1	4301.4	4301.4	4299.1	4299.1	4294.5	4303.7	4296.8	4299.1	4308.3	4301.4
5°	4303.7	4306.0	4306.0	4303.7	4303.7	4303.7	4306.0	4306.0	4303.7	4301.4	4306.0
7.5°	4312.9	4310.6	4310.6	4306.0	4306.0	4301.4	4306.0	4299.1	4303.7	4299.1	4306.0
10°	4301.4	4303.7	4301.4	4299.1	4299.1	4296.8	4296.8	4289.9	4292.2	4285.3	4289.9
12.5°	4294.5	4292.2	4292.2	4287.6	4283.0	4278.4	4276.1	4269.1	4269.1	4253.0	4259.9
15°	4276.1	4278.4	4271.4	4262.3	4257.6	4246.1	4241.5	4232.3	4223.1	4211.6	4213.9
17.5°	4259.9	4253.0	4243.8	4234.6	4216.1	4206.9	4197.7	4183.9	4179.3	4165.5	4160.9
20°	4211.6	4206.9	4195.4	4179.3	4167.8	4147.0	4137.8	4124.0	4112.5	4098.7	4091.7
22.5°	4149.3	4144.7	4130.9	4114.8	4096.3	4087.2	4077.9	4052.6	4041.0	4027.2	4024.9
25°	4071.0	4064.1	4050.3	4031.9	4022.6	3997.3	3988.1	3969.6	3965.1	3951.2	3948.9
27.5°	3951.2	3942.0	3925.9	3902.8	3886.7	3870.6	3861.4	3847.5	3842.9	3829.1	3826.8
30°	3771.5	3760.0	3727.7	3718.5	3690.9	3674.7	3674.7	3656.3	3658.6	3649.4	3649.4
32.5°	3488.1	3469.7	3444.3	3425.9	3407.5	3398.3	3398.3	3391.3	3396.0	3396.0	3400.6
35°	3112.6	3087.3	3073.4	3061.9	3061.9	3071.1	3098.8	3105.7	3119.5	3131.0	3140.3
37.5°	2631.0	2628.8	2644.9	2658.7	2693.3	2732.5	2780.8	2822.3	2861.4	2889.1	2916.7
40°	2110.4	2168.0	2214.1	2278.6	2331.5	2407.6	2495.1	2566.6	2633.4	2681.8	2732.5
42.5°	1647.3	1721.0	1817.8	1912.2	2006.7	2110.4	2225.6	2324.7	2412.2	2479.0	2532.0
45°	1283.3	1384.6	1502.2	1622.0	1744.1	1873.1	1992.9	2094.3	2186.4	2255.5	2308.5
47.5°	1034.4	1145.0	1278.7	1410.0	1548.2	1684.1	1817.8	1905.4	1981.3	2036.6	2085.1
50°	854.7	972.3	1112.8	1262.5	1400.8	1536.7	1651.9	1737.1	1799.4	1847.7	1877.7
52.5°	714.2	838.6	988.4	1138.1	1276.3	1400.8	1504.5	1569.0	1619.7	1654.2	1681.8
55°	589.8	709.6	850.2	990.7	1126.6	1244.1	1329.3	1377.8	1416.9	1437.6	1453.7
57.5°	481.5	592.1	721.1	850.2	967.6	1064.4	1131.2	1179.6	1198.0	1214.2	1211.9
60°	377.9	481.5	599.0	709.6	811.0	889.3	937.7	965.3	979.1	986.1	981.5
62.5°	297.2	391.7	481.5	578.3	652.0	718.8	764.9	764.9	771.8	774.1	781.0
65°	221.2	292.6	370.9	442.4	502.2	546.0	571.4	578.3	587.5	585.2	580.6
67.5°	163.6	216.6	274.1	327.1	368.6	396.2	414.7	430.9	428.5	423.9	421.6
70°	112.9	147.5	198.2	230.4	260.3	288.0	292.6	294.9	297.2	299.5	294.9
72.5°	78.4	103.7	131.3	159.0	177.4	188.9	200.5	202.7	202.7	202.7	200.5
75°	39.2	53.0	78.4	89.9	106.0	110.6	119.8	119.8	126.7	117.5	115.2
77.5°	34.6	41.5	55.3	64.5	71.4	78.4	80.6	87.5	85.2	80.6	82.9
80°	20.7	25.4	34.6	39.2	48.4	50.7	53.0	55.3	53.0	55.3	55.3
82.5°	16.1	18.4	23.1	23.1	29.9	29.9	32.2	32.2	34.6	34.6	34.6
85°	9.2	16.1	13.8	27.6	18.4	18.4	23.1	27.6	23.1	23.1	27.6
87.5°	9.2	9.2	6.9	9.2	9.2	9.2	11.5	13.8	13.8	16.1	13.8
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: P249418

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4292.2	4292.2	4292.2	4292.2
2.5°	4299.1	4303.7	4296.8	4294.5
5°	4306.0	4306.0	4301.4	4301.4
7.5°	4306.0	4306.0	4299.1	4294.5
10°	4287.6	4287.6	4280.7	4276.1
12.5°	4253.0	4253.0	4250.7	4243.8
15°	4209.3	4209.3	4200.0	4193.1
17.5°	4149.3	4154.0	4142.5	4142.5
20°	4084.8	4082.5	4073.3	4068.7
22.5°	4018.0	4013.4	4011.1	3997.3
25°	3946.6	3942.0	3935.1	3928.2
27.5°	3824.5	3822.2	3815.3	3806.1
30°	3637.9	3635.6	3626.4	3626.4
32.5°	3396.0	3393.7	3384.5	3386.8
35°	3144.8	3154.1	3149.4	3140.3
37.5°	2935.2	2942.1	2946.7	2942.1
40°	2760.1	2780.8	2783.1	2787.8
42.5°	2573.5	2601.1	2610.4	2614.9
45°	2350.0	2375.3	2396.1	2391.5
47.5°	2121.9	2140.3	2158.7	2144.9
50°	1903.0	1914.5	1921.5	1921.5
52.5°	1695.7	1695.7	1693.4	1695.7
55°	1458.4	1458.4	1449.2	1453.7
57.5°	1209.5	1214.2	1207.2	1195.7
60°	979.1	967.6	963.0	956.1
62.5°	762.6	762.6	746.5	767.2
65°	571.4	564.5	557.5	555.2
67.5°	414.7	412.4	405.5	403.2
70°	292.6	283.4	281.1	276.5
72.5°	195.8	195.8	191.2	191.2
75°	119.8	108.3	106.0	108.3
77.5°	82.9	80.6	80.6	78.4
80°	55.3	53.0	57.6	50.7
82.5°	34.6	36.9	34.6	36.9
85°	23.1	27.6	25.4	25.4
87.5°	13.8	13.8	13.8	13.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)