

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: P249319

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249319
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 EC8B90835 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9345.0 lumens
Efficiency: N/A
Efficacy: 108.5 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

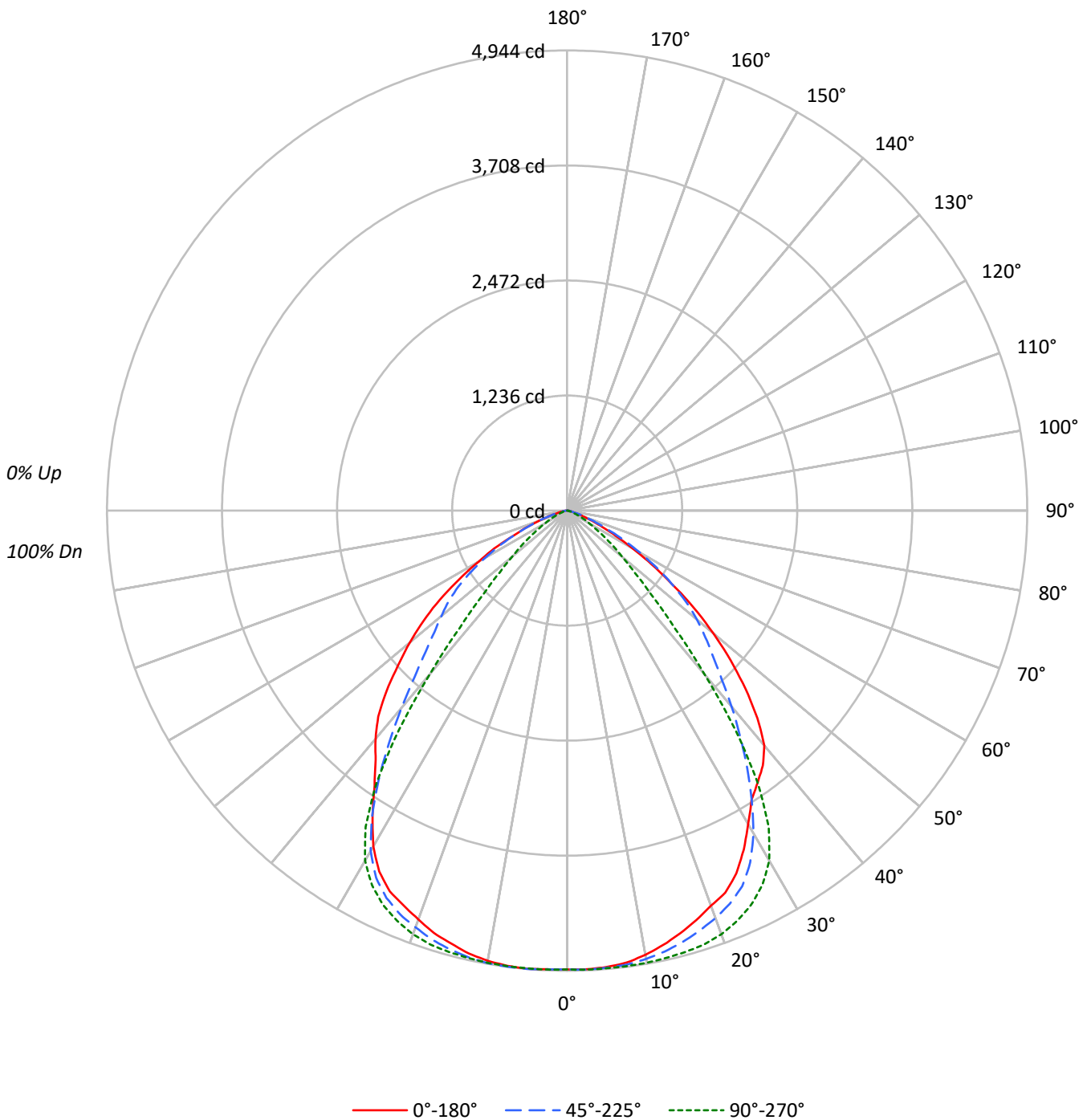
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	152042	152042	152042
5°	152375	152786	152950
10°	151735	154472	153808
15°	150053	156728	153772
20°	148253	158931	153376
25°	146327	159117	153534
30°	138435	154643	148327
35°	134299	134397	135794
40°	132637	92471	128909
45°	118185	55514	119803
50°	98272	36949	105890
55°	73702	25472	89782
60°	49949	16972	67741
65°	30127	11010	46537
70°	16707	5969	28635
75°	7566	2526	14821
80°	6570	2824	10335
85°	7501	3750	10296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	470.6	5.0
10°-20°	1366.6	14.6
20°-30°	2074.2	22.2
30°-40°	2178.5	23.3
40°-50°	1633.3	17.5
50°-60°	1048.0	11.2
60°-70°	448.3	4.8
70°-80°	105.9	1.1
80°-90°	19.7	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°	3911.3	41.9
0°-40°	6089.8	65.2
0°-60°	8771.1	93.9
0°-90°	9345.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9345.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4931	4931	4931	4931	4931	
5°	4923	4931	4936	4944	4941	468
15°	4700	4798	4909	4878	4817	1326
25°	4301	4452	4677	4592	4512	1965
35°	3568	3369	3570	3528	3607	2239
45°	2710	2215	1273	2152	2747	2075
55°	1371	1371	474	1429	1670	1244
65°	413	487	151	627	638	441
75°	64	74	21	127	124	93
85°	21	13	11	21	29	22
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°	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6
2.5°	4933.3	4938.6	4935.9	4935.9	4933.3	4935.9	4935.9	4941.2	4941.2	4935.9	4933.3
5°	4922.6	4928.0	4928.0	4922.6	4922.6	4935.9	4928.0	4933.3	4933.3	4930.6	4930.6
7.5°	4898.9	4898.9	4909.4	4901.5	4901.5	4909.4	4906.8	4912.1	4917.4	4920.0	4920.0
10°	4845.9	4851.2	4853.9	4853.9	4856.5	4864.4	4869.7	4880.4	4885.6	4890.9	4893.6
12.5°	4779.8	4787.7	4790.3	4787.7	4795.6	4806.2	4819.5	4832.7	4840.7	4851.2	4859.2
15°	4700.3	4700.3	4705.6	4713.6	4718.9	4734.8	4748.0	4763.9	4785.0	4798.3	4811.5
17.5°	4613.0	4618.3	4626.2	4626.2	4636.9	4663.3	4671.2	4695.1	4718.9	4732.1	4758.6
20°	4517.8	4523.0	4531.0	4536.3	4549.5	4570.7	4586.5	4607.7	4634.2	4658.0	4684.5
22.5°	4443.6	4433.1	4438.3	4443.6	4456.9	4475.4	4493.9	4520.4	4546.9	4570.7	4597.2
25°	4300.7	4303.4	4311.3	4316.6	4332.5	4348.4	4369.5	4401.3	4425.1	4451.6	4480.7
27.5°	4107.5	4110.2	4123.4	4123.4	4136.6	4163.1	4176.3	4202.8	4234.6	4261.0	4295.5
30°	3887.9	3893.1	3893.1	3903.7	3911.6	3924.9	3938.1	3964.6	3980.5	4004.3	4052.0
32.5°	3686.7	3692.0	3689.3	3686.7	3678.8	3676.1	3673.5	3678.8	3684.1	3692.0	3710.5
35°	3567.6	3554.4	3543.8	3525.3	3504.1	3477.6	3453.8	3422.1	3392.9	3369.1	3342.7
37.5°	3453.8	3451.1	3435.3	3408.8	3366.4	3318.8	3263.3	3194.4	3125.6	3051.5	2980.1
40°	3295.0	3287.1	3273.8	3236.8	3189.1	3130.9	3056.8	2972.1	2860.9	2747.2	2630.7
42.5°	3025.0	3027.7	3011.8	2982.7	2937.7	2882.1	2805.4	2712.8	2593.7	2458.7	2307.8
45°	2710.1	2710.1	2704.8	2681.0	2649.2	2604.2	2546.0	2469.3	2352.8	2215.2	2053.7
47.5°	2381.9	2384.6	2376.6	2371.4	2358.1	2329.0	2286.7	2228.4	2146.4	2014.0	1852.6
50°	2048.5	2048.5	2061.7	2059.0	2059.0	2048.5	2030.0	1995.5	1924.1	1818.2	1667.4
52.5°	1715.0	1720.3	1728.3	1738.8	1752.0	1773.2	1752.0	1736.2	1691.2	1609.1	1479.5
55°	1370.9	1376.2	1389.4	1408.0	1423.9	1445.1	1450.3	1450.3	1426.5	1370.9	1273.0
57.5°	1077.2	1069.2	1079.8	1095.7	1116.9	1138.1	1153.9	1172.4	1169.8	1132.7	1053.4
60°	809.9	812.5	820.4	836.3	852.2	870.7	891.9	907.8	915.7	897.2	846.9
62.5°	590.2	590.2	600.8	616.6	624.6	651.1	664.3	672.3	680.2	677.5	645.8
65°	412.9	418.1	423.5	431.4	439.3	455.2	463.1	479.0	484.3	487.0	463.1
67.5°	291.2	283.2	288.5	293.7	301.7	312.3	328.2	328.2	336.1	336.1	320.2
70°	185.3	185.3	187.9	195.8	201.1	203.8	209.1	214.4	222.3	219.7	219.7
72.5°	124.4	121.7	124.4	127.1	129.7	137.6	137.6	140.3	145.6	148.2	137.6
75°	63.5	66.2	71.4	68.8	76.7	71.4	74.1	82.0	79.4	74.1	74.1
77.5°	52.9	52.9	52.9	50.3	55.6	55.6	52.9	58.2	55.6	55.6	52.9
80°	37.0	39.7	37.0	34.4	37.0	34.4	34.4	34.4	34.4	34.4	31.7
82.5°	29.1	23.8	26.5	23.8	26.5	26.5	23.8	21.2	21.2	23.8	21.2
85°	21.2	15.9	18.5	18.5	15.9	15.9	15.9	15.9	15.9	13.2	13.2
87.5°	13.2	8.0	8.0	8.0	10.6	10.6	10.6	8.0	10.6	10.6	5.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6
2.5°	4938.6	4935.9	4941.2	4938.6	4938.6	4935.9	4938.6	4935.9	4941.2	4930.6	4933.3
5°	4938.6	4933.3	4935.9	4938.6	4941.2	4935.9	4935.9	4935.9	4941.2	4935.9	4938.6
7.5°	4928.0	4925.3	4933.3	4938.6	4935.9	4933.3	4938.6	4935.9	4941.2	4938.6	4943.8
10°	4906.8	4909.4	4914.7	4922.6	4925.3	4928.0	4933.3	4933.3	4941.2	4930.6	4935.9
12.5°	4875.0	4885.6	4898.9	4904.1	4914.7	4914.7	4920.0	4922.6	4928.0	4925.3	4933.3
15°	4835.3	4848.6	4864.4	4877.7	4890.9	4898.9	4906.8	4909.4	4917.4	4909.4	4912.1
17.5°	4787.7	4803.6	4827.4	4843.2	4864.4	4872.4	4882.9	4888.3	4896.2	4890.9	4893.6
20°	4721.5	4740.1	4766.5	4790.3	4803.6	4822.1	4835.3	4843.2	4848.6	4843.2	4845.9
22.5°	4628.9	4655.4	4689.8	4708.3	4734.8	4750.6	4753.3	4771.8	4785.0	4771.8	4777.1
25°	4520.4	4546.9	4573.3	4613.0	4636.9	4655.4	4673.9	4676.6	4689.8	4687.1	4684.5
27.5°	4340.4	4374.9	4419.8	4451.6	4483.3	4512.5	4533.6	4538.9	4552.2	4546.9	4549.5
30°	4094.3	4131.4	4173.7	4224.0	4269.0	4298.1	4324.5	4343.1	4356.3	4348.4	4345.7
32.5°	3745.0	3782.0	3827.0	3877.3	3930.2	3972.5	4004.3	4028.1	4044.0	4038.7	4025.5
35°	3345.3	3355.9	3385.0	3424.7	3469.7	3514.7	3543.8	3570.2	3588.8	3594.1	3594.1
37.5°	2935.1	2900.7	2879.5	2879.5	2905.9	2924.5	2951.0	2966.8	2996.0	3006.5	3014.5
40°	2538.1	2458.7	2384.6	2329.0	2292.0	2289.3	2289.3	2297.2	2323.7	2358.1	2389.9
42.5°	2183.4	2056.4	1942.6	1839.4	1765.3	1722.9	1704.4	1707.1	1728.3	1760.0	1812.9
45°	1900.3	1741.5	1598.5	1474.2	1373.6	1307.4	1275.7	1273.0	1288.9	1325.9	1384.2
47.5°	1680.6	1511.2	1349.8	1206.8	1098.4	1026.9	989.8	979.3	989.8	1024.2	1093.0
50°	1498.0	1323.3	1156.6	1008.3	891.9	817.8	783.4	770.2	783.4	812.5	881.3
52.5°	1328.6	1148.6	992.5	849.6	725.2	661.6	624.6	616.6	624.6	659.0	714.6
55°	1132.7	979.3	825.7	682.8	574.3	510.8	481.7	473.8	481.7	513.5	571.7
57.5°	939.6	807.2	672.3	542.5	449.9	394.3	367.9	357.3	375.8	397.0	465.8
60°	759.5	653.7	539.9	426.1	349.4	299.1	277.9	275.2	280.5	307.0	354.6
62.5°	595.5	508.2	418.1	325.5	262.0	240.8	214.4	211.8	217.0	232.9	270.0
65°	428.8	373.2	304.4	238.2	187.9	158.8	148.2	150.9	156.1	166.8	201.1
67.5°	299.1	259.4	211.8	166.8	129.7	116.4	105.9	103.2	105.9	124.4	142.9
70°	201.1	177.3	142.9	127.1	90.0	71.4	74.1	66.2	76.7	76.7	92.6
72.5°	132.3	116.4	95.3	74.1	63.5	50.3	50.3	47.7	52.9	55.6	68.8
75°	68.8	52.9	52.9	37.0	26.5	13.2	23.8	21.2	18.5	21.2	26.5
77.5°	47.7	39.7	37.0	29.1	26.5	21.2	21.2	21.2	21.2	23.8	26.5
80°	29.1	29.1	21.2	18.5	15.9	13.2	15.9	15.9	15.9	15.9	18.5
82.5°	18.5	15.9	15.9	13.2	13.2	10.6	10.6	10.6	10.6	10.6	15.9
85°	15.9	10.6	10.6	8.0	10.6	18.5	8.0	10.6	10.6	10.6	8.0
87.5°	5.3	8.0	8.0	8.0	5.3	2.7	5.3	8.0	8.0	13.2	10.6
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6	4930.6
2.5°	4938.6	4941.2	4941.2	4938.6	4938.6	4933.3	4943.8	4935.9	4938.6	4949.1	4941.2
5°	4943.8	4946.5	4946.5	4943.8	4943.8	4943.8	4946.5	4946.5	4943.8	4941.2	4946.5
7.5°	4954.4	4951.8	4951.8	4946.5	4946.5	4941.2	4946.5	4938.6	4943.8	4938.6	4946.5
10°	4941.2	4943.8	4941.2	4938.6	4938.6	4935.9	4935.9	4928.0	4930.6	4922.6	4928.0
12.5°	4933.3	4930.6	4930.6	4925.3	4920.0	4914.7	4912.1	4904.1	4904.1	4885.6	4893.6
15°	4912.1	4914.7	4906.8	4896.2	4890.9	4877.7	4872.4	4861.8	4851.2	4838.0	4840.7
17.5°	4893.6	4885.6	4875.0	4864.4	4843.2	4832.7	4822.1	4806.2	4800.9	4785.0	4779.8
20°	4838.0	4832.7	4819.5	4800.9	4787.7	4763.9	4753.3	4737.4	4724.2	4708.3	4700.3
22.5°	4766.5	4761.2	4745.3	4726.8	4705.6	4695.1	4684.5	4655.4	4642.1	4626.2	4623.6
25°	4676.6	4668.6	4652.7	4631.6	4620.9	4591.9	4581.2	4560.1	4554.8	4538.9	4536.3
27.5°	4538.9	4528.3	4509.8	4483.3	4464.8	4446.3	4435.7	4419.8	4414.5	4398.6	4396.0
30°	4332.5	4319.2	4282.2	4271.6	4239.8	4221.3	4221.3	4200.1	4202.8	4192.2	4192.2
32.5°	4007.0	3985.8	3956.6	3935.5	3914.3	3903.7	3903.7	3895.8	3901.1	3901.1	3906.4
35°	3575.5	3546.5	3530.5	3517.3	3517.3	3527.9	3559.7	3567.6	3583.5	3596.7	3607.3
37.5°	3022.4	3019.8	3038.3	3054.2	3093.9	3138.9	3194.4	3242.1	3287.1	3318.8	3350.6
40°	2424.3	2490.5	2543.4	2617.5	2678.3	2765.7	2866.3	2948.3	3025.0	3080.7	3138.9
42.5°	1892.3	1977.0	2088.2	2196.7	2305.2	2424.3	2556.6	2670.4	2771.0	2847.7	2908.6
45°	1474.2	1590.6	1725.6	1863.2	2003.5	2151.7	2289.3	2405.8	2511.6	2591.0	2651.9
47.5°	1188.3	1315.4	1468.8	1619.7	1778.5	1934.6	2088.2	2188.8	2276.0	2339.6	2395.2
50°	981.9	1116.9	1278.3	1450.3	1609.1	1765.3	1897.6	1995.5	2067.0	2122.6	2157.0
52.5°	820.4	963.3	1135.4	1307.4	1466.2	1609.1	1728.3	1802.3	1860.6	1900.3	1932.0
55°	677.5	815.2	976.6	1138.1	1294.2	1429.1	1527.1	1582.7	1627.6	1651.5	1670.0
57.5°	553.2	680.2	828.4	976.6	1111.6	1222.8	1299.5	1355.1	1376.2	1394.8	1392.1
60°	434.1	553.2	688.1	815.2	931.6	1021.6	1077.2	1108.9	1124.8	1132.7	1127.4
62.5°	341.4	449.9	553.2	664.3	749.0	825.7	878.7	878.7	886.6	889.3	897.2
65°	254.0	336.1	426.1	508.2	576.9	627.2	656.4	664.3	674.9	672.3	666.9
67.5°	187.9	248.8	314.9	375.8	423.5	455.2	476.4	494.9	492.3	487.0	484.3
70°	129.7	169.4	227.6	264.7	299.1	330.8	336.1	338.7	341.4	344.1	338.7
72.5°	90.0	119.1	150.9	182.6	203.8	217.0	230.3	232.9	232.9	232.9	230.3
75°	45.0	60.9	90.0	103.2	121.7	127.1	137.6	137.6	145.6	135.0	132.3
77.5°	39.7	47.7	63.5	74.1	82.0	90.0	92.6	100.6	97.9	92.6	95.3
80°	23.8	29.1	39.7	45.0	55.6	58.2	60.9	63.5	60.9	63.5	63.5
82.5°	18.5	21.2	26.5	26.5	34.4	34.4	37.0	37.0	39.7	39.7	39.7
85°	10.6	18.5	15.9	31.7	21.2	21.2	26.5	31.7	26.5	26.5	31.7
87.5°	10.6	10.6	8.0	10.6	10.6	10.6	13.2	15.9	15.9	18.5	15.9
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: P249319

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4930.6	4930.6	4930.6	4930.6
2.5°	4938.6	4943.8	4935.9	4933.3
5°	4946.5	4946.5	4941.2	4941.2
7.5°	4946.5	4946.5	4938.6	4933.3
10°	4925.3	4925.3	4917.4	4912.1
12.5°	4885.6	4885.6	4882.9	4875.0
15°	4835.3	4835.3	4824.7	4816.8
17.5°	4766.5	4771.8	4758.6	4758.6
20°	4692.4	4689.8	4679.2	4673.9
22.5°	4615.7	4610.4	4607.7	4591.9
25°	4533.6	4528.3	4520.4	4512.5
27.5°	4393.4	4390.7	4382.8	4372.2
30°	4179.0	4176.3	4165.7	4165.7
32.5°	3901.1	3898.4	3887.9	3890.5
35°	3612.6	3623.2	3617.9	3607.3
37.5°	3371.8	3379.7	3385.0	3379.7
40°	3170.6	3194.4	3197.1	3202.4
42.5°	2956.3	2988.0	2998.6	3003.9
45°	2699.5	2728.6	2752.5	2747.2
47.5°	2437.5	2458.7	2479.8	2464.0
50°	2186.1	2199.3	2207.3	2207.3
52.5°	1947.9	1947.9	1945.3	1947.9
55°	1675.3	1675.3	1664.7	1670.0
57.5°	1389.4	1394.8	1386.8	1373.6
60°	1124.8	1111.6	1106.3	1098.4
62.5°	876.0	876.0	857.5	881.3
65°	656.4	648.4	640.5	637.8
67.5°	476.4	473.8	465.8	463.1
70°	336.1	325.5	322.9	317.6
72.5°	225.0	225.0	219.7	219.7
75°	137.6	124.4	121.7	124.4
77.5°	95.3	92.6	92.6	90.0
80°	63.5	60.9	66.2	58.2
82.5°	39.7	42.4	39.7	42.4
85°	26.5	31.7	29.1	29.1
87.5°	15.9	15.9	15.9	15.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)