

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: P249310

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249310
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 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8986.0 lumens
Efficiency: N/A
Efficacy: 104.4 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

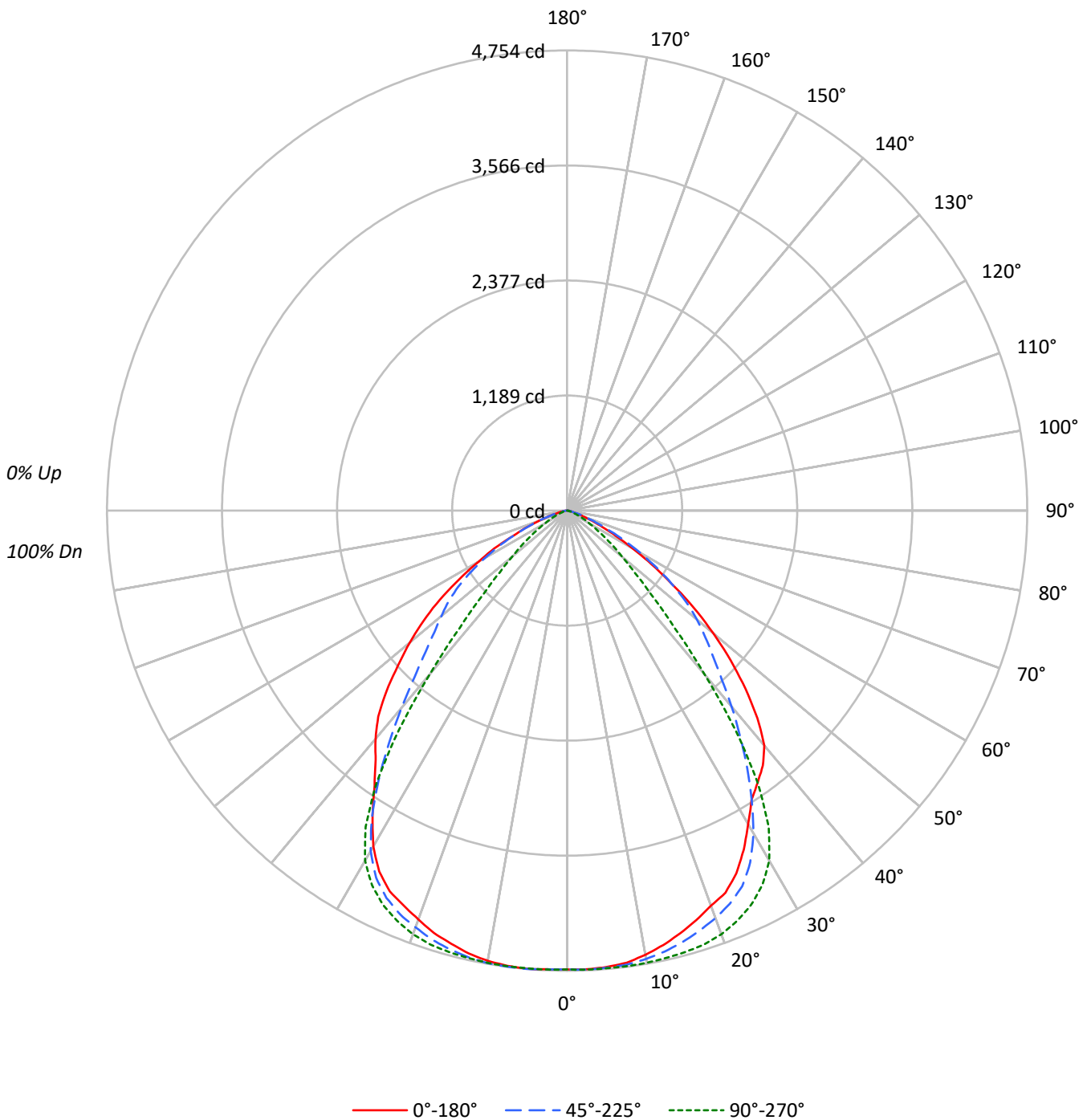
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	146201	146201	146201
5°	146521	146917	147075
10°	145905	148535	147899
15°	144291	150707	147866
20°	142556	152828	147485
25°	140707	153003	147634
30°	133116	148701	142630
35°	129142	129236	130580
40°	127541	88921	123958
45°	113645	53382	115198
50°	94497	35529	101822
55°	70874	24494	86330
60°	48031	16319	65139
65°	28967	10587	44749
70°	16066	5734	27535
75°	7280	2431	14249
80°	6322	2717	9944
85°	7218	3609	9907



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.5	5.0
10°-20°	1314.1	14.6
20°-30°	1994.5	22.2
30°-40°	2094.8	23.3
40°-50°	1570.6	17.5
50°-60°	1007.7	11.2
60°-70°	431.1	4.8
70°-80°	101.8	1.1
80°-90°	19.0	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°	3761.0	41.9
0°-40°	5855.9	65.2
0°-60°	8434.1	93.9
0°-90°	8986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8986.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4741	4741	4741	4741	4741	
5°	4734	4741	4746	4754	4751	450
15°	4520	4614	4721	4690	4632	1275
25°	4136	4281	4497	4416	4339	1889
35°	3431	3240	3433	3392	3469	2153
45°	2606	2130	1224	2069	2642	1996
55°	1318	1318	456	1374	1606	1196
65°	397	468	145	603	613	424
75°	61	71	20	122	120	89
85°	20	13	10	20	28	21
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°	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2
2.5°	4743.7	4748.8	4746.3	4746.3	4743.7	4746.3	4746.3	4751.4	4751.4	4746.3	4743.7
5°	4733.5	4738.6	4738.6	4733.5	4733.5	4746.3	4738.6	4743.7	4743.7	4741.2	4741.2
7.5°	4710.7	4710.7	4720.8	4713.2	4713.2	4720.8	4718.3	4723.4	4728.5	4731.0	4731.0
10°	4659.7	4664.8	4667.4	4667.4	4670.0	4677.6	4682.7	4692.9	4697.9	4703.0	4705.6
12.5°	4596.2	4603.8	4606.3	4603.8	4611.4	4621.6	4634.3	4647.0	4654.7	4664.8	4672.5
15°	4519.8	4519.8	4524.9	4532.5	4537.6	4552.9	4565.6	4580.8	4601.2	4614.0	4626.7
17.5°	4435.8	4440.9	4448.5	4448.5	4458.7	4484.1	4491.8	4514.7	4537.6	4550.3	4575.8
20°	4344.2	4349.3	4356.9	4362.0	4374.7	4395.1	4410.3	4430.7	4456.2	4479.1	4504.5
22.5°	4272.9	4262.8	4267.8	4272.9	4285.7	4303.5	4321.3	4346.7	4372.2	4395.1	4420.6
25°	4135.5	4138.0	4145.7	4150.7	4166.1	4181.3	4201.7	4232.2	4255.1	4280.6	4308.5
27.5°	3949.7	3952.3	3965.0	3965.0	3977.7	4003.2	4015.9	4041.3	4071.9	4097.3	4130.4
30°	3738.5	3743.6	3743.6	3753.8	3761.4	3774.1	3786.8	3812.3	3827.6	3850.5	3896.3
32.5°	3545.1	3550.1	3547.6	3545.1	3537.4	3534.9	3532.3	3537.4	3542.6	3550.1	3568.0
35°	3430.6	3417.8	3407.7	3389.9	3369.5	3344.0	3321.1	3290.6	3262.6	3239.7	3214.3
37.5°	3321.1	3318.6	3303.3	3277.8	3237.1	3191.3	3137.9	3071.7	3005.5	2934.3	2865.6
40°	3168.4	3160.8	3148.1	3112.5	3066.6	3010.6	2939.4	2858.0	2751.0	2641.6	2529.7
42.5°	2908.8	2911.4	2896.1	2868.1	2824.9	2771.4	2697.6	2608.6	2494.0	2364.2	2219.2
45°	2606.0	2606.0	2600.9	2578.0	2547.5	2504.2	2448.2	2374.4	2262.5	2130.1	1974.8
47.5°	2290.4	2293.0	2285.3	2280.3	2267.5	2239.5	2198.8	2142.8	2063.9	1936.7	1781.4
50°	1969.8	1969.8	1982.5	1979.9	1979.9	1969.8	1952.0	1918.9	1850.2	1748.4	1603.3
52.5°	1649.1	1654.2	1661.9	1672.0	1684.7	1705.1	1684.7	1669.5	1626.2	1547.3	1422.6
55°	1318.3	1323.4	1336.1	1353.9	1369.2	1389.6	1394.6	1394.6	1371.7	1318.3	1224.1
57.5°	1035.8	1028.1	1038.4	1053.6	1074.0	1094.3	1109.6	1127.4	1124.8	1089.2	1012.9
60°	778.8	781.3	788.9	804.2	819.5	837.3	857.6	872.9	880.6	862.8	814.4
62.5°	567.5	567.5	577.7	592.9	600.6	626.1	638.8	646.4	654.0	651.5	621.0
65°	397.0	402.1	407.2	414.8	422.4	437.7	445.4	460.6	465.7	468.3	445.4
67.5°	280.0	272.3	277.4	282.5	290.1	300.3	315.6	315.6	323.2	323.2	307.9
70°	178.2	178.2	180.7	188.3	193.4	196.0	201.1	206.1	213.8	211.2	211.2
72.5°	119.6	117.1	119.6	122.2	124.7	132.3	132.3	134.9	140.0	142.5	132.3
75°	61.1	63.6	68.7	66.2	73.8	68.7	71.2	78.9	76.3	71.2	71.2
77.5°	50.9	50.9	50.9	48.4	53.4	53.4	50.9	56.0	53.4	53.4	50.9
80°	35.6	38.2	35.6	33.1	35.6	33.1	33.1	33.1	33.1	33.1	30.5
82.5°	28.0	22.9	25.5	22.9	25.5	25.5	22.9	20.4	20.4	22.9	20.4
85°	20.4	15.3	17.8	17.8	15.3	15.3	15.3	15.3	15.3	12.7	12.7
87.5°	12.7	7.7	7.7	7.7	10.2	10.2	10.2	7.7	10.2	10.2	5.1
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°	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2
2.5°	4748.8	4746.3	4751.4	4748.8	4748.8	4746.3	4748.8	4746.3	4751.4	4741.2	4743.7
5°	4748.8	4743.7	4746.3	4748.8	4751.4	4746.3	4746.3	4746.3	4751.4	4746.3	4748.8
7.5°	4738.6	4736.1	4743.7	4748.8	4746.3	4743.7	4748.8	4746.3	4751.4	4748.8	4753.9
10°	4718.3	4720.8	4725.9	4733.5	4736.1	4738.6	4743.7	4743.7	4751.4	4741.2	4746.3
12.5°	4687.8	4697.9	4710.7	4715.7	4725.9	4725.9	4731.0	4733.5	4738.6	4736.1	4743.7
15°	4649.6	4662.3	4677.6	4690.3	4703.0	4710.7	4718.3	4720.8	4728.5	4720.8	4723.4
17.5°	4603.8	4619.0	4641.9	4657.2	4677.6	4685.2	4695.4	4700.5	4708.1	4703.0	4705.6
20°	4540.1	4558.0	4583.4	4606.3	4619.0	4636.8	4649.6	4657.2	4662.3	4657.2	4659.7
22.5°	4451.1	4476.5	4509.6	4527.4	4552.9	4568.1	4570.7	4588.5	4601.2	4588.5	4593.6
25°	4346.7	4372.2	4397.6	4435.8	4458.7	4476.5	4494.4	4496.9	4509.6	4507.1	4504.5
27.5°	4173.7	4206.8	4250.0	4280.6	4311.1	4339.1	4359.5	4364.5	4377.3	4372.2	4374.7
30°	3937.0	3972.7	4013.4	4061.7	4105.0	4132.9	4158.4	4176.2	4188.9	4181.3	4178.8
32.5°	3601.1	3636.7	3680.0	3728.3	3779.2	3819.9	3850.5	3873.4	3888.6	3883.5	3870.8
35°	3216.8	3227.0	3255.0	3293.2	3336.4	3379.7	3407.7	3433.1	3450.9	3456.0	3456.0
37.5°	2822.3	2789.3	2768.9	2768.9	2794.3	2812.1	2837.6	2852.8	2880.9	2891.0	2898.7
40°	2440.6	2364.2	2293.0	2239.5	2203.9	2201.4	2201.4	2209.0	2234.4	2267.5	2298.1
42.5°	2099.6	1977.4	1868.0	1768.7	1697.5	1656.8	1639.0	1641.5	1661.9	1692.4	1743.3
45°	1827.3	1674.6	1537.1	1417.5	1320.8	1257.2	1226.7	1224.1	1239.4	1275.0	1331.0
47.5°	1616.0	1453.1	1297.9	1160.5	1056.2	987.4	951.8	941.6	951.8	984.9	1051.1
50°	1440.4	1272.5	1112.1	969.6	857.6	786.4	753.3	740.6	753.3	781.3	847.4
52.5°	1277.5	1104.5	954.4	816.9	697.3	636.2	600.6	592.9	600.6	633.7	687.2
55°	1089.2	941.6	794.0	656.6	552.3	491.2	463.2	455.6	463.2	493.7	549.7
57.5°	903.5	776.2	646.4	521.7	432.7	379.2	353.8	343.5	361.4	381.7	447.9
60°	730.4	628.6	519.1	409.7	335.9	287.6	267.2	264.6	269.8	295.2	341.0
62.5°	572.6	488.6	402.1	313.0	251.9	231.6	206.1	203.6	208.7	223.9	259.6
65°	412.3	358.9	292.7	229.0	180.7	152.7	142.5	145.1	150.1	160.3	193.4
67.5°	287.6	249.4	203.6	160.3	124.7	112.0	101.8	99.3	101.8	119.6	137.4
70°	193.4	170.5	137.4	122.2	86.6	68.7	71.2	63.6	73.8	73.8	89.0
72.5°	127.2	112.0	91.6	71.2	61.1	48.4	48.4	45.8	50.9	53.4	66.2
75°	66.2	50.9	50.9	35.6	25.5	12.7	22.9	20.4	17.8	20.4	25.5
77.5°	45.8	38.2	35.6	28.0	25.5	20.4	20.4	20.4	20.4	22.9	25.5
80°	28.0	28.0	20.4	17.8	15.3	12.7	15.3	15.3	15.3	15.3	17.8
82.5°	17.8	15.3	15.3	12.7	12.7	10.2	10.2	10.2	10.2	10.2	15.3
85°	15.3	10.2	10.2	7.7	10.2	17.8	7.7	10.2	10.2	10.2	7.7
87.5°	5.1	7.7	7.7	7.7	5.1	2.6	5.1	7.7	7.7	12.7	10.2
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°	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2	4741.2
2.5°	4748.8	4751.4	4751.4	4748.8	4748.8	4743.7	4753.9	4746.3	4748.8	4759.0	4751.4
5°	4753.9	4756.4	4756.4	4753.9	4753.9	4753.9	4756.4	4756.4	4753.9	4751.4	4756.4
7.5°	4764.1	4761.6	4761.6	4756.4	4756.4	4751.4	4756.4	4748.8	4753.9	4748.8	4756.4
10°	4751.4	4753.9	4751.4	4748.8	4748.8	4746.3	4746.3	4738.6	4741.2	4733.5	4738.6
12.5°	4743.7	4741.2	4741.2	4736.1	4731.0	4725.9	4723.4	4715.7	4715.7	4697.9	4705.6
15°	4723.4	4725.9	4718.3	4708.1	4703.0	4690.3	4685.2	4675.0	4664.8	4652.1	4654.7
17.5°	4705.6	4697.9	4687.8	4677.6	4657.2	4647.0	4636.8	4621.6	4616.5	4601.2	4596.2
20°	4652.1	4647.0	4634.3	4616.5	4603.8	4580.8	4570.7	4555.4	4542.7	4527.4	4519.8
22.5°	4583.4	4578.3	4563.0	4545.2	4524.9	4514.7	4504.5	4476.5	4463.8	4448.5	4446.0
25°	4496.9	4489.2	4474.0	4453.6	4443.4	4415.5	4405.2	4384.9	4379.8	4364.5	4362.0
27.5°	4364.5	4354.4	4336.6	4311.1	4293.3	4275.5	4265.3	4250.0	4245.0	4229.6	4227.1
30°	4166.1	4153.3	4117.7	4107.5	4077.0	4059.1	4059.1	4038.8	4041.3	4031.2	4031.2
32.5°	3853.0	3832.7	3804.6	3784.3	3763.9	3753.8	3753.8	3746.1	3751.2	3751.2	3756.3
35°	3438.2	3410.2	3394.9	3382.2	3382.2	3392.4	3422.9	3430.6	3445.8	3458.5	3468.8
37.5°	2906.3	2903.8	2921.6	2936.8	2975.0	3018.3	3071.7	3117.6	3160.8	3191.3	3221.9
40°	2331.1	2394.8	2445.7	2517.0	2575.4	2659.4	2756.1	2835.0	2908.8	2962.3	3018.3
42.5°	1819.6	1901.0	2008.0	2112.3	2216.6	2331.1	2458.4	2567.8	2664.5	2738.3	2796.9
45°	1417.5	1529.5	1659.3	1791.6	1926.5	2069.1	2201.4	2313.3	2415.1	2491.5	2550.0
47.5°	1142.7	1264.8	1412.4	1557.5	1710.2	1860.3	2008.0	2104.7	2188.6	2249.7	2303.2
50°	944.1	1074.0	1229.2	1394.6	1547.3	1697.5	1824.7	1918.9	1987.6	2041.0	2074.1
52.5°	788.9	926.3	1091.8	1257.2	1409.9	1547.3	1661.9	1733.1	1789.1	1827.3	1857.8
55°	651.5	783.9	939.1	1094.3	1244.5	1374.2	1468.4	1521.9	1565.1	1588.0	1605.8
57.5°	531.9	654.0	796.6	939.1	1068.9	1175.8	1249.6	1303.0	1323.4	1341.2	1338.6
60°	417.4	531.9	661.7	783.9	895.8	982.3	1035.8	1066.3	1081.6	1089.2	1084.1
62.5°	328.3	432.7	531.9	638.8	720.2	794.0	844.9	844.9	852.5	855.1	862.8
65°	244.3	323.2	409.7	488.6	554.8	603.1	631.2	638.8	649.0	646.4	641.3
67.5°	180.7	239.2	302.8	361.4	407.2	437.7	458.1	475.9	473.4	468.3	465.7
70°	124.7	162.9	218.9	254.5	287.6	318.1	323.2	325.7	328.3	330.8	325.7
72.5°	86.6	114.5	145.1	175.6	196.0	208.7	221.4	223.9	223.9	223.9	221.4
75°	43.3	58.5	86.6	99.3	117.1	122.2	132.3	132.3	140.0	129.8	127.2
77.5°	38.2	45.8	61.1	71.2	78.9	86.6	89.0	96.7	94.2	89.0	91.6
80°	22.9	28.0	38.2	43.3	53.4	56.0	58.5	61.1	58.5	61.1	61.1
82.5°	17.8	20.4	25.5	25.5	33.1	33.1	35.6	35.6	38.2	38.2	38.2
85°	10.2	17.8	15.3	30.5	20.4	20.4	25.5	30.5	25.5	25.5	30.5
87.5°	10.2	10.2	7.7	10.2	10.2	10.2	12.7	15.3	15.3	17.8	15.3
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: P249310

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4741.2	4741.2	4741.2	4741.2
2.5°	4748.8	4753.9	4746.3	4743.7
5°	4756.4	4756.4	4751.4	4751.4
7.5°	4756.4	4756.4	4748.8	4743.7
10°	4736.1	4736.1	4728.5	4723.4
12.5°	4697.9	4697.9	4695.4	4687.8
15°	4649.6	4649.6	4639.4	4631.8
17.5°	4583.4	4588.5	4575.8	4575.8
20°	4512.2	4509.6	4499.5	4494.4
22.5°	4438.4	4433.3	4430.7	4415.5
25°	4359.5	4354.4	4346.7	4339.1
27.5°	4224.6	4222.0	4214.4	4204.2
30°	4018.4	4015.9	4005.7	4005.7
32.5°	3751.2	3748.7	3738.5	3741.1
35°	3473.8	3484.0	3478.9	3468.8
37.5°	3242.2	3249.9	3255.0	3249.9
40°	3048.8	3071.7	3074.3	3079.4
42.5°	2842.7	2873.2	2883.4	2888.5
45°	2595.8	2623.8	2646.7	2641.6
47.5°	2343.9	2364.2	2384.6	2369.3
50°	2102.1	2114.8	2122.5	2122.5
52.5°	1873.1	1873.1	1870.5	1873.1
55°	1610.9	1610.9	1600.8	1605.8
57.5°	1336.1	1341.2	1333.5	1320.8
60°	1081.6	1068.9	1063.8	1056.2
62.5°	842.4	842.4	824.6	847.4
65°	631.2	623.5	615.9	613.3
67.5°	458.1	455.6	447.9	445.4
70°	323.2	313.0	310.5	305.4
72.5°	216.3	216.3	211.2	211.2
75°	132.3	119.6	117.1	119.6
77.5°	91.6	89.0	89.0	86.6
80°	61.1	58.5	63.6	56.0
82.5°	38.2	40.7	38.2	40.7
85°	25.5	30.5	28.0	28.0
87.5°	15.3	15.3	15.3	15.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)