

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: P249526

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249526
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 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9089.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

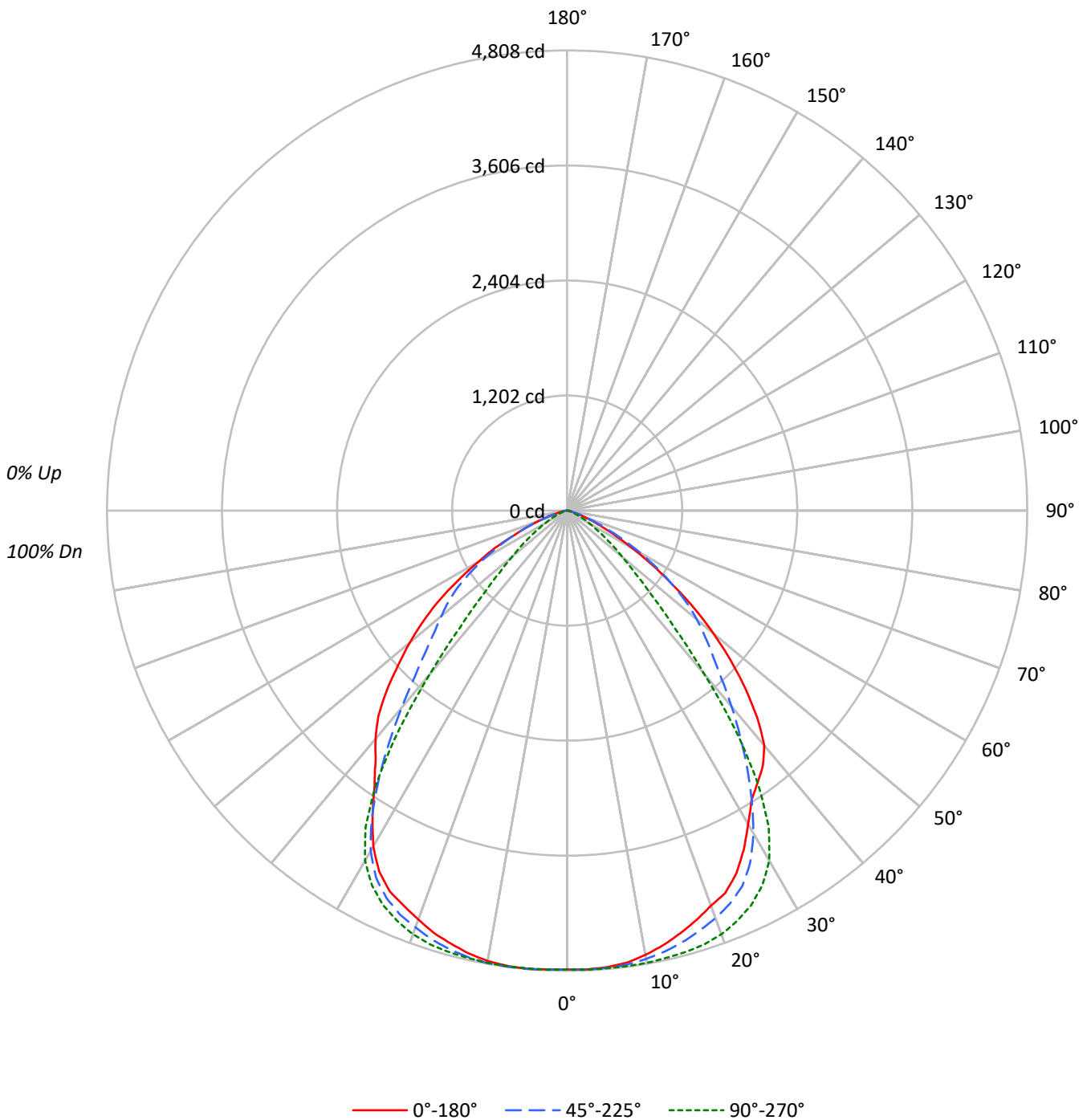
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	147876	147876	147876
5°	148202	148601	148762
10°	147580	150238	149593
15°	145944	152434	149561
20°	144191	154580	149175
25°	142319	154755	149325
30°	134643	150406	144264
35°	130622	130716	132075
40°	129002	89939	125379
45°	114949	53992	116519
50°	95581	35936	102988
55°	71686	24773	87319
60°	48580	16510	65885
65°	29303	10711	45260
70°	16247	5806	27850
75°	7363	2454	14416
80°	6393	2735	10051
85°	7288	3644	10013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	457.7	5.0
10°-20°	1329.1	14.6
20°-30°	2017.4	22.2
30°-40°	2118.8	23.3
40°-50°	1588.6	17.5
50°-60°	1019.3	11.2
60°-70°	436.0	4.8
70°-80°	103.0	1.1
80°-90°	19.2	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°	3804.2	41.9
0°-40°	5923.0	65.2
0°-60°	8530.8	93.9
0°-90°	9089.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9089.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4796	4796	4796	4796	4796	
5°	4788	4796	4801	4808	4806	455
15°	4572	4667	4775	4744	4685	1289
25°	4183	4330	4548	4466	4389	1911
35°	3470	3277	3472	3431	3508	2178
45°	2636	2154	1238	2093	2672	2019
55°	1333	1333	461	1390	1624	1209
65°	402	474	147	610	620	429
75°	62	72	21	124	121	90
85°	21	13	10	21	28	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°	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5
2.5°	4798.1	4803.3	4800.7	4800.7	4798.1	4800.7	4800.7	4805.9	4805.9	4800.7	4798.1
5°	4787.8	4793.0	4793.0	4787.8	4787.8	4800.7	4793.0	4798.1	4798.1	4795.5	4795.5
7.5°	4764.7	4764.7	4774.9	4767.3	4767.3	4774.9	4772.4	4777.5	4782.7	4785.3	4785.3
10°	4713.2	4718.3	4720.9	4720.9	4723.5	4731.2	4736.3	4746.7	4751.8	4756.9	4759.5
12.5°	4648.8	4656.5	4659.1	4656.5	4664.3	4674.5	4687.5	4700.3	4708.0	4718.3	4726.1
15°	4571.6	4571.6	4576.7	4584.5	4589.6	4605.1	4617.9	4633.4	4653.9	4666.9	4679.7
17.5°	4486.7	4491.8	4499.5	4499.5	4509.8	4535.5	4543.3	4566.5	4589.6	4602.5	4628.2
20°	4394.0	4399.1	4406.9	4412.0	4424.9	4445.5	4460.9	4481.5	4507.3	4530.4	4556.1
22.5°	4321.9	4311.6	4316.7	4321.9	4334.8	4352.8	4370.8	4396.5	4422.3	4445.5	4471.2
25°	4182.9	4185.5	4193.2	4198.3	4213.8	4229.2	4249.8	4280.7	4303.9	4329.6	4357.9
27.5°	3995.0	3997.6	4010.4	4010.4	4023.3	4049.0	4061.9	4087.7	4118.6	4144.3	4177.8
30°	3781.4	3786.5	3786.5	3796.8	3804.5	3817.4	3830.2	3856.0	3871.4	3894.6	3941.0
32.5°	3585.7	3590.8	3588.3	3585.7	3578.0	3575.4	3572.8	3578.0	3583.2	3590.8	3608.9
35°	3469.9	3457.0	3446.7	3428.7	3408.1	3382.4	3359.2	3328.3	3300.0	3276.8	3251.1
37.5°	3359.2	3356.6	3341.2	3315.4	3274.2	3227.9	3173.9	3106.9	3040.0	2967.9	2898.5
40°	3204.7	3197.0	3184.2	3148.1	3101.8	3045.1	2973.1	2890.7	2782.6	2671.9	2558.7
42.5°	2942.2	2944.8	2929.3	2901.0	2857.3	2803.2	2728.5	2638.5	2522.6	2391.3	2244.6
45°	2635.9	2635.9	2630.7	2607.5	2576.7	2532.9	2476.3	2401.6	2288.4	2154.5	1997.5
47.5°	2316.7	2319.3	2311.5	2306.4	2293.5	2265.2	2224.0	2167.4	2087.6	1958.9	1801.8
50°	1992.4	1992.4	2005.2	2002.6	2002.6	1992.4	1974.4	1940.9	1871.4	1768.4	1621.7
52.5°	1668.0	1673.2	1680.9	1691.2	1704.0	1724.6	1704.0	1688.6	1644.8	1565.0	1438.9
55°	1333.4	1338.5	1351.4	1369.4	1384.9	1405.5	1410.6	1410.6	1387.4	1333.4	1238.1
57.5°	1047.7	1039.9	1050.3	1065.7	1086.3	1106.9	1122.3	1140.3	1137.7	1101.7	1024.5
60°	787.7	790.3	797.9	813.4	828.9	846.9	867.5	882.9	890.7	872.6	823.7
62.5°	574.0	574.0	584.3	599.7	607.5	633.2	646.1	653.8	661.5	658.9	628.1
65°	401.6	406.7	411.9	419.6	427.3	442.7	450.5	465.9	471.1	473.6	450.5
67.5°	283.2	275.4	280.6	285.7	293.4	303.8	319.2	319.2	326.9	326.9	311.5
70°	180.2	180.2	182.8	190.5	195.6	198.2	203.4	208.5	216.2	213.6	213.6
72.5°	121.0	118.4	121.0	123.6	126.2	133.8	133.8	136.4	141.6	144.2	133.8
75°	61.8	64.4	69.5	67.0	74.6	69.5	72.1	79.8	77.2	72.1	72.1
77.5°	51.5	51.5	51.5	48.9	54.0	54.0	51.5	56.6	54.0	54.0	51.5
80°	36.0	38.6	36.0	33.4	36.0	33.4	33.4	33.4	33.4	33.4	30.9
82.5°	28.3	23.2	25.8	23.2	25.8	25.8	23.2	20.6	20.6	23.2	20.6
85°	20.6	15.4	18.0	18.0	15.4	15.4	15.4	15.4	15.4	12.8	12.8
87.5°	12.8	7.7	7.7	7.7	10.3	10.3	10.3	7.7	10.3	10.3	5.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5
2.5°	4803.3	4800.7	4805.9	4803.3	4803.3	4800.7	4803.3	4800.7	4805.9	4795.5	4798.1
5°	4803.3	4798.1	4800.7	4803.3	4805.9	4800.7	4800.7	4800.7	4805.9	4800.7	4803.3
7.5°	4793.0	4790.4	4798.1	4803.3	4800.7	4798.1	4803.3	4800.7	4805.9	4803.3	4808.4
10°	4772.4	4774.9	4780.1	4787.8	4790.4	4793.0	4798.1	4798.1	4805.9	4795.5	4800.7
12.5°	4741.5	4751.8	4764.7	4769.8	4780.1	4780.1	4785.3	4787.8	4793.0	4790.4	4798.1
15°	4702.9	4715.7	4731.2	4744.1	4756.9	4764.7	4772.4	4774.9	4782.7	4774.9	4777.5
17.5°	4656.5	4672.0	4695.1	4710.6	4731.2	4738.9	4749.2	4754.3	4762.1	4756.9	4759.5
20°	4592.2	4610.2	4635.9	4659.1	4672.0	4690.0	4702.9	4710.6	4715.7	4710.6	4713.2
22.5°	4502.1	4527.9	4561.3	4579.3	4605.1	4620.5	4623.1	4641.1	4653.9	4641.1	4646.3
25°	4396.5	4422.3	4448.1	4486.7	4509.8	4527.9	4545.9	4548.4	4561.3	4558.7	4556.1
27.5°	4221.5	4255.0	4298.7	4329.6	4360.5	4388.8	4409.4	4414.5	4427.5	4422.3	4424.9
30°	3982.1	4018.2	4059.4	4108.3	4152.0	4180.3	4206.1	4224.1	4236.9	4229.2	4226.7
32.5°	3642.4	3678.4	3722.2	3771.0	3822.6	3863.7	3894.6	3917.8	3933.2	3928.1	3915.2
35°	3253.7	3264.0	3292.3	3330.9	3374.6	3418.4	3446.7	3472.4	3490.4	3495.6	3495.6
37.5°	2854.7	2821.2	2800.6	2800.6	2826.3	2844.4	2870.1	2885.5	2913.9	2924.2	2931.9
40°	2468.5	2391.3	2319.3	2265.2	2229.2	2226.6	2226.6	2234.3	2260.1	2293.5	2324.4
42.5°	2123.6	2000.1	1889.4	1789.0	1716.9	1675.8	1657.7	1660.3	1680.9	1711.8	1763.2
45°	1848.2	1693.8	1554.8	1433.8	1336.0	1271.6	1240.7	1238.1	1253.6	1289.6	1346.3
47.5°	1634.6	1469.8	1312.8	1173.8	1068.3	998.7	962.7	952.4	962.7	996.2	1063.1
50°	1456.9	1287.1	1124.9	980.7	867.5	795.4	761.9	749.1	761.9	790.3	857.1
52.5°	1292.2	1117.1	965.3	826.3	705.3	643.5	607.5	599.7	607.5	640.9	695.0
55°	1101.7	952.4	803.1	664.1	558.6	496.8	468.5	460.8	468.5	499.4	556.0
57.5°	913.8	785.1	653.8	527.7	437.6	383.5	357.8	347.5	365.5	386.1	453.0
60°	738.7	635.8	525.1	414.4	339.8	290.9	270.3	267.7	272.8	298.6	344.9
62.5°	579.2	494.2	406.7	316.6	254.8	234.2	208.5	206.0	211.1	226.5	262.6
65°	417.0	363.0	296.0	231.7	182.8	154.4	144.2	146.8	151.9	162.2	195.6
67.5°	290.9	252.3	206.0	162.2	126.2	113.2	103.0	100.4	103.0	121.0	139.0
70°	195.6	172.5	139.0	123.6	87.5	69.5	72.1	64.4	74.6	74.6	90.1
72.5°	128.7	113.2	92.7	72.1	61.8	48.9	48.9	46.4	51.5	54.0	67.0
75°	67.0	51.5	51.5	36.0	25.8	12.8	23.2	20.6	18.0	20.6	25.8
77.5°	46.4	38.6	36.0	28.3	25.8	20.6	20.6	20.6	20.6	23.2	25.8
80°	28.3	28.3	20.6	18.0	15.4	12.8	15.4	15.4	15.4	15.4	18.0
82.5°	18.0	15.4	15.4	12.8	12.8	10.3	10.3	10.3	10.3	10.3	15.4
85°	15.4	10.3	10.3	7.7	10.3	18.0	7.7	10.3	10.3	10.3	7.7
87.5°	5.2	7.7	7.7	7.7	5.2	2.6	5.2	7.7	7.7	12.8	10.3
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5	4795.5
2.5°	4803.3	4805.9	4805.9	4803.3	4803.3	4798.1	4808.4	4800.7	4803.3	4813.5	4805.9
5°	4808.4	4811.0	4811.0	4808.4	4808.4	4808.4	4811.0	4811.0	4808.4	4805.9	4811.0
7.5°	4818.7	4816.1	4816.1	4811.0	4811.0	4805.9	4811.0	4803.3	4808.4	4803.3	4811.0
10°	4805.9	4808.4	4805.9	4803.3	4803.3	4800.7	4800.7	4793.0	4795.5	4787.8	4793.0
12.5°	4798.1	4795.5	4795.5	4790.4	4785.3	4780.1	4777.5	4769.8	4769.8	4751.8	4759.5
15°	4777.5	4780.1	4772.4	4762.1	4756.9	4744.1	4738.9	4728.6	4718.3	4705.5	4708.0
17.5°	4759.5	4751.8	4741.5	4731.2	4710.6	4700.3	4690.0	4674.5	4669.4	4653.9	4648.8
20°	4705.5	4700.3	4687.5	4669.4	4656.5	4633.4	4623.1	4607.7	4594.7	4579.3	4571.6
22.5°	4635.9	4630.8	4615.3	4597.3	4576.7	4566.5	4556.1	4527.9	4514.9	4499.5	4496.9
25°	4548.4	4540.7	4525.3	4504.7	4494.3	4466.1	4455.7	4435.1	4430.0	4414.5	4412.0
27.5°	4414.5	4404.3	4386.3	4360.5	4342.5	4324.5	4314.2	4298.7	4293.6	4278.1	4275.6
30°	4213.8	4200.9	4164.9	4154.6	4123.7	4105.7	4105.7	4085.1	4087.7	4077.4	4077.4
32.5°	3897.2	3876.6	3848.3	3827.7	3807.1	3796.8	3796.8	3789.1	3794.2	3794.2	3799.4
35°	3477.6	3449.3	3433.8	3421.0	3421.0	3431.2	3462.2	3469.9	3485.3	3498.2	3508.5
37.5°	2939.6	2937.1	2955.1	2970.5	3009.1	3052.9	3106.9	3153.3	3197.0	3227.9	3258.8
40°	2357.9	2422.2	2473.7	2545.8	2605.0	2689.9	2787.7	2867.5	2942.2	2996.3	3052.9
42.5°	1840.5	1922.8	2031.0	2136.5	2242.0	2357.9	2486.6	2597.3	2695.1	2769.7	2828.9
45°	1433.8	1547.0	1678.3	1812.2	1948.6	2092.8	2226.6	2339.9	2442.8	2520.1	2579.3
47.5°	1155.8	1279.3	1428.6	1575.4	1729.8	1881.6	2031.0	2128.8	2213.7	2275.5	2329.6
50°	955.0	1086.3	1243.3	1410.6	1565.0	1716.9	1845.6	1940.9	2010.4	2064.4	2097.9
52.5°	797.9	937.0	1104.3	1271.6	1426.0	1565.0	1680.9	1753.0	1809.6	1848.2	1879.1
55°	658.9	792.8	949.9	1106.9	1258.7	1390.0	1485.2	1539.3	1583.0	1606.2	1624.2
57.5°	538.0	661.5	805.7	949.9	1081.1	1189.3	1263.9	1317.9	1338.5	1356.5	1354.0
60°	422.2	538.0	669.3	792.8	906.1	993.6	1047.7	1078.5	1094.0	1101.7	1096.6
62.5°	332.1	437.6	538.0	646.1	728.5	803.1	854.6	854.6	862.3	864.9	872.6
65°	247.1	326.9	414.4	494.2	561.1	610.1	638.4	646.1	656.4	653.8	648.7
67.5°	182.8	242.0	306.3	365.5	411.9	442.7	463.3	481.4	478.8	473.6	471.1
70°	126.2	164.8	221.4	257.4	290.9	321.8	326.9	329.5	332.1	334.6	329.5
72.5°	87.5	115.8	146.8	177.6	198.2	211.1	224.0	226.5	226.5	226.5	224.0
75°	43.8	59.2	87.5	100.4	118.4	123.6	133.8	133.8	141.6	131.3	128.7
77.5°	38.6	46.4	61.8	72.1	79.8	87.5	90.1	97.8	95.2	90.1	92.7
80°	23.2	28.3	38.6	43.8	54.0	56.6	59.2	61.8	59.2	61.8	61.8
82.5°	18.0	20.6	25.8	25.8	33.4	33.4	36.0	36.0	38.6	38.6	38.6
85°	10.3	18.0	15.4	30.9	20.6	20.6	25.8	30.9	25.8	25.8	30.9
87.5°	10.3	10.3	7.7	10.3	10.3	10.3	12.8	15.4	15.4	18.0	15.4
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: P249526

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4795.5	4795.5	4795.5	4795.5
2.5°	4803.3	4808.4	4800.7	4798.1
5°	4811.0	4811.0	4805.9	4805.9
7.5°	4811.0	4811.0	4803.3	4798.1
10°	4790.4	4790.4	4782.7	4777.5
12.5°	4751.8	4751.8	4749.2	4741.5
15°	4702.9	4702.9	4692.6	4684.9
17.5°	4635.9	4641.1	4628.2	4628.2
20°	4563.9	4561.3	4551.0	4545.9
22.5°	4489.2	4484.1	4481.5	4466.1
25°	4409.4	4404.3	4396.5	4388.8
27.5°	4273.0	4270.4	4262.7	4252.4
30°	4064.5	4061.9	4051.6	4051.6
32.5°	3794.2	3791.6	3781.4	3783.9
35°	3513.6	3524.0	3518.8	3508.5
37.5°	3279.4	3287.1	3292.3	3287.1
40°	3083.8	3106.9	3109.5	3114.7
42.5°	2875.3	2906.1	2916.5	2921.6
45°	2625.6	2653.9	2677.1	2671.9
47.5°	2370.7	2391.3	2411.9	2396.5
50°	2126.2	2139.1	2146.8	2146.8
52.5°	1894.6	1894.6	1892.0	1894.6
55°	1629.4	1629.4	1619.1	1624.2
57.5°	1351.4	1356.5	1348.8	1336.0
60°	1094.0	1081.1	1076.0	1068.3
62.5°	852.0	852.0	834.0	857.1
65°	638.4	630.7	622.9	620.3
67.5°	463.3	460.8	453.0	450.5
70°	326.9	316.6	314.0	308.9
72.5°	218.8	218.8	213.6	213.6
75°	133.8	121.0	118.4	121.0
77.5°	92.7	90.1	90.1	87.5
80°	61.8	59.2	64.4	56.6
82.5°	38.6	41.2	38.6	41.2
85°	25.8	30.9	28.3	28.3
87.5°	15.4	15.4	15.4	15.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)