

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: P249094

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249094
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 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9193.0 lumens
Efficiency: N/A
Efficacy: 106.8 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

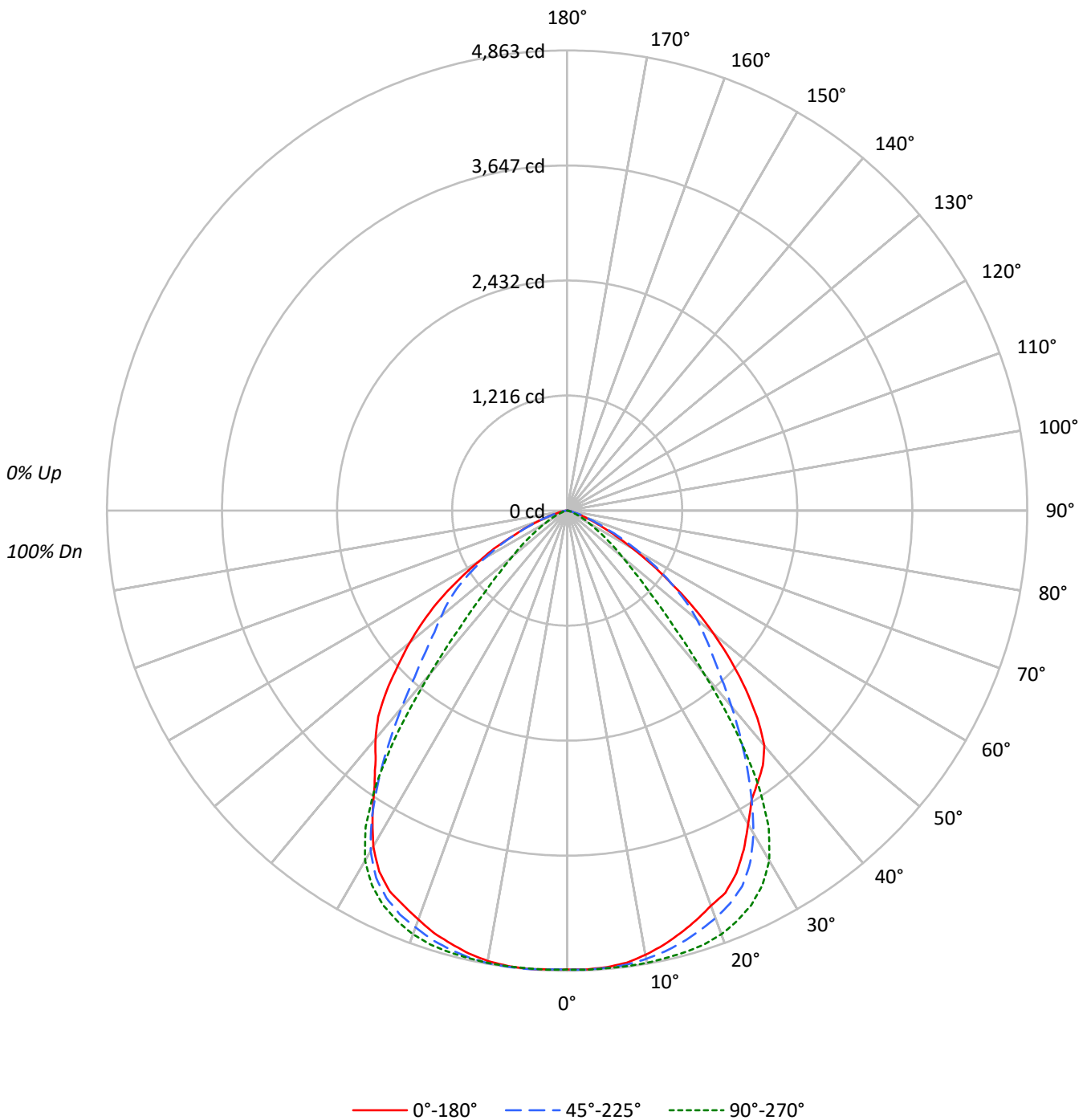
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	149568	149568	149568
5°	149898	150301	150465
10°	149268	151957	151306
15°	147614	154181	151272
20°	145841	156349	150882
25°	143949	156528	151036
30°	136181	152126	145916
35°	132116	132214	133588
40°	130479	90970	126812
45°	116262	54612	117854
50°	96675	36344	104168
55°	72503	25058	88319
60°	49135	16695	66637
65°	29638	10828	45778
70°	16436	5869	28166
75°	7446	2478	14583
80°	6464	2770	10175
85°	7359	3680	10154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.9	5.0
10°-20°	1344.3	14.6
20°-30°	2040.4	22.2
30°-40°	2143.1	23.3
40°-50°	1606.7	17.5
50°-60°	1030.9	11.2
60°-70°	441.0	4.8
70°-80°	104.2	1.1
80°-90°	19.4	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°	3847.7	41.9
0°-40°	5990.8	65.2
0°-60°	8628.4	93.9
0°-90°	9193.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9193.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4850	4850	4850	4850	4850	
5°	4843	4850	4856	4863	4861	460
15°	4624	4720	4830	4798	4738	1304
25°	4231	4379	4600	4517	4439	1933
35°	3510	3314	3512	3470	3549	2203
45°	2666	2179	1252	2117	2702	2042
55°	1349	1349	466	1406	1643	1223
65°	406	479	148	617	627	434
75°	62	73	21	125	122	91
85°	21	13	10	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°	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4
2.5°	4853.0	4858.2	4855.6	4855.6	4853.0	4855.6	4855.6	4860.9	4860.9	4855.6	4853.0
5°	4842.6	4847.8	4847.8	4842.6	4842.6	4855.6	4847.8	4853.0	4853.0	4850.4	4850.4
7.5°	4819.2	4819.2	4829.6	4821.8	4821.8	4829.6	4827.0	4832.2	4837.4	4840.0	4840.0
10°	4767.1	4772.3	4774.9	4774.9	4777.5	4785.3	4790.5	4801.0	4806.1	4811.4	4814.0
12.5°	4702.0	4709.8	4712.4	4709.8	4717.6	4728.0	4741.1	4754.1	4761.9	4772.3	4780.1
15°	4623.9	4623.9	4629.1	4636.9	4642.2	4657.8	4670.8	4686.4	4707.2	4720.3	4733.3
17.5°	4538.0	4543.2	4551.0	4551.0	4561.4	4587.4	4595.3	4618.7	4642.2	4655.2	4681.2
20°	4444.3	4449.5	4457.3	4462.5	4475.5	4496.3	4511.9	4532.8	4558.8	4582.3	4608.3
22.5°	4371.3	4361.0	4366.1	4371.3	4384.4	4402.6	4420.8	4446.8	4472.9	4496.3	4522.4
25°	4230.8	4233.4	4241.2	4246.4	4262.0	4277.6	4298.5	4329.7	4353.1	4379.2	4407.8
27.5°	4040.7	4043.3	4056.3	4056.3	4069.3	4095.4	4108.4	4134.4	4165.7	4191.7	4225.6
30°	3824.6	3829.8	3829.8	3840.2	3848.0	3861.1	3874.1	3900.1	3915.7	3939.2	3986.1
32.5°	3626.8	3631.9	3629.3	3626.8	3618.9	3616.3	3613.7	3618.9	3624.2	3631.9	3650.1
35°	3509.6	3496.6	3486.2	3468.0	3447.1	3421.1	3397.6	3366.4	3337.7	3314.3	3288.3
37.5°	3397.6	3395.0	3379.4	3353.3	3311.7	3264.9	3210.2	3142.5	3074.8	3001.9	2931.6
40°	3241.4	3233.6	3220.6	3184.1	3137.3	3080.0	3007.1	2923.8	2814.4	2702.5	2587.9
42.5°	2975.8	2978.4	2962.8	2934.2	2890.0	2835.2	2759.7	2668.7	2551.5	2418.7	2270.3
45°	2666.0	2666.0	2660.8	2637.4	2606.2	2561.9	2504.6	2429.1	2314.6	2179.1	2020.3
47.5°	2343.2	2345.8	2338.0	2332.8	2319.7	2291.1	2249.5	2192.2	2111.5	1981.3	1822.5
50°	2015.2	2015.2	2028.2	2025.6	2025.6	2015.2	1996.9	1963.1	1892.8	1788.6	1640.3
52.5°	1687.1	1692.3	1700.1	1710.5	1723.5	1744.4	1723.5	1707.9	1663.6	1582.9	1455.4
55°	1348.6	1353.9	1366.8	1385.1	1400.7	1421.6	1426.7	1426.7	1403.3	1348.6	1252.3
57.5°	1059.7	1051.8	1062.3	1077.9	1098.7	1119.5	1135.2	1153.4	1150.8	1114.3	1036.2
60°	796.7	799.3	807.1	822.7	838.4	856.6	877.4	893.0	900.8	882.6	833.1
62.5°	580.6	580.6	591.0	606.6	614.4	640.5	653.5	661.3	669.1	666.5	635.3
65°	406.2	411.3	416.6	424.4	432.2	447.8	455.6	471.2	476.4	479.1	455.6
67.5°	286.4	278.6	283.8	289.0	296.8	307.2	322.9	322.9	330.6	330.6	315.0
70°	182.3	182.3	184.9	192.6	197.9	200.5	205.7	210.9	218.7	216.1	216.1
72.5°	122.4	119.8	122.4	125.0	127.6	135.4	135.4	138.0	143.2	145.8	135.4
75°	62.5	65.1	70.3	67.7	75.5	70.3	72.9	80.7	78.1	72.9	72.9
77.5°	52.0	52.0	52.0	49.5	54.7	54.7	52.0	57.3	54.7	54.7	52.0
80°	36.4	39.1	36.4	33.8	36.4	33.8	33.8	33.8	33.8	33.8	31.2
82.5°	28.7	23.4	26.1	23.4	26.1	26.1	23.4	20.8	20.8	23.4	20.8
85°	20.8	15.6	18.2	18.2	15.6	15.6	15.6	15.6	15.6	13.0	13.0
87.5°	13.0	7.8	7.8	7.8	10.4	10.4	10.4	7.8	10.4	10.4	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



TEST NUMBER: P249094

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0H

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4
2.5°	4858.2	4855.6	4860.9	4858.2	4858.2	4855.6	4858.2	4855.6	4860.9	4850.4	4853.0
5°	4858.2	4853.0	4855.6	4858.2	4860.9	4855.6	4855.6	4855.6	4860.9	4855.6	4858.2
7.5°	4847.8	4845.2	4853.0	4858.2	4855.6	4853.0	4858.2	4855.6	4860.9	4858.2	4863.4
10°	4827.0	4829.6	4834.8	4842.6	4845.2	4847.8	4853.0	4853.0	4860.9	4850.4	4855.6
12.5°	4795.7	4806.1	4819.2	4824.4	4834.8	4834.8	4840.0	4842.6	4847.8	4845.2	4853.0
15°	4756.7	4769.7	4785.3	4798.4	4811.4	4819.2	4827.0	4829.6	4837.4	4829.6	4832.2
17.5°	4709.8	4725.4	4748.9	4764.5	4785.3	4793.1	4803.5	4808.7	4816.6	4811.4	4814.0
20°	4644.7	4663.0	4689.0	4712.4	4725.4	4743.6	4756.7	4764.5	4769.7	4764.5	4767.1
22.5°	4553.6	4579.7	4613.5	4631.7	4657.8	4673.4	4676.0	4694.2	4707.2	4694.2	4699.4
25°	4446.8	4472.9	4498.9	4538.0	4561.4	4579.7	4597.9	4600.5	4613.5	4610.9	4608.3
27.5°	4269.8	4303.7	4347.9	4379.2	4410.4	4439.1	4459.9	4465.1	4478.1	4472.9	4475.5
30°	4027.7	4064.2	4105.8	4155.3	4199.5	4228.1	4254.2	4272.4	4285.4	4277.6	4275.0
32.5°	3684.0	3720.5	3764.8	3814.2	3866.3	3907.9	3939.2	3962.6	3978.2	3973.0	3960.0
35°	3290.9	3301.3	3330.0	3369.0	3413.2	3457.5	3486.2	3512.2	3530.4	3535.6	3535.6
37.5°	2887.3	2853.5	2832.7	2832.7	2858.7	2876.9	2903.0	2918.6	2947.2	2957.6	2965.5
40°	2496.8	2418.7	2345.8	2291.1	2254.7	2252.1	2252.1	2259.9	2285.9	2319.7	2351.0
42.5°	2147.9	2022.9	1911.0	1809.5	1736.6	1694.9	1676.7	1679.3	1700.1	1731.4	1783.4
45°	1869.3	1713.1	1572.5	1450.2	1351.2	1286.1	1254.9	1252.3	1267.9	1304.4	1361.7
47.5°	1653.3	1486.6	1327.8	1187.2	1080.5	1010.2	973.7	963.3	973.7	1007.6	1075.3
50°	1473.6	1301.8	1137.8	991.9	877.4	804.5	770.6	757.6	770.6	799.3	867.0
52.5°	1307.0	1129.9	976.3	835.7	713.4	650.9	614.4	606.6	614.4	648.3	703.0
55°	1114.3	963.3	812.3	671.7	565.0	502.5	473.8	466.1	473.8	505.1	562.4
57.5°	924.3	794.1	661.3	533.7	442.6	387.9	361.9	351.5	369.7	390.5	458.2
60°	747.2	643.1	531.1	419.2	343.7	294.2	273.4	270.7	276.0	302.0	348.8
62.5°	585.8	499.9	411.3	320.2	257.7	236.9	210.9	208.3	213.5	229.1	265.6
65°	421.8	367.1	299.4	234.3	184.9	156.2	145.8	148.4	153.6	164.0	197.9
67.5°	294.2	255.1	208.3	164.0	127.6	114.5	104.2	101.5	104.2	122.4	140.6
70°	197.9	174.4	140.6	125.0	88.5	70.3	72.9	65.1	75.5	75.5	91.1
72.5°	130.1	114.5	93.7	72.9	62.5	49.5	49.5	46.9	52.0	54.7	67.7
75°	67.7	52.0	52.0	36.4	26.1	13.0	23.4	20.8	18.2	20.8	26.1
77.5°	46.9	39.1	36.4	28.7	26.1	20.8	20.8	20.8	20.8	23.4	26.1
80°	28.7	28.7	20.8	18.2	15.6	13.0	15.6	15.6	15.6	15.6	18.2
82.5°	18.2	15.6	15.6	13.0	13.0	10.4	10.4	10.4	10.4	10.4	15.6
85°	15.6	10.4	10.4	7.8	10.4	18.2	7.8	10.4	10.4	10.4	7.8
87.5°	5.2	7.8	7.8	7.8	5.2	2.6	5.2	7.8	7.8	13.0	10.4
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: P249094

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0H

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4	4850.4
2.5°	4858.2	4860.9	4860.9	4858.2	4858.2	4853.0	4863.4	4855.6	4858.2	4868.6	4860.9
5°	4863.4	4866.0	4866.0	4863.4	4863.4	4863.4	4866.0	4866.0	4863.4	4860.9	4866.0
7.5°	4873.9	4871.2	4871.2	4866.0	4866.0	4860.9	4866.0	4858.2	4863.4	4858.2	4866.0
10°	4860.9	4863.4	4860.9	4858.2	4858.2	4855.6	4855.6	4847.8	4850.4	4842.6	4847.8
12.5°	4853.0	4850.4	4850.4	4845.2	4840.0	4834.8	4832.2	4824.4	4824.4	4806.1	4814.0
15°	4832.2	4834.8	4827.0	4816.6	4811.4	4798.4	4793.1	4782.7	4772.3	4759.3	4761.9
17.5°	4814.0	4806.1	4795.7	4785.3	4764.5	4754.1	4743.6	4728.0	4722.8	4707.2	4702.0
20°	4759.3	4754.1	4741.1	4722.8	4709.8	4686.4	4676.0	4660.4	4647.3	4631.7	4623.9
22.5°	4689.0	4683.8	4668.1	4649.9	4629.1	4618.7	4608.3	4579.7	4566.6	4551.0	4548.4
25°	4600.5	4592.7	4577.1	4556.2	4545.8	4517.2	4506.7	4485.9	4480.7	4465.1	4462.5
27.5°	4465.1	4454.7	4436.5	4410.4	4392.2	4374.0	4363.6	4347.9	4342.7	4327.1	4324.5
30°	4262.0	4249.0	4212.5	4202.1	4170.9	4152.7	4152.7	4131.8	4134.4	4124.0	4124.0
32.5°	3941.8	3921.0	3892.3	3871.5	3850.6	3840.2	3840.2	3832.4	3837.6	3837.6	3842.9
35°	3517.4	3488.8	3473.1	3460.1	3460.1	3470.5	3501.8	3509.6	3525.2	3538.2	3548.7
37.5°	2973.2	2970.7	2988.9	3004.5	3043.6	3087.8	3142.5	3189.4	3233.6	3264.9	3296.1
40°	2384.8	2450.0	2502.0	2574.9	2634.8	2720.7	2819.6	2900.3	2975.8	3030.6	3087.8
42.5°	1861.5	1944.8	2054.2	2160.9	2267.7	2384.8	2515.1	2627.0	2725.9	2801.4	2861.3
45°	1450.2	1564.7	1697.5	1832.9	1970.9	2116.7	2252.1	2366.6	2470.8	2548.9	2608.8
47.5°	1169.0	1294.0	1444.9	1593.4	1749.6	1903.2	2054.2	2153.2	2239.0	2301.5	2356.2
50°	965.9	1098.7	1257.5	1426.7	1582.9	1736.6	1866.7	1963.1	2033.4	2088.0	2121.9
52.5°	807.1	947.7	1116.9	1286.1	1442.3	1582.9	1700.1	1773.0	1830.3	1869.3	1900.6
55°	666.5	801.9	960.7	1119.5	1273.1	1405.9	1502.2	1556.9	1601.2	1624.6	1642.8
57.5°	544.2	669.1	814.9	960.7	1093.5	1202.9	1278.4	1333.0	1353.9	1372.1	1369.5
60°	427.0	544.2	676.9	801.9	916.5	1004.9	1059.7	1090.9	1106.5	1114.3	1109.1
62.5°	335.9	442.6	544.2	653.5	736.8	812.3	864.4	864.4	872.2	874.8	882.6
65°	249.9	330.6	419.2	499.9	567.5	617.0	645.7	653.5	663.9	661.3	656.1
67.5°	184.9	244.8	309.8	369.7	416.6	447.8	468.6	486.9	484.3	479.1	476.4
70°	127.6	166.7	223.9	260.4	294.2	325.5	330.6	333.2	335.9	338.5	333.2
72.5°	88.5	117.2	148.4	179.6	200.5	213.5	226.5	229.1	229.1	229.1	226.5
75°	44.3	59.9	88.5	101.5	119.8	125.0	135.4	135.4	143.2	132.8	130.1
77.5°	39.1	46.9	62.5	72.9	80.7	88.5	91.1	98.9	96.3	91.1	93.7
80°	23.4	28.7	39.1	44.3	54.7	57.3	59.9	62.5	59.9	62.5	62.5
82.5°	18.2	20.8	26.1	26.1	33.8	33.8	36.4	36.4	39.1	39.1	39.1
85°	10.4	18.2	15.6	31.2	20.8	20.8	26.1	31.2	26.1	26.1	31.2
87.5°	10.4	10.4	7.8	10.4	10.4	10.4	13.0	15.6	15.6	18.2	15.6
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: P249094

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4850.4	4850.4	4850.4	4850.4
2.5°	4858.2	4863.4	4855.6	4853.0
5°	4866.0	4866.0	4860.9	4860.9
7.5°	4866.0	4866.0	4858.2	4853.0
10°	4845.2	4845.2	4837.4	4832.2
12.5°	4806.1	4806.1	4803.5	4795.7
15°	4756.7	4756.7	4746.3	4738.5
17.5°	4689.0	4694.2	4681.2	4681.2
20°	4616.1	4613.5	4603.1	4597.9
22.5°	4540.6	4535.4	4532.8	4517.2
25°	4459.9	4454.7	4446.8	4439.1
27.5°	4321.9	4319.3	4311.5	4301.1
30°	4111.0	4108.4	4098.0	4098.0
32.5°	3837.6	3835.0	3824.6	3827.2
35°	3553.8	3564.3	3559.1	3548.7
37.5°	3316.9	3324.7	3330.0	3324.7
40°	3119.0	3142.5	3145.1	3150.3
42.5°	2908.2	2939.4	2949.8	2955.0
45°	2655.6	2684.3	2707.7	2702.5
47.5°	2397.8	2418.7	2439.5	2423.9
50°	2150.5	2163.5	2171.4	2171.4
52.5°	1916.2	1916.2	1913.6	1916.2
55°	1648.0	1648.0	1637.7	1642.8
57.5°	1366.8	1372.1	1364.2	1351.2
60°	1106.5	1093.5	1088.3	1080.5
62.5°	861.8	861.8	843.6	867.0
65°	645.7	637.9	630.0	627.4
67.5°	468.6	466.1	458.2	455.6
70°	330.6	320.2	317.6	312.4
72.5°	221.3	221.3	216.1	216.1
75°	135.4	122.4	119.8	122.4
77.5°	93.7	91.1	91.1	88.5
80°	62.5	59.9	65.1	57.3
82.5°	39.1	41.7	39.1	41.7
85°	26.1	31.2	28.7	28.7
87.5°	15.6	15.6	15.6	15.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)