

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: P249701

Luminaire Tested: **LSR8B90D010 EC8B90827 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249701
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13955)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90827 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 2700 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9349.0 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.15
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

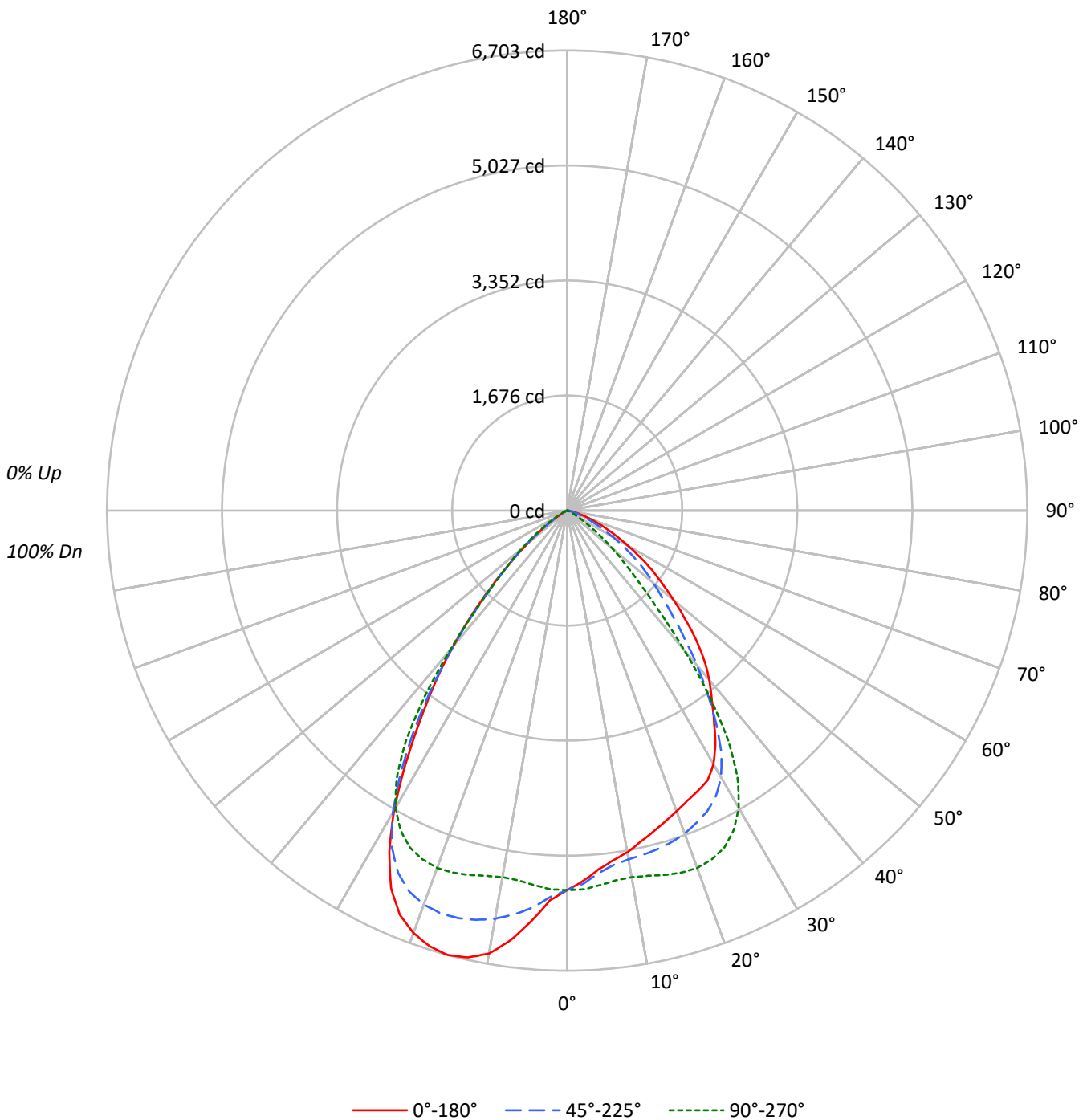
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	96	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82					82			
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60					60			
6	80	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54					54			
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49					49			
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45					45			
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42					42			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	170466	170466	170466
5°	162401	169517	185833
10°	158213	169780	205128
15°	154624	175407	214000
20°	152923	181744	214806
25°	153282	184312	206458
30°	151859	177984	179547
35°	140322	154032	140514
40°	129670	106794	104193
45°	115468	64437	66578
50°	97154	41516	37673
55°	80830	22773	17225
60°	63091	9874	5415
65°	46559	4903	2641
70°	32376	3029	1163
75°	19694	620	0
80°	14224	923	0
85°	9128	920	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	531.4	5.7
10°-20°	1590.5	17.0
20°-30°	2435.7	26.1
30°-40°	2387.8	25.5
40°-50°	1438.0	15.4
50°-60°	661.8	7.1
60°-70°	232.5	2.5
70°-80°	60.8	0.7
80°-90°	10.4	0.1
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°	4557.7	48.8
0°-40°	6945.5	74.3
0°-60°	9045.3	96.8
0°-90°	9349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9349.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5528	5528	5528	5528	5528	
5°	5246	5296	5476	5804	6004	496
15°	4844	5104	5494	6146	6703	1368
25°	4505	4831	5417	5825	6068	2075
35°	3728	3779	4092	3857	3733	2335
45°	2648	2180	1478	1488	1527	2030
55°	1504	1191	424	333	320	1341
65°	638	442	67	34	36	650
75°	165	96	5	0	0	200
85°	26	13	3	0	0	35
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°	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1
2.5°	5398.9	5404.1	5404.1	5404.1	5414.4	5417.1	5414.4	5417.1	5422.2	5440.3	5448.0
5°	5246.5	5238.8	5244.0	5241.3	5254.3	5262.1	5256.8	5264.6	5282.7	5295.7	5308.5
7.5°	5138.1	5138.1	5138.1	5143.2	5150.9	5166.5	5163.9	5169.0	5187.1	5205.2	5223.2
10°	5052.8	5050.2	5050.2	5063.1	5073.4	5091.5	5096.7	5112.2	5135.4	5158.7	5179.3
12.5°	4941.7	4944.3	4957.2	4970.2	4993.4	5021.8	5037.3	5058.0	5094.2	5132.9	5156.1
15°	4843.5	4846.1	4856.5	4882.2	4910.7	4944.3	4977.8	5011.4	5055.4	5104.5	5145.8
17.5°	4748.0	4750.5	4758.3	4786.8	4822.9	4866.8	4905.5	4949.4	5006.3	5063.1	5114.8
20°	4660.1	4657.6	4670.4	4696.3	4742.9	4784.1	4822.9	4874.6	4936.6	5006.3	5065.7
22.5°	4574.9	4574.9	4587.8	4613.7	4655.0	4696.3	4737.6	4791.9	4853.9	4921.1	4990.8
25°	4505.1	4502.6	4520.6	4533.6	4564.5	4605.9	4649.8	4693.7	4755.7	4830.7	4897.8
27.5°	4430.3	4427.7	4430.3	4445.8	4474.2	4505.1	4538.7	4577.5	4629.2	4691.2	4755.7
30°	4264.9	4267.5	4267.5	4280.4	4296.0	4329.5	4347.5	4386.3	4432.8	4484.5	4541.4
32.5°	4019.5	4022.1	4022.1	4027.3	4040.1	4055.7	4071.2	4099.6	4135.7	4179.6	4231.3
35°	3727.6	3727.6	3725.0	3727.6	3735.4	3735.4	3748.3	3735.4	3753.5	3779.3	3818.0
37.5°	3458.9	3453.7	3448.6	3443.4	3435.7	3422.8	3404.7	3373.7	3365.9	3355.6	3358.1
40°	3221.3	3218.8	3203.2	3190.3	3164.4	3133.5	3089.6	3035.3	2991.4	2939.7	2895.8
42.5°	2957.8	2955.2	2942.3	2919.0	2890.6	2844.2	2774.4	2702.1	2614.3	2536.8	2456.7
45°	2647.8	2655.5	2637.5	2611.6	2578.0	2534.1	2456.7	2368.8	2280.9	2180.2	2079.5
47.5°	2324.9	2322.3	2309.4	2293.9	2265.5	2221.6	2169.9	2074.3	1981.3	1888.4	1785.0
50°	2025.2	2014.9	2009.7	1994.3	1976.2	1940.1	1885.7	1808.2	1725.6	1637.8	1542.2
52.5°	1741.1	1741.1	1728.1	1717.8	1702.3	1673.9	1627.5	1565.5	1495.7	1413.0	1312.3
55°	1503.5	1498.3	1485.4	1472.4	1456.9	1438.8	1397.6	1345.9	1270.9	1190.9	1103.0
57.5°	1250.3	1247.6	1242.5	1227.0	1219.3	1201.2	1154.7	1103.0	1038.5	968.8	896.3
60°	1023.0	1012.7	1002.2	991.9	979.1	961.0	929.9	886.0	831.8	769.8	697.5
62.5°	818.9	834.4	803.4	803.4	777.6	762.1	733.7	707.8	650.9	594.2	532.2
65°	638.1	638.1	625.1	614.8	599.3	581.2	552.8	527.0	485.6	441.7	397.8
67.5°	488.3	485.6	472.7	462.4	449.4	439.1	418.5	387.5	356.5	320.4	284.1
70°	359.1	356.5	353.9	335.8	325.5	312.6	297.1	276.5	253.2	227.3	193.7
72.5°	258.3	258.3	250.6	242.9	232.5	222.1	206.7	193.7	173.1	155.0	131.7
75°	165.3	162.8	162.8	149.8	149.8	134.3	124.0	116.2	105.9	95.6	75.0
77.5°	118.9	116.2	113.7	108.5	103.4	98.1	90.4	80.1	72.3	62.0	54.2
80°	80.1	75.0	72.3	72.3	64.5	62.0	64.5	49.1	46.5	38.7	33.6
82.5°	49.1	49.1	46.5	46.5	43.9	41.4	33.6	33.6	31.0	28.4	23.3
85°	25.8	33.6	23.3	25.8	23.3	25.8	23.3	18.1	15.5	12.9	12.9
87.5°	15.5	10.3	10.3	15.5	12.9	10.3	10.3	10.3	7.8	5.2	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°	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1
2.5°	5442.9	5461.0	5458.3	5481.6	5489.4	5507.5	5507.5	5520.3	5528.1	5546.2	5561.7
5°	5313.7	5342.1	5349.9	5378.3	5401.6	5429.9	5448.0	5476.4	5502.2	5541.1	5577.2
7.5°	5233.7	5256.8	5272.4	5306.0	5331.8	5362.7	5393.8	5432.5	5468.6	5515.2	5566.9
10°	5194.9	5225.9	5249.1	5282.7	5313.7	5347.3	5378.3	5422.2	5463.5	5523.0	5579.8
12.5°	5184.5	5220.7	5249.1	5295.7	5326.6	5362.7	5398.9	5448.0	5491.9	5553.9	5618.6
15°	5184.5	5233.7	5272.4	5324.0	5360.2	5406.7	5445.5	5494.5	5543.6	5608.1	5670.1
17.5°	5174.2	5233.7	5282.7	5342.1	5388.6	5435.2	5484.2	5530.7	5582.3	5644.4	5714.1
20°	5132.9	5207.8	5267.2	5336.9	5386.0	5437.7	5486.8	5538.4	5592.7	5657.3	5716.7
22.5°	5060.6	5148.4	5215.6	5290.4	5347.3	5398.9	5448.0	5499.7	5559.1	5621.1	5683.1
25°	4965.0	5047.6	5120.0	5197.4	5254.3	5311.1	5357.6	5417.1	5471.3	5530.7	5579.8
27.5°	4820.3	4908.1	4977.8	5058.0	5109.6	5163.9	5202.6	5251.7	5303.4	5352.4	5391.2
30°	4603.4	4683.4	4755.7	4828.0	4879.7	4918.5	4959.8	4998.6	5032.2	5065.7	5099.3
32.5°	4285.5	4357.9	4427.7	4494.8	4536.2	4569.8	4600.7	4624.0	4642.1	4660.1	4662.7
35°	3849.1	3908.4	3952.3	4011.7	4050.6	4081.5	4081.5	4091.8	4089.3	4081.5	4073.7
37.5°	3360.8	3384.0	3402.1	3425.3	3427.9	3427.9	3412.5	3399.5	3378.9	3373.7	3358.1
40°	2851.9	2820.9	2797.6	2766.6	2748.6	2709.8	2676.3	2653.0	2619.4	2614.3	2609.1
42.5°	2368.8	2296.5	2231.9	2177.7	2115.7	2061.4	2012.4	1976.2	1950.4	1947.7	1950.4
45°	1976.2	1893.5	1797.9	1723.0	1653.3	1586.1	1521.5	1477.6	1454.4	1449.1	1454.4
47.5°	1679.1	1583.5	1490.5	1405.2	1330.4	1255.4	1190.9	1131.4	1103.0	1095.3	1092.7
50°	1444.0	1345.9	1247.6	1159.8	1077.2	1002.2	922.2	865.4	829.2	816.3	806.0
52.5°	1214.2	1126.3	1025.5	935.2	852.4	764.6	682.0	617.3	581.2	565.8	555.3
55°	1012.7	924.8	831.8	744.0	656.1	568.3	485.6	423.6	384.9	366.8	353.9
57.5°	808.5	725.9	645.8	558.0	485.6	400.4	317.7	263.5	229.9	209.3	198.9
60°	625.1	560.6	490.8	418.5	348.8	279.0	211.8	160.1	134.3	118.9	105.9
62.5°	472.7	418.5	371.9	309.9	255.7	196.3	144.7	103.4	80.1	67.2	62.0
65°	341.0	299.6	258.3	219.6	180.9	137.0	98.1	67.2	46.5	38.7	36.2
67.5°	242.9	209.3	178.2	152.4	124.0	98.1	69.8	46.5	36.2	31.0	28.4
70°	170.4	144.7	124.0	100.8	82.6	64.5	54.2	33.6	20.6	23.3	18.1
72.5°	113.7	95.6	85.3	69.8	56.8	46.5	33.6	23.3	23.3	18.1	15.5
75°	62.0	56.8	43.9	33.6	28.4	25.8	10.3	5.2	2.6	7.8	2.6
77.5°	43.9	38.7	33.6	28.4	23.3	18.1	10.3	10.3	7.8	10.3	5.2
80°	28.4	23.3	20.6	20.6	12.9	7.8	5.2	5.2	7.8	2.6	2.6
82.5°	18.1	15.5	12.9	12.9	12.9	7.8	7.8	7.8	7.8	5.2	5.2
85°	10.3	7.8	5.2	5.2	2.6	5.2	0.0	2.6	2.6	0.0	0.0
87.5°	5.2	2.6	2.6	2.6	2.6	0.0	0.0	2.6	0.0	2.6	0.0
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°	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1	5528.1
2.5°	5572.0	5582.3	5595.3	5605.6	5628.9	5634.0	5644.4	5654.7	5662.5	5670.1	5672.8
5°	5608.1	5647.0	5683.1	5721.8	5770.9	5804.5	5843.2	5876.8	5910.4	5938.8	5959.5
7.5°	5618.6	5677.9	5732.2	5799.3	5871.6	5933.7	5998.3	6062.8	6130.0	6181.7	6225.6
10°	5639.2	5711.5	5781.2	5861.3	5954.4	6037.0	6117.0	6202.3	6287.6	6359.9	6424.5
12.5°	5675.3	5755.4	5830.4	5918.2	6013.8	6106.7	6194.5	6290.1	6380.6	6460.7	6533.0
15°	5734.8	5809.6	5882.0	5964.7	6060.3	6145.5	6233.4	6326.3	6416.8	6499.4	6566.6
17.5°	5773.5	5843.2	5915.5	5990.5	6070.6	6148.1	6230.7	6313.4	6396.0	6471.0	6533.0
20°	5773.5	5840.7	5894.9	5962.1	6037.0	6104.2	6171.4	6243.7	6316.0	6378.0	6437.4
22.5°	5727.0	5791.6	5832.9	5884.6	5949.1	6006.0	6042.2	6122.2	6176.5	6230.7	6274.6
25°	5618.6	5665.0	5698.6	5734.8	5786.5	5825.2	5856.2	5902.7	5956.9	5977.6	6008.6
27.5°	5422.2	5455.8	5473.9	5481.6	5507.5	5528.1	5533.3	5553.9	5577.2	5582.3	5595.3
30°	5112.2	5114.8	5107.0	5104.5	5091.5	5076.1	5073.4	5070.9	5060.6	5050.2	5052.8
32.5°	4644.6	4631.7	4600.7	4567.2	4533.6	4497.4	4476.7	4450.9	4435.4	4419.9	4401.9
35°	4040.1	4009.2	3965.3	3923.9	3885.2	3856.7	3810.3	3794.7	3779.3	3758.6	3753.5
37.5°	3329.8	3311.7	3270.3	3239.4	3218.8	3205.8	3182.5	3167.1	3167.1	3159.3	3154.1
40°	2596.1	2591.0	2575.5	2583.2	2572.9	2578.0	2575.5	2570.3	2583.2	2583.2	2588.4
42.5°	1947.7	1950.4	1958.1	1963.2	1978.8	1981.3	1994.3	1994.3	2002.0	2009.7	2014.9
45°	1449.1	1459.6	1459.6	1469.9	1485.4	1487.9	1493.1	1495.7	1500.8	1513.8	1518.9
47.5°	1087.5	1090.1	1090.1	1092.7	1097.8	1103.0	1100.5	1103.0	1110.8	1105.6	1110.8
50°	803.4	806.0	798.2	790.4	798.2	798.2	795.7	787.9	795.7	785.3	790.4
52.5°	547.7	545.0	537.3	539.9	534.7	532.2	532.2	527.0	527.0	527.0	516.6
55°	346.2	346.2	341.0	341.0	338.4	333.2	330.7	328.0	325.5	322.9	322.9
57.5°	193.7	196.3	188.6	186.0	188.6	186.0	180.9	180.9	180.9	173.1	178.2
60°	105.9	103.4	100.8	98.1	95.6	98.1	98.1	93.0	93.0	93.0	95.6
62.5°	56.8	56.8	54.2	54.2	51.7	51.7	56.8	49.1	51.7	49.1	51.7
65°	31.0	38.7	28.4	28.4	36.2	33.6	31.0	31.0	33.6	28.4	31.0
67.5°	33.6	23.3	20.6	23.3	20.6	20.6	20.6	25.8	23.3	18.1	23.3
70°	15.5	18.1	18.1	12.9	20.6	10.3	18.1	10.3	15.5	12.9	15.5
72.5°	15.5	15.5	15.5	10.3	15.5	10.3	12.9	12.9	10.3	10.3	15.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.2	5.2	2.6	2.6	2.6	2.6	5.2	5.2	5.2	0.0	2.6
80°	5.2	5.2	0.0	2.6	0.0	0.0	2.6	0.0	2.6	0.0	5.2
82.5°	2.6	5.2	2.6	2.6	5.2	5.2	5.2	2.6	2.6	2.6	2.6
85°	0.0	2.6	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	2.6
87.5°	0.0	2.6	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0
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: P249701

CATALOG NUMBER: LSR8B90D010 EC8B90827 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5528.1	5528.1	5528.1	5528.1
2.5°	5675.3	5677.9	5683.1	5680.6
5°	5975.0	5995.7	6006.0	6003.5
7.5°	6256.5	6292.8	6313.4	6313.4
10°	6473.5	6514.9	6545.9	6551.1
12.5°	6589.8	6636.3	6677.7	6667.3
15°	6623.4	6669.9	6711.2	6703.4
17.5°	6584.7	6631.1	6662.2	6657.0
20°	6478.8	6517.5	6548.5	6545.9
22.5°	6313.4	6347.0	6372.9	6370.2
25°	6034.4	6057.7	6078.3	6068.0
27.5°	5605.6	5613.4	5626.2	5610.8
30°	5034.7	5039.8	5045.0	5042.5
32.5°	4394.1	4391.4	4386.3	4381.1
35°	3745.7	3745.7	3748.3	3732.7
37.5°	3156.7	3154.1	3161.9	3154.1
40°	2593.5	2591.0	2601.3	2588.4
42.5°	2022.7	2030.4	2033.0	2033.0
45°	1521.5	1524.1	1526.7	1526.7
47.5°	1110.8	1113.4	1126.3	1110.8
50°	785.3	787.9	790.4	785.3
52.5°	519.2	521.9	519.2	511.4
55°	317.7	320.4	320.4	320.4
57.5°	170.4	173.1	173.1	170.4
60°	93.0	90.4	93.0	87.8
62.5°	49.1	54.2	51.7	46.5
65°	31.0	31.0	31.0	36.2
67.5°	25.8	20.6	23.3	18.1
70°	15.5	18.1	18.1	12.9
72.5°	12.9	12.9	12.9	15.5
75°	0.0	0.0	0.0	0.0
77.5°	5.2	5.2	5.2	2.6
80°	2.6	0.0	2.6	0.0
82.5°	2.6	2.6	5.2	2.6
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)