

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: P249708

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249708
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 EC8B90830 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9583.0 lumens
Efficiency: N/A
Efficacy: 111.3 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

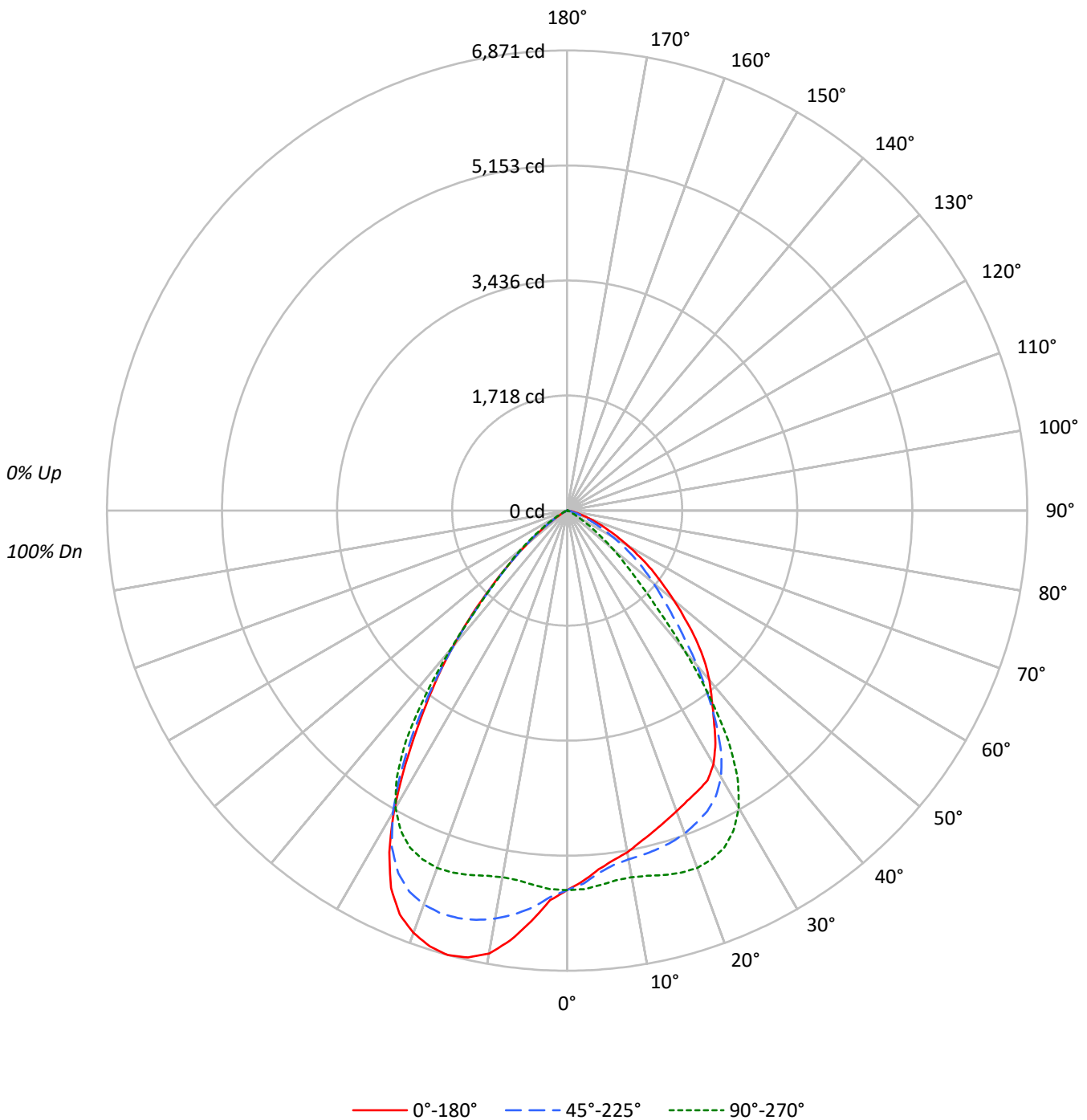
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	174731	174731	174731
5°	166465	173761	190482
10°	162174	174029	210260
15°	158497	179797	219357
20°	156752	186293	220181
25°	157120	188926	211627
30°	155662	182438	184040
35°	143835	157887	144034
40°	132915	109467	106802
45°	118355	66050	68244
50°	99587	42557	38618
55°	82852	23343	17655
60°	64670	10120	5551
65°	47719	5027	2707
70°	33188	3101	1190
75°	20195	631	0
80°	14579	941	0
85°	9376	920	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	544.7	5.7
10°-20°	1630.3	17.0
20°-30°	2496.7	26.1
30°-40°	2447.6	25.5
40°-50°	1473.9	15.4
50°-60°	678.4	7.1
60°-70°	238.3	2.5
70°-80°	62.3	0.7
80°-90°	10.6	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°	4671.8	48.8
0°-40°	7119.4	74.3
0°-60°	9271.7	96.8
0°-90°	9583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9583.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5666	5666	5666	5666	5666	
5°	5378	5428	5614	5950	6154	508
15°	4965	5232	5632	6299	6871	1403
25°	4618	4952	5553	5971	6220	2127
35°	3821	3874	4194	3953	3826	2393
45°	2714	2235	1515	1525	1565	2081
55°	1541	1221	434	342	328	1375
65°	654	453	69	34	37	666
75°	170	98	5	0	0	205
85°	26	13	3	0	0	36
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°	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4
2.5°	5534.0	5539.4	5539.4	5539.4	5549.9	5552.7	5549.9	5552.7	5557.9	5576.4	5584.4
5°	5377.8	5369.9	5375.2	5372.5	5385.8	5393.8	5388.4	5396.4	5414.9	5428.2	5441.4
7.5°	5266.7	5266.7	5266.7	5271.9	5279.9	5295.8	5293.2	5298.4	5316.9	5335.4	5354.0
10°	5179.3	5176.7	5176.7	5189.8	5200.4	5218.9	5224.3	5240.2	5264.0	5287.8	5309.0
12.5°	5065.4	5068.1	5081.3	5094.6	5118.3	5147.4	5163.4	5184.6	5221.7	5261.3	5285.2
15°	4964.8	4967.4	4978.1	5004.4	5033.7	5068.1	5102.4	5136.9	5181.9	5232.2	5274.6
17.5°	4866.8	4869.4	4877.4	4906.6	4943.6	4988.6	5028.3	5073.3	5131.6	5189.8	5242.8
20°	4776.8	4774.2	4787.3	4813.8	4861.6	4903.9	4943.6	4996.6	5060.1	5131.6	5192.5
22.5°	4689.4	4689.4	4702.7	4729.1	4771.5	4813.8	4856.2	4911.8	4975.3	5044.2	5115.7
25°	4617.9	4615.2	4633.8	4647.1	4678.8	4721.2	4766.2	4811.2	4874.8	4951.6	5020.4
27.5°	4541.1	4538.5	4541.1	4557.0	4586.1	4617.9	4652.3	4692.1	4745.1	4808.6	4874.8
30°	4371.7	4374.3	4374.3	4387.6	4403.5	4437.8	4456.3	4496.1	4543.8	4596.7	4655.0
32.5°	4120.1	4122.7	4122.7	4128.1	4141.3	4157.2	4173.1	4202.2	4239.2	4284.2	4337.2
35°	3820.9	3820.9	3818.2	3820.9	3828.9	3828.9	3842.1	3828.9	3847.4	3873.9	3913.6
37.5°	3545.5	3540.2	3534.9	3529.6	3521.7	3508.5	3489.9	3458.1	3450.2	3439.6	3442.2
40°	3301.9	3299.3	3283.4	3270.1	3243.6	3211.9	3166.9	3111.3	3066.3	3013.3	2968.3
42.5°	3031.9	3029.1	3015.9	2992.1	2963.0	2915.3	2843.9	2769.7	2679.7	2600.3	2518.2
45°	2714.0	2722.0	2703.5	2677.0	2642.5	2597.5	2518.2	2428.1	2338.0	2234.8	2131.5
47.5°	2383.0	2380.4	2367.2	2351.3	2322.2	2277.2	2224.2	2126.3	2030.9	1935.6	1829.7
50°	2075.9	2065.3	2060.0	2044.2	2025.7	1988.6	1932.9	1853.5	1768.8	1678.8	1580.8
52.5°	1784.7	1784.7	1771.4	1760.8	1744.9	1715.8	1668.2	1604.6	1533.1	1448.4	1345.1
55°	1541.1	1535.8	1522.6	1509.3	1493.4	1474.8	1432.6	1379.6	1302.7	1220.7	1130.7
57.5°	1281.6	1278.9	1273.6	1257.7	1249.8	1231.2	1183.6	1130.7	1064.5	993.0	918.8
60°	1048.6	1038.0	1027.3	1016.8	1003.6	985.0	953.2	908.2	852.6	789.1	715.0
62.5°	839.4	855.2	823.5	823.5	797.0	781.1	752.0	725.5	667.2	609.0	545.5
65°	654.0	654.0	640.7	630.2	614.3	595.7	566.6	540.1	497.8	452.7	407.7
67.5°	500.5	497.8	484.6	474.0	460.7	450.1	429.0	397.2	365.4	328.4	291.2
70°	368.1	365.4	362.7	344.2	333.6	320.4	304.5	283.4	259.5	233.0	198.6
72.5°	264.7	264.7	256.9	248.9	238.4	227.7	211.9	198.6	177.4	158.9	135.0
75°	169.5	166.9	166.9	153.6	153.6	137.7	127.1	119.1	108.6	98.0	76.8
77.5°	121.8	119.1	116.5	111.2	105.9	100.6	92.6	82.1	74.1	63.5	55.6
80°	82.1	76.8	74.1	74.1	66.2	63.5	66.2	50.4	47.6	39.7	34.4
82.5°	50.4	50.4	47.6	47.6	45.0	42.4	34.4	34.4	31.8	29.1	23.9
85°	26.5	34.4	23.9	26.5	23.9	26.5	23.9	18.5	15.9	13.2	13.2
87.5°	15.9	10.6	10.6	15.9	13.2	10.6	10.6	10.6	8.0	5.3	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°	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4
2.5°	5579.1	5597.7	5595.0	5618.8	5626.8	5645.3	5645.3	5658.5	5666.4	5685.0	5700.9
5°	5446.7	5475.8	5483.8	5512.9	5536.8	5565.9	5584.4	5613.5	5640.0	5679.7	5716.8
7.5°	5364.7	5388.4	5404.3	5438.8	5465.3	5497.0	5528.8	5568.5	5605.5	5653.3	5706.2
10°	5324.9	5356.7	5380.5	5414.9	5446.7	5481.2	5512.9	5557.9	5600.3	5661.2	5719.4
12.5°	5314.3	5351.4	5380.5	5428.2	5459.9	5497.0	5534.0	5584.4	5629.4	5692.9	5759.2
15°	5314.3	5364.7	5404.3	5457.3	5494.4	5542.0	5581.8	5632.0	5682.4	5748.5	5812.1
17.5°	5303.7	5364.7	5414.9	5475.8	5523.5	5571.2	5621.4	5669.2	5722.0	5785.7	5857.1
20°	5261.3	5338.2	5399.0	5470.5	5520.8	5573.8	5624.2	5677.0	5732.7	5798.9	5859.8
22.5°	5187.2	5277.2	5346.1	5422.9	5481.2	5534.0	5584.4	5637.3	5698.3	5761.8	5825.4
25°	5089.2	5173.9	5248.1	5327.5	5385.8	5444.0	5491.7	5552.7	5608.2	5669.2	5719.4
27.5°	4940.9	5030.9	5102.4	5184.6	5237.5	5293.2	5332.8	5383.2	5436.2	5486.4	5526.2
30°	4718.6	4800.6	4874.8	4948.9	5001.8	5041.6	5083.9	5123.7	5158.1	5192.5	5226.9
32.5°	4392.8	4467.0	4538.5	4607.3	4649.7	4684.1	4715.8	4739.7	4758.2	4776.8	4779.4
35°	3945.4	4006.2	4051.2	4112.2	4151.9	4183.7	4183.7	4194.2	4191.6	4183.7	4175.7
37.5°	3444.9	3468.7	3487.2	3511.1	3513.7	3513.7	3497.9	3484.6	3463.5	3458.1	3442.2
40°	2923.3	2891.5	2867.6	2835.9	2817.4	2777.6	2743.3	2719.4	2684.9	2679.7	2674.4
42.5°	2428.1	2353.9	2287.8	2232.2	2168.7	2113.0	2062.7	2025.7	1999.2	1996.5	1999.2
45°	2025.7	1940.9	1842.9	1766.2	1694.7	1625.8	1559.6	1514.6	1490.8	1485.4	1490.8
47.5°	1721.2	1623.2	1527.8	1440.4	1363.7	1286.8	1220.7	1159.8	1130.7	1122.7	1120.1
50°	1480.2	1379.6	1278.9	1188.9	1104.2	1027.3	945.3	887.1	850.0	836.7	826.1
52.5°	1244.5	1154.5	1051.2	958.6	873.8	783.7	699.1	632.8	595.7	579.9	569.2
55°	1038.0	948.0	852.6	762.6	672.6	582.5	497.8	434.2	394.5	376.0	362.7
57.5°	828.8	744.1	662.0	572.0	497.8	410.5	325.7	270.1	235.6	214.5	203.9
60°	640.7	574.6	503.1	429.0	357.5	286.0	217.1	164.1	137.7	121.8	108.6
62.5°	484.6	429.0	381.2	317.7	262.1	201.2	148.3	105.9	82.1	68.9	63.5
65°	349.5	307.1	264.7	225.1	185.4	140.4	100.6	68.9	47.6	39.7	37.1
67.5°	248.9	214.5	182.7	156.2	127.1	100.6	71.5	47.6	37.1	31.8	29.1
70°	174.7	148.3	127.1	103.3	84.7	66.2	55.6	34.4	21.1	23.9	18.5
72.5°	116.5	98.0	87.4	71.5	58.2	47.6	34.4	23.9	23.9	18.5	15.9
75°	63.5	58.2	45.0	34.4	29.1	26.5	10.6	5.3	2.6	8.0	2.6
77.5°	45.0	39.7	34.4	29.1	23.9	18.5	10.6	10.6	8.0	10.6	5.3
80°	29.1	23.9	21.1	21.1	13.2	8.0	5.3	5.3	8.0	2.6	2.6
82.5°	18.5	15.9	13.2	13.2	13.2	8.0	8.0	8.0	8.0	5.3	5.3
85°	10.6	8.0	5.3	5.3	2.6	5.3	0.0	2.6	2.6	0.0	0.0
87.5°	5.3	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°	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4	5666.4
2.5°	5711.5	5722.0	5735.3	5745.9	5769.8	5775.0	5785.7	5796.3	5804.2	5812.1	5814.8
5°	5748.5	5788.3	5825.4	5865.0	5915.4	5949.8	5989.5	6023.9	6058.4	6087.5	6108.6
7.5°	5759.2	5820.0	5875.7	5944.5	6018.6	6082.2	6148.4	6214.6	6283.4	6336.4	6381.4
10°	5780.3	5854.5	5926.0	6008.0	6103.4	6188.1	6270.1	6357.5	6445.0	6519.1	6585.3
12.5°	5817.4	5899.5	5976.3	6066.3	6164.3	6259.6	6349.6	6447.6	6540.3	6622.4	6696.5
15°	5878.3	5955.1	6029.3	6114.0	6211.9	6299.3	6389.4	6484.6	6577.4	6662.1	6730.9
17.5°	5918.0	5989.5	6063.6	6140.4	6222.5	6302.0	6386.6	6471.4	6556.1	6633.0	6696.5
20°	5918.0	5986.9	6042.5	6111.3	6188.1	6257.0	6325.8	6399.9	6474.1	6537.6	6598.5
22.5°	5870.4	5936.5	5978.9	6031.9	6098.0	6156.4	6193.4	6275.5	6331.1	6386.6	6431.7
25°	5759.2	5806.8	5841.3	5878.3	5931.3	5971.0	6002.8	6050.4	6106.0	6127.3	6159.0
27.5°	5557.9	5592.3	5610.9	5618.8	5645.3	5666.4	5671.8	5692.9	5716.8	5722.0	5735.3
30°	5240.2	5242.8	5234.9	5232.2	5218.9	5203.1	5200.4	5197.8	5187.2	5176.7	5179.3
32.5°	4760.9	4747.7	4715.8	4681.5	4647.1	4610.0	4588.8	4562.3	4546.4	4530.6	4512.0
35°	4141.3	4109.5	4064.5	4022.1	3982.5	3953.2	3905.6	3889.7	3873.9	3852.7	3847.4
37.5°	3413.1	3394.6	3352.2	3320.5	3299.3	3286.0	3262.2	3246.3	3246.3	3238.4	3233.1
40°	2661.1	2655.8	2639.9	2647.9	2637.3	2642.5	2639.9	2634.6	2647.9	2647.9	2653.2
42.5°	1996.5	1999.2	2007.1	2012.4	2028.3	2030.9	2044.2	2044.2	2052.2	2060.0	2065.3
45°	1485.4	1496.1	1496.1	1506.7	1522.6	1525.2	1530.4	1533.1	1538.4	1551.7	1556.9
47.5°	1114.7	1117.4	1117.4	1120.1	1125.3	1130.7	1128.0	1130.7	1138.6	1133.3	1138.6
50°	823.5	826.1	818.2	810.2	818.2	818.2	815.6	807.6	815.6	805.0	810.2
52.5°	561.4	558.7	550.7	553.4	548.1	545.5	545.5	540.1	540.1	540.1	529.6
55°	354.9	354.9	349.5	349.5	346.9	341.6	339.0	336.2	333.6	331.0	331.0
57.5°	198.6	201.2	193.3	190.6	193.3	190.6	185.4	185.4	185.4	177.4	182.7
60°	108.6	105.9	103.3	100.6	98.0	100.6	100.6	95.4	95.4	95.4	98.0
62.5°	58.2	58.2	55.6	55.6	53.0	53.0	58.2	50.4	53.0	50.4	53.0
65°	31.8	39.7	29.1	29.1	37.1	34.4	31.8	31.8	34.4	29.1	31.8
67.5°	34.4	23.9	21.1	23.9	21.1	21.1	21.1	26.5	23.9	18.5	23.9
70°	15.9	18.5	18.5	13.2	21.1	10.6	18.5	10.6	15.9	13.2	15.9
72.5°	15.9	15.9	15.9	10.6	15.9	10.6	13.2	13.2	10.6	10.6	15.9
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°	5.3	5.3	2.6	2.6	2.6	2.6	5.3	5.3	5.3	0.0	2.6
80°	5.3	5.3	0.0	2.6	0.0	0.0	2.6	0.0	2.6	0.0	5.3
82.5°	2.6	5.3	2.6	2.6	5.3	5.3	5.3	2.6	2.6	2.6	2.6
85°	0.0	2.6	0.0	0.0	0.0	0.0	5.3	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: P249708

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5666.4	5666.4	5666.4	5666.4
2.5°	5817.4	5820.0	5825.4	5822.7
5°	6124.5	6145.8	6156.4	6153.7
7.5°	6413.1	6450.3	6471.4	6471.4
10°	6635.6	6678.0	6709.7	6715.0
12.5°	6754.7	6802.4	6844.8	6834.2
15°	6789.1	6836.9	6879.2	6871.2
17.5°	6749.5	6797.1	6828.9	6823.6
20°	6640.9	6680.6	6712.4	6709.7
22.5°	6471.4	6505.9	6532.4	6529.6
25°	6185.5	6209.3	6230.5	6219.9
27.5°	5745.9	5753.9	5767.0	5751.2
30°	5160.7	5166.0	5171.3	5168.7
32.5°	4504.1	4501.4	4496.1	4490.8
35°	3839.5	3839.5	3842.1	3826.2
37.5°	3235.7	3233.1	3241.0	3233.1
40°	2658.5	2655.8	2666.4	2653.2
42.5°	2073.3	2081.3	2083.9	2083.9
45°	1559.6	1562.2	1564.9	1564.9
47.5°	1138.6	1141.2	1154.5	1138.6
50°	805.0	807.6	810.2	805.0
52.5°	532.2	534.9	532.2	524.2
55°	325.7	328.4	328.4	328.4
57.5°	174.7	177.4	177.4	174.7
60°	95.4	92.6	95.4	90.0
62.5°	50.4	55.6	53.0	47.6
65°	31.8	31.8	31.8	37.1
67.5°	26.5	21.1	23.9	18.5
70°	15.9	18.5	18.5	13.2
72.5°	13.2	13.2	13.2	15.9
75°	0.0	0.0	0.0	0.0
77.5°	5.3	5.3	5.3	2.6
80°	2.6	0.0	2.6	0.0
82.5°	2.6	2.6	5.3	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)