

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: P250233

Luminaire Tested: **LSR8B90D010 EC8B90850 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P250233  
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 EC8B90850 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9734.0 lumens  
Efficiency: N/A  
Efficacy: 113.1 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

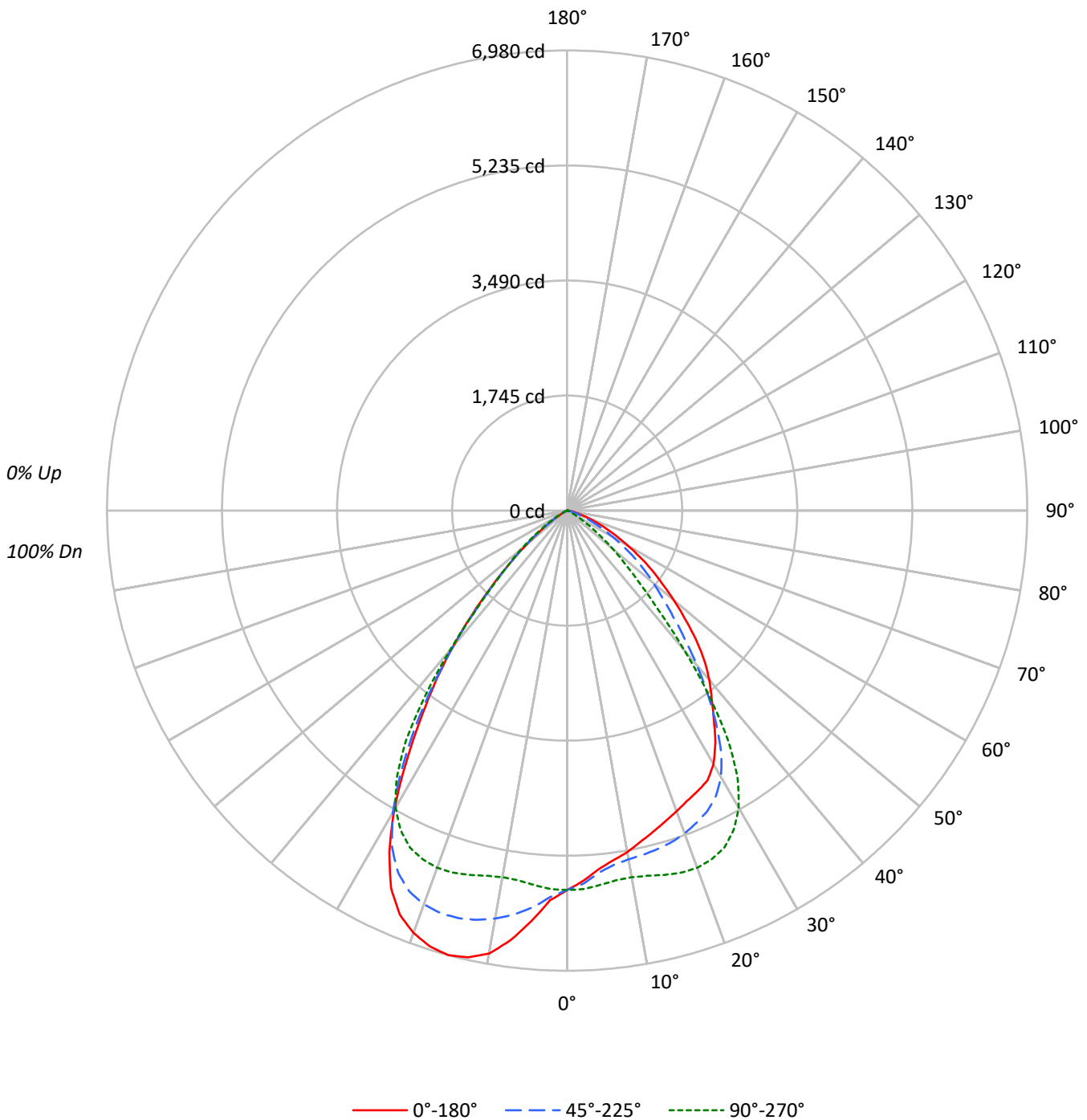
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	177485	177485	177485
5°	169090	176497	193485
10°	164729	176772	213573
15°	160993	182631	222814
20°	159220	189230	223650
25°	159593	191903	214961
30°	158112	185312	186939
35°	146101	160376	146304
40°	135012	111189	108484
45°	120222	67093	69317
50°	101155	43223	39227
55°	84158	23714	17935
60°	65688	10281	5637
65°	48471	5108	2743
70°	33711	3156	1208
75°	20504	643	0
80°	14810	959	0
85°	9517	955	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	553.3	5.7
10°-20°	1656.0	17.0
20°-30°	2536.0	26.1
30°-40°	2486.2	25.5
40°-50°	1497.2	15.4
50°-60°	689.1	7.1
60°-70°	242.1	2.5
70°-80°	63.3	0.7
80°-90°	10.8	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°	4745.4	48.8
0°-40°	7231.6	74.3
0°-60°	9417.8	96.8
0°-90°	9734.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9734.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5756	5756	5756	5756	5756	
5°	5463	5514	5702	6044	6251	516
15°	5043	5315	5721	6399	6980	1425
25°	4691	5030	5640	6065	6318	2160
35°	3881	3935	4260	4016	3886	2431
45°	2757	2270	1538	1549	1590	2114
55°	1565	1240	441	347	334	1397
65°	664	460	70	35	38	677
75°	172	100	5	0	0	209
85°	27	13	3	0	0	37
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°	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7
2.5°	5621.2	5626.7	5626.7	5626.7	5637.4	5640.2	5637.4	5640.2	5645.5	5664.3	5672.4
5°	5462.6	5454.5	5459.9	5457.2	5470.7	5478.7	5473.3	5481.4	5500.2	5513.7	5527.1
7.5°	5349.7	5349.7	5349.7	5355.0	5363.1	5379.2	5376.6	5381.9	5400.7	5419.5	5438.3
10°	5260.9	5258.2	5258.2	5271.6	5282.4	5301.2	5306.6	5322.8	5346.9	5371.1	5392.6
12.5°	5145.2	5148.0	5161.4	5174.9	5199.0	5228.6	5244.7	5266.3	5303.9	5344.2	5368.5
15°	5043.0	5045.7	5056.5	5083.3	5113.0	5148.0	5182.8	5217.8	5263.5	5314.7	5357.7
17.5°	4943.5	4946.1	4954.2	4983.9	5021.5	5067.3	5107.5	5153.3	5212.5	5271.6	5325.4
20°	4852.0	4849.4	4862.8	4889.7	4938.2	4981.1	5021.5	5075.3	5139.9	5212.5	5274.3
22.5°	4763.3	4763.3	4776.8	4803.7	4846.7	4889.7	4932.7	4989.2	5053.7	5123.7	5196.3
25°	4690.6	4688.0	4706.8	4720.3	4752.5	4795.6	4841.3	4887.0	4951.6	5029.6	5099.5
27.5°	4612.7	4610.0	4612.7	4628.9	4658.4	4690.6	4725.6	4766.0	4819.8	4884.4	4951.6
30°	4440.5	4443.2	4443.2	4456.7	4472.9	4507.7	4526.6	4567.0	4615.3	4669.2	4728.4
32.5°	4185.0	4187.7	4187.7	4193.1	4206.5	4222.7	4238.8	4268.4	4306.0	4351.8	4405.6
35°	3881.1	3881.1	3878.4	3881.1	3889.2	3889.2	3902.6	3889.2	3908.0	3934.9	3975.2
37.5°	3601.4	3596.0	3590.7	3585.2	3577.1	3563.7	3544.9	3512.6	3504.5	3493.8	3496.4
40°	3354.0	3351.3	3335.1	3321.6	3294.7	3262.5	3216.8	3160.3	3114.6	3060.8	3015.1
42.5°	3079.6	3076.9	3063.5	3039.2	3009.7	2961.3	2888.7	2813.4	2721.9	2641.2	2557.9
45°	2756.8	2764.9	2746.1	2719.2	2684.2	2638.5	2557.9	2466.3	2374.9	2270.0	2165.1
47.5°	2420.6	2417.9	2404.5	2388.4	2358.8	2313.1	2259.3	2159.8	2062.9	1966.1	1858.5
50°	2108.6	2097.9	2092.5	2076.4	2057.6	2019.9	1963.4	1882.7	1796.7	1705.2	1605.7
52.5°	1812.8	1812.8	1799.3	1788.6	1772.4	1742.9	1694.5	1629.9	1557.3	1471.2	1366.3
55°	1565.4	1560.0	1546.6	1533.1	1516.9	1498.1	1455.1	1401.3	1323.3	1239.9	1148.5
57.5°	1301.8	1299.0	1293.7	1277.6	1269.5	1250.6	1202.3	1148.5	1081.3	1008.6	933.3
60°	1065.1	1054.4	1043.5	1032.8	1019.4	1000.6	968.2	922.5	866.1	801.5	726.2
62.5°	852.7	868.7	836.5	836.5	809.6	793.4	763.9	737.0	677.7	618.6	554.1
65°	664.3	664.3	650.8	640.1	623.9	605.1	575.6	548.7	505.6	459.9	414.2
67.5°	508.4	505.6	492.2	481.5	468.0	457.2	435.7	403.4	371.2	333.6	295.8
70°	373.9	371.2	368.4	349.6	338.9	325.5	309.3	287.8	263.6	236.7	201.7
72.5°	268.9	268.9	260.9	252.9	242.1	231.3	215.2	201.7	180.2	161.4	137.2
75°	172.1	169.5	169.5	156.0	156.0	139.8	129.1	121.0	110.3	99.5	78.0
77.5°	123.8	121.0	118.3	112.9	107.6	102.2	94.1	83.4	75.3	64.5	56.5
80°	83.4	78.0	75.3	75.3	67.2	64.5	67.2	51.1	48.4	40.3	35.0
82.5°	51.1	51.1	48.4	48.4	45.7	43.1	35.0	35.0	32.3	29.6	24.2
85°	26.9	35.0	24.2	26.9	24.2	26.9	24.2	18.8	16.2	13.4	13.4
87.5°	16.2	10.7	10.7	16.2	13.4	10.7	10.7	10.7	8.1	5.4	5.4
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°	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7
2.5°	5667.1	5685.9	5683.1	5707.4	5715.4	5734.3	5734.3	5747.7	5755.7	5774.6	5790.7
5°	5532.6	5562.1	5570.2	5599.7	5624.0	5653.6	5672.4	5701.9	5728.8	5769.2	5806.9
7.5°	5449.2	5473.3	5489.5	5524.5	5551.4	5583.6	5615.9	5656.2	5693.8	5742.3	5796.1
10°	5408.8	5441.1	5465.2	5500.2	5532.6	5567.5	5599.7	5645.5	5688.5	5750.4	5809.5
12.5°	5398.0	5435.7	5465.2	5513.7	5545.9	5583.6	5621.2	5672.4	5718.1	5782.6	5849.9
15°	5398.0	5449.2	5489.5	5543.3	5580.9	5629.3	5669.7	5720.8	5771.9	5839.1	5903.6
17.5°	5387.3	5449.2	5500.2	5562.1	5610.5	5659.0	5710.0	5758.5	5812.2	5876.8	5949.4
20°	5344.2	5422.3	5484.1	5556.7	5607.8	5661.6	5712.8	5766.5	5823.0	5890.2	5952.1
22.5°	5269.0	5360.4	5430.4	5508.3	5567.5	5621.2	5672.4	5726.2	5788.1	5852.6	5917.1
25°	5169.4	5255.5	5330.8	5411.4	5470.7	5529.8	5578.3	5640.2	5696.6	5758.5	5809.5
27.5°	5018.8	5110.2	5182.8	5266.3	5320.0	5376.6	5416.9	5468.0	5521.8	5572.8	5613.3
30°	4792.9	4876.3	4951.6	5026.8	5080.6	5121.1	5164.0	5204.4	5239.4	5274.3	5309.3
32.5°	4462.0	4537.4	4610.0	4679.9	4723.0	4757.9	4790.2	4814.4	4833.2	4852.0	4854.7
35°	4007.6	4069.3	4115.1	4177.0	4217.4	4249.6	4249.6	4260.3	4257.7	4249.6	4241.5
37.5°	3499.2	3523.3	3542.2	3566.4	3569.1	3569.1	3553.0	3539.5	3518.0	3512.6	3496.4
40°	2969.4	2937.0	2912.8	2880.6	2861.8	2821.4	2786.5	2762.2	2727.3	2721.9	2716.5
42.5°	2466.3	2391.0	2323.8	2267.4	2202.8	2146.3	2095.2	2057.6	2030.7	2027.9	2030.7
45°	2057.6	1971.5	1871.9	1794.0	1721.4	1651.4	1584.2	1538.5	1514.2	1508.8	1514.2
47.5°	1748.3	1648.7	1551.9	1463.1	1385.2	1307.1	1239.9	1178.0	1148.5	1140.4	1137.7
50°	1503.5	1401.3	1299.0	1207.6	1121.6	1043.5	960.2	901.0	863.4	849.9	839.2
52.5°	1264.2	1172.7	1067.8	973.7	887.5	796.1	710.1	642.8	605.1	589.1	578.2
55°	1054.4	962.9	866.1	774.6	683.2	591.7	505.6	441.1	400.8	381.9	368.4
57.5°	841.8	755.8	672.4	581.0	505.6	416.9	330.8	274.3	239.3	217.9	207.1
60°	650.8	583.6	511.0	435.7	363.1	290.5	220.5	166.7	139.8	123.8	110.3
62.5°	492.2	435.7	387.3	322.7	266.2	204.4	150.7	107.6	83.4	70.0	64.5
65°	355.0	312.0	268.9	228.6	188.3	142.6	102.2	70.0	48.4	40.3	37.6
67.5°	252.9	217.9	185.5	158.6	129.1	102.2	72.6	48.4	37.6	32.3	29.6
70°	177.5	150.7	129.1	104.9	86.0	67.2	56.5	35.0	21.5	24.2	18.8
72.5°	118.3	99.5	88.8	72.6	59.1	48.4	35.0	24.2	24.2	18.8	16.2
75°	64.5	59.1	45.7	35.0	29.6	26.9	10.7	5.4	2.7	8.1	2.7
77.5°	45.7	40.3	35.0	29.6	24.2	18.8	10.7	10.7	8.1	10.7	5.4
80°	29.6	24.2	21.5	21.5	13.4	8.1	5.4	5.4	8.1	2.7	2.7
82.5°	18.8	16.2	13.4	13.4	13.4	8.1	8.1	8.1	8.1	5.4	5.4
85°	10.7	8.1	5.4	5.4	2.7	5.4	0.0	2.7	2.7	0.0	0.0
87.5°	5.4	2.7	2.7	2.7	2.7	0.0	0.0	2.7	0.0	2.7	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°	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7	5755.7
2.5°	5801.5	5812.2	5825.7	5836.4	5860.7	5866.0	5876.8	5887.6	5895.7	5903.6	5906.4
5°	5839.1	5879.5	5917.1	5957.4	6008.6	6043.6	6083.9	6118.9	6153.8	6183.4	6204.9
7.5°	5849.9	5911.7	5968.3	6038.1	6113.4	6178.1	6245.3	6312.5	6382.4	6436.2	6482.0
10°	5871.4	5946.7	6019.3	6102.7	6199.6	6285.6	6368.9	6457.7	6546.5	6621.8	6689.1
12.5°	5909.1	5992.4	6070.5	6161.9	6261.4	6358.2	6449.6	6549.2	6643.4	6726.7	6802.0
15°	5970.9	6048.9	6124.3	6210.3	6309.8	6398.6	6490.1	6586.8	6681.0	6767.0	6837.0
17.5°	6011.2	6083.9	6159.1	6237.2	6320.6	6401.3	6487.3	6573.4	6659.4	6737.5	6802.0
20°	6011.2	6081.2	6137.7	6207.6	6285.6	6355.5	6425.5	6500.8	6576.1	6640.6	6702.5
22.5°	5962.9	6030.1	6073.1	6126.9	6194.1	6253.4	6291.0	6374.4	6430.8	6487.3	6533.0
25°	5849.9	5898.3	5933.3	5970.9	6024.8	6065.0	6097.4	6145.8	6202.2	6223.8	6256.0
27.5°	5645.5	5680.5	5699.3	5707.4	5734.3	5755.7	5761.2	5782.6	5806.9	5812.2	5825.7
30°	5322.8	5325.4	5317.3	5314.7	5301.2	5285.1	5282.4	5279.7	5269.0	5258.2	5260.9
32.5°	4835.9	4822.5	4790.2	4755.3	4720.3	4682.7	4661.1	4634.2	4618.0	4602.0	4583.1
35°	4206.5	4174.3	4128.6	4085.5	4045.2	4015.5	3967.2	3951.0	3934.9	3913.4	3908.0
37.5°	3466.9	3448.1	3405.0	3372.8	3351.3	3337.8	3313.6	3297.5	3297.5	3289.4	3284.0
40°	2703.0	2697.7	2681.5	2689.6	2678.9	2684.2	2681.5	2676.1	2689.6	2689.6	2695.0
42.5°	2027.9	2030.7	2038.8	2044.1	2060.2	2062.9	2076.4	2076.4	2084.5	2092.5	2097.9
45°	1508.8	1519.7	1519.7	1530.4	1546.6	1549.2	1554.5	1557.3	1562.6	1576.1	1581.4
47.5°	1132.3	1135.0	1135.0	1137.7	1143.0	1148.5	1145.8	1148.5	1156.5	1151.1	1156.5
50°	836.5	839.2	831.1	823.0	831.1	831.1	828.4	820.3	828.4	817.7	823.0
52.5°	570.2	567.5	559.4	562.2	556.7	554.1	554.1	548.7	548.7	548.7	537.9
55°	360.5	360.5	355.0	355.0	352.4	347.0	344.3	341.5	338.9	336.2	336.2
57.5°	201.7	204.4	196.4	193.6	196.4	193.6	188.3	188.3	188.3	180.2	185.5
60°	110.3	107.6	104.9	102.2	99.5	102.2	102.2	96.9	96.9	96.9	99.5
62.5°	59.1	59.1	56.5	56.5	53.8	53.8	59.1	51.1	53.8	51.1	53.8
65°	32.3	40.3	29.6	29.6	37.6	35.0	32.3	32.3	35.0	29.6	32.3
67.5°	35.0	24.2	21.5	24.2	21.5	21.5	21.5	26.9	24.2	18.8	24.2
70°	16.2	18.8	18.8	13.4	21.5	10.7	18.8	10.7	16.2	13.4	16.2
72.5°	16.2	16.2	16.2	10.7	16.2	10.7	13.4	13.4	10.7	10.7	16.2
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°	5.4	5.4	2.7	2.7	2.7	2.7	5.4	5.4	5.4	0.0	2.7
80°	5.4	5.4	0.0	2.7	0.0	0.0	2.7	0.0	2.7	0.0	5.4
82.5°	2.7	5.4	2.7	2.7	5.4	5.4	5.4	2.7	2.7	2.7	2.7
85°	0.0	2.7	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	2.7
87.5°	0.0	2.7	0.0	0.0	0.0	0.0	2.7	2.7	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: P250233

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5755.7	5755.7	5755.7	5755.7
2.5°	5909.1	5911.7	5917.1	5914.5
5°	6221.0	6242.6	6253.4	6250.7
7.5°	6514.2	6551.9	6573.4	6573.4
10°	6740.1	6783.2	6815.4	6820.8
12.5°	6861.1	6909.6	6952.7	6941.8
15°	6896.1	6944.6	6987.6	6979.5
17.5°	6855.8	6904.2	6936.5	6931.1
20°	6745.6	6785.9	6818.2	6815.4
22.5°	6573.4	6608.4	6635.3	6632.5
25°	6282.9	6307.2	6328.6	6317.9
27.5°	5836.4	5844.5	5857.9	5841.9
30°	5242.1	5247.4	5252.8	5250.1
32.5°	4575.1	4572.3	4567.0	4561.5
35°	3900.0	3900.0	3902.6	3886.5
37.5°	3286.7	3284.0	3292.1	3284.0
40°	2700.3	2697.7	2708.4	2695.0
42.5°	2106.0	2114.0	2116.7	2116.7
45°	1584.2	1586.9	1589.5	1589.5
47.5°	1156.5	1159.2	1172.7	1156.5
50°	817.7	820.3	823.0	817.7
52.5°	540.6	543.3	540.6	532.5
55°	330.8	333.6	333.6	333.6
57.5°	177.5	180.2	180.2	177.5
60°	96.9	94.1	96.9	91.4
62.5°	51.1	56.5	53.8	48.4
65°	32.3	32.3	32.3	37.6
67.5°	26.9	21.5	24.2	18.8
70°	16.2	18.8	18.8	13.4
72.5°	13.4	13.4	13.4	16.2
75°	0.0	0.0	0.0	0.0
77.5°	5.4	5.4	5.4	2.7
80°	2.7	0.0	2.7	0.0
82.5°	2.7	2.7	5.4	2.7
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)