

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: P250268

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P250268  
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 EC8B90950 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 5000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8862.0 lumens  
Efficiency: N/A  
Efficacy: 102.9 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

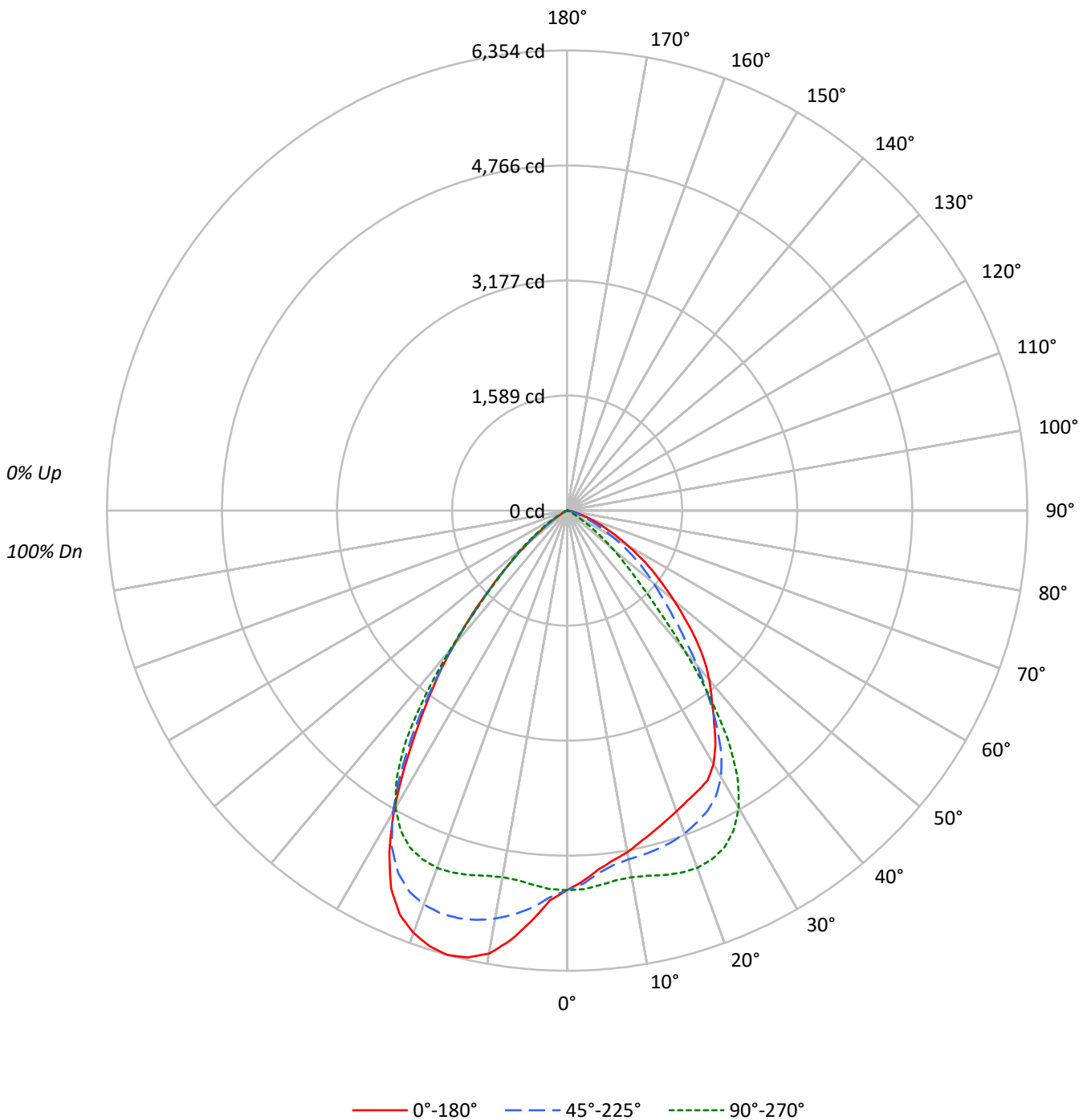
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	161585	161585	161585
5°	153941	160686	176151
10°	149972	160934	194441
15°	146570	166270	202852
20°	144958	172277	203616
25°	145297	174710	195703
30°	143947	168712	170193
35°	133016	146011	133196
40°	122915	101231	98767
45°	109450	61083	63107
50°	92093	39352	35711
55°	76621	21585	16327
60°	59804	9362	5137
65°	44129	4648	2503
70°	30690	2867	1100
75°	18670	584	0
80°	13478	870	0
85°	8668	849	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	503.8	5.7
10°-20°	1507.7	17.0
20°-30°	2308.9	26.1
30°-40°	2263.4	25.5
40°-50°	1363.1	15.4
50°-60°	627.4	7.1
60°-70°	220.4	2.5
70°-80°	57.6	0.7
80°-90°	9.8	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°	4320.3	48.8
0°-40°	6583.7	74.3
0°-60°	8574.1	96.8
0°-90°	8862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8862.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5240	5240	5240	5240	5240	
5°	4973	5020	5191	5502	5691	470
15°	4591	4839	5208	5825	6354	1297
25°	4270	4579	5135	5522	5752	1967
35°	3534	3582	3879	3656	3538	2213
45°	2510	2067	1401	1410	1447	1925
55°	1425	1129	402	316	304	1272
65°	605	419	64	32	34	616
75°	157	91	5	0	0	190
85°	24	12	2	0	0	34
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°	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1
2.5°	5117.7	5122.6	5122.6	5122.6	5132.4	5134.9	5132.4	5134.9	5139.7	5156.9	5164.2
5°	4973.2	4965.9	4970.8	4968.3	4980.6	4987.9	4983.0	4990.4	5007.5	5019.8	5032.0
7.5°	4870.4	4870.4	4870.4	4875.3	4882.6	4897.3	4894.9	4899.8	4916.9	4934.0	4951.2
10°	4789.6	4787.2	4787.2	4799.4	4809.1	4826.3	4831.2	4845.9	4867.9	4890.0	4909.5
12.5°	4684.3	4686.8	4699.0	4711.3	4733.3	4760.2	4774.9	4794.5	4828.8	4865.5	4887.6
15°	4591.2	4593.7	4603.5	4627.9	4654.9	4686.8	4718.5	4750.4	4792.0	4838.6	4877.8
17.5°	4500.6	4503.0	4510.4	4537.4	4571.7	4613.3	4650.0	4691.6	4745.5	4799.4	4848.4
20°	4417.4	4415.0	4427.2	4451.6	4495.8	4534.9	4571.7	4620.7	4679.4	4745.5	4801.8
22.5°	4336.5	4336.5	4348.8	4373.3	4412.5	4451.6	4490.9	4542.3	4601.0	4664.7	4730.8
25°	4270.4	4268.0	4285.1	4297.4	4326.8	4366.0	4407.6	4449.2	4508.0	4579.0	4642.6
27.5°	4199.5	4197.1	4199.5	4214.2	4241.1	4270.4	4302.3	4339.1	4388.0	4446.8	4508.0
30°	4042.7	4045.2	4045.2	4057.5	4072.2	4103.9	4121.1	4157.8	4201.9	4250.9	4304.8
32.5°	3810.1	3812.5	3812.5	3817.5	3829.7	3844.4	3859.1	3886.0	3920.3	3961.9	4010.9
35°	3533.5	3533.5	3530.9	3533.5	3540.8	3540.8	3553.0	3540.8	3558.0	3582.4	3619.1
37.5°	3278.8	3273.8	3269.0	3264.1	3256.7	3244.5	3227.4	3197.9	3190.6	3180.8	3183.2
40°	3053.5	3051.1	3036.4	3024.1	2999.6	2970.3	2928.6	2877.2	2835.6	2786.6	2745.0
42.5°	2803.7	2801.2	2789.0	2767.0	2740.0	2696.0	2629.9	2561.4	2478.1	2404.6	2328.7
45°	2509.8	2517.2	2500.1	2475.6	2443.7	2402.1	2328.7	2245.4	2162.1	2066.7	1971.1
47.5°	2203.8	2201.3	2189.1	2174.4	2147.5	2105.9	2056.9	1966.3	1878.1	1790.0	1692.0
50°	1919.7	1910.0	1905.0	1890.4	1873.3	1839.0	1787.5	1714.0	1635.7	1552.5	1461.8
52.5°	1650.4	1650.4	1638.1	1628.3	1613.6	1586.7	1542.7	1483.9	1417.8	1339.4	1243.9
55°	1425.2	1420.2	1408.0	1395.7	1381.0	1363.9	1324.8	1275.8	1204.7	1128.8	1045.6
57.5°	1185.2	1182.7	1177.8	1163.1	1155.7	1138.6	1094.6	1045.6	984.4	918.3	849.7
60°	969.7	959.9	950.0	940.3	928.1	910.9	881.5	839.9	788.5	729.7	661.2
62.5°	776.3	790.9	761.6	761.6	737.1	722.4	695.4	671.0	617.0	563.2	504.4
65°	604.8	604.8	592.5	582.8	568.0	550.9	524.0	499.5	460.3	418.7	377.1
67.5°	462.8	460.3	448.1	438.3	426.0	416.3	396.7	367.3	337.9	303.7	269.3
70°	340.4	337.9	335.4	318.3	308.5	296.3	281.6	262.1	240.0	215.5	183.6
72.5°	244.8	244.8	237.6	230.2	220.4	210.5	195.9	183.6	164.1	147.0	124.9
75°	156.7	154.3	154.3	142.0	142.0	127.3	117.5	110.2	100.4	90.6	71.1
77.5°	112.7	110.2	107.7	102.8	98.0	93.0	85.7	75.9	68.5	58.8	51.4
80°	75.9	71.1	68.5	68.5	61.2	58.8	61.2	46.6	44.0	36.7	31.8
82.5°	46.6	46.6	44.0	44.0	41.6	39.2	31.8	31.8	29.4	26.9	22.1
85°	24.5	31.8	22.1	24.5	22.1	24.5	22.1	17.1	14.7	12.2	12.2
87.5°	14.7	9.8	9.8	14.7	12.2	9.8	9.8	9.8	7.4	4.9	4.9
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: P250268

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1
2.5°	5159.4	5176.5	5174.0	5196.1	5203.4	5220.6	5220.6	5232.8	5240.1	5257.3	5272.0
5°	5036.9	5063.8	5071.2	5098.1	5120.2	5147.1	5164.2	5191.1	5215.6	5252.4	5286.7
7.5°	4961.0	4983.0	4997.7	5029.6	5054.1	5083.4	5112.8	5149.5	5183.8	5227.9	5276.9
10°	4924.2	4953.7	4975.6	5007.5	5036.9	5068.8	5098.1	5139.7	5178.9	5235.3	5289.1
12.5°	4914.5	4948.7	4975.6	5019.8	5049.1	5083.4	5117.7	5164.2	5205.9	5264.6	5325.9
15°	4914.5	4961.0	4997.7	5046.7	5081.0	5125.0	5161.8	5208.3	5254.8	5316.0	5374.8
17.5°	4904.7	4961.0	5007.5	5063.8	5107.9	5152.0	5198.5	5242.6	5291.5	5350.4	5416.4
20°	4865.5	4936.5	4992.8	5058.9	5105.5	5154.4	5201.0	5249.9	5301.4	5362.6	5418.9
22.5°	4797.0	4880.2	4943.9	5014.9	5068.8	5117.7	5164.2	5213.2	5269.5	5328.3	5387.1
25°	4706.3	4784.7	4853.3	4926.7	4980.6	5034.4	5078.6	5134.9	5186.3	5242.6	5289.1
27.5°	4569.2	4652.4	4718.5	4794.5	4843.4	4894.9	4931.6	4978.2	5027.2	5073.6	5110.4
30°	4363.6	4439.5	4508.0	4576.5	4625.5	4662.3	4701.4	4738.2	4770.0	4801.8	4833.6
32.5°	4062.3	4130.9	4197.1	4260.7	4299.9	4331.7	4361.0	4383.1	4400.2	4417.4	4419.8
35°	3648.6	3704.8	3746.4	3802.8	3839.6	3868.9	3868.9	3878.7	3876.2	3868.9	3861.5
37.5°	3185.7	3207.7	3224.8	3246.9	3249.3	3249.3	3234.7	3222.4	3202.9	3197.9	3183.2
40°	2703.4	2673.9	2651.9	2622.5	2605.4	2568.6	2536.9	2514.8	2482.9	2478.1	2473.2
42.5°	2245.4	2176.8	2115.7	2064.3	2005.5	1954.0	1907.5	1873.3	1848.8	1846.3	1848.8
45°	1873.3	1794.8	1704.2	1633.3	1567.2	1503.5	1442.3	1400.7	1378.6	1373.7	1378.6
47.5°	1591.7	1501.1	1412.9	1332.0	1261.1	1190.0	1128.8	1072.5	1045.6	1038.2	1035.8
50°	1368.8	1275.8	1182.7	1099.4	1021.1	950.0	874.1	820.3	786.1	773.8	764.0
52.5°	1150.9	1067.7	972.1	886.4	808.0	724.8	646.5	585.2	550.9	536.3	526.4
55°	959.9	876.7	788.5	705.2	622.0	538.7	460.3	401.5	364.9	347.7	335.4
57.5°	766.4	688.1	612.2	528.9	460.3	379.6	301.2	249.8	217.9	198.4	188.6
60°	592.5	531.4	465.2	396.7	330.6	264.5	200.8	151.8	127.3	112.7	100.4
62.5°	448.1	396.7	352.6	293.8	242.4	186.1	137.2	98.0	75.9	63.7	58.8
65°	323.2	284.0	244.8	208.1	171.4	129.8	93.0	63.7	44.0	36.7	34.3
67.5°	230.2	198.4	168.9	144.4	117.5	93.0	66.1	44.0	34.3	29.4	26.9
70°	161.6	137.2	117.5	95.5	78.3	61.2	51.4	31.8	19.6	22.1	17.1
72.5°	107.7	90.6	80.8	66.1	53.8	44.0	31.8	22.1	22.1	17.1	14.7
75°	58.8	53.8	41.6	31.8	26.9	24.5	9.8	4.9	2.4	7.4	2.4
77.5°	41.6	36.7	31.8	26.9	22.1	17.1	9.8	9.8	7.4	9.8	4.9
80°	26.9	22.1	19.6	19.6	12.2	7.4	4.9	4.9	7.4	2.4	2.4
82.5°	17.1	14.7	12.2	12.2	12.2	7.4	7.4	7.4	7.4	4.9	4.9
85°	9.8	7.4	4.9	4.9	2.4	4.9	0.0	2.4	2.4	0.0	0.0
87.5°	4.9	2.4	2.4	2.4	2.4	0.0	0.0	2.4	0.0	2.4	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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CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1	5240.1
2.5°	5281.7	5291.5	5303.8	5313.6	5335.7	5340.5	5350.4	5360.2	5367.5	5374.8	5377.3
5°	5316.0	5352.8	5387.1	5423.8	5470.3	5502.2	5538.9	5570.7	5602.6	5629.5	5649.0
7.5°	5325.9	5382.1	5433.6	5497.2	5565.8	5624.6	5685.8	5747.0	5810.7	5859.7	5901.3
10°	5345.4	5414.0	5480.1	5556.0	5644.2	5722.5	5798.4	5879.2	5960.1	6028.6	6089.9
12.5°	5379.7	5455.6	5526.7	5609.9	5700.5	5788.6	5871.9	5962.5	6048.2	6124.1	6192.7
15°	5436.1	5507.0	5575.6	5654.0	5744.6	5825.4	5908.7	5996.7	6082.5	6160.8	6224.5
17.5°	5472.7	5538.9	5607.4	5678.5	5754.3	5827.8	5906.1	5984.5	6062.9	6133.9	6192.7
20°	5472.7	5536.4	5587.8	5651.5	5722.5	5786.2	5849.9	5918.4	5987.0	6045.7	6102.1
22.5°	5428.7	5489.9	5529.1	5578.1	5639.2	5693.2	5727.4	5803.3	5854.7	5906.1	5947.8
25°	5325.9	5369.9	5401.8	5436.1	5485.0	5521.7	5551.2	5595.2	5646.6	5666.3	5695.6
27.5°	5139.7	5171.6	5188.7	5196.1	5220.6	5240.1	5245.1	5264.6	5286.7	5291.5	5303.8
30°	4845.9	4848.4	4841.0	4838.6	4826.3	4811.7	4809.1	4806.7	4797.0	4787.2	4789.6
32.5°	4402.7	4390.5	4361.0	4329.3	4297.4	4263.2	4243.5	4219.0	4204.3	4189.7	4172.6
35°	3829.7	3800.3	3758.7	3719.5	3682.8	3655.8	3611.8	3597.1	3582.4	3562.8	3558.0
37.5°	3156.3	3139.2	3100.0	3070.6	3051.1	3038.8	3016.7	3002.1	3002.1	2994.7	2989.8
40°	2460.9	2456.0	2441.3	2448.7	2438.9	2443.7	2441.3	2436.4	2448.7	2448.7	2453.6
42.5°	1846.3	1848.8	1856.1	1861.0	1875.7	1878.1	1890.4	1890.4	1897.8	1905.0	1910.0
45°	1373.7	1383.5	1383.5	1393.3	1408.0	1410.4	1415.3	1417.8	1422.6	1434.9	1439.8
47.5°	1030.9	1033.3	1033.3	1035.8	1040.6	1045.6	1043.2	1045.6	1052.9	1048.0	1052.9
50°	761.6	764.0	756.6	749.3	756.6	756.6	754.2	746.8	754.2	744.4	749.3
52.5°	519.2	516.6	509.3	511.8	506.9	504.4	504.4	499.5	499.5	499.5	489.7
55°	328.2	328.2	323.2	323.2	320.8	315.9	313.5	310.9	308.5	306.1	306.1
57.5°	183.6	186.1	178.8	176.3	178.8	176.3	171.4	171.4	171.4	164.1	168.9
60°	100.4	98.0	95.5	93.0	90.6	93.0	93.0	88.2	88.2	88.2	90.6
62.5°	53.8	53.8	51.4	51.4	49.0	49.0	53.8	46.6	49.0	46.6	49.0
65°	29.4	36.7	26.9	26.9	34.3	31.8	29.4	29.4	31.8	26.9	29.4
67.5°	31.8	22.1	19.6	22.1	19.6	19.6	19.6	24.5	22.1	17.1	22.1
70°	14.7	17.1	17.1	12.2	19.6	9.8	17.1	9.8	14.7	12.2	14.7
72.5°	14.7	14.7	14.7	9.8	14.7	9.8	12.2	12.2	9.8	9.8	14.7
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°	4.9	4.9	2.4	2.4	2.4	2.4	4.9	4.9	4.9	0.0	2.4
80°	4.9	4.9	0.0	2.4	0.0	0.0	2.4	0.0	2.4	0.0	4.9
82.5°	2.4	4.9	2.4	2.4	4.9	4.9	4.9	2.4	2.4	2.4	2.4
85°	0.0	2.4	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	2.4
87.5°	0.0	2.4	0.0	0.0	0.0	0.0	2.4	2.4	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: P250268

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5240.1	5240.1	5240.1	5240.1
2.5°	5379.7	5382.1	5387.1	5384.7
5°	5663.7	5683.4	5693.2	5690.7
7.5°	5930.6	5965.0	5984.5	5984.5
10°	6136.3	6175.5	6204.9	6209.8
12.5°	6246.5	6290.6	6329.8	6320.0
15°	6278.3	6322.5	6361.6	6354.2
17.5°	6241.7	6285.7	6315.1	6310.2
20°	6141.3	6178.0	6207.4	6204.9
22.5°	5984.5	6016.4	6040.9	6038.4
25°	5720.1	5742.1	5761.7	5751.9
27.5°	5313.6	5321.0	5333.1	5318.5
30°	4772.5	4777.3	4782.2	4779.8
32.5°	4165.2	4162.7	4157.8	4152.9
35°	3550.6	3550.6	3553.0	3538.3
37.5°	2992.2	2989.8	2997.2	2989.8
40°	2458.4	2456.0	2465.8	2453.6
42.5°	1917.3	1924.7	1927.1	1927.1
45°	1442.3	1444.7	1447.1	1447.1
47.5°	1052.9	1055.4	1067.7	1052.9
50°	744.4	746.8	749.3	744.4
52.5°	492.2	494.7	492.2	484.8
55°	301.2	303.7	303.7	303.7
57.5°	161.6	164.1	164.1	161.6
60°	88.2	85.7	88.2	83.3
62.5°	46.6	51.4	49.0	44.0
65°	29.4	29.4	29.4	34.3
67.5°	24.5	19.6	22.1	17.1
70°	14.7	17.1	17.1	12.2
72.5°	12.2	12.2	12.2	14.7
75°	0.0	0.0	0.0	0.0
77.5°	4.9	4.9	4.9	2.4
80°	2.4	0.0	2.4	0.0
82.5°	2.4	2.4	4.9	2.4
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)