

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: P249591

Luminaire Tested: **LSR8B120D010 EC8B120940 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249591  
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: LSR8B120D010 EC8B120940 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11011.0 lumens  
Efficiency: N/A  
Efficacy: 93.1 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

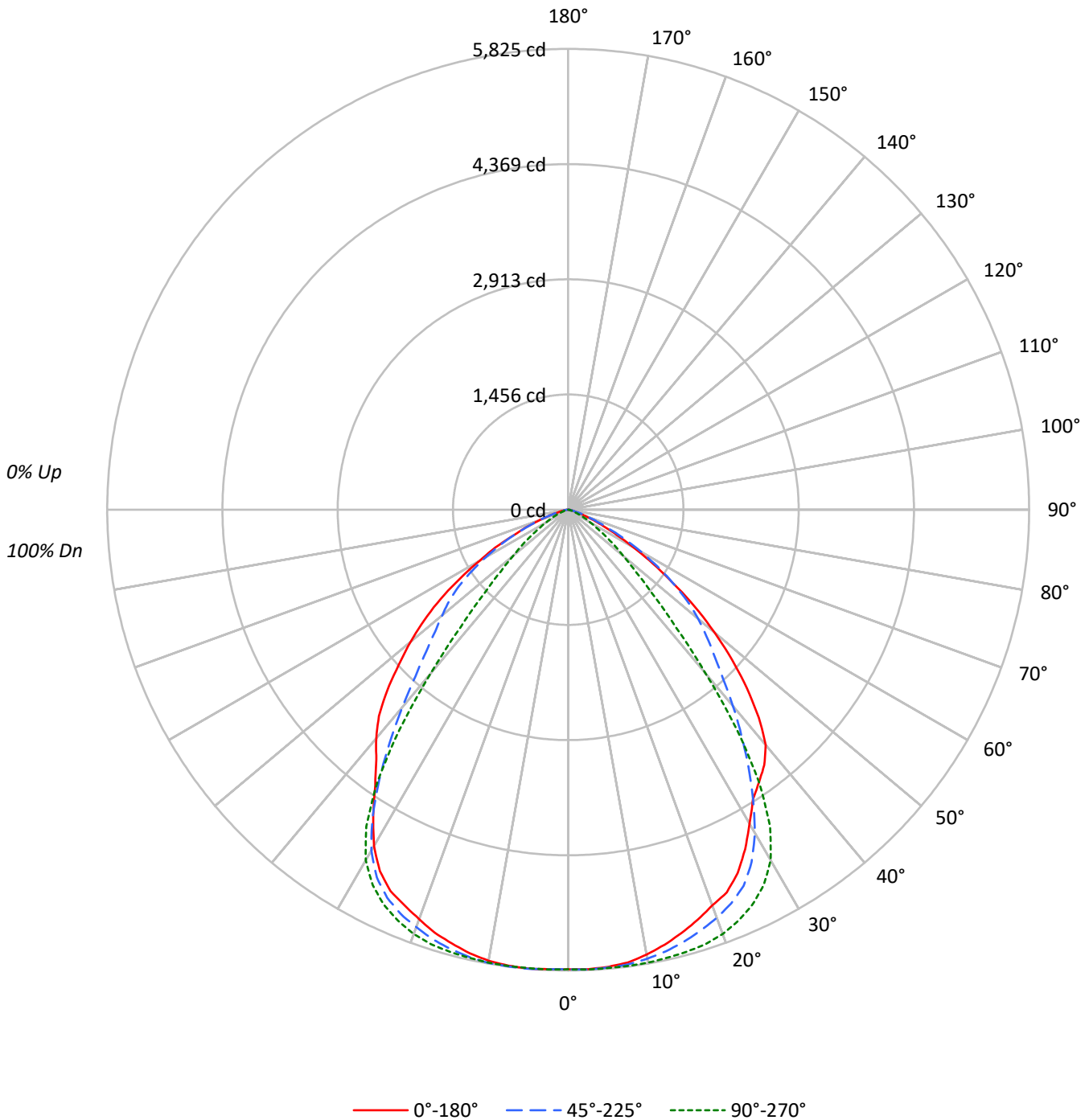
Input Watts (W): 118.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	179147	179147	179147
5°	179540	180026	180218
10°	178785	182007	181228
15°	176805	184671	181188
20°	174683	187267	180721
25°	172414	187483	180903
30°	163114	182210	174772
35°	158245	158358	160003
40°	156282	108959	151890
45°	139257	65414	141158
50°	115792	43535	124768
55°	86841	30010	105786
60°	58848	20000	79817
65°	35497	12973	54833
70°	19682	7032	33738
75°	8924	2979	17466
80°	7742	3321	12182
85°	8845	4387	12136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	554.4	5.0
10°-20°	1610.2	14.6
20°-30°	2444.0	22.2
30°-40°	2566.9	23.3
40°-50°	1924.5	17.5
50°-60°	1234.8	11.2
60°-70°	528.2	4.8
70°-80°	124.8	1.1
80°-90°	23.2	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°	4608.6	41.9
0°-40°	7175.5	65.2
0°-60°	10334.8	93.9
0°-90°	11011.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11011.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5810	5810	5810	5810	5810	
5°	5800	5810	5816	5825	5822	551
15°	5538	5654	5785	5747	5676	1562
25°	5067	5245	5510	5410	5317	2315
35°	4204	3970	4207	4157	4250	2638
45°	3193	2610	1500	2535	3237	2446
55°	1615	1615	558	1684	1968	1465
65°	486	574	178	739	752	519
75°	75	87	25	150	147	109
85°	25	16	12	25	34	26
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°	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6
2.5°	5812.7	5819.0	5815.9	5815.9	5812.7	5815.9	5815.9	5822.1	5822.1	5815.9	5812.7
5°	5800.2	5806.5	5806.5	5800.2	5800.2	5815.9	5806.5	5812.7	5812.7	5809.6	5809.6
7.5°	5772.2	5772.2	5784.7	5775.4	5775.4	5784.7	5781.5	5787.8	5794.1	5797.2	5797.2
10°	5709.8	5716.1	5719.2	5719.2	5722.3	5731.6	5737.9	5750.4	5756.6	5762.8	5766.0
12.5°	5631.9	5641.2	5644.3	5641.2	5650.6	5663.0	5678.7	5694.2	5703.6	5716.1	5725.5
15°	5538.3	5538.3	5544.5	5553.9	5560.2	5578.9	5594.4	5613.1	5638.1	5653.7	5669.3
17.5°	5435.4	5441.7	5451.0	5451.0	5463.5	5494.6	5504.0	5532.1	5560.2	5575.8	5607.0
20°	5323.2	5329.4	5338.8	5345.0	5360.6	5385.5	5404.2	5429.2	5460.4	5488.5	5519.6
22.5°	5235.8	5223.4	5229.6	5235.8	5251.5	5273.3	5295.1	5326.2	5357.4	5385.5	5416.7
25°	5067.4	5070.6	5079.9	5086.1	5104.9	5123.6	5148.5	5185.9	5214.0	5245.2	5279.5
27.5°	4839.8	4842.9	4858.5	4858.5	4874.1	4905.3	4920.8	4952.1	4989.5	5020.6	5061.2
30°	4581.0	4587.2	4587.2	4599.7	4609.0	4624.6	4640.2	4671.4	4690.1	4718.2	4774.3
32.5°	4344.0	4350.2	4347.0	4344.0	4334.6	4331.5	4328.4	4334.6	4340.9	4350.2	4372.0
35°	4203.7	4188.0	4175.6	4153.8	4128.8	4097.6	4069.5	4032.1	3997.8	3969.7	3938.6
37.5°	4069.5	4066.4	4047.7	4016.5	3966.6	3910.5	3845.0	3763.9	3682.8	3595.5	3511.4
40°	3882.4	3873.1	3857.5	3813.8	3757.7	3689.1	3601.8	3502.0	3371.0	3236.9	3099.7
42.5°	3564.3	3567.5	3548.8	3514.4	3461.5	3395.9	3305.5	3196.4	3056.1	2897.0	2719.3
45°	3193.3	3193.3	3187.0	3158.9	3121.5	3068.5	2999.9	2909.5	2772.3	2610.1	2419.9
47.5°	2806.6	2809.7	2800.3	2794.1	2778.5	2744.2	2694.3	2625.7	2529.1	2373.1	2182.9
50°	2413.7	2413.7	2429.3	2426.1	2426.1	2413.7	2391.9	2351.3	2267.1	2142.4	1964.6
52.5°	2020.7	2027.0	2036.4	2048.8	2064.4	2089.3	2064.4	2045.7	1992.6	1896.0	1743.2
55°	1615.3	1621.6	1637.2	1659.0	1677.7	1702.7	1708.9	1708.9	1680.8	1615.3	1500.0
57.5°	1269.2	1259.8	1272.3	1291.0	1316.0	1340.9	1359.6	1381.5	1378.3	1334.7	1241.1
60°	954.2	957.4	966.7	985.4	1004.1	1026.0	1050.9	1069.6	1079.0	1057.2	997.9
62.5°	695.4	695.4	707.9	726.6	735.9	767.1	782.7	792.1	801.4	798.3	760.9
65°	486.5	492.7	498.9	508.3	517.6	536.3	545.7	564.4	570.7	573.8	545.7
67.5°	343.1	333.7	339.9	346.1	355.5	368.0	386.7	386.7	396.0	396.0	377.3
70°	218.3	218.3	221.4	230.7	237.0	240.1	246.4	252.6	261.9	258.8	258.8
72.5°	146.6	143.4	146.6	149.7	152.8	162.1	162.1	165.3	171.5	174.7	162.1
75°	74.9	78.0	84.2	81.1	90.4	84.2	87.3	96.7	93.5	87.3	87.3
77.5°	62.3	62.3	62.3	59.3	65.5	65.5	62.3	68.6	65.5	65.5	62.3
80°	43.6	46.8	43.6	40.5	43.6	40.5	40.5	40.5	40.5	40.5	37.4
82.5°	34.3	28.1	31.2	28.1	31.2	31.2	28.1	25.0	25.0	28.1	25.0
85°	25.0	18.7	21.8	21.8	18.7	18.7	18.7	18.7	18.7	15.6	15.6
87.5°	15.6	9.4	9.4	9.4	12.4	12.4	12.4	9.4	12.4	12.4	6.3
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°	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6
2.5°	5819.0	5815.9	5822.1	5819.0	5819.0	5815.9	5819.0	5815.9	5822.1	5809.6	5812.7
5°	5819.0	5812.7	5815.9	5819.0	5822.1	5815.9	5815.9	5815.9	5822.1	5815.9	5819.0
7.5°	5806.5	5803.4	5812.7	5819.0	5815.9	5812.7	5819.0	5815.9	5822.1	5819.0	5825.2
10°	5781.5	5784.7	5790.9	5800.2	5803.4	5806.5	5812.7	5812.7	5822.1	5809.6	5815.9
12.5°	5744.2	5756.6	5772.2	5778.4	5790.9	5790.9	5797.2	5800.2	5806.5	5803.4	5812.7
15°	5697.4	5712.9	5731.6	5747.3	5762.8	5772.2	5781.5	5784.7	5794.1	5784.7	5787.8
17.5°	5641.2	5659.9	5688.0	5706.7	5731.6	5741.0	5753.5	5759.7	5769.1	5762.8	5766.0
20°	5563.2	5585.1	5616.3	5644.3	5659.9	5681.7	5697.4	5706.7	5712.9	5706.7	5709.8
22.5°	5454.1	5485.3	5525.8	5547.7	5578.9	5597.6	5600.7	5622.5	5638.1	5622.5	5628.8
25°	5326.2	5357.4	5388.7	5435.4	5463.5	5485.3	5507.2	5510.3	5525.8	5522.7	5519.6
27.5°	5114.2	5154.8	5207.7	5245.2	5282.6	5316.9	5341.9	5348.1	5363.7	5357.4	5360.6
30°	4824.2	4867.9	4917.8	4977.0	5030.0	5064.3	5095.5	5117.3	5132.9	5123.6	5120.5
32.5°	4412.6	4456.2	4509.3	4568.5	4630.9	4680.7	4718.2	4746.3	4765.0	4758.7	4743.1
35°	3941.7	3954.2	3988.5	4035.3	4088.2	4141.3	4175.6	4206.7	4228.6	4234.8	4234.8
37.5°	3458.3	3417.8	3392.9	3392.9	3424.0	3445.8	3477.0	3495.7	3530.1	3542.5	3551.9
40°	2990.5	2897.0	2809.7	2744.2	2700.6	2697.5	2697.5	2706.8	2738.0	2778.5	2816.0
42.5°	2572.7	2423.0	2288.9	2167.3	2080.0	2030.1	2008.3	2011.4	2036.4	2073.8	2136.1
45°	2239.0	2051.9	1883.5	1737.0	1618.5	1540.5	1503.1	1500.0	1518.7	1562.3	1631.0
47.5°	1980.2	1780.6	1590.4	1422.0	1294.2	1209.9	1166.3	1153.8	1166.3	1206.8	1287.9
50°	1765.0	1559.2	1362.8	1188.1	1050.9	963.6	923.0	907.5	923.0	957.4	1038.4
52.5°	1565.4	1353.4	1169.4	1001.0	854.4	779.6	735.9	726.6	735.9	776.5	842.0
55°	1334.7	1153.8	972.9	804.5	676.7	601.9	567.5	558.2	567.5	605.0	673.6
57.5°	1107.1	951.1	792.1	639.3	530.2	464.6	433.5	421.0	442.8	467.7	548.8
60°	895.0	770.3	636.1	502.1	411.7	352.4	327.4	324.3	330.5	361.8	417.8
62.5°	701.7	598.7	492.7	383.6	308.7	283.8	252.6	249.5	255.7	274.4	318.1
65°	505.2	439.7	358.6	280.6	221.4	187.1	174.7	177.8	184.0	196.5	237.0
67.5°	352.4	305.6	249.5	196.5	152.8	137.2	124.8	121.6	124.8	146.6	168.4
70°	237.0	208.9	168.4	149.7	106.1	84.2	87.3	78.0	90.4	90.4	109.1
72.5°	155.9	137.2	112.2	87.3	74.9	59.3	59.3	56.2	62.3	65.5	81.1
75°	81.1	62.3	62.3	43.6	31.2	15.6	28.1	25.0	21.8	25.0	31.2
77.5°	56.2	46.8	43.6	34.3	31.2	25.0	25.0	25.0	25.0	28.1	31.2
80°	34.3	34.3	25.0	21.8	18.7	15.6	18.7	18.7	18.7	18.7	21.8
82.5°	21.8	18.7	18.7	15.6	15.6	12.4	12.4	12.4	12.4	12.4	18.7
85°	18.7	12.4	12.4	9.4	12.4	21.8	9.4	12.4	12.4	12.4	9.4
87.5°	6.3	9.4	9.4	9.4	6.3	3.1	6.3	9.4	9.4	15.6	12.4
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6	5809.6
2.5°	5819.0	5822.1	5822.1	5819.0	5819.0	5812.7	5825.2	5815.9	5819.0	5831.4	5822.1
5°	5825.2	5828.3	5828.3	5825.2	5825.2	5825.2	5828.3	5828.3	5825.2	5822.1	5828.3
7.5°	5837.7	5834.6	5834.6	5828.3	5828.3	5822.1	5828.3	5819.0	5825.2	5819.0	5828.3
10°	5822.1	5825.2	5822.1	5819.0	5819.0	5815.9	5815.9	5806.5	5809.6	5800.2	5806.5
12.5°	5812.7	5809.6	5809.6	5803.4	5797.2	5790.9	5787.8	5778.4	5778.4	5756.6	5766.0
15°	5787.8	5790.9	5781.5	5769.1	5762.8	5747.3	5741.0	5728.5	5716.1	5700.5	5703.6
17.5°	5766.0	5756.6	5744.2	5731.6	5706.7	5694.2	5681.7	5663.0	5656.8	5638.1	5631.9
20°	5700.5	5694.2	5678.7	5656.8	5641.2	5613.1	5600.7	5582.0	5566.4	5547.7	5538.3
22.5°	5616.3	5610.0	5591.3	5569.5	5544.5	5532.1	5519.6	5485.3	5469.7	5451.0	5447.9
25°	5510.3	5500.9	5482.2	5457.3	5444.7	5410.5	5398.0	5373.0	5366.8	5348.1	5345.0
27.5°	5348.1	5335.6	5313.8	5282.6	5260.8	5239.0	5226.5	5207.7	5201.6	5182.8	5179.7
30°	5104.9	5089.2	5045.6	5033.2	4995.7	4973.9	4973.9	4948.9	4952.1	4939.6	4939.6
32.5°	4721.3	4696.4	4662.0	4637.1	4612.1	4599.7	4599.7	4590.3	4596.6	4596.6	4602.8
35°	4213.0	4178.7	4160.0	4144.4	4144.4	4156.8	4194.3	4203.7	4222.4	4237.9	4250.4
37.5°	3561.2	3558.2	3580.0	3598.7	3645.4	3698.5	3763.9	3820.1	3873.1	3910.5	3947.9
40°	2856.5	2934.5	2996.8	3084.2	3155.8	3258.7	3377.2	3473.9	3564.3	3629.9	3698.5
42.5°	2229.6	2329.4	2460.5	2588.3	2716.2	2856.5	3012.4	3146.5	3265.0	3355.4	3427.1
45°	1737.0	1874.2	2033.2	2195.4	2360.7	2535.3	2697.5	2834.6	2959.4	3053.0	3124.7
47.5°	1400.2	1549.9	1730.7	1908.5	2095.6	2279.5	2460.5	2579.0	2681.8	2756.7	2822.2
50°	1156.9	1316.0	1506.2	1708.9	1896.0	2080.0	2235.9	2351.3	2435.5	2501.0	2541.5
52.5°	966.7	1135.1	1337.8	1540.5	1727.6	1896.0	2036.4	2123.7	2192.3	2239.0	2276.4
55°	798.3	960.5	1150.7	1340.9	1524.9	1683.9	1799.3	1864.8	1917.8	1945.9	1967.7
57.5°	651.8	801.4	976.1	1150.7	1309.7	1440.7	1531.2	1596.6	1621.6	1643.4	1640.3
60°	511.5	651.8	810.8	960.5	1097.7	1203.7	1269.2	1306.6	1325.3	1334.7	1328.4
62.5°	402.3	530.2	651.8	782.7	882.5	972.9	1035.4	1035.4	1044.7	1047.8	1057.2
65°	299.3	396.0	502.1	598.7	679.8	739.1	773.4	782.7	795.2	792.1	785.8
67.5°	221.4	293.2	371.1	442.8	498.9	536.3	561.3	583.2	580.1	573.8	570.7
70°	152.8	199.6	268.2	311.8	352.4	389.8	396.0	399.1	402.3	405.4	399.1
72.5°	106.1	140.3	177.8	215.2	240.1	255.7	271.3	274.4	274.4	274.4	271.3
75°	53.0	71.7	106.1	121.6	143.4	149.7	162.1	162.1	171.5	159.0	155.9
77.5°	46.8	56.2	74.9	87.3	96.7	106.1	109.1	118.5	115.4	109.1	112.2
80°	28.1	34.3	46.8	53.0	65.5	68.6	71.7	74.9	71.7	74.9	74.9
82.5°	21.8	25.0	31.2	31.2	40.5	40.5	43.6	43.6	46.8	46.8	46.8
85°	12.4	21.8	18.7	37.4	25.0	25.0	31.2	37.4	31.2	31.2	37.4
87.5°	12.4	12.4	9.4	12.4	12.4	12.4	15.6	18.7	18.7	21.8	18.7
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: P249591

CATALOG NUMBER: LSR8B120D010 EC8B120940 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5809.6	5809.6	5809.6	5809.6
2.5°	5819.0	5825.2	5815.9	5812.7
5°	5828.3	5828.3	5822.1	5822.1
7.5°	5828.3	5828.3	5819.0	5812.7
10°	5803.4	5803.4	5794.1	5787.8
12.5°	5756.6	5756.6	5753.5	5744.2
15°	5697.4	5697.4	5684.9	5675.6
17.5°	5616.3	5622.5	5607.0	5607.0
20°	5529.0	5525.8	5513.4	5507.2
22.5°	5438.6	5432.3	5429.2	5410.5
25°	5341.9	5335.6	5326.2	5316.9
27.5°	5176.6	5173.5	5164.1	5151.7
30°	4924.0	4920.8	4908.4	4908.4
32.5°	4596.6	4593.4	4581.0	4584.1
35°	4256.6	4269.1	4262.9	4250.4
37.5°	3972.9	3982.2	3988.5	3982.2
40°	3735.9	3763.9	3767.1	3773.3
42.5°	3483.3	3520.7	3533.2	3539.4
45°	3180.8	3215.1	3243.2	3236.9
47.5°	2872.0	2897.0	2921.9	2903.2
50°	2575.8	2591.4	2600.8	2600.8
52.5°	2295.2	2295.2	2292.1	2295.2
55°	1974.0	1974.0	1961.5	1967.7
57.5°	1637.2	1643.4	1634.0	1618.5
60°	1325.3	1309.7	1303.5	1294.2
62.5°	1032.2	1032.2	1010.4	1038.4
65°	773.4	764.0	754.6	751.5
67.5°	561.3	558.2	548.8	545.7
70°	396.0	383.6	380.4	374.2
72.5°	265.1	265.1	258.8	258.8
75°	162.1	146.6	143.4	146.6
77.5°	112.2	109.1	109.1	106.1
80°	74.9	71.7	78.0	68.6
82.5°	46.8	49.9	46.8	49.9
85°	31.2	37.4	34.3	34.3
87.5°	18.7	18.7	18.7	18.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)