

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: P249553

Luminaire Tested: **LSR8B90D010 EC8B90850 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249553  
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: LSR8B90D010 EC8B90850 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9574.0 lumens  
Efficiency: N/A  
Efficacy: 111.2 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

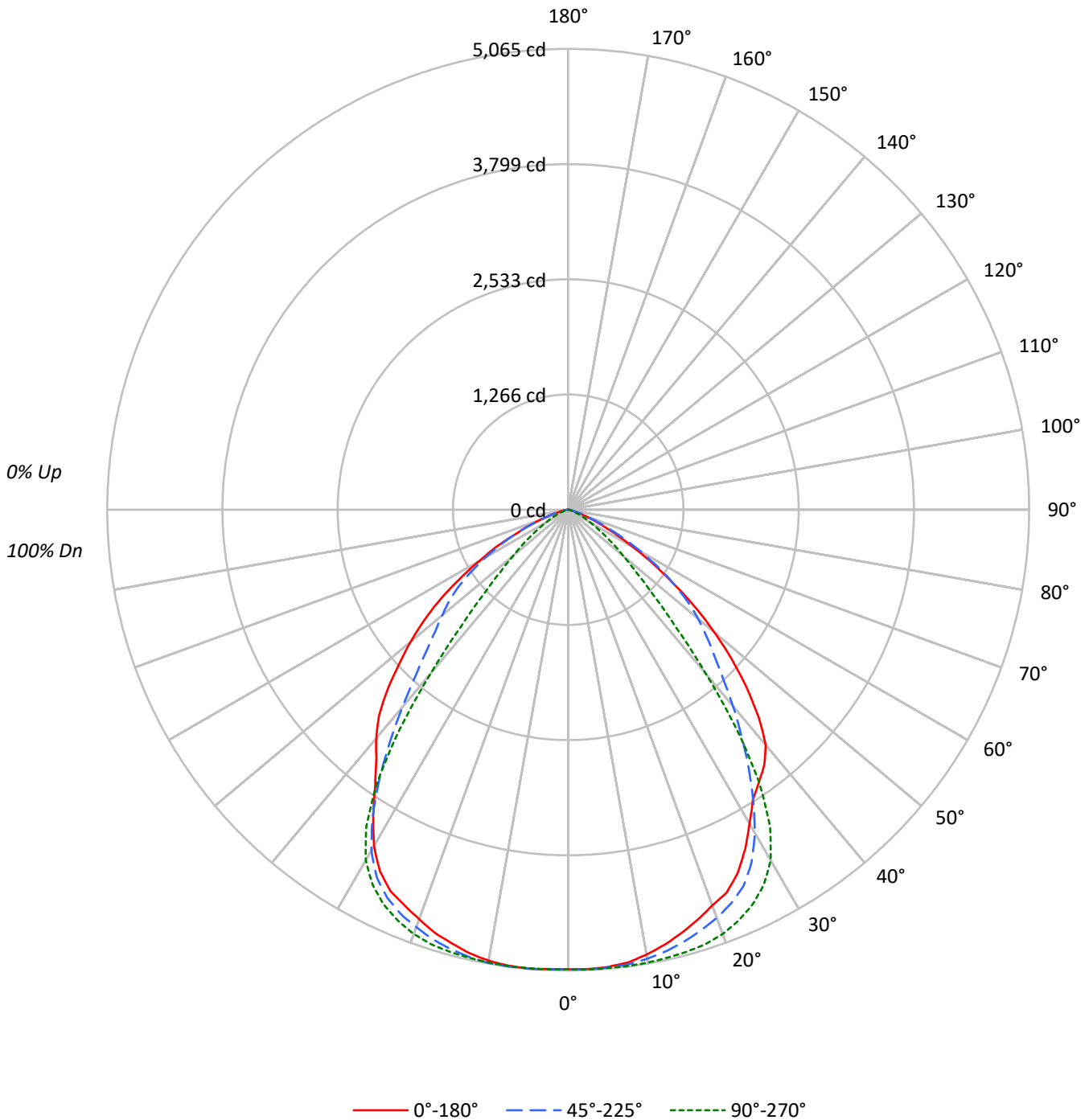
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	155767	155767	155767
5°	156111	156532	156699
10°	155455	158257	157578
15°	153731	160569	157542
20°	151886	162826	157133
25°	149914	163016	157293
30°	141825	158432	151962
35°	137593	137691	139122
40°	135889	94738	132069
45°	121081	56875	122738
50°	100680	37851	108486
55°	75508	26096	91981
60°	51170	17392	69400
65°	30864	11280	47675
70°	17112	6113	29338
75°	7756	2585	15179
80°	6730	2895	10584
85°	7678	3821	10579



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	482.1	5.0
10°-20°	1400.0	14.6
20°-30°	2125.0	22.2
30°-40°	2231.9	23.3
40°-50°	1673.3	17.5
50°-60°	1073.6	11.2
60°-70°	459.3	4.8
70°-80°	108.5	1.1
80°-90°	20.2	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°	4007.2	41.9
0°-40°	6239.0	65.2
0°-60°	8986.0	93.9
0°-90°	9574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9574.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5051	5051	5051	5051	5051	
5°	5043	5051	5057	5065	5062	479
15°	4816	4916	5030	4997	4935	1358
25°	4406	4561	4791	4704	4623	2013
35°	3655	3452	3658	3614	3696	2294
45°	2776	2270	1304	2204	2814	2126
55°	1404	1404	485	1464	1711	1274
65°	423	499	155	643	653	452
75°	65	76	22	130	127	95
85°	22	14	11	22	30	23
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°	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4
2.5°	5054.2	5059.6	5056.9	5056.9	5054.2	5056.9	5056.9	5062.3	5062.3	5056.9	5054.2
5°	5043.3	5048.7	5048.7	5043.3	5043.3	5056.9	5048.7	5054.2	5054.2	5051.4	5051.4
7.5°	5018.9	5018.9	5029.7	5021.6	5021.6	5029.7	5027.0	5032.5	5037.9	5040.6	5040.6
10°	4964.7	4970.1	4972.8	4972.8	4975.5	4983.6	4989.1	4999.9	5005.3	5010.8	5013.5
12.5°	4896.9	4905.0	4907.7	4905.0	4913.2	4924.0	4937.6	4951.1	4959.3	4970.1	4978.3
15°	4815.5	4815.5	4820.9	4829.1	4834.5	4850.8	4864.3	4880.6	4902.3	4915.9	4929.4
17.5°	4726.1	4731.5	4739.6	4739.6	4750.5	4777.6	4785.7	4810.1	4834.5	4848.1	4875.2
20°	4628.5	4633.9	4642.0	4647.5	4661.0	4682.7	4698.9	4720.6	4747.8	4772.2	4799.3
22.5°	4552.5	4541.7	4547.1	4552.5	4566.1	4585.1	4604.1	4631.1	4658.3	4682.7	4709.8
25°	4406.1	4408.8	4417.0	4422.4	4438.7	4454.9	4476.6	4509.1	4533.5	4560.7	4590.5
27.5°	4208.2	4210.9	4224.4	4224.4	4238.0	4265.1	4278.6	4305.8	4338.4	4365.4	4400.7
30°	3983.1	3988.5	3988.5	3999.4	4007.5	4021.1	4034.6	4061.8	4078.0	4102.4	4151.3
32.5°	3777.1	3782.5	3779.7	3777.1	3768.9	3766.2	3763.5	3768.9	3774.4	3782.5	3801.4
35°	3655.1	3641.5	3630.7	3611.7	3590.0	3562.9	3538.4	3505.9	3476.1	3451.7	3424.6
37.5°	3538.4	3535.7	3519.5	3492.3	3448.9	3400.2	3343.2	3272.7	3202.2	3126.3	3053.1
40°	3375.8	3367.6	3354.1	3316.1	3267.3	3207.6	3131.7	3045.0	2931.1	2814.5	2695.2
42.5°	3099.2	3101.9	3085.6	3055.8	3009.7	2952.7	2874.1	2779.3	2657.2	2518.9	2364.4
45°	2776.5	2776.5	2771.1	2746.7	2714.2	2668.1	2608.4	2529.8	2410.5	2269.5	2104.1
47.5°	2440.3	2443.0	2434.9	2429.5	2415.9	2386.1	2342.7	2283.1	2199.0	2063.4	1898.0
50°	2098.7	2098.7	2112.2	2109.5	2109.5	2098.7	2079.7	2044.4	1971.2	1862.8	1708.2
52.5°	1757.0	1762.5	1770.6	1781.4	1795.0	1816.7	1795.0	1778.7	1732.6	1648.5	1515.7
55°	1404.5	1410.0	1423.5	1442.5	1458.8	1480.5	1485.9	1485.9	1461.4	1404.5	1304.2
57.5°	1103.6	1095.4	1106.3	1122.6	1144.2	1165.9	1182.2	1201.2	1198.5	1160.5	1079.2
60°	829.7	832.4	840.5	856.8	873.1	892.1	913.8	930.0	938.2	919.2	867.7
62.5°	604.7	604.7	615.5	631.7	639.9	667.0	680.6	688.7	696.8	694.1	661.6
65°	423.0	428.4	433.8	442.0	450.1	466.3	474.5	490.8	496.2	498.9	474.5
67.5°	298.3	290.1	295.6	300.9	309.1	320.0	336.2	336.2	344.3	344.3	328.1
70°	189.8	189.8	192.5	200.6	206.1	208.8	214.2	219.6	227.8	225.0	225.0
72.5°	127.4	124.7	127.4	130.2	132.9	141.0	141.0	143.7	149.1	151.9	141.0
75°	65.1	67.8	73.2	70.5	78.6	73.2	75.9	84.1	81.3	75.9	75.9
77.5°	54.2	54.2	54.2	51.5	56.9	56.9	54.2	59.6	56.9	56.9	54.2
80°	37.9	40.7	37.9	35.2	37.9	35.2	35.2	35.2	35.2	35.2	32.5
82.5°	29.9	24.4	27.1	24.4	27.1	27.1	24.4	21.7	21.7	24.4	21.7
85°	21.7	16.3	19.0	19.0	16.3	16.3	16.3	16.3	16.3	13.5	13.5
87.5°	13.5	8.2	8.2	8.2	10.8	10.8	10.8	8.2	10.8	10.8	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°	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4
2.5°	5059.6	5056.9	5062.3	5059.6	5059.6	5056.9	5059.6	5056.9	5062.3	5051.4	5054.2
5°	5059.6	5054.2	5056.9	5059.6	5062.3	5056.9	5056.9	5056.9	5062.3	5056.9	5059.6
7.5°	5048.7	5046.0	5054.2	5059.6	5056.9	5054.2	5059.6	5056.9	5062.3	5059.6	5065.0
10°	5027.0	5029.7	5035.2	5043.3	5046.0	5048.7	5054.2	5054.2	5062.3	5051.4	5056.9
12.5°	4994.5	5005.3	5018.9	5024.3	5035.2	5035.2	5040.6	5043.3	5048.7	5046.0	5054.2
15°	4953.8	4967.4	4983.6	4997.2	5010.8	5018.9	5027.0	5029.7	5037.9	5029.7	5032.5
17.5°	4905.0	4921.3	4945.7	4961.9	4983.6	4991.8	5002.6	5008.0	5016.2	5010.8	5013.5
20°	4837.2	4856.2	4883.3	4907.7	4921.3	4940.2	4953.8	4961.9	4967.4	4961.9	4964.7
22.5°	4742.3	4769.5	4804.7	4823.7	4850.8	4867.1	4869.8	4888.8	4902.3	4888.8	4894.2
25°	4631.1	4658.3	4685.4	4726.1	4750.5	4769.5	4788.4	4791.2	4804.7	4802.0	4799.3
27.5°	4446.8	4482.1	4528.1	4560.7	4593.2	4623.0	4644.7	4650.1	4663.7	4658.3	4661.0
30°	4194.6	4232.6	4276.0	4327.5	4373.6	4403.4	4430.5	4449.5	4463.0	4454.9	4452.2
32.5°	3836.7	3874.7	3920.8	3972.3	4026.5	4069.9	4102.4	4126.8	4143.1	4137.7	4124.1
35°	3427.3	3438.1	3468.0	3508.6	3554.7	3600.8	3630.7	3657.7	3676.7	3682.1	3682.1
37.5°	3007.0	2971.8	2950.1	2950.1	2977.2	2996.1	3023.3	3039.5	3069.4	3080.2	3088.4
40°	2600.3	2518.9	2443.0	2386.1	2348.1	2345.4	2345.4	2353.5	2380.7	2415.9	2448.5
42.5°	2236.9	2106.8	1990.2	1884.5	1808.6	1765.2	1746.2	1748.9	1770.6	1803.1	1857.3
45°	1946.8	1784.1	1637.7	1510.3	1407.2	1339.4	1306.9	1304.2	1320.5	1358.4	1418.1
47.5°	1721.8	1548.2	1382.8	1236.4	1125.3	1052.0	1014.1	1003.3	1014.1	1049.3	1119.8
50°	1534.7	1355.8	1184.9	1033.1	913.8	837.9	802.6	789.0	802.6	832.4	902.9
52.5°	1361.1	1176.8	1016.8	870.4	742.9	677.8	639.9	631.7	639.9	675.1	732.1
55°	1160.5	1003.3	846.0	699.5	588.4	523.3	493.5	485.4	493.5	526.0	585.7
57.5°	962.6	827.0	688.7	555.8	461.0	404.0	376.9	366.0	385.0	406.7	477.2
60°	778.2	669.8	553.1	436.5	357.9	306.4	284.7	282.0	287.4	314.5	363.3
62.5°	610.1	520.6	428.4	333.5	268.4	246.7	219.6	216.9	222.3	238.6	276.6
65°	439.3	382.3	311.8	244.0	192.5	162.7	151.9	154.6	160.0	170.8	206.1
67.5°	306.4	265.7	216.9	170.8	132.9	119.3	108.5	105.8	108.5	127.4	146.4
70°	206.1	181.7	146.4	130.2	92.2	73.2	75.9	67.8	78.6	78.6	94.9
72.5°	135.5	119.3	97.6	75.9	65.1	51.5	51.5	48.8	54.2	56.9	70.5
75°	70.5	54.2	54.2	37.9	27.1	13.5	24.4	21.7	19.0	21.7	27.1
77.5°	48.8	40.7	37.9	29.9	27.1	21.7	21.7	21.7	21.7	24.4	27.1
80°	29.9	29.9	21.7	19.0	16.3	13.5	16.3	16.3	16.3	16.3	19.0
82.5°	19.0	16.3	16.3	13.5	13.5	10.8	10.8	10.8	10.8	10.8	16.3
85°	16.3	10.8	10.8	8.2	10.8	19.0	8.2	10.8	10.8	10.8	8.2
87.5°	5.4	8.2	8.2	8.2	5.4	2.7	5.4	8.2	8.2	13.5	10.8
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°	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4	5051.4
2.5°	5059.6	5062.3	5062.3	5059.6	5059.6	5054.2	5065.0	5056.9	5059.6	5070.4	5062.3
5°	5065.0	5067.7	5067.7	5065.0	5065.0	5065.0	5067.7	5067.7	5065.0	5062.3	5067.7
7.5°	5075.8	5073.1	5073.1	5067.7	5067.7	5062.3	5067.7	5059.6	5065.0	5059.6	5067.7
10°	5062.3	5065.0	5062.3	5059.6	5059.6	5056.9	5056.9	5048.7	5051.4	5043.3	5048.7
12.5°	5054.2	5051.4	5051.4	5046.0	5040.6	5035.2	5032.5	5024.3	5024.3	5005.3	5013.5
15°	5032.5	5035.2	5027.0	5016.2	5010.8	4997.2	4991.8	4980.9	4970.1	4956.6	4959.3
17.5°	5013.5	5005.3	4994.5	4983.6	4961.9	4951.1	4940.2	4924.0	4918.5	4902.3	4896.9
20°	4956.6	4951.1	4937.6	4918.5	4905.0	4880.6	4869.8	4853.5	4839.9	4823.7	4815.5
22.5°	4883.3	4877.9	4861.6	4842.6	4820.9	4810.1	4799.3	4769.5	4755.9	4739.6	4736.9
25°	4791.2	4783.0	4766.7	4745.0	4734.2	4704.4	4693.5	4671.8	4666.4	4650.1	4647.5
27.5°	4650.1	4639.3	4620.3	4593.2	4574.2	4555.2	4544.4	4528.1	4522.7	4506.4	4503.8
30°	4438.7	4425.1	4387.1	4376.3	4343.7	4324.8	4324.8	4303.1	4305.8	4295.0	4295.0
32.5°	4105.2	4083.5	4053.6	4031.9	4010.2	3999.4	3999.4	3991.2	3996.7	3996.7	4002.1
35°	3663.2	3633.4	3617.1	3603.5	3603.5	3614.3	3646.9	3655.1	3671.3	3684.9	3695.7
37.5°	3096.4	3093.8	3112.8	3129.0	3169.7	3215.8	3272.7	3321.6	3367.6	3400.2	3432.7
40°	2483.7	2551.5	2605.7	2681.7	2744.0	2833.5	2936.5	3020.5	3099.2	3156.2	3215.8
42.5°	1938.7	2025.4	2139.4	2250.5	2361.7	2483.7	2619.3	2735.9	2838.9	2917.5	2979.9
45°	1510.3	1629.6	1767.9	1908.9	2052.6	2204.4	2345.4	2464.7	2573.2	2654.5	2716.9
47.5°	1217.4	1347.6	1504.8	1659.4	1822.1	1982.1	2139.4	2242.4	2331.8	2396.9	2453.9
50°	1005.9	1144.2	1309.6	1485.9	1648.5	1808.6	1944.1	2044.4	2117.7	2174.6	2209.8
52.5°	840.5	986.9	1163.2	1339.4	1502.1	1648.5	1770.6	1846.5	1906.2	1946.8	1979.3
55°	694.1	835.1	1000.5	1165.9	1325.9	1464.2	1564.5	1621.5	1667.5	1691.9	1710.9
57.5°	566.7	696.8	848.7	1000.5	1138.8	1252.7	1331.3	1388.3	1410.0	1428.9	1426.2
60°	444.7	566.7	705.0	835.1	954.4	1046.6	1103.6	1136.1	1152.3	1160.5	1155.1
62.5°	349.8	461.0	566.7	680.6	767.3	846.0	900.2	900.2	908.3	911.0	919.2
65°	260.3	344.3	436.5	520.6	591.1	642.6	672.5	680.6	691.4	688.7	683.3
67.5°	192.5	254.9	322.6	385.0	433.8	466.3	488.0	507.1	504.4	498.9	496.2
70°	132.9	173.6	233.2	271.2	306.4	339.0	344.3	347.1	349.8	352.5	347.1
72.5°	92.2	122.0	154.6	187.1	208.8	222.3	235.9	238.6	238.6	238.6	235.9
75°	46.1	62.4	92.2	105.8	124.7	130.2	141.0	141.0	149.1	138.3	135.5
77.5°	40.7	48.8	65.1	75.9	84.1	92.2	94.9	103.0	100.3	94.9	97.6
80°	24.4	29.9	40.7	46.1	56.9	59.6	62.4	65.1	62.4	65.1	65.1
82.5°	19.0	21.7	27.1	27.1	35.2	35.2	37.9	37.9	40.7	40.7	40.7
85°	10.8	19.0	16.3	32.5	21.7	21.7	27.1	32.5	27.1	27.1	32.5
87.5°	10.8	10.8	8.2	10.8	10.8	10.8	13.5	16.3	16.3	19.0	16.3
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: P249553

CATALOG NUMBER: LSR8B90D010 EC8B90850 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5051.4	5051.4	5051.4	5051.4
2.5°	5059.6	5065.0	5056.9	5054.2
5°	5067.7	5067.7	5062.3	5062.3
7.5°	5067.7	5067.7	5059.6	5054.2
10°	5046.0	5046.0	5037.9	5032.5
12.5°	5005.3	5005.3	5002.6	4994.5
15°	4953.8	4953.8	4943.0	4934.9
17.5°	4883.3	4888.8	4875.2	4875.2
20°	4807.4	4804.7	4793.9	4788.4
22.5°	4728.8	4723.4	4720.6	4704.4
25°	4644.7	4639.3	4631.1	4623.0
27.5°	4501.0	4498.3	4490.2	4479.3
30°	4281.4	4278.6	4267.8	4267.8
32.5°	3996.7	3994.0	3983.1	3985.9
35°	3701.1	3712.0	3706.6	3695.7
37.5°	3454.4	3462.5	3468.0	3462.5
40°	3248.3	3272.7	3275.4	3280.9
42.5°	3028.7	3061.2	3072.1	3077.5
45°	2765.7	2795.5	2819.9	2814.5
47.5°	2497.2	2518.9	2540.6	2524.4
50°	2239.7	2253.2	2261.4	2261.4
52.5°	1995.7	1995.7	1992.9	1995.7
55°	1716.3	1716.3	1705.5	1710.9
57.5°	1423.5	1428.9	1420.8	1407.2
60°	1152.3	1138.8	1133.4	1125.3
62.5°	897.5	897.5	878.5	902.9
65°	672.5	664.3	656.2	653.4
67.5°	488.0	485.4	477.2	474.5
70°	344.3	333.5	330.8	325.4
72.5°	230.5	230.5	225.0	225.0
75°	141.0	127.4	124.7	127.4
77.5°	97.6	94.9	94.9	92.2
80°	65.1	62.4	67.8	59.6
82.5°	40.7	43.4	40.7	43.4
85°	27.1	32.5	29.9	29.9
87.5°	16.3	16.3	16.3	16.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)