

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: P248437

Luminaire Tested: **LSR8B90D010 EC8B90827 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P248437  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B90827 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 2700 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9038.0 lumens  
Efficiency: N/A  
Efficacy: 105.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

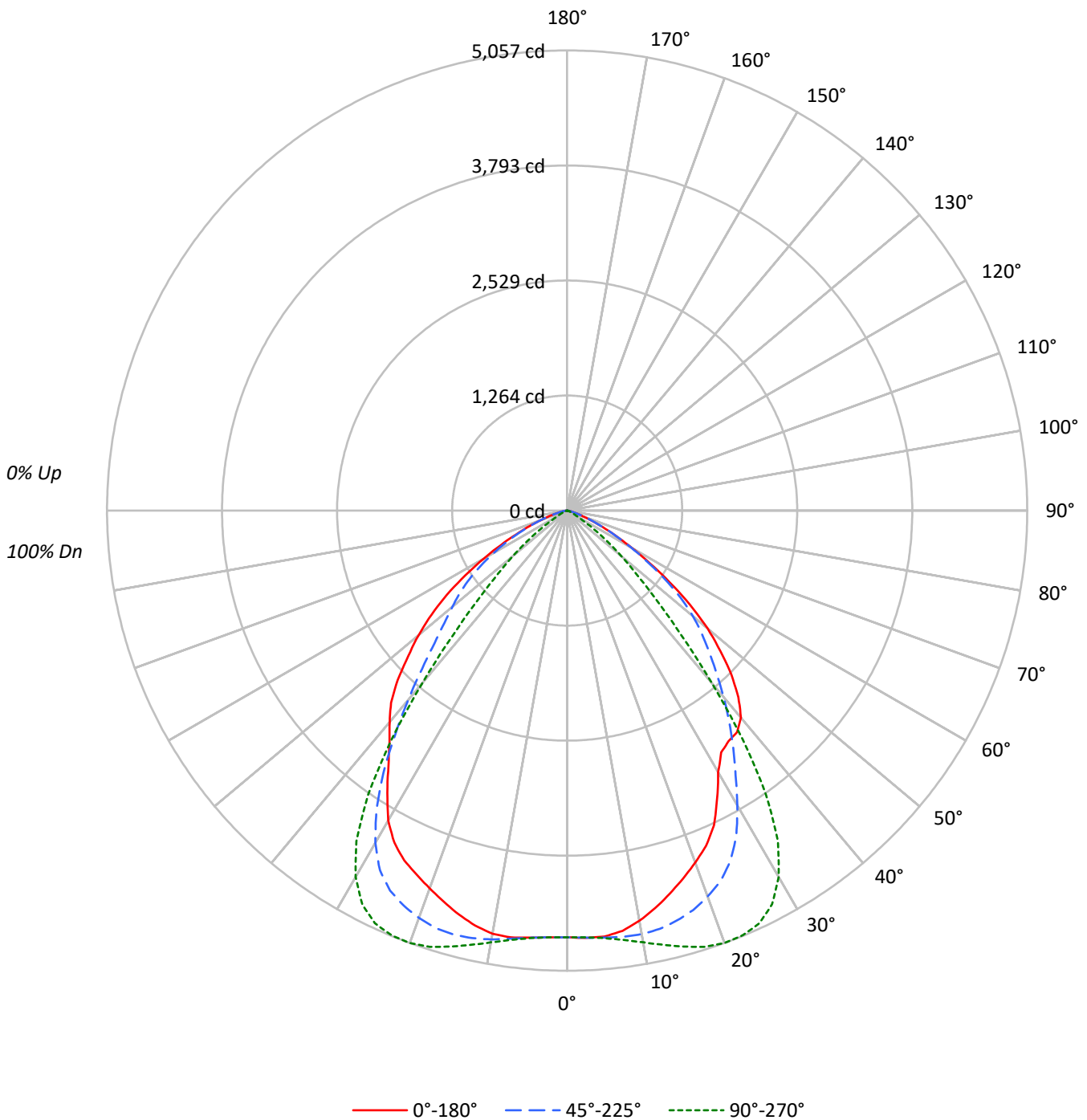
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	144579	144579	144579
5°	145441	145980	145825
10°	143303	150864	147902
15°	139112	158340	146739
20°	135078	165944	144958
25°	129890	170195	144286
30°	118207	165528	140009
35°	116449	143428	128815
40°	119615	99476	122114
45°	111352	60124	114823
50°	96584	37131	102316
55°	74121	19403	86830
60°	50498	7826	65533
65°	31411	3991	45216
70°	17049	2470	27598
75°	8900	1180	16311
80°	3978	1332	8843
85°	2654	885	7925



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	450.9	5.0
10°-20°	1335.7	14.8
20°-30°	2037.8	22.5
30°-40°	2126.5	23.5
40°-50°	1597.2	17.7
50°-60°	982.7	10.9
60°-70°	399.9	4.4
70°-80°	94.2	1.0
80°-90°	13.0	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°	3824.4	42.3
0°-40°	5950.9	65.8
0°-60°	8530.9	94.4
0°-90°	9038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9038.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4689	4689	4689	4689	4689	
5°	4699	4711	4716	4711	4711	445
15°	4358	4664	4960	4823	4596	1228
25°	3818	4246	5002	4606	4241	1736
35°	3093	3180	3810	3522	3422	1953
45°	2553	2210	1379	2058	2633	1948
55°	1379	1309	361	1309	1615	1239
65°	430	436	55	585	620	449
75°	75	75	10	132	137	90
85°	8	8	2	17	22	10
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°	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6
2.5°	4701.1	4693.6	4701.1	4701.1	4703.6	4698.6	4701.1	4703.6	4698.6	4698.6	4698.6
5°	4698.6	4693.6	4698.6	4696.1	4701.1	4701.1	4706.1	4706.1	4711.0	4711.0	4718.5
7.5°	4658.8	4648.8	4658.8	4666.2	4671.2	4681.2	4693.6	4703.6	4713.5	4723.5	4735.9
10°	4576.6	4576.6	4584.1	4599.0	4613.9	4631.4	4653.8	4678.7	4703.6	4725.9	4748.3
12.5°	4474.6	4467.1	4482.0	4502.0	4524.4	4551.8	4586.6	4623.9	4663.7	4708.5	4743.4
15°	4357.6	4350.2	4367.6	4387.5	4414.9	4454.7	4497.0	4546.8	4604.0	4663.7	4721.0
17.5°	4238.2	4235.7	4253.1	4280.5	4302.9	4345.2	4400.0	4459.6	4524.4	4604.0	4678.7
20°	4116.3	4113.8	4131.2	4153.6	4183.4	4223.2	4278.0	4347.7	4424.8	4514.4	4601.5
22.5°	3989.3	3991.8	4006.7	4031.6	4056.5	4098.8	4156.0	4225.7	4310.3	4407.4	4504.5
25°	3817.6	3805.2	3825.1	3850.0	3892.2	3927.1	3981.9	4056.5	4143.6	4245.7	4360.1
27.5°	3568.7	3566.2	3583.7	3606.0	3643.4	3685.7	3745.4	3822.6	3914.6	4026.6	4138.6
30°	3319.8	3324.8	3332.3	3354.7	3379.6	3421.9	3481.6	3546.4	3633.4	3740.4	3859.9
32.5°	3150.6	3150.6	3160.6	3175.5	3192.9	3215.3	3257.7	3304.9	3372.1	3446.8	3533.9
35°	3093.4	3083.4	3093.4	3095.9	3098.4	3103.4	3110.8	3125.8	3148.1	3180.5	3212.8
37.5°	3068.5	3061.0	3061.0	3051.1	3038.6	3023.7	3003.8	2981.4	2956.5	2924.2	2899.3
40°	2971.5	2966.5	2961.5	2951.6	2924.2	2894.3	2861.9	2809.7	2752.4	2672.8	2593.2
42.5°	2784.8	2779.8	2777.3	2757.4	2732.5	2697.7	2660.4	2605.6	2533.5	2431.4	2316.9
45°	2553.4	2543.4	2536.0	2518.5	2501.1	2471.2	2436.4	2386.6	2314.4	2209.9	2073.0
47.5°	2284.6	2279.6	2277.1	2269.7	2252.3	2234.8	2212.4	2172.6	2107.9	2008.3	1866.5
50°	2013.3	2003.4	2008.3	2005.9	1998.4	1986.0	1971.0	1943.6	1893.8	1804.3	1674.9
52.5°	1702.2	1702.2	1699.8	1707.2	1709.7	1707.2	1709.7	1679.9	1637.5	1570.3	1460.8
55°	1378.7	1378.7	1386.2	1396.2	1406.1	1408.6	1406.1	1393.7	1363.8	1309.0	1212.0
57.5°	1075.1	1070.1	1085.1	1100.0	1110.0	1119.9	1112.4	1102.5	1085.1	1040.2	965.6
60°	818.8	818.8	828.7	838.7	848.6	858.6	856.1	853.6	838.7	808.8	749.1
62.5°	602.2	604.7	604.7	612.2	622.1	632.1	639.6	632.1	624.6	604.7	564.9
65°	430.5	428.0	430.5	438.0	445.5	455.4	460.4	457.9	450.4	435.5	405.7
67.5°	288.7	286.2	296.1	298.6	303.6	313.6	311.1	313.6	311.1	298.6	273.8
70°	189.1	184.1	189.1	186.6	194.1	196.6	201.6	204.1	201.6	194.1	186.6
72.5°	117.0	114.5	117.0	119.5	122.0	124.4	129.4	129.4	126.9	122.0	112.0
75°	74.7	67.2	69.7	64.7	69.7	69.7	74.7	77.2	74.7	74.7	69.7
77.5°	44.8	44.8	44.8	44.8	44.8	44.8	44.8	47.3	49.8	44.8	42.3
80°	22.4	22.4	24.9	24.9	24.9	27.4	24.9	24.9	24.9	27.4	19.9
82.5°	17.4	14.9	14.9	14.9	17.4	14.9	14.9	14.9	14.9	14.9	14.9
85°	7.5	9.9	7.5	5.0	7.5	7.5	9.9	7.5	7.5	7.5	9.9
87.5°	2.5	2.5	0.0	0.0	0.0	2.5	0.0	2.5	2.5	5.0	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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6
2.5°	4701.1	4696.1	4696.1	4693.6	4698.6	4693.6	4696.1	4693.6	4693.6	4698.6	4693.6
5°	4718.5	4721.0	4716.0	4713.5	4721.0	4721.0	4721.0	4716.0	4716.0	4718.5	4716.0
7.5°	4743.4	4748.3	4750.8	4753.3	4758.3	4760.8	4760.8	4758.3	4755.8	4763.3	4753.3
10°	4770.7	4778.2	4793.1	4800.6	4813.1	4813.1	4818.1	4818.1	4813.1	4818.1	4815.6
12.5°	4760.8	4805.6	4830.5	4847.9	4865.3	4880.2	4885.2	4887.7	4885.2	4895.2	4885.2
15°	4778.2	4815.6	4855.4	4885.2	4917.6	4935.0	4940.0	4959.9	4964.9	4967.4	4952.4
17.5°	4750.8	4818.1	4860.3	4905.1	4952.4	4984.8	5014.6	5027.1	5029.6	5034.5	5014.6
20°	4688.6	4763.3	4828.0	4892.7	4947.5	4997.2	5022.1	5056.9	5047.0	5066.9	5039.5
22.5°	4604.0	4688.6	4770.7	4855.4	4912.6	4972.4	5024.6	5049.4	5061.9	5061.9	5032.0
25°	4469.6	4569.2	4658.8	4745.8	4833.0	4905.1	4964.9	5002.2	5009.7	5007.2	4972.4
27.5°	4260.6	4367.6	4472.1	4571.7	4678.7	4763.3	4833.0	4877.7	4890.2	4890.2	4852.9
30°	3971.9	4086.4	4188.4	4307.8	4417.4	4511.9	4609.0	4648.8	4671.2	4671.2	4628.9
32.5°	3628.4	3725.5	3820.1	3937.1	4056.5	4163.5	4255.6	4310.3	4337.7	4335.2	4297.9
35°	3255.2	3302.4	3374.6	3461.7	3568.7	3668.3	3757.8	3810.1	3857.4	3854.9	3820.1
37.5°	2881.8	2869.4	2876.9	2909.2	2976.4	3046.1	3115.8	3165.6	3205.4	3222.8	3215.3
40°	2516.0	2451.3	2389.1	2366.7	2371.7	2396.6	2433.9	2471.2	2516.0	2538.5	2548.4
42.5°	2187.5	2078.0	1968.5	1886.4	1839.1	1824.2	1841.6	1854.0	1881.4	1913.8	1946.1
45°	1923.7	1776.9	1632.5	1505.6	1426.0	1378.7	1368.8	1378.7	1393.7	1426.0	1468.3
47.5°	1707.2	1535.5	1373.8	1231.9	1114.9	1052.7	1035.3	1030.3	1045.2	1075.1	1132.3
50°	1515.6	1343.9	1164.7	1000.4	878.5	808.8	783.9	774.0	791.4	813.8	866.0
52.5°	1306.5	1137.3	953.2	793.9	667.0	594.8	567.4	552.5	562.4	592.3	644.6
55°	1080.1	923.3	756.5	592.3	470.3	403.2	370.8	360.9	370.8	403.2	455.4
57.5°	853.6	721.7	582.3	428.0	318.5	251.4	219.0	209.0	236.4	248.9	303.6
60°	667.0	560.0	440.5	313.6	219.0	166.7	134.4	126.9	139.4	161.7	206.6
62.5°	500.2	433.0	338.4	224.0	161.7	107.0	89.6	82.1	89.6	107.0	141.9
65°	363.3	311.1	236.4	164.2	109.5	79.6	59.7	54.7	62.2	74.7	104.6
67.5°	248.9	209.0	164.2	114.5	74.7	49.8	42.3	42.3	44.8	54.7	77.2
70°	161.7	136.9	104.6	74.7	49.8	37.3	32.3	27.4	32.3	39.8	52.2
72.5°	102.1	87.1	67.2	52.2	37.3	27.4	22.4	19.9	24.9	29.8	39.8
75°	62.2	47.3	34.8	27.4	19.9	19.9	19.9	9.9	12.4	19.9	24.9
77.5°	37.3	32.3	27.4	22.4	17.4	9.9	9.9	9.9	12.4	14.9	22.4
80°	19.9	17.4	12.4	12.4	9.9	7.5	9.9	7.5	5.0	12.4	14.9
82.5°	12.4	9.9	9.9	9.9	12.4	5.0	7.5	5.0	7.5	9.9	7.5
85°	7.5	7.5	7.5	5.0	12.4	5.0	5.0	2.5	2.5	5.0	5.0
87.5°	0.0	2.5	2.5	0.0	2.5	0.0	2.5	2.5	2.5	2.5	2.5
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°	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6	4688.6
2.5°	4696.1	4693.6	4696.1	4693.6	4693.6	4693.6	4696.1	4696.1	4693.6	4693.6	4698.6
5°	4716.0	4716.0	4716.0	4713.5	4711.0	4711.0	4716.0	4716.0	4708.5	4716.0	4716.0
7.5°	4758.3	4750.8	4758.3	4748.3	4743.4	4745.8	4748.3	4743.4	4738.4	4740.9	4740.9
10°	4813.1	4805.6	4805.6	4798.1	4790.7	4785.7	4780.7	4768.2	4755.8	4753.3	4743.4
12.5°	4877.7	4865.3	4857.9	4842.9	4830.5	4813.1	4798.1	4778.2	4753.3	4735.9	4718.5
15°	4942.5	4922.5	4905.1	4880.2	4852.9	4823.0	4790.7	4758.3	4718.5	4683.7	4653.8
17.5°	4994.7	4967.4	4935.0	4895.2	4855.4	4810.6	4763.3	4716.0	4658.8	4613.9	4579.1
20°	5012.1	4972.4	4930.0	4877.7	4825.5	4763.3	4703.6	4641.3	4576.6	4529.4	4489.5
22.5°	4989.8	4942.5	4890.2	4835.5	4765.7	4698.6	4628.9	4556.7	4499.5	4434.8	4397.5
25°	4927.5	4870.3	4813.1	4748.3	4681.2	4606.5	4531.9	4457.2	4387.5	4352.6	4305.4
27.5°	4800.6	4738.4	4676.2	4609.0	4531.9	4457.2	4380.0	4307.8	4248.2	4200.8	4173.5
30°	4576.6	4504.5	4432.3	4360.1	4292.9	4215.8	4143.6	4083.9	4024.1	3986.8	3959.5
32.5°	4233.2	4168.5	4096.3	4026.6	3964.5	3899.7	3840.0	3787.7	3745.4	3720.5	3700.6
35°	3770.3	3705.6	3650.9	3601.1	3548.8	3521.5	3484.1	3454.2	3436.8	3426.9	3424.4
37.5°	3187.9	3150.6	3133.2	3123.3	3113.3	3105.9	3110.8	3123.3	3133.2	3150.6	3170.5
40°	2565.8	2598.1	2608.1	2642.9	2675.3	2717.6	2764.9	2819.7	2864.4	2921.7	2961.5
42.5°	1998.4	2058.1	2127.8	2202.4	2282.1	2359.2	2453.8	2540.9	2620.5	2692.7	2754.9
45°	1535.5	1627.6	1732.1	1839.1	1946.1	2058.1	2172.6	2279.6	2374.2	2451.3	2516.0
47.5°	1197.0	1299.1	1433.5	1565.4	1694.8	1826.7	1953.6	2065.6	2145.2	2219.9	2277.1
50°	948.2	1065.1	1212.0	1363.8	1505.6	1645.0	1779.4	1883.9	1963.6	2023.3	2065.6
52.5°	734.1	873.5	1022.8	1182.1	1333.9	1485.7	1610.1	1707.2	1771.9	1824.2	1856.5
55°	547.5	684.4	843.7	1007.9	1162.2	1309.0	1426.0	1510.6	1567.9	1597.7	1615.1
57.5°	395.7	520.1	679.4	843.7	983.0	1122.4	1217.0	1294.1	1326.4	1343.9	1351.3
60°	288.7	403.2	545.0	686.9	818.8	930.8	1012.9	1065.1	1090.0	1100.0	1097.5
62.5°	211.5	311.1	433.0	552.5	659.5	751.5	816.3	851.1	863.6	868.5	861.1
65°	161.7	238.9	343.4	435.5	517.7	584.8	632.1	654.5	662.0	659.5	654.5
67.5°	119.5	179.2	256.4	326.0	385.8	438.0	462.9	482.8	487.8	480.3	472.8
70°	84.6	131.9	186.6	234.0	278.7	308.6	335.9	338.4	338.4	335.9	331.0
72.5°	59.7	92.1	126.9	159.3	186.6	209.0	219.0	226.5	224.0	221.5	216.5
75°	39.8	57.2	92.1	99.6	124.4	131.9	141.9	141.9	144.3	136.9	136.9
77.5°	24.9	39.8	54.7	64.7	74.7	84.6	89.6	89.6	92.1	89.6	89.6
80°	14.9	24.9	29.8	44.8	44.8	52.2	54.7	57.2	52.2	59.7	52.2
82.5°	9.9	14.9	22.4	22.4	27.4	32.3	32.3	34.8	34.8	32.3	32.3
85°	7.5	9.9	12.4	14.9	14.9	17.4	14.9	14.9	17.4	19.9	17.4
87.5°	2.5	5.0	2.5	5.0	5.0	9.9	7.5	7.5	7.5	9.9	9.9
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: P248437

CATALOG NUMBER: LSR8B90D010 EC8B90827 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4688.6	4688.6	4688.6	4688.6
2.5°	4693.6	4696.1	4693.6	4693.6
5°	4716.0	4713.5	4716.0	4711.0
7.5°	4733.4	4733.4	4730.9	4730.9
10°	4733.4	4723.5	4723.5	4723.5
12.5°	4696.1	4683.7	4676.2	4671.2
15°	4631.4	4609.0	4599.0	4596.5
17.5°	4546.8	4526.9	4514.4	4507.0
20°	4449.7	4429.8	4414.9	4417.4
22.5°	4365.1	4342.7	4332.7	4327.7
25°	4280.5	4253.1	4245.7	4240.7
27.5°	4143.6	4128.7	4121.2	4113.8
30°	3934.6	3927.1	3914.6	3932.1
32.5°	3693.2	3680.7	3670.8	3678.3
35°	3426.9	3419.4	3426.9	3421.9
37.5°	3183.0	3190.4	3200.4	3205.4
40°	2991.4	3018.7	3028.7	3033.6
42.5°	2799.7	2832.1	2852.0	2864.4
45°	2563.3	2595.6	2618.0	2633.0
47.5°	2319.4	2346.8	2369.2	2366.7
50°	2098.0	2112.9	2122.8	2132.8
52.5°	1873.9	1873.9	1876.4	1876.4
55°	1620.1	1615.1	1612.6	1615.1
57.5°	1341.4	1336.4	1333.9	1326.4
60°	1087.6	1072.6	1062.6	1062.6
62.5°	851.1	833.7	826.3	823.8
65°	639.6	637.1	622.1	619.7
67.5°	462.9	452.9	443.0	445.5
70°	326.0	311.1	311.1	306.1
72.5°	211.5	204.1	201.6	201.6
75°	131.9	131.9	126.9	136.9
77.5°	87.1	87.1	84.6	87.1
80°	52.2	52.2	52.2	49.8
82.5°	32.3	34.8	32.3	32.3
85°	17.4	19.9	14.9	22.4
87.5°	9.9	12.4	9.9	12.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)