

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: P249085

Luminaire Tested: **LSR8B90D010 EC8B90827 8LBDW0H**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249085  
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 EC8B90827 8LBDW0H  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 2700 CCT WITH SEMI-SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8968.0 lumens  
Efficiency: N/A  
Efficacy: 104.2 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

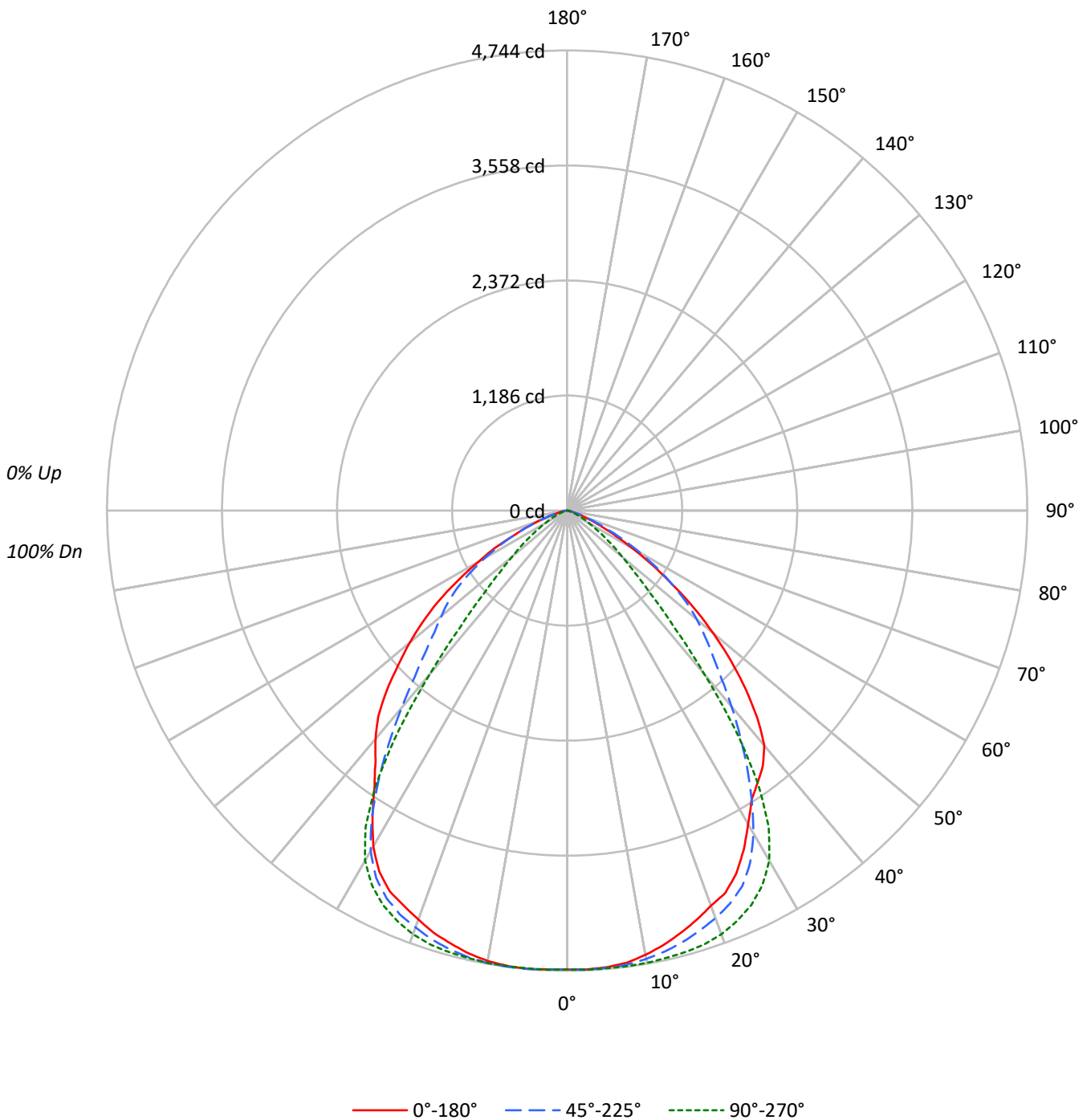
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	145908	145908	145908
5°	146230	146623	146781
10°	145613	148237	147602
15°	144000	150407	147569
20°	142271	152522	147187
25°	140424	152697	147338
30°	132849	148402	142345
35°	128882	128977	130317
40°	127287	88740	123708
45°	113419	53277	114967
50°	94305	35457	101616
55°	70729	24445	86158
60°	47932	16288	65003
65°	28909	10565	44662
70°	16030	5725	27481
75°	7268	2419	14226
80°	6304	2699	9927
85°	7182	3573	9907



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	451.6	5.0
10°-20°	1311.4	14.6
20°-30°	1990.5	22.2
30°-40°	2090.6	23.3
40°-50°	1567.4	17.5
50°-60°	1005.7	11.2
60°-70°	430.2	4.8
70°-80°	101.6	1.1
80°-90°	18.9	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°	3753.5	41.9
0°-40°	5844.1	65.2
0°-60°	8417.2	93.9
0°-90°	8968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8968.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4732	4732	4732	4732	4732	
5°	4724	4732	4737	4744	4742	449
15°	4511	4605	4711	4681	4622	1272
25°	4127	4272	4488	4407	4330	1885
35°	3424	3233	3426	3386	3462	2149
45°	2601	2126	1222	2065	2636	1992
55°	1316	1316	455	1372	1603	1193
65°	396	467	145	602	612	423
75°	61	71	20	122	119	89
85°	20	13	10	20	28	21
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°	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7
2.5°	4734.2	4739.3	4736.8	4736.8	4734.2	4736.8	4736.8	4741.9	4741.9	4736.8	4734.2
5°	4724.1	4729.1	4729.1	4724.1	4724.1	4736.8	4729.1	4734.2	4734.2	4731.7	4731.7
7.5°	4701.2	4701.2	4711.4	4703.8	4703.8	4711.4	4708.8	4713.9	4719.0	4721.6	4721.6
10°	4650.4	4655.5	4658.1	4658.1	4660.6	4668.2	4673.3	4683.5	4688.5	4693.6	4696.1
12.5°	4587.0	4594.5	4597.1	4594.5	4602.2	4612.3	4625.1	4637.7	4645.4	4655.5	4663.1
15°	4510.7	4510.7	4515.8	4523.4	4528.5	4543.8	4556.4	4571.7	4592.0	4604.7	4617.4
17.5°	4426.9	4432.0	4439.6	4439.6	4449.8	4475.2	4482.8	4505.7	4528.5	4541.2	4566.6
20°	4335.5	4340.6	4348.2	4353.3	4366.0	4386.3	4401.5	4421.8	4447.3	4470.1	4495.5
22.5°	4264.4	4254.2	4259.3	4264.4	4277.1	4294.9	4312.6	4338.0	4363.4	4386.3	4411.7
25°	4127.2	4129.8	4137.4	4142.4	4157.7	4172.9	4193.3	4223.7	4246.6	4272.0	4299.9
27.5°	3941.8	3944.4	3957.0	3957.0	3969.7	3995.1	4007.8	4033.2	4063.8	4089.1	4122.2
30°	3731.0	3736.1	3736.1	3746.3	3753.8	3766.6	3779.3	3804.7	3819.9	3842.8	3888.5
32.5°	3538.0	3543.0	3540.5	3538.0	3530.4	3527.8	3525.3	3530.4	3535.5	3543.0	3560.8
35°	3423.7	3411.0	3400.8	3383.1	3362.8	3337.3	3314.5	3284.0	3256.0	3233.2	3207.8
37.5°	3314.5	3311.9	3296.7	3271.3	3230.6	3185.0	3131.6	3065.6	2999.5	2928.4	2859.9
40°	3162.1	3154.4	3141.8	3106.2	3060.5	3004.6	2933.5	2852.2	2745.5	2636.3	2524.6
42.5°	2903.0	2905.5	2890.3	2862.4	2819.2	2765.8	2692.2	2603.3	2489.0	2359.5	2214.7
45°	2600.8	2600.8	2595.7	2572.8	2542.4	2499.2	2443.3	2369.7	2257.9	2125.8	1970.9
47.5°	2285.8	2288.4	2280.7	2275.7	2263.0	2235.1	2194.4	2138.5	2059.8	1932.8	1777.9
50°	1965.8	1965.8	1978.5	1976.0	1976.0	1965.8	1948.1	1915.0	1846.5	1744.9	1600.1
52.5°	1645.8	1650.9	1658.5	1668.7	1681.3	1701.7	1681.3	1666.1	1622.9	1544.2	1419.8
55°	1315.6	1320.7	1333.4	1351.2	1366.5	1386.8	1391.8	1391.8	1368.9	1315.6	1221.7
57.5°	1033.7	1026.1	1036.3	1051.5	1071.8	1092.1	1107.4	1125.1	1122.6	1087.0	1010.9
60°	777.2	779.7	787.3	802.6	817.8	835.6	855.9	871.2	878.8	861.0	812.7
62.5°	566.4	566.4	576.5	591.8	599.4	624.8	637.5	645.1	652.7	650.2	619.7
65°	396.2	401.3	406.4	414.0	421.6	436.8	444.5	459.7	464.8	467.3	444.5
67.5°	279.4	271.8	276.9	281.9	289.5	299.7	315.0	315.0	322.5	322.5	307.3
70°	177.8	177.8	180.3	187.9	193.0	195.6	200.7	205.7	213.3	210.8	210.8
72.5°	119.4	116.8	119.4	121.9	124.5	132.1	132.1	134.6	139.7	142.2	132.1
75°	61.0	63.5	68.5	66.1	73.6	68.5	71.1	78.7	76.2	71.1	71.1
77.5°	50.8	50.8	50.8	48.3	53.3	53.3	50.8	55.9	53.3	53.3	50.8
80°	35.5	38.1	35.5	33.0	35.5	33.0	33.0	33.0	33.0	33.0	30.5
82.5°	28.0	22.9	25.4	22.9	25.4	25.4	22.9	20.3	20.3	22.9	20.3
85°	20.3	15.2	17.8	17.8	15.2	15.2	15.2	15.2	15.2	12.7	12.7
87.5°	12.7	7.6	7.6	7.6	10.1	10.1	10.1	7.6	10.1	10.1	5.1
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°	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7
2.5°	4739.3	4736.8	4741.9	4739.3	4739.3	4736.8	4739.3	4736.8	4741.9	4731.7	4734.2
5°	4739.3	4734.2	4736.8	4739.3	4741.9	4736.8	4736.8	4736.8	4741.9	4736.8	4739.3
7.5°	4729.1	4726.6	4734.2	4739.3	4736.8	4734.2	4739.3	4736.8	4741.9	4739.3	4744.4
10°	4708.8	4711.4	4716.5	4724.1	4726.6	4729.1	4734.2	4734.2	4741.9	4731.7	4736.8
12.5°	4678.4	4688.5	4701.2	4706.3	4716.5	4716.5	4721.6	4724.1	4729.1	4726.6	4734.2
15°	4640.3	4653.0	4668.2	4680.9	4693.6	4701.2	4708.8	4711.4	4719.0	4711.4	4713.9
17.5°	4594.5	4609.8	4632.6	4647.9	4668.2	4675.8	4686.0	4691.1	4698.7	4693.6	4696.1
20°	4531.0	4548.9	4574.2	4597.1	4609.8	4627.5	4640.3	4647.9	4653.0	4647.9	4650.4
22.5°	4442.2	4467.6	4500.6	4518.3	4543.8	4559.0	4561.5	4579.3	4592.0	4579.3	4584.4
25°	4338.0	4363.4	4388.8	4426.9	4449.8	4467.6	4485.3	4487.9	4500.6	4498.0	4495.5
27.5°	4165.3	4198.4	4241.5	4272.0	4302.5	4330.4	4350.7	4355.8	4368.5	4363.4	4366.0
30°	3929.1	3964.7	4005.3	4053.6	4096.8	4124.7	4150.1	4167.8	4180.5	4172.9	4170.4
32.5°	3593.9	3629.4	3672.6	3720.8	3771.7	3812.3	3842.8	3865.6	3880.9	3875.8	3863.1
35°	3210.4	3220.5	3248.5	3286.6	3329.7	3372.9	3400.8	3426.2	3444.0	3449.1	3449.1
37.5°	2816.7	2783.7	2763.4	2763.4	2788.7	2806.5	2831.9	2847.1	2875.1	2885.2	2892.9
40°	2435.7	2359.5	2288.4	2235.1	2199.5	2197.0	2197.0	2204.5	2230.0	2263.0	2293.5
42.5°	2095.4	1973.4	1864.2	1765.2	1694.1	1653.4	1635.7	1638.2	1658.5	1689.0	1739.8
45°	1823.6	1671.2	1534.1	1414.7	1318.2	1254.7	1224.2	1221.7	1236.9	1272.4	1328.4
47.5°	1612.8	1450.2	1295.3	1158.1	1054.0	985.4	949.9	939.8	949.9	982.9	1049.0
50°	1437.5	1269.9	1109.9	967.7	855.9	784.8	751.8	739.1	751.8	779.7	845.7
52.5°	1275.0	1102.3	952.4	815.3	695.9	634.9	599.4	591.8	599.4	632.4	685.8
55°	1087.0	939.8	792.4	655.3	551.2	490.2	462.2	454.7	462.2	492.8	548.6
57.5°	901.7	774.6	645.1	520.7	431.8	378.4	353.0	342.9	360.6	381.0	447.0
60°	728.9	627.4	518.1	408.9	335.3	287.0	266.7	264.1	269.2	294.6	340.3
62.5°	571.5	487.7	401.3	312.4	251.4	231.1	205.7	203.2	208.3	223.5	259.1
65°	411.5	358.1	292.1	228.6	180.3	152.4	142.2	144.8	149.8	160.0	193.0
67.5°	287.0	248.9	203.2	160.0	124.5	111.7	101.6	99.1	101.6	119.4	137.2
70°	193.0	170.2	137.2	121.9	86.4	68.5	71.1	63.5	73.6	73.6	88.9
72.5°	127.0	111.7	91.4	71.1	61.0	48.3	48.3	45.7	50.8	53.3	66.1
75°	66.1	50.8	50.8	35.5	25.4	12.7	22.9	20.3	17.8	20.3	25.4
77.5°	45.7	38.1	35.5	28.0	25.4	20.3	20.3	20.3	20.3	22.9	25.4
80°	28.0	28.0	20.3	17.8	15.2	12.7	15.2	15.2	15.2	15.2	17.8
82.5°	17.8	15.2	15.2	12.7	12.7	10.1	10.1	10.1	10.1	10.1	15.2
85°	15.2	10.1	10.1	7.6	10.1	17.8	7.6	10.1	10.1	10.1	7.6
87.5°	5.1	7.6	7.6	7.6	5.1	2.5	5.1	7.6	7.6	12.7	10.1
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°	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7	4731.7
2.5°	4739.3	4741.9	4741.9	4739.3	4739.3	4734.2	4744.4	4736.8	4739.3	4749.5	4741.9
5°	4744.4	4746.9	4746.9	4744.4	4744.4	4744.4	4746.9	4746.9	4744.4	4741.9	4746.9
7.5°	4754.6	4752.0	4752.0	4746.9	4746.9	4741.9	4746.9	4739.3	4744.4	4739.3	4746.9
10°	4741.9	4744.4	4741.9	4739.3	4739.3	4736.8	4736.8	4729.1	4731.7	4724.1	4729.1
12.5°	4734.2	4731.7	4731.7	4726.6	4721.6	4716.5	4713.9	4706.3	4706.3	4688.5	4696.1
15°	4713.9	4716.5	4708.8	4698.7	4693.6	4680.9	4675.8	4665.6	4655.5	4642.8	4645.4
17.5°	4696.1	4688.5	4678.4	4668.2	4647.9	4637.7	4627.5	4612.3	4607.2	4592.0	4587.0
20°	4642.8	4637.7	4625.1	4607.2	4594.5	4571.7	4561.5	4546.3	4533.6	4518.3	4510.7
22.5°	4574.2	4569.1	4553.9	4536.1	4515.8	4505.7	4495.5	4467.6	4454.8	4439.6	4437.1
25°	4487.9	4480.3	4465.0	4444.7	4434.5	4406.6	4396.4	4376.1	4371.1	4355.8	4353.3
27.5°	4355.8	4345.6	4327.9	4302.5	4284.7	4266.9	4256.8	4241.5	4236.5	4221.2	4218.7
30°	4157.7	4145.0	4109.4	4099.3	4068.8	4051.0	4051.0	4030.7	4033.2	4023.1	4023.1
32.5°	3845.3	3825.0	3797.0	3776.7	3756.4	3746.3	3746.3	3738.6	3743.7	3743.7	3748.8
35°	3431.3	3403.4	3388.1	3375.4	3375.4	3385.6	3416.1	3423.7	3438.9	3451.6	3461.8
37.5°	2900.5	2898.0	2915.7	2931.0	2969.1	3012.3	3065.6	3111.3	3154.4	3185.0	3215.4
40°	2326.5	2390.0	2440.8	2511.9	2570.3	2654.1	2750.6	2829.4	2903.0	2956.4	3012.3
42.5°	1816.0	1897.2	2003.9	2108.0	2212.2	2326.5	2453.5	2562.7	2659.2	2732.8	2791.3
45°	1414.7	1526.4	1656.0	1788.0	1922.7	2064.9	2197.0	2308.7	2410.3	2486.5	2544.9
47.5°	1140.4	1262.3	1409.6	1554.4	1706.8	1856.6	2003.9	2100.5	2184.2	2245.2	2298.6
50°	942.3	1071.8	1226.8	1391.8	1544.2	1694.1	1821.0	1915.0	1983.6	2036.9	2069.9
52.5°	787.3	924.5	1089.6	1254.7	1407.0	1544.2	1658.5	1729.6	1785.5	1823.6	1854.0
55°	650.2	782.3	937.2	1092.1	1242.0	1371.5	1465.5	1518.8	1562.0	1584.8	1602.6
57.5°	530.8	652.7	795.0	937.2	1066.7	1173.4	1247.1	1300.4	1320.7	1338.5	1335.9
60°	416.6	530.8	660.4	782.3	894.0	980.3	1033.7	1064.2	1079.4	1087.0	1082.0
62.5°	327.6	431.8	530.8	637.5	718.8	792.4	843.3	843.3	850.8	853.4	861.0
65°	243.8	322.5	408.9	487.7	553.7	601.9	629.9	637.5	647.7	645.1	640.0
67.5°	180.3	238.8	302.2	360.6	406.4	436.8	457.1	475.0	472.4	467.3	464.8
70°	124.5	162.6	218.4	254.0	287.0	317.5	322.5	325.1	327.6	330.2	325.1
72.5°	86.4	114.3	144.8	175.3	195.6	208.3	221.0	223.5	223.5	223.5	221.0
75°	43.2	58.4	86.4	99.1	116.8	121.9	132.1	132.1	139.7	129.5	127.0
77.5°	38.1	45.7	61.0	71.1	78.7	86.4	88.9	96.5	94.0	88.9	91.4
80°	22.9	28.0	38.1	43.2	53.3	55.9	58.4	61.0	58.4	61.0	61.0
82.5°	17.8	20.3	25.4	25.4	33.0	33.0	35.5	35.5	38.1	38.1	38.1
85°	10.1	17.8	15.2	30.5	20.3	20.3	25.4	30.5	25.4	25.4	30.5
87.5°	10.1	10.1	7.6	10.1	10.1	10.1	12.7	15.2	15.2	17.8	15.2
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: P249085

CATALOG NUMBER: LSR8B90D010 EC8B90827 8LBDW0H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4731.7	4731.7	4731.7	4731.7
2.5°	4739.3	4744.4	4736.8	4734.2
5°	4746.9	4746.9	4741.9	4741.9
7.5°	4746.9	4746.9	4739.3	4734.2
10°	4726.6	4726.6	4719.0	4713.9
12.5°	4688.5	4688.5	4686.0	4678.4
15°	4640.3	4640.3	4630.1	4622.5
17.5°	4574.2	4579.3	4566.6	4566.6
20°	4503.1	4500.6	4490.4	4485.3
22.5°	4429.5	4424.4	4421.8	4406.6
25°	4350.7	4345.6	4338.0	4330.4
27.5°	4216.1	4213.6	4205.9	4195.8
30°	4010.4	4007.8	3997.7	3997.7
32.5°	3743.7	3741.2	3731.0	3733.6
35°	3466.8	3477.0	3471.9	3461.8
37.5°	3235.7	3243.4	3248.5	3243.4
40°	3042.7	3065.6	3068.1	3073.2
42.5°	2837.0	2867.5	2877.6	2882.7
45°	2590.6	2618.6	2641.4	2636.3
47.5°	2339.2	2359.5	2379.8	2364.6
50°	2097.9	2110.6	2118.2	2118.2
52.5°	1869.3	1869.3	1866.8	1869.3
55°	1607.7	1607.7	1597.6	1602.6
57.5°	1333.4	1338.5	1330.8	1318.2
60°	1079.4	1066.7	1061.6	1054.0
62.5°	840.7	840.7	822.9	845.7
65°	629.9	622.3	614.6	612.1
67.5°	457.1	454.7	447.0	444.5
70°	322.5	312.4	309.9	304.8
72.5°	215.9	215.9	210.8	210.8
75°	132.1	119.4	116.8	119.4
77.5°	91.4	88.9	88.9	86.4
80°	61.0	58.4	63.5	55.9
82.5°	38.1	40.6	38.1	40.6
85°	25.4	30.5	28.0	28.0
87.5°	15.2	15.2	15.2	15.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)