

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: P249274

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBDW0WMH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249274  
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 EC8B90950 8LBDW0WMH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 5000 CCT WITH WARM HAZE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8770.0 lumens  
Efficiency: N/A  
Efficacy: 101.9 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

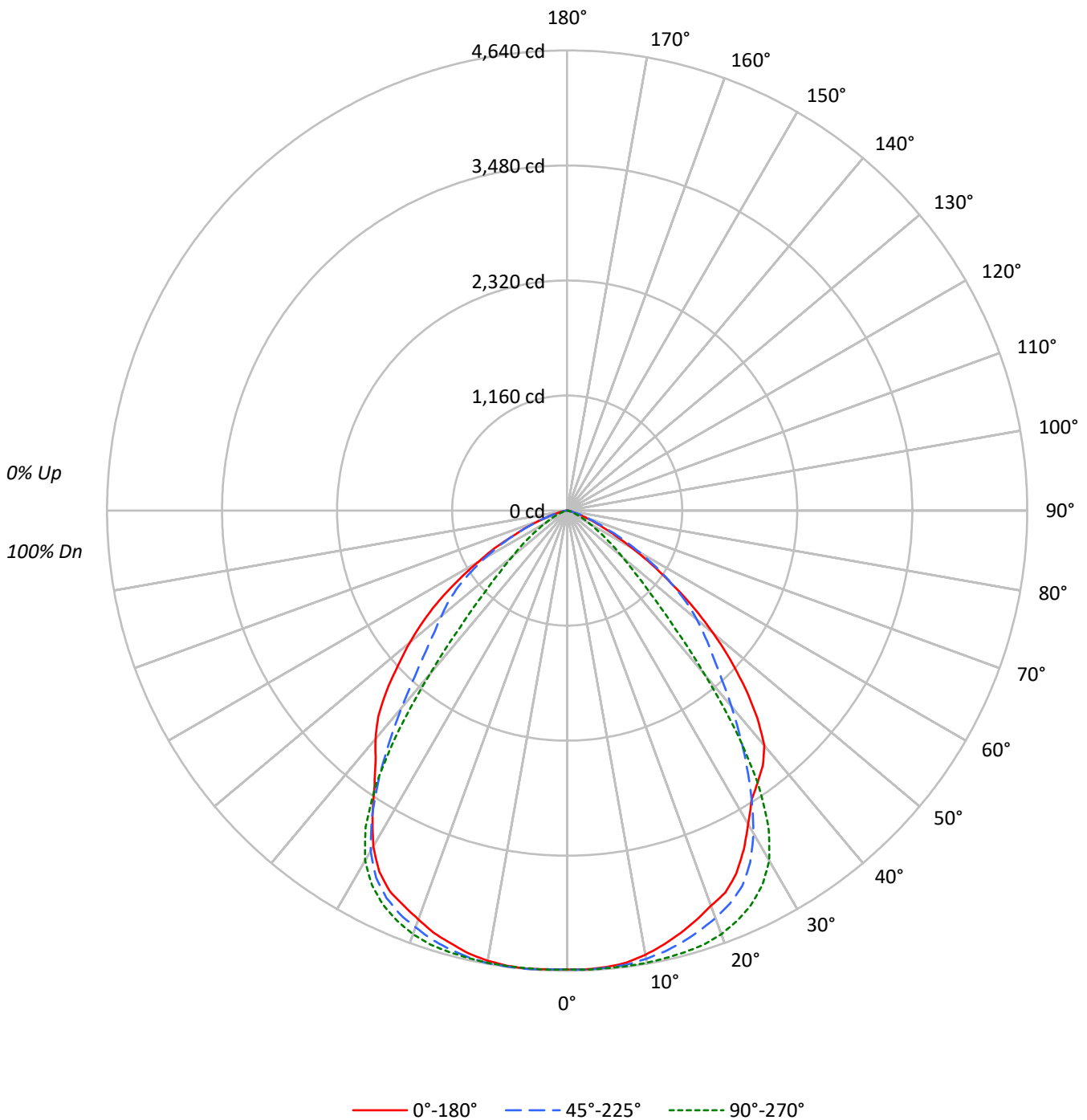
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	142686	142686	142686
5°	143002	143386	143540
10°	142398	144965	144342
15°	140820	147087	144310
20°	139130	149152	143938
25°	137325	149325	144085
30°	129918	145126	139201
35°	126037	126131	127441
40°	124477	86783	120979
45°	110915	52100	112429
50°	92223	34675	99376
55°	69170	23902	84255
60°	46871	15930	63572
65°	28274	10332	43677
70°	15679	5599	26867
75°	7101	2371	13904
80°	6180	2646	9696
85°	7041	3503	9659



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	441.6	5.0
10°-20°	1282.5	14.6
20°-30°	1946.6	22.2
30°-40°	2044.5	23.3
40°-50°	1532.8	17.5
50°-60°	983.5	11.2
60°-70°	420.7	4.8
70°-80°	99.4	1.1
80°-90°	18.5	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°	3670.6	41.9
0°-40°	5715.1	65.2
0°-60°	8231.4	93.9
0°-90°	8770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8770.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4627	4627	4627	4627	4627	
5°	4620	4627	4632	4640	4637	439
15°	4411	4503	4607	4578	4520	1244
25°	4036	4178	4389	4309	4235	1844
35°	3348	3162	3351	3311	3385	2101
45°	2543	2079	1195	2019	2578	1948
55°	1287	1287	445	1341	1567	1167
65°	388	457	142	589	599	414
75°	60	70	20	119	117	87
85°	20	12	10	20	27	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°	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2
2.5°	4629.7	4634.7	4632.2	4632.2	4629.7	4632.2	4632.2	4637.2	4637.2	4632.2	4629.7
5°	4619.8	4624.7	4624.7	4619.8	4619.8	4632.2	4624.7	4629.7	4629.7	4627.2	4627.2
7.5°	4597.4	4597.4	4607.4	4599.9	4599.9	4607.4	4604.9	4609.8	4614.8	4617.3	4617.3
10°	4547.7	4552.7	4555.2	4555.2	4557.7	4565.1	4570.1	4580.1	4585.0	4590.0	4592.5
12.5°	4485.7	4493.1	4495.6	4493.1	4500.6	4510.5	4522.9	4535.3	4542.8	4552.7	4560.2
15°	4411.1	4411.1	4416.1	4423.6	4428.6	4443.4	4455.8	4470.7	4490.6	4503.1	4515.5
17.5°	4329.2	4334.2	4341.6	4341.6	4351.6	4376.4	4383.8	4406.2	4428.6	4441.0	4465.8
20°	4239.8	4244.7	4252.2	4257.2	4269.6	4289.4	4304.3	4324.2	4349.1	4371.4	4396.2
22.5°	4170.2	4160.3	4165.2	4170.2	4182.7	4200.0	4217.4	4242.2	4267.1	4289.4	4314.3
25°	4036.1	4038.6	4046.0	4051.0	4065.9	4080.8	4100.7	4130.5	4152.8	4177.7	4205.0
27.5°	3854.8	3857.3	3869.7	3869.7	3882.1	3906.9	3919.3	3944.2	3974.0	3998.8	4031.2
30°	3648.7	3653.6	3653.6	3663.5	3671.0	3683.4	3695.8	3720.7	3735.6	3757.9	3802.6
32.5°	3459.9	3464.8	3462.3	3459.9	3452.4	3449.9	3447.4	3452.4	3457.4	3464.8	3482.2
35°	3348.1	3335.7	3325.8	3308.4	3288.5	3263.7	3241.3	3211.5	3184.2	3161.8	3137.0
37.5°	3241.3	3238.8	3223.9	3199.1	3159.3	3114.6	3062.5	2997.9	2933.3	2863.8	2796.7
40°	3092.3	3084.8	3072.4	3037.6	2992.9	2938.3	2868.7	2789.3	2684.9	2578.1	2468.9
42.5°	2838.9	2841.4	2826.5	2799.2	2757.0	2704.8	2632.8	2545.9	2434.1	2307.4	2165.8
45°	2543.4	2543.4	2538.4	2516.0	2486.2	2444.0	2389.4	2317.3	2208.1	2078.9	1927.4
47.5°	2235.4	2237.9	2230.4	2225.5	2213.0	2185.7	2146.0	2091.3	2014.3	1890.1	1738.6
50°	1922.4	1922.4	1934.8	1932.4	1932.4	1922.4	1905.1	1872.7	1805.7	1706.3	1564.8
52.5°	1609.5	1614.4	1621.9	1631.8	1644.2	1664.1	1644.2	1629.3	1587.1	1510.1	1388.4
55°	1286.6	1291.6	1304.0	1321.3	1336.3	1356.2	1361.1	1361.1	1338.7	1286.6	1194.7
57.5°	1010.9	1003.4	1013.4	1028.3	1048.2	1068.0	1082.9	1100.3	1097.8	1063.0	988.5
60°	760.0	762.5	769.9	784.9	799.8	817.2	837.0	851.9	859.4	842.0	794.8
62.5°	553.9	553.9	563.8	578.7	586.2	611.0	623.4	630.9	638.3	635.8	606.0
65°	387.5	392.4	397.4	404.9	412.3	427.2	434.7	449.5	454.5	457.0	434.7
67.5°	273.2	265.8	270.7	275.7	283.1	293.1	308.0	308.0	315.4	315.4	300.5
70°	173.9	173.9	176.4	183.8	188.8	191.3	196.2	201.2	208.6	206.1	206.1
72.5°	116.7	114.3	116.7	119.2	121.7	129.1	129.1	131.6	136.6	139.1	129.1
75°	59.6	62.1	67.0	64.6	72.0	67.0	69.5	77.0	74.5	69.5	69.5
77.5°	49.7	49.7	49.7	47.2	52.1	52.1	49.7	54.6	52.1	52.1	49.7
80°	34.8	37.3	34.8	32.3	34.8	32.3	32.3	32.3	32.3	32.3	29.8
82.5°	27.3	22.4	24.9	22.4	24.9	24.9	22.4	19.9	19.9	22.4	19.9
85°	19.9	14.9	17.4	17.4	14.9	14.9	14.9	14.9	14.9	12.4	12.4
87.5°	12.4	7.5	7.5	7.5	9.9	9.9	9.9	7.5	9.9	9.9	5.0
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°	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2
2.5°	4634.7	4632.2	4637.2	4634.7	4634.7	4632.2	4634.7	4632.2	4637.2	4627.2	4629.7
5°	4634.7	4629.7	4632.2	4634.7	4637.2	4632.2	4632.2	4632.2	4637.2	4632.2	4634.7
7.5°	4624.7	4622.2	4629.7	4634.7	4632.2	4629.7	4634.7	4632.2	4637.2	4634.7	4639.6
10°	4604.9	4607.4	4612.3	4619.8	4622.2	4624.7	4629.7	4629.7	4637.2	4627.2	4632.2
12.5°	4575.1	4585.0	4597.4	4602.4	4612.3	4612.3	4617.3	4619.8	4624.7	4622.2	4629.7
15°	4537.8	4550.2	4565.1	4577.6	4590.0	4597.4	4604.9	4607.4	4614.8	4607.4	4609.8
17.5°	4493.1	4508.0	4530.4	4545.2	4565.1	4572.6	4582.5	4587.5	4595.0	4590.0	4592.5
20°	4431.0	4448.4	4473.2	4495.6	4508.0	4525.4	4537.8	4545.2	4550.2	4545.2	4547.7
22.5°	4344.1	4368.9	4401.2	4418.6	4443.4	4458.3	4460.8	4478.2	4490.6	4478.2	4483.2
25°	4242.2	4267.1	4291.9	4329.2	4351.6	4368.9	4386.3	4388.8	4401.2	4398.7	4396.2
27.5°	4073.3	4105.7	4147.8	4177.7	4207.5	4234.8	4254.7	4259.6	4272.1	4267.1	4269.6
30°	3842.3	3877.2	3916.9	3964.1	4006.3	4033.6	4058.4	4075.8	4088.2	4080.8	4078.3
32.5°	3514.5	3549.3	3591.5	3638.7	3688.4	3728.1	3757.9	3780.3	3795.2	3790.2	3777.8
35°	3139.5	3149.4	3176.7	3214.0	3256.2	3298.4	3325.8	3350.6	3367.9	3372.9	3372.9
37.5°	2754.5	2722.2	2702.3	2702.3	2727.1	2744.5	2769.4	2784.3	2811.6	2821.5	2829.0
40°	2381.9	2307.4	2237.9	2185.7	2151.0	2148.5	2148.5	2155.9	2180.7	2213.0	2242.8
42.5°	2049.1	1929.9	1823.1	1726.2	1656.7	1616.9	1599.6	1602.0	1621.9	1651.7	1701.4
45°	1783.3	1634.3	1500.2	1383.4	1289.1	1227.0	1197.2	1194.7	1209.6	1244.3	1299.0
47.5°	1577.2	1418.2	1266.7	1132.6	1030.8	963.7	928.9	919.0	928.9	961.2	1025.8
50°	1405.8	1241.9	1085.4	946.3	837.0	767.5	735.2	722.8	735.2	762.5	827.1
52.5°	1246.8	1077.9	931.4	797.3	680.5	620.9	586.2	578.7	586.2	618.4	670.6
55°	1063.0	919.0	774.9	640.8	539.0	479.4	452.0	444.6	452.0	481.9	536.5
57.5°	881.8	757.5	630.9	509.2	422.3	370.1	345.3	335.3	352.7	372.5	437.1
60°	712.8	613.5	506.7	399.9	327.9	280.7	260.8	258.3	263.3	288.1	332.8
62.5°	558.9	476.9	392.4	305.5	245.9	226.0	201.2	198.7	203.7	218.5	253.4
65°	402.4	350.2	285.6	223.5	176.4	149.0	139.1	141.6	146.5	156.5	188.8
67.5°	280.7	243.4	198.7	156.5	121.7	109.3	99.4	96.9	99.4	116.7	134.1
70°	188.8	166.4	134.1	119.2	84.5	67.0	69.5	62.1	72.0	72.0	86.9
72.5°	124.2	109.3	89.4	69.5	59.6	47.2	47.2	44.7	49.7	52.1	64.6
75°	64.6	49.7	49.7	34.8	24.9	12.4	22.4	19.9	17.4	19.9	24.9
77.5°	44.7	37.3	34.8	27.3	24.9	19.9	19.9	19.9	19.9	22.4	24.9
80°	27.3	27.3	19.9	17.4	14.9	12.4	14.9	14.9	14.9	14.9	17.4
82.5°	17.4	14.9	14.9	12.4	12.4	9.9	9.9	9.9	9.9	9.9	14.9
85°	14.9	9.9	9.9	7.5	9.9	17.4	7.5	9.9	9.9	9.9	7.5
87.5°	5.0	7.5	7.5	7.5	5.0	2.5	5.0	7.5	7.5	12.4	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



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2	4627.2
2.5°	4634.7	4637.2	4637.2	4634.7	4634.7	4629.7	4639.6	4632.2	4634.7	4644.6	4637.2
5°	4639.6	4642.1	4642.1	4639.6	4639.6	4639.6	4642.1	4642.1	4639.6	4637.2	4642.1
7.5°	4649.6	4647.1	4647.1	4642.1	4642.1	4637.2	4642.1	4634.7	4639.6	4634.7	4642.1
10°	4637.2	4639.6	4637.2	4634.7	4634.7	4632.2	4632.2	4624.7	4627.2	4619.8	4624.7
12.5°	4629.7	4627.2	4627.2	4622.2	4617.3	4612.3	4609.8	4602.4	4602.4	4585.0	4592.5
15°	4609.8	4612.3	4604.9	4595.0	4590.0	4577.6	4572.6	4562.6	4552.7	4540.3	4542.8
17.5°	4592.5	4585.0	4575.1	4565.1	4545.2	4535.3	4525.4	4510.5	4505.5	4490.6	4485.7
20°	4540.3	4535.3	4522.9	4505.5	4493.1	4470.7	4460.8	4445.9	4433.5	4418.6	4411.1
22.5°	4473.2	4468.2	4453.4	4436.0	4416.1	4406.2	4396.2	4368.9	4356.5	4341.6	4339.1
25°	4388.8	4381.3	4366.4	4346.6	4336.6	4309.3	4299.4	4279.5	4274.6	4259.6	4257.2
27.5°	4259.6	4249.7	4232.3	4207.5	4190.1	4172.7	4162.8	4147.8	4142.9	4128.0	4125.5
30°	4065.9	4053.5	4018.7	4008.8	3979.0	3961.6	3961.6	3941.7	3944.2	3934.3	3934.3
32.5°	3760.4	3740.5	3713.2	3693.3	3673.4	3663.5	3663.5	3656.1	3661.0	3661.0	3666.0
35°	3355.5	3328.3	3313.3	3300.9	3300.9	3310.8	3340.7	3348.1	3363.0	3375.4	3385.4
37.5°	2836.4	2834.0	2851.4	2866.3	2903.5	2945.7	2997.9	3042.6	3084.8	3114.6	3144.4
40°	2275.1	2337.2	2386.9	2456.5	2513.5	2595.5	2689.9	2766.9	2838.9	2891.1	2945.7
42.5°	1775.9	1855.4	1959.7	2061.5	2163.3	2275.1	2399.3	2506.1	2600.5	2672.5	2729.6
45°	1383.4	1492.7	1619.4	1748.6	1880.2	2019.3	2148.5	2257.7	2357.1	2431.6	2488.7
47.5°	1115.2	1234.4	1378.5	1520.1	1669.1	1815.6	1959.7	2054.1	2136.0	2195.6	2247.8
50°	921.4	1048.2	1199.7	1361.1	1510.1	1656.7	1780.8	1872.7	1939.8	1992.0	2024.2
52.5°	769.9	904.1	1065.5	1227.0	1376.0	1510.1	1621.9	1691.4	1746.1	1783.3	1813.1
55°	635.8	765.0	916.5	1068.0	1214.6	1341.2	1433.1	1485.3	1527.5	1549.8	1567.2
57.5°	519.1	638.3	777.4	916.5	1043.2	1147.5	1219.5	1271.7	1291.6	1308.9	1306.4
60°	407.4	519.1	645.8	765.0	874.3	958.7	1010.9	1040.7	1055.6	1063.0	1058.1
62.5°	320.4	422.3	519.1	623.4	702.9	774.9	824.6	824.6	832.0	834.5	842.0
65°	238.4	315.4	399.9	476.9	541.4	588.7	616.0	623.4	633.4	630.9	625.9
67.5°	176.4	233.5	295.5	352.7	397.4	427.2	447.1	464.5	462.0	457.0	454.5
70°	121.7	159.0	213.6	248.4	280.7	310.5	315.4	317.9	320.4	322.9	317.9
72.5°	84.5	111.8	141.6	171.4	191.3	203.7	216.1	218.5	218.5	218.5	216.1
75°	42.2	57.1	84.5	96.9	114.3	119.2	129.1	129.1	136.6	126.7	124.2
77.5°	37.3	44.7	59.6	69.5	77.0	84.5	86.9	94.4	91.9	86.9	89.4
80°	22.4	27.3	37.3	42.2	52.1	54.6	57.1	59.6	57.1	59.6	59.6
82.5°	17.4	19.9	24.9	24.9	32.3	32.3	34.8	34.8	37.3	37.3	37.3
85°	9.9	17.4	14.9	29.8	19.9	19.9	24.9	29.8	24.9	24.9	29.8
87.5°	9.9	9.9	7.5	9.9	9.9	9.9	12.4	14.9	14.9	17.4	14.9
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: P249274

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0WMH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4627.2	4627.2	4627.2	4627.2
2.5°	4634.7	4639.6	4632.2	4629.7
5°	4642.1	4642.1	4637.2	4637.2
7.5°	4642.1	4642.1	4634.7	4629.7
10°	4622.2	4622.2	4614.8	4609.8
12.5°	4585.0	4585.0	4582.5	4575.1
15°	4537.8	4537.8	4527.9	4520.4
17.5°	4473.2	4478.2	4465.8	4465.8
20°	4403.7	4401.2	4391.3	4386.3
22.5°	4331.7	4326.7	4324.2	4309.3
25°	4254.7	4249.7	4242.2	4234.8
27.5°	4123.0	4120.6	4113.1	4103.2
30°	3921.8	3919.3	3909.4	3909.4
32.5°	3661.0	3658.6	3648.7	3651.1
35°	3390.3	3400.3	3395.3	3385.4
37.5°	3164.3	3171.8	3176.7	3171.8
40°	2975.5	2997.9	3000.4	3005.4
42.5°	2774.4	2804.1	2814.1	2819.0
45°	2533.4	2560.7	2583.1	2578.1
47.5°	2287.5	2307.4	2327.3	2312.4
50°	2051.6	2064.0	2071.5	2071.5
52.5°	1828.1	1828.1	1825.6	1828.1
55°	1572.2	1572.2	1562.3	1567.2
57.5°	1304.0	1308.9	1301.5	1289.1
60°	1055.6	1043.2	1038.2	1030.8
62.5°	822.1	822.1	804.8	827.1
65°	616.0	608.5	601.0	598.6
67.5°	447.1	444.6	437.1	434.7
70°	315.4	305.5	303.0	298.0
72.5°	211.1	211.1	206.1	206.1
75°	129.1	116.7	114.3	116.7
77.5°	89.4	86.9	86.9	84.5
80°	59.6	57.1	62.1	54.6
82.5°	37.3	39.7	37.3	39.7
85°	24.9	29.8	27.3	27.3
87.5°	14.9	14.9	14.9	14.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)