

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: METALUX

Report Number: P236303

Luminaire Tested: **4SWLED-78HL-LC-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236303  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26870)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-78HL-LC-UNV-L850-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, CLEAR LENS  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

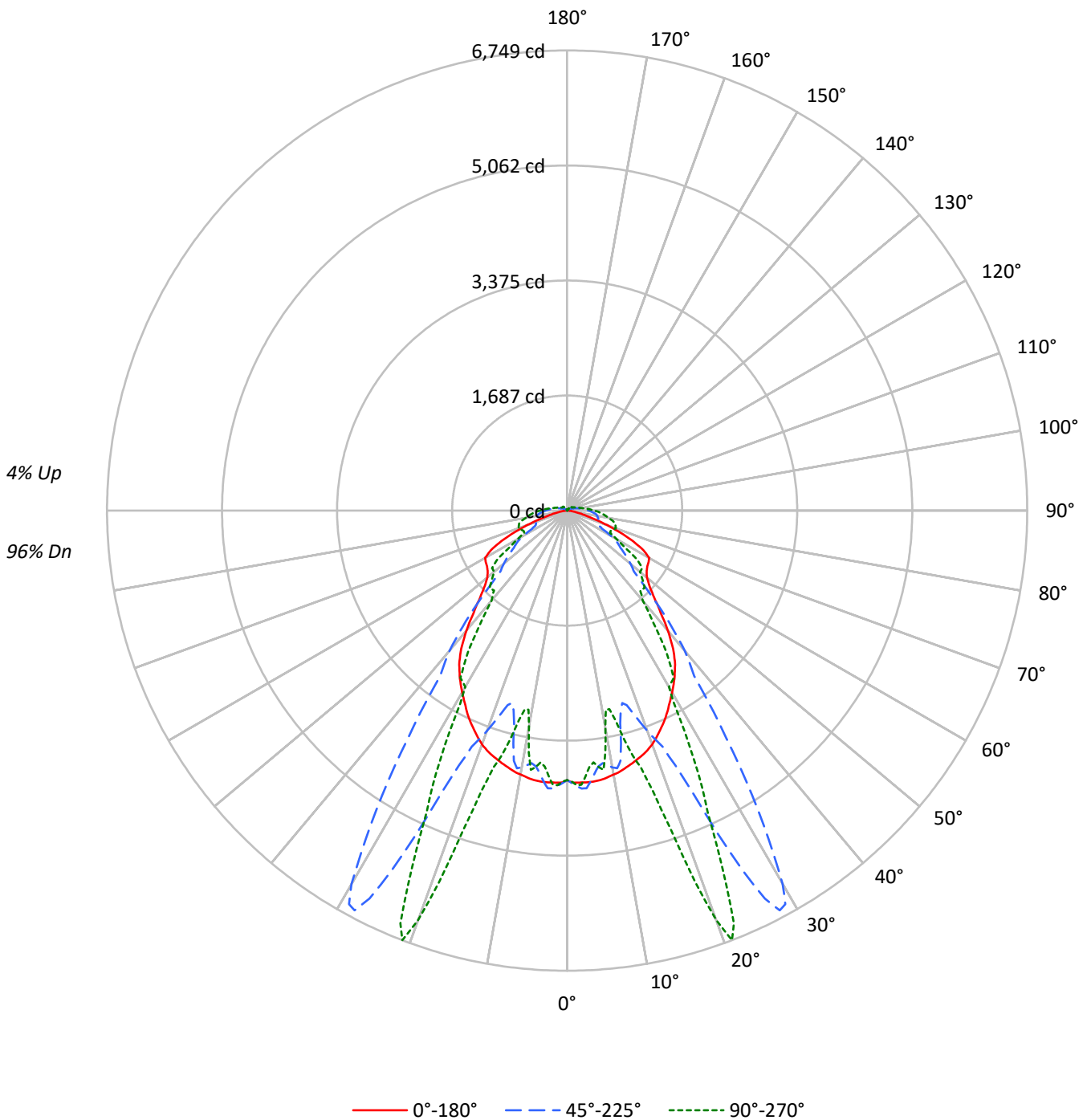
Lumens per Lamp: N/A  
Luminaire Lumens: 10779.0 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.15 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 79.4  
Input Voltage (V): 120  
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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CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L850-CD1-U

### 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	0	
RCR																						
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96				
1	108	103	99	96	105	101	97	94	96	93	90	91	89	86	87	85	83	81				
2	99	91	85	80	96	89	83	78	85	80	76	81	77	74	78	74	71	69				
3	91	81	74	68	88	79	72	67	76	70	65	73	68	63	70	65	62	59				
4	84	73	65	58	81	71	64	58	68	62	56	65	60	55	63	58	54	52				
5	78	66	57	51	75	64	56	50	62	55	49	59	53	49	57	52	48	46				
6	72	59	51	45	70	58	50	45	56	49	44	54	48	43	52	47	42	40				
7	67	54	46	40	65	53	45	40	51	44	39	49	43	39	48	42	38	36				
8	62	50	41	36	61	49	41	36	47	40	35	46	39	35	44	38	34	32				
9	58	46	38	32	57	45	37	32	43	37	32	42	36	31	41	35	31	29				
10	55	42	35	29	53	41	34	29	40	34	29	39	33	29	38	32	28	27				

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

	0°	45°	90°
0°	28379	28379	28379
5°	28676	27964	26254
10°	28459	26467	21947
15°	28052	20829	25032
20°	27504	23682	42756
25°	26370	36330	32671
30°	25010	44642	20202
35°	23581	29413	17478
40°	20858	20058	12188
45°	17658	13233	11739
50°	16329	9979	10652
55°	17035	8366	10058
60°	18741	7100	7175
65°	16783	5265	6520
70°	11872	5537	7700
75°	6829	6174	8237
80°	4308	6830	7905
85°	2336	7303	7774



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	370.2	3.4
10°-20°	1041.3	9.7
20°-30°	2051.7	19.0
30°-40°	2117.0	19.6
40°-50°	1778.9	16.5
50°-60°	1312.1	12.2
60°-70°	743.9	6.9
70°-80°	534.1	5.0
80°-90°	362.1	3.4
90°-100°	216.3	2.0
100°-110°	113.0	1.0
110°-120°	63.2	0.6
120°-130°	37.0	0.3
130°-140°	25.6	0.2
140°-150°	9.3	0.1
150°-160°	2.6	0.0
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	3463.2	32.1
0°-40°	5580.2	51.8
0°-60°	8671.1	80.4
0°-90°	10311.2	95.7
90°-120°	392.5	3.6
90°-150°	464.5	4.3
90°-180°	468.0	4.3
0°-180°	10779.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3955	3955	3955	3955	3955	
5°	3994	4052	3984	3797	3769	379
15°	3813	3648	3030	3411	3720	1075
25°	3387	3023	5232	5875	4874	1555
35°	2761	3400	4065	2755	2538	1707
45°	1803	4541	1696	1532	1607	1421
55°	1432	2548	956	1206	1250	1294
65°	1066	1023	510	625	704	1032
75°	280	412	473	679	728	334
85°	40	173	394	482	514	51
90°	3	126	313	387	399	3
95°	1	100	245	284	297	1
105°	1	52	128	153	163	1
115°	3	24	71	100	112	3
125°	3	11	42	66	80	2
135°	3	5	31	63	78	2
145°	3	3	12	23	30	2
155°	4	4	5	7	9	2
165°	4	4	4	1	3	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236303

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8
1°	3988.3	3985.6	3969.5	3961.5	3960.1	3957.5	3958.8	3961.5	3968.2	3968.2	3999.0
2°	3992.3	3990.9	3980.2	3974.9	3974.9	3974.9	3977.6	3985.6	3990.9	3992.3	4039.1
3°	3993.6	3995.0	3988.3	3984.2	3993.6	3993.6	3997.6	4008.3	4027.1	4033.8	4082.0
4°	3996.3	4001.6	3997.6	3996.3	4015.0	4028.4	4036.5	4051.2	4063.2	4064.6	4083.3
5°	3993.6	4000.3	4000.3	4016.4	4041.8	4052.5	4059.2	4068.6	4049.8	3999.0	3984.2
6°	3990.9	4001.6	4008.3	4037.8	4060.6	4069.9	4071.3	4029.8	3980.2	3921.3	3873.1
7°	3984.2	3995.0	4016.4	4055.2	4069.9	4068.6	4045.8	3960.1	3873.1	3798.2	3776.7
8°	3968.2	3984.2	4027.1	4059.2	4048.5	4007.0	3964.2	3870.4	3788.8	3735.2	3739.2
9°	3949.4	3966.8	4027.1	4049.8	3997.6	3938.7	3885.2	3768.7	3716.5	3708.5	3780.7
10°	3930.7	3958.8	4028.4	4029.8	3916.0	3855.7	3782.1	3703.1	3701.8	3745.9	3824.9
11°	3914.6	3948.1	4020.4	3989.6	3846.4	3779.4	3704.4	3681.7	3733.9	3783.4	3850.4
12°	3891.9	3937.4	4003.0	3936.0	3756.7	3692.4	3653.6	3696.4	3759.3	3804.8	3754.0
13°	3865.1	3916.0	3969.5	3855.7	3683.0	3638.8	3653.6	3724.5	3764.7	3737.9	3511.7
14°	3837.0	3902.6	3929.4	3784.8	3616.1	3626.8	3673.6	3729.9	3736.6	3505.0	3221.1
15°	3812.9	3885.2	3886.5	3705.8	3593.3	3648.2	3684.4	3711.1	3605.4	3280.0	3029.7
16°	3784.8	3866.4	3839.7	3649.5	3614.7	3665.6	3685.7	3662.9	3356.4	3039.1	2936.0
17°	3756.7	3839.7	3780.7	3600.0	3640.2	3668.3	3667.0	3523.7	3171.6	2932.0	2981.5
18°	3724.5	3806.2	3727.2	3565.2	3650.9	3652.2	3621.4	3360.4	2986.8	2910.5	3120.7
19°	3688.4	3767.4	3669.6	3543.8	3637.5	3608.0	3527.7	3178.3	2915.9	2992.2	3278.7
20°	3649.5	3723.2	3617.4	3546.5	3604.0	3538.4	3416.6	3036.4	2911.9	3123.4	3440.7
21°	3601.4	3671.0	3567.9	3559.8	3542.4	3427.3	3274.7	2953.4	2976.1	3245.2	3588.0
22°	3549.1	3616.1	3529.1	3559.8	3448.7	3320.2	3147.5	2919.9	3085.9	3372.4	3733.9
23°	3492.9	3565.2	3492.9	3542.4	3333.6	3201.1	3044.4	2949.4	3164.9	3496.9	4061.9
24°	3442.0	3507.6	3468.8	3500.9	3230.5	3100.6	2980.2	3013.6	3238.5	3637.5	4519.8
25°	3387.1	3452.7	3447.4	3434.0	3136.8	3023.0	2966.8	3065.8	3336.3	3981.6	5232.0
26°	3326.9	3393.8	3427.3	3336.3	3065.8	2982.8	2985.5	3104.7	3467.5	4414.0	5873.3
27°	3262.6	3338.9	3388.5	3229.2	3016.3	2978.8	3024.3	3132.8	3771.4	5091.4	6384.7
28°	3198.4	3276.0	3333.6	3122.1	2986.8	3005.6	3040.4	3193.0	4159.6	5673.8	6640.4
29°	3136.8	3217.1	3272.0	3039.1	2982.8	3039.1	3037.7	3371.1	4763.4	6175.8	6600.2
30°	3081.9	3158.2	3201.1	2984.2	3004.2	3043.1	3036.4	3665.6	5278.9	6432.9	6323.1
32.5°	2926.6	2986.8	2988.2	2934.6	3039.1	3032.4	3272.0	4845.1	6141.0	6178.5	5214.6
35°	2760.6	2779.3	2806.1	2969.4	3061.8	3400.5	4199.8	5613.6	6087.5	5136.9	4064.6
37.5°	2554.4	2551.7	2732.5	2994.9	3515.7	4298.9	4937.5	5735.4	5213.3	3977.6	3060.5
40°	2294.7	2324.1	2719.1	3095.3	4250.7	4684.4	5003.1	5375.3	4041.8	3065.8	2681.6
42.5°	2029.6	2163.5	2719.1	3506.3	4393.9	4633.6	4957.5	4489.0	3201.1	2614.7	2192.9
45°	1803.4	2079.1	2739.2	3846.4	4253.3	4541.2	4592.1	3583.9	2653.5	2024.3	1696.2
47.5°	1636.0	2000.2	2913.2	3713.8	4106.1	4175.7	3984.2	2990.9	1980.1	1487.4	1329.4
50°	1526.2	1906.4	2988.2	3452.7	3800.8	3713.8	3431.3	2206.3	1366.9	1203.6	1214.3
52.5°	1468.7	1886.4	2783.3	3209.1	3415.3	3227.8	2705.7	1492.8	1101.8	1077.7	1084.4
55°	1432.5	1826.1	2483.5	2875.7	2932.0	2547.7	1997.5	1123.2	942.5	929.1	955.9
57.5°	1415.1	1654.7	2187.6	2437.9	2302.7	1961.3	1516.9	856.8	767.1	793.9	874.2
60°	1388.3	1475.3	1756.5	1917.2	1834.1	1553.0	1150.0	681.4	666.7	716.3	752.4
62.5°	1262.5	1266.5	1229.0	1514.2	1500.8	1259.8	909.0	583.7	558.3	573.0	581.0
65°	1065.7	982.7	850.1	1245.1	1238.4	1022.8	724.3	463.2	451.2	484.6	510.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
67.5°	846.1	708.2	637.3	996.1	984.0	810.0	579.7	399.0	421.7	456.5	494.0
70°	622.5	520.8	502.0	784.5	775.2	649.3	486.0	369.5	407.0	443.1	482.0
72.5°	424.4	385.6	394.9	591.7	606.5	519.5	412.3	350.8	384.2	425.7	484.6
75°	279.8	282.5	303.9	435.1	464.6	412.3	348.1	326.7	362.8	412.3	472.6
77.5°	191.4	200.8	226.3	311.9	346.7	321.3	295.9	301.2	340.1	397.6	460.5
80°	125.8	135.2	162.0	220.9	257.0	255.7	254.4	279.8	324.0	385.6	447.2
82.5°	76.3	85.7	111.1	156.6	194.1	206.2	222.2	259.7	313.3	381.6	431.1
85°	40.2	49.5	73.6	112.5	151.3	172.7	195.5	243.7	307.9	366.8	393.6
87.5°	16.1	25.4	48.2	81.7	123.2	147.3	174.0	231.6	298.6	337.4	352.1
90°	2.7	12.0	30.8	61.6	101.7	125.8	155.3	222.2	277.1	294.5	313.3
92.5°	1.3	6.7	21.4	46.9	85.7	111.1	141.9	206.2	242.3	259.7	277.1
95°	1.3	4.0	16.1	37.5	73.6	100.4	129.9	180.7	207.5	224.9	245.0
97.5°	1.3	4.0	12.0	30.8	66.9	91.0	116.5	152.6	175.4	195.5	212.9
100°	1.3	2.7	10.7	26.8	58.9	77.6	96.4	124.5	144.6	166.0	182.1
102.5°	1.3	2.7	9.4	24.1	50.9	65.6	79.0	100.4	121.8	139.2	155.3
105°	1.3	2.7	8.0	21.4	41.5	52.2	62.9	83.0	101.7	117.8	128.5
107.5°	1.3	2.7	6.7	17.4	33.5	42.8	52.2	69.6	85.7	97.7	108.4
110°	1.3	1.3	5.4	14.7	28.1	36.1	42.8	57.6	71.0	83.0	92.4
112.5°	2.7	2.7	5.4	12.0	22.8	29.5	36.1	48.2	60.2	71.0	80.3
115°	2.7	2.7	4.0	9.4	18.7	24.1	29.5	40.2	50.9	61.6	71.0
117.5°	2.7	2.7	4.0	8.0	14.7	20.1	24.1	33.5	42.8	53.6	62.9
120°	2.7	2.7	2.7	6.7	13.4	16.1	20.1	28.1	37.5	46.9	54.9
122.5°	2.7	2.7	2.7	5.4	10.7	13.4	16.1	24.1	32.1	40.2	48.2
125°	2.7	2.7	2.7	4.0	8.0	10.7	13.4	20.1	26.8	34.8	41.5
127.5°	2.7	2.7	2.7	4.0	6.7	9.4	10.7	16.1	22.8	28.1	36.1
130°	2.7	2.7	2.7	2.7	5.4	6.7	9.4	13.4	18.7	25.4	32.1
132.5°	2.7	2.7	2.7	2.7	5.4	6.7	8.0	12.0	18.7	24.1	30.8
135°	2.7	2.7	2.7	2.7	4.0	5.4	8.0	12.0	17.4	24.1	30.8
137.5°	2.7	2.7	2.7	2.7	4.0	5.4	6.7	10.7	16.1	22.8	28.1
140°	2.7	2.7	2.7	2.7	2.7	4.0	5.4	9.4	13.4	17.4	22.8
142.5°	2.7	2.7	2.7	2.7	2.7	2.7	4.0	6.7	9.4	13.4	17.4
145°	2.7	2.7	2.7	2.7	2.7	2.7	4.0	5.4	6.7	9.4	12.0
147.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0	5.4	6.7	9.4
150°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0	4.0	5.4	6.7
152.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	5.4
155°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4
157.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
160°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
162.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
165°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	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):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P236303

CATALOG NUMBER: 4SWLED-78HL-LC-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8	3954.8
1°	4009.7	4004.3	4000.3	3995.0	3989.6	3988.3	3985.6	3984.2	3973.5	3974.9
2°	4048.5	4052.5	4049.8	4044.5	4048.5	4043.2	4040.5	4035.1	4031.1	4032.4
3°	4095.4	4094.0	4082.0	4067.3	4057.9	4057.9	4037.8	4029.8	4005.7	4027.1
4°	4053.9	4025.7	3980.2	3958.8	3938.7	3936.0	3912.0	3889.2	3877.1	3898.6
5°	3941.4	3899.9	3842.3	3819.6	3796.8	3799.5	3779.4	3764.7	3755.3	3768.7
6°	3828.9	3791.5	3751.3	3727.2	3717.8	3711.1	3708.5	3712.5	3715.1	3713.8
7°	3750.0	3741.9	3737.9	3748.6	3758.0	3758.0	3774.1	3787.4	3791.5	3788.8
8°	3764.7	3791.5	3808.9	3815.6	3816.9	3819.6	3845.0	3845.0	3837.0	3839.7
9°	3824.9	3843.7	3862.4	3838.3	3791.5	3782.1	3693.7	3641.5	3567.9	3589.3
10°	3871.8	3837.0	3692.4	3573.2	3492.9	3466.1	3332.3	3273.3	3197.0	3218.5
11°	3791.5	3604.0	3385.8	3237.2	3160.9	3116.7	3029.7	2993.5	2978.8	2974.8
12°	3492.9	3274.7	3079.2	2993.5	2958.7	2945.3	2936.0	2946.7	2970.8	2977.5
13°	3221.1	3040.4	2950.7	2957.4	2974.8	2996.2	3071.2	3115.4	3158.2	3159.5
14°	3001.6	2946.7	3019.0	3110.0	3162.2	3195.7	3300.1	3372.4	3451.4	3466.1
15°	2944.0	3035.0	3206.4	3345.6	3411.2	3482.2	3620.1	3679.0	3723.2	3720.5
16°	3043.1	3199.7	3438.0	3601.4	3668.3	3715.1	3803.5	3857.1	3909.3	3917.3
17°	3209.1	3448.7	3668.3	3794.1	3842.3	3895.9	4059.2	4171.7	4266.7	4297.5
18°	3383.1	3634.8	3808.9	4012.4	4139.5	4244.0	4471.6	4679.1	4878.6	4916.0
19°	3577.3	3796.8	4087.3	4436.8	4593.4	4827.7	5233.3	5486.4	5688.5	5754.1
20°	3704.4	4051.2	4502.4	5159.7	5380.6	5640.3	6028.6	6221.4	6360.6	6391.4
21°	3928.0	4497.0	5272.2	5921.5	6145.1	6289.6	6546.7	6668.5	6703.3	6748.9
22°	4298.9	5203.9	6000.5	6473.1	6623.0	6706.0	6734.1	6643.1	6561.4	6529.3
23°	4979.0	5900.1	6482.4	6744.8	6730.1	6628.4	6399.4	6183.9	6043.3	5984.4
24°	5718.0	6435.6	6723.4	6501.2	6374.0	6157.1	5865.2	5648.4	5498.4	5426.1
25°	6240.1	6700.7	6457.0	6036.6	5874.6	5649.7	5296.3	5088.7	4941.5	4874.5
26°	6631.0	6572.1	6007.2	5525.2	5335.1	5118.2	4807.6	4691.1	4582.7	4518.4
27°	6667.2	6189.2	5529.2	4997.7	4827.7	4673.7	4440.8	4273.4	4159.6	4099.4
28°	6376.7	5742.1	5020.5	4594.7	4456.8	4269.4	4005.7	3841.0	3760.7	3669.6
29°	6005.8	5229.3	4597.4	4154.3	4004.3	3815.6	3553.2	3336.3	3284.1	3227.8
30°	5507.8	4762.1	4177.0	3683.0	3539.8	3336.3	3135.5	3064.5	3029.7	2985.5
32.5°	4336.3	3588.0	3100.6	2913.2	2870.4	2851.6	2925.3	2937.3	2934.6	2910.5
35°	3245.2	2836.9	2819.5	2791.4	2755.2	2720.4	2652.1	2613.3	2579.9	2538.4
37.5°	2771.3	2657.5	2498.2	2360.3	2298.7	2251.8	2180.9	2142.1	2109.9	2085.8
40°	2428.6	2194.3	2035.0	1938.6	1905.1	1850.2	1806.0	1781.9	1757.8	1725.7
42.5°	1960.0	1751.1	1625.3	1557.0	1536.9	1515.5	1532.9	1561.0	1574.4	1589.1
45°	1508.8	1413.8	1443.2	1506.1	1531.6	1558.4	1597.2	1605.2	1607.9	1606.6
47.5°	1314.7	1383.0	1417.8	1437.9	1433.8	1444.6	1476.7	1498.1	1511.5	1499.4
50°	1249.1	1258.5	1306.7	1356.2	1364.2	1350.8	1357.5	1374.9	1393.7	1396.4
52.5°	1129.9	1170.1	1207.6	1241.1	1270.5	1300.0	1348.2	1372.3	1387.0	1387.0
55°	1014.8	1088.4	1140.7	1187.5	1206.3	1214.3	1238.4	1247.8	1257.1	1250.4
57.5°	942.5	977.3	1012.1	1005.4	990.7	969.3	982.7	998.7	1005.4	1001.4
60°	761.8	763.1	767.1	777.8	795.2	811.3	827.4	831.4	838.1	836.7
62.5°	602.5	615.8	637.3	672.1	681.4	681.4	697.5	709.6	713.6	708.2
65°	540.9	567.6	605.1	625.2	625.2	629.2	658.7	693.5	706.9	704.2



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
67.5°	528.8	575.7	594.4	622.5	644.0	665.4	694.8	714.9	727.0	731.0
70°	536.9	571.7	609.2	648.0	665.4	684.1	718.9	747.0	757.8	759.1
72.5°	535.5	581.0	618.5	665.4	685.5	702.9	728.3	739.0	743.0	743.0
75°	531.5	577.0	629.2	662.7	678.8	696.2	710.9	718.9	725.6	728.3
77.5°	514.1	563.6	589.1	619.9	630.6	638.6	657.3	670.7	680.1	681.4
80°	492.7	515.4	534.2	559.6	567.6	579.7	598.4	606.5	613.2	613.2
82.5°	451.2	467.2	487.3	514.1	528.8	540.9	555.6	561.0	565.0	566.3
85°	407.0	423.1	448.5	471.3	482.0	492.7	506.1	514.1	516.8	514.1
87.5°	366.8	389.6	413.7	431.1	435.1	440.5	451.2	457.9	460.5	463.2
90°	330.7	353.4	372.2	386.9	386.9	392.3	397.6	399.0	396.3	399.0
92.5°	298.6	313.3	324.0	330.7	330.7	334.7	341.4	344.1	342.7	344.1
95°	259.7	270.4	275.8	279.8	283.8	289.2	294.5	295.9	295.9	297.2
97.5°	224.9	232.9	238.3	242.3	243.7	247.7	247.7	249.0	249.0	250.4
100°	194.1	202.2	203.5	202.2	203.5	204.8	206.2	208.9	210.2	211.5
102.5°	164.7	171.4	174.0	175.4	176.7	179.4	182.1	183.4	186.1	186.1
105°	136.6	144.6	149.9	152.6	152.6	155.3	158.0	160.7	162.0	163.3
107.5°	116.5	124.5	131.2	133.9	136.6	137.9	140.6	143.3	144.6	145.9
110°	100.4	108.4	116.5	121.8	123.2	125.8	128.5	131.2	132.5	133.9
112.5°	89.7	96.4	103.1	108.4	111.1	113.8	116.5	119.2	121.8	121.8
115°	79.0	87.0	92.4	97.7	100.4	101.7	105.8	109.8	111.1	112.5
117.5°	71.0	77.6	83.0	88.4	91.0	93.7	96.4	99.1	101.7	101.7
120°	62.9	69.6	75.0	79.0	81.7	83.0	87.0	89.7	91.0	92.4
122.5°	54.9	61.6	65.6	71.0	72.3	75.0	79.0	81.7	83.0	84.3
125°	48.2	53.6	58.9	64.3	65.6	68.3	73.6	76.3	79.0	80.3
127.5°	42.8	48.2	54.9	60.2	62.9	66.9	72.3	76.3	79.0	80.3
130°	38.8	46.9	53.6	60.2	64.3	66.9	73.6	79.0	81.7	81.7
132.5°	38.8	46.9	54.9	61.6	65.6	68.3	75.0	80.3	83.0	84.3
135°	37.5	44.2	52.2	58.9	62.9	65.6	71.0	75.0	77.6	77.6
137.5°	33.5	38.8	44.2	49.5	53.6	56.2	60.2	62.9	65.6	65.6
140°	26.8	30.8	34.8	38.8	41.5	44.2	48.2	49.5	52.2	52.2
142.5°	20.1	22.8	26.8	29.5	30.8	33.5	36.1	38.8	40.2	40.2
145°	14.7	17.4	18.7	21.4	22.8	24.1	26.8	28.1	29.5	29.5
147.5°	10.7	12.0	13.4	16.1	16.1	17.4	20.1	21.4	21.4	21.4
150°	8.0	9.4	10.7	10.7	12.0	12.0	14.7	16.1	16.1	16.1
152.5°	6.7	6.7	8.0	8.0	9.4	9.4	10.7	12.0	12.0	12.0
155°	5.4	5.4	5.4	5.4	6.7	6.7	8.0	8.0	9.4	9.4
157.5°	4.0	4.0	4.0	4.0	4.0	4.0	5.4	5.4	6.7	6.7
160°	4.0	4.0	2.7	2.7	2.7	2.7	4.0	4.0	4.0	4.0
162.5°	4.0	2.7	2.7	2.7	1.3	2.7	2.7	2.7	2.7	2.7
165°	2.7	2.7	2.7	1.3	1.3	1.3	1.3	1.3	1.3	2.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P236303

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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)