

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: SHAPER

Report Number: P368731

Luminaire Tested: **673-37-L4/827**

Issue Date: 11/13/2019

Test Information

Test Method: LM-79-08
Report Number: P368731
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-721-7)
Test Lab: INNOVATIONS CENTER
Issue Date: 11/13/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 673-37-L4/827
Description: 37" 673 SERIES LUMINOUS WALL SCONCE
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

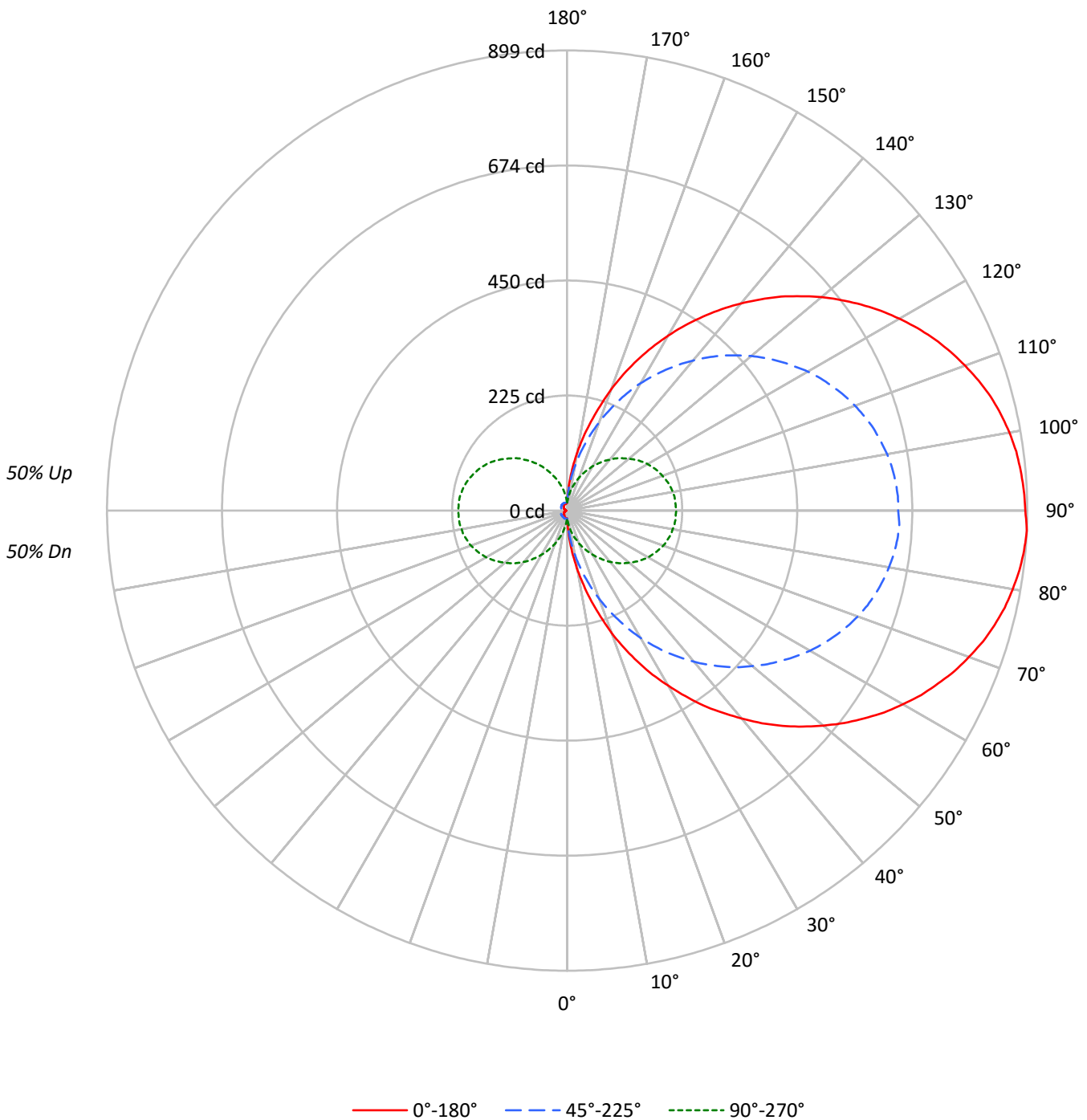
Lumens per Lamp: N/A
Luminaire Lumens: 3186.3 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 7.33 / 5.52 / 5.99
Luminous Opening: Rectangular w/ Sides (W: 0.71' x L: 0.25' x H: 3.08')
CIE Type: General Diffuse

Input Watts (W): 32.2
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



TEST NUMBER: P368731
CATALOG NUMBER: 673-37-L4/827

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	92	85	79	74	84	78	73	68	64	60	56	52	49	46	41	38	36	30
2	81	71	63	56	74	65	57	51	53	47	42	42	38	34	32	29	26	21
3	73	61	51	44	66	55	47	40	45	38	33	36	31	26	27	23	20	15
4	66	53	43	35	60	48	39	32	39	32	27	31	25	21	23	19	15	11
5	60	46	36	29	54	42	33	27	34	27	22	27	21	17	20	16	12	9
6	55	41	31	24	50	37	29	22	30	23	18	24	18	14	18	14	10	7
7	50	36	27	21	46	33	25	19	27	20	15	21	16	12	16	12	9	6
8	47	33	24	18	42	30	22	16	24	18	13	19	14	10	14	10	7	5
9	43	30	21	16	39	27	19	14	22	16	12	18	13	9	13	9	6	4
10	40	27	19	14	36	25	17	12	20	14	10	16	11	8	12	8	6	3

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	960	960	960
5°	1767	1144	434
10°	2306	1358	288
15°	2683	1560	203
20°	3003	1717	164
25°	3232	1846	119
30°	3412	1982	96
35°	3582	2106	79
40°	3706	2229	65
45°	3835	2337	54
50°	3935	2422	50
55°	4031	2517	42
60°	4116	2600	35
65°	4190	2669	29
70°	4258	2745	23
75°	4318	2801	18
80°	4362	2854	14
85°	4402	2916	9



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.6	0.1
10°-20°	22.2	0.7
20°-30°	58.9	1.8
30°-40°	111.2	3.5
40°-50°	173.2	5.4
50°-60°	236.9	7.4
60°-70°	294.5	9.2
70°-80°	337.7	10.6
80°-90°	359.8	11.3
90°-100°	358.1	11.2
100°-110°	335.1	10.5
110°-120°	291.8	9.2
120°-130°	235.0	7.4
130°-140°	172.1	5.4
140°-150°	111.1	3.5
150°-160°	59.1	1.9
160°-170°	22.2	0.7
170°-180°	3.7	0.1
0°-30°	84.7	2.7
0°-40°	196.0	6.2
0°-60°	606.1	19.0
0°-90°	1598.1	50.2
90°-120°	985.0	30.9
90°-150°	1503.3	47.2
90°-180°	1588.0	49.8
0°-180°	3186.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16	16	16	16	16	
5°	60	46	26	16	15	8
15°	184	134	54	17	14	54
25°	325	234	83	16	12	153
35°	465	337	115	15	10	293
45°	595	431	146	14	8	461
55°	708	512	171	14	7	635
65°	800	578	192	13	6	793
75°	865	625	206	12	4	913
85°	896	648	212	10	2	730
90°	895	647	213	11	2	491
95°	890	644	212	10	2	724
105°	857	620	205	12	4	905
115°	792	573	191	13	6	786
125°	702	508	170	14	7	629
135°	591	428	145	15	9	458
145°	462	336	115	16	11	292
155°	324	235	84	16	13	152
165°	180	134	54	16	14	53
175°	59	48	26	16	14	7
180°	16	16	16	16	16	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
2.5°	33.4	31.5	32.4	29.7	28.7	26.9	25.0	24.1	21.3	20.4	19.5
5°	60.2	59.3	58.4	54.7	51.0	46.3	42.6	37.1	32.4	27.8	25.9
7.5°	88.0	87.1	85.3	80.6	74.1	66.7	59.3	51.9	42.6	36.1	32.4
10°	118.6	115.8	113.1	106.6	98.2	88.0	76.9	65.8	54.7	44.5	38.9
12.5°	149.2	147.3	143.6	134.4	124.2	110.3	96.4	80.6	65.8	52.8	46.3
15°	183.5	180.7	176.1	164.9	151.0	134.4	115.8	96.4	77.8	61.2	53.7
17.5°	216.8	215.9	209.4	195.5	178.8	158.5	135.3	113.1	90.8	69.5	60.2
20°	254.8	253.0	244.6	227.0	207.6	183.5	157.5	129.7	102.9	79.7	68.6
22.5°	290.0	288.2	278.9	261.3	237.2	208.5	177.9	146.4	115.8	89.0	76.0
25°	325.3	323.4	314.1	293.8	267.8	234.4	199.2	163.1	128.8	98.2	83.4
27.5°	361.4	359.5	348.4	326.2	297.5	261.3	220.5	180.7	141.8	107.5	91.7
30°	394.8	394.8	382.7	357.7	326.2	287.3	244.6	197.4	154.8	117.7	99.2
32.5°	430.0	430.0	415.1	390.1	354.9	312.3	266.0	214.1	168.7	126.0	107.5
35°	465.2	464.3	449.4	420.7	383.6	337.3	286.3	232.6	180.7	136.2	114.9
37.5°	497.6	497.6	482.8	451.3	411.4	361.4	306.7	249.3	193.7	145.5	123.2
40°	530.0	531.0	514.3	481.9	437.4	385.5	326.2	266.0	206.6	154.8	130.7
42.5°	563.4	563.4	545.8	510.6	463.3	408.7	345.6	281.7	218.7	163.1	138.1
45°	594.9	594.0	575.5	540.2	489.3	430.9	366.0	297.5	230.7	171.4	145.5
47.5°	624.6	622.7	604.2	567.1	514.3	453.1	383.6	312.3	244.6	179.8	152.0
50°	653.3	653.3	632.9	593.1	537.5	472.6	401.2	326.2	254.8	188.1	158.5
52.5°	682.0	680.2	658.9	618.1	560.6	493.0	417.9	340.1	266.0	195.5	164.9
55°	708.0	705.2	684.8	641.2	581.9	511.5	433.7	353.1	275.2	202.9	171.4
57.5°	733.9	731.1	707.0	664.4	603.3	530.0	449.4	366.0	285.4	210.4	177.0
60°	757.1	755.2	732.1	686.7	622.7	547.7	464.3	378.1	294.7	216.8	182.6
62.5°	780.2	776.5	753.4	706.1	641.2	563.4	477.2	388.3	302.1	222.4	187.2
65°	799.7	796.9	772.8	724.6	657.9	578.2	490.2	398.5	310.4	228.0	191.8
67.5°	819.2	815.5	791.4	741.3	673.7	592.1	501.3	407.7	317.8	234.4	195.5
70°	835.8	833.1	808.0	758.0	688.5	604.2	512.4	416.1	324.3	239.1	200.2
72.5°	851.6	848.8	821.9	771.0	700.6	615.3	521.7	423.5	329.9	242.8	202.9
75°	864.6	860.9	834.0	783.0	711.7	624.6	529.1	430.0	334.5	247.4	205.7
77.5°	875.7	872.0	845.1	793.2	720.9	632.0	535.6	434.6	338.2	250.2	208.5
80°	884.0	881.3	853.5	800.6	727.4	638.5	541.2	439.2	341.0	252.1	209.4
82.5°	891.4	888.7	860.9	807.1	733.9	644.0	545.8	442.9	344.7	253.9	211.3
85°	896.1	892.4	865.5	811.8	737.6	647.7	547.7	444.8	345.6	254.8	212.2
87.5°	898.9	895.2	868.3	814.5	739.5	649.6	549.5	445.7	346.6	255.8	212.2
90°	895.2	891.4	863.6	810.8	736.7	646.8	547.7	444.8	345.6	254.8	213.1
92.5°	893.3	890.5	862.7	809.9	736.7	646.8	546.7	444.8	345.6	255.8	212.2
95°	889.6	886.8	859.9	807.1	733.9	644.0	544.9	442.9	344.7	253.9	212.2
97.5°	885.0	881.3	854.4	801.6	729.3	640.3	541.2	441.1	342.9	253.0	211.3
100°	877.5	874.8	847.0	795.1	722.8	634.8	537.5	437.4	340.1	251.1	209.4
102.5°	868.3	864.6	837.7	785.8	715.4	627.3	531.9	432.7	336.4	248.3	207.6
105°	857.2	853.5	827.5	776.5	706.1	619.9	525.4	427.2	332.7	246.5	204.8
107.5°	843.3	839.6	813.6	763.6	695.0	609.7	516.1	420.7	327.1	240.9	202.0
110°	827.5	824.7	799.7	749.7	682.0	598.6	506.9	413.3	321.6	237.2	198.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	810.8	808.0	782.1	733.9	668.1	586.6	496.7	404.9	315.1	232.6	194.6
115°	792.3	788.6	764.5	717.2	652.4	572.7	485.6	395.7	307.7	226.1	190.9
117.5°	771.9	769.1	745.0	698.7	636.6	558.8	472.6	385.5	300.2	220.5	186.3
120°	749.7	746.9	723.7	678.3	618.1	543.0	459.6	375.3	292.8	215.0	181.6
122.5°	726.5	724.6	701.5	657.0	598.6	525.4	444.8	362.3	282.6	208.5	176.1
125°	701.5	700.6	677.4	634.8	578.2	507.8	430.0	350.3	274.3	202.0	170.5
127.5°	675.5	674.6	652.4	611.6	556.9	489.3	414.2	337.3	264.1	194.6	164.0
130°	648.7	647.7	627.3	587.5	535.6	469.8	397.5	324.3	253.9	187.2	157.5
132.5°	619.9	619.0	599.5	561.6	510.6	448.5	379.0	310.4	240.9	178.8	151.0
135°	591.2	590.3	570.8	534.7	486.5	428.1	362.3	295.6	228.9	171.4	144.6
137.5°	559.7	559.7	541.2	506.9	461.5	405.9	342.9	279.9	217.8	163.1	138.1
140°	528.2	528.2	511.5	479.1	435.5	382.7	323.4	265.0	205.7	153.8	129.7
142.5°	495.8	495.8	480.0	449.4	409.6	359.5	303.9	249.3	193.7	144.6	123.2
145°	462.4	462.4	447.6	418.8	381.8	335.5	283.6	231.7	180.7	136.2	114.9
147.5°	429.0	429.0	415.1	388.3	354.0	311.4	263.2	214.1	168.7	127.0	107.5
150°	394.8	395.7	382.7	357.7	326.2	287.3	242.8	197.4	155.7	117.7	100.1
152.5°	359.5	359.5	348.4	326.2	297.5	262.2	219.6	180.7	142.7	108.4	91.7
155°	324.3	324.3	314.1	293.8	268.7	235.4	198.3	164.0	129.7	98.2	84.3
157.5°	288.2	289.1	279.9	263.2	240.0	209.4	177.9	146.4	116.8	89.0	76.0
160°	252.1	253.0	244.6	227.0	206.6	184.4	156.6	129.7	103.8	79.7	68.6
162.5°	214.1	214.1	208.5	196.5	178.8	159.4	135.3	113.1	90.8	70.4	61.2
165°	179.8	179.8	175.1	165.9	150.1	134.4	115.8	96.4	77.8	61.2	53.7
167.5°	147.3	149.2	143.6	136.2	124.2	111.2	95.4	80.6	65.8	52.8	46.3
170°	116.8	116.8	114.0	107.5	98.2	89.9	76.9	66.7	54.7	44.5	39.8
172.5°	87.1	87.1	85.3	80.6	74.1	68.6	59.3	51.0	43.6	36.1	32.4
175°	59.3	59.3	58.4	55.6	51.9	48.2	42.6	38.0	32.4	27.8	25.9
177.5°	32.4	33.4	32.4	31.5	29.7	28.7	25.9	25.0	22.2	20.4	19.5
180°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
2.5°	18.5	17.6	16.7	15.8	15.8	14.8	14.8	14.8	14.8	14.8
5°	24.1	21.3	18.5	16.7	15.8	14.8	14.8	14.8	14.8	14.8
7.5°	29.7	25.0	20.4	17.6	15.8	15.8	14.8	14.8	14.8	14.8
10°	35.2	27.8	22.2	18.5	15.8	14.8	14.8	14.8	14.8	14.8
12.5°	40.8	31.5	24.1	19.5	16.7	14.8	14.8	14.8	14.8	14.8
15°	46.3	35.2	25.9	20.4	16.7	14.8	14.8	14.8	13.9	13.9
17.5°	52.8	38.0	27.8	20.4	15.8	13.9	13.9	13.9	13.9	13.9
20°	58.4	41.7	29.7	21.3	15.8	13.9	13.9	13.9	13.9	13.9
22.5°	64.9	45.4	31.5	22.2	15.8	13.0	13.0	13.0	13.0	13.0
25°	71.4	49.1	33.4	22.2	15.8	13.0	12.0	12.0	12.0	12.0
27.5°	76.9	52.8	35.2	23.2	14.8	12.0	12.0	12.0	11.1	11.1
30°	83.4	56.5	37.1	23.2	14.8	11.1	11.1	11.1	11.1	11.1
32.5°	89.9	61.2	38.9	24.1	14.8	11.1	11.1	11.1	10.2	10.2
35°	96.4	64.9	40.8	25.0	14.8	10.2	10.2	10.2	10.2	10.2
37.5°	102.9	68.6	42.6	25.0	14.8	10.2	10.2	10.2	10.2	10.2
40°	109.3	72.3	44.5	25.9	14.8	10.2	9.3	9.3	9.3	9.3
42.5°	114.9	76.0	46.3	26.9	14.8	9.3	9.3	9.3	9.3	9.3
45°	120.5	79.7	48.2	27.8	13.9	9.3	9.3	8.3	8.3	8.3
47.5°	127.0	83.4	50.0	27.8	13.9	8.3	8.3	8.3	8.3	8.3
50°	131.6	86.2	51.9	28.7	13.9	8.3	8.3	8.3	8.3	8.3
52.5°	137.1	89.9	53.7	29.7	13.9	7.4	7.4	7.4	7.4	7.4
55°	141.8	91.7	54.7	29.7	13.9	7.4	7.4	7.4	7.4	7.4
57.5°	146.4	95.4	56.5	29.7	13.9	6.5	6.5	6.5	6.5	6.5
60°	151.0	97.3	57.5	30.6	13.9	6.5	6.5	6.5	6.5	6.5
62.5°	154.8	100.1	58.4	30.6	13.0	5.6	5.6	5.6	5.6	5.6
65°	158.5	101.9	60.2	31.5	13.0	5.6	5.6	5.6	5.6	5.6
67.5°	162.2	103.8	61.2	31.5	13.0	5.6	4.6	4.6	4.6	4.6
70°	164.9	105.6	62.1	31.5	12.0	4.6	4.6	4.6	4.6	4.6
72.5°	167.7	107.5	62.1	31.5	12.0	4.6	3.7	3.7	3.7	3.7
75°	169.6	108.4	63.0	31.5	12.0	3.7	3.7	3.7	3.7	3.7
77.5°	171.4	110.3	63.0	31.5	11.1	3.7	3.7	3.7	3.7	3.7
80°	173.3	110.3	63.9	31.5	11.1	2.8	2.8	2.8	2.8	2.8
82.5°	174.2	111.2	63.9	31.5	11.1	2.8	2.8	2.8	1.9	2.8
85°	175.1	111.2	63.9	30.6	10.2	1.9	1.9	1.9	1.9	1.9
87.5°	175.1	112.1	63.9	31.5	11.1	1.9	1.9	1.9	1.9	1.9
90°	175.1	112.1	63.9	31.5	11.1	1.9	1.9	1.9	1.9	1.9
92.5°	175.1	111.2	63.9	30.6	10.2	1.9	1.9	1.9	1.9	1.9
95°	174.2	111.2	63.9	30.6	10.2	1.9	1.9	1.9	1.9	1.9
97.5°	174.2	111.2	63.9	31.5	11.1	2.8	2.8	2.8	2.8	2.8
100°	172.4	110.3	63.9	31.5	11.1	2.8	2.8	2.8	2.8	2.8
102.5°	171.4	109.3	63.0	31.5	12.0	3.7	3.7	2.8	2.8	2.8
105°	169.6	108.4	63.0	31.5	12.0	3.7	3.7	3.7	3.7	3.7
107.5°	166.8	107.5	62.1	31.5	12.0	4.6	3.7	3.7	3.7	3.7
110°	164.0	105.6	62.1	31.5	12.0	4.6	4.6	4.6	4.6	4.6



TEST NUMBER: P368731
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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	161.2	103.8	61.2	30.6	13.0	4.6	4.6	4.6	4.6	4.6
115°	157.5	101.9	60.2	30.6	13.0	5.6	5.6	5.6	5.6	5.6
117.5°	153.8	100.1	58.4	30.6	13.0	5.6	5.6	5.6	5.6	5.6
120°	150.1	97.3	57.5	30.6	13.9	6.5	6.5	6.5	6.5	6.5
122.5°	145.5	94.5	56.5	29.7	13.9	6.5	6.5	6.5	6.5	6.5
125°	140.9	91.7	54.7	29.7	13.9	7.4	7.4	7.4	7.4	7.4
127.5°	136.2	89.0	53.7	29.7	13.9	8.3	7.4	7.4	7.4	7.4
130°	131.6	86.2	51.9	28.7	14.8	8.3	8.3	8.3	8.3	8.3
132.5°	126.0	82.5	50.0	27.8	14.8	9.3	8.3	8.3	8.3	8.3
135°	120.5	79.7	48.2	27.8	14.8	9.3	9.3	9.3	9.3	9.3
137.5°	114.9	76.0	47.3	26.9	14.8	10.2	10.2	9.3	9.3	9.3
140°	109.3	72.3	45.4	26.9	14.8	10.2	10.2	10.2	10.2	10.2
142.5°	102.9	68.6	43.6	25.9	15.8	11.1	11.1	10.2	10.2	10.2
145°	96.4	64.9	41.7	25.0	15.8	11.1	11.1	11.1	11.1	11.1
147.5°	90.8	61.2	39.8	25.0	15.8	12.0	12.0	12.0	11.1	11.1
150°	84.3	57.5	38.0	24.1	15.8	12.0	12.0	12.0	12.0	12.0
152.5°	77.8	53.7	36.1	23.2	15.8	13.0	12.0	12.0	12.0	12.0
155°	72.3	50.0	33.4	23.2	15.8	13.0	13.0	13.0	13.0	13.0
157.5°	65.8	46.3	31.5	22.2	15.8	13.0	13.0	13.0	13.0	13.0
160°	59.3	42.6	29.7	21.3	15.8	13.9	13.9	13.0	13.0	13.0
162.5°	52.8	38.9	27.8	20.4	15.8	13.9	13.9	13.9	13.9	13.0
165°	47.3	35.2	25.9	20.4	15.8	14.8	13.9	13.9	13.9	13.9
167.5°	40.8	31.5	24.1	19.5	15.8	14.8	13.9	13.9	13.9	13.9
170°	35.2	27.8	22.2	18.5	15.8	14.8	14.8	14.8	13.9	13.9
172.5°	29.7	24.1	20.4	17.6	15.8	14.8	14.8	13.9	13.9	13.9
175°	24.1	21.3	18.5	16.7	15.8	14.8	14.8	14.8	13.9	13.9
177.5°	19.5	17.6	16.7	16.7	15.8	14.8	14.8	14.8	14.8	13.9
180°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8

(END OF REPORT)