

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: io LED

Report Number: P273424

Luminaire Tested: **0.05-06W-830-90ASYM-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273424
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 90 DEGREE ASYMMETRIC OPTIC.
HIGH OUTPUT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 765.1 lumens
Efficiency: N/A
Efficacy: 57.5 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 0.97 / 1.19
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')
CIE Type: Direct

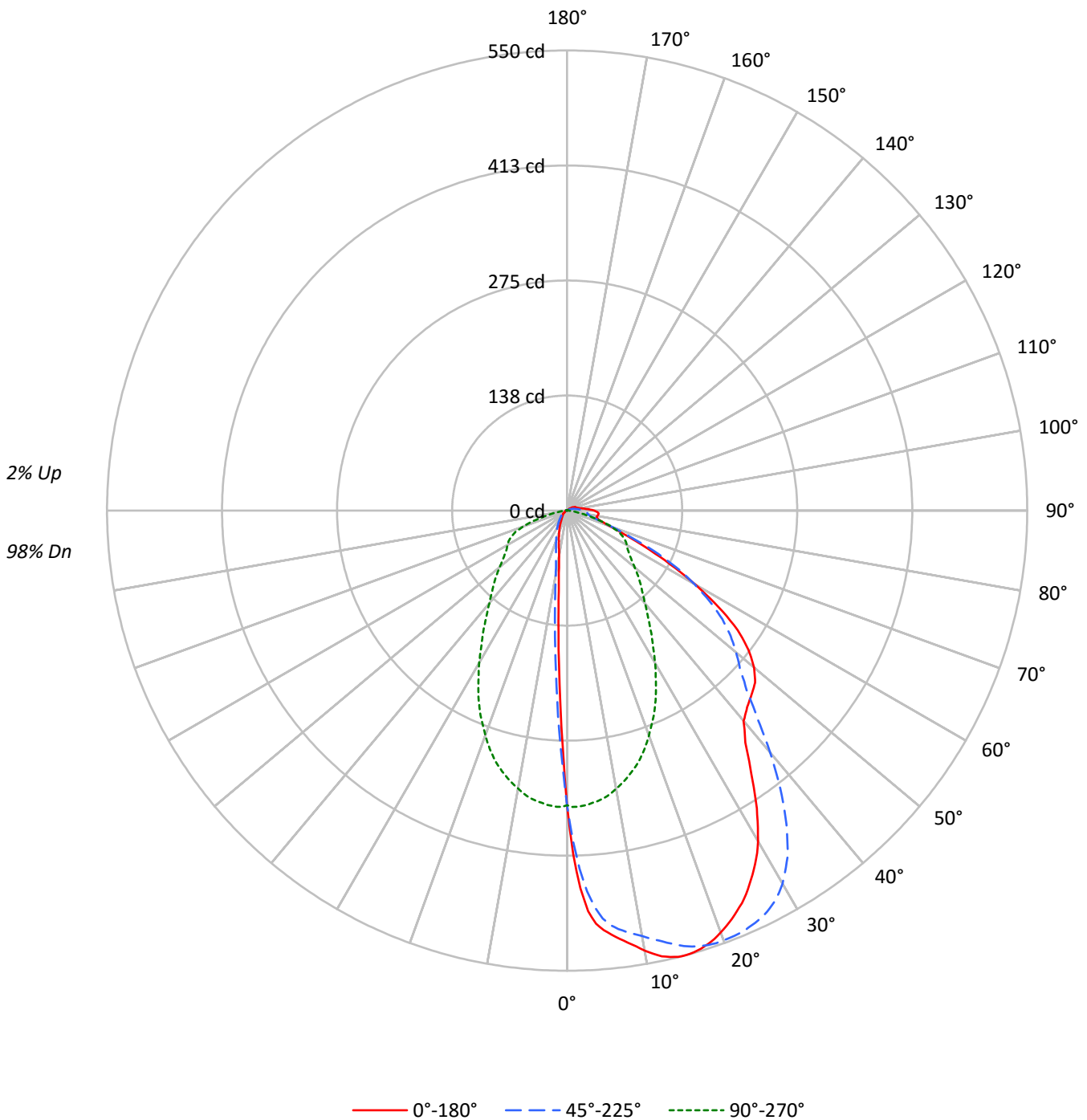
Input Watts (W): 13.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	105	105	105	100	100	100	98								
1	109	105	101	98	106	103	99	96	98	95	93	94	91	89	90	88	86	84								
2	100	93	87	82	98	91	85	80	87	82	78	84	80	76	80	77	74	72								
3	92	83	75	69	90	81	74	68	78	72	67	75	70	65	72	68	64	62								
4	85	74	66	59	83	72	65	59	70	63	58	67	61	57	65	60	56	54								
5	78	66	58	52	76	65	57	51	63	56	51	61	55	50	59	53	49	47								
6	73	60	52	45	71	59	51	45	57	50	45	55	49	44	53	48	44	42								
7	67	55	46	40	66	54	46	40	52	45	40	50	44	39	49	43	39	37								
8	63	50	42	36	61	49	41	36	48	41	36	46	40	35	45	39	35	33								
9	59	46	38	33	57	45	38	33	44	37	32	43	37	32	42	36	32	30								
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	27								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6239	6239	6239
5°	8953	6233	2114
10°	9609	6071	991
15°	10088	5804	693
20°	10117	5388	532
25°	9890	4888	403
30°	9336	4298	301
35°	8298	3763	236
40°	7589	3344	203
45°	7801	3106	190
50°	8039	2896	174
55°	7684	2804	142
60°	6285	2919	89
65°	4280	3081	105
70°	2745	2916	129
75°	2587	2101	144
80°	3734	1367	214
85°	7683	935	427



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.6	4.0
10°-20°	84.3	11.0
20°-30°	127.5	16.7
30°-40°	146.6	19.2
40°-50°	140.8	18.4
50°-60°	117.6	15.4
60°-70°	63.6	8.3
70°-80°	23.3	3.1
80°-90°	13.8	1.8
90°-100°	8.2	1.1
100°-110°	4.3	0.6
110°-120°	2.6	0.3
120°-130°	1.4	0.2
130°-140°	0.4	0.1
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°	242.4	31.7
0°-40°	389.0	50.8
0°-60°	647.4	84.6
0°-90°	748.2	97.8
90°-120°	15.0	2.0
90°-150°	16.9	2.2
90°-180°	17.0	2.2
0°-180°	765.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	352	352	352	352	352	
5°	504	490	350	164	119	49
15°	550	539	316	51	38	155
25°	506	540	250	30	21	232
35°	384	457	174	18	11	241
45°	311	303	124	11	8	241
55°	249	226	91	6	5	217
65°	102	114	74	3	2	106
75°	38	32	31	2	2	43
85°	38	24	5	2	2	30
90°	32	19	1	1	2	18
95°	23	15	1	1	2	17
105°	13	8	1	1	1	14
115°	10	4	1	1	1	10
125°	5	1	1	1	1	5
135°	1	1	1	1	1	1
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2
1°	410.6	409.3	410.6	404.3	404.7	406.8	406.8	403.0	405.1	396.3	394.6
2°	451.8	450.9	450.9	445.5	445.5	447.2	446.3	441.7	441.7	432.5	428.7
3°	479.5	478.3	477.8	473.6	473.6	474.5	473.6	469.9	468.2	460.2	455.6
4°	495.1	494.7	493.4	490.5	490.5	491.3	490.5	487.9	486.7	479.9	475.7
5°	503.5	503.5	501.8	499.7	499.7	500.5	499.3	498.0	496.3	492.6	489.6
6°	509.8	508.9	508.5	506.0	506.0	506.4	505.6	504.3	503.1	500.5	498.4
7°	515.7	514.8	514.0	511.5	511.9	511.5	510.6	508.9	508.1	506.0	503.9
8°	521.5	520.7	520.3	517.3	517.3	516.9	516.1	514.0	513.1	510.6	508.5
9°	527.4	526.6	526.2	523.2	523.2	522.8	521.5	519.9	517.8	514.8	512.3
10°	534.2	533.3	532.9	530.0	529.5	528.7	527.4	525.8	522.8	519.9	516.5
11°	539.6	539.6	537.9	535.8	535.0	534.6	533.3	531.6	528.3	524.5	521.1
12°	544.7	544.7	543.0	540.9	540.0	539.6	538.4	536.7	532.9	530.0	525.3
13°	547.6	547.6	546.3	544.2	544.2	543.8	542.6	541.3	537.5	534.6	530.0
14°	549.7	549.7	548.4	546.3	546.8	546.3	545.5	544.7	541.3	538.8	534.6
15°	550.1	550.5	548.9	547.2	548.0	547.6	547.2	546.3	544.7	542.1	538.8
16°	549.3	550.1	548.4	546.8	548.0	547.6	547.6	546.8	546.3	544.7	542.1
17°	547.6	548.4	547.2	545.5	547.2	546.8	546.8	546.8	547.2	545.9	544.2
18°	544.7	545.9	545.1	543.8	545.5	545.9	545.9	545.5	547.2	546.8	545.9
19°	541.3	542.6	542.1	541.3	543.0	543.8	543.8	544.2	546.3	546.8	546.8
20°	536.7	538.4	537.9	537.5	540.0	540.5	541.3	542.1	545.1	545.9	546.8
21°	531.6	533.7	533.7	533.3	535.8	537.1	538.4	539.6	543.0	544.7	546.3
22°	526.2	528.3	528.3	528.3	531.2	532.9	534.2	537.1	540.9	543.8	545.9
23°	519.9	522.0	522.0	522.4	525.8	527.9	529.5	532.9	537.9	542.1	544.7
24°	513.6	515.2	515.7	516.1	519.9	522.0	523.7	527.9	534.2	539.6	542.6
25°	506.0	508.1	508.1	508.9	513.1	515.2	517.3	522.4	529.5	535.8	540.5
26°	497.2	499.7	500.5	501.4	505.6	507.7	510.2	515.7	524.1	530.8	537.5
27°	488.3	490.9	492.1	492.1	497.6	499.7	502.6	508.5	518.2	525.3	533.7
28°	478.7	481.2	481.2	483.3	488.3	490.9	493.8	500.5	510.6	518.6	528.7
29°	468.2	470.7	470.7	473.2	478.3	481.2	484.1	491.7	501.0	511.0	522.4
30°	456.4	458.9	459.4	461.5	466.9	469.9	473.2	481.6	490.9	502.2	514.8
32.5°	421.9	424.9	424.9	429.5	433.7	438.8	441.3	450.5	462.7	475.3	490.5
35°	383.7	386.6	386.2	388.7	395.5	398.4	403.5	413.1	425.7	441.3	457.2
37.5°	349.7	351.3	350.5	352.6	357.2	361.8	365.6	373.2	385.8	402.2	418.6
40°	328.2	328.6	327.8	327.4	329.5	331.2	333.3	337.9	347.1	361.0	377.0
42.5°	318.6	317.3	316.0	314.8	313.5	313.5	312.7	313.5	316.9	324.9	336.2
45°	311.4	311.0	309.3	307.6	305.1	304.3	302.6	299.2	297.1	298.8	303.4
47.5°	304.7	303.4	301.8	300.1	297.1	295.9	292.9	287.9	284.1	281.6	280.3
50°	291.7	290.0	288.3	287.0	284.5	283.3	280.3	275.7	271.9	267.3	263.5
52.5°	273.2	271.1	270.2	269.0	266.4	264.8	262.2	258.9	255.5	252.2	246.3
55°	248.8	247.5	246.7	247.1	244.2	243.3	241.7	237.5	234.5	231.1	226.5
57.5°	214.8	213.9	214.3	216.4	216.0	216.4	216.4	214.3	211.8	207.6	202.1
60°	177.4	176.5	177.4	179.5	179.9	181.1	182.4	184.1	184.5	181.1	175.3
62.5°	138.7	137.4	137.8	139.1	139.1	140.8	142.5	145.4	148.4	148.8	147.1
65°	102.1	100.9	100.9	101.3	100.9	102.1	103.0	103.8	107.2	111.8	114.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
67.5°	73.1	72.3	72.3	72.3	72.3	72.7	72.3	73.1	74.8	77.7	81.1
70°	53.0	52.5	52.5	52.5	52.1	52.5	53.0	53.0	53.8	55.1	56.7
72.5°	42.9	42.4	42.4	42.0	41.2	41.2	40.8	40.3	39.9	40.3	41.2
75°	37.8	37.8	37.4	37.0	36.1	35.7	34.9	34.0	33.2	32.4	31.9
77.5°	36.1	36.1	35.7	34.9	34.0	33.2	32.8	31.1	29.8	28.6	27.3
80°	36.6	36.1	35.7	34.9	33.6	33.2	32.4	30.7	29.0	26.9	25.2
82.5°	37.4	37.4	37.0	35.7	34.5	33.6	32.8	31.1	29.0	26.9	24.4
85°	37.8	37.4	37.0	35.7	34.5	33.6	32.4	30.3	28.2	26.1	23.5
87.5°	35.7	35.3	34.9	33.6	31.9	31.5	30.3	28.2	26.5	24.0	21.9
90°	32.4	31.5	31.1	29.8	28.6	27.7	26.9	24.8	23.1	21.4	19.3
92.5°	27.3	26.9	26.5	25.2	24.4	23.5	22.7	21.0	19.8	18.5	17.2
95°	22.7	22.3	21.9	21.0	20.2	19.8	18.9	17.7	16.8	15.5	14.7
97.5°	18.9	18.5	18.1	17.7	16.8	16.4	16.0	15.1	14.3	13.4	12.6
100°	16.0	16.0	15.5	15.1	14.3	13.9	13.4	13.0	12.2	11.3	10.9
102.5°	13.9	13.9	13.4	13.0	12.6	12.2	11.8	11.3	10.5	9.7	9.2
105°	12.6	12.2	12.2	11.8	11.3	10.9	10.5	9.7	8.8	8.4	7.6
107.5°	11.8	11.3	11.3	10.9	10.1	10.1	9.7	8.8	8.0	7.1	6.7
110°	10.9	10.9	10.5	10.1	9.7	9.2	8.8	8.4	7.1	6.3	5.5
112.5°	10.5	10.5	10.1	9.7	9.2	8.8	8.4	7.6	6.7	5.9	4.6
115°	10.1	9.7	9.7	9.2	8.4	8.0	7.6	6.7	5.9	4.6	3.8
117.5°	8.8	8.8	8.8	8.0	7.6	7.1	6.7	5.9	5.0	3.8	2.9
120°	8.0	7.6	7.6	7.1	6.3	5.9	5.9	5.0	3.8	2.9	2.1
122.5°	6.7	6.3	6.3	5.9	5.5	5.0	4.6	3.8	2.9	2.1	1.7
125°	5.0	5.0	5.0	4.6	4.2	3.8	3.4	2.9	2.1	1.7	0.8
127.5°	4.2	3.8	3.8	3.4	2.9	2.9	2.5	2.1	1.3	0.8	0.8
130°	2.9	2.9	2.5	2.5	2.1	1.7	1.3	0.8	0.8	0.8	0.8
132.5°	1.7	1.7	1.7	1.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2
1°	392.1	382.9	379.5	377.0	374.0	369.8	367.3	364.4	358.9	354.3	348.8
2°	423.2	411.4	405.6	398.8	394.6	387.9	381.6	373.6	364.0	354.3	343.4
3°	448.8	436.2	427.4	418.2	413.1	404.7	394.2	382.4	368.2	353.4	337.1
4°	469.0	456.4	446.3	435.4	429.5	420.3	406.4	390.8	371.5	352.6	331.2
5°	483.7	472.4	462.3	450.5	444.2	434.6	417.7	397.6	374.9	350.5	324.4
6°	493.8	483.7	474.5	463.6	457.2	447.2	428.3	405.1	378.2	349.2	317.3
7°	500.5	492.1	484.1	474.5	467.8	458.5	437.9	412.3	380.8	347.1	310.2
8°	505.6	498.0	491.3	482.9	477.0	467.8	446.7	419.0	383.3	344.6	303.0
9°	508.9	501.8	496.3	488.8	483.7	475.7	454.3	424.0	384.5	341.3	294.6
10°	513.1	505.2	500.1	493.8	489.2	482.5	461.5	429.5	386.2	337.5	286.2
11°	517.3	508.5	503.5	497.6	493.4	487.5	467.3	434.1	387.5	333.7	277.4
12°	521.1	511.9	506.8	501.0	497.2	491.3	472.4	438.8	388.7	329.9	269.0
13°	525.8	514.8	509.8	504.3	500.1	494.7	477.0	443.0	389.6	325.7	260.1
14°	529.5	519.4	512.7	506.8	503.1	497.6	480.8	447.2	390.0	321.1	251.3
15°	533.3	523.2	515.7	508.9	505.2	499.7	484.1	450.1	390.4	316.5	242.1
16°	537.1	527.0	518.6	511.0	507.7	502.2	487.1	453.0	390.4	311.4	232.8
17°	540.9	531.2	521.5	513.6	510.2	505.2	489.6	456.0	390.0	305.5	223.2
18°	544.2	534.6	525.8	516.5	513.1	507.7	492.1	458.5	389.2	299.2	214.3
19°	545.9	537.5	528.7	519.9	515.2	510.2	494.7	461.0	387.9	292.9	204.7
20°	546.8	540.0	531.6	522.4	516.9	511.9	496.8	463.1	386.2	285.8	195.0
21°	547.2	542.1	533.7	524.9	519.4	514.0	498.9	464.8	384.5	278.6	186.2
22°	547.6	543.4	536.7	527.9	521.5	516.1	501.0	467.3	383.7	271.9	177.4
23°	546.8	543.8	537.9	529.5	524.1	517.8	503.1	469.4	382.0	265.6	168.5
24°	545.5	544.2	539.6	531.6	526.6	519.9	505.2	471.1	379.9	257.6	160.1
25°	544.7	544.2	540.0	532.9	528.7	522.4	506.4	472.4	377.4	250.1	152.1
26°	543.0	543.8	540.9	535.0	530.4	524.1	508.1	473.2	374.0	242.1	144.2
27°	540.5	542.6	541.7	537.1	532.5	526.6	510.2	474.1	370.3	233.7	137.0
28°	537.5	541.3	542.1	538.8	534.6	528.7	512.7	475.7	366.5	225.3	129.9
29°	533.7	539.2	541.3	540.0	537.1	531.6	514.8	477.8	362.3	218.1	123.6
30°	528.3	536.3	540.5	540.9	538.8	533.7	516.9	478.7	358.5	210.1	118.1
32.5°	508.9	524.5	534.6	542.1	542.6	539.2	523.2	481.6	347.1	190.8	105.1
35°	479.5	503.1	522.4	537.9	542.1	544.2	531.2	485.0	335.4	174.0	92.9
37.5°	445.1	470.7	500.1	525.8	535.8	542.1	537.5	487.9	321.1	158.0	84.9
40°	403.0	431.6	466.5	503.9	518.6	533.7	540.0	488.8	306.0	144.6	77.7
42.5°	359.3	388.3	425.3	469.4	491.7	514.4	536.3	485.8	287.9	133.2	72.3
45°	319.0	343.8	379.9	428.7	455.1	485.0	523.7	476.6	269.8	124.0	68.1
47.5°	285.8	302.2	333.3	382.0	411.0	448.0	505.6	464.0	250.5	114.7	64.3
50°	262.2	269.4	290.4	332.0	360.2	400.1	478.3	450.5	233.2	105.1	59.7
52.5°	242.9	243.3	253.4	282.4	308.1	346.7	439.6	431.6	219.4	97.1	55.1
55°	221.9	219.0	222.3	240.0	257.6	289.1	387.9	408.5	208.9	90.8	50.0
57.5°	198.8	193.3	193.3	202.1	213.1	236.6	322.8	374.0	199.6	85.7	45.8
60°	171.5	165.2	163.1	167.7	174.0	190.0	261.8	327.0	189.1	82.4	42.4
62.5°	142.0	136.2	134.1	135.7	138.7	150.0	202.1	269.8	174.8	78.6	39.1
65°	113.1	108.0	105.1	105.9	107.2	116.0	151.3	207.6	154.7	73.5	36.1



TEST NUMBER: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
67.5°	84.1	83.2	81.5	82.0	83.6	87.0	111.4	150.5	126.9	66.8	32.4
70°	59.7	61.8	62.6	63.0	63.5	65.6	79.9	104.6	94.6	56.3	28.2
72.5°	42.4	44.5	47.1	48.3	48.8	49.6	57.6	71.4	66.8	43.7	22.3
75°	32.4	33.2	34.9	37.4	37.4	38.2	42.0	48.3	45.4	30.7	16.8
77.5°	26.5	26.5	27.3	29.0	29.4	29.8	31.5	33.6	29.8	20.6	11.3
80°	24.0	23.1	22.7	23.1	23.5	23.5	24.0	23.1	19.8	13.4	7.1
82.5°	22.3	21.0	19.8	19.3	18.9	18.5	18.1	16.0	13.0	8.0	3.8
85°	21.4	19.3	17.7	16.4	16.0	15.1	13.9	11.3	8.4	4.6	2.1
87.5°	19.8	17.7	16.0	14.3	13.4	12.6	10.5	8.0	5.0	2.5	0.8
90°	17.7	16.0	14.3	12.2	11.3	10.5	8.4	5.5	2.9	0.8	0.8
92.5°	15.5	14.3	12.6	10.9	9.7	8.8	6.3	3.8	1.7	0.8	0.8
95°	13.4	12.6	10.9	9.2	8.4	7.1	5.0	2.5	0.8	0.8	0.8
97.5°	11.8	10.9	9.2	7.6	6.7	5.9	3.4	1.3	0.8	0.8	0.8
100°	10.1	9.2	8.0	6.3	5.5	4.2	2.1	0.8	0.8	0.8	0.8
102.5°	8.4	7.6	6.3	4.6	3.8	2.9	1.3	0.8	0.8	0.8	0.8
105°	6.7	5.9	5.0	3.4	2.5	1.7	0.8	0.8	0.8	0.8	0.8
107.5°	5.9	4.6	3.8	2.5	1.7	1.3	0.8	0.8	0.8	0.8	0.8
110°	4.6	3.8	2.5	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
112.5°	3.8	2.5	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
115°	2.9	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
117.5°	2.1	1.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
120°	1.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
122.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
125°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
127.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
130°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



TEST NUMBER: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
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: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2
1°	341.7	335.0	329.1	326.5	323.2	319.4	318.1	309.3	305.5	302.6	299.2
2°	331.2	319.8	309.3	306.8	298.8	290.4	285.4	272.8	265.2	259.7	253.4
3°	320.7	303.9	289.6	284.5	274.4	261.8	253.0	237.9	227.4	219.8	211.4
4°	308.9	287.9	269.4	261.8	250.5	234.5	222.7	205.9	193.3	184.5	175.3
5°	297.5	272.3	249.6	240.4	227.4	208.9	195.0	177.8	164.3	155.1	145.4
6°	285.8	256.4	230.3	219.4	205.9	185.3	170.6	153.0	139.5	130.3	121.5
7°	273.6	240.4	212.2	200.0	186.2	164.7	148.8	132.4	119.4	111.0	101.7
8°	261.8	225.3	195.0	182.4	168.1	146.3	130.7	115.2	102.1	94.1	87.4
9°	249.6	210.6	178.2	165.2	151.3	129.4	114.7	99.6	89.1	82.4	76.1
10°	237.5	196.3	163.1	150.0	136.6	115.6	100.9	88.3	78.6	72.7	67.7
11°	225.7	182.8	149.2	135.7	123.1	102.5	89.9	78.6	70.2	65.1	60.9
12°	213.9	169.8	136.6	123.6	111.0	92.5	80.7	71.0	63.9	59.7	55.9
13°	202.6	157.6	124.8	112.6	100.4	83.6	73.1	64.7	58.8	55.1	51.7
14°	191.2	145.4	114.7	101.7	91.6	76.5	67.2	59.7	54.6	51.3	48.3
15°	180.7	134.9	104.2	93.3	84.1	70.2	62.2	55.5	51.3	47.9	45.4
16°	170.2	124.8	95.8	86.2	77.3	65.1	57.6	52.1	48.3	45.0	42.9
17°	159.7	116.0	88.7	79.4	71.4	60.5	54.2	49.2	45.4	42.4	40.3
18°	150.5	107.6	82.0	73.5	66.4	56.7	50.9	46.2	42.9	40.3	37.8
19°	141.2	99.6	76.1	68.5	62.2	53.8	48.3	44.1	40.8	37.8	35.7
20°	132.4	92.9	71.0	64.3	58.4	50.9	45.8	41.6	38.2	35.7	33.6
21°	124.4	86.6	66.8	60.5	55.1	48.3	43.7	39.5	36.1	33.6	31.9
22°	116.8	81.1	63.0	57.2	52.5	46.2	41.6	37.4	34.5	31.9	30.3
23°	109.3	76.5	59.7	54.2	50.0	43.7	39.5	35.3	32.8	30.7	29.0
24°	102.1	72.3	56.7	51.7	47.9	42.0	37.4	33.6	31.1	29.0	27.3
25°	96.2	68.5	53.8	49.6	45.4	39.9	35.7	32.4	29.8	27.7	26.1
26°	91.2	64.7	51.3	47.5	43.7	37.8	34.0	30.7	28.6	26.5	24.8
27°	86.2	61.8	49.2	45.4	41.6	36.1	32.4	29.4	27.3	25.2	23.5
28°	82.0	58.8	47.1	43.3	39.9	34.9	31.1	28.2	26.1	24.0	22.3
29°	77.7	56.3	45.4	41.6	38.2	33.2	29.8	26.9	24.8	22.7	21.0
30°	74.0	53.8	43.3	39.9	36.6	31.9	28.6	25.6	23.5	21.4	19.3
32.5°	66.4	48.8	39.5	36.1	33.2	29.0	26.1	23.1	20.6	18.5	17.2
35°	60.1	44.5	35.7	32.8	30.3	26.5	23.1	20.6	18.1	16.4	15.1
37.5°	55.1	40.8	32.8	29.8	27.7	24.0	21.0	18.1	16.0	14.3	13.0
40°	50.4	37.8	30.3	27.7	25.2	21.9	18.5	16.0	13.9	12.6	11.3
42.5°	47.5	35.3	27.7	25.6	23.5	19.8	16.8	14.3	12.2	10.9	9.7
45°	45.0	33.2	26.1	23.5	21.4	18.1	15.1	12.6	10.9	9.7	8.4
47.5°	42.4	31.1	24.4	21.9	19.8	16.4	13.4	11.3	9.7	8.4	7.6
50°	39.9	29.0	22.7	20.2	18.1	14.7	12.2	10.1	8.4	7.1	6.3
52.5°	37.0	26.9	20.6	18.5	16.4	13.4	10.9	8.8	7.1	6.3	5.9
55°	34.0	24.8	18.9	16.8	15.1	12.2	9.7	7.6	5.9	5.5	5.0
57.5°	30.3	22.3	16.8	15.1	13.4	10.9	8.0	6.3	5.0	4.6	4.6
60°	27.3	19.8	14.7	13.4	12.2	9.2	6.7	5.0	4.2	3.8	3.8
62.5°	24.4	17.2	13.0	11.8	10.5	8.0	5.5	4.2	3.8	3.4	2.9
65°	21.4	14.7	11.3	10.1	8.8	6.3	4.2	3.4	2.9	2.5	2.5



TEST NUMBER: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
67.5°	18.5	12.2	9.2	8.0	7.1	4.6	3.4	2.5	2.1	2.1	2.1
70°	15.1	10.1	7.1	6.3	5.0	3.4	2.5	2.1	2.1	2.1	2.1
72.5°	11.8	7.6	5.5	4.6	3.4	2.5	2.1	2.1	2.1	2.1	2.1
75°	8.4	5.5	3.4	2.9	2.1	1.7	1.7	1.7	2.1	2.1	2.1
77.5°	5.9	3.8	2.1	1.7	1.7	1.7	1.7	1.7	2.1	2.1	2.1
80°	3.8	2.1	1.3	1.7	1.7	1.7	1.7	1.7	1.7	2.1	2.1
82.5°	2.1	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
85°	0.8	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
87.5°	0.8	0.8	1.3	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7
90°	0.8	0.8	0.8	1.3	1.3	1.3	1.3	1.3	1.3	1.7	1.7
92.5°	0.8	0.8	0.8	0.8	0.8	1.3	1.3	1.3	1.3	1.3	1.3
95°	0.8	0.8	0.8	0.8	0.8	0.8	1.3	1.3	1.3	1.3	1.3
97.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.3	1.3	1.3	1.3
100°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.3	1.3
102.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
105°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
107.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
110°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
112.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
115°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
117.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
120°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
122.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
125°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
127.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
130°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	1.3	0.8	1.3	1.3	1.3	0.8	0.8	0.8
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



TEST NUMBER: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
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: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2
1°	303.4	297.1	295.4	286.2	286.6	284.1	285.4	285.4
2°	254.7	247.1	244.2	235.3	234.5	231.1	231.6	231.1
3°	210.6	202.6	199.2	190.8	189.1	185.8	185.8	185.3
4°	172.7	164.7	161.0	154.2	152.1	148.8	148.4	147.1
5°	142.0	134.5	130.7	125.7	123.1	120.2	119.8	118.9
6°	117.3	111.0	107.2	102.5	100.0	97.5	97.5	96.7
7°	97.9	92.5	89.5	86.2	84.1	82.0	81.5	81.1
8°	83.6	77.7	76.5	74.0	72.3	70.6	70.2	69.3
9°	73.1	68.1	67.2	65.1	63.5	62.2	61.8	61.4
10°	64.7	60.9	60.1	58.4	57.2	55.9	55.9	55.1
11°	58.0	55.5	54.6	53.4	52.1	51.3	51.3	50.9
12°	53.4	51.3	50.4	49.6	48.3	47.5	47.5	47.1
13°	49.6	47.5	47.1	46.2	45.0	44.1	44.1	43.7
14°	46.2	44.5	43.7	43.3	42.0	41.6	41.2	40.8
15°	43.7	41.6	41.2	40.3	39.1	38.7	38.2	37.8
16°	40.8	39.1	38.2	37.4	36.6	36.1	35.7	35.7
17°	38.2	36.6	36.1	35.7	34.5	34.0	33.6	33.6
18°	36.1	34.5	34.0	33.6	32.4	31.9	31.9	31.5
19°	34.0	32.8	31.9	31.5	30.7	30.3	29.8	29.8
20°	32.4	31.1	30.3	29.8	29.0	28.6	28.6	28.2
21°	30.7	29.4	28.6	28.2	27.3	26.9	26.9	26.5
22°	29.0	27.7	27.3	26.9	26.1	25.6	25.2	25.2
23°	27.7	26.5	25.6	25.2	24.4	24.0	23.5	23.5
24°	26.1	24.8	24.4	24.0	23.1	22.3	22.3	21.9
25°	24.8	23.5	22.7	22.3	21.4	21.0	20.6	20.6
26°	23.5	21.9	21.4	21.0	20.2	19.8	19.3	19.3
27°	21.9	20.6	20.2	19.8	18.9	18.5	18.1	18.1
28°	20.6	19.3	18.9	18.5	17.7	17.2	17.2	16.8
29°	19.3	18.1	17.7	17.2	16.8	16.4	16.0	16.0
30°	18.1	17.2	16.8	16.4	16.0	15.1	15.1	14.7
32.5°	16.0	14.7	14.3	14.3	13.4	13.0	13.0	12.6
35°	13.9	12.6	12.2	12.2	11.8	11.3	11.3	10.9
37.5°	11.8	10.9	10.9	10.5	10.1	10.1	9.7	10.1
40°	10.5	9.7	9.2	9.2	8.8	8.8	8.8	8.8
42.5°	8.8	8.4	8.4	8.0	8.0	8.0	8.0	8.0
45°	8.0	7.6	7.6	7.6	7.6	7.6	7.6	7.6
47.5°	7.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7
50°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
52.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
55°	5.0	5.0	4.6	4.6	4.6	4.6	4.6	4.6
57.5°	4.2	4.2	3.8	3.8	3.8	3.8	3.4	3.4
60°	3.4	2.9	2.9	2.9	2.5	2.5	2.5	2.5
62.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
65°	2.1	2.1	2.5	2.5	2.5	2.5	2.5	2.5



TEST NUMBER: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
67.5°	2.1	2.1	2.1	2.1	2.5	2.5	2.5	2.5
70°	2.1	2.1	2.5	2.5	2.5	2.5	2.5	2.5
72.5°	2.1	2.1	2.1	2.1	2.5	2.5	2.5	2.5
75°	2.1	2.1	2.1	2.1	2.1	2.5	2.1	2.1
77.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
80°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
82.5°	1.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1
85°	1.7	1.7	1.7	2.1	2.1	2.1	2.1	2.1
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
90°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
92.5°	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
95°	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7
97.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
100°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
102.5°	0.8	1.3	1.3	1.3	1.3	1.3	1.3	1.3
105°	0.8	0.8	0.8	0.8	1.3	1.3	1.3	1.3
107.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
110°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
112.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
115°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
117.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
120°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
122.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
125°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
127.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
130°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	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
172.5°	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
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P273424

CATALOG NUMBER: 0.05-06W-830-90ASYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)