

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: NEO-RAY

Report Number: P331617-830

Luminaire Tested: **SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331617-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 330 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

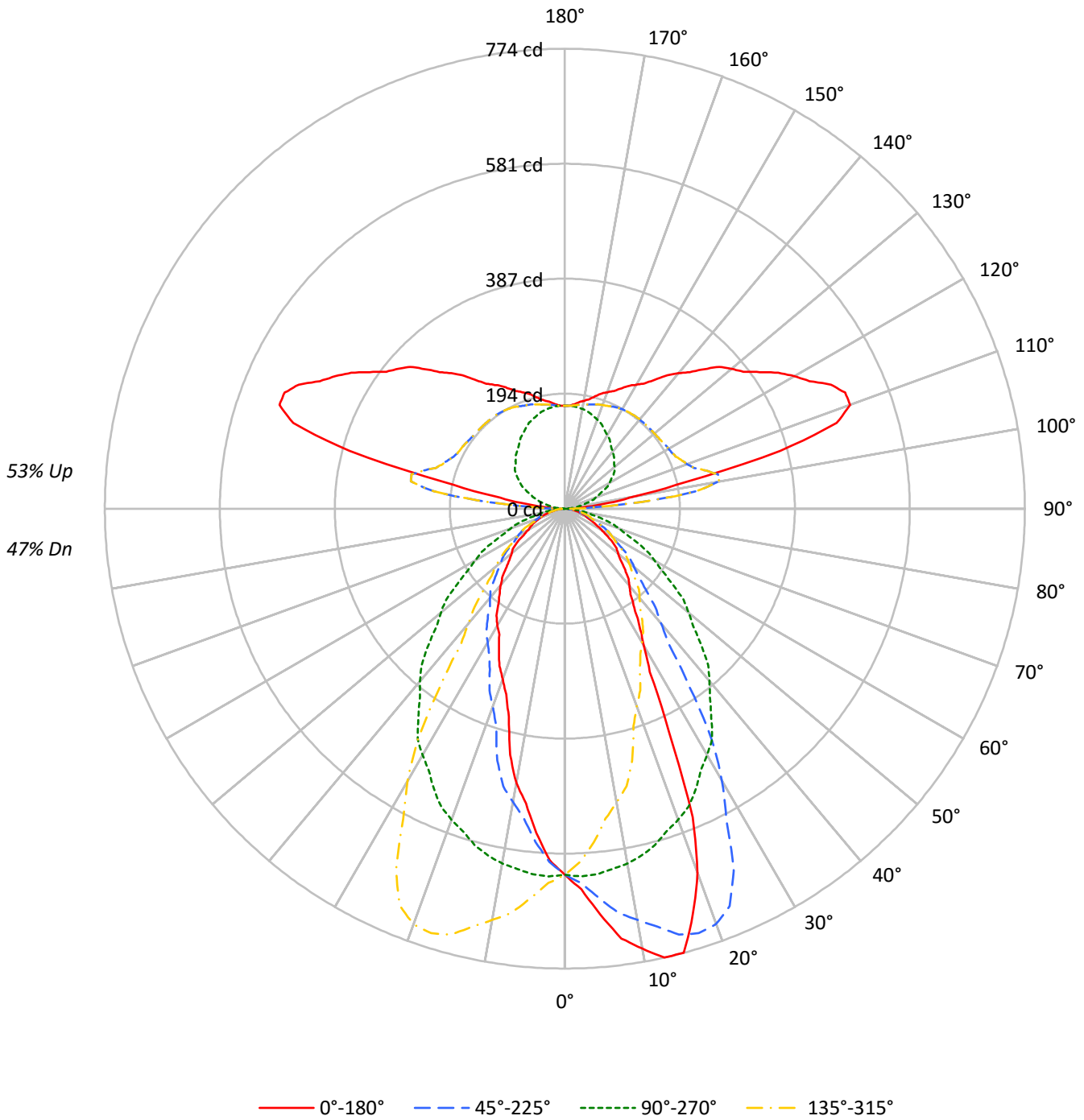
Lumens per Lamp: N/A
Luminaire Lumens: 2271.5 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 1.16 / 1.02
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 20.3
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	0
RCR																		
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	98	94	90	87	90	86	83	81	73	70	68	60	58	57	48	47	46	41
2	90	83	77	72	82	76	72	67	65	61	58	54	51	49	43	42	40	36
3	82	73	67	61	76	68	62	57	58	53	50	48	45	42	39	37	35	31
4	76	66	58	52	70	61	54	49	52	47	43	43	40	37	36	33	31	27
5	70	59	51	46	64	55	48	43	47	42	38	39	36	33	32	30	28	24
6	65	53	45	40	59	49	43	38	42	37	33	36	32	29	30	27	25	22
7	60	48	41	35	55	45	38	34	39	34	30	33	29	26	27	25	22	20
8	56	44	37	32	51	41	35	30	36	30	27	30	26	24	25	23	20	18
9	52	40	33	28	48	38	31	27	33	28	24	28	24	21	24	21	19	17
10	49	37	30	26	45	35	29	24	30	25	22	26	22	20	22	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9947	9947	9947	9947
5°	11110	10010	8877	10010
10°	12329	9940	7694	9940
15°	12933	9795	6063	9795
20°	11213	9579	5246	9579
25°	7352	9283	4684	9283
30°	4950	8925	4238	8925
35°	4009	8474	3824	8474
40°	3564	7982	3539	7982
45°	3226	7405	3158	7405
50°	2936	6835	2926	6835
55°	2759	6201	2725	6201
60°	2309	5622	2283	5622
65°	1948	5104	2208	5104
70°	1799	4556	2082	4556
75°	1684	3968	1921	3968
80°	1553	3273	1711	3273
85°	1426	2575	1501	2575



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	2.6
10°-20°	162.8	7.2
20°-30°	209.7	9.2
30°-40°	199.3	8.8
40°-50°	170.7	7.5
50°-60°	130.0	5.7
60°-70°	82.2	3.6
70°-80°	41.0	1.8
80°-90°	12.2	0.5
90°-100°	69.2	3.0
100°-110°	235.0	10.3
110°-120°	249.6	11.0
120°-130°	205.5	9.0
130°-140°	165.0	7.3
140°-150°	124.7	5.5
150°-160°	87.6	3.9
160°-170°	51.6	2.3
170°-180°	16.8	0.7
0°-30°	430.9	19.0
0°-40°	630.2	27.7
0°-60°	931.0	41.0
0°-90°	1066.4	46.9
90°-120°	553.8	24.4
90°-150°	1049.0	46.2
90°-180°	1205.0	53.0
0°-180°	2271.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	616	616	616	616	616	
5°	686	618	548	618	686	68
15°	774	586	363	586	774	209
25°	413	521	263	521	413	196
35°	203	430	194	430	203	130
45°	141	324	138	324	141	109
55°	98	220	97	220	98	86
65°	51	134	58	134	51	52
75°	27	64	31	64	27	29
85°	8	14	8	14	8	9
90°	11	0	11	0	11	6
95°	38	12	38	12	38	49
105°	375	41	375	41	375	363
115°	494	72	494	72	494	484
125°	401	100	401	100	401	362
135°	332	117	332	117	332	258
145°	265	134	265	134	265	168
155°	223	152	223	152	223	104
165°	196	166	196	166	196	56
175°	176	173	176	173	176	17
180°	173	173	173	173	173	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	641.2	641.7	642.2	641.0	641.0	640.0	637.7	636.0	631.2	630.6	630.6
5°	685.5	685.1	686.0	683.2	679.4	678.4	674.4	669.0	663.5	657.3	656.0
7.5°	729.6	729.0	727.3	726.8	723.9	717.4	710.9	703.9	694.7	685.6	681.1
10°	752.0	759.0	754.7	747.2	748.7	738.7	733.3	724.1	716.3	702.9	699.9
12.5°	773.8	776.7	775.2	771.0	769.1	762.1	754.9	746.9	732.6	720.6	710.0
15°	773.7	777.8	778.9	777.6	778.6	778.3	774.4	767.8	755.4	742.1	730.5
17.5°	716.6	719.4	726.5	731.2	737.3	749.9	756.2	758.6	756.8	749.1	741.0
20°	652.6	647.9	667.6	677.6	686.2	707.6	726.0	733.1	744.4	744.2	742.1
22.5°	561.8	562.9	581.5	593.5	618.5	640.0	660.9	687.5	709.5	724.0	732.4
25°	412.7	420.9	439.5	455.8	483.6	523.5	559.7	601.6	641.2	672.5	702.3
27.5°	310.0	310.7	325.4	340.4	356.9	389.6	435.2	485.2	541.7	588.3	641.9
30°	265.5	264.2	270.4	279.7	293.8	319.1	353.3	402.5	458.8	529.0	591.5
32.5°	233.9	234.0	238.7	245.5	257.2	274.3	297.7	337.8	391.0	460.1	533.3
35°	203.4	203.2	206.6	211.5	216.4	227.3	243.5	264.4	301.0	365.4	440.4
37.5°	181.4	182.4	184.1	187.2	192.6	198.7	208.3	222.4	248.5	286.6	349.6
40°	169.1	169.6	171.9	174.5	177.7	182.4	190.3	201.7	220.7	251.1	297.2
42.5°	157.9	158.3	159.9	162.3	164.9	169.6	176.2	186.0	201.4	225.1	263.1
45°	141.3	141.3	142.8	143.8	146.7	150.9	156.3	164.5	175.1	192.7	217.9
47.5°	125.8	125.8	126.9	128.7	130.4	133.7	139.0	145.7	153.4	167.0	188.6
50°	116.9	117.2	117.7	119.2	120.4	123.3	127.4	133.2	141.3	151.8	169.8
52.5°	109.7	109.6	110.4	111.0	111.8	113.9	117.0	122.1	129.3	138.5	153.4
55°	98.0	97.2	98.5	99.5	100.2	101.0	102.7	105.9	112.2	119.9	131.0
57.5°	83.5	83.1	84.1	85.0	87.1	89.4	90.9	92.8	96.0	101.6	112.6
60°	71.5	71.5	73.4	74.1	76.4	79.5	82.5	84.2	87.4	91.0	99.2
62.5°	60.9	61.1	61.9	62.6	63.9	67.6	71.8	75.6	78.6	82.1	87.5
65°	51.0	51.4	51.4	51.8	52.7	53.5	55.2	58.2	63.6	68.5	72.6
67.5°	43.3	43.4	43.5	43.9	44.1	45.1	45.8	47.1	48.4	53.0	58.1
70°	38.1	38.7	38.5	38.9	39.2	39.6	40.4	41.1	43.1	44.1	47.1
72.5°	33.3	33.7	33.7	34.0	34.6	34.7	35.3	36.0	37.2	38.1	39.8
75°	27.0	26.8	27.0	27.4	27.6	27.8	27.8	28.7	29.3	30.2	31.3
77.5°	20.8	21.0	21.0	21.0	21.1	21.5	21.4	21.8	22.4	22.9	23.4
80°	16.7	16.9	16.7	16.9	17.2	17.3	17.2	17.3	18.0	18.4	18.4
82.5°	12.9	13.0	13.1	13.1	13.2	13.2	13.6	13.6	14.0	13.9	14.1
85°	7.7	7.5	7.5	7.5	7.7	7.9	7.7	7.7	7.9	7.9	7.9
87.5°	4.9	5.1	5.1	5.1	5.1	5.1	4.9	5.2	5.1	5.4	5.1
90°	11.0	11.0	11.0	11.0	11.0	10.7	10.0	10.7	11.0	11.3	11.0
92.5°	18.5	18.9	18.8	19.8	20.1	22.1	24.9	29.0	36.6	43.3	42.7
95°	38.0	37.6	38.6	41.3	45.6	53.0	66.9	87.3	114.2	130.5	115.6
97.5°	74.7	77.6	82.4	90.6	106.5	130.5	166.5	203.6	233.8	222.8	167.9
100°	119.2	125.3	134.9	149.2	176.8	217.2	262.8	304.1	311.0	263.1	181.2
102.5°	209.8	217.9	230.0	254.4	284.5	327.2	360.5	369.9	339.8	264.4	176.1
105°	375.3	379.9	394.3	414.9	435.6	446.6	442.2	404.6	335.4	246.8	166.2
107.5°	479.5	485.6	488.5	489.7	487.0	470.9	436.3	379.6	306.1	227.8	161.3
110°	510.9	511.2	508.2	501.9	487.6	460.2	417.6	358.0	287.8	218.8	160.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	510.3	508.5	502.8	492.3	472.4	441.0	395.5	338.3	274.9	212.9	160.4
115°	493.9	490.9	482.2	466.9	443.3	409.0	365.3	314.1	259.1	206.5	161.8
117.5°	464.5	461.9	452.9	436.7	412.6	380.4	340.8	295.8	249.1	203.3	164.3
120°	445.6	442.2	432.6	417.0	393.6	363.4	328.0	286.7	243.7	201.5	165.9
122.5°	425.8	423.1	414.5	399.1	378.1	350.8	317.4	279.6	239.2	200.4	167.7
125°	400.7	397.9	389.6	377.0	357.7	332.7	303.4	269.1	232.8	198.5	170.5
127.5°	378.5	376.4	369.2	357.3	340.4	317.4	289.8	258.7	226.8	197.4	173.3
130°	366.0	363.4	356.7	345.3	329.0	307.1	280.8	252.1	222.8	196.8	175.5
132.5°	353.0	350.5	344.4	333.1	317.1	296.4	272.2	245.7	219.6	196.5	177.7
135°	332.1	330.7	324.7	313.7	299.4	280.8	258.7	236.8	215.1	196.1	180.2
137.5°	311.5	309.5	304.3	294.8	281.7	265.5	248.1	229.7	212.0	196.0	182.5
140°	297.4	295.4	290.4	281.7	271.1	256.5	241.1	225.1	210.1	195.9	183.5
142.5°	283.2	282.9	278.4	270.5	260.4	248.2	235.0	221.4	208.3	195.9	184.3
145°	265.0	264.1	260.8	255.1	247.1	237.4	227.2	216.1	205.9	195.1	185.1
147.5°	249.9	249.2	246.9	242.4	235.8	228.8	220.7	212.1	203.3	194.0	185.4
150°	240.8	240.4	238.5	234.4	229.4	223.5	216.5	209.2	201.1	193.1	185.1
152.5°	233.1	233.0	231.5	228.1	224.1	219.0	213.0	206.2	199.3	191.8	184.6
155°	222.8	223.5	222.2	219.8	216.1	212.4	207.5	202.2	195.9	189.5	183.8
157.5°	214.1	214.1	213.5	211.5	209.0	206.0	201.9	197.5	192.6	187.1	182.3
160°	208.5	208.5	208.1	206.5	204.2	201.8	198.1	194.4	190.1	185.5	181.5
162.5°	203.1	203.4	203.1	202.0	199.6	197.8	194.7	191.5	188.0	184.2	180.7
165°	195.5	195.9	195.9	194.4	193.1	191.8	189.5	187.2	184.5	181.5	179.2
167.5°	188.4	188.8	188.9	188.1	187.6	186.3	184.7	182.9	181.1	179.2	177.7
170°	184.2	184.8	185.1	184.2	183.8	183.1	181.8	180.9	179.2	177.9	176.8
172.5°	180.7	181.1	181.4	181.0	180.6	180.2	179.2	178.4	177.3	176.3	175.8
175°	176.2	176.8	177.2	176.8	176.8	176.5	176.2	175.9	174.8	174.5	174.2
177.5°	173.4	174.0	174.3	174.3	174.3	174.3	174.0	174.0	173.4	173.1	173.4
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	630.9	629.5	628.3	625.3	623.7	620.3	619.8	619.6	615.2	610.9	609.6
5°	652.6	649.1	644.0	638.0	631.8	625.4	621.1	617.6	609.1	601.0	596.3
7.5°	674.4	667.0	658.2	646.9	637.3	626.8	618.9	611.8	599.6	588.0	580.1
10°	690.7	678.7	666.9	651.3	639.0	627.1	616.0	606.3	592.7	577.2	566.3
12.5°	700.8	687.6	671.4	656.1	640.3	625.0	610.1	597.8	581.6	565.7	552.8
15°	714.4	700.3	680.6	658.7	638.5	618.5	601.4	586.0	565.1	545.9	530.1
17.5°	725.7	706.2	685.0	659.8	636.2	611.0	588.9	569.2	545.8	522.8	504.2
20°	729.2	709.9	685.5	660.3	632.4	602.7	578.9	557.5	532.4	507.4	486.0
22.5°	727.0	712.0	684.9	654.6	626.1	595.0	568.2	543.3	515.5	489.9	465.1
25°	711.9	706.7	681.1	648.1	615.6	579.4	548.3	521.1	489.5	462.0	435.1
27.5°	676.7	687.8	671.8	636.7	600.5	561.8	526.8	495.9	463.0	432.2	405.3
30°	642.7	668.2	661.4	628.8	588.3	550.3	511.0	478.7	443.7	411.9	385.4
32.5°	596.3	638.4	645.1	617.8	576.0	534.1	493.0	460.9	424.2	390.9	365.0
35°	522.4	585.3	614.3	596.9	555.0	509.7	467.4	429.9	393.0	360.1	334.4
37.5°	434.2	520.0	568.2	569.4	530.8	483.9	437.7	400.5	362.8	330.5	302.7
40°	377.0	470.0	532.7	546.6	514.1	463.4	416.6	378.7	342.0	310.2	278.3
42.5°	325.6	418.2	495.3	519.5	493.7	443.3	396.4	356.8	321.0	291.1	258.4
45°	263.3	344.3	429.2	472.5	458.2	411.5	362.0	324.3	290.8	264.9	233.6
47.5°	222.2	279.2	361.5	419.9	419.7	377.1	328.4	292.4	261.2	236.9	211.6
50°	198.7	248.4	317.9	384.3	389.8	354.1	307.8	272.1	243.0	217.5	197.2
52.5°	177.6	218.6	281.1	344.8	360.6	329.6	284.7	251.8	223.5	200.0	182.7
55°	150.1	181.8	229.3	288.8	312.8	291.0	251.1	220.3	197.4	177.7	162.7
57.5°	127.0	150.7	188.9	236.8	264.7	251.0	218.1	193.0	173.4	155.6	143.8
60°	112.4	131.9	164.2	204.2	235.1	225.5	197.4	174.1	157.4	141.9	130.8
62.5°	98.7	115.5	143.2	175.7	203.9	199.9	177.0	157.4	142.8	128.8	119.3
65°	79.5	91.6	113.3	138.7	161.5	163.3	146.8	133.6	120.6	109.4	101.0
67.5°	63.2	71.3	86.4	107.9	124.9	131.0	120.9	110.7	100.4	91.8	84.5
70°	53.3	59.8	70.9	88.2	103.9	110.3	104.4	96.5	87.6	80.5	74.3
72.5°	43.2	49.5	57.7	70.4	83.8	90.8	88.7	83.0	75.8	69.8	64.0
75°	32.5	34.5	40.1	48.6	59.1	65.1	66.5	63.6	57.8	53.3	49.9
77.5°	24.0	25.3	27.9	32.3	39.2	44.6	46.8	46.4	42.4	39.9	36.6
80°	19.2	19.9	21.2	23.1	28.3	33.6	35.2	35.2	32.3	31.3	28.1
82.5°	14.6	15.1	15.9	17.0	19.3	24.0	25.7	26.0	24.3	22.9	20.4
85°	8.4	8.1	8.6	9.2	9.6	10.9	13.5	13.9	13.5	11.8	11.1
87.5°	4.7	4.4	4.1	3.7	3.8	3.8	4.3	5.0	4.5	4.3	4.1
90°	9.0	6.7	5.0	4.0	3.3	2.6	1.3	0.4	1.3	2.6	3.3
92.5°	33.3	22.6	15.1	12.0	9.7	8.3	5.8	4.1	5.8	8.3	9.7
95°	76.9	48.0	32.6	24.6	19.3	16.3	13.0	11.7	13.0	16.3	19.3
97.5°	103.7	63.2	44.0	35.0	28.8	24.3	20.7	18.9	20.7	24.3	28.8
100°	109.2	68.6	51.0	41.7	35.0	29.6	26.7	25.6	26.7	29.6	35.0
102.5°	109.5	73.4	57.1	47.8	40.8	35.5	32.5	31.8	32.5	35.5	40.8
105°	111.2	81.6	66.0	56.6	49.3	44.3	41.9	40.6	41.9	44.3	49.3
107.5°	115.8	90.0	74.8	65.4	58.2	53.5	51.3	50.2	51.3	53.5	58.2
110°	119.5	95.6	81.0	71.3	64.3	59.9	58.0	56.6	58.0	59.9	64.3



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	123.6	100.9	86.8	76.8	70.1	66.1	63.8	62.5	63.8	66.1	70.1
115°	129.5	109.2	94.9	86.0	79.3	75.3	73.2	71.6	73.2	75.3	79.3
117.5°	135.9	116.9	103.7	94.3	87.9	84.4	82.4	81.1	82.4	84.4	87.9
120°	140.3	122.2	109.2	99.9	93.2	90.3	88.2	86.9	88.2	90.3	93.2
122.5°	143.9	127.2	115.1	105.5	98.9	95.6	93.6	92.6	93.6	95.6	98.9
125°	149.9	134.9	122.9	113.6	106.9	102.9	100.9	99.9	100.9	102.9	106.9
127.5°	155.4	141.9	130.3	120.6	114.3	109.9	107.1	105.8	107.1	109.9	114.3
130°	158.8	146.2	134.5	125.3	118.6	113.9	110.6	109.2	110.6	113.9	118.6
132.5°	162.3	150.0	138.8	129.5	122.5	117.6	114.0	112.4	114.0	117.6	122.5
135°	166.8	155.2	144.5	135.3	127.5	122.5	118.6	117.3	118.6	122.5	127.5
137.5°	170.3	159.5	148.9	140.3	132.7	127.3	123.4	121.8	123.4	127.3	132.7
140°	172.2	161.8	151.8	143.2	135.9	130.5	126.6	125.3	126.6	130.5	135.9
142.5°	173.8	163.7	154.0	145.9	138.8	133.5	129.8	128.7	129.8	133.5	138.8
145°	175.9	166.5	157.5	150.2	143.5	138.6	135.3	133.8	135.3	138.6	143.5
147.5°	177.0	168.8	160.3	153.8	148.3	143.6	140.4	139.5	140.4	143.6	148.3
150°	177.5	169.8	162.2	156.2	151.2	146.8	144.2	143.2	144.2	146.8	151.2
152.5°	177.8	170.9	164.0	158.6	153.8	150.1	147.4	146.9	147.4	150.1	153.8
155°	178.1	172.5	166.8	161.8	158.2	154.5	152.5	152.2	152.5	154.5	158.2
157.5°	178.1	173.6	168.8	164.7	161.7	158.5	156.9	156.6	156.9	158.5	161.7
160°	178.1	174.2	170.2	166.5	163.8	161.2	159.9	159.5	159.9	161.2	163.8
162.5°	177.9	174.5	171.0	168.1	165.7	163.6	162.2	162.5	162.2	163.6	165.7
165°	177.2	174.8	171.8	169.8	168.1	166.2	165.5	165.9	165.5	166.2	168.1
167.5°	176.7	174.7	172.6	171.4	170.1	168.8	168.2	168.6	168.2	168.8	170.1
170°	176.2	174.5	172.9	171.8	171.2	170.2	169.8	170.5	169.8	170.2	171.2
172.5°	175.4	174.3	173.1	172.4	172.0	171.0	171.2	171.5	171.2	171.0	172.0
175°	174.5	173.8	173.1	172.9	172.9	172.2	172.5	172.9	172.5	172.2	172.9
177.5°	174.0	173.4	173.1	173.1	173.1	172.7	172.9	173.4	172.9	172.7	173.1
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	607.5	606.2	604.0	600.6	598.5	594.9	592.6	593.9	594.3	593.9	593.6
5°	591.2	586.6	580.4	574.4	568.8	562.9	559.4	558.0	555.0	553.3	552.3
7.5°	571.4	563.6	554.9	544.4	535.6	526.2	521.5	519.2	513.0	509.7	506.8
10°	556.7	544.4	535.6	522.0	513.6	501.4	493.0	493.3	484.9	480.2	476.8
12.5°	540.4	527.0	512.4	500.0	488.4	478.6	468.5	464.5	455.6	451.1	441.9
15°	513.4	497.8	482.4	465.7	453.9	438.7	424.1	406.3	392.0	379.6	376.2
17.5°	484.0	464.6	449.1	429.5	409.3	383.8	366.9	356.6	348.0	341.4	336.5
20°	463.7	444.0	427.5	398.0	370.8	353.5	341.1	333.1	324.1	317.1	313.2
22.5°	442.5	422.0	399.4	366.5	345.3	331.4	320.4	311.2	305.1	299.6	296.1
25°	412.4	389.8	352.8	330.2	313.0	298.4	290.8	285.2	278.8	271.3	267.9
27.5°	380.5	344.8	318.1	301.2	284.9	275.5	268.5	260.2	254.5	251.1	247.5
30°	356.7	320.9	300.2	281.7	270.2	259.7	251.6	246.9	241.3	235.5	233.2
32.5°	330.2	301.6	281.6	266.4	254.6	245.6	239.2	231.6	227.6	224.0	219.1
35°	297.2	275.5	257.3	245.0	233.8	226.5	219.0	214.5	207.3	204.2	202.4
37.5°	269.3	250.5	237.0	223.9	215.0	207.0	202.4	195.2	192.1	187.8	183.8
40°	253.4	235.1	222.1	211.3	201.4	195.5	189.7	183.9	179.2	177.3	172.4
42.5°	237.4	222.4	209.3	197.7	191.1	184.6	177.4	173.1	168.2	165.1	162.1
45°	215.2	201.9	190.8	181.2	173.8	167.2	162.5	155.4	152.7	146.5	143.8
47.5°	195.7	183.3	172.7	163.5	156.5	152.1	145.2	139.7	135.3	131.4	128.1
50°	181.8	171.4	161.2	153.1	146.7	140.4	133.4	130.6	123.8	121.8	119.9
52.5°	169.1	159.3	150.0	141.9	135.5	129.5	123.3	119.6	115.0	113.1	111.7
55°	151.4	141.9	133.0	125.9	119.5	113.3	109.4	104.9	102.7	101.2	99.5
57.5°	133.6	125.1	118.2	111.0	104.5	99.6	95.2	92.5	90.3	88.3	86.2
60°	122.2	114.1	107.9	101.2	94.6	90.6	87.2	83.9	81.3	78.3	77.5
62.5°	110.3	103.1	97.5	91.0	85.2	81.5	78.2	75.2	72.1	67.8	66.5
65°	93.8	88.2	82.2	76.8	71.7	68.1	63.3	59.9	58.6	58.2	58.1
67.5°	78.9	73.6	68.4	63.0	58.3	55.0	52.5	52.0	51.1	50.9	50.2
70°	68.9	64.0	58.9	53.7	49.2	48.6	47.8	46.8	45.8	45.4	45.0
72.5°	60.0	55.0	49.8	45.7	43.7	43.0	42.1	41.2	40.5	40.1	39.9
75°	46.0	41.3	37.9	36.4	35.3	34.7	33.4	32.8	32.3	31.7	31.5
77.5°	33.2	30.4	28.9	28.0	26.9	26.2	25.4	24.8	24.3	24.2	23.8
80°	25.3	23.9	22.9	21.6	21.2	20.4	20.2	19.5	19.7	19.0	19.0
82.5°	19.6	18.0	17.1	16.5	16.0	15.4	15.2	14.9	14.9	14.4	14.4
85°	10.1	9.6	9.2	8.8	8.8	8.1	8.4	8.1	8.1	7.7	7.5
87.5°	4.1	4.1	4.1	4.5	4.9	4.8	4.8	4.5	4.4	4.5	4.4
90°	4.0	5.0	6.7	9.0	11.0	11.3	11.0	10.7	10.0	10.7	11.0
92.5°	12.0	15.1	22.6	33.3	42.7	43.3	36.6	29.0	24.9	22.1	20.1
95°	24.6	32.6	48.0	76.9	115.6	130.5	114.2	87.3	66.9	53.0	45.6
97.5°	35.0	44.0	63.2	103.7	167.9	222.8	233.8	203.6	166.5	130.5	106.5
100°	41.7	51.0	68.6	109.2	181.2	263.1	311.0	304.1	262.8	217.2	176.8
102.5°	47.8	57.1	73.4	109.5	176.1	264.4	339.8	369.9	360.5	327.2	284.5
105°	56.6	66.0	81.6	111.2	166.2	246.8	335.4	404.6	442.2	446.6	435.6
107.5°	65.4	74.8	90.0	115.8	161.3	227.8	306.1	379.6	436.3	470.9	487.0
110°	71.3	81.0	95.6	119.5	160.2	218.8	287.8	358.0	417.6	460.2	487.6



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	76.8	86.8	100.9	123.6	160.4	212.9	274.9	338.3	395.5	441.0	472.4
115°	86.0	94.9	109.2	129.5	161.8	206.5	259.1	314.1	365.3	409.0	443.3
117.5°	94.3	103.7	116.9	135.9	164.3	203.3	249.1	295.8	340.8	380.4	412.6
120°	99.9	109.2	122.2	140.3	165.9	201.5	243.7	286.7	328.0	363.4	393.6
122.5°	105.5	115.1	127.2	143.9	167.7	200.4	239.2	279.6	317.4	350.8	378.1
125°	113.6	122.9	134.9	149.9	170.5	198.5	232.8	269.1	303.4	332.7	357.7
127.5°	120.6	130.3	141.9	155.4	173.3	197.4	226.8	258.7	289.8	317.4	340.4
130°	125.3	134.5	146.2	158.8	175.5	196.8	222.8	252.1	280.8	307.1	329.0
132.5°	129.5	138.8	150.0	162.3	177.7	196.5	219.6	245.7	272.2	296.4	317.1
135°	135.3	144.5	155.2	166.8	180.2	196.1	215.1	236.8	258.7	280.8	299.4
137.5°	140.3	148.9	159.5	170.3	182.5	196.0	212.0	229.7	248.1	265.5	281.7
140°	143.2	151.8	161.8	172.2	183.5	195.9	210.1	225.1	241.1	256.5	271.1
142.5°	145.9	154.0	163.7	173.8	184.3	195.9	208.3	221.4	235.0	248.2	260.4
145°	150.2	157.5	166.5	175.9	185.1	195.1	205.9	216.1	227.2	237.4	247.1
147.5°	153.8	160.3	168.8	177.0	185.4	194.0	203.3	212.1	220.7	228.8	235.8
150°	156.2	162.2	169.8	177.5	185.1	193.1	201.1	209.2	216.5	223.5	229.4
152.5°	158.6	164.0	170.9	177.8	184.6	191.8	199.3	206.2	213.0	219.0	224.1
155°	161.8	166.8	172.5	178.1	183.8	189.5	195.9	202.2	207.5	212.4	216.1
157.5°	164.7	168.8	173.6	178.1	182.3	187.1	192.6	197.5	201.9	206.0	209.0
160°	166.5	170.2	174.2	178.1	181.5	185.5	190.1	194.4	198.1	201.8	204.2
162.5°	168.1	171.0	174.5	177.9	180.7	184.2	188.0	191.5	194.7	197.8	199.6
165°	169.8	171.8	174.8	177.2	179.2	181.5	184.5	187.2	189.5	191.8	193.1
167.5°	171.4	172.6	174.7	176.7	177.7	179.2	181.1	182.9	184.7	186.3	187.6
170°	171.8	172.9	174.5	176.2	176.8	177.9	179.2	180.9	181.8	183.1	183.8
172.5°	172.4	173.1	174.3	175.4	175.8	176.3	177.3	178.4	179.2	180.2	180.6
175°	172.9	173.1	173.8	174.5	174.2	174.5	174.8	175.9	176.2	176.5	176.8
177.5°	173.1	173.1	173.4	174.0	173.4	173.1	173.4	174.0	174.0	174.3	174.3
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331617-830
 CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	591.7	592.0	591.5	591.8	591.5	592.0	591.7	593.6	593.9	594.3	593.9
5°	551.3	548.7	548.3	547.7	548.3	548.7	551.3	552.3	553.3	555.0	558.0
7.5°	503.1	502.8	501.6	500.1	501.6	502.8	503.1	506.8	509.7	513.0	519.2
10°	472.1	471.0	470.8	469.3	470.8	471.0	472.1	476.8	480.2	484.9	493.3
12.5°	435.7	428.9	428.2	424.4	428.2	428.9	435.7	441.9	451.1	455.6	464.5
15°	371.1	369.8	365.4	362.7	365.4	369.8	371.1	376.2	379.6	392.0	406.3
17.5°	334.0	329.8	328.5	327.9	328.5	329.8	334.0	336.5	341.4	348.0	356.6
20°	310.2	306.4	305.8	305.3	305.8	306.4	310.2	313.2	317.1	324.1	333.1
22.5°	293.8	289.7	288.1	286.8	288.1	289.7	293.8	296.1	299.6	305.1	311.2
25°	265.7	264.2	263.3	262.9	263.3	264.2	265.7	267.9	271.3	278.8	285.2
27.5°	243.7	240.4	239.8	238.7	239.8	240.4	243.7	247.5	251.1	254.5	260.2
30°	231.2	230.2	228.7	227.3	228.7	230.2	231.2	233.2	235.5	241.3	246.9
32.5°	216.5	215.6	214.2	213.7	214.2	215.6	216.5	219.1	224.0	227.6	231.6
35°	200.2	197.2	195.9	194.0	195.9	197.2	200.2	202.4	204.2	207.3	214.5
37.5°	182.9	181.3	179.6	180.2	179.6	181.3	182.9	183.8	187.8	192.1	195.2
40°	169.6	168.5	168.1	167.9	168.1	168.5	169.6	172.4	177.3	179.2	183.9
42.5°	158.9	156.0	154.9	154.9	154.9	156.0	158.9	162.1	165.1	168.2	173.1
45°	142.8	140.1	138.1	138.3	138.1	140.1	142.8	143.8	146.5	152.7	155.4
47.5°	126.3	126.2	125.0	125.4	125.0	126.2	126.3	128.1	131.4	135.3	139.7
50°	118.4	117.2	116.2	116.5	116.2	117.2	118.4	119.9	121.8	123.8	130.6
52.5°	110.8	109.7	109.1	110.0	109.1	109.7	110.8	111.7	113.1	115.0	119.6
55°	98.5	97.2	97.0	96.8	97.0	97.2	98.5	99.5	101.2	102.7	104.9
57.5°	84.6	83.8	82.5	82.0	82.5	83.8	84.6	86.2	88.3	90.3	92.5
60°	74.7	73.0	70.9	70.7	70.9	73.0	74.7	77.5	78.3	81.3	83.9
62.5°	65.6	65.3	64.8	64.8	64.8	65.3	65.6	66.5	67.8	72.1	75.2
65°	57.6	57.4	57.6	57.8	57.6	57.4	57.6	58.1	58.2	58.6	59.9
67.5°	50.1	49.8	49.4	49.6	49.4	49.8	50.1	50.2	50.9	51.1	52.0
70°	44.5	44.3	44.1	44.1	44.1	44.3	44.5	45.0	45.4	45.8	46.8
72.5°	39.0	39.0	38.8	38.6	38.8	39.0	39.0	39.9	40.1	40.5	41.2
75°	31.3	30.8	30.8	30.8	30.8	30.8	31.3	31.5	31.7	32.3	32.8
77.5°	23.8	23.6	23.4	23.2	23.4	23.6	23.8	23.8	24.2	24.3	24.8
80°	18.9	18.7	18.4	18.4	18.4	18.7	18.9	19.0	19.0	19.7	19.5
82.5°	14.4	14.1	14.1	13.9	14.1	14.1	14.4	14.4	14.4	14.9	14.9
85°	7.7	7.9	7.7	8.1	7.7	7.9	7.7	7.5	7.7	8.1	8.1
87.5°	4.4	4.2	4.4	4.2	4.4	4.2	4.4	4.4	4.5	4.4	4.5
90°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.7	10.0	10.7
92.5°	19.8	18.8	18.9	18.5	18.9	18.8	19.8	20.1	22.1	24.9	29.0
95°	41.3	38.6	37.6	38.0	37.6	38.6	41.3	45.6	53.0	66.9	87.3
97.5°	90.6	82.4	77.6	74.7	77.6	82.4	90.6	106.5	130.5	166.5	203.6
100°	149.2	134.9	125.3	119.2	125.3	134.9	149.2	176.8	217.2	262.8	304.1
102.5°	254.4	230.0	217.9	209.8	217.9	230.0	254.4	284.5	327.2	360.5	369.9
105°	414.9	394.3	379.9	375.3	379.9	394.3	414.9	435.6	446.6	442.2	404.6
107.5°	489.7	488.5	485.6	479.5	485.6	488.5	489.7	487.0	470.9	436.3	379.6
110°	501.9	508.2	511.2	510.9	511.2	508.2	501.9	487.6	460.2	417.6	358.0



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	492.3	502.8	508.5	510.3	508.5	502.8	492.3	472.4	441.0	395.5	338.3
115°	466.9	482.2	490.9	493.9	490.9	482.2	466.9	443.3	409.0	365.3	314.1
117.5°	436.7	452.9	461.9	464.5	461.9	452.9	436.7	412.6	380.4	340.8	295.8
120°	417.0	432.6	442.2	445.6	442.2	432.6	417.0	393.6	363.4	328.0	286.7
122.5°	399.1	414.5	423.1	425.8	423.1	414.5	399.1	378.1	350.8	317.4	279.6
125°	377.0	389.6	397.9	400.7	397.9	389.6	377.0	357.7	332.7	303.4	269.1
127.5°	357.3	369.2	376.4	378.5	376.4	369.2	357.3	340.4	317.4	289.8	258.7
130°	345.3	356.7	363.4	366.0	363.4	356.7	345.3	329.0	307.1	280.8	252.1
132.5°	333.1	344.4	350.5	353.0	350.5	344.4	333.1	317.1	296.4	272.2	245.7
135°	313.7	324.7	330.7	332.1	330.7	324.7	313.7	299.4	280.8	258.7	236.8
137.5°	294.8	304.3	309.5	311.5	309.5	304.3	294.8	281.7	265.5	248.1	229.7
140°	281.7	290.4	295.4	297.4	295.4	290.4	281.7	271.1	256.5	241.1	225.1
142.5°	270.5	278.4	282.9	283.2	282.9	278.4	270.5	260.4	248.2	235.0	221.4
145°	255.1	260.8	264.1	265.0	264.1	260.8	255.1	247.1	237.4	227.2	216.1
147.5°	242.4	246.9	249.2	249.9	249.2	246.9	242.4	235.8	228.8	220.7	212.1
150°	234.4	238.5	240.4	240.8	240.4	238.5	234.4	229.4	223.5	216.5	209.2
152.5°	228.1	231.5	233.0	233.1	233.0	231.5	228.1	224.1	219.0	213.0	206.2
155°	219.8	222.2	223.5	222.8	223.5	222.2	219.8	216.1	212.4	207.5	202.2
157.5°	211.5	213.5	214.1	214.1	214.1	213.5	211.5	209.0	206.0	201.9	197.5
160°	206.5	208.1	208.5	208.5	208.5	208.1	206.5	204.2	201.8	198.1	194.4
162.5°	202.0	203.1	203.4	203.1	203.4	203.1	202.0	199.6	197.8	194.7	191.5
165°	194.4	195.9	195.9	195.5	195.9	195.9	194.4	193.1	191.8	189.5	187.2
167.5°	188.1	188.9	188.8	188.4	188.8	188.9	188.1	187.6	186.3	184.7	182.9
170°	184.2	185.1	184.8	184.2	184.8	185.1	184.2	183.8	183.1	181.8	180.9
172.5°	181.0	181.4	181.1	180.7	181.1	181.4	181.0	180.6	180.2	179.2	178.4
175°	176.8	177.2	176.8	176.2	176.8	177.2	176.8	176.8	176.5	176.2	175.9
177.5°	174.3	174.3	174.0	173.4	174.0	174.3	174.3	174.3	174.3	174.0	174.0
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	592.6	594.9	598.5	600.6	604.0	606.2	607.5	609.6	610.9	615.2	619.6
5°	559.4	562.9	568.8	574.4	580.4	586.6	591.2	596.3	601.0	609.1	617.6
7.5°	521.5	526.2	535.6	544.4	554.9	563.6	571.4	580.1	588.0	599.6	611.8
10°	493.0	501.4	513.6	522.0	535.6	544.4	556.7	566.3	577.2	592.7	606.3
12.5°	468.5	478.6	488.4	500.0	512.4	527.0	540.4	552.8	565.7	581.6	597.8
15°	424.1	438.7	453.9	465.7	482.4	497.8	513.4	530.1	545.9	565.1	586.0
17.5°	366.9	383.8	409.3	429.5	449.1	464.6	484.0	504.2	522.8	545.8	569.2
20°	341.1	353.5	370.8	398.0	427.5	444.0	463.7	486.0	507.4	532.4	557.5
22.5°	320.4	331.4	345.3	366.5	399.4	422.0	442.5	465.1	489.9	515.5	543.3
25°	290.8	298.4	313.0	330.2	352.8	389.8	412.4	435.1	462.0	489.5	521.1
27.5°	268.5	275.5	284.9	301.2	318.1	344.8	380.5	405.3	432.2	463.0	495.9
30°	251.6	259.7	270.2	281.7	300.2	320.9	356.7	385.4	411.9	443.7	478.7
32.5°	239.2	245.6	254.6	266.4	281.6	301.6	330.2	365.0	390.9	424.2	460.9
35°	219.0	226.5	233.8	245.0	257.3	275.5	297.2	334.4	360.1	393.0	429.9
37.5°	202.4	207.0	215.0	223.9	237.0	250.5	269.3	302.7	330.5	362.8	400.5
40°	189.7	195.5	201.4	211.3	222.1	235.1	253.4	278.3	310.2	342.0	378.7
42.5°	177.4	184.6	191.1	197.7	209.3	222.4	237.4	258.4	291.1	321.0	356.8
45°	162.5	167.2	173.8	181.2	190.8	201.9	215.2	233.6	264.9	290.8	324.3
47.5°	145.2	152.1	156.5	163.5	172.7	183.3	195.7	211.6	236.9	261.2	292.4
50°	133.4	140.4	146.7	153.1	161.2	171.4	181.8	197.2	217.5	243.0	272.1
52.5°	123.3	129.5	135.5	141.9	150.0	159.3	169.1	182.7	200.0	223.5	251.8
55°	109.4	113.3	119.5	125.9	133.0	141.9	151.4	162.7	177.7	197.4	220.3
57.5°	95.2	99.6	104.5	111.0	118.2	125.1	133.6	143.8	155.6	173.4	193.0
60°	87.2	90.6	94.6	101.2	107.9	114.1	122.2	130.8	141.9	157.4	174.1
62.5°	78.2	81.5	85.2	91.0	97.5	103.1	110.3	119.3	128.8	142.8	157.4
65°	63.3	68.1	71.7	76.8	82.2	88.2	93.8	101.0	109.4	120.6	133.6
67.5°	52.5	55.0	58.3	63.0	68.4	73.6	78.9	84.5	91.8	100.4	110.7
70°	47.8	48.6	49.2	53.7	58.9	64.0	68.9	74.3	80.5	87.6	96.5
72.5°	42.1	43.0	43.7	45.7	49.8	55.0	60.0	64.0	69.8	75.8	83.0
75°	33.4	34.7	35.3	36.4	37.9	41.3	46.0	49.9	53.3	57.8	63.6
77.5°	25.4	26.2	26.9	28.0	28.9	30.4	33.2	36.6	39.9	42.4	46.4
80°	20.2	20.4	21.2	21.6	22.9	23.9	25.3	28.1	31.3	32.3	35.2
82.5°	15.2	15.4	16.0	16.5	17.1	18.0	19.6	20.4	22.9	24.3	26.0
85°	8.4	8.1	8.8	8.8	9.2	9.6	10.1	11.1	11.8	13.5	13.9
87.5°	4.8	4.8	4.9	4.5	4.1	4.1	4.1	4.1	4.3	4.5	5.0
90°	11.0	11.3	11.0	9.0	6.7	5.0	4.0	3.3	2.6	1.3	0.4
92.5°	36.6	43.3	42.7	33.3	22.6	15.1	12.0	9.7	8.3	5.8	4.1
95°	114.2	130.5	115.6	76.9	48.0	32.6	24.6	19.3	16.3	13.0	11.7
97.5°	233.8	222.8	167.9	103.7	63.2	44.0	35.0	28.8	24.3	20.7	18.9
100°	311.0	263.1	181.2	109.2	68.6	51.0	41.7	35.0	29.6	26.7	25.6
102.5°	339.8	264.4	176.1	109.5	73.4	57.1	47.8	40.8	35.5	32.5	31.8
105°	335.4	246.8	166.2	111.2	81.6	66.0	56.6	49.3	44.3	41.9	40.6
107.5°	306.1	227.8	161.3	115.8	90.0	74.8	65.4	58.2	53.5	51.3	50.2
110°	287.8	218.8	160.2	119.5	95.6	81.0	71.3	64.3	59.9	58.0	56.6



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	274.9	212.9	160.4	123.6	100.9	86.8	76.8	70.1	66.1	63.8	62.5
115°	259.1	206.5	161.8	129.5	109.2	94.9	86.0	79.3	75.3	73.2	71.6
117.5°	249.1	203.3	164.3	135.9	116.9	103.7	94.3	87.9	84.4	82.4	81.1
120°	243.7	201.5	165.9	140.3	122.2	109.2	99.9	93.2	90.3	88.2	86.9
122.5°	239.2	200.4	167.7	143.9	127.2	115.1	105.5	98.9	95.6	93.6	92.6
125°	232.8	198.5	170.5	149.9	134.9	122.9	113.6	106.9	102.9	100.9	99.9
127.5°	226.8	197.4	173.3	155.4	141.9	130.3	120.6	114.3	109.9	107.1	105.8
130°	222.8	196.8	175.5	158.8	146.2	134.5	125.3	118.6	113.9	110.6	109.2
132.5°	219.6	196.5	177.7	162.3	150.0	138.8	129.5	122.5	117.6	114.0	112.4
135°	215.1	196.1	180.2	166.8	155.2	144.5	135.3	127.5	122.5	118.6	117.3
137.5°	212.0	196.0	182.5	170.3	159.5	148.9	140.3	132.7	127.3	123.4	121.8
140°	210.1	195.9	183.5	172.2	161.8	151.8	143.2	135.9	130.5	126.6	125.3
142.5°	208.3	195.9	184.3	173.8	163.7	154.0	145.9	138.8	133.5	129.8	128.7
145°	205.9	195.1	185.1	175.9	166.5	157.5	150.2	143.5	138.6	135.3	133.8
147.5°	203.3	194.0	185.4	177.0	168.8	160.3	153.8	148.3	143.6	140.4	139.5
150°	201.1	193.1	185.1	177.5	169.8	162.2	156.2	151.2	146.8	144.2	143.2
152.5°	199.3	191.8	184.6	177.8	170.9	164.0	158.6	153.8	150.1	147.4	146.9
155°	195.9	189.5	183.8	178.1	172.5	166.8	161.8	158.2	154.5	152.5	152.2
157.5°	192.6	187.1	182.3	178.1	173.6	168.8	164.7	161.7	158.5	156.9	156.6
160°	190.1	185.5	181.5	178.1	174.2	170.2	166.5	163.8	161.2	159.9	159.5
162.5°	188.0	184.2	180.7	177.9	174.5	171.0	168.1	165.7	163.6	162.2	162.5
165°	184.5	181.5	179.2	177.2	174.8	171.8	169.8	168.1	166.2	165.5	165.9
167.5°	181.1	179.2	177.7	176.7	174.7	172.6	171.4	170.1	168.8	168.2	168.6
170°	179.2	177.9	176.8	176.2	174.5	172.9	171.8	171.2	170.2	169.8	170.5
172.5°	177.3	176.3	175.8	175.4	174.3	173.1	172.4	172.0	171.0	171.2	171.5
175°	174.8	174.5	174.2	174.5	173.8	173.1	172.9	172.9	172.2	172.5	172.9
177.5°	173.4	173.1	173.4	174.0	173.4	173.1	173.1	173.1	172.7	172.9	173.4
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	619.8	620.3	623.7	625.3	628.3	629.5	630.9	630.6	630.6	631.2	636.0
5°	621.1	625.4	631.8	638.0	644.0	649.1	652.6	656.0	657.3	663.5	669.0
7.5°	618.9	626.8	637.3	646.9	658.2	667.0	674.4	681.1	685.6	694.7	703.9
10°	616.0	627.1	639.0	651.3	666.9	678.7	690.7	699.9	702.9	716.3	724.1
12.5°	610.1	625.0	640.3	656.1	671.4	687.6	700.8	710.0	720.6	732.6	746.9
15°	601.4	618.5	638.5	658.7	680.6	700.3	714.4	730.5	742.1	755.4	767.8
17.5°	588.9	611.0	636.2	659.8	685.0	706.2	725.7	741.0	749.1	756.8	758.6
20°	578.9	602.7	632.4	660.3	685.5	709.9	729.2	742.1	744.2	744.4	733.1
22.5°	568.2	595.0	626.1	654.6	684.9	712.0	727.0	732.4	724.0	709.5	687.5
25°	548.3	579.4	615.6	648.1	681.1	706.7	711.9	702.3	672.5	641.2	601.6
27.5°	526.8	561.8	600.5	636.7	671.8	687.8	676.7	641.9	588.3	541.7	485.2
30°	511.0	550.3	588.3	628.8	661.4	668.2	642.7	591.5	529.0	458.8	402.5
32.5°	493.0	534.1	576.0	617.8	645.1	638.4	596.3	533.3	460.1	391.0	337.8
35°	467.4	509.7	555.0	596.9	614.3	585.3	522.4	440.4	365.4	301.0	264.4
37.5°	437.7	483.9	530.8	569.4	568.2	520.0	434.2	349.6	286.6	248.5	222.4
40°	416.6	463.4	514.1	546.6	532.7	470.0	377.0	297.2	251.1	220.7	201.7
42.5°	396.4	443.3	493.7	519.5	495.3	418.2	325.6	263.1	225.1	201.4	186.0
45°	362.0	411.5	458.2	472.5	429.2	344.3	263.3	217.9	192.7	175.1	164.5
47.5°	328.4	377.1	419.7	419.9	361.5	279.2	222.2	188.6	167.0	153.4	145.7
50°	307.8	354.1	389.8	384.3	317.9	248.4	198.7	169.8	151.8	141.3	133.2
52.5°	284.7	329.6	360.6	344.8	281.1	218.6	177.6	153.4	138.5	129.3	122.1
55°	251.1	291.0	312.8	288.8	229.3	181.8	150.1	131.0	119.9	112.2	105.9
57.5°	218.1	251.0	264.7	236.8	188.9	150.7	127.0	112.6	101.6	96.0	92.8
60°	197.4	225.5	235.1	204.2	164.2	131.9	112.4	99.2	91.0	87.4	84.2
62.5°	177.0	199.9	203.9	175.7	143.2	115.5	98.7	87.5	82.1	78.6	75.6
65°	146.8	163.3	161.5	138.7	113.3	91.6	79.5	72.6	68.5	63.6	58.2
67.5°	120.9	131.0	124.9	107.9	86.4	71.3	63.2	58.1	53.0	48.4	47.1
70°	104.4	110.3	103.9	88.2	70.9	59.8	53.3	47.1	44.1	43.1	41.1
72.5°	88.7	90.8	83.8	70.4	57.7	49.5	43.2	39.8	38.1	37.2	36.0
75°	66.5	65.1	59.1	48.6	40.1	34.5	32.5	31.3	30.2	29.3	28.7
77.5°	46.8	44.6	39.2	32.3	27.9	25.3	24.0	23.4	22.9	22.4	21.8
80°	35.2	33.6	28.3	23.1	21.2	19.9	19.2	18.4	18.4	18.0	17.3
82.5°	25.7	24.0	19.3	17.0	15.9	15.1	14.6	14.1	13.9	14.0	13.6
85°	13.5	10.9	9.6	9.2	8.6	8.1	8.4	7.9	7.9	7.9	7.7
87.5°	4.3	3.8	3.8	3.7	4.1	4.4	4.7	5.1	5.4	5.1	5.2
90°	1.3	2.6	3.3	4.0	5.0	6.7	9.0	11.0	11.3	11.0	10.7
92.5°	5.8	8.3	9.7	12.0	15.1	22.6	33.3	42.7	43.3	36.6	29.0
95°	13.0	16.3	19.3	24.6	32.6	48.0	76.9	115.6	130.5	114.2	87.3
97.5°	20.7	24.3	28.8	35.0	44.0	63.2	103.7	167.9	222.8	233.8	203.6
100°	26.7	29.6	35.0	41.7	51.0	68.6	109.2	181.2	263.1	311.0	304.1
102.5°	32.5	35.5	40.8	47.8	57.1	73.4	109.5	176.1	264.4	339.8	369.9
105°	41.9	44.3	49.3	56.6	66.0	81.6	111.2	166.2	246.8	335.4	404.6
107.5°	51.3	53.5	58.2	65.4	74.8	90.0	115.8	161.3	227.8	306.1	379.6
110°	58.0	59.9	64.3	71.3	81.0	95.6	119.5	160.2	218.8	287.8	358.0



TEST NUMBER: P331617-830

CATALOG NUMBER: SA2XXRDIP-C290D330U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	63.8	66.1	70.1	76.8	86.8	100.9	123.6	160.4	212.9	274.9	338.3
115°	73.2	75.3	79.3	86.0	94.9	109.2	129.5	161.8	206.5	259.1	314.1
117.5°	82.4	84.4	87.9	94.3	103.7	116.9	135.9	164.3	203.3	249.1	295.8
120°	88.2	90.3	93.2	99.9	109.2	122.2	140.3	165.9	201.5	243.7	286.7
122.5°	93.6	95.6	98.9	105.5	115.1	127.2	143.9	167.7	200.4	239.2	279.6
125°	100.9	102.9	106.9	113.6	122.9	134.9	149.9	170.5	198.5	232.8	269.1
127.5°	107.1	109.9	114.3	120.6	130.3	141.9	155.4	173.3	197.4	226.8	258.7
130°	110.6	113.9	118.6	125.3	134.5	146.2	158.8	175.5	196.8	222.8	252.1
132.5°	114.0	117.6	122.5	129.5	138.8	150.0	162.3	177.7	196.5	219.6	245.7
135°	118.6	122.5	127.5	135.3	144.5	155.2	166.8	180.2	196.1	215.1	236.8
137.5°	123.4	127.3	132.7	140.3	148.9	159.5	170.3	182.5	196.0	212.0	229.7
140°	126.6	130.5	135.9	143.2	151.8	161.8	172.2	183.5	195.9	210.1	225.1
142.5°	129.8	133.5	138.8	145.9	154.0	163.7	173.8	184.3	195.9	208.3	221.4
145°	135.3	138.6	143.5	150.2	157.5	166.5	175.9	185.1	195.1	205.9	216.1
147.5°	140.4	143.6	148.3	153.8	160.3	168.8	177.0	185.4	194.0	203.3	212.1
150°	144.2	146.8	151.2	156.2	162.2	169.8	177.5	185.1	193.1	201.1	209.2
152.5°	147.4	150.1	153.8	158.6	164.0	170.9	177.8	184.6	191.8	199.3	206.2
155°	152.5	154.5	158.2	161.8	166.8	172.5	178.1	183.8	189.5	195.9	202.2
157.5°	156.9	158.5	161.7	164.7	168.8	173.6	178.1	182.3	187.1	192.6	197.5
160°	159.9	161.2	163.8	166.5	170.2	174.2	178.1	181.5	185.5	190.1	194.4
162.5°	162.2	163.6	165.7	168.1	171.0	174.5	177.9	180.7	184.2	188.0	191.5
165°	165.5	166.2	168.1	169.8	171.8	174.8	177.2	179.2	181.5	184.5	187.2
167.5°	168.2	168.8	170.1	171.4	172.6	174.7	176.7	177.7	179.2	181.1	182.9
170°	169.8	170.2	171.2	171.8	172.9	174.5	176.2	176.8	177.9	179.2	180.9
172.5°	171.2	171.0	172.0	172.4	173.1	174.3	175.4	175.8	176.3	177.3	178.4
175°	172.5	172.2	172.9	172.9	173.1	173.8	174.5	174.2	174.5	174.8	175.9
177.5°	172.9	172.7	173.1	173.1	173.1	173.4	174.0	173.4	173.1	173.4	174.0
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	616.1	616.1	616.1	616.1	616.1	616.1	616.1
2.5°	637.7	640.0	641.0	641.0	642.2	641.7	641.2
5°	674.4	678.4	679.4	683.2	686.0	685.1	685.5
7.5°	710.9	717.4	723.9	726.8	727.3	729.0	729.6
10°	733.3	738.7	748.7	747.2	754.7	759.0	752.0
12.5°	754.9	762.1	769.1	771.0	775.2	776.7	773.8
15°	774.4	778.3	778.6	777.6	778.9	777.8	773.7
17.5°	756.2	749.9	737.3	731.2	726.5	719.4	716.6
20°	726.0	707.6	686.2	677.6	667.6	647.9	652.6
22.5°	660.9	640.0	618.5	593.5	581.5	562.9	561.8
25°	559.7	523.5	483.6	455.8	439.5	420.9	412.7
27.5°	435.2	389.6	356.9	340.4	325.4	310.7	310.0
30°	353.3	319.1	293.8	279.7	270.4	264.2	265.5
32.5°	297.7	274.3	257.2	245.5	238.7	234.0	233.9
35°	243.5	227.3	216.4	211.5	206.6	203.2	203.4
37.5°	208.3	198.7	192.6	187.2	184.1	182.4	181.4
40°	190.3	182.4	177.7	174.5	171.9	169.6	169.1
42.5°	176.2	169.6	164.9	162.3	159.9	158.3	157.9
45°	156.3	150.9	146.7	143.8	142.8	141.3	141.3
47.5°	139.0	133.7	130.4	128.7	126.9	125.8	125.8
50°	127.4	123.3	120.4	119.2	117.7	117.2	116.9
52.5°	117.0	113.9	111.8	111.0	110.4	109.6	109.7
55°	102.7	101.0	100.2	99.5	98.5	97.2	98.0
57.5°	90.9	89.4	87.1	85.0	84.1	83.1	83.5
60°	82.5	79.5	76.4	74.1	73.4	71.5	71.5
62.5°	71.8	67.6	63.9	62.6	61.9	61.1	60.9
65°	55.2	53.5	52.7	51.8	51.4	51.4	51.0
67.5°	45.8	45.1	44.1	43.9	43.5	43.4	43.3
70°	40.4	39.6	39.2	38.9	38.5	38.7	38.1
72.5°	35.3	34.7	34.6	34.0	33.7	33.7	33.3
75°	27.8	27.8	27.6	27.4	27.0	26.8	27.0
77.5°	21.4	21.5	21.1	21.0	21.0	21.0	20.8
80°	17.2	17.3	17.2	16.9	16.7	16.9	16.7
82.5°	13.6	13.2	13.2	13.1	13.1	13.0	12.9
85°	7.7	7.9	7.7	7.5	7.5	7.5	7.7
87.5°	4.9	5.1	5.1	5.1	5.1	5.1	4.9
90°	10.0	10.7	11.0	11.0	11.0	11.0	11.0
92.5°	24.9	22.1	20.1	19.8	18.8	18.9	18.5
95°	66.9	53.0	45.6	41.3	38.6	37.6	38.0
97.5°	166.5	130.5	106.5	90.6	82.4	77.6	74.7
100°	262.8	217.2	176.8	149.2	134.9	125.3	119.2
102.5°	360.5	327.2	284.5	254.4	230.0	217.9	209.8
105°	442.2	446.6	435.6	414.9	394.3	379.9	375.3
107.5°	436.3	470.9	487.0	489.7	488.5	485.6	479.5
110°	417.6	460.2	487.6	501.9	508.2	511.2	510.9



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	395.5	441.0	472.4	492.3	502.8	508.5	510.3
115°	365.3	409.0	443.3	466.9	482.2	490.9	493.9
117.5°	340.8	380.4	412.6	436.7	452.9	461.9	464.5
120°	328.0	363.4	393.6	417.0	432.6	442.2	445.6
122.5°	317.4	350.8	378.1	399.1	414.5	423.1	425.8
125°	303.4	332.7	357.7	377.0	389.6	397.9	400.7
127.5°	289.8	317.4	340.4	357.3	369.2	376.4	378.5
130°	280.8	307.1	329.0	345.3	356.7	363.4	366.0
132.5°	272.2	296.4	317.1	333.1	344.4	350.5	353.0
135°	258.7	280.8	299.4	313.7	324.7	330.7	332.1
137.5°	248.1	265.5	281.7	294.8	304.3	309.5	311.5
140°	241.1	256.5	271.1	281.7	290.4	295.4	297.4
142.5°	235.0	248.2	260.4	270.5	278.4	282.9	283.2
145°	227.2	237.4	247.1	255.1	260.8	264.1	265.0
147.5°	220.7	228.8	235.8	242.4	246.9	249.2	249.9
150°	216.5	223.5	229.4	234.4	238.5	240.4	240.8
152.5°	213.0	219.0	224.1	228.1	231.5	233.0	233.1
155°	207.5	212.4	216.1	219.8	222.2	223.5	222.8
157.5°	201.9	206.0	209.0	211.5	213.5	214.1	214.1
160°	198.1	201.8	204.2	206.5	208.1	208.5	208.5
162.5°	194.7	197.8	199.6	202.0	203.1	203.4	203.1
165°	189.5	191.8	193.1	194.4	195.9	195.9	195.5
167.5°	184.7	186.3	187.6	188.1	188.9	188.8	188.4
170°	181.8	183.1	183.8	184.2	185.1	184.8	184.2
172.5°	179.2	180.2	180.6	181.0	181.4	181.1	180.7
175°	176.2	176.5	176.8	176.8	177.2	176.8	176.2
177.5°	174.0	174.3	174.3	174.3	174.3	174.0	173.4
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1

(END OF REPORT)