

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: P331641-830

Luminaire Tested: **SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331641-830
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-C290D1080U830-4F0-1E-UDD-A4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING
UPLIGHT 1080 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5032.0 lumens
Efficiency: N/A
Efficacy: 119.2 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: Semi-Indirect

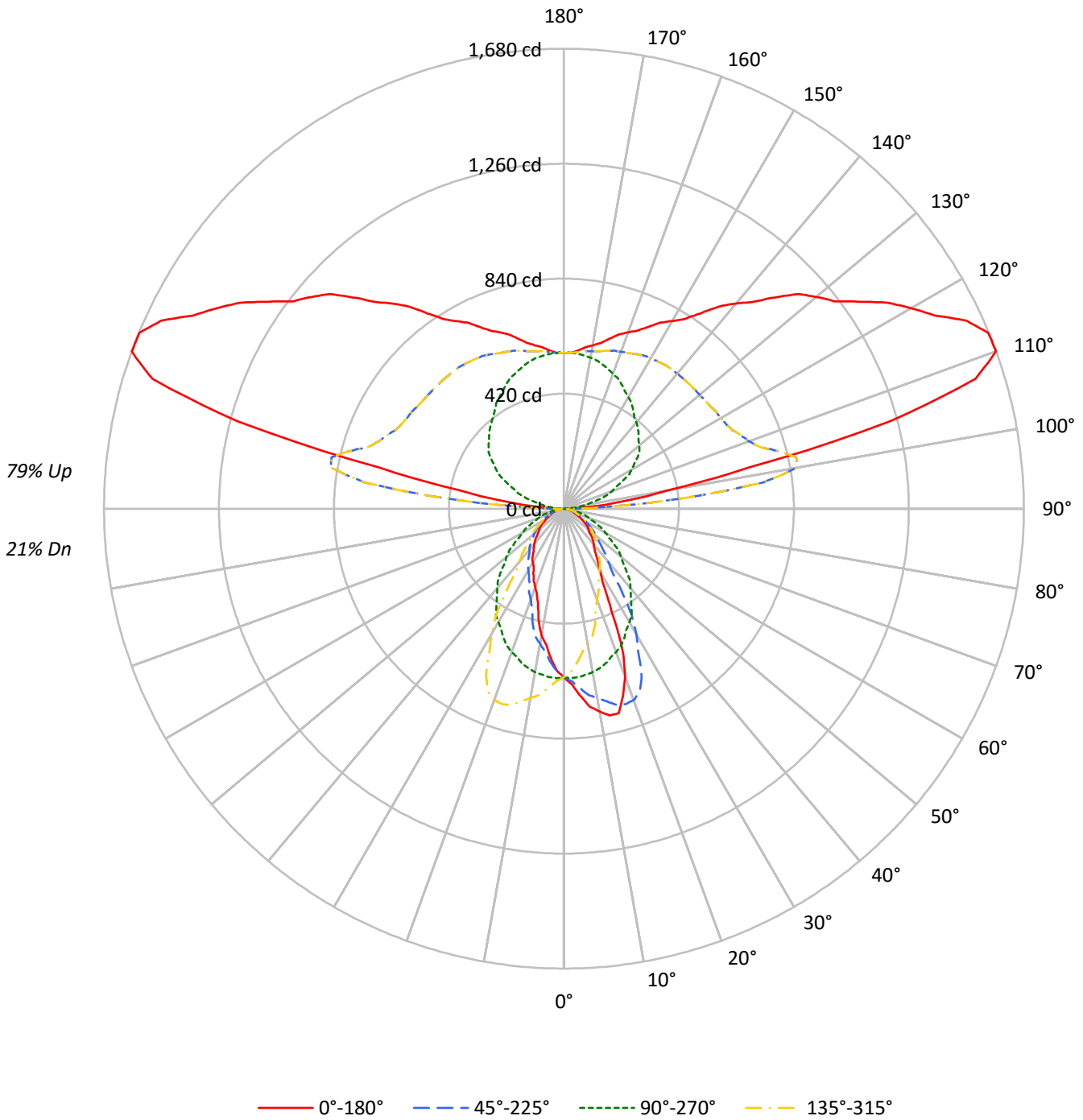
Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	92	88	84	81	81	78	75	72	59	57	56	42	41	40	27	26	26	18
2	84	77	71	66	74	68	64	60	52	49	47	38	36	34	24	23	22	16
3	77	68	61	56	68	60	55	50	46	43	39	33	31	29	21	20	19	14
4	70	60	53	47	62	54	47	43	41	37	34	30	27	25	19	18	17	12
5	64	54	46	40	57	48	41	37	37	33	29	27	24	22	18	16	15	11
6	59	48	40	35	52	43	37	32	33	29	26	24	22	19	16	15	13	10
7	55	43	36	31	48	39	32	28	30	26	23	22	19	17	15	13	12	9
8	51	39	32	27	45	35	29	25	28	23	20	20	17	15	14	12	11	8
9	47	36	29	24	42	32	26	22	25	21	18	19	16	14	13	11	10	7
10	44	33	26	21	39	29	24	20	23	19	16	17	14	12	12	10	9	7

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	1.2
10°-20°	162.8	3.2
20°-30°	209.7	4.2
30°-40°	199.3	4.0
40°-50°	170.7	3.4
50°-60°	130.0	2.6
60°-70°	82.2	1.6
70°-80°	41.0	0.8
80°-90°	15.8	0.3
90°-100°	227.7	4.5
100°-110°	772.5	15.4
110°-120°	820.7	16.3
120°-130°	675.6	13.4
130°-140°	542.5	10.8
140°-150°	410.0	8.1
150°-160°	288.1	5.7
160°-170°	169.6	3.4
170°-180°	55.2	1.1
0°-30°	430.9	8.6
0°-40°	630.2	12.5
0°-60°	931.0	18.5
0°-90°	1070.0	21.3
90°-120°	1820.9	36.2
90°-150°	3449.0	68.5
90°-180°	3962.0	78.7
0°-180°	5032.0	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°	36	1	36	1	36	20
95°	125	38	125	38	125	162
105°	1234	134	1234	134	1234	1194
115°	1624	235	1624	235	1624	1590
125°	1317	328	1317	328	1317	1190
135°	1092	385	1092	385	1092	848
145°	872	440	872	440	872	554
155°	732	500	732	500	732	342
165°	643	545	643	545	643	184
175°	579	568	579	568	579	56
180°	569	569	569	569	569	



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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°	10.0	10.2	10.2	10.2	10.2	9.9	9.5	10.1	10.2	10.6	10.2
90°	36.1	36.1	36.1	36.1	36.1	35.1	32.9	35.1	36.1	37.2	36.1
92.5°	60.7	62.4	61.5	65.0	65.9	72.7	81.9	95.5	120.3	142.3	140.3
95°	124.8	123.8	127.1	135.7	150.0	174.1	220.1	286.9	375.6	429.2	379.9
97.5°	245.7	254.9	270.9	297.8	350.2	429.2	547.7	669.4	768.6	732.7	551.9
100°	392.0	411.7	443.5	490.5	581.4	713.9	863.9	999.7	1022.7	865.0	595.6
102.5°	689.8	716.5	756.2	836.5	935.3	1075.6	1185.3	1216.1	1117.3	869.4	579.0
105°	1234.0	1249.3	1296.4	1364.2	1432.2	1468.3	1454.1	1330.3	1102.6	811.3	546.4
107.5°	1576.2	1596.6	1606.0	1609.8	1601.2	1548.2	1434.4	1248.0	1006.4	749.1	530.2
110°	1679.6	1680.7	1670.8	1650.0	1603.0	1513.2	1373.0	1177.0	946.0	719.3	526.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1677.8	1672.0	1653.3	1618.5	1553.0	1450.1	1300.3	1112.2	904.0	700.1	527.5
115°	1623.8	1613.9	1585.5	1535.1	1457.4	1344.5	1201.2	1032.6	851.9	678.8	532.2
117.5°	1527.2	1518.9	1488.8	1435.7	1356.4	1250.7	1120.6	972.5	819.0	668.5	540.0
120°	1465.0	1454.1	1422.3	1370.8	1294.2	1194.6	1078.5	942.7	801.4	662.4	545.3
122.5°	1400.1	1391.0	1362.7	1312.1	1243.4	1153.4	1043.5	919.1	786.6	658.9	551.4
125°	1317.2	1308.4	1281.1	1239.4	1175.9	1093.8	997.5	884.7	765.3	652.6	560.6
127.5°	1244.5	1237.5	1213.8	1174.9	1119.5	1043.7	952.8	850.7	745.6	648.8	570.0
130°	1203.3	1194.6	1172.7	1135.5	1081.8	1009.6	923.0	828.9	732.5	647.1	577.0
132.5°	1160.4	1152.5	1132.4	1095.1	1042.4	974.5	895.0	807.9	722.0	646.2	584.0
135°	1091.7	1087.2	1067.5	1031.4	984.3	923.0	850.7	778.4	707.3	644.9	592.4
137.5°	1024.2	1017.7	1000.3	969.2	926.3	872.9	815.5	755.1	697.0	644.7	599.8
140°	977.8	971.2	954.8	926.3	891.3	843.1	792.8	740.2	690.9	643.9	603.3
142.5°	931.3	930.0	915.4	889.5	856.2	816.0	772.6	727.9	684.8	643.9	606.0
145°	871.6	868.3	857.3	838.7	812.5	780.7	746.8	710.6	676.7	641.6	608.8
147.5°	821.4	819.4	812.0	797.1	775.4	752.2	725.8	697.3	668.4	637.7	609.6
150°	791.6	790.5	784.0	770.8	754.4	734.7	711.7	687.6	661.3	635.1	608.8
152.5°	766.2	766.0	761.2	749.8	736.9	719.8	700.3	678.0	655.2	630.7	607.0
155°	732.5	734.7	730.3	722.6	710.6	698.5	682.1	664.6	643.9	623.0	604.4
157.5°	703.8	703.8	701.8	695.5	686.9	677.5	663.7	649.0	633.1	615.1	599.4
160°	685.4	685.4	684.3	678.8	671.2	663.5	651.5	639.4	625.2	609.9	596.7
162.5°	667.9	668.7	667.7	663.9	656.3	650.4	640.1	629.8	618.2	605.5	594.1
165°	642.7	643.9	643.9	639.4	635.1	630.7	623.0	615.4	606.6	596.7	589.1
167.5°	619.5	620.9	621.0	618.6	616.7	612.7	607.5	601.5	595.2	589.1	584.0
170°	605.5	607.7	608.8	605.5	604.4	602.2	597.9	594.6	589.1	584.7	581.4
172.5°	594.1	595.4	596.5	595.0	593.9	592.6	589.1	586.6	583.0	579.5	577.9
175°	579.2	581.4	582.5	581.4	581.4	580.3	579.2	578.2	574.9	573.7	572.7
177.5°	570.2	572.0	572.9	572.9	572.9	572.9	572.0	572.0	570.2	569.4	570.2
180°	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4



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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°	8.9	7.4	6.4	5.6	5.3	5.0	5.0	5.2	5.2	5.6	5.7
90°	29.6	21.9	16.4	13.1	10.9	8.8	4.3	1.1	4.3	8.8	10.9
92.5°	109.2	74.5	49.7	39.4	32.0	27.1	19.2	13.4	19.2	27.1	32.0
95°	252.9	157.7	107.3	81.1	63.5	53.6	42.7	38.4	42.7	53.6	63.5
97.5°	340.7	208.0	144.8	115.0	94.8	79.9	68.3	62.4	68.3	79.9	94.8
100°	359.1	225.6	167.5	136.9	115.0	97.5	87.6	84.3	87.6	97.5	115.0
102.5°	360.1	241.3	187.7	157.0	134.2	116.7	106.9	104.4	106.9	116.7	134.2
105°	365.7	268.2	216.8	186.2	162.0	145.6	138.0	133.6	138.0	145.6	162.0
107.5°	380.8	295.9	245.9	215.1	191.1	176.1	168.6	165.1	168.6	176.1	191.1
110°	393.0	314.2	266.1	234.3	211.3	197.1	190.5	186.2	190.5	197.1	211.3



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	406.2	331.8	285.3	252.7	230.5	217.3	209.8	205.4	209.8	217.3	230.5
115°	425.9	359.1	312.1	282.5	260.6	247.4	240.9	235.4	240.9	247.4	260.6
117.5°	447.0	384.3	340.7	310.1	289.1	277.5	270.9	266.6	270.9	277.5	289.1
120°	461.0	401.8	359.1	328.5	306.6	296.7	290.1	285.8	290.1	296.7	306.6
122.5°	473.3	418.5	378.4	346.9	325.0	314.2	307.6	304.2	307.6	314.2	325.0
125°	492.8	443.5	404.1	373.3	351.5	338.4	331.8	328.5	331.8	338.4	351.5
127.5°	510.9	466.7	428.3	396.8	375.8	361.4	352.1	347.7	352.1	361.4	375.8
130°	522.3	480.7	442.3	411.7	389.8	374.5	363.5	359.1	363.5	374.5	389.8
132.5°	533.7	492.9	456.4	425.7	402.9	386.7	374.9	369.7	374.9	386.7	402.9
135°	548.6	510.2	475.2	444.5	419.3	402.9	389.8	385.4	389.8	402.9	419.3
137.5°	560.0	524.2	489.7	461.2	436.2	418.7	405.6	400.3	405.6	418.7	436.2
140°	566.1	532.2	499.3	470.8	446.8	429.2	416.0	411.7	416.0	429.2	446.8
142.5°	571.4	538.3	506.3	479.6	456.4	438.8	426.6	423.1	426.6	438.8	456.4
145°	578.2	547.4	517.9	493.8	471.9	455.5	444.5	440.2	444.5	455.5	471.9
147.5°	581.8	554.9	527.1	505.7	487.5	472.3	461.8	458.5	461.8	472.3	487.5
150°	583.6	558.5	533.2	513.5	497.1	482.9	474.1	470.8	474.1	482.9	497.1
152.5°	584.5	561.9	539.3	521.4	505.9	493.3	484.7	483.1	484.7	493.3	505.9
155°	585.8	567.1	548.6	532.2	520.1	508.0	501.4	500.4	501.4	508.0	520.1
157.5°	585.8	570.9	555.2	541.3	531.7	521.2	515.9	514.8	515.9	521.2	531.7
160°	585.8	572.7	559.5	547.4	538.7	529.9	525.6	524.4	525.6	529.9	538.7
162.5°	584.9	573.5	562.1	552.7	544.8	537.8	533.5	534.1	533.5	537.8	544.8
165°	582.5	574.9	565.0	558.5	552.9	546.4	544.2	545.3	544.2	546.4	552.9
167.5°	581.0	574.6	567.4	563.3	559.3	555.2	553.2	554.5	553.2	555.2	559.3
170°	579.2	573.7	568.3	565.0	562.8	559.5	558.5	560.6	558.5	559.5	562.8
172.5°	576.6	572.9	569.1	566.8	565.4	562.1	562.8	564.1	562.8	562.1	565.4
175°	573.7	571.6	569.4	568.3	568.3	566.1	567.1	568.3	567.1	566.1	568.3
177.5°	572.0	570.2	569.4	569.4	569.4	567.6	568.4	570.2	568.4	567.6	569.4
180°	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-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°	5.8	6.4	7.2	8.7	10.0	10.0	9.8	9.4	9.0	9.4	9.4
90°	13.1	16.4	21.9	29.6	36.1	37.2	36.1	35.1	32.9	35.1	36.1
92.5°	39.4	49.7	74.5	109.2	140.3	142.3	120.3	95.5	81.9	72.7	65.9
95°	81.1	107.3	157.7	252.9	379.9	429.2	375.6	286.9	220.1	174.1	150.0
97.5°	115.0	144.8	208.0	340.7	551.9	732.7	768.6	669.4	547.7	429.2	350.2
100°	136.9	167.5	225.6	359.1	595.6	865.0	1022.7	999.7	863.9	713.9	581.4
102.5°	157.0	187.7	241.3	360.1	579.0	869.4	1117.3	1216.1	1185.3	1075.6	935.3
105°	186.2	216.8	268.2	365.7	546.4	811.3	1102.6	1330.3	1454.1	1468.3	1432.2
107.5°	215.1	245.9	295.9	380.8	530.2	749.1	1006.4	1248.0	1434.4	1548.2	1601.2
110°	234.3	266.1	314.2	393.0	526.7	719.3	946.0	1177.0	1373.0	1513.2	1603.0



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	252.7	285.3	331.8	406.2	527.5	700.1	904.0	1112.2	1300.3	1450.1	1553.0
115°	282.5	312.1	359.1	425.9	532.2	678.8	851.9	1032.6	1201.2	1344.5	1457.4
117.5°	310.1	340.7	384.3	447.0	540.0	668.5	819.0	972.5	1120.6	1250.7	1356.4
120°	328.5	359.1	401.8	461.0	545.3	662.4	801.4	942.7	1078.5	1194.6	1294.2
122.5°	346.9	378.4	418.5	473.3	551.4	658.9	786.6	919.1	1043.5	1153.4	1243.4
125°	373.3	404.1	443.5	492.8	560.6	652.6	765.3	884.7	997.5	1093.8	1175.9
127.5°	396.8	428.3	466.7	510.9	570.0	648.8	745.6	850.7	952.8	1043.7	1119.5
130°	411.7	442.3	480.7	522.3	577.0	647.1	732.5	828.9	923.0	1009.6	1081.8
132.5°	425.7	456.4	492.9	533.7	584.0	646.2	722.0	807.9	895.0	974.5	1042.4
135°	444.5	475.2	510.2	548.6	592.4	644.9	707.3	778.4	850.7	923.0	984.3
137.5°	461.2	489.7	524.2	560.0	599.8	644.7	697.0	755.1	815.5	872.9	926.3
140°	470.8	499.3	532.2	566.1	603.3	643.9	690.9	740.2	792.8	843.1	891.3
142.5°	479.6	506.3	538.3	571.4	606.0	643.9	684.8	727.9	772.6	816.0	856.2
145°	493.8	517.9	547.4	578.2	608.8	641.6	676.7	710.6	746.8	780.7	812.5
147.5°	505.7	527.1	554.9	581.8	609.6	637.7	668.4	697.3	725.8	752.2	775.4
150°	513.5	533.2	558.5	583.6	608.8	635.1	661.3	687.6	711.7	734.7	754.4
152.5°	521.4	539.3	561.9	584.5	607.0	630.7	655.2	678.0	700.3	719.8	736.9
155°	532.2	548.6	567.1	585.8	604.4	623.0	643.9	664.6	682.1	698.5	710.6
157.5°	541.3	555.2	570.9	585.8	599.4	615.1	633.1	649.0	663.7	677.5	686.9
160°	547.4	559.5	572.7	585.8	596.7	609.9	625.2	639.4	651.5	663.5	671.2
162.5°	552.7	562.1	573.5	584.9	594.1	605.5	618.2	629.8	640.1	650.4	656.3
165°	558.5	565.0	574.9	582.5	589.1	596.7	606.6	615.4	623.0	630.7	635.1
167.5°	563.3	567.4	574.6	581.0	584.0	589.1	595.2	601.5	607.5	612.7	616.7
170°	565.0	568.3	573.7	579.2	581.4	584.7	589.1	594.6	597.9	602.2	604.4
172.5°	566.8	569.1	572.9	576.6	577.9	579.5	583.0	586.6	589.1	592.6	593.9
175°	568.3	569.4	571.6	573.7	572.7	573.7	574.9	578.2	579.2	580.3	581.4
177.5°	569.4	569.4	570.2	572.0	570.2	569.4	570.2	572.0	572.0	572.9	572.9
180°	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-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°	9.4	9.2	9.4	9.2	9.4	9.2	9.4	9.4	9.4	9.0	9.4
90°	36.1	36.1	36.1	36.1	36.1	36.1	36.1	36.1	35.1	32.9	35.1
92.5°	65.0	61.5	62.4	60.7	62.4	61.5	65.0	65.9	72.7	81.9	95.5
95°	135.7	127.1	123.8	124.8	123.8	127.1	135.7	150.0	174.1	220.1	286.9
97.5°	297.8	270.9	254.9	245.7	254.9	270.9	297.8	350.2	429.2	547.7	669.4
100°	490.5	443.5	411.7	392.0	411.7	443.5	490.5	581.4	713.9	863.9	999.7
102.5°	836.5	756.2	716.5	689.8	716.5	756.2	836.5	935.3	1075.6	1185.3	1216.1
105°	1364.2	1296.4	1249.3	1234.0	1249.3	1296.4	1364.2	1432.2	1468.3	1454.1	1330.3
107.5°	1609.8	1606.0	1596.6	1576.2	1596.6	1606.0	1609.8	1601.2	1548.2	1434.4	1248.0
110°	1650.0	1670.8	1680.7	1679.6	1680.7	1670.8	1650.0	1603.0	1513.2	1373.0	1177.0



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	1618.5	1653.3	1672.0	1677.8	1672.0	1653.3	1618.5	1553.0	1450.1	1300.3	1112.2
115°	1535.1	1585.5	1613.9	1623.8	1613.9	1585.5	1535.1	1457.4	1344.5	1201.2	1032.6
117.5°	1435.7	1488.8	1518.9	1527.2	1518.9	1488.8	1435.7	1356.4	1250.7	1120.6	972.5
120°	1370.8	1422.3	1454.1	1465.0	1454.1	1422.3	1370.8	1294.2	1194.6	1078.5	942.7
122.5°	1312.1	1362.7	1391.0	1400.1	1391.0	1362.7	1312.1	1243.4	1153.4	1043.5	919.1
125°	1239.4	1281.1	1308.4	1317.2	1308.4	1281.1	1239.4	1175.9	1093.8	997.5	884.7
127.5°	1174.9	1213.8	1237.5	1244.5	1237.5	1213.8	1174.9	1119.5	1043.7	952.8	850.7
130°	1135.5	1172.7	1194.6	1203.3	1194.6	1172.7	1135.5	1081.8	1009.6	923.0	828.9
132.5°	1095.1	1132.4	1152.5	1160.4	1152.5	1132.4	1095.1	1042.4	974.5	895.0	807.9
135°	1031.4	1067.5	1087.2	1091.7	1087.2	1067.5	1031.4	984.3	923.0	850.7	778.4
137.5°	969.2	1000.3	1017.7	1024.2	1017.7	1000.3	969.2	926.3	872.9	815.5	755.1
140°	926.3	954.8	971.2	977.8	971.2	954.8	926.3	891.3	843.1	792.8	740.2
142.5°	889.5	915.4	930.0	931.3	930.0	915.4	889.5	856.2	816.0	772.6	727.9
145°	838.7	857.3	868.3	871.6	868.3	857.3	838.7	812.5	780.7	746.8	710.6
147.5°	797.1	812.0	819.4	821.4	819.4	812.0	797.1	775.4	752.2	725.8	697.3
150°	770.8	784.0	790.5	791.6	790.5	784.0	770.8	754.4	734.7	711.7	687.6
152.5°	749.8	761.2	766.0	766.2	766.0	761.2	749.8	736.9	719.8	700.3	678.0
155°	722.6	730.3	734.7	732.5	734.7	730.3	722.6	710.6	698.5	682.1	664.6
157.5°	695.5	701.8	703.8	703.8	703.8	701.8	695.5	686.9	677.5	663.7	649.0
160°	678.8	684.3	685.4	685.4	685.4	684.3	678.8	671.2	663.5	651.5	639.4
162.5°	663.9	667.7	668.7	667.9	668.7	667.7	663.9	656.3	650.4	640.1	629.8
165°	639.4	643.9	643.9	642.7	643.9	643.9	639.4	635.1	630.7	623.0	615.4
167.5°	618.6	621.0	620.9	619.5	620.9	621.0	618.6	616.7	612.7	607.5	601.5
170°	605.5	608.8	607.7	605.5	607.7	608.8	605.5	604.4	602.2	597.9	594.6
172.5°	595.0	596.5	595.4	594.1	595.4	596.5	595.0	593.9	592.6	589.1	586.6
175°	581.4	582.5	581.4	579.2	581.4	582.5	581.4	581.4	580.3	579.2	578.2
177.5°	572.9	572.9	572.0	570.2	572.0	572.9	572.9	572.9	572.9	572.0	572.0
180°	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-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°	9.8	10.0	10.0	8.7	7.2	6.4	5.8	5.7	5.6	5.2	5.2
90°	36.1	37.2	36.1	29.6	21.9	16.4	13.1	10.9	8.8	4.3	1.1
92.5°	120.3	142.3	140.3	109.2	74.5	49.7	39.4	32.0	27.1	19.2	13.4
95°	375.6	429.2	379.9	252.9	157.7	107.3	81.1	63.5	53.6	42.7	38.4
97.5°	768.6	732.7	551.9	340.7	208.0	144.8	115.0	94.8	79.9	68.3	62.4
100°	1022.7	865.0	595.6	359.1	225.6	167.5	136.9	115.0	97.5	87.6	84.3
102.5°	1117.3	869.4	579.0	360.1	241.3	187.7	157.0	134.2	116.7	106.9	104.4
105°	1102.6	811.3	546.4	365.7	268.2	216.8	186.2	162.0	145.6	138.0	133.6
107.5°	1006.4	749.1	530.2	380.8	295.9	245.9	215.1	191.1	176.1	168.6	165.1
110°	946.0	719.3	526.7	393.0	314.2	266.1	234.3	211.3	197.1	190.5	186.2



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	904.0	700.1	527.5	406.2	331.8	285.3	252.7	230.5	217.3	209.8	205.4
115°	851.9	678.8	532.2	425.9	359.1	312.1	282.5	260.6	247.4	240.9	235.4
117.5°	819.0	668.5	540.0	447.0	384.3	340.7	310.1	289.1	277.5	270.9	266.6
120°	801.4	662.4	545.3	461.0	401.8	359.1	328.5	306.6	296.7	290.1	285.8
122.5°	786.6	658.9	551.4	473.3	418.5	378.4	346.9	325.0	314.2	307.6	304.2
125°	765.3	652.6	560.6	492.8	443.5	404.1	373.3	351.5	338.4	331.8	328.5
127.5°	745.6	648.8	570.0	510.9	466.7	428.3	396.8	375.8	361.4	352.1	347.7
130°	732.5	647.1	577.0	522.3	480.7	442.3	411.7	389.8	374.5	363.5	359.1
132.5°	722.0	646.2	584.0	533.7	492.9	456.4	425.7	402.9	386.7	374.9	369.7
135°	707.3	644.9	592.4	548.6	510.2	475.2	444.5	419.3	402.9	389.8	385.4
137.5°	697.0	644.7	599.8	560.0	524.2	489.7	461.2	436.2	418.7	405.6	400.3
140°	690.9	643.9	603.3	566.1	532.2	499.3	470.8	446.8	429.2	416.0	411.7
142.5°	684.8	643.9	606.0	571.4	538.3	506.3	479.6	456.4	438.8	426.6	423.1
145°	676.7	641.6	608.8	578.2	547.4	517.9	493.8	471.9	455.5	444.5	440.2
147.5°	668.4	637.7	609.6	581.8	554.9	527.1	505.7	487.5	472.3	461.8	458.5
150°	661.3	635.1	608.8	583.6	558.5	533.2	513.5	497.1	482.9	474.1	470.8
152.5°	655.2	630.7	607.0	584.5	561.9	539.3	521.4	505.9	493.3	484.7	483.1
155°	643.9	623.0	604.4	585.8	567.1	548.6	532.2	520.1	508.0	501.4	500.4
157.5°	633.1	615.1	599.4	585.8	570.9	555.2	541.3	531.7	521.2	515.9	514.8
160°	625.2	609.9	596.7	585.8	572.7	559.5	547.4	538.7	529.9	525.6	524.4
162.5°	618.2	605.5	594.1	584.9	573.5	562.1	552.7	544.8	537.8	533.5	534.1
165°	606.6	596.7	589.1	582.5	574.9	565.0	558.5	552.9	546.4	544.2	545.3
167.5°	595.2	589.1	584.0	581.0	574.6	567.4	563.3	559.3	555.2	553.2	554.5
170°	589.1	584.7	581.4	579.2	573.7	568.3	565.0	562.8	559.5	558.5	560.6
172.5°	583.0	579.5	577.9	576.6	572.9	569.1	566.8	565.4	562.1	562.8	564.1
175°	574.9	573.7	572.7	573.7	571.6	569.4	568.3	568.3	566.1	567.1	568.3
177.5°	570.2	569.4	570.2	572.0	570.2	569.4	569.4	569.4	567.6	568.4	570.2
180°	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-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°	5.0	5.0	5.3	5.6	6.4	7.4	8.9	10.2	10.6	10.2	10.1
90°	4.3	8.8	10.9	13.1	16.4	21.9	29.6	36.1	37.2	36.1	35.1
92.5°	19.2	27.1	32.0	39.4	49.7	74.5	109.2	140.3	142.3	120.3	95.5
95°	42.7	53.6	63.5	81.1	107.3	157.7	252.9	379.9	429.2	375.6	286.9
97.5°	68.3	79.9	94.8	115.0	144.8	208.0	340.7	551.9	732.7	768.6	669.4
100°	87.6	97.5	115.0	136.9	167.5	225.6	359.1	595.6	865.0	1022.7	999.7
102.5°	106.9	116.7	134.2	157.0	187.7	241.3	360.1	579.0	869.4	1117.3	1216.1
105°	138.0	145.6	162.0	186.2	216.8	268.2	365.7	546.4	811.3	1102.6	1330.3
107.5°	168.6	176.1	191.1	215.1	245.9	295.9	380.8	530.2	749.1	1006.4	1248.0
110°	190.5	197.1	211.3	234.3	266.1	314.2	393.0	526.7	719.3	946.0	1177.0



TEST NUMBER: P331641-830

CATALOG NUMBER: SA2XXRDIP-C290D1080U830-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	209.8	217.3	230.5	252.7	285.3	331.8	406.2	527.5	700.1	904.0	1112.2
115°	240.9	247.4	260.6	282.5	312.1	359.1	425.9	532.2	678.8	851.9	1032.6
117.5°	270.9	277.5	289.1	310.1	340.7	384.3	447.0	540.0	668.5	819.0	972.5
120°	290.1	296.7	306.6	328.5	359.1	401.8	461.0	545.3	662.4	801.4	942.7
122.5°	307.6	314.2	325.0	346.9	378.4	418.5	473.3	551.4	658.9	786.6	919.1
125°	331.8	338.4	351.5	373.3	404.1	443.5	492.8	560.6	652.6	765.3	884.7
127.5°	352.1	361.4	375.8	396.8	428.3	466.7	510.9	570.0	648.8	745.6	850.7
130°	363.5	374.5	389.8	411.7	442.3	480.7	522.3	577.0	647.1	732.5	828.9
132.5°	374.9	386.7	402.9	425.7	456.4	492.9	533.7	584.0	646.2	722.0	807.9
135°	389.8	402.9	419.3	444.5	475.2	510.2	548.6	592.4	644.9	707.3	778.4
137.5°	405.6	418.7	436.2	461.2	489.7	524.2	560.0	599.8	644.7	697.0	755.1
140°	416.0	429.2	446.8	470.8	499.3	532.2	566.1	603.3	643.9	690.9	740.2
142.5°	426.6	438.8	456.4	479.6	506.3	538.3	571.4	606.0	643.9	684.8	727.9
145°	444.5	455.5	471.9	493.8	517.9	547.4	578.2	608.8	641.6	676.7	710.6
147.5°	461.8	472.3	487.5	505.7	527.1	554.9	581.8	609.6	637.7	668.4	697.3
150°	474.1	482.9	497.1	513.5	533.2	558.5	583.6	608.8	635.1	661.3	687.6
152.5°	484.7	493.3	505.9	521.4	539.3	561.9	584.5	607.0	630.7	655.2	678.0
155°	501.4	508.0	520.1	532.2	548.6	567.1	585.8	604.4	623.0	643.9	664.6
157.5°	515.9	521.2	531.7	541.3	555.2	570.9	585.8	599.4	615.1	633.1	649.0
160°	525.6	529.9	538.7	547.4	559.5	572.7	585.8	596.7	609.9	625.2	639.4
162.5°	533.5	537.8	544.8	552.7	562.1	573.5	584.9	594.1	605.5	618.2	629.8
165°	544.2	546.4	552.9	558.5	565.0	574.9	582.5	589.1	596.7	606.6	615.4
167.5°	553.2	555.2	559.3	563.3	567.4	574.6	581.0	584.0	589.1	595.2	601.5
170°	558.5	559.5	562.8	565.0	568.3	573.7	579.2	581.4	584.7	589.1	594.6
172.5°	562.8	562.1	565.4	566.8	569.1	572.9	576.6	577.9	579.5	583.0	586.6
175°	567.1	566.1	568.3	568.3	569.4	571.6	573.7	572.7	573.7	574.9	578.2
177.5°	568.4	567.6	569.4	569.4	569.4	570.2	572.0	570.2	569.4	570.2	572.0
180°	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4	569.4



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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°	9.5	9.9	10.2	10.2	10.2	10.2	10.0
90°	32.9	35.1	36.1	36.1	36.1	36.1	36.1
92.5°	81.9	72.7	65.9	65.0	61.5	62.4	60.7
95°	220.1	174.1	150.0	135.7	127.1	123.8	124.8
97.5°	547.7	429.2	350.2	297.8	270.9	254.9	245.7
100°	863.9	713.9	581.4	490.5	443.5	411.7	392.0
102.5°	1185.3	1075.6	935.3	836.5	756.2	716.5	689.8
105°	1454.1	1468.3	1432.2	1364.2	1296.4	1249.3	1234.0
107.5°	1434.4	1548.2	1601.2	1609.8	1606.0	1596.6	1576.2
110°	1373.0	1513.2	1603.0	1650.0	1670.8	1680.7	1679.6



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	1300.3	1450.1	1553.0	1618.5	1653.3	1672.0	1677.8
115°	1201.2	1344.5	1457.4	1535.1	1585.5	1613.9	1623.8
117.5°	1120.6	1250.7	1356.4	1435.7	1488.8	1518.9	1527.2
120°	1078.5	1194.6	1294.2	1370.8	1422.3	1454.1	1465.0
122.5°	1043.5	1153.4	1243.4	1312.1	1362.7	1391.0	1400.1
125°	997.5	1093.8	1175.9	1239.4	1281.1	1308.4	1317.2
127.5°	952.8	1043.7	1119.5	1174.9	1213.8	1237.5	1244.5
130°	923.0	1009.6	1081.8	1135.5	1172.7	1194.6	1203.3
132.5°	895.0	974.5	1042.4	1095.1	1132.4	1152.5	1160.4
135°	850.7	923.0	984.3	1031.4	1067.5	1087.2	1091.7
137.5°	815.5	872.9	926.3	969.2	1000.3	1017.7	1024.2
140°	792.8	843.1	891.3	926.3	954.8	971.2	977.8
142.5°	772.6	816.0	856.2	889.5	915.4	930.0	931.3
145°	746.8	780.7	812.5	838.7	857.3	868.3	871.6
147.5°	725.8	752.2	775.4	797.1	812.0	819.4	821.4
150°	711.7	734.7	754.4	770.8	784.0	790.5	791.6
152.5°	700.3	719.8	736.9	749.8	761.2	766.0	766.2
155°	682.1	698.5	710.6	722.6	730.3	734.7	732.5
157.5°	663.7	677.5	686.9	695.5	701.8	703.8	703.8
160°	651.5	663.5	671.2	678.8	684.3	685.4	685.4
162.5°	640.1	650.4	656.3	663.9	667.7	668.7	667.9
165°	623.0	630.7	635.1	639.4	643.9	643.9	642.7
167.5°	607.5	612.7	616.7	618.6	621.0	620.9	619.5
170°	597.9	602.2	604.4	605.5	608.8	607.7	605.5
172.5°	589.1	592.6	593.9	595.0	596.5	595.4	594.1
175°	579.2	580.3	581.4	581.4	582.5	581.4	579.2
177.5°	572.0	572.9	572.9	572.9	572.9	572.0	570.2
180°	569.4	569.4	569.4	569.4	569.4	569.4	569.4

(END OF REPORT)