

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

Luminaire Tested: **SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331641
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-C290D1080U835-4F0-1E-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: 5338.8 lumens
Efficiency: N/A
Efficacy: 126.5 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

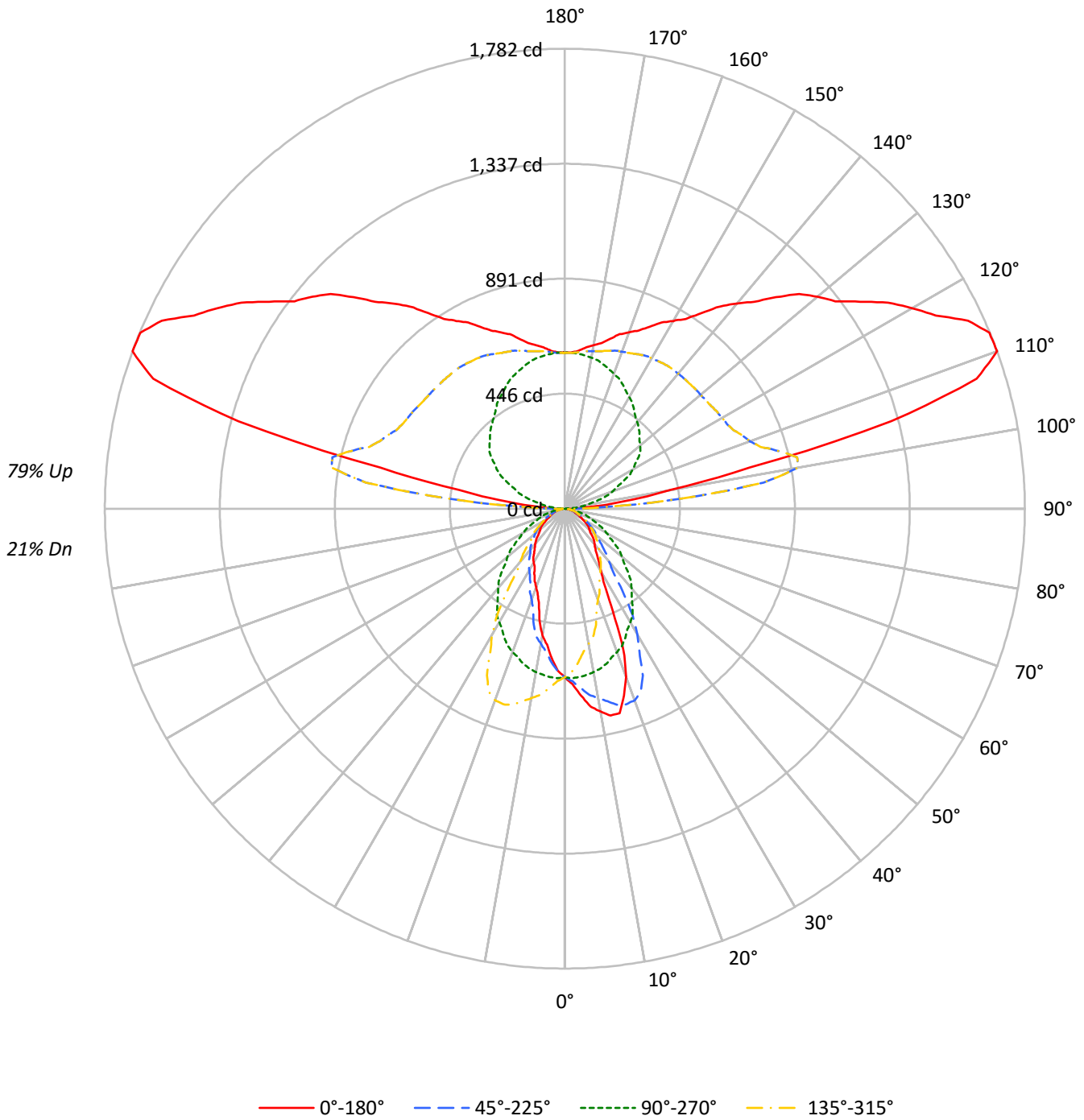
Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10555	10555	10555	10555
5°	11788	10621	9418	10621
10°	13080	10547	8163	10547
15°	13722	10392	6432	10392
20°	11897	10163	5565	10163
25°	7801	9850	4969	9850
30°	5252	9469	4497	9469
35°	4254	8990	4056	8990
40°	3781	8469	3754	8469
45°	3423	7857	3350	7857
50°	3115	7252	3105	7252
55°	2928	6579	2891	6579
60°	2451	5964	2422	5964
65°	2067	5414	2342	5414
70°	1907	4834	2209	4834
75°	1784	4211	2040	4211
80°	1646	3468	1813	3468
85°	1519	2742	1593	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.2
10°-20°	172.7	3.2
20°-30°	222.5	4.2
30°-40°	211.5	4.0
40°-50°	181.1	3.4
50°-60°	137.9	2.6
60°-70°	87.2	1.6
70°-80°	43.5	0.8
80°-90°	16.8	0.3
90°-100°	241.5	4.5
100°-110°	819.6	15.4
110°-120°	870.7	16.3
120°-130°	716.8	13.4
130°-140°	575.6	10.8
140°-150°	435.0	8.1
150°-160°	305.7	5.7
160°-170°	180.0	3.4
170°-180°	58.6	1.1
0°-30°	457.2	8.6
0°-40°	668.6	12.5
0°-60°	987.7	18.5
0°-90°	1135.2	21.3
90°-120°	1931.9	36.2
90°-150°	3659.3	68.5
90°-180°	4204.0	78.7
0°-180°	5338.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	654	654	654	654	654	
5°	727	655	581	655	727	72
15°	821	622	385	622	821	221
25°	438	553	279	553	438	208
35°	216	456	206	456	216	138
45°	150	344	147	344	150	116
55°	104	234	103	234	104	91
65°	54	142	61	142	54	55
75°	29	68	33	68	29	30
85°	8	15	9	15	8	10
90°	38	1	38	1	38	21
95°	132	41	132	41	132	172
105°	1309	142	1309	142	1309	1267
115°	1723	250	1723	250	1723	1687
125°	1398	348	1398	348	1398	1263
135°	1158	409	1158	409	1158	900
145°	925	467	925	467	925	587
155°	777	531	777	531	777	363
165°	682	578	682	578	682	195
175°	614	603	614	603	614	60
180°	604	604	604	604	604	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	680.3	680.8	681.4	680.1	680.1	679.0	676.6	674.8	669.7	669.0	669.0
5°	727.3	726.9	727.8	724.8	720.8	719.8	715.5	709.8	703.9	697.4	696.0
7.5°	774.1	773.4	771.6	771.1	768.0	761.1	754.2	746.8	737.0	727.4	722.6
10°	797.8	805.3	800.7	792.8	794.3	783.7	778.0	768.2	760.0	745.7	742.6
12.5°	821.0	824.0	822.5	818.0	816.0	808.6	800.9	792.4	777.3	764.5	753.3
15°	820.9	825.2	826.4	825.0	826.1	825.7	821.6	814.6	801.4	787.3	775.0
17.5°	760.3	763.3	770.8	775.8	782.2	795.6	802.3	804.8	802.9	794.8	786.2
20°	692.4	687.4	708.3	718.9	728.0	750.7	770.3	777.8	789.8	789.6	787.3
22.5°	596.0	597.2	617.0	629.7	656.2	679.0	701.2	729.4	752.7	768.1	777.1
25°	437.9	446.6	466.3	483.6	513.1	555.4	593.8	638.3	680.3	713.5	745.1
27.5°	328.9	329.6	345.2	361.2	378.7	413.3	461.7	514.8	574.7	624.2	681.0
30°	281.7	280.3	286.9	296.7	311.7	338.5	374.8	427.0	486.8	561.3	627.6
32.5°	248.2	248.3	253.3	260.5	272.9	291.0	315.9	358.4	414.8	488.1	565.8
35°	215.8	215.6	219.2	224.4	229.6	241.2	258.3	280.5	319.4	387.7	467.2
37.5°	192.5	193.5	195.3	198.6	204.3	210.8	221.0	236.0	263.6	304.1	370.9
40°	179.4	179.9	182.4	185.1	188.5	193.5	201.9	214.0	234.2	266.4	315.3
42.5°	167.5	167.9	169.7	172.2	174.9	179.9	186.9	197.3	213.7	238.8	279.1
45°	149.9	149.9	151.5	152.6	155.6	160.1	165.8	174.5	185.8	204.4	231.2
47.5°	133.5	133.5	134.6	136.5	138.4	141.9	147.5	154.6	162.8	177.2	200.1
50°	124.0	124.3	124.9	126.5	127.7	130.8	135.2	141.3	149.9	161.1	180.1
52.5°	116.4	116.3	117.1	117.8	118.6	120.8	124.1	129.5	137.2	146.9	162.7
55°	104.0	103.1	104.5	105.6	106.3	107.2	109.0	112.4	119.0	127.2	139.0
57.5°	88.6	88.2	89.2	90.2	92.4	94.8	96.4	98.5	101.9	107.8	119.5
60°	75.9	75.9	77.9	78.6	81.1	84.3	87.5	89.3	92.7	96.5	105.2
62.5°	64.6	64.8	65.7	66.4	67.8	71.7	76.2	80.2	83.4	87.1	92.8
65°	54.1	54.5	54.5	55.0	55.9	56.8	58.6	61.8	67.5	72.7	77.0
67.5°	45.9	46.0	46.2	46.6	46.8	47.8	48.6	50.0	51.3	56.2	61.6
70°	40.4	41.1	40.9	41.3	41.6	42.0	42.9	43.6	45.7	46.8	50.0
72.5°	35.3	35.8	35.8	36.1	36.7	36.8	37.5	38.2	39.5	40.4	42.2
75°	28.6	28.4	28.6	29.1	29.3	29.5	29.5	30.4	31.1	32.0	33.2
77.5°	22.1	22.3	22.3	22.3	22.4	22.8	22.7	23.1	23.8	24.3	24.8
80°	17.7	17.9	17.7	17.9	18.2	18.4	18.2	18.4	19.1	19.5	19.5
82.5°	13.7	13.8	13.9	13.9	14.0	14.0	14.4	14.4	14.9	14.8	15.0
85°	8.2	8.0	8.0	8.0	8.2	8.4	8.2	8.2	8.4	8.4	8.4
87.5°	10.6	10.8	10.8	10.8	10.8	10.5	10.1	10.7	10.8	11.2	10.8
90°	38.3	38.3	38.3	38.3	38.3	37.2	34.9	37.2	38.3	39.5	38.3
92.5°	64.4	66.2	65.3	69.0	69.9	77.1	86.9	101.3	127.6	151.0	148.9
95°	132.4	131.3	134.8	144.0	159.1	184.7	233.5	304.4	398.5	455.4	403.1
97.5°	260.7	270.4	287.4	316.0	371.5	455.4	581.1	710.2	815.5	777.4	585.5
100°	415.9	436.8	470.5	520.4	616.8	757.4	916.6	1060.6	1085.0	917.7	631.9
102.5°	731.9	760.2	802.3	887.5	992.3	1141.2	1257.6	1290.2	1185.4	922.4	614.3
105°	1309.2	1325.5	1375.4	1447.4	1519.5	1557.8	1542.7	1411.4	1169.8	860.8	579.7
107.5°	1672.3	1693.9	1703.9	1707.9	1698.8	1642.6	1521.8	1324.1	1067.8	794.8	562.5
110°	1782.0	1783.2	1772.7	1750.6	1700.7	1605.4	1456.7	1248.8	1003.7	763.2	558.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1780.1	1773.9	1754.1	1717.2	1647.7	1538.5	1379.6	1180.0	959.1	742.8	559.7
115°	1722.8	1712.3	1682.1	1628.7	1546.2	1426.5	1274.4	1095.5	903.8	720.2	564.6
117.5°	1620.3	1611.5	1579.6	1523.2	1439.1	1326.9	1188.9	1031.8	868.9	709.3	572.9
120°	1554.3	1542.7	1509.0	1454.4	1373.1	1267.4	1144.2	1000.2	850.3	702.8	578.5
122.5°	1485.5	1475.8	1445.8	1392.1	1319.2	1223.7	1107.1	975.1	834.5	699.1	585.0
125°	1397.5	1388.2	1359.2	1315.0	1247.6	1160.5	1058.3	938.6	812.0	692.4	594.8
127.5°	1320.4	1312.9	1287.8	1246.5	1187.7	1107.3	1010.9	902.6	791.1	688.4	604.8
130°	1276.7	1267.4	1244.2	1204.7	1147.7	1071.1	979.3	879.4	777.2	686.5	612.2
132.5°	1231.1	1222.8	1201.4	1161.9	1105.9	1033.9	949.6	857.1	766.0	685.6	619.6
135°	1158.2	1153.5	1132.6	1094.3	1044.3	979.3	902.6	825.9	750.4	684.2	628.5
137.5°	1086.6	1079.7	1061.3	1028.3	982.8	926.1	865.2	801.1	739.5	684.0	636.4
140°	1037.4	1030.4	1013.0	982.8	945.6	894.5	841.1	785.3	733.0	683.1	640.1
142.5°	988.1	986.7	971.2	943.7	908.4	865.7	819.7	772.3	726.5	683.1	642.9
145°	924.7	921.2	909.6	889.8	862.0	828.3	792.3	753.9	717.9	680.7	645.9
147.5°	871.5	869.4	861.5	845.7	822.7	798.1	770.0	739.8	709.1	676.6	646.8
150°	839.9	838.7	831.8	817.8	800.4	779.5	755.1	729.5	701.6	673.8	645.9
152.5°	812.9	812.7	807.6	795.5	781.8	763.7	743.0	719.3	695.1	669.1	644.0
155°	777.2	779.5	774.8	766.7	753.9	741.1	723.7	705.1	683.1	661.0	641.2
157.5°	746.7	746.7	744.6	737.9	728.8	718.8	704.2	688.6	671.7	652.6	635.9
160°	727.2	727.2	726.0	720.2	712.1	704.0	691.2	678.4	663.3	647.1	633.1
162.5°	708.6	709.5	708.4	704.4	696.3	690.0	679.1	668.2	655.9	642.4	630.3
165°	681.9	683.1	683.1	678.4	673.8	669.1	661.0	652.9	643.6	633.1	625.0
167.5°	657.3	658.7	658.9	656.3	654.3	650.1	644.5	638.2	631.5	625.0	619.6
170°	642.4	644.7	645.9	642.4	641.2	638.9	634.3	630.8	625.0	620.3	616.8
172.5°	630.3	631.7	632.9	631.3	630.1	628.7	625.0	622.4	618.5	614.8	613.1
175°	614.5	616.8	618.0	616.8	616.8	615.7	614.5	613.4	609.9	608.7	607.6
177.5°	605.0	606.9	607.8	607.8	607.8	607.8	606.9	606.9	605.0	604.1	605.0
180°	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	669.4	667.9	666.6	663.4	661.7	658.1	657.6	657.4	652.7	648.1	646.8
5°	692.4	688.7	683.3	676.9	670.3	663.5	659.0	655.3	646.2	637.6	632.6
7.5°	715.5	707.7	698.3	686.3	676.2	665.0	656.6	649.1	636.2	623.8	615.5
10°	732.8	720.1	707.6	691.0	678.0	665.3	653.5	643.3	628.8	612.4	600.8
12.5°	743.5	729.5	712.3	696.1	679.3	663.1	647.3	634.2	617.1	600.2	586.5
15°	758.0	743.0	722.1	698.9	677.4	656.2	638.1	621.7	599.5	579.2	562.4
17.5°	769.9	749.2	726.8	700.0	675.0	648.2	624.8	603.9	579.1	554.7	534.9
20°	773.7	753.2	727.3	700.5	671.0	639.4	614.2	591.5	564.9	538.3	515.6
22.5°	771.3	755.4	726.6	694.5	664.3	631.3	602.8	576.4	546.9	519.8	493.5
25°	755.3	749.8	722.6	687.6	653.1	614.7	581.7	552.9	519.3	490.2	461.6
27.5°	717.9	729.7	712.8	675.5	637.1	596.0	558.9	526.1	491.2	458.5	430.0
30°	681.9	708.9	701.7	667.1	624.2	583.8	542.2	507.9	470.7	437.0	408.9
32.5°	632.7	677.3	684.4	655.5	611.1	566.7	523.1	489.0	450.1	414.7	387.2
35°	554.2	621.0	651.7	633.3	588.8	540.8	495.9	456.1	417.0	382.1	354.8
37.5°	460.7	551.7	602.8	604.1	563.2	513.4	464.4	424.9	384.9	350.6	321.1
40°	400.0	498.6	565.2	579.9	545.4	491.6	442.0	401.8	362.8	329.1	295.3
42.5°	345.5	443.7	525.5	551.2	523.8	470.3	420.6	378.6	340.6	308.8	274.2
45°	279.4	365.3	455.4	501.3	486.1	436.6	384.1	344.1	308.5	281.0	247.8
47.5°	235.7	296.2	383.5	445.5	445.3	400.1	348.4	310.2	277.1	251.3	224.5
50°	210.8	263.5	337.3	407.7	413.6	375.7	326.6	288.7	257.8	230.8	209.2
52.5°	188.4	231.9	298.2	365.8	382.6	349.7	302.1	267.1	237.1	212.2	193.8
55°	159.2	192.9	243.3	306.4	331.9	308.7	266.4	233.7	209.4	188.5	172.6
57.5°	134.7	159.9	200.4	251.2	280.8	266.3	231.4	204.8	184.0	165.1	152.6
60°	119.3	139.9	174.2	216.7	249.4	239.2	209.4	184.7	167.0	150.6	138.8
62.5°	104.7	122.5	151.9	186.4	216.3	212.1	187.8	167.0	151.5	136.6	126.6
65°	84.3	97.2	120.2	147.2	171.3	173.3	155.8	141.7	127.9	116.1	107.2
67.5°	67.1	75.6	91.7	114.5	132.5	139.0	128.3	117.5	106.5	97.4	89.7
70°	56.6	63.4	75.2	93.6	110.2	117.0	110.8	102.4	92.9	85.4	78.8
72.5°	45.8	52.5	61.2	74.7	88.9	96.3	94.1	88.1	80.4	74.1	67.9
75°	34.5	36.6	42.5	51.6	62.7	69.1	70.6	67.5	61.3	56.6	52.9
77.5°	25.5	26.8	29.6	34.3	41.6	47.3	49.6	49.2	45.0	42.3	38.8
80°	20.4	21.1	22.5	24.5	30.0	35.7	37.3	37.3	34.3	33.2	29.8
82.5°	15.5	16.0	16.9	18.0	20.5	25.5	27.3	27.6	25.8	24.3	21.6
85°	8.9	8.6	9.1	9.8	10.2	11.6	14.3	14.8	14.3	12.5	11.8
87.5°	9.4	7.9	6.8	5.9	5.6	5.3	5.3	5.5	5.5	5.9	6.0
90°	31.4	23.2	17.4	13.9	11.6	9.3	4.6	1.2	4.6	9.3	11.6
92.5°	115.9	79.0	52.7	41.8	33.9	28.8	20.4	14.2	20.4	28.8	33.9
95°	268.3	167.3	113.8	86.0	67.4	56.9	45.3	40.7	45.3	56.9	67.4
97.5°	361.5	220.7	153.6	122.0	100.6	84.8	72.5	66.2	72.5	84.8	100.6
100°	381.0	239.3	177.7	145.2	122.0	103.4	92.9	89.4	92.9	103.4	122.0
102.5°	382.0	256.0	199.1	166.6	142.4	123.8	113.4	110.8	113.4	123.8	142.4
105°	388.0	284.6	230.0	197.5	171.9	154.5	146.4	141.7	146.4	154.5	171.9
107.5°	404.0	313.9	260.9	228.2	202.8	186.8	178.9	175.2	178.9	186.8	202.8
110°	417.0	333.4	282.3	248.6	224.2	209.1	202.1	197.5	202.1	209.1	224.2



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	431.0	352.0	302.7	268.1	244.6	230.5	222.6	217.9	222.6	230.5	244.6
115°	451.9	381.0	331.1	299.7	276.5	262.5	255.6	249.8	255.6	262.5	276.5
117.5°	474.2	407.7	361.5	329.0	306.7	294.4	287.4	282.8	287.4	294.4	306.7
120°	489.1	426.3	381.0	348.5	325.3	314.8	307.8	303.2	307.8	314.8	325.3
122.5°	502.1	444.0	401.5	368.0	344.8	333.4	326.4	322.7	326.4	333.4	344.8
125°	522.8	470.5	428.7	396.1	372.9	359.0	352.0	348.5	352.0	359.0	372.9
127.5°	542.0	495.1	454.4	421.0	398.7	383.4	373.6	368.9	373.6	383.4	398.7
130°	554.1	510.0	469.3	436.8	413.6	397.3	385.7	381.0	385.7	397.3	413.6
132.5°	566.2	523.0	484.2	451.7	427.5	410.3	397.8	392.2	397.8	410.3	427.5
135°	582.0	541.3	504.2	471.6	444.9	427.5	413.6	408.9	413.6	427.5	444.9
137.5°	594.1	556.2	519.5	489.3	462.8	444.2	430.3	424.7	430.3	444.2	462.8
140°	600.6	564.6	529.7	499.5	474.0	455.4	441.4	436.8	441.4	455.4	474.0
142.5°	606.2	571.1	537.2	508.8	484.2	465.6	452.6	448.9	452.6	465.6	484.2
145°	613.4	580.8	549.5	523.9	500.7	483.3	471.6	467.0	471.6	483.3	500.7
147.5°	617.3	588.7	559.2	536.5	517.2	501.1	490.0	486.5	490.0	501.1	517.2
150°	619.2	592.5	565.7	544.8	527.4	512.3	503.0	499.5	503.0	512.3	527.4
152.5°	620.1	596.2	572.2	553.2	536.7	523.4	514.2	512.5	514.2	523.4	536.7
155°	621.5	601.7	582.0	564.6	551.8	539.0	532.0	530.9	532.0	539.0	551.8
157.5°	621.5	605.7	589.0	574.3	564.1	553.0	547.4	546.2	547.4	553.0	564.1
160°	621.5	607.6	593.6	580.8	571.5	562.2	557.6	556.4	557.6	562.2	571.5
162.5°	620.6	608.5	596.4	586.4	578.0	570.6	566.0	566.7	566.0	570.6	578.0
165°	618.0	609.9	599.4	592.5	586.6	579.7	577.4	578.5	577.4	579.7	586.6
167.5°	616.4	609.6	602.0	597.6	593.4	589.0	586.9	588.3	586.9	589.0	593.4
170°	614.5	608.7	602.9	599.4	597.1	593.6	592.5	594.8	592.5	593.6	597.1
172.5°	611.7	607.8	603.8	601.3	599.9	596.4	597.1	598.5	597.1	596.4	599.9
175°	608.7	606.4	604.1	602.9	602.9	600.6	601.7	602.9	601.7	600.6	602.9
177.5°	606.9	605.0	604.1	604.1	604.1	602.2	603.1	605.0	603.1	602.2	604.1
180°	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	644.5	643.2	640.8	637.2	635.0	631.2	628.7	630.1	630.5	630.1	629.8
5°	627.2	622.4	615.8	609.4	603.5	597.2	593.5	592.0	588.8	587.0	586.0
7.5°	606.2	598.0	588.7	577.6	568.2	558.3	553.3	550.8	544.3	540.8	537.7
10°	590.6	577.6	568.3	553.8	544.9	532.0	523.1	523.4	514.5	509.5	505.9
12.5°	573.3	559.1	543.6	530.5	518.2	507.8	497.1	492.8	483.4	478.6	468.8
15°	544.7	528.1	511.8	494.1	481.6	465.4	450.0	431.1	415.9	402.7	399.1
17.5°	513.5	492.9	476.5	455.7	434.3	407.2	389.3	378.3	369.2	362.2	357.0
20°	492.0	471.1	453.6	422.3	393.4	375.0	361.9	353.4	343.9	336.4	332.3
22.5°	469.5	447.7	423.8	388.8	366.3	351.6	339.9	330.2	323.7	317.9	314.1
25°	437.5	413.6	374.3	350.3	332.1	316.6	308.5	302.6	295.8	287.8	284.2
27.5°	403.7	365.8	337.5	319.6	302.3	292.3	284.9	276.1	270.0	266.4	262.6
30°	378.4	340.5	318.5	298.9	286.7	275.5	266.9	261.9	256.0	249.9	247.4
32.5°	350.3	320.0	298.8	282.6	270.1	260.6	253.8	245.7	241.5	237.7	232.5
35°	315.3	292.3	273.0	259.9	248.0	240.3	232.4	227.6	219.9	216.7	214.7
37.5°	285.7	265.8	251.4	237.5	228.1	219.6	214.7	207.1	203.8	199.3	195.0
40°	268.9	249.4	235.6	224.2	213.7	207.4	201.3	195.1	190.1	188.1	182.9
42.5°	251.9	236.0	222.1	209.7	202.7	195.9	188.2	183.7	178.5	175.2	172.0
45°	228.3	214.2	202.4	192.2	184.4	177.4	172.4	164.9	162.0	155.4	152.6
47.5°	207.6	194.5	183.2	173.5	166.0	161.4	154.1	148.2	143.5	139.4	135.9
50°	192.9	181.9	171.0	162.4	155.6	149.0	141.5	138.6	131.3	129.2	127.2
52.5°	179.4	169.0	159.1	150.6	143.8	137.4	130.8	126.9	122.0	120.0	118.5
55°	160.6	150.6	141.1	133.6	126.8	120.2	116.1	111.3	109.0	107.4	105.6
57.5°	141.7	132.7	125.4	117.8	110.9	105.7	101.0	98.1	95.8	93.7	91.5
60°	129.7	121.1	114.5	107.4	100.4	96.1	92.5	89.0	86.3	83.1	82.2
62.5°	117.0	109.4	103.4	96.5	90.4	86.5	83.0	79.8	76.5	71.9	70.6
65°	99.5	93.6	87.2	81.5	76.1	72.2	67.2	63.6	62.2	61.8	61.6
67.5°	83.7	78.1	72.6	66.8	61.9	58.3	55.7	55.2	54.2	54.0	53.3
70°	73.1	67.9	62.5	57.0	52.2	51.6	50.7	49.7	48.6	48.2	47.7
72.5°	63.7	58.3	52.8	48.5	46.4	45.6	44.7	43.7	43.0	42.5	42.3
75°	48.8	43.8	40.2	38.6	37.5	36.8	35.4	34.8	34.3	33.6	33.4
77.5°	35.2	32.3	30.7	29.7	28.5	27.8	27.0	26.3	25.8	25.7	25.3
80°	26.8	25.4	24.3	22.9	22.5	21.6	21.4	20.7	20.9	20.2	20.2
82.5°	20.8	19.1	18.1	17.5	17.0	16.3	16.1	15.8	15.8	15.3	15.3
85°	10.7	10.2	9.8	9.3	9.3	8.6	8.9	8.6	8.6	8.2	8.0
87.5°	6.2	6.8	7.6	9.2	10.6	10.6	10.4	10.0	9.5	10.0	10.0
90°	13.9	17.4	23.2	31.4	38.3	39.5	38.3	37.2	34.9	37.2	38.3
92.5°	41.8	52.7	79.0	115.9	148.9	151.0	127.6	101.3	86.9	77.1	69.9
95°	86.0	113.8	167.3	268.3	403.1	455.4	398.5	304.4	233.5	184.7	159.1
97.5°	122.0	153.6	220.7	361.5	585.5	777.4	815.5	710.2	581.1	455.4	371.5
100°	145.2	177.7	239.3	381.0	631.9	917.7	1085.0	1060.6	916.6	757.4	616.8
102.5°	166.6	199.1	256.0	382.0	614.3	922.4	1185.4	1290.2	1257.6	1141.2	992.3
105°	197.5	230.0	284.6	388.0	579.7	860.8	1169.8	1411.4	1542.7	1557.8	1519.5
107.5°	228.2	260.9	313.9	404.0	562.5	794.8	1067.8	1324.1	1521.8	1642.6	1698.8
110°	248.6	282.3	333.4	417.0	558.8	763.2	1003.7	1248.8	1456.7	1605.4	1700.7



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	268.1	302.7	352.0	431.0	559.7	742.8	959.1	1180.0	1379.6	1538.5	1647.7
115°	299.7	331.1	381.0	451.9	564.6	720.2	903.8	1095.5	1274.4	1426.5	1546.2
117.5°	329.0	361.5	407.7	474.2	572.9	709.3	868.9	1031.8	1188.9	1326.9	1439.1
120°	348.5	381.0	426.3	489.1	578.5	702.8	850.3	1000.2	1144.2	1267.4	1373.1
122.5°	368.0	401.5	444.0	502.1	585.0	699.1	834.5	975.1	1107.1	1223.7	1319.2
125°	396.1	428.7	470.5	522.8	594.8	692.4	812.0	938.6	1058.3	1160.5	1247.6
127.5°	421.0	454.4	495.1	542.0	604.8	688.4	791.1	902.6	1010.9	1107.3	1187.7
130°	436.8	469.3	510.0	554.1	612.2	686.5	777.2	879.4	979.3	1071.1	1147.7
132.5°	451.7	484.2	523.0	566.2	619.6	685.6	766.0	857.1	949.6	1033.9	1105.9
135°	471.6	504.2	541.3	582.0	628.5	684.2	750.4	825.9	902.6	979.3	1044.3
137.5°	489.3	519.5	556.2	594.1	636.4	684.0	739.5	801.1	865.2	926.1	982.8
140°	499.5	529.7	564.6	600.6	640.1	683.1	733.0	785.3	841.1	894.5	945.6
142.5°	508.8	537.2	571.1	606.2	642.9	683.1	726.5	772.3	819.7	865.7	908.4
145°	523.9	549.5	580.8	613.4	645.9	680.7	717.9	753.9	792.3	828.3	862.0
147.5°	536.5	559.2	588.7	617.3	646.8	676.6	709.1	739.8	770.0	798.1	822.7
150°	544.8	565.7	592.5	619.2	645.9	673.8	701.6	729.5	755.1	779.5	800.4
152.5°	553.2	572.2	596.2	620.1	644.0	669.1	695.1	719.3	743.0	763.7	781.8
155°	564.6	582.0	601.7	621.5	641.2	661.0	683.1	705.1	723.7	741.1	753.9
157.5°	574.3	589.0	605.7	621.5	635.9	652.6	671.7	688.6	704.2	718.8	728.8
160°	580.8	593.6	607.6	621.5	633.1	647.1	663.3	678.4	691.2	704.0	712.1
162.5°	586.4	596.4	608.5	620.6	630.3	642.4	655.9	668.2	679.1	690.0	696.3
165°	592.5	599.4	609.9	618.0	625.0	633.1	643.6	652.9	661.0	669.1	673.8
167.5°	597.6	602.0	609.6	616.4	619.6	625.0	631.5	638.2	644.5	650.1	654.3
170°	599.4	602.9	608.7	614.5	616.8	620.3	625.0	630.8	634.3	638.9	641.2
172.5°	601.3	603.8	607.8	611.7	613.1	614.8	618.5	622.4	625.0	628.7	630.1
175°	602.9	604.1	606.4	608.7	607.6	608.7	609.9	613.4	614.5	615.7	616.8
177.5°	604.1	604.1	605.0	606.9	605.0	604.1	605.0	606.9	606.9	607.8	607.8
180°	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	627.8	628.1	627.6	627.9	627.6	628.1	627.8	629.8	630.1	630.5	630.1
5°	584.9	582.2	581.7	581.1	581.7	582.2	584.9	586.0	587.0	588.8	592.0
7.5°	533.8	533.4	532.2	530.6	532.2	533.4	533.8	537.7	540.8	544.3	550.8
10°	500.9	499.7	499.5	497.9	499.5	499.7	500.9	505.9	509.5	514.5	523.4
12.5°	462.3	455.0	454.3	450.3	454.3	455.0	462.3	468.8	478.6	483.4	492.8
15°	393.7	392.3	387.7	384.8	387.7	392.3	393.7	399.1	402.7	415.9	431.1
17.5°	354.4	349.9	348.5	347.9	348.5	349.9	354.4	357.0	362.2	369.2	378.3
20°	329.1	325.1	324.4	323.9	324.4	325.1	329.1	332.3	336.4	343.9	353.4
22.5°	311.7	307.4	305.7	304.3	305.7	307.4	311.7	314.1	317.9	323.7	330.2
25°	281.9	280.3	279.4	278.9	279.4	280.3	281.9	284.2	287.8	295.8	302.6
27.5°	258.6	255.1	254.4	253.2	254.4	255.1	258.6	262.6	266.4	270.0	276.1
30°	245.3	244.2	242.6	241.2	242.6	244.2	245.3	247.4	249.9	256.0	261.9
32.5°	229.7	228.7	227.3	226.7	227.3	228.7	229.7	232.5	237.7	241.5	245.7
35°	212.4	209.2	207.8	205.8	207.8	209.2	212.4	214.7	216.7	219.9	227.6
37.5°	194.1	192.4	190.5	191.2	190.5	192.4	194.1	195.0	199.3	203.8	207.1
40°	179.9	178.8	178.3	178.1	178.3	178.8	179.9	182.9	188.1	190.1	195.1
42.5°	168.6	165.5	164.3	164.3	164.3	165.5	168.6	172.0	175.2	178.5	183.7
45°	151.5	148.6	146.5	146.7	146.5	148.6	151.5	152.6	155.4	162.0	164.9
47.5°	134.0	133.9	132.6	133.0	132.6	133.9	134.0	135.9	139.4	143.5	148.2
50°	125.6	124.3	123.3	123.6	123.3	124.3	125.6	127.2	129.2	131.3	138.6
52.5°	117.6	116.4	115.7	116.7	115.7	116.4	117.6	118.5	120.0	122.0	126.9
55°	104.5	103.1	102.9	102.7	102.9	103.1	104.5	105.6	107.4	109.0	111.3
57.5°	89.8	88.9	87.5	87.0	87.5	88.9	89.8	91.5	93.7	95.8	98.1
60°	79.3	77.5	75.2	75.0	75.2	77.5	79.3	82.2	83.1	86.3	89.0
62.5°	69.6	69.3	68.8	68.8	68.8	69.3	69.6	70.6	71.9	76.5	79.8
65°	61.1	60.9	61.1	61.3	61.1	60.9	61.1	61.6	61.8	62.2	63.6
67.5°	53.2	52.8	52.4	52.6	52.4	52.8	53.2	53.3	54.0	54.2	55.2
70°	47.2	47.0	46.8	46.8	46.8	47.0	47.2	47.7	48.2	48.6	49.7
72.5°	41.4	41.4	41.2	41.0	41.2	41.4	41.4	42.3	42.5	43.0	43.7
75°	33.2	32.7	32.7	32.7	32.7	32.7	33.2	33.4	33.6	34.3	34.8
77.5°	25.3	25.0	24.8	24.6	24.8	25.0	25.3	25.3	25.7	25.8	26.3
80°	20.0	19.8	19.5	19.5	19.5	19.8	20.0	20.2	20.2	20.9	20.7
82.5°	15.3	15.0	15.0	14.8	15.0	15.0	15.3	15.3	15.3	15.8	15.8
85°	8.2	8.4	8.2	8.6	8.2	8.4	8.2	8.0	8.2	8.6	8.6
87.5°	10.0	9.8	10.0	9.8	10.0	9.8	10.0	10.0	10.0	9.5	10.0
90°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	37.2	34.9	37.2
92.5°	69.0	65.3	66.2	64.4	66.2	65.3	69.0	69.9	77.1	86.9	101.3
95°	144.0	134.8	131.3	132.4	131.3	134.8	144.0	159.1	184.7	233.5	304.4
97.5°	316.0	287.4	270.4	260.7	270.4	287.4	316.0	371.5	455.4	581.1	710.2
100°	520.4	470.5	436.8	415.9	436.8	470.5	520.4	616.8	757.4	916.6	1060.6
102.5°	887.5	802.3	760.2	731.9	760.2	802.3	887.5	992.3	1141.2	1257.6	1290.2
105°	1447.4	1375.4	1325.5	1309.2	1325.5	1375.4	1447.4	1519.5	1557.8	1542.7	1411.4
107.5°	1707.9	1703.9	1693.9	1672.3	1693.9	1703.9	1707.9	1698.8	1642.6	1521.8	1324.1
110°	1750.6	1772.7	1783.2	1782.0	1783.2	1772.7	1750.6	1700.7	1605.4	1456.7	1248.8



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	1717.2	1754.1	1773.9	1780.1	1773.9	1754.1	1717.2	1647.7	1538.5	1379.6	1180.0
115°	1628.7	1682.1	1712.3	1722.8	1712.3	1682.1	1628.7	1546.2	1426.5	1274.4	1095.5
117.5°	1523.2	1579.6	1611.5	1620.3	1611.5	1579.6	1523.2	1439.1	1326.9	1188.9	1031.8
120°	1454.4	1509.0	1542.7	1554.3	1542.7	1509.0	1454.4	1373.1	1267.4	1144.2	1000.2
122.5°	1392.1	1445.8	1475.8	1485.5	1475.8	1445.8	1392.1	1319.2	1223.7	1107.1	975.1
125°	1315.0	1359.2	1388.2	1397.5	1388.2	1359.2	1315.0	1247.6	1160.5	1058.3	938.6
127.5°	1246.5	1287.8	1312.9	1320.4	1312.9	1287.8	1246.5	1187.7	1107.3	1010.9	902.6
130°	1204.7	1244.2	1267.4	1276.7	1267.4	1244.2	1204.7	1147.7	1071.1	979.3	879.4
132.5°	1161.9	1201.4	1222.8	1231.1	1222.8	1201.4	1161.9	1105.9	1033.9	949.6	857.1
135°	1094.3	1132.6	1153.5	1158.2	1153.5	1132.6	1094.3	1044.3	979.3	902.6	825.9
137.5°	1028.3	1061.3	1079.7	1086.6	1079.7	1061.3	1028.3	982.8	926.1	865.2	801.1
140°	982.8	1013.0	1030.4	1037.4	1030.4	1013.0	982.8	945.6	894.5	841.1	785.3
142.5°	943.7	971.2	986.7	988.1	986.7	971.2	943.7	908.4	865.7	819.7	772.3
145°	889.8	909.6	921.2	924.7	921.2	909.6	889.8	862.0	828.3	792.3	753.9
147.5°	845.7	861.5	869.4	871.5	869.4	861.5	845.7	822.7	798.1	770.0	739.8
150°	817.8	831.8	838.7	839.9	838.7	831.8	817.8	800.4	779.5	755.1	729.5
152.5°	795.5	807.6	812.7	812.9	812.7	807.6	795.5	781.8	763.7	743.0	719.3
155°	766.7	774.8	779.5	777.2	779.5	774.8	766.7	753.9	741.1	723.7	705.1
157.5°	737.9	744.6	746.7	746.7	746.7	744.6	737.9	728.8	718.8	704.2	688.6
160°	720.2	726.0	727.2	727.2	727.2	726.0	720.2	712.1	704.0	691.2	678.4
162.5°	704.4	708.4	709.5	708.6	709.5	708.4	704.4	696.3	690.0	679.1	668.2
165°	678.4	683.1	683.1	681.9	683.1	683.1	678.4	673.8	669.1	661.0	652.9
167.5°	656.3	658.9	658.7	657.3	658.7	658.9	656.3	654.3	650.1	644.5	638.2
170°	642.4	645.9	644.7	642.4	644.7	645.9	642.4	641.2	638.9	634.3	630.8
172.5°	631.3	632.9	631.7	630.3	631.7	632.9	631.3	630.1	628.7	625.0	622.4
175°	616.8	618.0	616.8	614.5	616.8	618.0	616.8	616.8	615.7	614.5	613.4
177.5°	607.8	607.8	606.9	605.0	606.9	607.8	607.8	607.8	607.8	606.9	606.9
180°	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	628.7	631.2	635.0	637.2	640.8	643.2	644.5	646.8	648.1	652.7	657.4
5°	593.5	597.2	603.5	609.4	615.8	622.4	627.2	632.6	637.6	646.2	655.3
7.5°	553.3	558.3	568.2	577.6	588.7	598.0	606.2	615.5	623.8	636.2	649.1
10°	523.1	532.0	544.9	553.8	568.3	577.6	590.6	600.8	612.4	628.8	643.3
12.5°	497.1	507.8	518.2	530.5	543.6	559.1	573.3	586.5	600.2	617.1	634.2
15°	450.0	465.4	481.6	494.1	511.8	528.1	544.7	562.4	579.2	599.5	621.7
17.5°	389.3	407.2	434.3	455.7	476.5	492.9	513.5	534.9	554.7	579.1	603.9
20°	361.9	375.0	393.4	422.3	453.6	471.1	492.0	515.6	538.3	564.9	591.5
22.5°	339.9	351.6	366.3	388.8	423.8	447.7	469.5	493.5	519.8	546.9	576.4
25°	308.5	316.6	332.1	350.3	374.3	413.6	437.5	461.6	490.2	519.3	552.9
27.5°	284.9	292.3	302.3	319.6	337.5	365.8	403.7	430.0	458.5	491.2	526.1
30°	266.9	275.5	286.7	298.9	318.5	340.5	378.4	408.9	437.0	470.7	507.9
32.5°	253.8	260.6	270.1	282.6	298.8	320.0	350.3	387.2	414.7	450.1	489.0
35°	232.4	240.3	248.0	259.9	273.0	292.3	315.3	354.8	382.1	417.0	456.1
37.5°	214.7	219.6	228.1	237.5	251.4	265.8	285.7	321.1	350.6	384.9	424.9
40°	201.3	207.4	213.7	224.2	235.6	249.4	268.9	295.3	329.1	362.8	401.8
42.5°	188.2	195.9	202.7	209.7	222.1	236.0	251.9	274.2	308.8	340.6	378.6
45°	172.4	177.4	184.4	192.2	202.4	214.2	228.3	247.8	281.0	308.5	344.1
47.5°	154.1	161.4	166.0	173.5	183.2	194.5	207.6	224.5	251.3	277.1	310.2
50°	141.5	149.0	155.6	162.4	171.0	181.9	192.9	209.2	230.8	257.8	288.7
52.5°	130.8	137.4	143.8	150.6	159.1	169.0	179.4	193.8	212.2	237.1	267.1
55°	116.1	120.2	126.8	133.6	141.1	150.6	160.6	172.6	188.5	209.4	233.7
57.5°	101.0	105.7	110.9	117.8	125.4	132.7	141.7	152.6	165.1	184.0	204.8
60°	92.5	96.1	100.4	107.4	114.5	121.1	129.7	138.8	150.6	167.0	184.7
62.5°	83.0	86.5	90.4	96.5	103.4	109.4	117.0	126.6	136.6	151.5	167.0
65°	67.2	72.2	76.1	81.5	87.2	93.6	99.5	107.2	116.1	127.9	141.7
67.5°	55.7	58.3	61.9	66.8	72.6	78.1	83.7	89.7	97.4	106.5	117.5
70°	50.7	51.6	52.2	57.0	62.5	67.9	73.1	78.8	85.4	92.9	102.4
72.5°	44.7	45.6	46.4	48.5	52.8	58.3	63.7	67.9	74.1	80.4	88.1
75°	35.4	36.8	37.5	38.6	40.2	43.8	48.8	52.9	56.6	61.3	67.5
77.5°	27.0	27.8	28.5	29.7	30.7	32.3	35.2	38.8	42.3	45.0	49.2
80°	21.4	21.6	22.5	22.9	24.3	25.4	26.8	29.8	33.2	34.3	37.3
82.5°	16.1	16.3	17.0	17.5	18.1	19.1	20.8	21.6	24.3	25.8	27.6
85°	8.9	8.6	9.3	9.3	9.8	10.2	10.7	11.8	12.5	14.3	14.8
87.5°	10.4	10.6	10.6	9.2	7.6	6.8	6.2	6.0	5.9	5.5	5.5
90°	38.3	39.5	38.3	31.4	23.2	17.4	13.9	11.6	9.3	4.6	1.2
92.5°	127.6	151.0	148.9	115.9	79.0	52.7	41.8	33.9	28.8	20.4	14.2
95°	398.5	455.4	403.1	268.3	167.3	113.8	86.0	67.4	56.9	45.3	40.7
97.5°	815.5	777.4	585.5	361.5	220.7	153.6	122.0	100.6	84.8	72.5	66.2
100°	1085.0	917.7	631.9	381.0	239.3	177.7	145.2	122.0	103.4	92.9	89.4
102.5°	1185.4	922.4	614.3	382.0	256.0	199.1	166.6	142.4	123.8	113.4	110.8
105°	1169.8	860.8	579.7	388.0	284.6	230.0	197.5	171.9	154.5	146.4	141.7
107.5°	1067.8	794.8	562.5	404.0	313.9	260.9	228.2	202.8	186.8	178.9	175.2
110°	1003.7	763.2	558.8	417.0	333.4	282.3	248.6	224.2	209.1	202.1	197.5



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	959.1	742.8	559.7	431.0	352.0	302.7	268.1	244.6	230.5	222.6	217.9
115°	903.8	720.2	564.6	451.9	381.0	331.1	299.7	276.5	262.5	255.6	249.8
117.5°	868.9	709.3	572.9	474.2	407.7	361.5	329.0	306.7	294.4	287.4	282.8
120°	850.3	702.8	578.5	489.1	426.3	381.0	348.5	325.3	314.8	307.8	303.2
122.5°	834.5	699.1	585.0	502.1	444.0	401.5	368.0	344.8	333.4	326.4	322.7
125°	812.0	692.4	594.8	522.8	470.5	428.7	396.1	372.9	359.0	352.0	348.5
127.5°	791.1	688.4	604.8	542.0	495.1	454.4	421.0	398.7	383.4	373.6	368.9
130°	777.2	686.5	612.2	554.1	510.0	469.3	436.8	413.6	397.3	385.7	381.0
132.5°	766.0	685.6	619.6	566.2	523.0	484.2	451.7	427.5	410.3	397.8	392.2
135°	750.4	684.2	628.5	582.0	541.3	504.2	471.6	444.9	427.5	413.6	408.9
137.5°	739.5	684.0	636.4	594.1	556.2	519.5	489.3	462.8	444.2	430.3	424.7
140°	733.0	683.1	640.1	600.6	564.6	529.7	499.5	474.0	455.4	441.4	436.8
142.5°	726.5	683.1	642.9	606.2	571.1	537.2	508.8	484.2	465.6	452.6	448.9
145°	717.9	680.7	645.9	613.4	580.8	549.5	523.9	500.7	483.3	471.6	467.0
147.5°	709.1	676.6	646.8	617.3	588.7	559.2	536.5	517.2	501.1	490.0	486.5
150°	701.6	673.8	645.9	619.2	592.5	565.7	544.8	527.4	512.3	503.0	499.5
152.5°	695.1	669.1	644.0	620.1	596.2	572.2	553.2	536.7	523.4	514.2	512.5
155°	683.1	661.0	641.2	621.5	601.7	582.0	564.6	551.8	539.0	532.0	530.9
157.5°	671.7	652.6	635.9	621.5	605.7	589.0	574.3	564.1	553.0	547.4	546.2
160°	663.3	647.1	633.1	621.5	607.6	593.6	580.8	571.5	562.2	557.6	556.4
162.5°	655.9	642.4	630.3	620.6	608.5	596.4	586.4	578.0	570.6	566.0	566.7
165°	643.6	633.1	625.0	618.0	609.9	599.4	592.5	586.6	579.7	577.4	578.5
167.5°	631.5	625.0	619.6	616.4	609.6	602.0	597.6	593.4	589.0	586.9	588.3
170°	625.0	620.3	616.8	614.5	608.7	602.9	599.4	597.1	593.6	592.5	594.8
172.5°	618.5	614.8	613.1	611.7	607.8	603.8	601.3	599.9	596.4	597.1	598.5
175°	609.9	608.7	607.6	608.7	606.4	604.1	602.9	602.9	600.6	601.7	602.9
177.5°	605.0	604.1	605.0	606.9	605.0	604.1	604.1	604.1	602.2	603.1	605.0
180°	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	657.6	658.1	661.7	663.4	666.6	667.9	669.4	669.0	669.0	669.7	674.8
5°	659.0	663.5	670.3	676.9	683.3	688.7	692.4	696.0	697.4	703.9	709.8
7.5°	656.6	665.0	676.2	686.3	698.3	707.7	715.5	722.6	727.4	737.0	746.8
10°	653.5	665.3	678.0	691.0	707.6	720.1	732.8	742.6	745.7	760.0	768.2
12.5°	647.3	663.1	679.3	696.1	712.3	729.5	743.5	753.3	764.5	777.3	792.4
15°	638.1	656.2	677.4	698.9	722.1	743.0	758.0	775.0	787.3	801.4	814.6
17.5°	624.8	648.2	675.0	700.0	726.8	749.2	769.9	786.2	794.8	802.9	804.8
20°	614.2	639.4	671.0	700.5	727.3	753.2	773.7	787.3	789.6	789.8	777.8
22.5°	602.8	631.3	664.3	694.5	726.6	755.4	771.3	777.1	768.1	752.7	729.4
25°	581.7	614.7	653.1	687.6	722.6	749.8	755.3	745.1	713.5	680.3	638.3
27.5°	558.9	596.0	637.1	675.5	712.8	729.7	717.9	681.0	624.2	574.7	514.8
30°	542.2	583.8	624.2	667.1	701.7	708.9	681.9	627.6	561.3	486.8	427.0
32.5°	523.1	566.7	611.1	655.5	684.4	677.3	632.7	565.8	488.1	414.8	358.4
35°	495.9	540.8	588.8	633.3	651.7	621.0	554.2	467.2	387.7	319.4	280.5
37.5°	464.4	513.4	563.2	604.1	602.8	551.7	460.7	370.9	304.1	263.6	236.0
40°	442.0	491.6	545.4	579.9	565.2	498.6	400.0	315.3	266.4	234.2	214.0
42.5°	420.6	470.3	523.8	551.2	525.5	443.7	345.5	279.1	238.8	213.7	197.3
45°	384.1	436.6	486.1	501.3	455.4	365.3	279.4	231.2	204.4	185.8	174.5
47.5°	348.4	400.1	445.3	445.5	383.5	296.2	235.7	200.1	177.2	162.8	154.6
50°	326.6	375.7	413.6	407.7	337.3	263.5	210.8	180.1	161.1	149.9	141.3
52.5°	302.1	349.7	382.6	365.8	298.2	231.9	188.4	162.7	146.9	137.2	129.5
55°	266.4	308.7	331.9	306.4	243.3	192.9	159.2	139.0	127.2	119.0	112.4
57.5°	231.4	266.3	280.8	251.2	200.4	159.9	134.7	119.5	107.8	101.9	98.5
60°	209.4	239.2	249.4	216.7	174.2	139.9	119.3	105.2	96.5	92.7	89.3
62.5°	187.8	212.1	216.3	186.4	151.9	122.5	104.7	92.8	87.1	83.4	80.2
65°	155.8	173.3	171.3	147.2	120.2	97.2	84.3	77.0	72.7	67.5	61.8
67.5°	128.3	139.0	132.5	114.5	91.7	75.6	67.1	61.6	56.2	51.3	50.0
70°	110.8	117.0	110.2	93.6	75.2	63.4	56.6	50.0	46.8	45.7	43.6
72.5°	94.1	96.3	88.9	74.7	61.2	52.5	45.8	42.2	40.4	39.5	38.2
75°	70.6	69.1	62.7	51.6	42.5	36.6	34.5	33.2	32.0	31.1	30.4
77.5°	49.6	47.3	41.6	34.3	29.6	26.8	25.5	24.8	24.3	23.8	23.1
80°	37.3	35.7	30.0	24.5	22.5	21.1	20.4	19.5	19.5	19.1	18.4
82.5°	27.3	25.5	20.5	18.0	16.9	16.0	15.5	15.0	14.8	14.9	14.4
85°	14.3	11.6	10.2	9.8	9.1	8.6	8.9	8.4	8.4	8.4	8.2
87.5°	5.3	5.3	5.6	5.9	6.8	7.9	9.4	10.8	11.2	10.8	10.7
90°	4.6	9.3	11.6	13.9	17.4	23.2	31.4	38.3	39.5	38.3	37.2
92.5°	20.4	28.8	33.9	41.8	52.7	79.0	115.9	148.9	151.0	127.6	101.3
95°	45.3	56.9	67.4	86.0	113.8	167.3	268.3	403.1	455.4	398.5	304.4
97.5°	72.5	84.8	100.6	122.0	153.6	220.7	361.5	585.5	777.4	815.5	710.2
100°	92.9	103.4	122.0	145.2	177.7	239.3	381.0	631.9	917.7	1085.0	1060.6
102.5°	113.4	123.8	142.4	166.6	199.1	256.0	382.0	614.3	922.4	1185.4	1290.2
105°	146.4	154.5	171.9	197.5	230.0	284.6	388.0	579.7	860.8	1169.8	1411.4
107.5°	178.9	186.8	202.8	228.2	260.9	313.9	404.0	562.5	794.8	1067.8	1324.1
110°	202.1	209.1	224.2	248.6	282.3	333.4	417.0	558.8	763.2	1003.7	1248.8



TEST NUMBER: P331641

CATALOG NUMBER: SA2XXRDIP-C290D1080U835-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	222.6	230.5	244.6	268.1	302.7	352.0	431.0	559.7	742.8	959.1	1180.0
115°	255.6	262.5	276.5	299.7	331.1	381.0	451.9	564.6	720.2	903.8	1095.5
117.5°	287.4	294.4	306.7	329.0	361.5	407.7	474.2	572.9	709.3	868.9	1031.8
120°	307.8	314.8	325.3	348.5	381.0	426.3	489.1	578.5	702.8	850.3	1000.2
122.5°	326.4	333.4	344.8	368.0	401.5	444.0	502.1	585.0	699.1	834.5	975.1
125°	352.0	359.0	372.9	396.1	428.7	470.5	522.8	594.8	692.4	812.0	938.6
127.5°	373.6	383.4	398.7	421.0	454.4	495.1	542.0	604.8	688.4	791.1	902.6
130°	385.7	397.3	413.6	436.8	469.3	510.0	554.1	612.2	686.5	777.2	879.4
132.5°	397.8	410.3	427.5	451.7	484.2	523.0	566.2	619.6	685.6	766.0	857.1
135°	413.6	427.5	444.9	471.6	504.2	541.3	582.0	628.5	684.2	750.4	825.9
137.5°	430.3	444.2	462.8	489.3	519.5	556.2	594.1	636.4	684.0	739.5	801.1
140°	441.4	455.4	474.0	499.5	529.7	564.6	600.6	640.1	683.1	733.0	785.3
142.5°	452.6	465.6	484.2	508.8	537.2	571.1	606.2	642.9	683.1	726.5	772.3
145°	471.6	483.3	500.7	523.9	549.5	580.8	613.4	645.9	680.7	717.9	753.9
147.5°	490.0	501.1	517.2	536.5	559.2	588.7	617.3	646.8	676.6	709.1	739.8
150°	503.0	512.3	527.4	544.8	565.7	592.5	619.2	645.9	673.8	701.6	729.5
152.5°	514.2	523.4	536.7	553.2	572.2	596.2	620.1	644.0	669.1	695.1	719.3
155°	532.0	539.0	551.8	564.6	582.0	601.7	621.5	641.2	661.0	683.1	705.1
157.5°	547.4	553.0	564.1	574.3	589.0	605.7	621.5	635.9	652.6	671.7	688.6
160°	557.6	562.2	571.5	580.8	593.6	607.6	621.5	633.1	647.1	663.3	678.4
162.5°	566.0	570.6	578.0	586.4	596.4	608.5	620.6	630.3	642.4	655.9	668.2
165°	577.4	579.7	586.6	592.5	599.4	609.9	618.0	625.0	633.1	643.6	652.9
167.5°	586.9	589.0	593.4	597.6	602.0	609.6	616.4	619.6	625.0	631.5	638.2
170°	592.5	593.6	597.1	599.4	602.9	608.7	614.5	616.8	620.3	625.0	630.8
172.5°	597.1	596.4	599.9	601.3	603.8	607.8	611.7	613.1	614.8	618.5	622.4
175°	601.7	600.6	602.9	602.9	604.1	606.4	608.7	607.6	608.7	609.9	613.4
177.5°	603.1	602.2	604.1	604.1	604.1	605.0	606.9	605.0	604.1	605.0	606.9
180°	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1	604.1



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	676.6	679.0	680.1	680.1	681.4	680.8	680.3
5°	715.5	719.8	720.8	724.8	727.8	726.9	727.3
7.5°	754.2	761.1	768.0	771.1	771.6	773.4	774.1
10°	778.0	783.7	794.3	792.8	800.7	805.3	797.8
12.5°	800.9	808.6	816.0	818.0	822.5	824.0	821.0
15°	821.6	825.7	826.1	825.0	826.4	825.2	820.9
17.5°	802.3	795.6	782.2	775.8	770.8	763.3	760.3
20°	770.3	750.7	728.0	718.9	708.3	687.4	692.4
22.5°	701.2	679.0	656.2	629.7	617.0	597.2	596.0
25°	593.8	555.4	513.1	483.6	466.3	446.6	437.9
27.5°	461.7	413.3	378.7	361.2	345.2	329.6	328.9
30°	374.8	338.5	311.7	296.7	286.9	280.3	281.7
32.5°	315.9	291.0	272.9	260.5	253.3	248.3	248.2
35°	258.3	241.2	229.6	224.4	219.2	215.6	215.8
37.5°	221.0	210.8	204.3	198.6	195.3	193.5	192.5
40°	201.9	193.5	188.5	185.1	182.4	179.9	179.4
42.5°	186.9	179.9	174.9	172.2	169.7	167.9	167.5
45°	165.8	160.1	155.6	152.6	151.5	149.9	149.9
47.5°	147.5	141.9	138.4	136.5	134.6	133.5	133.5
50°	135.2	130.8	127.7	126.5	124.9	124.3	124.0
52.5°	124.1	120.8	118.6	117.8	117.1	116.3	116.4
55°	109.0	107.2	106.3	105.6	104.5	103.1	104.0
57.5°	96.4	94.8	92.4	90.2	89.2	88.2	88.6
60°	87.5	84.3	81.1	78.6	77.9	75.9	75.9
62.5°	76.2	71.7	67.8	66.4	65.7	64.8	64.6
65°	58.6	56.8	55.9	55.0	54.5	54.5	54.1
67.5°	48.6	47.8	46.8	46.6	46.2	46.0	45.9
70°	42.9	42.0	41.6	41.3	40.9	41.1	40.4
72.5°	37.5	36.8	36.7	36.1	35.8	35.8	35.3
75°	29.5	29.5	29.3	29.1	28.6	28.4	28.6
77.5°	22.7	22.8	22.4	22.3	22.3	22.3	22.1
80°	18.2	18.4	18.2	17.9	17.7	17.9	17.7
82.5°	14.4	14.0	14.0	13.9	13.9	13.8	13.7
85°	8.2	8.4	8.2	8.0	8.0	8.0	8.2
87.5°	10.1	10.5	10.8	10.8	10.8	10.8	10.6
90°	34.9	37.2	38.3	38.3	38.3	38.3	38.3
92.5°	86.9	77.1	69.9	69.0	65.3	66.2	64.4
95°	233.5	184.7	159.1	144.0	134.8	131.3	132.4
97.5°	581.1	455.4	371.5	316.0	287.4	270.4	260.7
100°	916.6	757.4	616.8	520.4	470.5	436.8	415.9
102.5°	1257.6	1141.2	992.3	887.5	802.3	760.2	731.9
105°	1542.7	1557.8	1519.5	1447.4	1375.4	1325.5	1309.2
107.5°	1521.8	1642.6	1698.8	1707.9	1703.9	1693.9	1672.3
110°	1456.7	1605.4	1700.7	1750.6	1772.7	1783.2	1782.0



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	1379.6	1538.5	1647.7	1717.2	1754.1	1773.9	1780.1
115°	1274.4	1426.5	1546.2	1628.7	1682.1	1712.3	1722.8
117.5°	1188.9	1326.9	1439.1	1523.2	1579.6	1611.5	1620.3
120°	1144.2	1267.4	1373.1	1454.4	1509.0	1542.7	1554.3
122.5°	1107.1	1223.7	1319.2	1392.1	1445.8	1475.8	1485.5
125°	1058.3	1160.5	1247.6	1315.0	1359.2	1388.2	1397.5
127.5°	1010.9	1107.3	1187.7	1246.5	1287.8	1312.9	1320.4
130°	979.3	1071.1	1147.7	1204.7	1244.2	1267.4	1276.7
132.5°	949.6	1033.9	1105.9	1161.9	1201.4	1222.8	1231.1
135°	902.6	979.3	1044.3	1094.3	1132.6	1153.5	1158.2
137.5°	865.2	926.1	982.8	1028.3	1061.3	1079.7	1086.6
140°	841.1	894.5	945.6	982.8	1013.0	1030.4	1037.4
142.5°	819.7	865.7	908.4	943.7	971.2	986.7	988.1
145°	792.3	828.3	862.0	889.8	909.6	921.2	924.7
147.5°	770.0	798.1	822.7	845.7	861.5	869.4	871.5
150°	755.1	779.5	800.4	817.8	831.8	838.7	839.9
152.5°	743.0	763.7	781.8	795.5	807.6	812.7	812.9
155°	723.7	741.1	753.9	766.7	774.8	779.5	777.2
157.5°	704.2	718.8	728.8	737.9	744.6	746.7	746.7
160°	691.2	704.0	712.1	720.2	726.0	727.2	727.2
162.5°	679.1	690.0	696.3	704.4	708.4	709.5	708.6
165°	661.0	669.1	673.8	678.4	683.1	683.1	681.9
167.5°	644.5	650.1	654.3	656.3	658.9	658.7	657.3
170°	634.3	638.9	641.2	642.4	645.9	644.7	642.4
172.5°	625.0	628.7	630.1	631.3	632.9	631.7	630.3
175°	614.5	615.7	616.8	616.8	618.0	616.8	614.5
177.5°	606.9	607.8	607.8	607.8	607.8	606.9	605.0
180°	604.1	604.1	604.1	604.1	604.1	604.1	604.1

(END OF REPORT)