

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: P331278-840

Luminaire Tested: **SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331278-840
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: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 1080 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

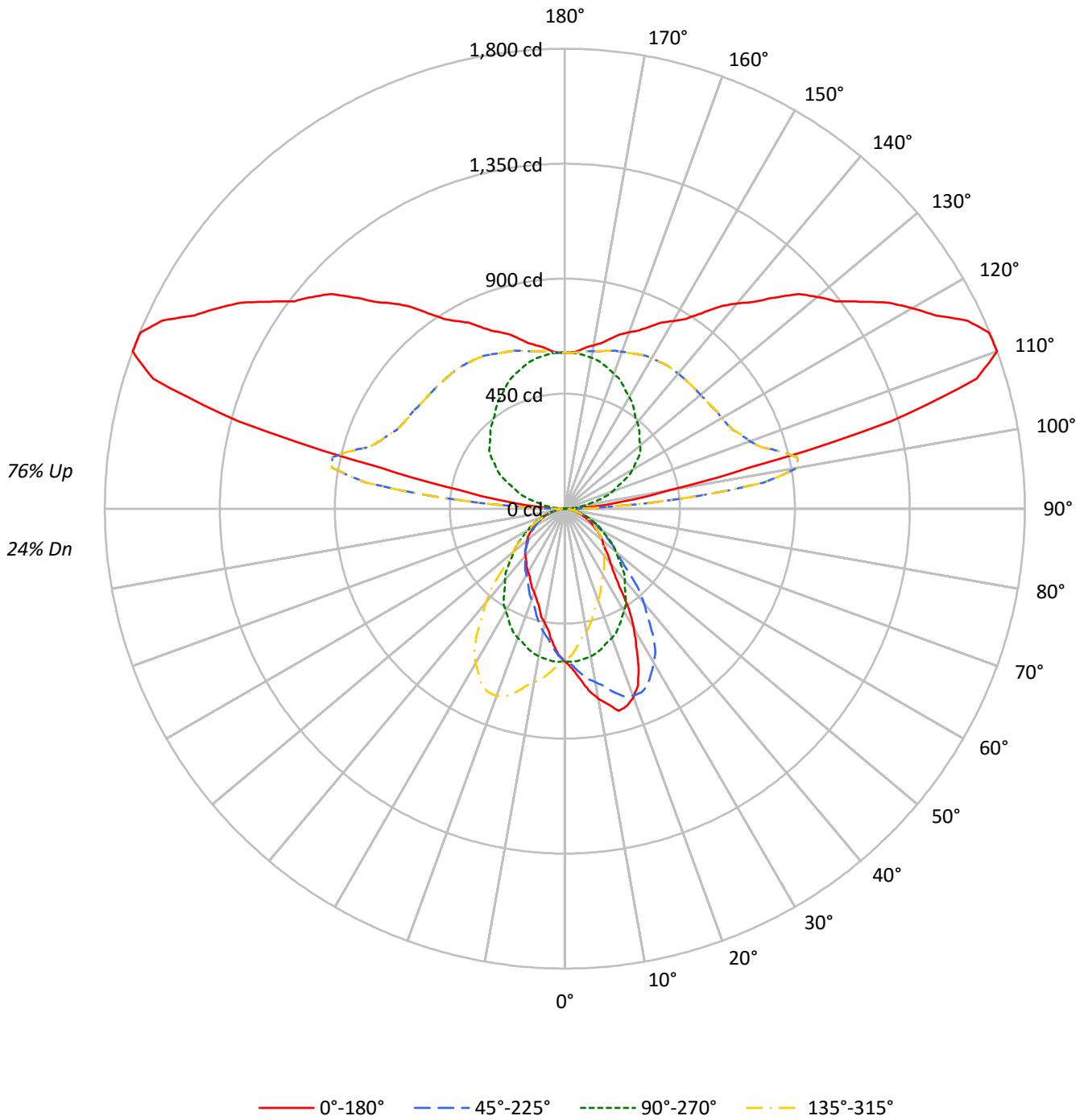
Lumens per Lamp: N/A
Luminaire Lumens: 5567.4 lumens
Efficiency: N/A
Efficacy: 131.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.23
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Semi-Indirect

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	50	30	10	0	
RCR																						
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24				24
1	92	88	84	81	82	78	75	73	60	58	57	44	43	42	29	28	27				20	
2	84	77	71	66	74	69	64	60	53	50	47	39	37	35	25	24	23				17	
3	77	68	61	56	68	61	55	50	47	43	40	34	32	30	23	21	20				15	
4	70	60	53	47	62	54	47	43	42	37	34	31	28	26	20	19	17				13	
5	64	53	46	40	57	48	41	37	37	33	29	28	25	22	18	17	15				12	
6	59	48	40	35	53	43	36	32	34	29	26	25	22	19	17	15	14				10	
7	55	43	36	30	49	39	32	28	30	26	22	23	20	17	15	14	12				9	
8	51	39	32	27	45	35	29	24	28	23	20	21	18	15	14	12	11				8	
9	47	36	28	24	42	32	26	22	25	21	18	19	16	14	13	11	10				8	
10	44	32	26	21	39	29	23	19	23	19	16	18	15	12	12	10	9				7	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9637	9637	9637	9637
5°	10804	9700	8596	9700
10°	12381	9621	7438	9621
15°	13697	9444	6572	9444
20°	13490	9256	5991	9256
25°	12162	9002	5624	9002
30°	10051	8600	5354	8600
35°	7324	8180	5164	8180
40°	5851	7685	5056	7685
45°	5112	7108	4914	7108
50°	4808	6551	4818	6551
55°	4428	5987	4687	5987
60°	4059	5383	4492	5383
65°	3698	4844	4294	4844
70°	3356	4319	4008	4319
75°	2982	3737	3550	3737
80°	2566	3087	2854	3087
85°	2297	2297	1704	2297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.8	1.0
10°-20°	165.3	3.0
20°-30°	239.9	4.3
30°-40°	253.1	4.5
40°-50°	224.1	4.0
50°-60°	178.8	3.2
60°-70°	121.6	2.2
70°-80°	62.3	1.1
80°-90°	20.5	0.4
90°-100°	243.9	4.4
100°-110°	827.7	14.9
110°-120°	879.3	15.8
120°-130°	723.9	13.0
130°-140°	581.3	10.4
140°-150°	439.3	7.9
150°-160°	308.7	5.5
160°-170°	181.7	3.3
170°-180°	59.1	1.1
0°-30°	462.0	8.3
0°-40°	715.1	12.8
0°-60°	1118.0	20.1
0°-90°	1322.4	23.8
90°-120°	1951.0	35.0
90°-150°	3695.4	66.4
90°-180°	4245.0	76.2
0°-180°	5567.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	597	597	597	597	597	
5°	667	598	530	598	667	67
15°	819	565	393	565	819	226
25°	683	505	316	505	683	309
35°	372	415	262	415	372	242
45°	224	311	215	311	224	176
55°	157	213	166	213	157	141
65°	97	127	112	127	97	96
75°	48	60	57	60	48	51
85°	12	12	9	12	12	15
90°	39	1	39	1	39	21
95°	134	41	134	41	134	174
105°	1322	143	1322	143	1322	1279
115°	1740	252	1740	252	1740	1704
125°	1411	352	1411	352	1411	1275
135°	1170	413	1170	413	1170	909
145°	934	472	934	472	934	593
155°	785	536	785	536	785	366
165°	689	584	689	584	689	197
175°	621	609	621	609	621	60
180°	610	610	610	610	610	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	624.4	624.6	625.0	622.1	621.7	621.7	619.1	616.9	614.3	610.9	611.3
5°	666.6	669.1	670.0	667.3	663.2	662.8	658.8	652.5	646.4	641.7	638.2
7.5°	717.0	718.0	715.8	712.2	709.1	703.6	696.3	689.2	679.2	670.1	663.4
10°	755.2	756.6	752.7	747.4	743.1	736.6	726.1	715.3	702.3	689.6	679.5
12.5°	784.2	787.6	782.5	781.9	774.5	765.6	753.1	747.6	729.2	711.7	700.7
15°	819.4	819.2	819.7	815.3	809.8	808.4	795.2	780.6	754.8	744.4	726.5
17.5°	809.2	812.7	814.4	814.3	814.2	813.2	809.0	799.9	786.9	770.1	749.5
20°	785.1	789.6	790.3	795.6	798.6	802.4	804.1	801.5	793.6	779.5	761.6
22.5°	747.6	748.9	751.0	759.2	765.7	775.5	780.5	789.1	786.0	779.1	764.2
25°	682.7	680.4	688.4	692.6	707.5	723.1	734.4	746.7	757.7	764.4	760.0
27.5°	604.8	601.4	613.4	624.4	636.4	653.4	670.9	691.6	708.7	730.3	737.7
30°	539.1	541.2	552.6	564.3	582.7	606.5	626.3	648.9	673.6	697.6	714.4
32.5°	468.3	476.2	483.4	501.4	517.6	544.1	573.1	601.5	632.1	659.4	685.4
35°	371.6	380.8	390.9	403.9	426.7	453.0	481.3	519.6	561.4	598.7	629.4
37.5°	312.9	311.3	317.1	326.6	345.0	366.3	398.8	436.6	485.7	529.7	573.1
40°	277.6	276.7	280.7	289.5	303.5	319.1	347.6	380.8	426.5	480.2	531.8
42.5°	253.4	253.9	256.2	262.4	272.0	284.8	306.1	334.4	376.2	426.8	482.2
45°	223.9	225.5	228.0	231.1	236.5	247.1	259.0	279.2	312.3	354.5	409.0
47.5°	202.7	202.8	205.3	207.9	211.2	217.1	226.9	239.5	262.9	297.2	344.2
50°	191.4	189.8	191.6	193.6	197.0	201.2	207.6	219.5	235.1	262.9	302.2
52.5°	177.3	177.4	179.0	179.9	182.9	187.0	192.9	201.2	215.3	237.0	269.2
55°	157.3	158.5	159.5	160.8	163.6	166.5	171.2	176.6	187.6	203.9	227.8
57.5°	138.6	139.0	139.9	142.5	144.2	146.9	151.3	156.3	163.5	175.5	193.5
60°	125.7	125.7	127.5	128.7	131.0	133.7	137.1	142.0	148.5	158.2	172.8
62.5°	114.0	113.8	114.5	116.4	118.2	120.7	124.1	128.3	134.3	143.1	154.9
65°	96.8	96.3	97.8	98.2	100.0	102.5	105.3	109.7	114.5	120.9	131.5
67.5°	80.3	80.9	81.6	82.4	83.4	86.1	88.0	91.0	95.1	100.5	107.6
70°	71.1	71.1	71.1	71.8	73.2	74.5	76.3	78.9	82.8	87.4	93.8
72.5°	60.8	61.6	62.3	61.9	63.6	64.4	66.7	68.1	71.8	74.7	80.4
75°	47.8	47.8	47.8	48.9	49.6	50.2	51.6	53.0	54.8	58.5	61.5
77.5°	35.6	35.5	35.7	36.1	36.8	37.6	38.0	39.2	40.9	42.6	45.1
80°	27.6	28.0	28.2	28.7	28.7	29.1	29.4	31.0	32.1	33.2	34.8
82.5°	21.3	21.4	21.4	21.5	21.7	22.0	22.6	23.1	23.5	24.4	25.7
85°	12.4	12.1	12.1	12.6	12.4	12.4	12.8	13.3	13.3	13.5	14.2
87.5°	12.5	12.5	12.7	12.5	12.5	12.4	12.0	12.3	12.7	13.1	13.0
90°	38.7	38.7	38.7	38.7	38.7	37.6	35.2	37.6	38.7	39.9	38.7
92.5°	65.0	66.9	65.9	69.7	70.6	77.9	87.8	102.3	128.9	152.5	150.4
95°	133.7	132.6	136.1	145.4	160.7	186.5	235.8	307.4	402.4	459.9	407.1
97.5°	263.3	273.1	290.2	319.1	375.2	459.9	586.8	717.2	823.5	785.1	591.3
100°	420.0	441.1	475.1	525.5	622.9	764.9	925.6	1071.1	1095.7	926.8	638.1
102.5°	739.1	767.7	810.2	896.3	1002.1	1152.5	1270.0	1302.9	1197.1	931.5	620.4
105°	1322.1	1338.6	1389.0	1461.7	1534.5	1573.2	1557.9	1425.3	1181.3	869.3	585.4
107.5°	1688.8	1710.6	1720.7	1724.7	1715.6	1658.8	1536.8	1337.2	1078.3	802.6	568.0
110°	1799.6	1800.8	1790.2	1767.9	1717.5	1621.2	1471.1	1261.1	1013.6	770.7	564.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1797.7	1791.4	1771.4	1734.1	1664.0	1553.7	1393.2	1191.6	968.6	750.1	565.2
115°	1739.8	1729.2	1698.7	1644.8	1561.5	1440.6	1287.0	1106.3	912.7	727.3	570.2
117.5°	1636.3	1627.4	1595.2	1538.2	1453.3	1340.0	1200.6	1042.0	877.5	716.3	578.6
120°	1569.6	1557.9	1523.9	1468.7	1386.6	1279.9	1155.5	1010.1	858.7	709.7	584.2
122.5°	1500.2	1490.4	1460.1	1405.8	1332.2	1235.8	1118.0	984.7	842.7	706.0	590.8
125°	1411.3	1401.9	1372.6	1328.0	1259.9	1171.9	1068.7	947.9	820.0	699.2	600.7
127.5°	1333.4	1325.9	1300.5	1258.8	1199.4	1118.2	1020.9	911.5	798.9	695.2	610.8
130°	1289.3	1279.9	1256.5	1216.6	1159.0	1081.7	989.0	888.1	784.9	693.3	618.2
132.5°	1243.2	1234.9	1213.3	1173.4	1116.8	1044.1	959.0	865.6	773.6	692.4	625.7
135°	1169.6	1164.9	1143.8	1105.1	1054.6	989.0	911.5	834.0	757.8	690.9	634.7
137.5°	1097.3	1090.4	1071.8	1038.4	992.5	935.2	873.7	809.0	746.8	690.7	642.7
140°	1047.6	1040.6	1023.0	992.5	954.9	903.3	849.4	793.0	740.2	689.8	646.4
142.5°	997.8	996.4	980.8	953.0	917.4	874.2	827.8	779.9	733.7	689.8	649.2
145°	933.8	930.3	918.6	898.6	870.5	836.5	800.1	761.3	725.0	687.4	652.3
147.5°	880.1	878.0	870.0	854.0	830.8	806.0	777.6	747.1	716.1	683.3	653.2
150°	848.2	847.0	840.0	825.9	808.3	787.2	762.5	736.7	708.5	680.4	652.3
152.5°	820.9	820.7	815.6	803.3	789.5	771.2	750.3	726.4	702.0	675.7	650.4
155°	784.9	787.2	782.4	774.3	761.3	748.4	730.8	712.1	689.8	667.5	647.5
157.5°	754.1	754.1	751.9	745.2	736.0	725.9	711.1	695.4	678.3	659.0	642.2
160°	734.4	734.4	733.2	727.3	719.1	710.9	698.0	685.1	669.8	653.5	639.3
162.5°	715.6	716.5	715.4	711.3	703.2	696.8	685.8	674.8	662.4	648.7	636.5
165°	688.6	689.8	689.8	685.1	680.4	675.7	667.5	659.3	649.9	639.3	631.2
167.5°	663.8	665.2	665.4	662.8	660.8	656.5	650.9	644.5	637.7	631.2	625.7
170°	648.7	651.1	652.3	648.7	647.5	645.2	640.6	637.0	631.2	626.4	622.9
172.5°	636.5	637.9	639.1	637.5	636.3	634.9	631.2	628.5	624.6	620.9	619.1
175°	620.6	622.9	624.1	622.9	622.9	621.8	620.6	619.5	615.9	614.7	613.6
177.5°	611.0	612.9	613.8	613.8	613.8	613.8	612.9	612.9	611.0	610.1	611.0
180°	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	612.5	611.1	610.2	606.8	603.9	601.0	600.1	600.4	596.3	592.5	590.9
5°	636.4	631.8	627.4	621.3	613.9	605.8	601.8	598.5	590.5	581.8	576.7
7.5°	657.7	651.2	642.8	631.2	620.5	607.8	599.8	592.7	581.0	568.7	561.1
10°	670.8	661.9	651.1	636.8	623.8	608.3	597.6	586.8	573.1	558.4	549.2
12.5°	682.0	669.9	659.3	641.1	625.6	606.3	593.6	578.3	563.9	546.4	537.5
15°	708.6	686.4	666.2	645.5	626.5	599.7	585.4	565.0	546.0	524.4	514.1
17.5°	729.2	704.2	672.5	646.2	624.0	594.2	573.4	549.0	526.4	501.8	487.8
20°	740.9	712.3	678.1	646.9	620.4	586.3	563.6	538.7	512.3	484.5	469.4
22.5°	747.9	717.8	684.0	644.2	613.0	580.0	551.4	523.9	497.3	467.3	451.4
25°	750.1	722.7	686.8	641.9	603.8	566.4	532.0	505.3	473.0	445.0	421.9
27.5°	739.2	719.5	685.1	637.5	593.2	549.5	511.1	481.0	446.9	416.5	393.1
30°	725.8	714.4	680.9	633.2	584.7	537.8	495.5	461.3	427.4	396.7	372.7
32.5°	705.1	702.7	673.2	626.9	575.7	522.9	479.2	444.6	407.0	376.8	354.1
35°	664.4	675.4	656.8	613.0	558.9	501.7	454.4	415.0	376.0	347.1	325.8
37.5°	609.8	637.1	632.3	592.6	535.9	478.7	426.5	385.3	348.1	318.9	298.0
40°	572.1	607.0	612.1	576.9	519.9	460.9	405.6	364.6	328.3	301.6	280.5
42.5°	531.8	572.5	586.3	558.3	502.2	442.1	386.9	344.4	308.4	282.6	263.9
45°	464.1	518.0	543.0	526.9	472.8	411.3	354.5	311.3	278.7	254.4	239.9
47.5°	400.8	459.7	493.3	487.7	440.1	379.2	323.0	281.6	249.8	230.5	217.5
50°	356.1	416.6	457.2	459.1	416.6	356.3	299.8	260.8	231.7	213.6	203.0
52.5°	317.1	375.0	419.2	429.0	390.3	332.4	279.1	240.2	214.6	197.9	188.5
55°	266.3	315.2	364.3	382.2	351.2	296.2	246.8	212.7	188.5	177.1	168.8
57.5°	221.5	262.2	307.5	327.3	308.2	261.1	214.8	185.1	165.6	155.5	149.2
60°	197.7	229.8	270.2	293.9	277.3	235.4	195.0	166.7	150.7	141.8	135.8
62.5°	175.7	204.2	238.3	259.9	251.0	211.4	175.2	150.3	136.4	128.1	123.7
65°	145.0	167.4	193.9	213.8	207.8	177.8	148.1	126.8	115.8	109.2	105.7
67.5°	119.4	135.6	153.9	171.4	166.6	145.3	121.6	104.9	96.7	91.0	88.9
70°	103.2	115.6	131.9	145.9	142.0	124.6	105.7	91.5	84.4	79.6	77.6
72.5°	87.9	98.0	110.5	121.9	119.3	104.7	89.1	78.4	72.8	68.4	66.8
75°	66.3	74.1	81.7	89.3	88.6	77.4	68.2	59.9	55.5	52.1	51.4
77.5°	49.0	53.3	58.5	62.9	61.7	55.2	48.1	43.3	40.2	37.9	37.5
80°	37.4	39.9	43.6	46.8	45.2	42.4	36.7	33.2	31.0	28.7	27.8
82.5°	27.2	29.6	31.8	33.6	32.3	29.8	26.3	23.9	22.5	21.0	20.6
85°	14.2	15.6	16.6	17.0	16.6	14.9	13.3	12.4	11.2	10.5	10.3
87.5°	11.8	10.2	9.0	8.7	7.7	7.2	5.6	4.2	4.7	5.6	5.7
90°	31.7	23.4	17.6	14.0	11.7	9.4	4.6	1.2	4.6	9.4	11.7
92.5°	117.0	79.8	53.2	42.2	34.2	29.1	20.6	14.3	20.6	29.1	34.2
95°	270.9	169.0	114.9	86.8	68.1	57.5	45.7	41.1	45.7	57.5	68.1
97.5°	365.1	222.9	155.1	123.2	101.6	85.6	73.2	66.9	73.2	85.6	101.6
100°	384.8	241.7	179.5	146.6	123.2	104.4	93.8	90.3	93.8	104.4	123.2
102.5°	385.8	258.5	201.1	168.2	143.8	125.0	114.5	111.9	114.5	125.0	143.8
105°	391.8	287.4	232.3	199.4	173.6	156.0	147.8	143.1	147.8	156.0	173.6
107.5°	408.0	317.0	263.5	230.5	204.8	188.6	180.7	176.9	180.7	188.6	204.8
110°	421.1	336.7	285.1	251.1	226.4	211.2	204.1	199.4	204.1	211.2	226.4



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	435.3	355.5	305.7	270.7	247.0	232.8	224.8	220.0	224.8	232.8	247.0
115°	456.4	384.8	334.4	302.7	279.2	265.1	258.1	252.3	258.1	265.1	279.2
117.5°	478.9	411.7	365.1	332.2	309.7	297.3	290.2	285.6	290.2	297.3	309.7
120°	493.9	430.5	384.8	351.9	328.5	317.9	310.8	306.2	310.8	317.9	328.5
122.5°	507.1	448.4	405.5	371.6	348.2	336.7	329.6	325.9	329.6	336.7	348.2
125°	528.0	475.1	432.9	400.0	376.6	362.5	355.5	351.9	355.5	362.5	376.6
127.5°	547.3	500.0	458.9	425.2	402.6	387.2	377.3	372.5	377.3	387.2	402.6
130°	559.6	515.0	473.9	441.1	417.7	401.2	389.5	384.8	389.5	401.2	417.7
132.5°	571.8	528.2	489.0	456.2	431.7	414.3	401.7	396.1	401.7	414.3	431.7
135°	587.7	546.6	509.2	476.3	449.3	431.7	417.7	412.9	417.7	431.7	449.3
137.5°	600.0	561.7	524.6	494.1	467.4	448.6	434.5	428.9	434.5	448.6	467.4
140°	606.5	570.2	534.9	504.4	478.7	459.9	445.8	441.1	445.8	459.9	478.7
142.5°	612.2	576.7	542.5	513.8	489.0	470.2	457.1	453.3	457.1	470.2	489.0
145°	619.5	586.5	554.9	529.1	505.6	488.1	476.3	471.6	476.3	488.1	505.6
147.5°	623.4	594.5	564.7	541.8	522.3	506.0	494.8	491.3	494.8	506.0	522.3
150°	625.3	598.3	571.3	550.2	532.6	517.4	508.0	504.4	508.0	517.4	532.6
152.5°	626.2	602.1	577.8	558.7	542.0	528.6	519.3	517.6	519.3	528.6	542.0
155°	627.6	607.6	587.7	570.2	557.2	544.3	537.2	536.1	537.2	544.3	557.2
157.5°	627.6	611.7	594.8	580.0	569.7	558.5	552.8	551.6	552.8	558.5	569.7
160°	627.6	613.6	599.5	586.5	577.1	567.7	563.1	561.9	563.1	567.7	577.1
162.5°	626.7	614.5	602.3	592.2	583.7	576.2	571.6	572.3	571.6	576.2	583.7
165°	624.1	615.9	605.3	598.3	592.4	585.4	583.1	584.2	583.1	585.4	592.4
167.5°	622.5	615.6	607.9	603.5	599.3	594.8	592.7	594.1	592.7	594.8	599.3
170°	620.6	614.7	608.8	605.3	603.0	599.5	598.3	600.7	598.3	599.5	603.0
172.5°	617.7	613.8	609.8	607.2	605.8	602.3	603.0	604.4	603.0	602.3	605.8
175°	614.7	612.4	610.1	608.8	608.8	606.5	607.6	608.8	607.6	606.5	608.8
177.5°	612.9	611.0	610.1	610.1	610.1	608.1	609.0	611.0	609.0	608.1	610.1
180°	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	589.1	587.9	584.1	582.1	578.8	575.6	573.6	574.5	575.2	574.9	574.3
5°	572.1	567.7	561.1	555.4	551.3	543.7	540.5	538.9	537.5	535.9	534.3
7.5°	552.0	545.1	535.6	527.5	519.8	510.3	504.9	501.8	498.5	494.8	491.6
10°	537.8	528.1	518.0	506.5	497.4	488.9	481.3	476.3	471.6	467.3	464.1
12.5°	522.7	511.6	499.1	483.4	473.3	461.1	460.0	451.1	443.9	441.2	437.5
15°	498.8	483.1	467.3	448.7	440.7	429.7	422.8	415.9	409.7	405.4	404.2
17.5°	471.5	451.3	435.6	422.2	409.1	397.8	391.4	386.0	380.8	375.1	374.3
20°	450.8	433.3	416.2	404.5	390.9	379.4	371.6	366.2	361.7	358.3	355.4
22.5°	431.1	412.0	396.3	383.5	370.2	360.9	354.8	349.4	345.8	342.0	339.2
25°	399.6	384.8	367.5	353.0	342.0	336.1	331.0	326.5	324.2	321.6	318.4
27.5°	372.0	355.5	339.4	328.2	318.5	313.3	309.6	306.5	304.4	302.9	301.0
30°	352.6	335.9	323.3	312.3	304.2	298.9	296.6	294.8	292.3	291.3	290.4
32.5°	333.9	318.8	308.0	298.4	290.8	287.3	285.3	283.6	281.7	280.7	278.8
35°	307.4	294.8	284.3	278.9	272.8	269.7	268.2	265.9	264.1	263.2	262.9
37.5°	282.5	271.6	264.6	257.8	255.2	253.4	251.2	249.6	249.0	248.9	248.6
40°	266.3	257.4	251.2	245.7	244.6	241.8	239.9	238.6	238.6	238.8	238.6
42.5°	251.7	243.6	238.1	233.4	232.1	230.5	228.5	228.5	228.8	229.6	228.8
45°	229.4	223.7	219.7	217.5	215.0	213.4	213.1	213.8	214.0	214.3	215.0
47.5°	208.9	205.1	201.6	199.0	197.9	197.7	197.4	198.6	199.8	200.2	201.2
50°	196.8	192.5	189.5	187.8	186.9	186.5	186.9	188.3	189.2	190.4	191.1
52.5°	183.3	180.2	178.1	176.8	176.5	176.8	176.8	178.4	179.9	180.4	180.7
55°	164.5	162.2	161.8	159.7	160.6	160.4	161.5	162.4	163.8	165.2	165.4
57.5°	145.7	143.9	142.7	142.9	143.2	144.2	145.1	146.7	148.1	149.7	149.8
60°	133.3	132.4	131.7	131.7	132.1	133.5	134.6	136.2	137.1	138.1	138.8
62.5°	121.9	121.0	120.3	120.7	121.9	122.7	124.0	124.9	125.8	126.7	127.0
65°	103.9	103.5	104.1	104.6	104.8	105.9	107.6	108.3	109.2	109.7	111.3
67.5°	87.4	87.5	87.4	88.0	89.4	89.6	91.1	92.7	92.9	93.8	94.8
70°	76.1	76.6	77.1	77.6	78.7	79.2	80.3	81.0	81.9	82.6	83.3
72.5°	65.8	65.9	66.4	66.3	67.4	68.3	69.3	70.0	70.9	71.8	72.4
75°	50.7	50.7	51.2	51.4	52.5	53.7	53.4	53.9	54.8	55.7	56.2
77.5°	37.1	36.6	37.1	37.3	37.7	38.6	38.8	39.4	40.5	40.2	40.7
80°	28.2	27.6	28.2	28.5	28.5	29.6	29.6	30.1	30.7	30.1	30.7
82.5°	20.1	19.8	20.3	20.4	20.7	20.8	21.1	21.2	21.9	21.6	21.9
85°	10.1	9.9	10.1	9.9	10.1	10.3	10.3	10.1	10.1	10.5	9.9
87.5°	6.0	6.5	7.5	9.1	10.3	10.4	9.9	9.7	9.3	9.4	9.6
90°	14.0	17.6	23.4	31.7	38.7	39.9	38.7	37.6	35.2	37.6	38.7
92.5°	42.2	53.2	79.8	117.0	150.4	152.5	128.9	102.3	87.8	77.9	70.6
95°	86.8	114.9	169.0	270.9	407.1	459.9	402.4	307.4	235.8	186.5	160.7
97.5°	123.2	155.1	222.9	365.1	591.3	785.1	823.5	717.2	586.8	459.9	375.2
100°	146.6	179.5	241.7	384.8	638.1	926.8	1095.7	1071.1	925.6	764.9	622.9
102.5°	168.2	201.1	258.5	385.8	620.4	931.5	1197.1	1302.9	1270.0	1152.5	1002.1
105°	199.4	232.3	287.4	391.8	585.4	869.3	1181.3	1425.3	1557.9	1573.2	1534.5
107.5°	230.5	263.5	317.0	408.0	568.0	802.6	1078.3	1337.2	1536.8	1658.8	1715.6
110°	251.1	285.1	336.7	421.1	564.3	770.7	1013.6	1261.1	1471.1	1621.2	1717.5



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	270.7	305.7	355.5	435.3	565.2	750.1	968.6	1191.6	1393.2	1553.7	1664.0
115°	302.7	334.4	384.8	456.4	570.2	727.3	912.7	1106.3	1287.0	1440.6	1561.5
117.5°	332.2	365.1	411.7	478.9	578.6	716.3	877.5	1042.0	1200.6	1340.0	1453.3
120°	351.9	384.8	430.5	493.9	584.2	709.7	858.7	1010.1	1155.5	1279.9	1386.6
122.5°	371.6	405.5	448.4	507.1	590.8	706.0	842.7	984.7	1118.0	1235.8	1332.2
125°	400.0	432.9	475.1	528.0	600.7	699.2	820.0	947.9	1068.7	1171.9	1259.9
127.5°	425.2	458.9	500.0	547.3	610.8	695.2	798.9	911.5	1020.9	1118.2	1199.4
130°	441.1	473.9	515.0	559.6	618.2	693.3	784.9	888.1	989.0	1081.7	1159.0
132.5°	456.2	489.0	528.2	571.8	625.7	692.4	773.6	865.6	959.0	1044.1	1116.8
135°	476.3	509.2	546.6	587.7	634.7	690.9	757.8	834.0	911.5	989.0	1054.6
137.5°	494.1	524.6	561.7	600.0	642.7	690.7	746.8	809.0	873.7	935.2	992.5
140°	504.4	534.9	570.2	606.5	646.4	689.8	740.2	793.0	849.4	903.3	954.9
142.5°	513.8	542.5	576.7	612.2	649.2	689.8	733.7	779.9	827.8	874.2	917.4
145°	529.1	554.9	586.5	619.5	652.3	687.4	725.0	761.3	800.1	836.5	870.5
147.5°	541.8	564.7	594.5	623.4	653.2	683.3	716.1	747.1	777.6	806.0	830.8
150°	550.2	571.3	598.3	625.3	652.3	680.4	708.5	736.7	762.5	787.2	808.3
152.5°	558.7	577.8	602.1	626.2	650.4	675.7	702.0	726.4	750.3	771.2	789.5
155°	570.2	587.7	607.6	627.6	647.5	667.5	689.8	712.1	730.8	748.4	761.3
157.5°	580.0	594.8	611.7	627.6	642.2	659.0	678.3	695.4	711.1	725.9	736.0
160°	586.5	599.5	613.6	627.6	639.3	653.5	669.8	685.1	698.0	710.9	719.1
162.5°	592.2	602.3	614.5	626.7	636.5	648.7	662.4	674.8	685.8	696.8	703.2
165°	598.3	605.3	615.9	624.1	631.2	639.3	649.9	659.3	667.5	675.7	680.4
167.5°	603.5	607.9	615.6	622.5	625.7	631.2	637.7	644.5	650.9	656.5	660.8
170°	605.3	608.8	614.7	620.6	622.9	626.4	631.2	637.0	640.6	645.2	647.5
172.5°	607.2	609.8	613.8	617.7	619.1	620.9	624.6	628.5	631.2	634.9	636.3
175°	608.8	610.1	612.4	614.7	613.6	614.7	615.9	619.5	620.6	621.8	622.9
177.5°	610.1	610.1	611.0	612.9	611.0	610.1	611.0	612.9	612.9	613.8	613.8
180°	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	572.5	572.1	572.1	570.5	572.1	572.1	572.5	574.3	574.9	575.2	574.5
5°	531.1	530.4	529.3	530.4	529.3	530.4	531.1	534.3	535.9	537.5	538.9
7.5°	490.1	487.4	487.0	484.2	487.0	487.4	490.1	491.6	494.8	498.5	501.8
10°	460.2	458.4	458.1	453.7	458.1	458.4	460.2	464.1	467.3	471.6	476.3
12.5°	437.5	433.0	433.9	431.4	433.9	433.0	437.5	437.5	441.2	443.9	451.1
15°	398.0	398.0	397.1	393.2	397.1	398.0	398.0	404.2	405.4	409.7	415.9
17.5°	369.7	369.2	367.1	368.2	367.1	369.2	369.7	374.3	375.1	380.8	386.0
20°	352.8	351.4	348.7	348.7	348.7	351.4	352.8	355.4	358.3	361.7	366.2
22.5°	336.9	336.8	333.9	334.8	333.9	336.8	336.9	339.2	342.0	345.8	349.4
25°	318.2	316.4	315.0	315.7	315.0	316.4	318.2	318.4	321.6	324.2	326.5
27.5°	300.4	299.4	299.3	297.5	299.3	299.4	300.4	301.0	302.9	304.4	306.5
30°	290.2	287.9	288.3	287.2	288.3	287.9	290.2	290.4	291.3	292.3	294.8
32.5°	278.4	277.6	277.2	276.2	277.2	277.6	278.4	278.8	280.7	281.7	283.6
35°	262.5	262.7	261.6	262.0	261.6	262.7	262.5	262.9	263.2	264.1	265.9
37.5°	248.4	249.1	248.6	248.7	248.6	249.1	248.4	248.6	248.9	249.0	249.6
40°	239.2	239.2	239.2	239.9	239.2	239.2	239.2	238.6	238.8	238.6	238.6
42.5°	230.5	230.0	229.7	229.6	229.7	230.0	230.5	228.8	229.6	228.8	228.5
45°	215.4	216.1	216.3	215.2	216.3	216.1	215.4	215.0	214.3	214.0	213.8
47.5°	201.8	201.9	201.8	202.8	201.8	201.9	201.8	201.2	200.2	199.8	198.6
50°	192.3	191.8	192.3	191.8	192.3	191.8	192.3	191.1	190.4	189.2	188.3
52.5°	182.2	182.3	182.0	181.9	182.0	182.3	182.2	180.7	180.4	179.9	178.4
55°	166.3	166.7	166.5	166.5	166.5	166.7	166.3	165.4	165.2	163.8	162.4
57.5°	150.0	150.4	150.7	149.7	150.7	150.4	150.0	149.8	149.7	148.1	146.7
60°	138.6	139.7	139.5	139.1	139.5	139.7	138.6	138.8	138.1	137.1	136.2
62.5°	128.1	128.6	128.5	128.4	128.5	128.6	128.1	127.0	126.7	125.8	124.9
65°	112.0	112.4	111.7	112.4	111.7	112.4	112.0	111.3	109.7	109.2	108.3
67.5°	94.5	94.7	95.2	95.5	95.2	94.7	94.5	94.8	93.8	92.9	92.7
70°	83.7	83.5	84.2	84.9	84.2	83.5	83.7	83.3	82.6	81.9	81.0
72.5°	72.3	72.8	72.6	73.1	72.6	72.8	72.3	72.4	71.8	70.9	70.0
75°	55.7	56.5	56.2	56.9	56.2	56.5	55.7	56.2	55.7	54.8	53.9
77.5°	40.3	40.4	40.3	40.7	40.3	40.4	40.3	40.7	40.2	40.5	39.4
80°	30.7	30.3	29.8	30.7	29.8	30.3	30.7	30.7	30.1	30.7	30.1
82.5°	21.4	21.6	21.2	21.2	21.2	21.6	21.4	21.9	21.6	21.9	21.2
85°	9.9	9.6	9.2	9.2	9.2	9.6	9.9	9.9	10.5	10.1	10.1
87.5°	9.6	9.4	9.4	9.2	9.4	9.4	9.6	9.6	9.4	9.3	9.7
90°	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	37.6	35.2	37.6
92.5°	69.7	65.9	66.9	65.0	66.9	65.9	69.7	70.6	77.9	87.8	102.3
95°	145.4	136.1	132.6	133.7	132.6	136.1	145.4	160.7	186.5	235.8	307.4
97.5°	319.1	290.2	273.1	263.3	273.1	290.2	319.1	375.2	459.9	586.8	717.2
100°	525.5	475.1	441.1	420.0	441.1	475.1	525.5	622.9	764.9	925.6	1071.1
102.5°	896.3	810.2	767.7	739.1	767.7	810.2	896.3	1002.1	1152.5	1270.0	1302.9
105°	1461.7	1389.0	1338.6	1322.1	1338.6	1389.0	1461.7	1534.5	1573.2	1557.9	1425.3
107.5°	1724.7	1720.7	1710.6	1688.8	1710.6	1720.7	1724.7	1715.6	1658.8	1536.8	1337.2
110°	1767.9	1790.2	1800.8	1799.6	1800.8	1790.2	1767.9	1717.5	1621.2	1471.1	1261.1



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	1734.1	1771.4	1791.4	1797.7	1791.4	1771.4	1734.1	1664.0	1553.7	1393.2	1191.6
115°	1644.8	1698.7	1729.2	1739.8	1729.2	1698.7	1644.8	1561.5	1440.6	1287.0	1106.3
117.5°	1538.2	1595.2	1627.4	1636.3	1627.4	1595.2	1538.2	1453.3	1340.0	1200.6	1042.0
120°	1468.7	1523.9	1557.9	1569.6	1557.9	1523.9	1468.7	1386.6	1279.9	1155.5	1010.1
122.5°	1405.8	1460.1	1490.4	1500.2	1490.4	1460.1	1405.8	1332.2	1235.8	1118.0	984.7
125°	1328.0	1372.6	1401.9	1411.3	1401.9	1372.6	1328.0	1259.9	1171.9	1068.7	947.9
127.5°	1258.8	1300.5	1325.9	1333.4	1325.9	1300.5	1258.8	1199.4	1118.2	1020.9	911.5
130°	1216.6	1256.5	1279.9	1289.3	1279.9	1256.5	1216.6	1159.0	1081.7	989.0	888.1
132.5°	1173.4	1213.3	1234.9	1243.2	1234.9	1213.3	1173.4	1116.8	1044.1	959.0	865.6
135°	1105.1	1143.8	1164.9	1169.6	1164.9	1143.8	1105.1	1054.6	989.0	911.5	834.0
137.5°	1038.4	1071.8	1090.4	1097.3	1090.4	1071.8	1038.4	992.5	935.2	873.7	809.0
140°	992.5	1023.0	1040.6	1047.6	1040.6	1023.0	992.5	954.9	903.3	849.4	793.0
142.5°	953.0	980.8	996.4	997.8	996.4	980.8	953.0	917.4	874.2	827.8	779.9
145°	898.6	918.6	930.3	933.8	930.3	918.6	898.6	870.5	836.5	800.1	761.3
147.5°	854.0	870.0	878.0	880.1	878.0	870.0	854.0	830.8	806.0	777.6	747.1
150°	825.9	840.0	847.0	848.2	847.0	840.0	825.9	808.3	787.2	762.5	736.7
152.5°	803.3	815.6	820.7	820.9	820.7	815.6	803.3	789.5	771.2	750.3	726.4
155°	774.3	782.4	787.2	784.9	787.2	782.4	774.3	761.3	748.4	730.8	712.1
157.5°	745.2	751.9	754.1	754.1	754.1	751.9	745.2	736.0	725.9	711.1	695.4
160°	727.3	733.2	734.4	734.4	734.4	733.2	727.3	719.1	710.9	698.0	685.1
162.5°	711.3	715.4	716.5	715.6	716.5	715.4	711.3	703.2	696.8	685.8	674.8
165°	685.1	689.8	689.8	688.6	689.8	689.8	685.1	680.4	675.7	667.5	659.3
167.5°	662.8	665.4	665.2	663.8	665.2	665.4	662.8	660.8	656.5	650.9	644.5
170°	648.7	652.3	651.1	648.7	651.1	652.3	648.7	647.5	645.2	640.6	637.0
172.5°	637.5	639.1	637.9	636.5	637.9	639.1	637.5	636.3	634.9	631.2	628.5
175°	622.9	624.1	622.9	620.6	622.9	624.1	622.9	622.9	621.8	620.6	619.5
177.5°	613.8	613.8	612.9	611.0	612.9	613.8	613.8	613.8	613.8	612.9	612.9
180°	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	573.6	575.6	578.8	582.1	584.1	587.9	589.1	590.9	592.5	596.3	600.4
5°	540.5	543.7	551.3	555.4	561.1	567.7	572.1	576.7	581.8	590.5	598.5
7.5°	504.9	510.3	519.8	527.5	535.6	545.1	552.0	561.1	568.7	581.0	592.7
10°	481.3	488.9	497.4	506.5	518.0	528.1	537.8	549.2	558.4	573.1	586.8
12.5°	460.0	461.1	473.3	483.4	499.1	511.6	522.7	537.5	546.4	563.9	578.3
15°	422.8	429.7	440.7	448.7	467.3	483.1	498.8	514.1	524.4	546.0	565.0
17.5°	391.4	397.8	409.1	422.2	435.6	451.3	471.5	487.8	501.8	526.4	549.0
20°	371.6	379.4	390.9	404.5	416.2	433.3	450.8	469.4	484.5	512.3	538.7
22.5°	354.8	360.9	370.2	383.5	396.3	412.0	431.1	451.4	467.3	497.3	523.9
25°	331.0	336.1	342.0	353.0	367.5	384.8	399.6	421.9	445.0	473.0	505.3
27.5°	309.6	313.3	318.5	328.2	339.4	355.5	372.0	393.1	416.5	446.9	481.0
30°	296.6	298.9	304.2	312.3	323.3	335.9	352.6	372.7	396.7	427.4	461.3
32.5°	285.3	287.3	290.8	298.4	308.0	318.8	333.9	354.1	376.8	407.0	444.6
35°	268.2	269.7	272.8	278.9	284.3	294.8	307.4	325.8	347.1	376.0	415.0
37.5°	251.2	253.4	255.2	257.8	264.6	271.6	282.5	298.0	318.9	348.1	385.3
40°	239.9	241.8	244.6	245.7	251.2	257.4	266.3	280.5	301.6	328.3	364.6
42.5°	228.5	230.5	232.1	233.4	238.1	243.6	251.7	263.9	282.6	308.4	344.4
45°	213.1	213.4	215.0	217.5	219.7	223.7	229.4	239.9	254.4	278.7	311.3
47.5°	197.4	197.7	197.9	199.0	201.6	205.1	208.9	217.5	230.5	249.8	281.6
50°	186.9	186.5	186.9	187.8	189.5	192.5	196.8	203.0	213.6	231.7	260.8
52.5°	176.8	176.8	176.5	176.8	178.1	180.2	183.3	188.5	197.9	214.6	240.2
55°	161.5	160.4	160.6	159.7	161.8	162.2	164.5	168.8	177.1	188.5	212.7
57.5°	145.1	144.2	143.2	142.9	142.7	143.9	145.7	149.2	155.5	165.6	185.1
60°	134.6	133.5	132.1	131.7	131.7	132.4	133.3	135.8	141.8	150.7	166.7
62.5°	124.0	122.7	121.9	120.7	120.3	121.0	121.9	123.7	128.1	136.4	150.3
65°	107.6	105.9	104.8	104.6	104.1	103.5	103.9	105.7	109.2	115.8	126.8
67.5°	91.1	89.6	89.4	88.0	87.4	87.5	87.4	88.9	91.0	96.7	104.9
70°	80.3	79.2	78.7	77.6	77.1	76.6	76.1	77.6	79.6	84.4	91.5
72.5°	69.3	68.3	67.4	66.3	66.4	65.9	65.8	66.8	68.4	72.8	78.4
75°	53.4	53.7	52.5	51.4	51.2	50.7	50.7	51.4	52.1	55.5	59.9
77.5°	38.8	38.6	37.7	37.3	37.1	36.6	37.1	37.5	37.9	40.2	43.3
80°	29.6	29.6	28.5	28.5	28.2	27.6	28.2	27.8	28.7	31.0	33.2
82.5°	21.1	20.8	20.7	20.4	20.3	19.8	20.1	20.6	21.0	22.5	23.9
85°	10.3	10.3	10.1	9.9	10.1	9.9	10.1	10.3	10.5	11.2	12.4
87.5°	9.9	10.4	10.3	9.1	7.5	6.5	6.0	5.7	5.6	4.7	4.2
90°	38.7	39.9	38.7	31.7	23.4	17.6	14.0	11.7	9.4	4.6	1.2
92.5°	128.9	152.5	150.4	117.0	79.8	53.2	42.2	34.2	29.1	20.6	14.3
95°	402.4	459.9	407.1	270.9	169.0	114.9	86.8	68.1	57.5	45.7	41.1
97.5°	823.5	785.1	591.3	365.1	222.9	155.1	123.2	101.6	85.6	73.2	66.9
100°	1095.7	926.8	638.1	384.8	241.7	179.5	146.6	123.2	104.4	93.8	90.3
102.5°	1197.1	931.5	620.4	385.8	258.5	201.1	168.2	143.8	125.0	114.5	111.9
105°	1181.3	869.3	585.4	391.8	287.4	232.3	199.4	173.6	156.0	147.8	143.1
107.5°	1078.3	802.6	568.0	408.0	317.0	263.5	230.5	204.8	188.6	180.7	176.9
110°	1013.6	770.7	564.3	421.1	336.7	285.1	251.1	226.4	211.2	204.1	199.4



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	968.6	750.1	565.2	435.3	355.5	305.7	270.7	247.0	232.8	224.8	220.0
115°	912.7	727.3	570.2	456.4	384.8	334.4	302.7	279.2	265.1	258.1	252.3
117.5°	877.5	716.3	578.6	478.9	411.7	365.1	332.2	309.7	297.3	290.2	285.6
120°	858.7	709.7	584.2	493.9	430.5	384.8	351.9	328.5	317.9	310.8	306.2
122.5°	842.7	706.0	590.8	507.1	448.4	405.5	371.6	348.2	336.7	329.6	325.9
125°	820.0	699.2	600.7	528.0	475.1	432.9	400.0	376.6	362.5	355.5	351.9
127.5°	798.9	695.2	610.8	547.3	500.0	458.9	425.2	402.6	387.2	377.3	372.5
130°	784.9	693.3	618.2	559.6	515.0	473.9	441.1	417.7	401.2	389.5	384.8
132.5°	773.6	692.4	625.7	571.8	528.2	489.0	456.2	431.7	414.3	401.7	396.1
135°	757.8	690.9	634.7	587.7	546.6	509.2	476.3	449.3	431.7	417.7	412.9
137.5°	746.8	690.7	642.7	600.0	561.7	524.6	494.1	467.4	448.6	434.5	428.9
140°	740.2	689.8	646.4	606.5	570.2	534.9	504.4	478.7	459.9	445.8	441.1
142.5°	733.7	689.8	649.2	612.2	576.7	542.5	513.8	489.0	470.2	457.1	453.3
145°	725.0	687.4	652.3	619.5	586.5	554.9	529.1	505.6	488.1	476.3	471.6
147.5°	716.1	683.3	653.2	623.4	594.5	564.7	541.8	522.3	506.0	494.8	491.3
150°	708.5	680.4	652.3	625.3	598.3	571.3	550.2	532.6	517.4	508.0	504.4
152.5°	702.0	675.7	650.4	626.2	602.1	577.8	558.7	542.0	528.6	519.3	517.6
155°	689.8	667.5	647.5	627.6	607.6	587.7	570.2	557.2	544.3	537.2	536.1
157.5°	678.3	659.0	642.2	627.6	611.7	594.8	580.0	569.7	558.5	552.8	551.6
160°	669.8	653.5	639.3	627.6	613.6	599.5	586.5	577.1	567.7	563.1	561.9
162.5°	662.4	648.7	636.5	626.7	614.5	602.3	592.2	583.7	576.2	571.6	572.3
165°	649.9	639.3	631.2	624.1	615.9	605.3	598.3	592.4	585.4	583.1	584.2
167.5°	637.7	631.2	625.7	622.5	615.6	607.9	603.5	599.3	594.8	592.7	594.1
170°	631.2	626.4	622.9	620.6	614.7	608.8	605.3	603.0	599.5	598.3	600.7
172.5°	624.6	620.9	619.1	617.7	613.8	609.8	607.2	605.8	602.3	603.0	604.4
175°	615.9	614.7	613.6	614.7	612.4	610.1	608.8	608.8	606.5	607.6	608.8
177.5°	611.0	610.1	611.0	612.9	611.0	610.1	610.1	610.1	608.1	609.0	611.0
180°	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	600.1	601.0	603.9	606.8	610.2	611.1	612.5	611.3	610.9	614.3	616.9
5°	601.8	605.8	613.9	621.3	627.4	631.8	636.4	638.2	641.7	646.4	652.5
7.5°	599.8	607.8	620.5	631.2	642.8	651.2	657.7	663.4	670.1	679.2	689.2
10°	597.6	608.3	623.8	636.8	651.1	661.9	670.8	679.5	689.6	702.3	715.3
12.5°	593.6	606.3	625.6	641.1	659.3	669.9	682.0	700.7	711.7	729.2	747.6
15°	585.4	599.7	626.5	645.5	666.2	686.4	708.6	726.5	744.4	754.8	780.6
17.5°	573.4	594.2	624.0	646.2	672.5	704.2	729.2	749.5	770.1	786.9	799.9
20°	563.6	586.3	620.4	646.9	678.1	712.3	740.9	761.6	779.5	793.6	801.5
22.5°	551.4	580.0	613.0	644.2	684.0	717.8	747.9	764.2	779.1	786.0	789.1
25°	532.0	566.4	603.8	641.9	686.8	722.7	750.1	760.0	764.4	757.7	746.7
27.5°	511.1	549.5	593.2	637.5	685.1	719.5	739.2	737.7	730.3	708.7	691.6
30°	495.5	537.8	584.7	633.2	680.9	714.4	725.8	714.4	697.6	673.6	648.9
32.5°	479.2	522.9	575.7	626.9	673.2	702.7	705.1	685.4	659.4	632.1	601.5
35°	454.4	501.7	558.9	613.0	656.8	675.4	664.4	629.4	598.7	561.4	519.6
37.5°	426.5	478.7	535.9	592.6	632.3	637.1	609.8	573.1	529.7	485.7	436.6
40°	405.6	460.9	519.9	576.9	612.1	607.0	572.1	531.8	480.2	426.5	380.8
42.5°	386.9	442.1	502.2	558.3	586.3	572.5	531.8	482.2	426.8	376.2	334.4
45°	354.5	411.3	472.8	526.9	543.0	518.0	464.1	409.0	354.5	312.3	279.2
47.5°	323.0	379.2	440.1	487.7	493.3	459.7	400.8	344.2	297.2	262.9	239.5
50°	299.8	356.3	416.6	459.1	457.2	416.6	356.1	302.2	262.9	235.1	219.5
52.5°	279.1	332.4	390.3	429.0	419.2	375.0	317.1	269.2	237.0	215.3	201.2
55°	246.8	296.2	351.2	382.2	364.3	315.2	266.3	227.8	203.9	187.6	176.6
57.5°	214.8	261.1	308.2	327.3	307.5	262.2	221.5	193.5	175.5	163.5	156.3
60°	195.0	235.4	277.3	293.9	270.2	229.8	197.7	172.8	158.2	148.5	142.0
62.5°	175.2	211.4	251.0	259.9	238.3	204.2	175.7	154.9	143.1	134.3	128.3
65°	148.1	177.8	207.8	213.8	193.9	167.4	145.0	131.5	120.9	114.5	109.7
67.5°	121.6	145.3	166.6	171.4	153.9	135.6	119.4	107.6	100.5	95.1	91.0
70°	105.7	124.6	142.0	145.9	131.9	115.6	103.2	93.8	87.4	82.8	78.9
72.5°	89.1	104.7	119.3	121.9	110.5	98.0	87.9	80.4	74.7	71.8	68.1
75°	68.2	77.4	88.6	89.3	81.7	74.1	66.3	61.5	58.5	54.8	53.0
77.5°	48.1	55.2	61.7	62.9	58.5	53.3	49.0	45.1	42.6	40.9	39.2
80°	36.7	42.4	45.2	46.8	43.6	39.9	37.4	34.8	33.2	32.1	31.0
82.5°	26.3	29.8	32.3	33.6	31.8	29.6	27.2	25.7	24.4	23.5	23.1
85°	13.3	14.9	16.6	17.0	16.6	15.6	14.2	14.2	13.5	13.3	13.3
87.5°	5.6	7.2	7.7	8.7	9.0	10.2	11.8	13.0	13.1	12.7	12.3
90°	4.6	9.4	11.7	14.0	17.6	23.4	31.7	38.7	39.9	38.7	37.6
92.5°	20.6	29.1	34.2	42.2	53.2	79.8	117.0	150.4	152.5	128.9	102.3
95°	45.7	57.5	68.1	86.8	114.9	169.0	270.9	407.1	459.9	402.4	307.4
97.5°	73.2	85.6	101.6	123.2	155.1	222.9	365.1	591.3	785.1	823.5	717.2
100°	93.8	104.4	123.2	146.6	179.5	241.7	384.8	638.1	926.8	1095.7	1071.1
102.5°	114.5	125.0	143.8	168.2	201.1	258.5	385.8	620.4	931.5	1197.1	1302.9
105°	147.8	156.0	173.6	199.4	232.3	287.4	391.8	585.4	869.3	1181.3	1425.3
107.5°	180.7	188.6	204.8	230.5	263.5	317.0	408.0	568.0	802.6	1078.3	1337.2
110°	204.1	211.2	226.4	251.1	285.1	336.7	421.1	564.3	770.7	1013.6	1261.1



TEST NUMBER: P331278-840

CATALOG NUMBER: SA2XXDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	224.8	232.8	247.0	270.7	305.7	355.5	435.3	565.2	750.1	968.6	1191.6
115°	258.1	265.1	279.2	302.7	334.4	384.8	456.4	570.2	727.3	912.7	1106.3
117.5°	290.2	297.3	309.7	332.2	365.1	411.7	478.9	578.6	716.3	877.5	1042.0
120°	310.8	317.9	328.5	351.9	384.8	430.5	493.9	584.2	709.7	858.7	1010.1
122.5°	329.6	336.7	348.2	371.6	405.5	448.4	507.1	590.8	706.0	842.7	984.7
125°	355.5	362.5	376.6	400.0	432.9	475.1	528.0	600.7	699.2	820.0	947.9
127.5°	377.3	387.2	402.6	425.2	458.9	500.0	547.3	610.8	695.2	798.9	911.5
130°	389.5	401.2	417.7	441.1	473.9	515.0	559.6	618.2	693.3	784.9	888.1
132.5°	401.7	414.3	431.7	456.2	489.0	528.2	571.8	625.7	692.4	773.6	865.6
135°	417.7	431.7	449.3	476.3	509.2	546.6	587.7	634.7	690.9	757.8	834.0
137.5°	434.5	448.6	467.4	494.1	524.6	561.7	600.0	642.7	690.7	746.8	809.0
140°	445.8	459.9	478.7	504.4	534.9	570.2	606.5	646.4	689.8	740.2	793.0
142.5°	457.1	470.2	489.0	513.8	542.5	576.7	612.2	649.2	689.8	733.7	779.9
145°	476.3	488.1	505.6	529.1	554.9	586.5	619.5	652.3	687.4	725.0	761.3
147.5°	494.8	506.0	522.3	541.8	564.7	594.5	623.4	653.2	683.3	716.1	747.1
150°	508.0	517.4	532.6	550.2	571.3	598.3	625.3	652.3	680.4	708.5	736.7
152.5°	519.3	528.6	542.0	558.7	577.8	602.1	626.2	650.4	675.7	702.0	726.4
155°	537.2	544.3	557.2	570.2	587.7	607.6	627.6	647.5	667.5	689.8	712.1
157.5°	552.8	558.5	569.7	580.0	594.8	611.7	627.6	642.2	659.0	678.3	695.4
160°	563.1	567.7	577.1	586.5	599.5	613.6	627.6	639.3	653.5	669.8	685.1
162.5°	571.6	576.2	583.7	592.2	602.3	614.5	626.7	636.5	648.7	662.4	674.8
165°	583.1	585.4	592.4	598.3	605.3	615.9	624.1	631.2	639.3	649.9	659.3
167.5°	592.7	594.8	599.3	603.5	607.9	615.6	622.5	625.7	631.2	637.7	644.5
170°	598.3	599.5	603.0	605.3	608.8	614.7	620.6	622.9	626.4	631.2	637.0
172.5°	603.0	602.3	605.8	607.2	609.8	613.8	617.7	619.1	620.9	624.6	628.5
175°	607.6	606.5	608.8	608.8	610.1	612.4	614.7	613.6	614.7	615.9	619.5
177.5°	609.0	608.1	610.1	610.1	610.1	611.0	612.9	611.0	610.1	611.0	612.9
180°	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1	610.1



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	619.1	621.7	621.7	622.1	625.0	624.6	624.4
5°	658.8	662.8	663.2	667.3	670.0	669.1	666.6
7.5°	696.3	703.6	709.1	712.2	715.8	718.0	717.0
10°	726.1	736.6	743.1	747.4	752.7	756.6	755.2
12.5°	753.1	765.6	774.5	781.9	782.5	787.6	784.2
15°	795.2	808.4	809.8	815.3	819.7	819.2	819.4
17.5°	809.0	813.2	814.2	814.3	814.4	812.7	809.2
20°	804.1	802.4	798.6	795.6	790.3	789.6	785.1
22.5°	780.5	775.5	765.7	759.2	751.0	748.9	747.6
25°	734.4	723.1	707.5	692.6	688.4	680.4	682.7
27.5°	670.9	653.4	636.4	624.4	613.4	601.4	604.8
30°	626.3	606.5	582.7	564.3	552.6	541.2	539.1
32.5°	573.1	544.1	517.6	501.4	483.4	476.2	468.3
35°	481.3	453.0	426.7	403.9	390.9	380.8	371.6
37.5°	398.8	366.3	345.0	326.6	317.1	311.3	312.9
40°	347.6	319.1	303.5	289.5	280.7	276.7	277.6
42.5°	306.1	284.8	272.0	262.4	256.2	253.9	253.4
45°	259.0	247.1	236.5	231.1	228.0	225.5	223.9
47.5°	226.9	217.1	211.2	207.9	205.3	202.8	202.7
50°	207.6	201.2	197.0	193.6	191.6	189.8	191.4
52.5°	192.9	187.0	182.9	179.9	179.0	177.4	177.3
55°	171.2	166.5	163.6	160.8	159.5	158.5	157.3
57.5°	151.3	146.9	144.2	142.5	139.9	139.0	138.6
60°	137.1	133.7	131.0	128.7	127.5	125.7	125.7
62.5°	124.1	120.7	118.2	116.4	114.5	113.8	114.0
65°	105.3	102.5	100.0	98.2	97.8	96.3	96.8
67.5°	88.0	86.1	83.4	82.4	81.6	80.9	80.3
70°	76.3	74.5	73.2	71.8	71.1	71.1	71.1
72.5°	66.7	64.4	63.6	61.9	62.3	61.6	60.8
75°	51.6	50.2	49.6	48.9	47.8	47.8	47.8
77.5°	38.0	37.6	36.8	36.1	35.7	35.5	35.6
80°	29.4	29.1	28.7	28.7	28.2	28.0	27.6
82.5°	22.6	22.0	21.7	21.5	21.4	21.4	21.3
85°	12.8	12.4	12.4	12.6	12.1	12.1	12.4
87.5°	12.0	12.4	12.5	12.5	12.7	12.5	12.5
90°	35.2	37.6	38.7	38.7	38.7	38.7	38.7
92.5°	87.8	77.9	70.6	69.7	65.9	66.9	65.0
95°	235.8	186.5	160.7	145.4	136.1	132.6	133.7
97.5°	586.8	459.9	375.2	319.1	290.2	273.1	263.3
100°	925.6	764.9	622.9	525.5	475.1	441.1	420.0
102.5°	1270.0	1152.5	1002.1	896.3	810.2	767.7	739.1
105°	1557.9	1573.2	1534.5	1461.7	1389.0	1338.6	1322.1
107.5°	1536.8	1658.8	1715.6	1724.7	1720.7	1710.6	1688.8
110°	1471.1	1621.2	1717.5	1767.9	1790.2	1800.8	1799.6



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	1393.2	1553.7	1664.0	1734.1	1771.4	1791.4	1797.7
115°	1287.0	1440.6	1561.5	1644.8	1698.7	1729.2	1739.8
117.5°	1200.6	1340.0	1453.3	1538.2	1595.2	1627.4	1636.3
120°	1155.5	1279.9	1386.6	1468.7	1523.9	1557.9	1569.6
122.5°	1118.0	1235.8	1332.2	1405.8	1460.1	1490.4	1500.2
125°	1068.7	1171.9	1259.9	1328.0	1372.6	1401.9	1411.3
127.5°	1020.9	1118.2	1199.4	1258.8	1300.5	1325.9	1333.4
130°	989.0	1081.7	1159.0	1216.6	1256.5	1279.9	1289.3
132.5°	959.0	1044.1	1116.8	1173.4	1213.3	1234.9	1243.2
135°	911.5	989.0	1054.6	1105.1	1143.8	1164.9	1169.6
137.5°	873.7	935.2	992.5	1038.4	1071.8	1090.4	1097.3
140°	849.4	903.3	954.9	992.5	1023.0	1040.6	1047.6
142.5°	827.8	874.2	917.4	953.0	980.8	996.4	997.8
145°	800.1	836.5	870.5	898.6	918.6	930.3	933.8
147.5°	777.6	806.0	830.8	854.0	870.0	878.0	880.1
150°	762.5	787.2	808.3	825.9	840.0	847.0	848.2
152.5°	750.3	771.2	789.5	803.3	815.6	820.7	820.9
155°	730.8	748.4	761.3	774.3	782.4	787.2	784.9
157.5°	711.1	725.9	736.0	745.2	751.9	754.1	754.1
160°	698.0	710.9	719.1	727.3	733.2	734.4	734.4
162.5°	685.8	696.8	703.2	711.3	715.4	716.5	715.6
165°	667.5	675.7	680.4	685.1	689.8	689.8	688.6
167.5°	650.9	656.5	660.8	662.8	665.4	665.2	663.8
170°	640.6	645.2	647.5	648.7	652.3	651.1	648.7
172.5°	631.2	634.9	636.3	637.5	639.1	637.9	636.5
175°	620.6	621.8	622.9	622.9	624.1	622.9	620.6
177.5°	612.9	613.8	613.8	613.8	613.8	612.9	611.0
180°	610.1	610.1	610.1	610.1	610.1	610.1	610.1

(END OF REPORT)