

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: P331278-930

Luminaire Tested: **SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331278-930  
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-C290D1080U930-4F0-1E-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**

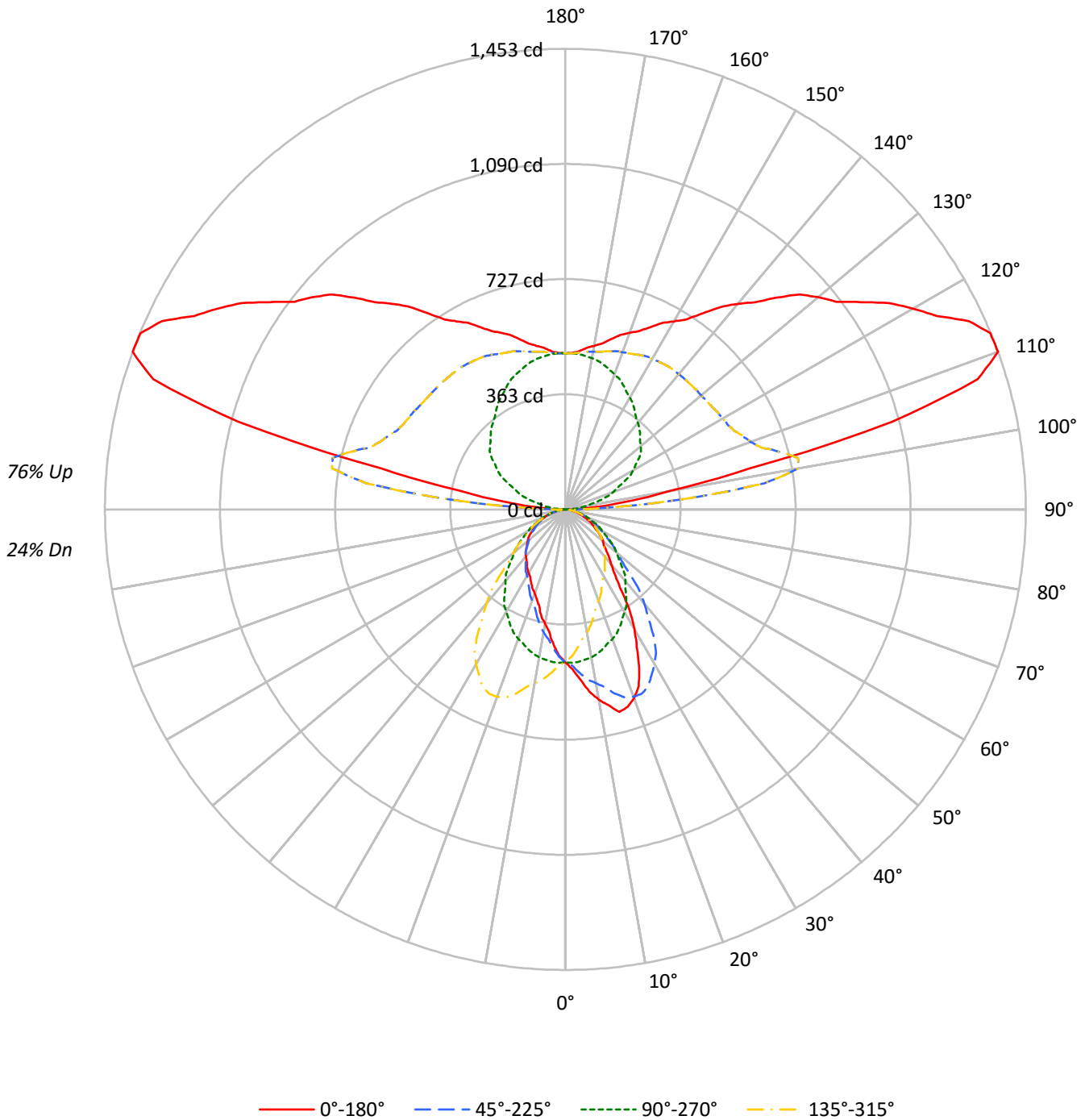
Lumens per Lamp: N/A  
Luminaire Lumens: 4494.7 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.23  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Semi-Indirect

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°	7781	7781	7781	7781
5°	8723	7831	6940	7831
10°	9996	7768	6005	7768
15°	11057	7626	5307	7626
20°	10890	7472	4837	7472
25°	9818	7269	4541	7269
30°	8114	6943	4323	6943
35°	5913	6603	4169	6603
40°	4723	6203	4083	6203
45°	4128	5740	3966	5740
50°	3881	5290	3888	5290
55°	3575	4833	3783	4833
60°	3278	4346	3626	4346
65°	2988	3912	3465	3912
70°	2710	3489	3238	3489
75°	2408	3013	2863	3013
80°	2073	2492	2306	2492
85°	1853	1853	1371	1853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.9	1.0
10°-20°	133.4	3.0
20°-30°	193.6	4.3
30°-40°	204.3	4.5
40°-50°	180.9	4.0
50°-60°	144.4	3.2
60°-70°	98.1	2.2
70°-80°	50.3	1.1
80°-90°	16.6	0.4
90°-100°	196.9	4.4
100°-110°	668.2	14.9
110°-120°	709.9	15.8
120°-130°	584.4	13.0
130°-140°	469.3	10.4
140°-150°	354.6	7.9
150°-160°	249.2	5.5
160°-170°	146.7	3.3
170°-180°	47.8	1.1
0°-30°	373.0	8.3
0°-40°	577.3	12.8
0°-60°	902.6	20.1
0°-90°	1067.6	23.8
90°-120°	1575.1	35.0
90°-150°	2983.4	66.4
90°-180°	3427.0	76.2
0°-180°	4494.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	482	482	482	482	482	
5°	538	483	428	483	538	54
15°	662	456	318	456	662	183
25°	551	408	255	408	551	249
35°	300	335	212	335	300	195
45°	181	251	174	251	181	142
55°	127	172	134	172	127	114
65°	78	102	91	102	78	78
75°	39	48	46	48	39	41
85°	10	10	7	10	10	12
90°	31	1	31	1	31	17
95°	108	33	108	33	108	140
105°	1067	116	1067	116	1067	1033
115°	1405	204	1405	204	1405	1375
125°	1139	284	1139	284	1139	1030
135°	944	333	944	333	944	734
145°	754	381	754	381	754	479
155°	634	433	634	433	634	296
165°	556	472	556	472	556	159
175°	501	492	501	492	501	49
180°	492	492	492	492	492	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	504.1	504.3	504.6	502.2	501.9	501.9	499.9	498.1	495.9	493.2	493.5
5°	538.2	540.2	541.0	538.7	535.4	535.1	531.9	526.8	521.9	518.0	515.3
7.5°	578.9	579.7	577.9	574.9	572.5	568.0	562.1	556.4	548.4	541.0	535.6
10°	609.7	610.8	607.6	603.4	599.9	594.7	586.2	577.5	567.0	556.8	548.6
12.5°	633.1	635.9	631.8	631.3	625.3	618.1	608.0	603.6	588.7	574.5	565.7
15°	661.5	661.4	661.8	658.2	653.8	652.6	642.0	630.2	609.4	601.0	586.5
17.5°	653.3	656.2	657.5	657.4	657.3	656.6	653.1	645.8	635.3	621.7	605.1
20°	633.8	637.5	638.1	642.3	644.7	647.8	649.1	647.1	640.7	629.3	614.9
22.5°	603.6	604.6	606.3	612.9	618.2	626.1	630.1	637.1	634.5	629.0	616.9
25°	551.1	549.3	555.8	559.1	571.2	583.8	592.9	602.8	611.7	617.1	613.6
27.5°	488.3	485.5	495.2	504.1	513.8	527.5	541.6	558.3	572.2	589.6	595.6
30°	435.2	436.9	446.1	455.6	470.4	489.7	505.6	523.9	543.8	563.2	576.7
32.5°	378.1	384.4	390.3	404.8	417.8	439.3	462.7	485.6	510.3	532.4	553.3
35°	300.0	307.4	315.6	326.1	344.5	365.7	388.6	419.5	453.2	483.4	508.2
37.5°	252.6	251.4	256.0	263.7	278.5	295.7	322.0	352.5	392.2	427.6	462.7
40°	224.1	223.4	226.7	233.7	245.0	257.6	280.6	307.4	344.3	387.7	429.3
42.5°	204.6	205.0	206.8	211.8	219.6	229.9	247.1	269.9	303.7	344.5	389.3
45°	180.8	182.1	184.1	186.5	190.9	199.5	209.1	225.4	252.1	286.2	330.2
47.5°	163.6	163.7	165.8	167.9	170.5	175.3	183.2	193.4	212.2	239.9	277.9
50°	154.5	153.2	154.7	156.3	159.1	162.4	167.6	177.2	189.8	212.2	243.9
52.5°	143.2	143.2	144.6	145.2	147.7	151.0	155.7	162.4	173.8	191.4	217.4
55°	127.0	128.0	128.7	129.8	132.1	134.4	138.2	142.6	151.5	164.6	183.9
57.5°	111.9	112.2	112.9	115.0	116.4	118.6	122.1	126.2	132.0	141.7	156.2
60°	101.5	101.5	103.0	103.9	105.7	107.9	110.7	114.6	119.8	127.8	139.5
62.5°	92.0	91.9	92.5	94.0	95.4	97.4	100.2	103.5	108.4	115.5	125.1
65°	78.2	77.8	78.9	79.2	80.7	82.8	85.0	88.5	92.5	97.6	106.2
67.5°	64.8	65.3	65.9	66.5	67.3	69.5	71.0	73.5	76.8	81.1	86.8
70°	57.4	57.4	57.4	58.0	59.1	60.2	61.6	63.7	66.9	70.5	75.7
72.5°	49.1	49.7	50.3	50.0	51.4	52.0	53.8	55.0	58.0	60.3	64.9
75°	38.6	38.6	38.6	39.5	40.0	40.5	41.7	42.8	44.3	47.2	49.7
77.5°	28.8	28.7	28.9	29.1	29.7	30.3	30.7	31.6	33.0	34.4	36.4
80°	22.3	22.6	22.7	23.2	23.2	23.5	23.7	25.0	25.9	26.8	28.1
82.5°	17.2	17.3	17.3	17.4	17.5	17.8	18.3	18.7	19.0	19.7	20.7
85°	10.0	9.8	9.8	10.2	10.0	10.0	10.4	10.8	10.8	10.9	11.5
87.5°	10.1	10.1	10.3	10.1	10.1	10.0	9.7	9.9	10.3	10.6	10.5
90°	31.2	31.2	31.2	31.2	31.2	30.3	28.5	30.3	31.2	32.2	31.2
92.5°	52.5	54.0	53.2	56.3	57.0	62.9	70.8	82.6	104.0	123.1	121.4
95°	107.9	107.0	109.9	117.4	129.7	150.6	190.4	248.2	324.9	371.3	328.6
97.5°	212.5	220.5	234.3	257.6	302.9	371.3	473.8	579.0	664.9	633.8	477.4
100°	339.1	356.1	383.6	424.3	502.9	617.5	747.3	864.7	884.6	748.2	515.2
102.5°	596.7	619.8	654.1	723.6	809.0	930.4	1025.3	1051.9	966.5	752.0	500.8
105°	1067.4	1080.7	1121.4	1180.1	1238.8	1270.1	1257.8	1150.7	953.7	701.8	472.6
107.5°	1363.4	1381.0	1389.2	1392.4	1385.0	1339.2	1240.7	1079.5	870.6	648.0	458.6
110°	1452.9	1453.8	1445.3	1427.3	1386.6	1308.9	1187.6	1018.1	818.3	622.2	455.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1451.3	1446.3	1430.1	1400.0	1343.4	1254.3	1124.8	962.1	782.0	605.6	456.3
115°	1404.6	1396.0	1371.4	1327.9	1260.6	1163.0	1039.0	893.2	736.9	587.2	460.3
117.5°	1321.0	1313.9	1287.8	1241.9	1173.3	1081.8	969.3	841.2	708.4	578.3	467.1
120°	1267.2	1257.8	1230.3	1185.8	1119.5	1033.3	932.9	815.5	693.2	573.0	471.7
122.5°	1211.1	1203.2	1178.8	1135.0	1075.5	997.7	902.6	795.0	680.4	570.0	477.0
125°	1139.4	1131.8	1108.2	1072.1	1017.2	946.2	862.8	765.2	662.0	564.5	484.9
127.5°	1076.5	1070.4	1049.9	1016.3	968.3	902.8	824.2	735.9	645.0	561.3	493.1
130°	1040.9	1033.3	1014.4	982.2	935.7	873.3	798.4	717.0	633.7	559.7	499.1
132.5°	1003.7	996.9	979.5	947.3	901.6	842.9	774.2	698.8	624.5	559.0	505.2
135°	944.3	940.4	923.4	892.2	851.4	798.4	735.9	673.4	611.8	557.8	512.4
137.5°	885.9	880.3	865.3	838.4	801.3	755.0	705.4	653.1	602.9	557.7	518.9
140°	845.8	840.1	825.9	801.3	770.9	729.3	685.7	640.3	597.6	556.9	521.9
142.5°	805.6	804.5	791.8	769.4	740.6	705.8	668.3	629.7	592.3	556.9	524.2
145°	753.9	751.1	741.6	725.5	702.8	675.3	646.0	614.7	585.3	555.0	526.6
147.5°	710.5	708.8	702.4	689.5	670.7	650.7	627.8	603.2	578.1	551.6	527.3
150°	684.8	683.8	678.2	666.8	652.6	635.5	615.6	594.8	572.0	549.3	526.6
152.5°	662.8	662.6	658.4	648.6	637.4	622.6	605.8	586.4	566.7	545.5	525.1
155°	633.7	635.5	631.7	625.1	614.7	604.2	590.0	574.9	556.9	538.9	522.8
157.5°	608.8	608.8	607.1	601.6	594.2	586.0	574.1	561.4	547.6	532.1	518.4
160°	592.9	592.9	591.9	587.2	580.6	574.0	563.5	553.1	540.8	527.6	516.2
162.5°	577.7	578.5	577.6	574.3	567.7	562.6	553.7	544.8	534.8	523.7	513.9
165°	556.0	556.9	556.9	553.1	549.3	545.5	538.9	532.3	524.7	516.2	509.6
167.5°	535.9	537.0	537.2	535.1	533.5	530.0	525.5	520.3	514.9	509.6	505.2
170°	523.7	525.6	526.6	523.7	522.8	520.9	517.1	514.3	509.6	505.7	502.9
172.5°	513.9	515.0	516.0	514.7	513.7	512.6	509.6	507.4	504.3	501.2	499.9
175°	501.0	502.9	503.9	502.9	502.9	502.0	501.0	500.1	497.3	496.3	495.4
177.5°	493.3	494.8	495.5	495.5	495.5	495.5	494.8	494.8	493.3	492.5	493.3
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	494.5	493.3	492.6	489.9	487.5	485.2	484.5	484.7	481.4	478.3	477.0
5°	513.8	510.1	506.5	501.6	495.6	489.1	485.8	483.2	476.7	469.7	465.6
7.5°	531.0	525.7	518.9	509.6	500.9	490.7	484.2	478.5	469.0	459.1	453.0
10°	541.5	534.3	525.6	514.1	503.6	491.1	482.5	473.8	462.7	450.8	443.4
12.5°	550.6	540.9	532.3	517.6	505.1	489.5	479.2	466.9	455.3	441.2	433.9
15°	572.1	554.2	537.9	521.1	505.8	484.1	472.6	456.2	440.8	423.4	415.1
17.5°	588.7	568.5	542.9	521.7	503.8	479.7	462.9	443.2	425.0	405.1	393.8
20°	598.2	575.0	547.5	522.3	500.8	473.4	455.0	434.9	413.6	391.2	379.0
22.5°	603.8	579.5	552.2	520.1	494.9	468.2	445.2	423.0	401.5	377.2	364.4
25°	605.6	583.4	554.5	518.2	487.5	457.3	429.5	408.0	381.9	359.3	340.6
27.5°	596.8	580.9	553.1	514.7	478.9	443.6	412.6	388.3	360.8	336.2	317.4
30°	586.0	576.7	549.7	511.2	472.1	434.1	400.1	372.4	345.0	320.2	300.9
32.5°	569.2	567.3	543.5	506.1	464.8	422.2	386.9	359.0	328.6	304.2	285.8
35°	536.4	545.3	530.3	494.9	451.2	405.0	366.9	335.0	303.5	280.2	263.0
37.5°	492.3	514.4	510.5	478.4	432.7	386.5	344.3	311.0	281.0	257.5	240.6
40°	461.9	490.1	494.2	465.8	419.7	372.1	327.4	294.3	265.1	243.5	226.5
42.5°	429.3	462.2	473.4	450.7	405.4	356.9	312.3	278.0	249.0	228.1	213.0
45°	374.7	418.2	438.4	425.4	381.7	332.1	286.2	251.4	225.0	205.4	193.7
47.5°	323.6	371.1	398.3	393.7	355.3	306.1	260.7	227.3	201.7	186.1	175.6
50°	287.5	336.3	369.1	370.6	336.3	287.6	242.1	210.6	187.0	172.4	163.9
52.5°	256.0	302.7	338.4	346.3	315.1	268.4	225.3	194.0	173.3	159.8	152.2
55°	215.0	254.5	294.1	308.6	283.6	239.1	199.3	171.7	152.2	143.0	136.3
57.5°	178.8	211.7	248.3	264.2	248.8	210.8	173.4	149.4	133.7	125.6	120.4
60°	159.6	185.6	218.2	237.3	223.9	190.0	157.4	134.6	121.6	114.5	109.7
62.5°	141.9	164.9	192.4	209.9	202.6	170.6	141.5	121.3	110.1	103.4	99.9
65°	117.1	135.2	156.5	172.6	167.8	143.6	119.6	102.4	93.5	88.1	85.4
67.5°	96.4	109.5	124.3	138.4	134.5	117.3	98.2	84.7	78.1	73.5	71.7
70°	83.3	93.4	106.5	117.8	114.6	100.6	85.4	73.9	68.2	64.2	62.6
72.5°	70.9	79.1	89.2	98.4	96.3	84.5	71.9	63.3	58.8	55.2	53.9
75°	53.6	59.8	66.0	72.1	71.5	62.5	55.0	48.3	44.8	42.1	41.5
77.5°	39.5	43.0	47.2	50.8	49.8	44.6	38.8	35.0	32.4	30.6	30.2
80°	30.2	32.2	35.2	37.7	36.5	34.2	29.6	26.8	25.0	23.2	22.4
82.5°	21.9	23.9	25.7	27.1	26.1	24.1	21.2	19.3	18.2	17.0	16.6
85°	11.5	12.6	13.4	13.7	13.4	12.1	10.8	10.0	9.0	8.5	8.3
87.5°	9.5	8.2	7.3	7.0	6.2	5.8	4.5	3.4	3.8	4.5	4.6
90°	25.6	18.9	14.2	11.3	9.5	7.6	3.8	1.0	3.8	7.6	9.5
92.5°	94.5	64.4	43.0	34.1	27.6	23.5	16.6	11.6	16.6	23.5	27.6
95°	218.7	136.4	92.8	70.1	55.0	46.4	36.9	33.2	36.9	46.4	55.0
97.5°	294.7	179.9	125.2	99.5	82.0	69.1	59.1	54.0	59.1	69.1	82.0
100°	310.6	195.1	144.9	118.4	99.5	84.3	75.7	72.9	75.7	84.3	99.5
102.5°	311.4	208.7	162.3	135.8	116.1	100.9	92.5	90.3	92.5	100.9	116.1
105°	316.3	232.0	187.5	161.0	140.1	126.0	119.4	115.5	119.4	126.0	140.1
107.5°	329.4	255.9	212.7	186.1	165.3	152.3	145.9	142.8	145.9	152.3	165.3
110°	340.0	271.8	230.2	202.7	182.8	170.5	164.8	161.0	164.8	170.5	182.8





TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	351.4	287.0	246.8	218.6	199.4	187.9	181.5	177.7	181.5	187.9	199.4
115°	368.4	310.6	269.9	244.3	225.4	214.0	208.4	203.7	208.4	214.0	225.4
117.5°	386.6	332.4	294.7	268.2	250.1	240.0	234.3	230.6	234.3	240.0	250.1
120°	398.8	347.6	310.6	284.1	265.2	256.7	250.9	247.2	250.9	256.7	265.2
122.5°	409.4	362.0	327.3	300.0	281.1	271.8	266.1	263.1	266.1	271.8	281.1
125°	426.2	383.6	349.5	322.9	304.0	292.7	287.0	284.1	287.0	292.7	304.0
127.5°	441.9	403.7	370.5	343.2	325.1	312.6	304.6	300.8	304.6	312.6	325.1
130°	451.8	415.8	382.6	356.1	337.2	323.9	314.5	310.6	314.5	323.9	337.2
132.5°	461.6	426.4	394.8	368.3	348.5	334.5	324.3	319.8	324.3	334.5	348.5
135°	474.5	441.3	411.1	384.5	362.7	348.5	337.2	333.4	337.2	348.5	362.7
137.5°	484.4	453.5	423.5	398.9	377.3	362.2	350.8	346.3	350.8	362.2	377.3
140°	489.7	460.3	431.9	407.2	386.5	371.3	359.9	356.1	359.9	371.3	386.5
142.5°	494.2	465.6	438.0	414.8	394.8	379.6	369.0	366.0	369.0	379.6	394.8
145°	500.1	473.5	448.0	427.1	408.2	394.0	384.5	380.7	384.5	394.0	408.2
147.5°	503.3	480.0	455.9	437.4	421.7	408.5	399.5	396.6	399.5	408.5	421.7
150°	504.8	483.1	461.2	444.2	430.0	417.7	410.1	407.2	410.1	417.7	430.0
152.5°	505.6	486.1	466.5	451.0	437.6	426.7	419.2	417.8	419.2	426.7	437.6
155°	506.7	490.6	474.5	460.3	449.9	439.4	433.7	432.8	433.7	439.4	449.9
157.5°	506.7	493.8	480.2	468.2	459.9	450.9	446.3	445.3	446.3	450.9	459.9
160°	506.7	495.4	484.0	473.5	465.9	458.4	454.6	453.6	454.6	458.4	465.9
162.5°	506.0	496.1	486.2	478.1	471.2	465.2	461.5	462.0	461.5	465.2	471.2
165°	503.9	497.3	488.7	483.1	478.3	472.6	470.8	471.7	470.8	472.6	478.3
167.5°	502.6	497.0	490.8	487.2	483.8	480.2	478.5	479.6	478.5	480.2	483.8
170°	501.0	496.3	491.5	488.7	486.8	484.0	483.1	484.9	483.1	484.0	486.8
172.5°	498.7	495.5	492.3	490.2	489.1	486.2	486.8	488.0	486.8	486.2	489.1
175°	496.3	494.4	492.5	491.5	491.5	489.7	490.6	491.5	490.6	489.7	491.5
177.5°	494.8	493.3	492.5	492.5	492.5	491.0	491.7	493.3	491.7	491.0	492.5
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5



TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	475.6	474.7	471.6	469.9	467.2	464.7	463.1	463.8	464.4	464.1	463.7
5°	461.9	458.4	453.0	448.4	445.1	439.0	436.3	435.0	433.9	432.7	431.4
7.5°	445.6	440.1	432.4	425.8	419.6	412.0	407.6	405.1	402.4	399.5	396.9
10°	434.1	426.3	418.2	409.0	401.5	394.7	388.6	384.5	380.7	377.2	374.7
12.5°	422.0	413.0	402.9	390.3	382.1	372.3	371.4	364.2	358.4	356.2	353.2
15°	402.7	390.0	377.2	362.2	355.8	346.9	341.4	335.7	330.8	327.3	326.4
17.5°	380.7	364.4	351.6	340.9	330.3	321.1	316.0	311.6	307.4	302.8	302.1
20°	363.9	349.8	336.0	326.5	315.6	306.3	300.0	295.6	292.0	289.3	286.9
22.5°	348.1	332.6	319.9	309.7	298.9	291.4	286.4	282.1	279.2	276.1	273.9
25°	322.6	310.6	296.7	285.0	276.1	271.3	267.3	263.6	261.7	259.7	257.1
27.5°	300.4	287.0	274.0	265.0	257.1	252.9	250.0	247.4	245.7	244.5	243.0
30°	284.7	271.2	261.0	252.1	245.6	241.3	239.5	238.0	235.9	235.2	234.5
32.5°	269.5	257.4	248.7	240.9	234.8	232.0	230.3	228.9	227.4	226.7	225.1
35°	248.2	238.0	229.5	225.2	220.2	217.8	216.5	214.7	213.2	212.5	212.2
37.5°	228.0	219.2	213.6	208.1	206.0	204.6	202.8	201.5	201.1	201.0	200.7
40°	215.0	207.8	202.8	198.4	197.5	195.2	193.7	192.7	192.7	192.8	192.7
42.5°	203.2	196.7	192.2	188.4	187.4	186.1	184.5	184.5	184.7	185.4	184.7
45°	185.2	180.6	177.4	175.6	173.6	172.3	172.0	172.6	172.8	173.0	173.6
47.5°	168.7	165.6	162.7	160.7	159.8	159.6	159.4	160.4	161.3	161.6	162.4
50°	158.9	155.4	153.0	151.6	150.9	150.6	150.9	152.1	152.8	153.7	154.3
52.5°	148.0	145.4	143.8	142.8	142.5	142.8	142.8	144.1	145.2	145.6	145.9
55°	132.8	130.9	130.6	128.9	129.6	129.5	130.4	131.1	132.2	133.4	133.5
57.5°	117.6	116.2	115.2	115.4	115.6	116.4	117.2	118.5	119.6	120.8	120.9
60°	107.6	106.9	106.3	106.3	106.6	107.8	108.7	110.0	110.7	111.5	112.0
62.5°	98.4	97.7	97.1	97.4	98.4	99.1	100.1	100.9	101.6	102.3	102.6
65°	83.9	83.6	84.1	84.5	84.6	85.5	86.8	87.4	88.1	88.5	89.8
67.5°	70.5	70.6	70.5	71.0	72.2	72.3	73.5	74.8	75.0	75.7	76.6
70°	61.5	61.9	62.2	62.6	63.5	63.9	64.8	65.4	66.1	66.7	67.3
72.5°	53.2	53.2	53.6	53.6	54.4	55.1	55.9	56.5	57.2	58.0	58.5
75°	40.9	40.9	41.3	41.5	42.4	43.4	43.1	43.5	44.3	45.0	45.4
77.5°	29.9	29.5	29.9	30.1	30.4	31.1	31.3	31.8	32.7	32.4	32.9
80°	22.7	22.3	22.7	23.0	23.0	23.9	23.9	24.3	24.8	24.3	24.8
82.5°	16.2	16.0	16.4	16.5	16.7	16.8	17.0	17.1	17.7	17.4	17.7
85°	8.2	8.0	8.2	8.0	8.2	8.3	8.3	8.2	8.2	8.5	8.0
87.5°	4.8	5.2	6.0	7.3	8.3	8.4	8.0	7.8	7.5	7.6	7.7
90°	11.3	14.2	18.9	25.6	31.2	32.2	31.2	30.3	28.5	30.3	31.2
92.5°	34.1	43.0	64.4	94.5	121.4	123.1	104.0	82.6	70.8	62.9	57.0
95°	70.1	92.8	136.4	218.7	328.6	371.3	324.9	248.2	190.4	150.6	129.7
97.5°	99.5	125.2	179.9	294.7	477.4	633.8	664.9	579.0	473.8	371.3	302.9
100°	118.4	144.9	195.1	310.6	515.2	748.2	884.6	864.7	747.3	617.5	502.9
102.5°	135.8	162.3	208.7	311.4	500.8	752.0	966.5	1051.9	1025.3	930.4	809.0
105°	161.0	187.5	232.0	316.3	472.6	701.8	953.7	1150.7	1257.8	1270.1	1238.8
107.5°	186.1	212.7	255.9	329.4	458.6	648.0	870.6	1079.5	1240.7	1339.2	1385.0
110°	202.7	230.2	271.8	340.0	455.6	622.2	818.3	1018.1	1187.6	1308.9	1386.6



TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	218.6	246.8	287.0	351.4	456.3	605.6	782.0	962.1	1124.8	1254.3	1343.4
115°	244.3	269.9	310.6	368.4	460.3	587.2	736.9	893.2	1039.0	1163.0	1260.6
117.5°	268.2	294.7	332.4	386.6	467.1	578.3	708.4	841.2	969.3	1081.8	1173.3
120°	284.1	310.6	347.6	398.8	471.7	573.0	693.2	815.5	932.9	1033.3	1119.5
122.5°	300.0	327.3	362.0	409.4	477.0	570.0	680.4	795.0	902.6	997.7	1075.5
125°	322.9	349.5	383.6	426.2	484.9	564.5	662.0	765.2	862.8	946.2	1017.2
127.5°	343.2	370.5	403.7	441.9	493.1	561.3	645.0	735.9	824.2	902.8	968.3
130°	356.1	382.6	415.8	451.8	499.1	559.7	633.7	717.0	798.4	873.3	935.7
132.5°	368.3	394.8	426.4	461.6	505.2	559.0	624.5	698.8	774.2	842.9	901.6
135°	384.5	411.1	441.3	474.5	512.4	557.8	611.8	673.4	735.9	798.4	851.4
137.5°	398.9	423.5	453.5	484.4	518.9	557.7	602.9	653.1	705.4	755.0	801.3
140°	407.2	431.9	460.3	489.7	521.9	556.9	597.6	640.3	685.7	729.3	770.9
142.5°	414.8	438.0	465.6	494.2	524.2	556.9	592.3	629.7	668.3	705.8	740.6
145°	427.1	448.0	473.5	500.1	526.6	555.0	585.3	614.7	646.0	675.3	702.8
147.5°	437.4	455.9	480.0	503.3	527.3	551.6	578.1	603.2	627.8	650.7	670.7
150°	444.2	461.2	483.1	504.8	526.6	549.3	572.0	594.8	615.6	635.5	652.6
152.5°	451.0	466.5	486.1	505.6	525.1	545.5	566.7	586.4	605.8	622.6	637.4
155°	460.3	474.5	490.6	506.7	522.8	538.9	556.9	574.9	590.0	604.2	614.7
157.5°	468.2	480.2	493.8	506.7	518.4	532.1	547.6	561.4	574.1	586.0	594.2
160°	473.5	484.0	495.4	506.7	516.2	527.6	540.8	553.1	563.5	574.0	580.6
162.5°	478.1	486.2	496.1	506.0	513.9	523.7	534.8	544.8	553.7	562.6	567.7
165°	483.1	488.7	497.3	503.9	509.6	516.2	524.7	532.3	538.9	545.5	549.3
167.5°	487.2	490.8	497.0	502.6	505.2	509.6	514.9	520.3	525.5	530.0	533.5
170°	488.7	491.5	496.3	501.0	502.9	505.7	509.6	514.3	517.1	520.9	522.8
172.5°	490.2	492.3	495.5	498.7	499.9	501.2	504.3	507.4	509.6	512.6	513.7
175°	491.5	492.5	494.4	496.3	495.4	496.3	497.3	500.1	501.0	502.0	502.9
177.5°	492.5	492.5	493.3	494.8	493.3	492.5	493.3	494.8	494.8	495.5	495.5
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5



TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	462.2	461.9	461.9	460.6	461.9	461.9	462.2	463.7	464.1	464.4	463.8
5°	428.8	428.2	427.3	428.2	427.3	428.2	428.8	431.4	432.7	433.9	435.0
7.5°	395.7	393.5	393.1	390.9	393.1	393.5	395.7	396.9	399.5	402.4	405.1
10°	371.5	370.1	369.8	366.3	369.8	370.1	371.5	374.7	377.2	380.7	384.5
12.5°	353.2	349.6	350.3	348.3	350.3	349.6	353.2	353.2	356.2	358.4	364.2
15°	321.3	321.3	320.6	317.5	320.6	321.3	321.3	326.4	327.3	330.8	335.7
17.5°	298.5	298.1	296.4	297.3	296.4	298.1	298.5	302.1	302.8	307.4	311.6
20°	284.9	283.7	281.5	281.5	281.5	283.7	284.9	286.9	289.3	292.0	295.6
22.5°	272.0	271.9	269.5	270.3	269.5	271.9	272.0	273.9	276.1	279.2	282.1
25°	256.9	255.4	254.3	254.9	254.3	255.4	256.9	257.1	259.7	261.7	263.6
27.5°	242.6	241.7	241.7	240.2	241.7	241.7	242.6	243.0	244.5	245.7	247.4
30°	234.3	232.4	232.8	231.9	232.8	232.4	234.3	234.5	235.2	235.9	238.0
32.5°	224.8	224.1	223.8	223.0	223.8	224.1	224.8	225.1	226.7	227.4	228.9
35°	211.9	212.1	211.2	211.5	211.2	212.1	211.9	212.2	212.5	213.2	214.7
37.5°	200.6	201.1	200.7	200.8	200.7	201.1	200.6	200.7	201.0	201.1	201.5
40°	193.1	193.1	193.1	193.7	193.1	193.1	193.1	192.7	192.8	192.7	192.7
42.5°	186.1	185.7	185.5	185.4	185.5	185.7	186.1	184.7	185.4	184.7	184.5
45°	173.9	174.5	174.6	173.7	174.6	174.5	173.9	173.6	173.0	172.8	172.6
47.5°	162.9	163.0	162.9	163.7	162.9	163.0	162.9	162.4	161.6	161.3	160.4
50°	155.2	154.8	155.2	154.8	155.2	154.8	155.2	154.3	153.7	152.8	152.1
52.5°	147.1	147.2	146.9	146.8	146.9	147.2	147.1	145.9	145.6	145.2	144.1
55°	134.3	134.6	134.4	134.4	134.4	134.6	134.3	133.5	133.4	132.2	131.1
57.5°	121.1	121.4	121.6	120.8	121.6	121.4	121.1	120.9	120.8	119.6	118.5
60°	111.9	112.8	112.6	112.3	112.6	112.8	111.9	112.0	111.5	110.7	110.0
62.5°	103.4	103.8	103.7	103.6	103.7	103.8	103.4	102.6	102.3	101.6	100.9
65°	90.4	90.7	90.2	90.7	90.2	90.7	90.4	89.8	88.5	88.1	87.4
67.5°	76.3	76.5	76.9	77.1	76.9	76.5	76.3	76.6	75.7	75.0	74.8
70°	67.6	67.4	68.0	68.6	68.0	67.4	67.6	67.3	66.7	66.1	65.4
72.5°	58.4	58.8	58.6	59.0	58.6	58.8	58.4	58.5	58.0	57.2	56.5
75°	45.0	45.6	45.4	45.9	45.4	45.6	45.0	45.4	45.0	44.3	43.5
77.5°	32.5	32.6	32.5	32.9	32.5	32.6	32.5	32.9	32.4	32.7	31.8
80°	24.8	24.5	24.1	24.8	24.1	24.5	24.8	24.8	24.3	24.8	24.3
82.5°	17.3	17.4	17.1	17.1	17.1	17.4	17.3	17.7	17.4	17.7	17.1
85°	8.0	7.7	7.4	7.4	7.4	7.7	8.0	8.0	8.5	8.2	8.2
87.5°	7.7	7.6	7.6	7.4	7.6	7.6	7.7	7.7	7.6	7.5	7.8
90°	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	30.3	28.5	30.3
92.5°	56.3	53.2	54.0	52.5	54.0	53.2	56.3	57.0	62.9	70.8	82.6
95°	117.4	109.9	107.0	107.9	107.0	109.9	117.4	129.7	150.6	190.4	248.2
97.5°	257.6	234.3	220.5	212.5	220.5	234.3	257.6	302.9	371.3	473.8	579.0
100°	424.3	383.6	356.1	339.1	356.1	383.6	424.3	502.9	617.5	747.3	864.7
102.5°	723.6	654.1	619.8	596.7	619.8	654.1	723.6	809.0	930.4	1025.3	1051.9
105°	1180.1	1121.4	1080.7	1067.4	1080.7	1121.4	1180.1	1238.8	1270.1	1257.8	1150.7
107.5°	1392.4	1389.2	1381.0	1363.4	1381.0	1389.2	1392.4	1385.0	1339.2	1240.7	1079.5
110°	1427.3	1445.3	1453.8	1452.9	1453.8	1445.3	1427.3	1386.6	1308.9	1187.6	1018.1



TEST NUMBER: P331278-930  
 CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	1400.0	1430.1	1446.3	1451.3	1446.3	1430.1	1400.0	1343.4	1254.3	1124.8	962.1
115°	1327.9	1371.4	1396.0	1404.6	1396.0	1371.4	1327.9	1260.6	1163.0	1039.0	893.2
117.5°	1241.9	1287.8	1313.9	1321.0	1313.9	1287.8	1241.9	1173.3	1081.8	969.3	841.2
120°	1185.8	1230.3	1257.8	1267.2	1257.8	1230.3	1185.8	1119.5	1033.3	932.9	815.5
122.5°	1135.0	1178.8	1203.2	1211.1	1203.2	1178.8	1135.0	1075.5	997.7	902.6	795.0
125°	1072.1	1108.2	1131.8	1139.4	1131.8	1108.2	1072.1	1017.2	946.2	862.8	765.2
127.5°	1016.3	1049.9	1070.4	1076.5	1070.4	1049.9	1016.3	968.3	902.8	824.2	735.9
130°	982.2	1014.4	1033.3	1040.9	1033.3	1014.4	982.2	935.7	873.3	798.4	717.0
132.5°	947.3	979.5	996.9	1003.7	996.9	979.5	947.3	901.6	842.9	774.2	698.8
135°	892.2	923.4	940.4	944.3	940.4	923.4	892.2	851.4	798.4	735.9	673.4
137.5°	838.4	865.3	880.3	885.9	880.3	865.3	838.4	801.3	755.0	705.4	653.1
140°	801.3	825.9	840.1	845.8	840.1	825.9	801.3	770.9	729.3	685.7	640.3
142.5°	769.4	791.8	804.5	805.6	804.5	791.8	769.4	740.6	705.8	668.3	629.7
145°	725.5	741.6	751.1	753.9	751.1	741.6	725.5	702.8	675.3	646.0	614.7
147.5°	689.5	702.4	708.8	710.5	708.8	702.4	689.5	670.7	650.7	627.8	603.2
150°	666.8	678.2	683.8	684.8	683.8	678.2	666.8	652.6	635.5	615.6	594.8
152.5°	648.6	658.4	662.6	662.8	662.6	658.4	648.6	637.4	622.6	605.8	586.4
155°	625.1	631.7	635.5	633.7	635.5	631.7	625.1	614.7	604.2	590.0	574.9
157.5°	601.6	607.1	608.8	608.8	608.8	607.1	601.6	594.2	586.0	574.1	561.4
160°	587.2	591.9	592.9	592.9	592.9	591.9	587.2	580.6	574.0	563.5	553.1
162.5°	574.3	577.6	578.5	577.7	578.5	577.6	574.3	567.7	562.6	553.7	544.8
165°	553.1	556.9	556.9	556.0	556.9	556.9	553.1	549.3	545.5	538.9	532.3
167.5°	535.1	537.2	537.0	535.9	537.0	537.2	535.1	533.5	530.0	525.5	520.3
170°	523.7	526.6	525.6	523.7	525.6	526.6	523.7	522.8	520.9	517.1	514.3
172.5°	514.7	516.0	515.0	513.9	515.0	516.0	514.7	513.7	512.6	509.6	507.4
175°	502.9	503.9	502.9	501.0	502.9	503.9	502.9	502.9	502.0	501.0	500.1
177.5°	495.5	495.5	494.8	493.3	494.8	495.5	495.5	495.5	495.5	494.8	494.8
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5



TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	463.1	464.7	467.2	469.9	471.6	474.7	475.6	477.0	478.3	481.4	484.7
5°	436.3	439.0	445.1	448.4	453.0	458.4	461.9	465.6	469.7	476.7	483.2
7.5°	407.6	412.0	419.6	425.8	432.4	440.1	445.6	453.0	459.1	469.0	478.5
10°	388.6	394.7	401.5	409.0	418.2	426.3	434.1	443.4	450.8	462.7	473.8
12.5°	371.4	372.3	382.1	390.3	402.9	413.0	422.0	433.9	441.2	455.3	466.9
15°	341.4	346.9	355.8	362.2	377.2	390.0	402.7	415.1	423.4	440.8	456.2
17.5°	316.0	321.1	330.3	340.9	351.6	364.4	380.7	393.8	405.1	425.0	443.2
20°	300.0	306.3	315.6	326.5	336.0	349.8	363.9	379.0	391.2	413.6	434.9
22.5°	286.4	291.4	298.9	309.7	319.9	332.6	348.1	364.4	377.2	401.5	423.0
25°	267.3	271.3	276.1	285.0	296.7	310.6	322.6	340.6	359.3	381.9	408.0
27.5°	250.0	252.9	257.1	265.0	274.0	287.0	300.4	317.4	336.2	360.8	388.3
30°	239.5	241.3	245.6	252.1	261.0	271.2	284.7	300.9	320.2	345.0	372.4
32.5°	230.3	232.0	234.8	240.9	248.7	257.4	269.5	285.8	304.2	328.6	359.0
35°	216.5	217.8	220.2	225.2	229.5	238.0	248.2	263.0	280.2	303.5	335.0
37.5°	202.8	204.6	206.0	208.1	213.6	219.2	228.0	240.6	257.5	281.0	311.0
40°	193.7	195.2	197.5	198.4	202.8	207.8	215.0	226.5	243.5	265.1	294.3
42.5°	184.5	186.1	187.4	188.4	192.2	196.7	203.2	213.0	228.1	249.0	278.0
45°	172.0	172.3	173.6	175.6	177.4	180.6	185.2	193.7	205.4	225.0	251.4
47.5°	159.4	159.6	159.8	160.7	162.7	165.6	168.7	175.6	186.1	201.7	227.3
50°	150.9	150.6	150.9	151.6	153.0	155.4	158.9	163.9	172.4	187.0	210.6
52.5°	142.8	142.8	142.5	142.8	143.8	145.4	148.0	152.2	159.8	173.3	194.0
55°	130.4	129.5	129.6	128.9	130.6	130.9	132.8	136.3	143.0	152.2	171.7
57.5°	117.2	116.4	115.6	115.4	115.2	116.2	117.6	120.4	125.6	133.7	149.4
60°	108.7	107.8	106.6	106.3	106.3	106.9	107.6	109.7	114.5	121.6	134.6
62.5°	100.1	99.1	98.4	97.4	97.1	97.7	98.4	99.9	103.4	110.1	121.3
65°	86.8	85.5	84.6	84.5	84.1	83.6	83.9	85.4	88.1	93.5	102.4
67.5°	73.5	72.3	72.2	71.0	70.5	70.6	70.5	71.7	73.5	78.1	84.7
70°	64.8	63.9	63.5	62.6	62.2	61.9	61.5	62.6	64.2	68.2	73.9
72.5°	55.9	55.1	54.4	53.6	53.6	53.2	53.2	53.9	55.2	58.8	63.3
75°	43.1	43.4	42.4	41.5	41.3	40.9	40.9	41.5	42.1	44.8	48.3
77.5°	31.3	31.1	30.4	30.1	29.9	29.5	29.9	30.2	30.6	32.4	35.0
80°	23.9	23.9	23.0	23.0	22.7	22.3	22.7	22.4	23.2	25.0	26.8
82.5°	17.0	16.8	16.7	16.5	16.4	16.0	16.2	16.6	17.0	18.2	19.3
85°	8.3	8.3	8.2	8.0	8.2	8.0	8.2	8.3	8.5	9.0	10.0
87.5°	8.0	8.4	8.3	7.3	6.0	5.2	4.8	4.6	4.5	3.8	3.4
90°	31.2	32.2	31.2	25.6	18.9	14.2	11.3	9.5	7.6	3.8	1.0
92.5°	104.0	123.1	121.4	94.5	64.4	43.0	34.1	27.6	23.5	16.6	11.6
95°	324.9	371.3	328.6	218.7	136.4	92.8	70.1	55.0	46.4	36.9	33.2
97.5°	664.9	633.8	477.4	294.7	179.9	125.2	99.5	82.0	69.1	59.1	54.0
100°	884.6	748.2	515.2	310.6	195.1	144.9	118.4	99.5	84.3	75.7	72.9
102.5°	966.5	752.0	500.8	311.4	208.7	162.3	135.8	116.1	100.9	92.5	90.3
105°	953.7	701.8	472.6	316.3	232.0	187.5	161.0	140.1	126.0	119.4	115.5
107.5°	870.6	648.0	458.6	329.4	255.9	212.7	186.1	165.3	152.3	145.9	142.8
110°	818.3	622.2	455.6	340.0	271.8	230.2	202.7	182.8	170.5	164.8	161.0



TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	782.0	605.6	456.3	351.4	287.0	246.8	218.6	199.4	187.9	181.5	177.7
115°	736.9	587.2	460.3	368.4	310.6	269.9	244.3	225.4	214.0	208.4	203.7
117.5°	708.4	578.3	467.1	386.6	332.4	294.7	268.2	250.1	240.0	234.3	230.6
120°	693.2	573.0	471.7	398.8	347.6	310.6	284.1	265.2	256.7	250.9	247.2
122.5°	680.4	570.0	477.0	409.4	362.0	327.3	300.0	281.1	271.8	266.1	263.1
125°	662.0	564.5	484.9	426.2	383.6	349.5	322.9	304.0	292.7	287.0	284.1
127.5°	645.0	561.3	493.1	441.9	403.7	370.5	343.2	325.1	312.6	304.6	300.8
130°	633.7	559.7	499.1	451.8	415.8	382.6	356.1	337.2	323.9	314.5	310.6
132.5°	624.5	559.0	505.2	461.6	426.4	394.8	368.3	348.5	334.5	324.3	319.8
135°	611.8	557.8	512.4	474.5	441.3	411.1	384.5	362.7	348.5	337.2	333.4
137.5°	602.9	557.7	518.9	484.4	453.5	423.5	398.9	377.3	362.2	350.8	346.3
140°	597.6	556.9	521.9	489.7	460.3	431.9	407.2	386.5	371.3	359.9	356.1
142.5°	592.3	556.9	524.2	494.2	465.6	438.0	414.8	394.8	379.6	369.0	366.0
145°	585.3	555.0	526.6	500.1	473.5	448.0	427.1	408.2	394.0	384.5	380.7
147.5°	578.1	551.6	527.3	503.3	480.0	455.9	437.4	421.7	408.5	399.5	396.6
150°	572.0	549.3	526.6	504.8	483.1	461.2	444.2	430.0	417.7	410.1	407.2
152.5°	566.7	545.5	525.1	505.6	486.1	466.5	451.0	437.6	426.7	419.2	417.8
155°	556.9	538.9	522.8	506.7	490.6	474.5	460.3	449.9	439.4	433.7	432.8
157.5°	547.6	532.1	518.4	506.7	493.8	480.2	468.2	459.9	450.9	446.3	445.3
160°	540.8	527.6	516.2	506.7	495.4	484.0	473.5	465.9	458.4	454.6	453.6
162.5°	534.8	523.7	513.9	506.0	496.1	486.2	478.1	471.2	465.2	461.5	462.0
165°	524.7	516.2	509.6	503.9	497.3	488.7	483.1	478.3	472.6	470.8	471.7
167.5°	514.9	509.6	505.2	502.6	497.0	490.8	487.2	483.8	480.2	478.5	479.6
170°	509.6	505.7	502.9	501.0	496.3	491.5	488.7	486.8	484.0	483.1	484.9
172.5°	504.3	501.2	499.9	498.7	495.5	492.3	490.2	489.1	486.2	486.8	488.0
175°	497.3	496.3	495.4	496.3	494.4	492.5	491.5	491.5	489.7	490.6	491.5
177.5°	493.3	492.5	493.3	494.8	493.3	492.5	492.5	492.5	491.0	491.7	493.3
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5



TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	484.5	485.2	487.5	489.9	492.6	493.3	494.5	493.5	493.2	495.9	498.1
5°	485.8	489.1	495.6	501.6	506.5	510.1	513.8	515.3	518.0	521.9	526.8
7.5°	484.2	490.7	500.9	509.6	518.9	525.7	531.0	535.6	541.0	548.4	556.4
10°	482.5	491.1	503.6	514.1	525.6	534.3	541.5	548.6	556.8	567.0	577.5
12.5°	479.2	489.5	505.1	517.6	532.3	540.9	550.6	565.7	574.5	588.7	603.6
15°	472.6	484.1	505.8	521.1	537.9	554.2	572.1	586.5	601.0	609.4	630.2
17.5°	462.9	479.7	503.8	521.7	542.9	568.5	588.7	605.1	621.7	635.3	645.8
20°	455.0	473.4	500.8	522.3	547.5	575.0	598.2	614.9	629.3	640.7	647.1
22.5°	445.2	468.2	494.9	520.1	552.2	579.5	603.8	616.9	629.0	634.5	637.1
25°	429.5	457.3	487.5	518.2	554.5	583.4	605.6	613.6	617.1	611.7	602.8
27.5°	412.6	443.6	478.9	514.7	553.1	580.9	596.8	595.6	589.6	572.2	558.3
30°	400.1	434.1	472.1	511.2	549.7	576.7	586.0	576.7	563.2	543.8	523.9
32.5°	386.9	422.2	464.8	506.1	543.5	567.3	569.2	553.3	532.4	510.3	485.6
35°	366.9	405.0	451.2	494.9	530.3	545.3	536.4	508.2	483.4	453.2	419.5
37.5°	344.3	386.5	432.7	478.4	510.5	514.4	492.3	462.7	427.6	392.2	352.5
40°	327.4	372.1	419.7	465.8	494.2	490.1	461.9	429.3	387.7	344.3	307.4
42.5°	312.3	356.9	405.4	450.7	473.4	462.2	429.3	389.3	344.5	303.7	269.9
45°	286.2	332.1	381.7	425.4	438.4	418.2	374.7	330.2	286.2	252.1	225.4
47.5°	260.7	306.1	355.3	393.7	398.3	371.1	323.6	277.9	239.9	212.2	193.4
50°	242.1	287.6	336.3	370.6	369.1	336.3	287.5	243.9	212.2	189.8	177.2
52.5°	225.3	268.4	315.1	346.3	338.4	302.7	256.0	217.4	191.4	173.8	162.4
55°	199.3	239.1	283.6	308.6	294.1	254.5	215.0	183.9	164.6	151.5	142.6
57.5°	173.4	210.8	248.8	264.2	248.3	211.7	178.8	156.2	141.7	132.0	126.2
60°	157.4	190.0	223.9	237.3	218.2	185.6	159.6	139.5	127.8	119.8	114.6
62.5°	141.5	170.6	202.6	209.9	192.4	164.9	141.9	125.1	115.5	108.4	103.5
65°	119.6	143.6	167.8	172.6	156.5	135.2	117.1	106.2	97.6	92.5	88.5
67.5°	98.2	117.3	134.5	138.4	124.3	109.5	96.4	86.8	81.1	76.8	73.5
70°	85.4	100.6	114.6	117.8	106.5	93.4	83.3	75.7	70.5	66.9	63.7
72.5°	71.9	84.5	96.3	98.4	89.2	79.1	70.9	64.9	60.3	58.0	55.0
75°	55.0	62.5	71.5	72.1	66.0	59.8	53.6	49.7	47.2	44.3	42.8
77.5°	38.8	44.6	49.8	50.8	47.2	43.0	39.5	36.4	34.4	33.0	31.6
80°	29.6	34.2	36.5	37.7	35.2	32.2	30.2	28.1	26.8	25.9	25.0
82.5°	21.2	24.1	26.1	27.1	25.7	23.9	21.9	20.7	19.7	19.0	18.7
85°	10.8	12.1	13.4	13.7	13.4	12.6	11.5	11.5	10.9	10.8	10.8
87.5°	4.5	5.8	6.2	7.0	7.3	8.2	9.5	10.5	10.6	10.3	9.9
90°	3.8	7.6	9.5	11.3	14.2	18.9	25.6	31.2	32.2	31.2	30.3
92.5°	16.6	23.5	27.6	34.1	43.0	64.4	94.5	121.4	123.1	104.0	82.6
95°	36.9	46.4	55.0	70.1	92.8	136.4	218.7	328.6	371.3	324.9	248.2
97.5°	59.1	69.1	82.0	99.5	125.2	179.9	294.7	477.4	633.8	664.9	579.0
100°	75.7	84.3	99.5	118.4	144.9	195.1	310.6	515.2	748.2	884.6	864.7
102.5°	92.5	100.9	116.1	135.8	162.3	208.7	311.4	500.8	752.0	966.5	1051.9
105°	119.4	126.0	140.1	161.0	187.5	232.0	316.3	472.6	701.8	953.7	1150.7
107.5°	145.9	152.3	165.3	186.1	212.7	255.9	329.4	458.6	648.0	870.6	1079.5
110°	164.8	170.5	182.8	202.7	230.2	271.8	340.0	455.6	622.2	818.3	1018.1





TEST NUMBER: P331278-930

CATALOG NUMBER: SA2XXDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	181.5	187.9	199.4	218.6	246.8	287.0	351.4	456.3	605.6	782.0	962.1
115°	208.4	214.0	225.4	244.3	269.9	310.6	368.4	460.3	587.2	736.9	893.2
117.5°	234.3	240.0	250.1	268.2	294.7	332.4	386.6	467.1	578.3	708.4	841.2
120°	250.9	256.7	265.2	284.1	310.6	347.6	398.8	471.7	573.0	693.2	815.5
122.5°	266.1	271.8	281.1	300.0	327.3	362.0	409.4	477.0	570.0	680.4	795.0
125°	287.0	292.7	304.0	322.9	349.5	383.6	426.2	484.9	564.5	662.0	765.2
127.5°	304.6	312.6	325.1	343.2	370.5	403.7	441.9	493.1	561.3	645.0	735.9
130°	314.5	323.9	337.2	356.1	382.6	415.8	451.8	499.1	559.7	633.7	717.0
132.5°	324.3	334.5	348.5	368.3	394.8	426.4	461.6	505.2	559.0	624.5	698.8
135°	337.2	348.5	362.7	384.5	411.1	441.3	474.5	512.4	557.8	611.8	673.4
137.5°	350.8	362.2	377.3	398.9	423.5	453.5	484.4	518.9	557.7	602.9	653.1
140°	359.9	371.3	386.5	407.2	431.9	460.3	489.7	521.9	556.9	597.6	640.3
142.5°	369.0	379.6	394.8	414.8	438.0	465.6	494.2	524.2	556.9	592.3	629.7
145°	384.5	394.0	408.2	427.1	448.0	473.5	500.1	526.6	555.0	585.3	614.7
147.5°	399.5	408.5	421.7	437.4	455.9	480.0	503.3	527.3	551.6	578.1	603.2
150°	410.1	417.7	430.0	444.2	461.2	483.1	504.8	526.6	549.3	572.0	594.8
152.5°	419.2	426.7	437.6	451.0	466.5	486.1	505.6	525.1	545.5	566.7	586.4
155°	433.7	439.4	449.9	460.3	474.5	490.6	506.7	522.8	538.9	556.9	574.9
157.5°	446.3	450.9	459.9	468.2	480.2	493.8	506.7	518.4	532.1	547.6	561.4
160°	454.6	458.4	465.9	473.5	484.0	495.4	506.7	516.2	527.6	540.8	553.1
162.5°	461.5	465.2	471.2	478.1	486.2	496.1	506.0	513.9	523.7	534.8	544.8
165°	470.8	472.6	478.3	483.1	488.7	497.3	503.9	509.6	516.2	524.7	532.3
167.5°	478.5	480.2	483.8	487.2	490.8	497.0	502.6	505.2	509.6	514.9	520.3
170°	483.1	484.0	486.8	488.7	491.5	496.3	501.0	502.9	505.7	509.6	514.3
172.5°	486.8	486.2	489.1	490.2	492.3	495.5	498.7	499.9	501.2	504.3	507.4
175°	490.6	489.7	491.5	491.5	492.5	494.4	496.3	495.4	496.3	497.3	500.1
177.5°	491.7	491.0	492.5	492.5	492.5	493.3	494.8	493.3	492.5	493.3	494.8
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	499.9	501.9	501.9	502.2	504.6	504.3	504.1
5°	531.9	535.1	535.4	538.7	541.0	540.2	538.2
7.5°	562.1	568.0	572.5	574.9	577.9	579.7	578.9
10°	586.2	594.7	599.9	603.4	607.6	610.8	609.7
12.5°	608.0	618.1	625.3	631.3	631.8	635.9	633.1
15°	642.0	652.6	653.8	658.2	661.8	661.4	661.5
17.5°	653.1	656.6	657.3	657.4	657.5	656.2	653.3
20°	649.1	647.8	644.7	642.3	638.1	637.5	633.8
22.5°	630.1	626.1	618.2	612.9	606.3	604.6	603.6
25°	592.9	583.8	571.2	559.1	555.8	549.3	551.1
27.5°	541.6	527.5	513.8	504.1	495.2	485.5	488.3
30°	505.6	489.7	470.4	455.6	446.1	436.9	435.2
32.5°	462.7	439.3	417.8	404.8	390.3	384.4	378.1
35°	388.6	365.7	344.5	326.1	315.6	307.4	300.0
37.5°	322.0	295.7	278.5	263.7	256.0	251.4	252.6
40°	280.6	257.6	245.0	233.7	226.7	223.4	224.1
42.5°	247.1	229.9	219.6	211.8	206.8	205.0	204.6
45°	209.1	199.5	190.9	186.5	184.1	182.1	180.8
47.5°	183.2	175.3	170.5	167.9	165.8	163.7	163.6
50°	167.6	162.4	159.1	156.3	154.7	153.2	154.5
52.5°	155.7	151.0	147.7	145.2	144.6	143.2	143.2
55°	138.2	134.4	132.1	129.8	128.7	128.0	127.0
57.5°	122.1	118.6	116.4	115.0	112.9	112.2	111.9
60°	110.7	107.9	105.7	103.9	103.0	101.5	101.5
62.5°	100.2	97.4	95.4	94.0	92.5	91.9	92.0
65°	85.0	82.8	80.7	79.2	78.9	77.8	78.2
67.5°	71.0	69.5	67.3	66.5	65.9	65.3	64.8
70°	61.6	60.2	59.1	58.0	57.4	57.4	57.4
72.5°	53.8	52.0	51.4	50.0	50.3	49.7	49.1
75°	41.7	40.5	40.0	39.5	38.6	38.6	38.6
77.5°	30.7	30.3	29.7	29.1	28.9	28.7	28.8
80°	23.7	23.5	23.2	23.2	22.7	22.6	22.3
82.5°	18.3	17.8	17.5	17.4	17.3	17.3	17.2
85°	10.4	10.0	10.0	10.2	9.8	9.8	10.0
87.5°	9.7	10.0	10.1	10.1	10.3	10.1	10.1
90°	28.5	30.3	31.2	31.2	31.2	31.2	31.2
92.5°	70.8	62.9	57.0	56.3	53.2	54.0	52.5
95°	190.4	150.6	129.7	117.4	109.9	107.0	107.9
97.5°	473.8	371.3	302.9	257.6	234.3	220.5	212.5
100°	747.3	617.5	502.9	424.3	383.6	356.1	339.1
102.5°	1025.3	930.4	809.0	723.6	654.1	619.8	596.7
105°	1257.8	1270.1	1238.8	1180.1	1121.4	1080.7	1067.4
107.5°	1240.7	1339.2	1385.0	1392.4	1389.2	1381.0	1363.4
110°	1187.6	1308.9	1386.6	1427.3	1445.3	1453.8	1452.9



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	1124.8	1254.3	1343.4	1400.0	1430.1	1446.3	1451.3
115°	1039.0	1163.0	1260.6	1327.9	1371.4	1396.0	1404.6
117.5°	969.3	1081.8	1173.3	1241.9	1287.8	1313.9	1321.0
120°	932.9	1033.3	1119.5	1185.8	1230.3	1257.8	1267.2
122.5°	902.6	997.7	1075.5	1135.0	1178.8	1203.2	1211.1
125°	862.8	946.2	1017.2	1072.1	1108.2	1131.8	1139.4
127.5°	824.2	902.8	968.3	1016.3	1049.9	1070.4	1076.5
130°	798.4	873.3	935.7	982.2	1014.4	1033.3	1040.9
132.5°	774.2	842.9	901.6	947.3	979.5	996.9	1003.7
135°	735.9	798.4	851.4	892.2	923.4	940.4	944.3
137.5°	705.4	755.0	801.3	838.4	865.3	880.3	885.9
140°	685.7	729.3	770.9	801.3	825.9	840.1	845.8
142.5°	668.3	705.8	740.6	769.4	791.8	804.5	805.6
145°	646.0	675.3	702.8	725.5	741.6	751.1	753.9
147.5°	627.8	650.7	670.7	689.5	702.4	708.8	710.5
150°	615.6	635.5	652.6	666.8	678.2	683.8	684.8
152.5°	605.8	622.6	637.4	648.6	658.4	662.6	662.8
155°	590.0	604.2	614.7	625.1	631.7	635.5	633.7
157.5°	574.1	586.0	594.2	601.6	607.1	608.8	608.8
160°	563.5	574.0	580.6	587.2	591.9	592.9	592.9
162.5°	553.7	562.6	567.7	574.3	577.6	578.5	577.7
165°	538.9	545.5	549.3	553.1	556.9	556.9	556.0
167.5°	525.5	530.0	533.5	535.1	537.2	537.0	535.9
170°	517.1	520.9	522.8	523.7	526.6	525.6	523.7
172.5°	509.6	512.6	513.7	514.7	516.0	515.0	513.9
175°	501.0	502.0	502.9	502.9	503.9	502.9	501.0
177.5°	494.8	495.5	495.5	495.5	495.5	494.8	493.3
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5

(END OF REPORT)