

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: P331641-930

Luminaire Tested: **SA2XXRDIP-C290D1080U930-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331641-930  
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: SA2XXRDIP-C290D1080U930-4F0-1E-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: 4352.7 lumens  
Efficiency: N/A  
Efficacy: 103.1 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

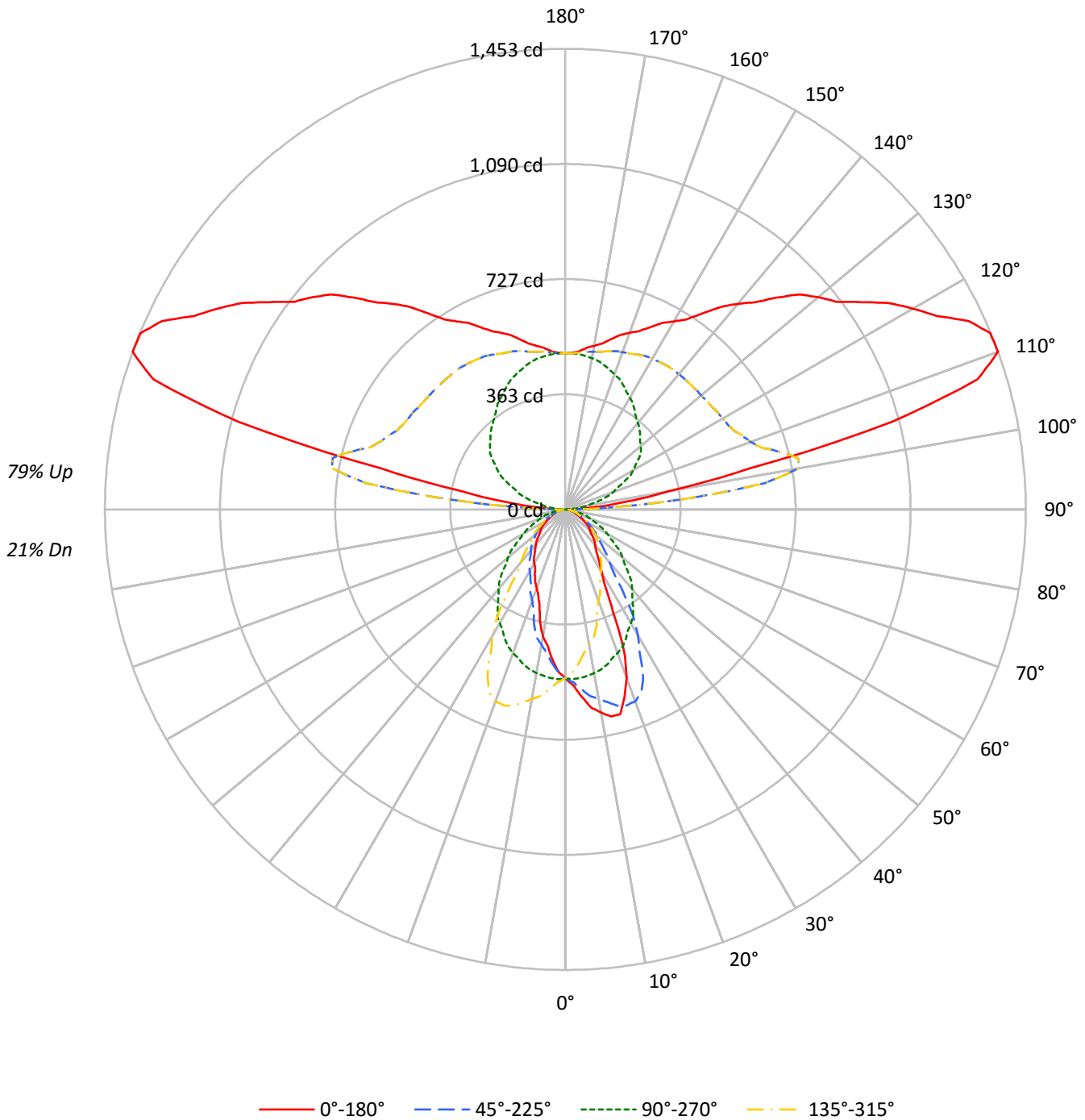
Input Watts (W): 42.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8606	8606	8606	8606
5°	9611	8660	7679	8660
10°	10663	8599	6655	8599
15°	11188	8473	5244	8473
20°	9699	8285	4538	8285
25°	6360	8031	4051	8031
30°	4282	7720	3667	7720
35°	3467	7330	3307	7330
40°	3084	6905	3060	6905
45°	2790	6405	2731	6405
50°	2539	5913	2532	5913
55°	2387	5362	2356	5362
60°	1999	4863	1973	4863
65°	1685	4413	1910	4413
70°	1553	3942	1803	3942
75°	1454	3431	1666	3431
80°	1339	2827	1478	2827
85°	1241	2242	1297	2242



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.5	1.2
10°-20°	140.8	3.2
20°-30°	181.4	4.2
30°-40°	172.4	4.0
40°-50°	147.7	3.4
50°-60°	112.5	2.6
60°-70°	71.1	1.6
70°-80°	35.5	0.8
80°-90°	13.7	0.3
90°-100°	196.9	4.5
100°-110°	668.2	15.4
110°-120°	709.9	16.3
120°-130°	584.4	13.4
130°-140°	469.3	10.8
140°-150°	354.6	8.1
150°-160°	249.2	5.7
160°-170°	146.7	3.4
170°-180°	47.8	1.1
0°-30°	372.7	8.6
0°-40°	545.1	12.5
0°-60°	805.3	18.5
0°-90°	925.6	21.3
90°-120°	1575.1	36.2
90°-150°	2983.4	68.5
90°-180°	3427.0	78.7
0°-180°	4352.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	533	533	533	533	533	
5°	593	534	474	534	593	59
15°	669	507	314	507	669	181
25°	357	451	227	451	357	169
35°	176	372	168	372	176	113
45°	122	280	120	280	122	95
55°	85	190	84	190	85	74
65°	44	116	50	116	44	45
75°	23	55	27	55	23	25
85°	7	12	7	12	7	8
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°	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
2.5°	554.6	555.1	555.5	554.5	554.5	553.6	551.6	550.2	546.0	545.4	545.4
5°	593.0	592.6	593.4	590.9	587.7	586.9	583.3	578.7	573.9	568.6	567.4
7.5°	631.1	630.6	629.1	628.7	626.1	620.5	614.9	608.9	600.9	593.0	589.1
10°	650.4	656.6	652.8	646.4	647.6	639.0	634.3	626.3	619.6	608.0	605.4
12.5°	669.4	671.8	670.6	666.9	665.3	659.3	653.0	646.0	633.7	623.3	614.2
15°	669.3	672.8	673.8	672.6	673.5	673.2	669.8	664.1	653.4	641.9	631.9
17.5°	619.9	622.3	628.4	632.5	637.7	648.7	654.1	656.2	654.6	648.0	641.0
20°	564.5	560.4	577.5	586.1	593.5	612.0	628.0	634.1	643.9	643.8	641.9
22.5°	485.9	486.9	503.0	513.4	535.0	553.6	571.7	594.7	613.7	626.2	633.6
25°	357.0	364.1	380.2	394.3	418.3	452.8	484.1	520.4	554.6	581.7	607.5
27.5°	268.2	268.7	281.4	294.5	308.8	337.0	376.4	419.7	468.6	508.9	555.2
30°	229.7	228.5	233.9	241.9	254.1	276.0	305.6	348.1	396.9	457.6	511.7
32.5°	202.4	202.4	206.5	212.4	222.5	237.3	257.6	292.2	338.2	397.9	461.3
35°	175.9	175.8	178.7	183.0	187.2	196.7	210.6	228.7	260.4	316.1	380.9
37.5°	156.9	157.8	159.2	161.9	166.6	171.9	180.2	192.4	214.9	247.9	302.4
40°	146.3	146.7	148.7	150.9	153.7	157.8	164.6	174.5	190.9	217.2	257.1
42.5°	136.6	136.9	138.4	140.4	142.6	146.7	152.4	160.9	174.2	194.7	227.6
45°	122.2	122.2	123.5	124.4	126.9	130.5	135.2	142.3	151.5	166.6	188.5
47.5°	108.8	108.8	109.7	111.3	112.8	115.7	120.3	126.0	132.7	144.5	163.1
50°	101.1	101.3	101.8	103.1	104.1	106.6	110.2	115.2	122.2	131.3	146.8
52.5°	94.9	94.8	95.5	96.0	96.7	98.5	101.2	105.6	111.9	119.8	132.6
55°	84.8	84.1	85.2	86.1	86.7	87.4	88.9	91.6	97.0	103.7	113.3
57.5°	72.2	71.9	72.7	73.5	75.3	77.3	78.6	80.3	83.1	87.9	97.4
60°	61.9	61.9	63.5	64.1	66.1	68.7	71.3	72.8	75.6	78.7	85.8
62.5°	52.7	52.8	53.6	54.1	55.3	58.5	62.1	65.4	68.0	71.0	75.7
65°	44.1	44.4	44.4	44.8	45.6	46.3	47.8	50.4	55.0	59.3	62.8
67.5°	37.4	37.5	37.7	38.0	38.2	39.0	39.6	40.8	41.8	45.8	50.2
70°	32.9	33.5	33.3	33.7	33.9	34.2	35.0	35.5	37.3	38.2	40.8
72.5°	28.8	29.2	29.2	29.4	29.9	30.0	30.6	31.1	32.2	32.9	34.4
75°	23.3	23.2	23.3	23.7	23.9	24.1	24.1	24.8	25.4	26.1	27.1
77.5°	18.0	18.2	18.2	18.2	18.3	18.6	18.5	18.8	19.4	19.8	20.2
80°	14.4	14.6	14.4	14.6	14.8	15.0	14.8	15.0	15.6	15.9	15.9
82.5°	11.2	11.3	11.3	11.3	11.4	11.4	11.7	11.7	12.1	12.1	12.2
85°	6.7	6.5	6.5	6.5	6.7	6.8	6.7	6.7	6.8	6.8	6.8
87.5°	8.6	8.8	8.8	8.8	8.8	8.6	8.2	8.7	8.8	9.1	8.8
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°	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
2.5°	545.8	544.5	543.5	540.9	539.5	536.5	536.1	536.0	532.1	528.4	527.3
5°	564.5	561.5	557.1	551.9	546.5	541.0	537.3	534.3	526.8	519.8	515.8
7.5°	583.3	577.0	569.3	559.5	551.3	542.2	535.3	529.2	518.7	508.6	501.8
10°	597.5	587.1	576.9	563.4	552.8	542.4	532.8	524.5	512.7	499.3	489.8
12.5°	606.2	594.8	580.7	567.5	553.8	540.6	527.7	517.1	503.1	489.3	478.2
15°	618.0	605.8	588.7	569.8	552.3	535.0	520.2	506.9	488.8	472.2	458.5
17.5°	627.7	610.8	592.6	570.7	550.3	528.5	509.4	492.4	472.1	452.2	436.1
20°	630.8	614.1	593.0	571.1	547.1	521.3	500.8	482.2	460.6	438.9	420.4
22.5°	628.8	615.9	592.4	566.2	541.6	514.7	491.5	469.9	445.9	423.8	402.4
25°	615.8	611.3	589.1	560.6	532.5	501.2	474.3	450.8	423.4	399.7	376.3
27.5°	585.3	594.9	581.1	550.7	519.4	485.9	455.7	428.9	400.5	373.8	350.6
30°	556.0	578.0	572.1	543.9	508.9	476.0	442.1	414.1	383.8	356.3	333.4
32.5°	515.8	552.2	558.0	534.4	498.2	462.0	426.5	398.7	367.0	338.1	315.7
35°	451.8	506.3	531.3	516.3	480.0	440.9	404.3	371.9	340.0	311.5	289.3
37.5°	375.6	449.8	491.5	492.5	459.2	418.6	378.6	346.4	313.8	285.8	261.8
40°	326.1	406.5	460.8	472.8	444.7	400.8	360.4	327.6	295.8	268.3	240.8
42.5°	281.7	361.7	428.4	449.4	427.1	383.4	342.9	308.7	277.7	251.8	223.6
45°	227.8	297.8	371.3	408.7	396.3	356.0	313.2	280.5	251.5	229.1	202.0
47.5°	192.2	241.5	312.7	363.2	363.1	326.2	284.1	252.9	225.9	204.9	183.0
50°	171.9	214.8	275.0	332.4	337.2	306.3	266.3	235.4	210.2	188.2	170.6
52.5°	153.6	189.1	243.1	298.2	311.9	285.1	246.3	217.8	193.3	173.0	158.0
55°	129.8	157.3	198.4	249.8	270.6	251.7	217.2	190.5	170.7	153.7	140.7
57.5°	109.8	130.4	163.4	204.8	228.9	217.1	188.7	167.0	150.0	134.6	124.4
60°	97.3	114.1	142.0	176.7	203.3	195.0	170.7	150.6	136.2	122.8	113.2
62.5°	85.4	99.9	123.8	152.0	176.3	172.9	153.1	136.2	123.5	111.4	103.2
65°	68.7	79.2	98.0	120.0	139.7	141.3	127.0	115.5	104.3	94.7	87.4
67.5°	54.7	61.6	74.8	93.4	108.0	113.3	104.6	95.8	86.8	79.4	73.1
70°	46.1	51.7	61.3	76.3	89.8	95.4	90.3	83.5	75.7	69.6	64.2
72.5°	37.3	42.8	49.9	60.9	72.5	78.5	76.7	71.8	65.6	60.4	55.4
75°	28.1	29.8	34.7	42.1	51.1	56.3	57.6	55.0	50.0	46.1	43.1
77.5°	20.8	21.9	24.1	28.0	33.9	38.6	40.4	40.1	36.7	34.5	31.6
80°	16.6	17.2	18.3	20.0	24.5	29.1	30.4	30.4	28.0	27.1	24.3
82.5°	12.6	13.0	13.8	14.7	16.7	20.8	22.3	22.5	21.0	19.8	17.6
85°	7.3	7.0	7.4	8.0	8.3	9.5	11.7	12.1	11.7	10.2	9.6
87.5°	7.7	6.4	5.5	4.8	4.6	4.3	4.3	4.5	4.5	4.8	4.9
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: P331641-930

CATALOG NUMBER: SA2XXRDIP-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: P331641-930

CATALOG NUMBER: SA2XXRDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
2.5°	525.5	524.4	522.4	519.5	517.7	514.6	512.6	513.7	514.0	513.7	513.5
5°	511.4	507.4	502.1	496.8	492.0	486.9	483.9	482.7	480.0	478.6	477.8
7.5°	494.2	487.5	480.0	470.9	463.3	455.2	451.1	449.1	443.8	440.9	438.4
10°	481.5	470.9	463.3	451.5	444.3	433.7	426.5	426.7	419.5	415.4	412.5
12.5°	467.4	455.8	443.2	432.5	422.5	414.0	405.3	401.8	394.1	390.2	382.2
15°	444.1	430.6	417.3	402.8	392.6	379.4	366.9	351.5	339.1	328.3	325.4
17.5°	418.7	401.9	388.5	371.5	354.1	332.0	317.4	308.4	301.0	295.3	291.1
20°	401.1	384.1	369.8	344.3	320.7	305.7	295.1	288.1	280.4	274.3	270.9
22.5°	382.8	365.0	345.5	317.0	298.6	286.7	277.1	269.2	263.9	259.2	256.1
25°	356.7	337.2	305.2	285.6	270.8	258.1	251.5	246.7	241.2	234.6	231.7
27.5°	329.1	298.2	275.2	260.6	246.5	238.3	232.3	225.1	220.1	217.2	214.1
30°	308.5	277.6	259.7	243.7	233.7	224.6	217.6	213.5	208.7	203.7	201.7
32.5°	285.6	260.9	243.6	230.4	220.2	212.5	206.9	200.3	196.9	193.8	189.6
35°	257.1	238.3	222.6	211.9	202.2	195.9	189.5	185.6	179.3	176.7	175.0
37.5°	232.9	216.7	205.0	193.6	186.0	179.0	175.0	168.8	166.2	162.5	159.0
40°	219.2	203.3	192.1	182.8	174.2	169.1	164.1	159.1	155.0	153.4	149.1
42.5°	205.4	192.4	181.1	171.0	165.3	159.7	153.4	149.8	145.5	142.8	140.2
45°	186.1	174.6	165.0	156.7	150.3	144.6	140.6	134.4	132.1	126.7	124.4
47.5°	169.3	158.6	149.4	141.5	135.3	131.6	125.6	120.8	117.0	113.7	110.8
50°	157.3	148.3	139.4	132.4	126.9	121.5	115.4	113.0	107.0	105.3	103.7
52.5°	146.3	137.8	129.7	122.8	117.2	112.0	106.6	103.5	99.5	97.8	96.6
55°	130.9	122.8	115.0	108.9	103.4	98.0	94.7	90.7	88.9	87.6	86.1
57.5°	115.5	108.2	102.2	96.0	90.4	86.2	82.3	80.0	78.1	76.4	74.6
60°	105.7	98.7	93.4	87.6	81.9	78.4	75.4	72.6	70.4	67.8	67.0
62.5°	95.4	89.2	84.3	78.7	73.7	70.5	67.7	65.1	62.4	58.6	57.6
65°	81.1	76.3	71.1	66.4	62.0	58.9	54.8	51.9	50.7	50.4	50.2
67.5°	68.2	63.7	59.2	54.5	50.5	47.5	45.4	45.0	44.2	44.0	43.5
70°	59.6	55.4	51.0	46.5	42.6	42.1	41.3	40.5	39.6	39.3	38.9
72.5°	51.9	47.5	43.0	39.5	37.8	37.2	36.4	35.6	35.1	34.7	34.5
75°	39.8	35.7	32.8	31.5	30.6	30.0	28.9	28.4	28.0	27.4	27.2
77.5°	28.7	26.3	25.0	24.2	23.2	22.7	22.0	21.4	21.0	21.0	20.6
80°	21.9	20.7	19.8	18.7	18.3	17.6	17.4	16.9	17.0	16.5	16.5
82.5°	17.0	15.6	14.8	14.3	13.9	13.3	13.1	12.9	12.9	12.5	12.5
85°	8.7	8.3	8.0	7.6	7.6	7.0	7.3	7.0	7.0	6.7	6.5
87.5°	5.1	5.5	6.2	7.5	8.6	8.6	8.5	8.2	7.7	8.2	8.2
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: P331641-930

CATALOG NUMBER: SA2XXRDIP-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: P331641-930

CATALOG NUMBER: SA2XXRDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
2.5°	511.8	512.1	511.7	511.9	511.7	512.1	511.8	513.5	513.7	514.0	513.7
5°	476.9	474.7	474.3	473.8	474.3	474.7	476.9	477.8	478.6	480.0	482.7
7.5°	435.2	434.9	433.9	432.6	433.9	434.9	435.2	438.4	440.9	443.8	449.1
10°	408.4	407.4	407.2	405.9	407.2	407.4	408.4	412.5	415.4	419.5	426.7
12.5°	376.9	371.0	370.4	367.1	370.4	371.0	376.9	382.2	390.2	394.1	401.8
15°	321.0	319.8	316.1	313.7	316.1	319.8	321.0	325.4	328.3	339.1	351.5
17.5°	288.9	285.3	284.1	283.6	284.1	285.3	288.9	291.1	295.3	301.0	308.4
20°	268.3	265.1	264.5	264.1	264.5	265.1	268.3	270.9	274.3	280.4	288.1
22.5°	254.1	250.6	249.2	248.1	249.2	250.6	254.1	256.1	259.2	263.9	269.2
25°	229.8	228.5	227.8	227.4	227.8	228.5	229.8	231.7	234.6	241.2	246.7
27.5°	210.8	208.0	207.4	206.4	207.4	208.0	210.8	214.1	217.2	220.1	225.1
30°	200.0	199.1	197.8	196.7	197.8	199.1	200.0	201.7	203.7	208.7	213.5
32.5°	187.3	186.5	185.3	184.8	185.3	186.5	187.3	189.6	193.8	196.9	200.3
35°	173.2	170.6	169.4	167.8	169.4	170.6	173.2	175.0	176.7	179.3	185.6
37.5°	158.2	156.9	155.3	155.9	155.3	156.9	158.2	159.0	162.5	166.2	168.8
40°	146.7	145.8	145.4	145.2	145.4	145.8	146.7	149.1	153.4	155.0	159.1
42.5°	137.5	134.9	134.0	134.0	134.0	134.9	137.5	140.2	142.8	145.5	149.8
45°	123.5	121.2	119.4	119.6	119.4	121.2	123.5	124.4	126.7	132.1	134.4
47.5°	109.3	109.2	108.1	108.4	108.1	109.2	109.3	110.8	113.7	117.0	120.8
50°	102.4	101.3	100.5	100.8	100.5	101.3	102.4	103.7	105.3	107.0	113.0
52.5°	95.9	94.9	94.3	95.1	94.3	94.9	95.9	96.6	97.8	99.5	103.5
55°	85.2	84.1	83.9	83.7	83.9	84.1	85.2	86.1	87.6	88.9	90.7
57.5°	73.2	72.5	71.3	70.9	71.3	72.5	73.2	74.6	76.4	78.1	80.0
60°	64.7	63.2	61.3	61.1	61.3	63.2	64.7	67.0	67.8	70.4	72.6
62.5°	56.7	56.5	56.1	56.1	56.1	56.5	56.7	57.6	58.6	62.4	65.1
65°	49.8	49.7	49.8	50.0	49.8	49.7	49.8	50.2	50.4	50.7	51.9
67.5°	43.4	43.0	42.7	42.9	42.7	43.0	43.4	43.5	44.0	44.2	45.0
70°	38.5	38.3	38.2	38.2	38.2	38.3	38.5	38.9	39.3	39.6	40.5
72.5°	33.8	33.8	33.6	33.4	33.6	33.8	33.8	34.5	34.7	35.1	35.6
75°	27.1	26.7	26.7	26.7	26.7	26.7	27.1	27.2	27.4	28.0	28.4
77.5°	20.6	20.4	20.2	20.1	20.2	20.4	20.6	20.6	21.0	21.0	21.4
80°	16.3	16.1	15.9	15.9	15.9	16.1	16.3	16.5	16.5	17.0	16.9
82.5°	12.5	12.2	12.2	12.1	12.2	12.2	12.5	12.5	12.5	12.9	12.9
85°	6.7	6.8	6.7	7.0	6.7	6.8	6.7	6.5	6.7	7.0	7.0
87.5°	8.2	8.0	8.2	8.0	8.2	8.0	8.2	8.2	8.2	7.7	8.2
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: P331641-930

CATALOG NUMBER: SA2XXRDIP-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: P331641-930

CATALOG NUMBER: SA2XXRDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
2.5°	512.6	514.6	517.7	519.5	522.4	524.4	525.5	527.3	528.4	532.1	536.0
5°	483.9	486.9	492.0	496.8	502.1	507.4	511.4	515.8	519.8	526.8	534.3
7.5°	451.1	455.2	463.3	470.9	480.0	487.5	494.2	501.8	508.6	518.7	529.2
10°	426.5	433.7	444.3	451.5	463.3	470.9	481.5	489.8	499.3	512.7	524.5
12.5°	405.3	414.0	422.5	432.5	443.2	455.8	467.4	478.2	489.3	503.1	517.1
15°	366.9	379.4	392.6	402.8	417.3	430.6	444.1	458.5	472.2	488.8	506.9
17.5°	317.4	332.0	354.1	371.5	388.5	401.9	418.7	436.1	452.2	472.1	492.4
20°	295.1	305.7	320.7	344.3	369.8	384.1	401.1	420.4	438.9	460.6	482.2
22.5°	277.1	286.7	298.6	317.0	345.5	365.0	382.8	402.4	423.8	445.9	469.9
25°	251.5	258.1	270.8	285.6	305.2	337.2	356.7	376.3	399.7	423.4	450.8
27.5°	232.3	238.3	246.5	260.6	275.2	298.2	329.1	350.6	373.8	400.5	428.9
30°	217.6	224.6	233.7	243.7	259.7	277.6	308.5	333.4	356.3	383.8	414.1
32.5°	206.9	212.5	220.2	230.4	243.6	260.9	285.6	315.7	338.1	367.0	398.7
35°	189.5	195.9	202.2	211.9	222.6	238.3	257.1	289.3	311.5	340.0	371.9
37.5°	175.0	179.0	186.0	193.6	205.0	216.7	232.9	261.8	285.8	313.8	346.4
40°	164.1	169.1	174.2	182.8	192.1	203.3	219.2	240.8	268.3	295.8	327.6
42.5°	153.4	159.7	165.3	171.0	181.1	192.4	205.4	223.6	251.8	277.7	308.7
45°	140.6	144.6	150.3	156.7	165.0	174.6	186.1	202.0	229.1	251.5	280.5
47.5°	125.6	131.6	135.3	141.5	149.4	158.6	169.3	183.0	204.9	225.9	252.9
50°	115.4	121.5	126.9	132.4	139.4	148.3	157.3	170.6	188.2	210.2	235.4
52.5°	106.6	112.0	117.2	122.8	129.7	137.8	146.3	158.0	173.0	193.3	217.8
55°	94.7	98.0	103.4	108.9	115.0	122.8	130.9	140.7	153.7	170.7	190.5
57.5°	82.3	86.2	90.4	96.0	102.2	108.2	115.5	124.4	134.6	150.0	167.0
60°	75.4	78.4	81.9	87.6	93.4	98.7	105.7	113.2	122.8	136.2	150.6
62.5°	67.7	70.5	73.7	78.7	84.3	89.2	95.4	103.2	111.4	123.5	136.2
65°	54.8	58.9	62.0	66.4	71.1	76.3	81.1	87.4	94.7	104.3	115.5
67.5°	45.4	47.5	50.5	54.5	59.2	63.7	68.2	73.1	79.4	86.8	95.8
70°	41.3	42.1	42.6	46.5	51.0	55.4	59.6	64.2	69.6	75.7	83.5
72.5°	36.4	37.2	37.8	39.5	43.0	47.5	51.9	55.4	60.4	65.6	71.8
75°	28.9	30.0	30.6	31.5	32.8	35.7	39.8	43.1	46.1	50.0	55.0
77.5°	22.0	22.7	23.2	24.2	25.0	26.3	28.7	31.6	34.5	36.7	40.1
80°	17.4	17.6	18.3	18.7	19.8	20.7	21.9	24.3	27.1	28.0	30.4
82.5°	13.1	13.3	13.9	14.3	14.8	15.6	17.0	17.6	19.8	21.0	22.5
85°	7.3	7.0	7.6	7.6	8.0	8.3	8.7	9.6	10.2	11.7	12.1
87.5°	8.5	8.6	8.6	7.5	6.2	5.5	5.1	4.9	4.8	4.5	4.5
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: P331641-930

CATALOG NUMBER: SA2XXRDIP-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: P331641-930

CATALOG NUMBER: SA2XXRDIP-C290D1080U930-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
2.5°	536.1	536.5	539.5	540.9	543.5	544.5	545.8	545.4	545.4	546.0	550.2
5°	537.3	541.0	546.5	551.9	557.1	561.5	564.5	567.4	568.6	573.9	578.7
7.5°	535.3	542.2	551.3	559.5	569.3	577.0	583.3	589.1	593.0	600.9	608.9
10°	532.8	542.4	552.8	563.4	576.9	587.1	597.5	605.4	608.0	619.6	626.3
12.5°	527.7	540.6	553.8	567.5	580.7	594.8	606.2	614.2	623.3	633.7	646.0
15°	520.2	535.0	552.3	569.8	588.7	605.8	618.0	631.9	641.9	653.4	664.1
17.5°	509.4	528.5	550.3	570.7	592.6	610.8	627.7	641.0	648.0	654.6	656.2
20°	500.8	521.3	547.1	571.1	593.0	614.1	630.8	641.9	643.8	643.9	634.1
22.5°	491.5	514.7	541.6	566.2	592.4	615.9	628.8	633.6	626.2	613.7	594.7
25°	474.3	501.2	532.5	560.6	589.1	611.3	615.8	607.5	581.7	554.6	520.4
27.5°	455.7	485.9	519.4	550.7	581.1	594.9	585.3	555.2	508.9	468.6	419.7
30°	442.1	476.0	508.9	543.9	572.1	578.0	556.0	511.7	457.6	396.9	348.1
32.5°	426.5	462.0	498.2	534.4	558.0	552.2	515.8	461.3	397.9	338.2	292.2
35°	404.3	440.9	480.0	516.3	531.3	506.3	451.8	380.9	316.1	260.4	228.7
37.5°	378.6	418.6	459.2	492.5	491.5	449.8	375.6	302.4	247.9	214.9	192.4
40°	360.4	400.8	444.7	472.8	460.8	406.5	326.1	257.1	217.2	190.9	174.5
42.5°	342.9	383.4	427.1	449.4	428.4	361.7	281.7	227.6	194.7	174.2	160.9
45°	313.2	356.0	396.3	408.7	371.3	297.8	227.8	188.5	166.6	151.5	142.3
47.5°	284.1	326.2	363.1	363.2	312.7	241.5	192.2	163.1	144.5	132.7	126.0
50°	266.3	306.3	337.2	332.4	275.0	214.8	171.9	146.8	131.3	122.2	115.2
52.5°	246.3	285.1	311.9	298.2	243.1	189.1	153.6	132.6	119.8	111.9	105.6
55°	217.2	251.7	270.6	249.8	198.4	157.3	129.8	113.3	103.7	97.0	91.6
57.5°	188.7	217.1	228.9	204.8	163.4	130.4	109.8	97.4	87.9	83.1	80.3
60°	170.7	195.0	203.3	176.7	142.0	114.1	97.3	85.8	78.7	75.6	72.8
62.5°	153.1	172.9	176.3	152.0	123.8	99.9	85.4	75.7	71.0	68.0	65.4
65°	127.0	141.3	139.7	120.0	98.0	79.2	68.7	62.8	59.3	55.0	50.4
67.5°	104.6	113.3	108.0	93.4	74.8	61.6	54.7	50.2	45.8	41.8	40.8
70°	90.3	95.4	89.8	76.3	61.3	51.7	46.1	40.8	38.2	37.3	35.5
72.5°	76.7	78.5	72.5	60.9	49.9	42.8	37.3	34.4	32.9	32.2	31.1
75°	57.6	56.3	51.1	42.1	34.7	29.8	28.1	27.1	26.1	25.4	24.8
77.5°	40.4	38.6	33.9	28.0	24.1	21.9	20.8	20.2	19.8	19.4	18.8
80°	30.4	29.1	24.5	20.0	18.3	17.2	16.6	15.9	15.9	15.6	15.0
82.5°	22.3	20.8	16.7	14.7	13.8	13.0	12.6	12.2	12.1	12.1	11.7
85°	11.7	9.5	8.3	8.0	7.4	7.0	7.3	6.8	6.8	6.8	6.7
87.5°	4.3	4.3	4.6	4.8	5.5	6.4	7.7	8.8	9.1	8.8	8.7
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: P331641-930

CATALOG NUMBER: SA2XXRDIP-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°	533.0	533.0	533.0	533.0	533.0	533.0	533.0
2.5°	551.6	553.6	554.5	554.5	555.5	555.1	554.6
5°	583.3	586.9	587.7	590.9	593.4	592.6	593.0
7.5°	614.9	620.5	626.1	628.7	629.1	630.6	631.1
10°	634.3	639.0	647.6	646.4	652.8	656.6	650.4
12.5°	653.0	659.3	665.3	666.9	670.6	671.8	669.4
15°	669.8	673.2	673.5	672.6	673.8	672.8	669.3
17.5°	654.1	648.7	637.7	632.5	628.4	622.3	619.9
20°	628.0	612.0	593.5	586.1	577.5	560.4	564.5
22.5°	571.7	553.6	535.0	513.4	503.0	486.9	485.9
25°	484.1	452.8	418.3	394.3	380.2	364.1	357.0
27.5°	376.4	337.0	308.8	294.5	281.4	268.7	268.2
30°	305.6	276.0	254.1	241.9	233.9	228.5	229.7
32.5°	257.6	237.3	222.5	212.4	206.5	202.4	202.4
35°	210.6	196.7	187.2	183.0	178.7	175.8	175.9
37.5°	180.2	171.9	166.6	161.9	159.2	157.8	156.9
40°	164.6	157.8	153.7	150.9	148.7	146.7	146.3
42.5°	152.4	146.7	142.6	140.4	138.4	136.9	136.6
45°	135.2	130.5	126.9	124.4	123.5	122.2	122.2
47.5°	120.3	115.7	112.8	111.3	109.7	108.8	108.8
50°	110.2	106.6	104.1	103.1	101.8	101.3	101.1
52.5°	101.2	98.5	96.7	96.0	95.5	94.8	94.9
55°	88.9	87.4	86.7	86.1	85.2	84.1	84.8
57.5°	78.6	77.3	75.3	73.5	72.7	71.9	72.2
60°	71.3	68.7	66.1	64.1	63.5	61.9	61.9
62.5°	62.1	58.5	55.3	54.1	53.6	52.8	52.7
65°	47.8	46.3	45.6	44.8	44.4	44.4	44.1
67.5°	39.6	39.0	38.2	38.0	37.7	37.5	37.4
70°	35.0	34.2	33.9	33.7	33.3	33.5	32.9
72.5°	30.6	30.0	29.9	29.4	29.2	29.2	28.8
75°	24.1	24.1	23.9	23.7	23.3	23.2	23.3
77.5°	18.5	18.6	18.3	18.2	18.2	18.2	18.0
80°	14.8	15.0	14.8	14.6	14.4	14.6	14.4
82.5°	11.7	11.4	11.4	11.3	11.3	11.3	11.2
85°	6.7	6.8	6.7	6.5	6.5	6.5	6.7
87.5°	8.2	8.6	8.8	8.8	8.8	8.8	8.6
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)