

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: P331641-940

Luminaire Tested: **SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331641-940
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-C290D1080U940-4F0-1E-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: 4760.6 lumens
Efficiency: N/A
Efficacy: 112.8 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

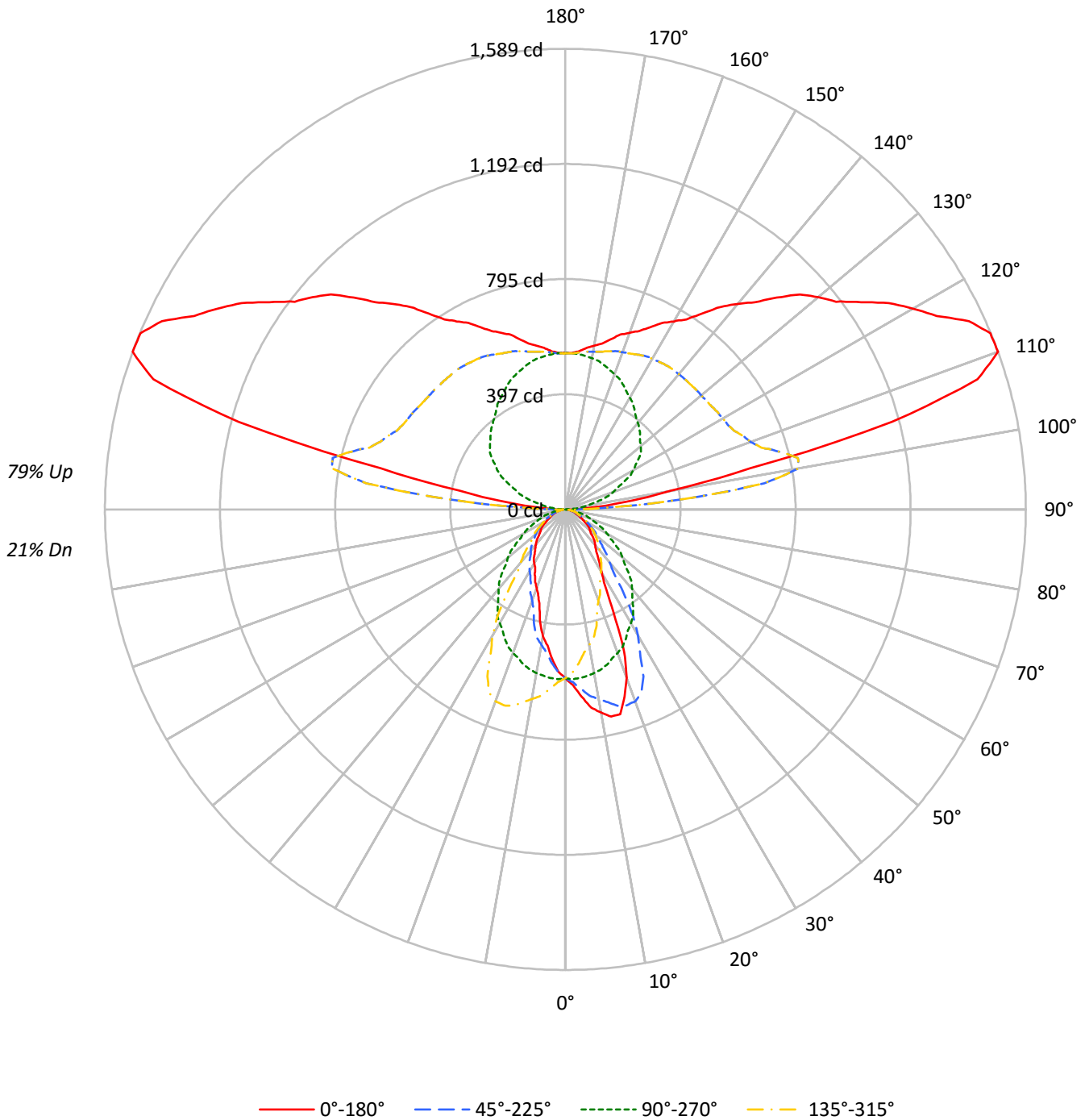
Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	9411	9411	9411	9411
5°	10511	9470	8399	9470
10°	11663	9404	7279	9404
15°	12236	9267	5735	9267
20°	10608	9062	4962	9062
25°	6957	8783	4431	8783
30°	4683	8444	4010	8444
35°	3792	8016	3617	8016
40°	3372	7552	3347	7552
45°	3053	7005	2987	7005
50°	2778	6465	2768	6465
55°	2609	5866	2578	5866
60°	2186	5318	2160	5318
65°	1841	4829	2090	4829
70°	1699	4310	1969	4310
75°	1591	3755	1822	3755
80°	1469	3096	1618	3096
85°	1352	2445	1426	2445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.3	1.2
10°-20°	154.0	3.2
20°-30°	198.4	4.2
30°-40°	188.6	4.0
40°-50°	161.5	3.4
50°-60°	123.0	2.6
60°-70°	77.8	1.6
70°-80°	38.8	0.8
80°-90°	15.0	0.3
90°-100°	215.4	4.5
100°-110°	730.9	15.4
110°-120°	776.4	16.3
120°-130°	639.2	13.4
130°-140°	513.3	10.8
140°-150°	387.9	8.1
150°-160°	272.6	5.7
160°-170°	160.5	3.4
170°-180°	52.2	1.1
0°-30°	407.7	8.6
0°-40°	596.2	12.5
0°-60°	880.8	18.5
0°-90°	1012.3	21.3
90°-120°	1722.7	36.2
90°-150°	3263.0	68.5
90°-180°	3748.0	78.7
0°-180°	4760.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	583	583	583	583	583	
5°	648	584	518	584	648	64
15°	732	554	343	554	732	197
25°	390	493	249	493	390	185
35°	192	407	184	407	192	123
45°	134	307	131	307	134	103
55°	93	208	92	208	93	81
65°	48	126	55	126	48	49
75°	26	60	29	60	26	27
85°	7	13	8	13	7	9
90°	34	1	34	1	34	19
95°	118	36	118	36	118	154
105°	1167	126	1167	126	1167	1130
115°	1536	223	1536	223	1536	1504
125°	1246	311	1246	311	1246	1126
135°	1033	365	1033	365	1033	802
145°	825	416	825	416	825	524
155°	693	473	693	473	693	323
165°	608	516	608	516	608	174
175°	548	538	548	538	548	53
180°	539	539	539	539	539	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9
2.5°	606.6	607.1	607.6	606.5	606.5	605.5	603.3	601.7	597.2	596.6	596.6
5°	648.5	648.2	649.0	646.3	642.7	641.9	638.0	632.9	627.7	621.9	620.6
7.5°	690.3	689.6	688.0	687.6	684.8	678.7	672.5	665.9	657.2	648.6	644.4
10°	711.4	718.1	714.0	706.9	708.3	698.8	693.8	685.0	677.7	664.9	662.2
12.5°	732.1	734.8	733.4	729.4	727.6	721.0	714.2	706.6	693.1	681.7	671.7
15°	732.0	735.8	736.9	735.7	736.6	736.3	732.6	726.4	714.6	702.0	691.1
17.5°	678.0	680.6	687.3	691.8	697.5	709.4	715.4	717.6	716.0	708.7	701.1
20°	617.4	613.0	631.6	641.1	649.2	669.4	686.9	693.6	704.3	704.1	702.0
22.5°	531.5	532.5	550.2	561.5	585.1	605.5	625.3	650.4	671.2	684.9	692.9
25°	390.5	398.2	415.8	431.2	457.5	495.3	529.5	569.2	606.6	636.2	664.4
27.5°	293.3	293.9	307.8	322.1	337.7	368.5	411.7	459.1	512.5	556.6	607.3
30°	251.2	249.9	255.8	264.6	277.9	301.8	334.2	380.8	434.1	500.5	559.6
32.5°	221.3	221.4	225.9	232.3	243.3	259.5	281.7	319.6	369.9	435.2	504.5
35°	192.4	192.3	195.5	200.1	204.7	215.1	230.3	250.1	284.8	345.7	416.6
37.5°	171.7	172.5	174.2	177.1	182.2	188.0	197.1	210.4	235.1	271.2	330.7
40°	160.0	160.4	162.6	165.1	168.1	172.5	180.0	190.8	208.8	237.6	281.2
42.5°	149.4	149.7	151.3	153.6	156.0	160.4	166.7	175.9	190.6	212.9	248.9
45°	133.7	133.7	135.1	136.1	138.8	142.8	147.8	155.6	165.7	182.3	206.2
47.5°	119.0	119.0	120.0	121.7	123.4	126.5	131.5	137.9	145.2	158.0	178.4
50°	110.6	110.8	111.4	112.8	113.9	116.6	120.6	126.0	133.7	143.7	160.6
52.5°	103.8	103.7	104.4	105.0	105.8	107.7	110.7	115.5	122.3	131.0	145.1
55°	92.7	91.9	93.2	94.2	94.8	95.6	97.2	100.2	106.1	113.4	123.9
57.5°	79.0	78.6	79.5	80.4	82.4	84.5	86.0	87.8	90.9	96.1	106.6
60°	67.7	67.7	69.5	70.1	72.3	75.2	78.0	79.6	82.7	86.1	93.8
62.5°	57.6	57.8	58.6	59.2	60.5	63.9	67.9	71.5	74.4	77.7	82.8
65°	48.2	48.6	48.6	49.0	49.8	50.6	52.3	55.1	60.2	64.8	68.7
67.5°	40.9	41.0	41.2	41.6	41.7	42.6	43.3	44.6	45.7	50.1	54.9
70°	36.0	36.6	36.5	36.8	37.1	37.5	38.3	38.9	40.8	41.7	44.6
72.5°	31.5	31.9	31.9	32.2	32.7	32.8	33.4	34.1	35.2	36.0	37.6
75°	25.5	25.3	25.5	25.9	26.1	26.3	26.3	27.1	27.7	28.5	29.6
77.5°	19.7	19.9	19.9	19.9	20.0	20.3	20.2	20.6	21.2	21.7	22.1
80°	15.8	16.0	15.8	16.0	16.2	16.4	16.2	16.4	17.0	17.4	17.4
82.5°	12.2	12.3	12.4	12.4	12.5	12.5	12.8	12.8	13.3	13.2	13.4
85°	7.3	7.1	7.1	7.1	7.3	7.5	7.3	7.3	7.5	7.5	7.5
87.5°	9.5	9.6	9.6	9.6	9.6	9.4	9.0	9.5	9.6	10.0	9.6
90°	34.2	34.2	34.2	34.2	34.2	33.2	31.1	33.2	34.2	35.2	34.2
92.5°	57.4	59.0	58.2	61.5	62.3	68.8	77.5	90.3	113.8	134.6	132.8
95°	118.1	117.1	120.2	128.4	141.9	164.7	208.2	271.4	355.3	406.1	359.4
97.5°	232.5	241.1	256.3	281.8	331.3	406.1	518.2	633.3	727.2	693.2	522.1
100°	370.9	389.5	419.5	464.0	550.0	675.4	817.3	945.7	967.5	818.3	563.5
102.5°	652.6	677.9	715.4	791.4	884.8	1017.6	1121.4	1150.5	1057.0	822.5	547.8
105°	1167.4	1182.0	1226.5	1290.7	1355.0	1389.1	1375.6	1258.6	1043.1	767.6	516.9
107.5°	1491.2	1510.5	1519.4	1523.0	1514.8	1464.7	1357.0	1180.7	952.2	708.7	501.6
110°	1589.0	1590.1	1580.7	1561.0	1516.5	1431.6	1299.0	1113.6	895.0	680.6	498.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1587.3	1581.8	1564.1	1531.2	1469.3	1371.9	1230.2	1052.2	855.2	662.4	499.1
115°	1536.2	1526.9	1499.9	1452.3	1378.8	1272.0	1136.4	976.9	805.9	642.2	503.5
117.5°	1444.8	1437.0	1408.5	1358.3	1283.3	1183.2	1060.2	920.1	774.8	632.5	510.9
120°	1386.0	1375.6	1345.6	1296.9	1224.4	1130.2	1020.3	891.9	758.2	626.7	515.9
122.5°	1324.6	1316.0	1289.2	1241.4	1176.3	1091.2	987.2	869.5	744.1	623.4	521.7
125°	1246.2	1237.9	1212.0	1172.6	1112.5	1034.8	943.7	837.0	724.1	617.4	530.4
127.5°	1177.4	1170.7	1148.3	1111.5	1059.1	987.4	901.4	804.9	705.4	613.9	539.3
130°	1138.4	1130.2	1109.5	1074.2	1023.4	955.1	873.3	784.2	693.0	612.2	545.9
132.5°	1097.8	1090.4	1071.3	1036.1	986.1	921.9	846.8	764.3	683.1	611.4	552.5
135°	1032.8	1028.6	1010.0	975.8	931.2	873.3	804.9	736.5	669.1	610.1	560.4
137.5°	968.9	962.8	946.4	916.9	876.4	825.8	771.5	714.3	659.4	609.9	567.5
140°	925.1	918.8	903.3	876.4	843.2	797.6	750.0	700.3	653.6	609.1	570.8
142.5°	881.1	879.9	866.0	841.5	810.0	772.0	730.9	688.7	647.8	609.1	573.3
145°	824.6	821.4	811.1	793.4	768.7	738.6	706.5	672.3	640.2	607.0	576.0
147.5°	777.1	775.3	768.2	754.1	733.6	711.7	686.6	659.7	632.3	603.3	576.8
150°	748.9	747.9	741.7	729.2	713.7	695.1	673.3	650.5	625.6	600.8	576.0
152.5°	724.9	724.7	720.1	709.4	697.1	681.0	662.5	641.4	619.8	596.6	574.3
155°	693.0	695.1	690.9	683.7	672.3	660.8	645.3	628.7	609.1	589.4	571.8
157.5°	665.8	665.8	664.0	658.0	649.9	641.0	627.9	614.0	599.0	581.9	567.0
160°	648.5	648.5	647.4	642.2	635.0	627.8	616.4	604.9	591.5	577.0	564.5
162.5°	631.9	632.7	631.7	628.1	620.9	615.3	605.6	595.8	584.9	572.8	562.0
165°	608.1	609.1	609.1	604.9	600.8	596.6	589.4	582.2	573.9	564.5	557.3
167.5°	586.1	587.4	587.5	585.2	583.4	579.7	574.7	569.1	563.1	557.3	552.5
170°	572.8	574.9	576.0	572.8	571.8	569.7	565.6	562.5	557.3	553.1	550.0
172.5°	562.0	563.3	564.4	562.9	561.9	560.6	557.3	555.0	551.5	548.2	546.7
175°	548.0	550.0	551.1	550.0	550.0	549.0	548.0	547.0	543.9	542.8	541.8
177.5°	539.5	541.2	542.0	542.0	542.0	542.0	541.2	541.2	539.5	538.7	539.5
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9
2.5°	596.9	595.6	594.4	591.6	590.0	586.8	586.4	586.2	582.0	577.9	576.8
5°	617.4	614.1	609.3	603.6	597.7	591.7	587.6	584.3	576.2	568.6	564.1
7.5°	638.0	631.1	622.7	612.0	603.0	593.0	585.5	578.8	567.3	556.2	548.8
10°	653.4	642.1	631.0	616.2	604.6	593.3	582.7	573.6	560.7	546.1	535.7
12.5°	663.0	650.5	635.2	620.7	605.7	591.3	577.2	565.5	550.3	535.2	523.0
15°	675.9	662.5	643.9	623.2	604.0	585.1	569.0	554.4	534.6	516.5	501.5
17.5°	686.5	668.1	648.1	624.2	601.9	578.0	557.1	538.5	516.4	494.6	477.0
20°	689.9	671.6	648.5	624.6	598.3	570.2	547.7	527.4	503.7	480.0	459.8
22.5°	687.8	673.6	647.9	619.3	592.4	562.9	537.5	514.0	487.7	463.5	440.1
25°	673.5	668.6	644.4	613.1	582.4	548.1	518.7	493.0	463.1	437.1	411.6
27.5°	640.2	650.7	635.6	602.4	568.1	531.5	498.4	469.1	438.0	408.8	383.4
30°	608.1	632.1	625.7	594.9	556.6	520.6	483.5	452.9	419.7	389.7	364.6
32.5°	564.2	604.0	610.3	584.5	544.9	505.3	466.5	436.0	401.4	369.8	345.3
35°	494.2	553.8	581.1	564.7	525.0	482.2	442.2	406.7	371.8	340.7	316.4
37.5°	410.8	492.0	537.5	538.7	502.2	457.8	414.1	378.9	343.2	312.6	286.3
40°	356.7	444.6	504.0	517.1	486.3	438.4	394.1	358.3	323.5	293.5	263.3
42.5°	308.1	395.7	468.6	491.5	467.1	419.4	375.1	337.6	303.7	275.4	244.5
45°	249.1	325.7	406.1	447.0	433.5	389.3	342.5	306.8	275.1	250.6	221.0
47.5°	210.2	264.1	342.0	397.3	397.1	356.8	310.7	276.6	247.1	224.1	200.2
50°	188.0	235.0	300.8	363.6	368.8	335.0	291.2	257.4	229.9	205.8	186.5
52.5°	168.0	206.8	265.9	326.2	341.2	311.8	269.4	238.2	211.4	189.2	172.8
55°	142.0	172.0	217.0	273.2	296.0	275.3	237.6	208.4	186.7	168.1	153.9
57.5°	120.1	142.6	178.7	224.0	250.4	237.5	206.3	182.6	164.1	147.2	136.1
60°	106.4	124.8	155.3	193.2	222.4	213.3	186.7	164.7	148.9	134.3	123.8
62.5°	93.4	109.2	135.5	166.2	192.9	189.1	167.5	148.9	135.1	121.8	112.9
65°	75.2	86.7	107.2	131.3	152.8	154.5	138.9	126.4	114.0	103.5	95.6
67.5°	59.8	67.4	81.8	102.1	118.2	123.9	114.4	104.8	95.0	86.9	80.0
70°	50.5	56.5	67.1	83.5	98.3	104.3	98.8	91.3	82.8	76.2	70.3
72.5°	40.8	46.8	54.6	66.6	79.3	85.9	83.9	78.6	71.7	66.1	60.5
75°	30.8	32.6	37.9	46.0	55.9	61.6	63.0	60.2	54.7	50.5	47.2
77.5°	22.7	23.9	26.4	30.6	37.1	42.2	44.2	43.9	40.1	37.7	34.6
80°	18.2	18.8	20.1	21.8	26.8	31.8	33.3	33.3	30.6	29.6	26.6
82.5°	13.8	14.3	15.1	16.1	18.3	22.7	24.3	24.6	23.0	21.7	19.3
85°	7.9	7.7	8.1	8.7	9.1	10.3	12.8	13.2	12.8	11.1	10.5
87.5°	8.4	7.0	6.1	5.3	5.0	4.7	4.7	4.9	4.9	5.3	5.4
90°	28.0	20.7	15.5	12.4	10.3	8.3	4.1	1.1	4.1	8.3	10.3
92.5°	103.3	70.4	47.0	37.3	30.2	25.7	18.2	12.7	18.2	25.7	30.2
95°	239.2	149.2	101.5	76.7	60.1	50.7	40.4	36.3	40.4	50.7	60.1
97.5°	322.4	196.8	137.0	108.8	89.7	75.6	64.6	59.0	64.6	75.6	89.7
100°	339.7	213.4	158.5	129.5	108.8	92.2	82.8	79.7	82.8	92.2	108.8
102.5°	340.6	228.3	177.5	148.6	127.0	110.4	101.1	98.8	101.1	110.4	127.0
105°	346.0	253.8	205.1	176.1	153.3	137.8	130.5	126.4	130.5	137.8	153.3
107.5°	360.3	279.9	232.6	203.5	180.8	166.6	159.5	156.2	159.5	166.6	180.8
110°	371.8	297.3	251.7	221.7	199.9	186.5	180.2	176.1	180.2	186.5	199.9



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	384.3	313.9	269.9	239.1	218.1	205.5	198.5	194.3	198.5	205.5	218.1
115°	403.0	339.7	295.2	267.2	246.6	234.1	227.9	222.7	227.9	234.1	246.6
117.5°	422.8	363.6	322.4	293.4	273.5	262.5	256.3	252.2	256.3	262.5	273.5
120°	436.1	380.1	339.7	310.8	290.1	280.7	274.5	270.4	274.5	280.7	290.1
122.5°	447.7	395.9	358.0	328.1	307.5	297.3	291.1	287.8	291.1	297.3	307.5
125°	466.2	419.5	382.3	353.2	332.5	320.1	313.9	310.8	313.9	320.1	332.5
127.5°	483.3	441.5	405.2	375.4	355.5	341.9	333.1	329.0	333.1	341.9	355.5
130°	494.1	454.8	418.5	389.5	368.8	354.3	343.9	339.7	343.9	354.3	368.8
132.5°	504.9	466.4	431.8	402.8	381.2	365.9	354.7	349.7	354.7	365.9	381.2
135°	519.0	482.7	449.6	420.5	396.7	381.2	368.8	364.6	368.8	381.2	396.7
137.5°	529.8	496.0	463.2	436.3	412.7	396.1	383.7	378.7	383.7	396.1	412.7
140°	535.6	503.5	472.3	445.4	422.7	406.1	393.6	389.5	393.6	406.1	422.7
142.5°	540.6	509.3	479.0	453.7	431.8	415.2	403.6	400.3	403.6	415.2	431.8
145°	547.0	517.9	490.0	467.2	446.5	431.0	420.5	416.4	420.5	431.0	446.5
147.5°	550.5	525.0	498.6	478.4	461.2	446.8	436.9	433.8	436.9	446.8	461.2
150°	552.1	528.3	504.4	485.8	470.3	456.8	448.5	445.4	448.5	456.8	470.3
152.5°	552.9	531.6	510.2	493.3	478.6	466.7	458.5	457.0	458.5	466.7	478.6
155°	554.2	536.5	519.0	503.5	492.0	480.6	474.4	473.4	474.4	480.6	492.0
157.5°	554.2	540.1	525.2	512.1	503.0	493.1	488.1	487.1	488.1	493.1	503.0
160°	554.2	541.8	529.3	517.9	509.6	501.3	497.2	496.1	497.2	501.3	509.6
162.5°	553.4	542.6	531.8	522.9	515.4	508.8	504.7	505.3	504.7	508.8	515.4
165°	551.1	543.9	534.5	528.3	523.1	516.9	514.9	515.9	514.9	516.9	523.1
167.5°	549.7	543.6	536.8	532.9	529.1	525.2	523.3	524.6	523.3	525.2	529.1
170°	548.0	542.8	537.6	534.5	532.4	529.3	528.3	530.4	528.3	529.3	532.4
172.5°	545.5	542.0	538.4	536.2	534.9	531.8	532.4	533.7	532.4	531.8	534.9
175°	542.8	540.7	538.7	537.6	537.6	535.6	536.5	537.6	536.5	535.6	537.6
177.5°	541.2	539.5	538.7	538.7	538.7	537.0	537.8	539.5	537.8	537.0	538.7
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9
2.5°	574.7	573.5	571.4	568.2	566.2	562.8	560.6	561.9	562.2	561.9	561.6
5°	559.3	555.0	549.1	543.4	538.1	532.5	529.2	527.9	525.0	523.4	522.5
7.5°	540.6	533.2	525.0	515.1	506.7	497.8	493.4	491.2	485.4	482.2	479.5
10°	526.6	515.1	506.8	493.8	485.9	474.4	466.5	466.7	458.8	454.3	451.1
12.5°	511.2	498.6	484.7	473.1	462.1	452.8	443.3	439.4	431.1	426.8	418.0
15°	485.7	470.9	456.4	440.6	429.4	415.0	401.3	384.4	370.9	359.1	355.9
17.5°	457.9	439.5	424.9	406.4	387.3	363.1	347.1	337.3	329.2	323.0	318.3
20°	438.7	420.1	404.5	376.6	350.8	334.4	322.7	315.1	306.7	300.0	296.3
22.5°	418.7	399.2	377.9	346.7	326.6	313.5	303.1	294.4	288.6	283.5	280.1
25°	390.1	368.8	333.8	312.4	296.1	282.3	275.1	269.8	263.8	256.6	253.4
27.5°	360.0	326.2	301.0	285.0	269.6	260.6	254.0	246.2	240.8	237.6	234.2
30°	337.4	303.6	284.0	266.5	255.7	245.7	238.0	233.5	228.3	222.8	220.6
32.5°	312.4	285.3	266.4	252.0	240.9	232.4	226.3	219.1	215.3	212.0	207.3
35°	281.2	260.6	243.4	231.8	221.1	214.3	207.2	203.0	196.1	193.2	191.5
37.5°	254.8	237.0	224.2	211.8	203.4	195.8	191.5	184.7	181.7	177.7	173.9
40°	239.8	222.4	210.1	199.9	190.6	184.9	179.5	174.0	169.5	167.7	163.1
42.5°	224.6	210.4	198.0	187.0	180.7	174.7	167.8	163.8	159.2	156.2	153.4
45°	203.6	191.0	180.5	171.4	164.4	158.2	153.7	147.0	144.5	138.6	136.1
47.5°	185.1	173.4	163.4	154.7	148.0	143.9	137.4	132.2	128.0	124.3	121.2
50°	172.0	162.2	152.5	144.8	138.8	132.9	126.2	123.6	117.1	115.2	113.4
52.5°	160.0	150.7	141.9	134.3	128.2	122.5	116.6	113.2	108.8	107.0	105.7
55°	143.2	134.3	125.8	119.1	113.1	107.2	103.5	99.2	97.2	95.8	94.2
57.5°	126.4	118.3	111.8	105.0	98.9	94.3	90.1	87.5	85.4	83.6	81.6
60°	115.7	108.0	102.1	95.8	89.5	85.7	82.5	79.4	77.0	74.1	73.3
62.5°	104.3	97.6	92.2	86.1	80.6	77.1	74.0	71.2	68.2	64.1	63.0
65°	88.7	83.5	77.8	72.7	67.9	64.4	59.9	56.7	55.5	55.1	54.9
67.5°	74.6	69.6	64.7	59.6	55.2	52.0	49.7	49.2	48.3	48.2	47.5
70°	65.2	60.5	55.7	50.8	46.5	46.0	45.2	44.3	43.3	43.0	42.5
72.5°	56.8	52.0	47.1	43.2	41.4	40.7	39.9	39.0	38.3	37.9	37.7
75°	43.5	39.1	35.8	34.4	33.4	32.8	31.6	31.0	30.6	30.0	29.8
77.5°	31.4	28.8	27.4	26.5	25.4	24.8	24.1	23.5	23.0	22.9	22.6
80°	23.9	22.6	21.7	20.4	20.1	19.3	19.1	18.5	18.6	18.0	18.0
82.5°	18.5	17.0	16.1	15.6	15.2	14.5	14.4	14.1	14.1	13.6	13.6
85°	9.5	9.1	8.7	8.3	8.3	7.7	7.9	7.7	7.7	7.3	7.1
87.5°	5.5	6.1	6.8	8.2	9.5	9.5	9.3	8.9	8.5	8.9	8.9
90°	12.4	15.5	20.7	28.0	34.2	35.2	34.2	33.2	31.1	33.2	34.2
92.5°	37.3	47.0	70.4	103.3	132.8	134.6	113.8	90.3	77.5	68.8	62.3
95°	76.7	101.5	149.2	239.2	359.4	406.1	355.3	271.4	208.2	164.7	141.9
97.5°	108.8	137.0	196.8	322.4	522.1	693.2	727.2	633.3	518.2	406.1	331.3
100°	129.5	158.5	213.4	339.7	563.5	818.3	967.5	945.7	817.3	675.4	550.0
102.5°	148.6	177.5	228.3	340.6	547.8	822.5	1057.0	1150.5	1121.4	1017.6	884.8
105°	176.1	205.1	253.8	346.0	516.9	767.6	1043.1	1258.6	1375.6	1389.1	1355.0
107.5°	203.5	232.6	279.9	360.3	501.6	708.7	952.2	1180.7	1357.0	1464.7	1514.8
110°	221.7	251.7	297.3	371.8	498.3	680.6	895.0	1113.6	1299.0	1431.6	1516.5



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	239.1	269.9	313.9	384.3	499.1	662.4	855.2	1052.2	1230.2	1371.9	1469.3
115°	267.2	295.2	339.7	403.0	503.5	642.2	805.9	976.9	1136.4	1272.0	1378.8
117.5°	293.4	322.4	363.6	422.8	510.9	632.5	774.8	920.1	1060.2	1183.2	1283.3
120°	310.8	339.7	380.1	436.1	515.9	626.7	758.2	891.9	1020.3	1130.2	1224.4
122.5°	328.1	358.0	395.9	447.7	521.7	623.4	744.1	869.5	987.2	1091.2	1176.3
125°	353.2	382.3	419.5	466.2	530.4	617.4	724.1	837.0	943.7	1034.8	1112.5
127.5°	375.4	405.2	441.5	483.3	539.3	613.9	705.4	804.9	901.4	987.4	1059.1
130°	389.5	418.5	454.8	494.1	545.9	612.2	693.0	784.2	873.3	955.1	1023.4
132.5°	402.8	431.8	466.4	504.9	552.5	611.4	683.1	764.3	846.8	921.9	986.1
135°	420.5	449.6	482.7	519.0	560.4	610.1	669.1	736.5	804.9	873.3	931.2
137.5°	436.3	463.2	496.0	529.8	567.5	609.9	659.4	714.3	771.5	825.8	876.4
140°	445.4	472.3	503.5	535.6	570.8	609.1	653.6	700.3	750.0	797.6	843.2
142.5°	453.7	479.0	509.3	540.6	573.3	609.1	647.8	688.7	730.9	772.0	810.0
145°	467.2	490.0	517.9	547.0	576.0	607.0	640.2	672.3	706.5	738.6	768.7
147.5°	478.4	498.6	525.0	550.5	576.8	603.3	632.3	659.7	686.6	711.7	733.6
150°	485.8	504.4	528.3	552.1	576.0	600.8	625.6	650.5	673.3	695.1	713.7
152.5°	493.3	510.2	531.6	552.9	574.3	596.6	619.8	641.4	662.5	681.0	697.1
155°	503.5	519.0	536.5	554.2	571.8	589.4	609.1	628.7	645.3	660.8	672.3
157.5°	512.1	525.2	540.1	554.2	567.0	581.9	599.0	614.0	627.9	641.0	649.9
160°	517.9	529.3	541.8	554.2	564.5	577.0	591.5	604.9	616.4	627.8	635.0
162.5°	522.9	531.8	542.6	553.4	562.0	572.8	584.9	595.8	605.6	615.3	620.9
165°	528.3	534.5	543.9	551.1	557.3	564.5	573.9	582.2	589.4	596.6	600.8
167.5°	532.9	536.8	543.6	549.7	552.5	557.3	563.1	569.1	574.7	579.7	583.4
170°	534.5	537.6	542.8	548.0	550.0	553.1	557.3	562.5	565.6	569.7	571.8
172.5°	536.2	538.4	542.0	545.5	546.7	548.2	551.5	555.0	557.3	560.6	561.9
175°	537.6	538.7	540.7	542.8	541.8	542.8	543.9	547.0	548.0	549.0	550.0
177.5°	538.7	538.7	539.5	541.2	539.5	538.7	539.5	541.2	541.2	542.0	542.0
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9
2.5°	559.8	560.1	559.6	559.9	559.6	560.1	559.8	561.6	561.9	562.2	561.9
5°	521.6	519.2	518.7	518.2	518.7	519.2	521.6	522.5	523.4	525.0	527.9
7.5°	476.0	475.6	474.6	473.1	474.6	475.6	476.0	479.5	482.2	485.4	491.2
10°	446.7	445.6	445.4	444.0	445.4	445.6	446.7	451.1	454.3	458.8	466.7
12.5°	412.2	405.7	405.1	401.5	405.1	405.7	412.2	418.0	426.8	431.1	439.4
15°	351.1	349.8	345.7	343.1	345.7	349.8	351.1	355.9	359.1	370.9	384.4
17.5°	316.0	312.0	310.8	310.2	310.8	312.0	316.0	318.3	323.0	329.2	337.3
20°	293.5	289.9	289.3	288.8	289.3	289.9	293.5	296.3	300.0	306.7	315.1
22.5°	277.9	274.1	272.6	271.3	272.6	274.1	277.9	280.1	283.5	288.6	294.4
25°	251.4	249.9	249.1	248.7	249.1	249.9	251.4	253.4	256.6	263.8	269.8
27.5°	230.6	227.5	226.9	225.8	226.9	227.5	230.6	234.2	237.6	240.8	246.2
30°	218.7	217.8	216.3	215.1	216.3	217.8	218.7	220.6	222.8	228.3	233.5
32.5°	204.8	203.9	202.7	202.2	202.7	203.9	204.8	207.3	212.0	215.3	219.1
35°	189.4	186.5	185.3	183.5	185.3	186.5	189.4	191.5	193.2	196.1	203.0
37.5°	173.1	171.6	169.9	170.5	169.9	171.6	173.1	173.9	177.7	181.7	184.7
40°	160.4	159.4	159.0	158.8	159.0	159.4	160.4	163.1	167.7	169.5	174.0
42.5°	150.3	147.6	146.5	146.5	146.5	147.6	150.3	153.4	156.2	159.2	163.8
45°	135.1	132.5	130.6	130.8	130.6	132.5	135.1	136.1	138.6	144.5	147.0
47.5°	119.5	119.4	118.2	118.6	118.2	119.4	119.5	121.2	124.3	128.0	132.2
50°	112.0	110.8	109.9	110.2	109.9	110.8	112.0	113.4	115.2	117.1	123.6
52.5°	104.9	103.8	103.2	104.1	103.2	103.8	104.9	105.7	107.0	108.8	113.2
55°	93.2	91.9	91.8	91.6	91.8	91.9	93.2	94.2	95.8	97.2	99.2
57.5°	80.1	79.3	78.0	77.6	78.0	79.3	80.1	81.6	83.6	85.4	87.5
60°	70.7	69.1	67.1	66.9	67.1	69.1	70.7	73.3	74.1	77.0	79.4
62.5°	62.1	61.8	61.3	61.3	61.3	61.8	62.1	63.0	64.1	68.2	71.2
65°	54.5	54.3	54.5	54.7	54.5	54.3	54.5	54.9	55.1	55.5	56.7
67.5°	47.4	47.1	46.7	46.9	46.7	47.1	47.4	47.5	48.2	48.3	49.2
70°	42.1	41.9	41.7	41.7	41.7	41.9	42.1	42.5	43.0	43.3	44.3
72.5°	36.9	36.9	36.7	36.6	36.7	36.9	36.9	37.7	37.9	38.3	39.0
75°	29.6	29.2	29.2	29.2	29.2	29.2	29.6	29.8	30.0	30.6	31.0
77.5°	22.6	22.3	22.1	21.9	22.1	22.3	22.6	22.6	22.9	23.0	23.5
80°	17.8	17.7	17.4	17.4	17.4	17.7	17.8	18.0	18.0	18.6	18.5
82.5°	13.6	13.4	13.4	13.2	13.4	13.4	13.6	13.6	13.6	14.1	14.1
85°	7.3	7.5	7.3	7.7	7.3	7.5	7.3	7.1	7.3	7.7	7.7
87.5°	8.9	8.7	8.9	8.7	8.9	8.7	8.9	8.9	8.9	8.5	8.9
90°	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	33.2	31.1	33.2
92.5°	61.5	58.2	59.0	57.4	59.0	58.2	61.5	62.3	68.8	77.5	90.3
95°	128.4	120.2	117.1	118.1	117.1	120.2	128.4	141.9	164.7	208.2	271.4
97.5°	281.8	256.3	241.1	232.5	241.1	256.3	281.8	331.3	406.1	518.2	633.3
100°	464.0	419.5	389.5	370.9	389.5	419.5	464.0	550.0	675.4	817.3	945.7
102.5°	791.4	715.4	677.9	652.6	677.9	715.4	791.4	884.8	1017.6	1121.4	1150.5
105°	1290.7	1226.5	1182.0	1167.4	1182.0	1226.5	1290.7	1355.0	1389.1	1375.6	1258.6
107.5°	1523.0	1519.4	1510.5	1491.2	1510.5	1519.4	1523.0	1514.8	1464.7	1357.0	1180.7
110°	1561.0	1580.7	1590.1	1589.0	1590.1	1580.7	1561.0	1516.5	1431.6	1299.0	1113.6



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	1531.2	1564.1	1581.8	1587.3	1581.8	1564.1	1531.2	1469.3	1371.9	1230.2	1052.2
115°	1452.3	1499.9	1526.9	1536.2	1526.9	1499.9	1452.3	1378.8	1272.0	1136.4	976.9
117.5°	1358.3	1408.5	1437.0	1444.8	1437.0	1408.5	1358.3	1283.3	1183.2	1060.2	920.1
120°	1296.9	1345.6	1375.6	1386.0	1375.6	1345.6	1296.9	1224.4	1130.2	1020.3	891.9
122.5°	1241.4	1289.2	1316.0	1324.6	1316.0	1289.2	1241.4	1176.3	1091.2	987.2	869.5
125°	1172.6	1212.0	1237.9	1246.2	1237.9	1212.0	1172.6	1112.5	1034.8	943.7	837.0
127.5°	1111.5	1148.3	1170.7	1177.4	1170.7	1148.3	1111.5	1059.1	987.4	901.4	804.9
130°	1074.2	1109.5	1130.2	1138.4	1130.2	1109.5	1074.2	1023.4	955.1	873.3	784.2
132.5°	1036.1	1071.3	1090.4	1097.8	1090.4	1071.3	1036.1	986.1	921.9	846.8	764.3
135°	975.8	1010.0	1028.6	1032.8	1028.6	1010.0	975.8	931.2	873.3	804.9	736.5
137.5°	916.9	946.4	962.8	968.9	962.8	946.4	916.9	876.4	825.8	771.5	714.3
140°	876.4	903.3	918.8	925.1	918.8	903.3	876.4	843.2	797.6	750.0	700.3
142.5°	841.5	866.0	879.9	881.1	879.9	866.0	841.5	810.0	772.0	730.9	688.7
145°	793.4	811.1	821.4	824.6	821.4	811.1	793.4	768.7	738.6	706.5	672.3
147.5°	754.1	768.2	775.3	777.1	775.3	768.2	754.1	733.6	711.7	686.6	659.7
150°	729.2	741.7	747.9	748.9	747.9	741.7	729.2	713.7	695.1	673.3	650.5
152.5°	709.4	720.1	724.7	724.9	724.7	720.1	709.4	697.1	681.0	662.5	641.4
155°	683.7	690.9	695.1	693.0	695.1	690.9	683.7	672.3	660.8	645.3	628.7
157.5°	658.0	664.0	665.8	665.8	665.8	664.0	658.0	649.9	641.0	627.9	614.0
160°	642.2	647.4	648.5	648.5	648.5	647.4	642.2	635.0	627.8	616.4	604.9
162.5°	628.1	631.7	632.7	631.9	632.7	631.7	628.1	620.9	615.3	605.6	595.8
165°	604.9	609.1	609.1	608.1	609.1	609.1	604.9	600.8	596.6	589.4	582.2
167.5°	585.2	587.5	587.4	586.1	587.4	587.5	585.2	583.4	579.7	574.7	569.1
170°	572.8	576.0	574.9	572.8	574.9	576.0	572.8	571.8	569.7	565.6	562.5
172.5°	562.9	564.4	563.3	562.0	563.3	564.4	562.9	561.9	560.6	557.3	555.0
175°	550.0	551.1	550.0	548.0	550.0	551.1	550.0	550.0	549.0	548.0	547.0
177.5°	542.0	542.0	541.2	539.5	541.2	542.0	542.0	542.0	542.0	541.2	541.2
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9
2.5°	560.6	562.8	566.2	568.2	571.4	573.5	574.7	576.8	577.9	582.0	586.2
5°	529.2	532.5	538.1	543.4	549.1	555.0	559.3	564.1	568.6	576.2	584.3
7.5°	493.4	497.8	506.7	515.1	525.0	533.2	540.6	548.8	556.2	567.3	578.8
10°	466.5	474.4	485.9	493.8	506.8	515.1	526.6	535.7	546.1	560.7	573.6
12.5°	443.3	452.8	462.1	473.1	484.7	498.6	511.2	523.0	535.2	550.3	565.5
15°	401.3	415.0	429.4	440.6	456.4	470.9	485.7	501.5	516.5	534.6	554.4
17.5°	347.1	363.1	387.3	406.4	424.9	439.5	457.9	477.0	494.6	516.4	538.5
20°	322.7	334.4	350.8	376.6	404.5	420.1	438.7	459.8	480.0	503.7	527.4
22.5°	303.1	313.5	326.6	346.7	377.9	399.2	418.7	440.1	463.5	487.7	514.0
25°	275.1	282.3	296.1	312.4	333.8	368.8	390.1	411.6	437.1	463.1	493.0
27.5°	254.0	260.6	269.6	285.0	301.0	326.2	360.0	383.4	408.8	438.0	469.1
30°	238.0	245.7	255.7	266.5	284.0	303.6	337.4	364.6	389.7	419.7	452.9
32.5°	226.3	232.4	240.9	252.0	266.4	285.3	312.4	345.3	369.8	401.4	436.0
35°	207.2	214.3	221.1	231.8	243.4	260.6	281.2	316.4	340.7	371.8	406.7
37.5°	191.5	195.8	203.4	211.8	224.2	237.0	254.8	286.3	312.6	343.2	378.9
40°	179.5	184.9	190.6	199.9	210.1	222.4	239.8	263.3	293.5	323.5	358.3
42.5°	167.8	174.7	180.7	187.0	198.0	210.4	224.6	244.5	275.4	303.7	337.6
45°	153.7	158.2	164.4	171.4	180.5	191.0	203.6	221.0	250.6	275.1	306.8
47.5°	137.4	143.9	148.0	154.7	163.4	173.4	185.1	200.2	224.1	247.1	276.6
50°	126.2	132.9	138.8	144.8	152.5	162.2	172.0	186.5	205.8	229.9	257.4
52.5°	116.6	122.5	128.2	134.3	141.9	150.7	160.0	172.8	189.2	211.4	238.2
55°	103.5	107.2	113.1	119.1	125.8	134.3	143.2	153.9	168.1	186.7	208.4
57.5°	90.1	94.3	98.9	105.0	111.8	118.3	126.4	136.1	147.2	164.1	182.6
60°	82.5	85.7	89.5	95.8	102.1	108.0	115.7	123.8	134.3	148.9	164.7
62.5°	74.0	77.1	80.6	86.1	92.2	97.6	104.3	112.9	121.8	135.1	148.9
65°	59.9	64.4	67.9	72.7	77.8	83.5	88.7	95.6	103.5	114.0	126.4
67.5°	49.7	52.0	55.2	59.6	64.7	69.6	74.6	80.0	86.9	95.0	104.8
70°	45.2	46.0	46.5	50.8	55.7	60.5	65.2	70.3	76.2	82.8	91.3
72.5°	39.9	40.7	41.4	43.2	47.1	52.0	56.8	60.5	66.1	71.7	78.6
75°	31.6	32.8	33.4	34.4	35.8	39.1	43.5	47.2	50.5	54.7	60.2
77.5°	24.1	24.8	25.4	26.5	27.4	28.8	31.4	34.6	37.7	40.1	43.9
80°	19.1	19.3	20.1	20.4	21.7	22.6	23.9	26.6	29.6	30.6	33.3
82.5°	14.4	14.5	15.2	15.6	16.1	17.0	18.5	19.3	21.7	23.0	24.6
85°	7.9	7.7	8.3	8.3	8.7	9.1	9.5	10.5	11.1	12.8	13.2
87.5°	9.3	9.5	9.5	8.2	6.8	6.1	5.5	5.4	5.3	4.9	4.9
90°	34.2	35.2	34.2	28.0	20.7	15.5	12.4	10.3	8.3	4.1	1.1
92.5°	113.8	134.6	132.8	103.3	70.4	47.0	37.3	30.2	25.7	18.2	12.7
95°	355.3	406.1	359.4	239.2	149.2	101.5	76.7	60.1	50.7	40.4	36.3
97.5°	727.2	693.2	522.1	322.4	196.8	137.0	108.8	89.7	75.6	64.6	59.0
100°	967.5	818.3	563.5	339.7	213.4	158.5	129.5	108.8	92.2	82.8	79.7
102.5°	1057.0	822.5	547.8	340.6	228.3	177.5	148.6	127.0	110.4	101.1	98.8
105°	1043.1	767.6	516.9	346.0	253.8	205.1	176.1	153.3	137.8	130.5	126.4
107.5°	952.2	708.7	501.6	360.3	279.9	232.6	203.5	180.8	166.6	159.5	156.2
110°	895.0	680.6	498.3	371.8	297.3	251.7	221.7	199.9	186.5	180.2	176.1



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	855.2	662.4	499.1	384.3	313.9	269.9	239.1	218.1	205.5	198.5	194.3
115°	805.9	642.2	503.5	403.0	339.7	295.2	267.2	246.6	234.1	227.9	222.7
117.5°	774.8	632.5	510.9	422.8	363.6	322.4	293.4	273.5	262.5	256.3	252.2
120°	758.2	626.7	515.9	436.1	380.1	339.7	310.8	290.1	280.7	274.5	270.4
122.5°	744.1	623.4	521.7	447.7	395.9	358.0	328.1	307.5	297.3	291.1	287.8
125°	724.1	617.4	530.4	466.2	419.5	382.3	353.2	332.5	320.1	313.9	310.8
127.5°	705.4	613.9	539.3	483.3	441.5	405.2	375.4	355.5	341.9	333.1	329.0
130°	693.0	612.2	545.9	494.1	454.8	418.5	389.5	368.8	354.3	343.9	339.7
132.5°	683.1	611.4	552.5	504.9	466.4	431.8	402.8	381.2	365.9	354.7	349.7
135°	669.1	610.1	560.4	519.0	482.7	449.6	420.5	396.7	381.2	368.8	364.6
137.5°	659.4	609.9	567.5	529.8	496.0	463.2	436.3	412.7	396.1	383.7	378.7
140°	653.6	609.1	570.8	535.6	503.5	472.3	445.4	422.7	406.1	393.6	389.5
142.5°	647.8	609.1	573.3	540.6	509.3	479.0	453.7	431.8	415.2	403.6	400.3
145°	640.2	607.0	576.0	547.0	517.9	490.0	467.2	446.5	431.0	420.5	416.4
147.5°	632.3	603.3	576.8	550.5	525.0	498.6	478.4	461.2	446.8	436.9	433.8
150°	625.6	600.8	576.0	552.1	528.3	504.4	485.8	470.3	456.8	448.5	445.4
152.5°	619.8	596.6	574.3	552.9	531.6	510.2	493.3	478.6	466.7	458.5	457.0
155°	609.1	589.4	571.8	554.2	536.5	519.0	503.5	492.0	480.6	474.4	473.4
157.5°	599.0	581.9	567.0	554.2	540.1	525.2	512.1	503.0	493.1	488.1	487.1
160°	591.5	577.0	564.5	554.2	541.8	529.3	517.9	509.6	501.3	497.2	496.1
162.5°	584.9	572.8	562.0	553.4	542.6	531.8	522.9	515.4	508.8	504.7	505.3
165°	573.9	564.5	557.3	551.1	543.9	534.5	528.3	523.1	516.9	514.9	515.9
167.5°	563.1	557.3	552.5	549.7	543.6	536.8	532.9	529.1	525.2	523.3	524.6
170°	557.3	553.1	550.0	548.0	542.8	537.6	534.5	532.4	529.3	528.3	530.4
172.5°	551.5	548.2	546.7	545.5	542.0	538.4	536.2	534.9	531.8	532.4	533.7
175°	543.9	542.8	541.8	542.8	540.7	538.7	537.6	537.6	535.6	536.5	537.6
177.5°	539.5	538.7	539.5	541.2	539.5	538.7	538.7	538.7	537.0	537.8	539.5
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9	582.9
2.5°	586.4	586.8	590.0	591.6	594.4	595.6	596.9	596.6	596.6	597.2	601.7
5°	587.6	591.7	597.7	603.6	609.3	614.1	617.4	620.6	621.9	627.7	632.9
7.5°	585.5	593.0	603.0	612.0	622.7	631.1	638.0	644.4	648.6	657.2	665.9
10°	582.7	593.3	604.6	616.2	631.0	642.1	653.4	662.2	664.9	677.7	685.0
12.5°	577.2	591.3	605.7	620.7	635.2	650.5	663.0	671.7	681.7	693.1	706.6
15°	569.0	585.1	604.0	623.2	643.9	662.5	675.9	691.1	702.0	714.6	726.4
17.5°	557.1	578.0	601.9	624.2	648.1	668.1	686.5	701.1	708.7	716.0	717.6
20°	547.7	570.2	598.3	624.6	648.5	671.6	689.9	702.0	704.1	704.3	693.6
22.5°	537.5	562.9	592.4	619.3	647.9	673.6	687.8	692.9	684.9	671.2	650.4
25°	518.7	548.1	582.4	613.1	644.4	668.6	673.5	664.4	636.2	606.6	569.2
27.5°	498.4	531.5	568.1	602.4	635.6	650.7	640.2	607.3	556.6	512.5	459.1
30°	483.5	520.6	556.6	594.9	625.7	632.1	608.1	559.6	500.5	434.1	380.8
32.5°	466.5	505.3	544.9	584.5	610.3	604.0	564.2	504.5	435.2	369.9	319.6
35°	442.2	482.2	525.0	564.7	581.1	553.8	494.2	416.6	345.7	284.8	250.1
37.5°	414.1	457.8	502.2	538.7	537.5	492.0	410.8	330.7	271.2	235.1	210.4
40°	394.1	438.4	486.3	517.1	504.0	444.6	356.7	281.2	237.6	208.8	190.8
42.5°	375.1	419.4	467.1	491.5	468.6	395.7	308.1	248.9	212.9	190.6	175.9
45°	342.5	389.3	433.5	447.0	406.1	325.7	249.1	206.2	182.3	165.7	155.6
47.5°	310.7	356.8	397.1	397.3	342.0	264.1	210.2	178.4	158.0	145.2	137.9
50°	291.2	335.0	368.8	363.6	300.8	235.0	188.0	160.6	143.7	133.7	126.0
52.5°	269.4	311.8	341.2	326.2	265.9	206.8	168.0	145.1	131.0	122.3	115.5
55°	237.6	275.3	296.0	273.2	217.0	172.0	142.0	123.9	113.4	106.1	100.2
57.5°	206.3	237.5	250.4	224.0	178.7	142.6	120.1	106.6	96.1	90.9	87.8
60°	186.7	213.3	222.4	193.2	155.3	124.8	106.4	93.8	86.1	82.7	79.6
62.5°	167.5	189.1	192.9	166.2	135.5	109.2	93.4	82.8	77.7	74.4	71.5
65°	138.9	154.5	152.8	131.3	107.2	86.7	75.2	68.7	64.8	60.2	55.1
67.5°	114.4	123.9	118.2	102.1	81.8	67.4	59.8	54.9	50.1	45.7	44.6
70°	98.8	104.3	98.3	83.5	67.1	56.5	50.5	44.6	41.7	40.8	38.9
72.5°	83.9	85.9	79.3	66.6	54.6	46.8	40.8	37.6	36.0	35.2	34.1
75°	63.0	61.6	55.9	46.0	37.9	32.6	30.8	29.6	28.5	27.7	27.1
77.5°	44.2	42.2	37.1	30.6	26.4	23.9	22.7	22.1	21.7	21.2	20.6
80°	33.3	31.8	26.8	21.8	20.1	18.8	18.2	17.4	17.4	17.0	16.4
82.5°	24.3	22.7	18.3	16.1	15.1	14.3	13.8	13.4	13.2	13.3	12.8
85°	12.8	10.3	9.1	8.7	8.1	7.7	7.9	7.5	7.5	7.5	7.3
87.5°	4.7	4.7	5.0	5.3	6.1	7.0	8.4	9.6	10.0	9.6	9.5
90°	4.1	8.3	10.3	12.4	15.5	20.7	28.0	34.2	35.2	34.2	33.2
92.5°	18.2	25.7	30.2	37.3	47.0	70.4	103.3	132.8	134.6	113.8	90.3
95°	40.4	50.7	60.1	76.7	101.5	149.2	239.2	359.4	406.1	355.3	271.4
97.5°	64.6	75.6	89.7	108.8	137.0	196.8	322.4	522.1	693.2	727.2	633.3
100°	82.8	92.2	108.8	129.5	158.5	213.4	339.7	563.5	818.3	967.5	945.7
102.5°	101.1	110.4	127.0	148.6	177.5	228.3	340.6	547.8	822.5	1057.0	1150.5
105°	130.5	137.8	153.3	176.1	205.1	253.8	346.0	516.9	767.6	1043.1	1258.6
107.5°	159.5	166.6	180.8	203.5	232.6	279.9	360.3	501.6	708.7	952.2	1180.7
110°	180.2	186.5	199.9	221.7	251.7	297.3	371.8	498.3	680.6	895.0	1113.6



TEST NUMBER: P331641-940

CATALOG NUMBER: SA2XXRDIP-C290D1080U940-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	198.5	205.5	218.1	239.1	269.9	313.9	384.3	499.1	662.4	855.2	1052.2
115°	227.9	234.1	246.6	267.2	295.2	339.7	403.0	503.5	642.2	805.9	976.9
117.5°	256.3	262.5	273.5	293.4	322.4	363.6	422.8	510.9	632.5	774.8	920.1
120°	274.5	280.7	290.1	310.8	339.7	380.1	436.1	515.9	626.7	758.2	891.9
122.5°	291.1	297.3	307.5	328.1	358.0	395.9	447.7	521.7	623.4	744.1	869.5
125°	313.9	320.1	332.5	353.2	382.3	419.5	466.2	530.4	617.4	724.1	837.0
127.5°	333.1	341.9	355.5	375.4	405.2	441.5	483.3	539.3	613.9	705.4	804.9
130°	343.9	354.3	368.8	389.5	418.5	454.8	494.1	545.9	612.2	693.0	784.2
132.5°	354.7	365.9	381.2	402.8	431.8	466.4	504.9	552.5	611.4	683.1	764.3
135°	368.8	381.2	396.7	420.5	449.6	482.7	519.0	560.4	610.1	669.1	736.5
137.5°	383.7	396.1	412.7	436.3	463.2	496.0	529.8	567.5	609.9	659.4	714.3
140°	393.6	406.1	422.7	445.4	472.3	503.5	535.6	570.8	609.1	653.6	700.3
142.5°	403.6	415.2	431.8	453.7	479.0	509.3	540.6	573.3	609.1	647.8	688.7
145°	420.5	431.0	446.5	467.2	490.0	517.9	547.0	576.0	607.0	640.2	672.3
147.5°	436.9	446.8	461.2	478.4	498.6	525.0	550.5	576.8	603.3	632.3	659.7
150°	448.5	456.8	470.3	485.8	504.4	528.3	552.1	576.0	600.8	625.6	650.5
152.5°	458.5	466.7	478.6	493.3	510.2	531.6	552.9	574.3	596.6	619.8	641.4
155°	474.4	480.6	492.0	503.5	519.0	536.5	554.2	571.8	589.4	609.1	628.7
157.5°	488.1	493.1	503.0	512.1	525.2	540.1	554.2	567.0	581.9	599.0	614.0
160°	497.2	501.3	509.6	517.9	529.3	541.8	554.2	564.5	577.0	591.5	604.9
162.5°	504.7	508.8	515.4	522.9	531.8	542.6	553.4	562.0	572.8	584.9	595.8
165°	514.9	516.9	523.1	528.3	534.5	543.9	551.1	557.3	564.5	573.9	582.2
167.5°	523.3	525.2	529.1	532.9	536.8	543.6	549.7	552.5	557.3	563.1	569.1
170°	528.3	529.3	532.4	534.5	537.6	542.8	548.0	550.0	553.1	557.3	562.5
172.5°	532.4	531.8	534.9	536.2	538.4	542.0	545.5	546.7	548.2	551.5	555.0
175°	536.5	535.6	537.6	537.6	538.7	540.7	542.8	541.8	542.8	543.9	547.0
177.5°	537.8	537.0	538.7	538.7	538.7	539.5	541.2	539.5	538.7	539.5	541.2
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7	538.7



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	582.9	582.9	582.9	582.9	582.9	582.9	582.9
2.5°	603.3	605.5	606.5	606.5	607.6	607.1	606.6
5°	638.0	641.9	642.7	646.3	649.0	648.2	648.5
7.5°	672.5	678.7	684.8	687.6	688.0	689.6	690.3
10°	693.8	698.8	708.3	706.9	714.0	718.1	711.4
12.5°	714.2	721.0	727.6	729.4	733.4	734.8	732.1
15°	732.6	736.3	736.6	735.7	736.9	735.8	732.0
17.5°	715.4	709.4	697.5	691.8	687.3	680.6	678.0
20°	686.9	669.4	649.2	641.1	631.6	613.0	617.4
22.5°	625.3	605.5	585.1	561.5	550.2	532.5	531.5
25°	529.5	495.3	457.5	431.2	415.8	398.2	390.5
27.5°	411.7	368.5	337.7	322.1	307.8	293.9	293.3
30°	334.2	301.8	277.9	264.6	255.8	249.9	251.2
32.5°	281.7	259.5	243.3	232.3	225.9	221.4	221.3
35°	230.3	215.1	204.7	200.1	195.5	192.3	192.4
37.5°	197.1	188.0	182.2	177.1	174.2	172.5	171.7
40°	180.0	172.5	168.1	165.1	162.6	160.4	160.0
42.5°	166.7	160.4	156.0	153.6	151.3	149.7	149.4
45°	147.8	142.8	138.8	136.1	135.1	133.7	133.7
47.5°	131.5	126.5	123.4	121.7	120.0	119.0	119.0
50°	120.6	116.6	113.9	112.8	111.4	110.8	110.6
52.5°	110.7	107.7	105.8	105.0	104.4	103.7	103.8
55°	97.2	95.6	94.8	94.2	93.2	91.9	92.7
57.5°	86.0	84.5	82.4	80.4	79.5	78.6	79.0
60°	78.0	75.2	72.3	70.1	69.5	67.7	67.7
62.5°	67.9	63.9	60.5	59.2	58.6	57.8	57.6
65°	52.3	50.6	49.8	49.0	48.6	48.6	48.2
67.5°	43.3	42.6	41.7	41.6	41.2	41.0	40.9
70°	38.3	37.5	37.1	36.8	36.5	36.6	36.0
72.5°	33.4	32.8	32.7	32.2	31.9	31.9	31.5
75°	26.3	26.3	26.1	25.9	25.5	25.3	25.5
77.5°	20.2	20.3	20.0	19.9	19.9	19.9	19.7
80°	16.2	16.4	16.2	16.0	15.8	16.0	15.8
82.5°	12.8	12.5	12.5	12.4	12.4	12.3	12.2
85°	7.3	7.5	7.3	7.1	7.1	7.1	7.3
87.5°	9.0	9.4	9.6	9.6	9.6	9.6	9.5
90°	31.1	33.2	34.2	34.2	34.2	34.2	34.2
92.5°	77.5	68.8	62.3	61.5	58.2	59.0	57.4
95°	208.2	164.7	141.9	128.4	120.2	117.1	118.1
97.5°	518.2	406.1	331.3	281.8	256.3	241.1	232.5
100°	817.3	675.4	550.0	464.0	419.5	389.5	370.9
102.5°	1121.4	1017.6	884.8	791.4	715.4	677.9	652.6
105°	1375.6	1389.1	1355.0	1290.7	1226.5	1182.0	1167.4
107.5°	1357.0	1464.7	1514.8	1523.0	1519.4	1510.5	1491.2
110°	1299.0	1431.6	1516.5	1561.0	1580.7	1590.1	1589.0



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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	1230.2	1371.9	1469.3	1531.2	1564.1	1581.8	1587.3
115°	1136.4	1272.0	1378.8	1452.3	1499.9	1526.9	1536.2
117.5°	1060.2	1183.2	1283.3	1358.3	1408.5	1437.0	1444.8
120°	1020.3	1130.2	1224.4	1296.9	1345.6	1375.6	1386.0
122.5°	987.2	1091.2	1176.3	1241.4	1289.2	1316.0	1324.6
125°	943.7	1034.8	1112.5	1172.6	1212.0	1237.9	1246.2
127.5°	901.4	987.4	1059.1	1111.5	1148.3	1170.7	1177.4
130°	873.3	955.1	1023.4	1074.2	1109.5	1130.2	1138.4
132.5°	846.8	921.9	986.1	1036.1	1071.3	1090.4	1097.8
135°	804.9	873.3	931.2	975.8	1010.0	1028.6	1032.8
137.5°	771.5	825.8	876.4	916.9	946.4	962.8	968.9
140°	750.0	797.6	843.2	876.4	903.3	918.8	925.1
142.5°	730.9	772.0	810.0	841.5	866.0	879.9	881.1
145°	706.5	738.6	768.7	793.4	811.1	821.4	824.6
147.5°	686.6	711.7	733.6	754.1	768.2	775.3	777.1
150°	673.3	695.1	713.7	729.2	741.7	747.9	748.9
152.5°	662.5	681.0	697.1	709.4	720.1	724.7	724.9
155°	645.3	660.8	672.3	683.7	690.9	695.1	693.0
157.5°	627.9	641.0	649.9	658.0	664.0	665.8	665.8
160°	616.4	627.8	635.0	642.2	647.4	648.5	648.5
162.5°	605.6	615.3	620.9	628.1	631.7	632.7	631.9
165°	589.4	596.6	600.8	604.9	609.1	609.1	608.1
167.5°	574.7	579.7	583.4	585.2	587.5	587.4	586.1
170°	565.6	569.7	571.8	572.8	576.0	574.9	572.8
172.5°	557.3	560.6	561.9	562.9	564.4	563.3	562.0
175°	548.0	549.0	550.0	550.0	551.1	550.0	548.0
177.5°	541.2	542.0	542.0	542.0	542.0	541.2	539.5
180°	538.7	538.7	538.7	538.7	538.7	538.7	538.7

(END OF REPORT)