

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: P331641-840

Luminaire Tested: **SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331641-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXRDIP-C290D1080U840-4F0-1E-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: 5391.4 lumens
Efficiency: N/A
Efficacy: 127.8 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

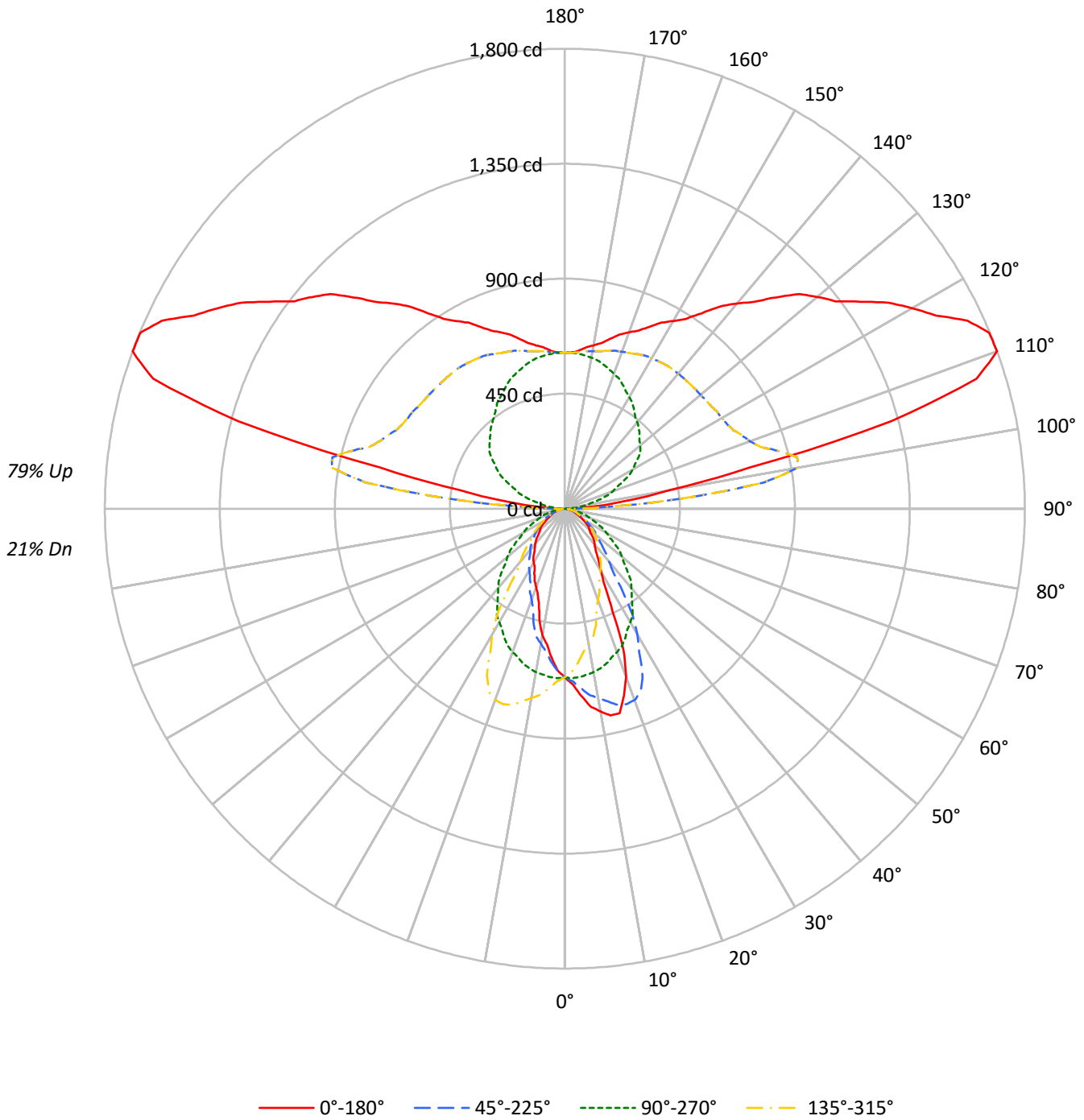
Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

Luminous Intensity Polar Plot





TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

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°	10658	10658	10658	10658
5°	11904	10726	9511	10726
10°	13209	10650	8243	10650
15°	13857	10494	6496	10494
20°	12014	10263	5620	10263
25°	7878	9948	5018	9948
30°	5304	9562	4542	9562
35°	4295	9079	4096	9079
40°	3819	8553	3792	8553
45°	3457	7935	3382	7935
50°	3145	7322	3135	7322
55°	2956	6643	2919	6643
60°	2474	6022	2444	6022
65°	2086	5467	2365	5467
70°	1926	4881	2233	4881
75°	1803	4255	2059	4255
80°	1664	3505	1832	3505
85°	1538	2760	1612	2760



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.6	1.2
10°-20°	174.4	3.2
20°-30°	224.7	4.2
30°-40°	213.5	4.0
40°-50°	182.9	3.4
50°-60°	139.3	2.6
60°-70°	88.1	1.6
70°-80°	44.0	0.8
80°-90°	16.9	0.3
90°-100°	243.9	4.5
100°-110°	827.7	15.4
110°-120°	879.3	16.3
120°-130°	723.9	13.4
130°-140°	581.3	10.8
140°-150°	439.3	8.1
150°-160°	308.7	5.7
160°-170°	181.7	3.4
170°-180°	59.1	1.1
0°-30°	461.7	8.6
0°-40°	675.2	12.5
0°-60°	997.5	18.5
0°-90°	1146.5	21.3
90°-120°	1951.0	36.2
90°-150°	3695.4	68.5
90°-180°	4245.0	78.7
0°-180°	5391.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	660	660	660	660	660	
5°	734	662	587	662	734	72
15°	829	628	389	628	829	224
25°	442	558	282	558	442	210
35°	218	461	208	461	218	139
45°	151	348	148	348	151	117
55°	105	236	104	236	105	92
65°	55	143	62	143	55	56
75°	29	68	33	68	29	31
85°	8	15	9	15	8	10
90°	39	1	39	1	39	21
95°	134	41	134	41	134	174
105°	1322	143	1322	143	1322	1279
115°	1740	252	1740	252	1740	1704
125°	1411	352	1411	352	1411	1275
135°	1170	413	1170	413	1170	909
145°	934	472	934	472	934	593
155°	785	536	785	536	785	366
165°	689	584	689	584	689	197
175°	621	609	621	609	621	60
180°	610	610	610	610	610	



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	687.0	687.5	688.1	686.8	686.8	685.7	683.3	681.5	676.3	675.6	675.6
5°	734.5	734.1	735.0	732.0	727.9	726.9	722.6	716.8	710.8	704.3	702.9
7.5°	781.7	781.0	779.2	778.7	775.6	768.6	761.6	754.2	744.3	734.6	729.7
10°	805.7	813.2	808.6	800.6	802.1	791.4	785.7	775.8	767.5	753.1	749.9
12.5°	829.1	832.1	830.6	826.1	824.0	816.6	808.8	800.2	785.0	772.0	760.7
15°	829.0	833.3	834.6	833.1	834.2	833.8	829.7	822.6	809.3	795.1	782.6
17.5°	767.8	770.8	778.4	783.5	789.9	803.4	810.2	812.7	810.8	802.6	794.0
20°	699.2	694.2	715.3	726.0	735.2	758.1	777.9	785.5	797.6	797.4	795.1
22.5°	601.9	603.1	623.1	635.9	662.7	685.7	708.1	736.6	760.1	775.7	784.8
25°	442.2	451.0	470.9	488.4	518.2	560.9	599.7	644.6	687.0	720.5	752.5
27.5°	332.1	332.9	348.6	364.8	382.4	417.4	466.3	519.9	580.4	630.4	687.7
30°	284.5	283.1	289.7	299.6	314.8	341.8	378.5	431.2	491.6	566.8	633.8
32.5°	250.6	250.7	255.8	263.1	275.6	293.9	319.0	361.9	418.9	492.9	571.4
35°	217.9	217.7	221.4	226.6	231.9	243.6	260.8	283.3	322.6	391.5	471.8
37.5°	194.4	195.4	197.2	200.6	206.3	212.9	223.2	238.3	266.2	307.1	374.6
40°	181.2	181.7	184.2	186.9	190.4	195.4	203.9	216.1	236.5	269.0	318.4
42.5°	169.2	169.6	171.4	173.9	176.6	181.7	188.7	199.2	215.8	241.2	281.9
45°	151.4	151.4	153.0	154.1	157.1	161.7	167.4	176.2	187.6	206.4	233.5
47.5°	134.8	134.8	135.9	137.8	139.8	143.3	149.0	156.1	164.4	178.9	202.1
50°	125.2	125.5	126.1	127.7	129.0	132.1	136.5	142.7	151.4	162.7	181.9
52.5°	117.5	117.4	118.3	119.0	119.8	122.0	125.3	130.8	138.6	148.3	164.3
55°	105.0	104.1	105.5	106.6	107.3	108.3	110.1	113.5	120.2	128.5	140.4
57.5°	89.5	89.1	90.1	91.1	93.3	95.7	97.4	99.5	102.9	108.9	120.7
60°	76.6	76.6	78.7	79.4	81.9	85.1	88.4	90.2	93.6	97.5	106.2
62.5°	65.2	65.4	66.3	67.1	68.5	72.4	77.0	81.0	84.2	88.0	93.7
65°	54.6	55.0	55.0	55.5	56.5	57.4	59.2	62.4	68.2	73.4	77.8
67.5°	46.4	46.5	46.7	47.1	47.3	48.3	49.1	50.5	51.8	56.8	62.2
70°	40.8	41.5	41.3	41.7	42.0	42.4	43.3	44.0	46.2	47.3	50.5
72.5°	35.6	36.2	36.2	36.5	37.1	37.2	37.9	38.6	39.9	40.8	42.6
75°	28.9	28.7	28.9	29.4	29.6	29.8	29.8	30.7	31.4	32.3	33.5
77.5°	22.3	22.5	22.5	22.5	22.6	23.0	22.9	23.3	24.0	24.5	25.0
80°	17.9	18.1	17.9	18.1	18.4	18.6	18.4	18.6	19.3	19.7	19.7
82.5°	13.8	13.9	14.0	14.0	14.1	14.1	14.5	14.5	15.0	14.9	15.1
85°	8.3	8.1	8.1	8.1	8.3	8.5	8.3	8.3	8.5	8.5	8.5
87.5°	10.7	10.9	10.9	10.9	10.9	10.6	10.2	10.8	10.9	11.3	10.9
90°	38.7	38.7	38.7	38.7	38.7	37.6	35.2	37.6	38.7	39.9	38.7
92.5°	65.0	66.9	65.9	69.7	70.6	77.9	87.8	102.3	128.9	152.5	150.4
95°	133.7	132.6	136.1	145.4	160.7	186.5	235.8	307.4	402.4	459.9	407.1
97.5°	263.3	273.1	290.2	319.1	375.2	459.9	586.8	717.2	823.5	785.1	591.3
100°	420.0	441.1	475.1	525.5	622.9	764.9	925.6	1071.1	1095.7	926.8	638.1
102.5°	739.1	767.7	810.2	896.3	1002.1	1152.5	1270.0	1302.9	1197.1	931.5	620.4
105°	1322.1	1338.6	1389.0	1461.7	1534.5	1573.2	1557.9	1425.3	1181.3	869.3	585.4
107.5°	1688.8	1710.6	1720.7	1724.7	1715.6	1658.8	1536.8	1337.2	1078.3	802.6	568.0
110°	1799.6	1800.8	1790.2	1767.9	1717.5	1621.2	1471.1	1261.1	1013.6	770.7	564.3



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	676.0	674.5	673.2	669.9	668.2	664.6	664.1	663.9	659.1	654.5	653.2
5°	699.2	695.5	690.0	683.6	676.9	670.0	665.5	661.8	652.6	643.9	638.8
7.5°	722.6	714.7	705.2	693.1	682.9	671.6	663.1	655.5	642.5	630.0	621.6
10°	740.0	727.2	714.6	697.8	684.7	671.9	659.9	649.6	635.0	618.4	606.7
12.5°	750.8	736.7	719.3	703.0	686.0	669.6	653.7	640.5	623.2	606.1	592.3
15°	765.5	750.3	729.2	705.8	684.1	662.7	644.4	627.8	605.4	584.9	567.9
17.5°	777.5	756.6	734.0	706.9	681.7	654.6	631.0	609.9	584.8	560.2	540.2
20°	781.3	760.6	734.5	707.4	677.6	645.7	620.3	597.3	570.5	543.6	520.7
22.5°	778.9	762.9	733.8	701.4	670.9	637.5	608.7	582.1	552.3	524.9	498.4
25°	762.8	757.2	729.7	694.4	659.5	620.8	587.4	558.4	524.4	495.0	466.2
27.5°	725.0	736.9	719.8	682.2	643.4	601.9	564.4	531.3	496.0	463.0	434.2
30°	688.6	715.9	708.6	673.7	630.4	589.6	547.5	512.9	475.3	441.3	412.9
32.5°	638.9	684.0	691.2	662.0	617.1	572.3	528.3	493.8	454.5	418.8	391.0
35°	559.7	627.1	658.1	639.5	594.6	546.1	500.8	460.6	421.1	385.9	358.3
37.5°	465.2	557.1	608.7	610.1	568.8	518.5	469.0	429.1	388.7	354.1	324.3
40°	403.9	503.5	570.8	585.6	550.8	496.4	446.4	405.8	366.4	332.3	298.2
42.5°	348.9	448.1	530.7	556.6	529.0	474.9	424.7	382.3	344.0	311.8	276.9
45°	282.2	368.9	459.9	506.2	490.9	440.9	387.9	347.5	311.5	283.8	250.2
47.5°	238.0	299.1	387.3	449.9	449.7	404.0	351.8	313.3	279.8	253.8	226.7
50°	212.9	266.1	340.6	411.7	417.7	379.4	329.8	291.5	260.3	233.1	211.3
52.5°	190.3	234.2	301.1	369.4	386.4	353.1	305.1	269.7	239.4	214.3	195.7
55°	160.8	194.8	245.7	309.4	335.2	311.7	269.0	236.0	211.5	190.4	174.3
57.5°	136.0	161.5	202.4	253.7	283.6	268.9	233.7	206.8	185.8	166.7	154.1
60°	120.5	141.3	175.9	218.8	251.9	241.6	211.5	186.5	168.6	152.1	140.2
62.5°	105.7	123.7	153.4	188.2	218.4	214.2	189.7	168.6	153.0	137.9	127.8
65°	85.1	98.2	121.4	148.7	173.0	175.0	157.3	143.1	129.2	117.2	108.3
67.5°	67.8	76.3	92.6	115.6	133.8	140.4	129.6	118.7	107.6	98.4	90.6
70°	57.2	64.0	75.9	94.5	111.3	118.2	111.9	103.4	93.8	86.2	79.6
72.5°	46.3	53.0	61.8	75.4	89.8	97.3	95.0	89.0	81.2	74.8	68.6
75°	34.8	37.0	42.9	52.1	63.3	69.8	71.3	68.2	61.9	57.2	53.4
77.5°	25.8	27.1	29.9	34.6	42.0	47.8	50.1	49.7	45.4	42.7	39.2
80°	20.6	21.3	22.7	24.7	30.3	36.1	37.7	37.7	34.6	33.5	30.1
82.5°	15.7	16.2	17.1	18.2	20.7	25.8	27.6	27.9	26.1	24.5	21.8
85°	9.0	8.7	9.2	9.9	10.3	11.7	14.4	14.9	14.4	12.6	11.9
87.5°	9.5	8.0	6.9	6.0	5.7	5.4	5.4	5.6	5.6	6.0	6.1
90°	31.7	23.4	17.6	14.0	11.7	9.4	4.6	1.2	4.6	9.4	11.7
92.5°	117.0	79.8	53.2	42.2	34.2	29.1	20.6	14.3	20.6	29.1	34.2
95°	270.9	169.0	114.9	86.8	68.1	57.5	45.7	41.1	45.7	57.5	68.1
97.5°	365.1	222.9	155.1	123.2	101.6	85.6	73.2	66.9	73.2	85.6	101.6
100°	384.8	241.7	179.5	146.6	123.2	104.4	93.8	90.3	93.8	104.4	123.2
102.5°	385.8	258.5	201.1	168.2	143.8	125.0	114.5	111.9	114.5	125.0	143.8
105°	391.8	287.4	232.3	199.4	173.6	156.0	147.8	143.1	147.8	156.0	173.6
107.5°	408.0	317.0	263.5	230.5	204.8	188.6	180.7	176.9	180.7	188.6	204.8
110°	421.1	336.7	285.1	251.1	226.4	211.2	204.1	199.4	204.1	211.2	226.4



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	650.9	649.5	647.1	643.5	641.3	637.4	634.9	636.3	636.7	636.3	636.0
5°	633.4	628.5	621.9	615.4	609.5	603.1	599.4	597.8	594.6	592.8	591.8
7.5°	612.2	603.9	594.5	583.3	573.8	563.8	558.8	556.2	549.7	546.1	543.0
10°	596.4	583.3	573.9	559.3	550.3	537.2	528.3	528.6	519.6	514.5	510.9
12.5°	579.0	564.6	549.0	535.7	523.3	512.8	502.0	497.7	488.2	483.3	473.4
15°	550.1	533.3	516.8	499.0	486.4	470.0	454.4	435.4	420.0	406.7	403.0
17.5°	518.6	497.8	481.2	460.2	438.6	411.2	393.1	382.0	372.8	365.8	360.5
20°	496.9	475.7	458.1	426.5	397.3	378.7	365.5	356.9	347.3	339.7	335.6
22.5°	474.1	452.1	428.0	392.6	369.9	355.1	343.3	333.5	326.9	321.0	317.2
25°	441.8	417.7	378.0	353.8	335.4	319.7	311.5	305.6	298.7	290.6	287.0
27.5°	407.7	369.4	340.8	322.8	305.3	295.2	287.7	278.8	272.7	269.0	265.2
30°	382.1	343.9	321.6	301.8	289.5	278.2	269.5	264.5	258.5	252.4	249.8
32.5°	353.8	323.2	301.7	285.4	272.8	263.2	256.3	248.1	243.9	240.0	234.8
35°	318.4	295.2	275.7	262.5	250.4	242.7	234.7	229.8	222.1	218.8	216.8
37.5°	288.5	268.4	253.9	239.8	230.4	221.8	216.8	209.1	205.8	201.3	196.9
40°	271.6	251.9	237.9	226.4	215.8	209.4	203.3	197.0	192.0	190.0	184.7
42.5°	254.4	238.3	224.3	211.8	204.7	197.8	190.1	185.5	180.3	176.9	173.7
45°	230.6	216.3	204.4	194.1	186.2	179.2	174.1	166.5	163.6	156.9	154.1
47.5°	209.6	196.4	185.0	175.2	167.6	163.0	155.6	149.7	144.9	140.8	137.2
50°	194.8	183.7	172.7	164.0	157.1	150.5	142.9	140.0	132.6	130.5	128.5
52.5°	181.2	170.7	160.7	152.1	145.2	138.8	132.1	128.2	123.2	121.2	119.7
55°	162.2	152.1	142.5	134.9	128.1	121.4	117.2	112.4	110.1	108.5	106.6
57.5°	143.1	134.0	126.6	119.0	112.0	106.7	102.0	99.1	96.7	94.6	92.4
60°	131.0	122.3	115.6	108.5	101.4	97.0	93.4	89.9	87.2	83.9	83.0
62.5°	118.2	110.5	104.4	97.5	91.3	87.4	83.8	80.6	77.3	72.6	71.3
65°	100.5	94.5	88.1	82.3	76.9	72.9	67.9	64.2	62.8	62.4	62.2
67.5°	84.5	78.9	73.3	67.5	62.5	58.9	56.2	55.7	54.7	54.5	53.8
70°	73.8	68.6	63.1	57.6	52.7	52.1	51.2	50.2	49.1	48.7	48.2
72.5°	64.3	58.9	53.3	49.0	46.9	46.0	45.1	44.1	43.4	42.9	42.7
75°	49.3	44.2	40.6	39.0	37.9	37.2	35.7	35.1	34.6	33.9	33.7
77.5°	35.5	32.6	31.0	30.0	28.8	28.1	27.3	26.6	26.1	26.0	25.5
80°	27.1	25.7	24.5	23.1	22.7	21.8	21.6	20.9	21.1	20.4	20.4
82.5°	21.0	19.3	18.3	17.7	17.2	16.5	16.3	16.0	16.0	15.5	15.5
85°	10.8	10.3	9.9	9.4	9.4	8.7	9.0	8.7	8.7	8.3	8.1
87.5°	6.3	6.9	7.7	9.3	10.7	10.7	10.5	10.1	9.6	10.1	10.1
90°	14.0	17.6	23.4	31.7	38.7	39.9	38.7	37.6	35.2	37.6	38.7
92.5°	42.2	53.2	79.8	117.0	150.4	152.5	128.9	102.3	87.8	77.9	70.6
95°	86.8	114.9	169.0	270.9	407.1	459.9	402.4	307.4	235.8	186.5	160.7
97.5°	123.2	155.1	222.9	365.1	591.3	785.1	823.5	717.2	586.8	459.9	375.2
100°	146.6	179.5	241.7	384.8	638.1	926.8	1095.7	1071.1	925.6	764.9	622.9
102.5°	168.2	201.1	258.5	385.8	620.4	931.5	1197.1	1302.9	1270.0	1152.5	1002.1
105°	199.4	232.3	287.4	391.8	585.4	869.3	1181.3	1425.3	1557.9	1573.2	1534.5
107.5°	230.5	263.5	317.0	408.0	568.0	802.6	1078.3	1337.2	1536.8	1658.8	1715.6
110°	251.1	285.1	336.7	421.1	564.3	770.7	1013.6	1261.1	1471.1	1621.2	1717.5



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	634.0	634.3	633.8	634.1	633.8	634.3	634.0	636.0	636.3	636.7	636.3
5°	590.7	587.9	587.4	586.8	587.4	587.9	590.7	591.8	592.8	594.6	597.8
7.5°	539.1	538.7	537.5	535.8	537.5	538.7	539.1	543.0	546.1	549.7	556.2
10°	505.8	504.6	504.4	502.8	504.4	504.6	505.8	510.9	514.5	519.6	528.6
12.5°	466.9	459.5	458.8	454.7	458.8	459.5	466.9	473.4	483.3	488.2	497.7
15°	397.6	396.2	391.5	388.6	391.5	396.2	397.6	403.0	406.7	420.0	435.4
17.5°	357.9	353.4	351.9	351.3	351.9	353.4	357.9	360.5	365.8	372.8	382.0
20°	332.3	328.3	327.6	327.1	327.6	328.3	332.3	335.6	339.7	347.3	356.9
22.5°	314.8	310.4	308.7	307.3	308.7	310.4	314.8	317.2	321.0	326.9	333.5
25°	284.7	283.1	282.2	281.7	282.2	283.1	284.7	287.0	290.6	298.7	305.6
27.5°	261.2	257.6	256.9	255.7	256.9	257.6	261.2	265.2	269.0	272.7	278.8
30°	247.7	246.6	245.0	243.6	245.0	246.6	247.7	249.8	252.4	258.5	264.5
32.5°	232.0	231.0	229.5	228.9	229.5	231.0	232.0	234.8	240.0	243.9	248.1
35°	214.5	211.3	209.8	207.8	209.8	211.3	214.5	216.8	218.8	222.1	229.8
37.5°	196.0	194.3	192.4	193.1	192.4	194.3	196.0	196.9	201.3	205.8	209.1
40°	181.7	180.6	180.1	179.9	180.1	180.6	181.7	184.7	190.0	192.0	197.0
42.5°	170.3	167.1	165.9	165.9	165.9	167.1	170.3	173.7	176.9	180.3	185.5
45°	153.0	150.1	147.9	148.1	147.9	150.1	153.0	154.1	156.9	163.6	166.5
47.5°	135.3	135.2	133.9	134.3	133.9	135.2	135.3	137.2	140.8	144.9	149.7
50°	126.8	125.5	124.5	124.8	124.5	125.5	126.8	128.5	130.5	132.6	140.0
52.5°	118.8	117.5	116.8	117.9	116.8	117.5	118.8	119.7	121.2	123.2	128.2
55°	105.5	104.1	103.9	103.7	103.9	104.1	105.5	106.6	108.5	110.1	112.4
57.5°	90.7	89.8	88.4	87.9	88.4	89.8	90.7	92.4	94.6	96.7	99.1
60°	80.1	78.3	75.9	75.7	75.9	78.3	80.1	83.0	83.9	87.2	89.9
62.5°	70.3	70.0	69.5	69.5	69.5	70.0	70.3	71.3	72.6	77.3	80.6
65°	61.7	61.5	61.7	61.9	61.7	61.5	61.7	62.2	62.4	62.8	64.2
67.5°	53.7	53.3	52.9	53.1	52.9	53.3	53.7	53.8	54.5	54.7	55.7
70°	47.7	47.5	47.3	47.3	47.3	47.5	47.7	48.2	48.7	49.1	50.2
72.5°	41.8	41.8	41.6	41.4	41.6	41.8	41.8	42.7	42.9	43.4	44.1
75°	33.5	33.0	33.0	33.0	33.0	33.0	33.5	33.7	33.9	34.6	35.1
77.5°	25.5	25.2	25.0	24.8	25.0	25.2	25.5	25.5	26.0	26.1	26.6
80°	20.2	20.0	19.7	19.7	19.7	20.0	20.2	20.4	20.4	21.1	20.9
82.5°	15.5	15.1	15.1	14.9	15.1	15.1	15.5	15.5	15.5	16.0	16.0
85°	8.3	8.5	8.3	8.7	8.3	8.5	8.3	8.1	8.3	8.7	8.7
87.5°	10.1	9.9	10.1	9.9	10.1	9.9	10.1	10.1	10.1	9.6	10.1
90°	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	37.6	35.2	37.6
92.5°	69.7	65.9	66.9	65.0	66.9	65.9	69.7	70.6	77.9	87.8	102.3
95°	145.4	136.1	132.6	133.7	132.6	136.1	145.4	160.7	186.5	235.8	307.4
97.5°	319.1	290.2	273.1	263.3	273.1	290.2	319.1	375.2	459.9	586.8	717.2
100°	525.5	475.1	441.1	420.0	441.1	475.1	525.5	622.9	764.9	925.6	1071.1
102.5°	896.3	810.2	767.7	739.1	767.7	810.2	896.3	1002.1	1152.5	1270.0	1302.9
105°	1461.7	1389.0	1338.6	1322.1	1338.6	1389.0	1461.7	1534.5	1573.2	1557.9	1425.3
107.5°	1724.7	1720.7	1710.6	1688.8	1710.6	1720.7	1724.7	1715.6	1658.8	1536.8	1337.2
110°	1767.9	1790.2	1800.8	1799.6	1800.8	1790.2	1767.9	1717.5	1621.2	1471.1	1261.1



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	634.9	637.4	641.3	643.5	647.1	649.5	650.9	653.2	654.5	659.1	663.9
5°	599.4	603.1	609.5	615.4	621.9	628.5	633.4	638.8	643.9	652.6	661.8
7.5°	558.8	563.8	573.8	583.3	594.5	603.9	612.2	621.6	630.0	642.5	655.5
10°	528.3	537.2	550.3	559.3	573.9	583.3	596.4	606.7	618.4	635.0	649.6
12.5°	502.0	512.8	523.3	535.7	549.0	564.6	579.0	592.3	606.1	623.2	640.5
15°	454.4	470.0	486.4	499.0	516.8	533.3	550.1	567.9	584.9	605.4	627.8
17.5°	393.1	411.2	438.6	460.2	481.2	497.8	518.6	540.2	560.2	584.8	609.9
20°	365.5	378.7	397.3	426.5	458.1	475.7	496.9	520.7	543.6	570.5	597.3
22.5°	343.3	355.1	369.9	392.6	428.0	452.1	474.1	498.4	524.9	552.3	582.1
25°	311.5	319.7	335.4	353.8	378.0	417.7	441.8	466.2	495.0	524.4	558.4
27.5°	287.7	295.2	305.3	322.8	340.8	369.4	407.7	434.2	463.0	496.0	531.3
30°	269.5	278.2	289.5	301.8	321.6	343.9	382.1	412.9	441.3	475.3	512.9
32.5°	256.3	263.2	272.8	285.4	301.7	323.2	353.8	391.0	418.8	454.5	493.8
35°	234.7	242.7	250.4	262.5	275.7	295.2	318.4	358.3	385.9	421.1	460.6
37.5°	216.8	221.8	230.4	239.8	253.9	268.4	288.5	324.3	354.1	388.7	429.1
40°	203.3	209.4	215.8	226.4	237.9	251.9	271.6	298.2	332.3	366.4	405.8
42.5°	190.1	197.8	204.7	211.8	224.3	238.3	254.4	276.9	311.8	344.0	382.3
45°	174.1	179.2	186.2	194.1	204.4	216.3	230.6	250.2	283.8	311.5	347.5
47.5°	155.6	163.0	167.6	175.2	185.0	196.4	209.6	226.7	253.8	279.8	313.3
50°	142.9	150.5	157.1	164.0	172.7	183.7	194.8	211.3	233.1	260.3	291.5
52.5°	132.1	138.8	145.2	152.1	160.7	170.7	181.2	195.7	214.3	239.4	269.7
55°	117.2	121.4	128.1	134.9	142.5	152.1	162.2	174.3	190.4	211.5	236.0
57.5°	102.0	106.7	112.0	119.0	126.6	134.0	143.1	154.1	166.7	185.8	206.8
60°	93.4	97.0	101.4	108.5	115.6	122.3	131.0	140.2	152.1	168.6	186.5
62.5°	83.8	87.4	91.3	97.5	104.4	110.5	118.2	127.8	137.9	153.0	168.6
65°	67.9	72.9	76.9	82.3	88.1	94.5	100.5	108.3	117.2	129.2	143.1
67.5°	56.2	58.9	62.5	67.5	73.3	78.9	84.5	90.6	98.4	107.6	118.7
70°	51.2	52.1	52.7	57.6	63.1	68.6	73.8	79.6	86.2	93.8	103.4
72.5°	45.1	46.0	46.9	49.0	53.3	58.9	64.3	68.6	74.8	81.2	89.0
75°	35.7	37.2	37.9	39.0	40.6	44.2	49.3	53.4	57.2	61.9	68.2
77.5°	27.3	28.1	28.8	30.0	31.0	32.6	35.5	39.2	42.7	45.4	49.7
80°	21.6	21.8	22.7	23.1	24.5	25.7	27.1	30.1	33.5	34.6	37.7
82.5°	16.3	16.5	17.2	17.7	18.3	19.3	21.0	21.8	24.5	26.1	27.9
85°	9.0	8.7	9.4	9.4	9.9	10.3	10.8	11.9	12.6	14.4	14.9
87.5°	10.5	10.7	10.7	9.3	7.7	6.9	6.3	6.1	6.0	5.6	5.6
90°	38.7	39.9	38.7	31.7	23.4	17.6	14.0	11.7	9.4	4.6	1.2
92.5°	128.9	152.5	150.4	117.0	79.8	53.2	42.2	34.2	29.1	20.6	14.3
95°	402.4	459.9	407.1	270.9	169.0	114.9	86.8	68.1	57.5	45.7	41.1
97.5°	823.5	785.1	591.3	365.1	222.9	155.1	123.2	101.6	85.6	73.2	66.9
100°	1095.7	926.8	638.1	384.8	241.7	179.5	146.6	123.2	104.4	93.8	90.3
102.5°	1197.1	931.5	620.4	385.8	258.5	201.1	168.2	143.8	125.0	114.5	111.9
105°	1181.3	869.3	585.4	391.8	287.4	232.3	199.4	173.6	156.0	147.8	143.1
107.5°	1078.3	802.6	568.0	408.0	317.0	263.5	230.5	204.8	188.6	180.7	176.9
110°	1013.6	770.7	564.3	421.1	336.7	285.1	251.1	226.4	211.2	204.1	199.4



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	664.1	664.6	668.2	669.9	673.2	674.5	676.0	675.6	675.6	676.3	681.5
5°	665.5	670.0	676.9	683.6	690.0	695.5	699.2	702.9	704.3	710.8	716.8
7.5°	663.1	671.6	682.9	693.1	705.2	714.7	722.6	729.7	734.6	744.3	754.2
10°	659.9	671.9	684.7	697.8	714.6	727.2	740.0	749.9	753.1	767.5	775.8
12.5°	653.7	669.6	686.0	703.0	719.3	736.7	750.8	760.7	772.0	785.0	800.2
15°	644.4	662.7	684.1	705.8	729.2	750.3	765.5	782.6	795.1	809.3	822.6
17.5°	631.0	654.6	681.7	706.9	734.0	756.6	777.5	794.0	802.6	810.8	812.7
20°	620.3	645.7	677.6	707.4	734.5	760.6	781.3	795.1	797.4	797.6	785.5
22.5°	608.7	637.5	670.9	701.4	733.8	762.9	778.9	784.8	775.7	760.1	736.6
25°	587.4	620.8	659.5	694.4	729.7	757.2	762.8	752.5	720.5	687.0	644.6
27.5°	564.4	601.9	643.4	682.2	719.8	736.9	725.0	687.7	630.4	580.4	519.9
30°	547.5	589.6	630.4	673.7	708.6	715.9	688.6	633.8	566.8	491.6	431.2
32.5°	528.3	572.3	617.1	662.0	691.2	684.0	638.9	571.4	492.9	418.9	361.9
35°	500.8	546.1	594.6	639.5	658.1	627.1	559.7	471.8	391.5	322.6	283.3
37.5°	469.0	518.5	568.8	610.1	608.7	557.1	465.2	374.6	307.1	266.2	238.3
40°	446.4	496.4	550.8	585.6	570.8	503.5	403.9	318.4	269.0	236.5	216.1
42.5°	424.7	474.9	529.0	556.6	530.7	448.1	348.9	281.9	241.2	215.8	199.2
45°	387.9	440.9	490.9	506.2	459.9	368.9	282.2	233.5	206.4	187.6	176.2
47.5°	351.8	404.0	449.7	449.9	387.3	299.1	238.0	202.1	178.9	164.4	156.1
50°	329.8	379.4	417.7	411.7	340.6	266.1	212.9	181.9	162.7	151.4	142.7
52.5°	305.1	353.1	386.4	369.4	301.1	234.2	190.3	164.3	148.3	138.6	130.8
55°	269.0	311.7	335.2	309.4	245.7	194.8	160.8	140.4	128.5	120.2	113.5
57.5°	233.7	268.9	283.6	253.7	202.4	161.5	136.0	120.7	108.9	102.9	99.5
60°	211.5	241.6	251.9	218.8	175.9	141.3	120.5	106.2	97.5	93.6	90.2
62.5°	189.7	214.2	218.4	188.2	153.4	123.7	105.7	93.7	88.0	84.2	81.0
65°	157.3	175.0	173.0	148.7	121.4	98.2	85.1	77.8	73.4	68.2	62.4
67.5°	129.6	140.4	133.8	115.6	92.6	76.3	67.8	62.2	56.8	51.8	50.5
70°	111.9	118.2	111.3	94.5	75.9	64.0	57.2	50.5	47.3	46.2	44.0
72.5°	95.0	97.3	89.8	75.4	61.8	53.0	46.3	42.6	40.8	39.9	38.6
75°	71.3	69.8	63.3	52.1	42.9	37.0	34.8	33.5	32.3	31.4	30.7
77.5°	50.1	47.8	42.0	34.6	29.9	27.1	25.8	25.0	24.5	24.0	23.3
80°	37.7	36.1	30.3	24.7	22.7	21.3	20.6	19.7	19.7	19.3	18.6
82.5°	27.6	25.8	20.7	18.2	17.1	16.2	15.7	15.1	14.9	15.0	14.5
85°	14.4	11.7	10.3	9.9	9.2	8.7	9.0	8.5	8.5	8.5	8.3
87.5°	5.4	5.4	5.7	6.0	6.9	8.0	9.5	10.9	11.3	10.9	10.8
90°	4.6	9.4	11.7	14.0	17.6	23.4	31.7	38.7	39.9	38.7	37.6
92.5°	20.6	29.1	34.2	42.2	53.2	79.8	117.0	150.4	152.5	128.9	102.3
95°	45.7	57.5	68.1	86.8	114.9	169.0	270.9	407.1	459.9	402.4	307.4
97.5°	73.2	85.6	101.6	123.2	155.1	222.9	365.1	591.3	785.1	823.5	717.2
100°	93.8	104.4	123.2	146.6	179.5	241.7	384.8	638.1	926.8	1095.7	1071.1
102.5°	114.5	125.0	143.8	168.2	201.1	258.5	385.8	620.4	931.5	1197.1	1302.9
105°	147.8	156.0	173.6	199.4	232.3	287.4	391.8	585.4	869.3	1181.3	1425.3
107.5°	180.7	188.6	204.8	230.5	263.5	317.0	408.0	568.0	802.6	1078.3	1337.2
110°	204.1	211.2	226.4	251.1	285.1	336.7	421.1	564.3	770.7	1013.6	1261.1



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	683.3	685.7	686.8	686.8	688.1	687.5	687.0
5°	722.6	726.9	727.9	732.0	735.0	734.1	734.5
7.5°	761.6	768.6	775.6	778.7	779.2	781.0	781.7
10°	785.7	791.4	802.1	800.6	808.6	813.2	805.7
12.5°	808.8	816.6	824.0	826.1	830.6	832.1	829.1
15°	829.7	833.8	834.2	833.1	834.6	833.3	829.0
17.5°	810.2	803.4	789.9	783.5	778.4	770.8	767.8
20°	777.9	758.1	735.2	726.0	715.3	694.2	699.2
22.5°	708.1	685.7	662.7	635.9	623.1	603.1	601.9
25°	599.7	560.9	518.2	488.4	470.9	451.0	442.2
27.5°	466.3	417.4	382.4	364.8	348.6	332.9	332.1
30°	378.5	341.8	314.8	299.6	289.7	283.1	284.5
32.5°	319.0	293.9	275.6	263.1	255.8	250.7	250.6
35°	260.8	243.6	231.9	226.6	221.4	217.7	217.9
37.5°	223.2	212.9	206.3	200.6	197.2	195.4	194.4
40°	203.9	195.4	190.4	186.9	184.2	181.7	181.2
42.5°	188.7	181.7	176.6	173.9	171.4	169.6	169.2
45°	167.4	161.7	157.1	154.1	153.0	151.4	151.4
47.5°	149.0	143.3	139.8	137.8	135.9	134.8	134.8
50°	136.5	132.1	129.0	127.7	126.1	125.5	125.2
52.5°	125.3	122.0	119.8	119.0	118.3	117.4	117.5
55°	110.1	108.3	107.3	106.6	105.5	104.1	105.0
57.5°	97.4	95.7	93.3	91.1	90.1	89.1	89.5
60°	88.4	85.1	81.9	79.4	78.7	76.6	76.6
62.5°	77.0	72.4	68.5	67.1	66.3	65.4	65.2
65°	59.2	57.4	56.5	55.5	55.0	55.0	54.6
67.5°	49.1	48.3	47.3	47.1	46.7	46.5	46.4
70°	43.3	42.4	42.0	41.7	41.3	41.5	40.8
72.5°	37.9	37.2	37.1	36.5	36.2	36.2	35.6
75°	29.8	29.8	29.6	29.4	28.9	28.7	28.9
77.5°	22.9	23.0	22.6	22.5	22.5	22.5	22.3
80°	18.4	18.6	18.4	18.1	17.9	18.1	17.9
82.5°	14.5	14.1	14.1	14.0	14.0	13.9	13.8
85°	8.3	8.5	8.3	8.1	8.1	8.1	8.3
87.5°	10.2	10.6	10.9	10.9	10.9	10.9	10.7
90°	35.2	37.6	38.7	38.7	38.7	38.7	38.7
92.5°	87.8	77.9	70.6	69.7	65.9	66.9	65.0
95°	235.8	186.5	160.7	145.4	136.1	132.6	133.7
97.5°	586.8	459.9	375.2	319.1	290.2	273.1	263.3
100°	925.6	764.9	622.9	525.5	475.1	441.1	420.0
102.5°	1270.0	1152.5	1002.1	896.3	810.2	767.7	739.1
105°	1557.9	1573.2	1534.5	1461.7	1389.0	1338.6	1322.1
107.5°	1536.8	1658.8	1715.6	1724.7	1720.7	1710.6	1688.8
110°	1471.1	1621.2	1717.5	1767.9	1790.2	1800.8	1799.6



TEST NUMBER: P331641-840

CATALOG NUMBER: SA2XXRDIP-C290D1080U840-4F0-1E-UDD-A4

CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)