

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: P331616-840

Luminaire Tested: **SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331616-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING  
UPLIGHT 330 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

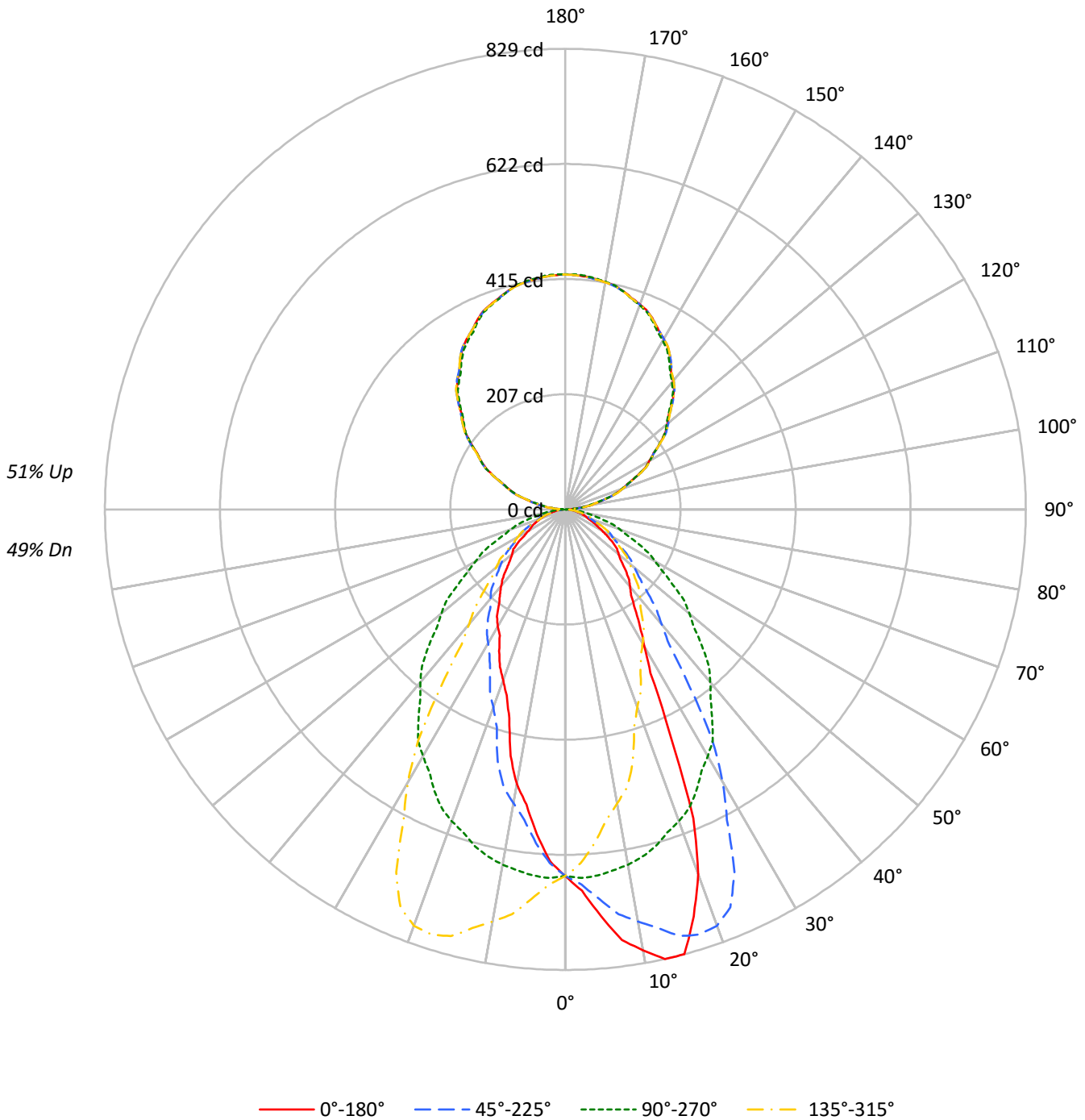
Lumens per Lamp: N/A  
Luminaire Lumens: 2324.9 lumens  
Efficiency: N/A  
Efficacy: 114.5 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 1.16 / 1.02  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 20.3  
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49				49
1	98	94	91	87	91	87	84	81	74	72	70	61	60	59	50	49	48				43	
2	90	83	78	73	83	77	72	68	66	62	59	55	52	50	45	43	42				37	
3	83	74	67	62	76	69	63	58	59	54	50	49	46	43	41	38	37				33	
4	76	66	59	53	70	61	55	50	53	48	44	45	41	38	37	34	32				29	
5	70	59	52	46	65	55	48	43	48	42	38	40	37	34	34	31	29				26	
6	65	54	46	40	60	50	43	38	43	38	34	37	33	30	31	28	26				23	
7	60	49	41	36	56	46	39	34	40	34	30	34	30	27	29	26	23				21	
8	56	44	37	32	52	42	35	30	36	31	27	31	27	24	26	23	21				19	
9	53	41	34	29	49	38	32	27	33	28	25	29	25	22	25	22	19				17	
10	49	38	31	26	46	35	29	25	31	26	23	27	23	20	23	20	18				16	

**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: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.6	2.7
10°-20°	174.4	7.5
20°-30°	224.7	9.7
30°-40°	213.5	9.2
40°-50°	182.9	7.9
50°-60°	139.3	6.0
60°-70°	88.1	3.8
70°-80°	44.0	1.9
80°-90°	13.1	0.6
90°-100°	26.8	1.2
100°-110°	83.2	3.6
110°-120°	142.2	6.1
120°-130°	187.0	8.0
130°-140°	209.9	9.0
140°-150°	205.8	8.9
150°-160°	172.7	7.4
160°-170°	114.5	4.9
170°-180°	40.0	1.7
0°-30°	461.7	19.9
0°-40°	675.2	29.0
0°-60°	997.5	42.9
0°-90°	1142.6	49.1
90°-120°	252.2	10.8
90°-150°	855.0	36.8
90°-180°	1182.0	50.8
0°-180°	2324.9	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	9
90°	12	0	12	0	12	6
95°	22	19	22	19	22	25
105°	79	77	79	77	79	83
115°	143	143	143	143	143	141
125°	208	208	208	208	208	186
135°	272	269	272	269	272	209
145°	330	326	330	326	330	206
155°	376	373	376	373	376	173
165°	406	406	406	406	406	115
175°	421	422	421	422	421	40
180°	423	423	423	423	423	



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**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°	5.4	5.6	5.6	5.5	5.5	5.5	5.6	5.8	5.6	5.8	5.3
90°	12.1	12.0	12.0	11.9	11.8	11.8	12.0	12.2	12.3	12.5	10.7
92.5°	11.5	11.5	11.5	11.5	11.5	11.5	11.4	11.4	11.4	11.3	10.9
95°	22.1	22.3	22.4	22.6	22.7	22.8	22.8	22.8	22.8	22.8	22.7
97.5°	38.3	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.1
100°	48.9	49.0	49.1	49.1	49.2	49.3	49.3	49.3	49.3	49.3	49.0
102.5°	60.9	61.0	61.0	61.1	61.2	61.2	61.1	61.1	61.0	60.9	60.6
105°	79.2	79.2	79.2	79.2	79.2	79.2	79.0	78.8	78.7	78.5	78.4
107.5°	96.4	96.8	97.3	97.6	98.0	98.1	98.1	98.0	97.9	97.9	97.9
110°	109.9	110.2	110.4	110.6	110.9	111.0	111.0	111.0	111.0	111.0	111.0



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	122.7	122.9	123.1	123.3	123.4	123.6	123.8	124.0	124.2	124.4	124.4
115°	142.7	143.0	143.2	143.4	143.7	143.8	143.9	144.0	144.1	144.1	144.3
117.5°	161.8	162.0	162.3	162.5	162.7	162.9	163.1	163.3	163.5	163.7	164.1
120°	175.2	175.4	175.6	175.9	176.1	176.2	176.2	176.2	176.2	176.2	176.9
122.5°	188.3	188.4	188.6	188.8	189.0	189.1	189.3	189.6	189.8	190.0	190.4
125°	208.3	208.4	208.5	208.6	208.6	208.8	209.0	209.3	209.5	209.7	210.1
127.5°	226.6	226.9	227.1	227.4	227.6	227.9	228.2	228.5	228.7	229.0	229.3
130°	239.7	240.0	240.3	240.8	241.1	241.3	241.5	241.6	241.8	241.9	242.1
132.5°	252.4	252.6	252.9	253.1	253.4	253.7	254.0	254.3	254.7	255.0	255.0
135°	271.9	272.2	272.4	272.6	272.9	273.0	273.1	273.2	273.2	273.3	273.2
137.5°	289.5	289.9	290.2	290.5	290.8	291.0	291.0	291.1	291.2	291.2	291.0
140°	301.8	302.2	302.5	302.8	303.1	303.3	303.3	303.3	303.3	303.3	302.9
142.5°	313.0	313.3	313.6	314.0	314.3	314.4	314.3	314.3	314.2	314.1	313.9
145°	329.6	330.0	330.3	330.6	330.9	331.0	330.9	330.9	330.8	330.7	330.2
147.5°	344.6	344.9	345.2	345.5	345.8	345.9	345.7	345.5	345.4	345.2	344.9
150°	354.3	354.6	354.8	355.0	355.3	355.3	355.0	354.8	354.6	354.3	354.0
152.5°	363.5	363.8	364.1	364.4	364.7	364.7	364.4	364.1	363.8	363.5	363.0
155°	375.7	376.0	376.2	376.4	376.7	376.6	376.2	375.8	375.4	375.0	374.8
157.5°	386.3	386.7	387.0	387.4	387.8	387.7	387.2	386.6	386.1	385.6	385.4
160°	392.8	393.1	393.4	393.7	394.0	394.0	393.5	393.0	392.5	392.1	392.0
162.5°	398.5	398.9	399.3	399.7	400.0	400.0	399.4	398.9	398.4	397.8	397.8
165°	406.1	406.4	406.8	407.2	407.6	407.5	407.0	406.4	405.9	405.3	405.3
167.5°	412.1	412.5	412.9	413.4	413.8	413.7	413.1	412.6	412.0	411.5	411.5
170°	415.3	415.8	416.3	416.8	417.2	417.2	416.6	416.1	415.5	415.0	415.1
172.5°	417.9	418.4	418.8	419.3	419.8	419.7	419.2	418.6	418.1	417.5	417.6
175°	420.6	421.1	421.6	422.1	422.5	422.5	421.9	421.4	420.8	420.3	420.4
177.5°	421.9	422.3	422.7	423.0	423.4	423.4	423.0	422.7	422.3	421.9	422.0
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**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°	4.9	4.7	4.4	3.9	3.9	3.9	4.6	5.4	4.8	4.4	4.3
90°	9.0	7.3	5.6	4.1	3.2	2.2	1.3	0.4	1.3	2.2	3.2
92.5°	10.5	10.1	9.7	9.2	8.5	7.8	7.1	6.4	7.1	7.8	8.5
95°	22.5	22.3	22.2	21.7	20.9	20.1	19.4	18.6	19.4	20.1	20.9
97.5°	37.8	37.5	37.2	36.7	36.0	35.2	34.6	33.9	34.6	35.2	36.0
100°	48.8	48.5	48.3	47.9	47.3	46.6	45.9	45.3	45.9	46.6	47.3
102.5°	60.3	60.0	59.8	59.3	58.8	58.3	57.8	57.3	57.8	58.3	58.8
105°	78.2	78.1	77.9	77.7	77.5	77.2	77.0	76.7	77.0	77.2	77.5
107.5°	97.9	97.9	97.9	97.7	97.4	96.9	96.6	96.2	96.6	96.9	97.4
110°	111.0	111.0	111.0	110.7	110.3	109.8	109.3	108.9	109.3	109.8	110.3





TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	124.5	124.5	124.6	124.4	123.9	123.5	123.0	122.5	123.0	123.5	123.9
115°	144.4	144.6	144.8	144.6	144.1	143.7	143.2	142.7	143.2	143.7	144.1
117.5°	164.6	165.0	165.5	165.4	164.7	164.1	163.5	162.8	163.5	164.1	164.7
120°	177.5	178.1	178.7	178.7	178.1	177.5	176.9	176.2	176.9	177.5	178.1
122.5°	190.9	191.3	191.8	191.6	190.8	190.1	189.2	188.5	189.2	190.1	190.8
125°	210.3	210.5	210.8	210.5	209.7	209.0	208.3	207.6	208.3	209.0	209.7
127.5°	229.6	229.9	230.1	229.8	228.9	228.1	227.2	226.3	227.2	228.1	228.9
130°	242.3	242.4	242.6	242.1	241.1	240.0	239.0	238.0	239.0	240.0	241.1
132.5°	255.0	254.9	254.9	254.5	253.6	252.8	252.0	251.2	252.0	252.8	253.6
135°	273.0	272.9	272.7	272.2	271.2	270.4	269.5	268.6	269.5	270.4	271.2
137.5°	290.8	290.6	290.4	290.0	289.3	288.5	287.8	287.1	287.8	288.5	289.3
140°	302.5	302.1	301.6	301.1	300.4	299.7	299.0	298.3	299.0	299.7	300.4
142.5°	313.6	313.3	313.1	312.6	311.8	311.1	310.4	309.7	310.4	311.1	311.8
145°	329.8	329.3	328.8	328.3	327.8	327.2	326.7	326.1	326.7	327.2	327.8
147.5°	344.6	344.2	343.9	343.4	342.7	342.0	341.4	340.7	341.4	342.0	342.7
150°	353.7	353.4	353.0	352.6	352.1	351.6	351.2	350.7	351.2	351.6	352.1
152.5°	362.6	362.2	361.9	361.4	361.0	360.5	360.0	359.6	360.0	360.5	361.0
155°	374.5	374.3	374.1	373.8	373.5	373.3	373.0	372.8	373.0	373.3	373.5
157.5°	385.3	385.2	385.0	384.9	384.7	384.5	384.4	384.2	384.4	384.5	384.7
160°	391.9	391.8	391.8	391.6	391.5	391.3	391.2	391.0	391.2	391.3	391.5
162.5°	397.7	397.6	397.5	397.5	397.4	397.4	397.4	397.3	397.4	397.4	397.4
165°	405.3	405.3	405.3	405.4	405.5	405.5	405.6	405.7	405.6	405.5	405.5
167.5°	411.5	411.5	411.6	411.7	411.9	412.2	412.4	412.6	412.4	412.2	411.9
170°	415.1	415.2	415.3	415.5	415.7	415.9	416.2	416.4	416.2	415.9	415.7
172.5°	417.7	417.8	417.8	418.0	418.2	418.5	418.7	418.9	418.7	418.5	418.2
175°	420.6	420.8	420.9	421.1	421.3	421.6	421.8	422.1	421.8	421.6	421.3
177.5°	422.2	422.3	422.4	422.6	422.8	422.9	423.1	423.3	423.1	422.9	422.8
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**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°	4.3	4.4	4.3	4.7	5.0	5.3	5.3	5.0	4.9	4.9	4.7
90°	4.1	5.6	7.3	9.0	10.7	12.5	12.3	12.2	12.0	11.8	11.8
92.5°	9.2	9.7	10.1	10.5	10.9	11.3	11.4	11.4	11.4	11.5	11.5
95°	21.7	22.2	22.3	22.5	22.7	22.8	22.8	22.8	22.8	22.8	22.7
97.5°	36.7	37.2	37.5	37.8	38.1	38.4	38.4	38.4	38.4	38.4	38.4
100°	47.9	48.3	48.5	48.8	49.0	49.3	49.3	49.3	49.3	49.3	49.2
102.5°	59.3	59.8	60.0	60.3	60.6	60.9	61.0	61.1	61.1	61.2	61.2
105°	77.7	77.9	78.1	78.2	78.4	78.5	78.7	78.8	79.0	79.2	79.2
107.5°	97.7	97.9	97.9	97.9	97.9	97.9	97.9	98.0	98.1	98.1	98.0
110°	110.7	111.0	111.0	111.0	111.0	111.0	111.0	111.0	111.0	111.0	110.9



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	124.4	124.6	124.5	124.5	124.4	124.4	124.2	124.0	123.8	123.6	123.4
115°	144.6	144.8	144.6	144.4	144.3	144.1	144.1	144.0	143.9	143.8	143.7
117.5°	165.4	165.5	165.0	164.6	164.1	163.7	163.5	163.3	163.1	162.9	162.7
120°	178.7	178.7	178.1	177.5	176.9	176.2	176.2	176.2	176.2	176.2	176.1
122.5°	191.6	191.8	191.3	190.9	190.4	190.0	189.8	189.6	189.3	189.1	189.0
125°	210.5	210.8	210.5	210.3	210.1	209.7	209.5	209.3	209.0	208.8	208.6
127.5°	229.8	230.1	229.9	229.6	229.3	229.0	228.7	228.5	228.2	227.9	227.6
130°	242.1	242.6	242.4	242.3	242.1	241.9	241.8	241.6	241.5	241.3	241.1
132.5°	254.5	254.9	254.9	255.0	255.0	255.0	254.7	254.3	254.0	253.7	253.4
135°	272.2	272.7	272.9	273.0	273.2	273.3	273.2	273.2	273.1	273.0	272.9
137.5°	290.0	290.4	290.6	290.8	291.0	291.2	291.2	291.1	291.0	291.0	290.8
140°	301.1	301.6	302.1	302.5	302.9	303.3	303.3	303.3	303.3	303.3	303.1
142.5°	312.6	313.1	313.3	313.6	313.9	314.1	314.2	314.3	314.3	314.4	314.3
145°	328.3	328.8	329.3	329.8	330.2	330.7	330.8	330.9	330.9	331.0	330.9
147.5°	343.4	343.9	344.2	344.6	344.9	345.2	345.4	345.5	345.7	345.9	345.8
150°	352.6	353.0	353.4	353.7	354.0	354.3	354.6	354.8	355.0	355.3	355.3
152.5°	361.4	361.9	362.2	362.6	363.0	363.5	363.8	364.1	364.4	364.7	364.7
155°	373.8	374.1	374.3	374.5	374.8	375.0	375.4	375.8	376.2	376.6	376.7
157.5°	384.9	385.0	385.2	385.3	385.4	385.6	386.1	386.6	387.2	387.7	387.8
160°	391.6	391.8	391.8	391.9	392.0	392.1	392.5	393.0	393.5	394.0	394.0
162.5°	397.5	397.5	397.6	397.7	397.8	397.8	398.4	398.9	399.4	400.0	400.0
165°	405.4	405.3	405.3	405.3	405.3	405.3	405.9	406.4	407.0	407.5	407.6
167.5°	411.7	411.6	411.5	411.5	411.5	411.5	412.0	412.6	413.1	413.7	413.8
170°	415.5	415.3	415.2	415.1	415.1	415.0	415.5	416.1	416.6	417.2	417.2
172.5°	418.0	417.8	417.8	417.7	417.6	417.5	418.1	418.6	419.2	419.7	419.8
175°	421.1	420.9	420.8	420.6	420.4	420.3	420.8	421.4	421.9	422.5	422.5
177.5°	422.6	422.4	422.3	422.2	422.0	421.9	422.3	422.7	423.0	423.4	423.4
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



TEST NUMBER: P331616-840  
 CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**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°	4.7	4.6	4.7	4.6	4.7	4.6	4.7	4.7	4.9	4.9	5.0
90°	11.9	12.0	12.0	12.1	12.0	12.0	11.9	11.8	11.8	12.0	12.2
92.5°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.4	11.4
95°	22.6	22.4	22.3	22.1	22.3	22.4	22.6	22.7	22.8	22.8	22.8
97.5°	38.4	38.4	38.4	38.3	38.4	38.4	38.4	38.4	38.4	38.4	38.4
100°	49.1	49.1	49.0	48.9	49.0	49.1	49.1	49.2	49.3	49.3	49.3
102.5°	61.1	61.0	61.0	60.9	61.0	61.0	61.1	61.2	61.2	61.1	61.1
105°	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.0	78.8
107.5°	97.6	97.3	96.8	96.4	96.8	97.3	97.6	98.0	98.1	98.1	98.0
110°	110.6	110.4	110.2	109.9	110.2	110.4	110.6	110.9	111.0	111.0	111.0



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	123.3	123.1	122.9	122.7	122.9	123.1	123.3	123.4	123.6	123.8	124.0
115°	143.4	143.2	143.0	142.7	143.0	143.2	143.4	143.7	143.8	143.9	144.0
117.5°	162.5	162.3	162.0	161.8	162.0	162.3	162.5	162.7	162.9	163.1	163.3
120°	175.9	175.6	175.4	175.2	175.4	175.6	175.9	176.1	176.2	176.2	176.2
122.5°	188.8	188.6	188.4	188.3	188.4	188.6	188.8	189.0	189.1	189.3	189.6
125°	208.6	208.5	208.4	208.3	208.4	208.5	208.6	208.6	208.8	209.0	209.3
127.5°	227.4	227.1	226.9	226.6	226.9	227.1	227.4	227.6	227.9	228.2	228.5
130°	240.8	240.3	240.0	239.7	240.0	240.3	240.8	241.1	241.3	241.5	241.6
132.5°	253.1	252.9	252.6	252.4	252.6	252.9	253.1	253.4	253.7	254.0	254.3
135°	272.6	272.4	272.2	271.9	272.2	272.4	272.6	272.9	273.0	273.1	273.2
137.5°	290.5	290.2	289.9	289.5	289.9	290.2	290.5	290.8	291.0	291.0	291.1
140°	302.8	302.5	302.2	301.8	302.2	302.5	302.8	303.1	303.3	303.3	303.3
142.5°	314.0	313.6	313.3	313.0	313.3	313.6	314.0	314.3	314.4	314.3	314.3
145°	330.6	330.3	330.0	329.6	330.0	330.3	330.6	330.9	331.0	330.9	330.9
147.5°	345.5	345.2	344.9	344.6	344.9	345.2	345.5	345.8	345.9	345.7	345.5
150°	355.0	354.8	354.6	354.3	354.6	354.8	355.0	355.3	355.3	355.0	354.8
152.5°	364.4	364.1	363.8	363.5	363.8	364.1	364.4	364.7	364.7	364.4	364.1
155°	376.4	376.2	376.0	375.7	376.0	376.2	376.4	376.7	376.6	376.2	375.8
157.5°	387.4	387.0	386.7	386.3	386.7	387.0	387.4	387.8	387.7	387.2	386.6
160°	393.7	393.4	393.1	392.8	393.1	393.4	393.7	394.0	394.0	393.5	393.0
162.5°	399.7	399.3	398.9	398.5	398.9	399.3	399.7	400.0	400.0	399.4	398.9
165°	407.2	406.8	406.4	406.1	406.4	406.8	407.2	407.6	407.5	407.0	406.4
167.5°	413.4	412.9	412.5	412.1	412.5	412.9	413.4	413.8	413.7	413.1	412.6
170°	416.8	416.3	415.8	415.3	415.8	416.3	416.8	417.2	417.2	416.6	416.1
172.5°	419.3	418.8	418.4	417.9	418.4	418.8	419.3	419.8	419.7	419.2	418.6
175°	422.1	421.6	421.1	420.6	421.1	421.6	422.1	422.5	422.5	421.9	421.4
177.5°	423.0	422.7	422.3	421.9	422.3	422.7	423.0	423.4	423.4	423.0	422.7
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**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°	5.3	5.3	5.0	4.7	4.3	4.4	4.3	4.3	4.4	4.8	5.4
90°	12.3	12.5	10.7	9.0	7.3	5.6	4.1	3.2	2.2	1.3	0.4
92.5°	11.4	11.3	10.9	10.5	10.1	9.7	9.2	8.5	7.8	7.1	6.4
95°	22.8	22.8	22.7	22.5	22.3	22.2	21.7	20.9	20.1	19.4	18.6
97.5°	38.4	38.4	38.1	37.8	37.5	37.2	36.7	36.0	35.2	34.6	33.9
100°	49.3	49.3	49.0	48.8	48.5	48.3	47.9	47.3	46.6	45.9	45.3
102.5°	61.0	60.9	60.6	60.3	60.0	59.8	59.3	58.8	58.3	57.8	57.3
105°	78.7	78.5	78.4	78.2	78.1	77.9	77.7	77.5	77.2	77.0	76.7
107.5°	97.9	97.9	97.9	97.9	97.9	97.9	97.7	97.4	96.9	96.6	96.2
110°	111.0	111.0	111.0	111.0	111.0	111.0	110.7	110.3	109.8	109.3	108.9



TEST NUMBER: P331616-840  
 CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	124.2	124.4	124.4	124.5	124.5	124.6	124.4	123.9	123.5	123.0	122.5
115°	144.1	144.1	144.3	144.4	144.6	144.8	144.6	144.1	143.7	143.2	142.7
117.5°	163.5	163.7	164.1	164.6	165.0	165.5	165.4	164.7	164.1	163.5	162.8
120°	176.2	176.2	176.9	177.5	178.1	178.7	178.7	178.1	177.5	176.9	176.2
122.5°	189.8	190.0	190.4	190.9	191.3	191.8	191.6	190.8	190.1	189.2	188.5
125°	209.5	209.7	210.1	210.3	210.5	210.8	210.5	209.7	209.0	208.3	207.6
127.5°	228.7	229.0	229.3	229.6	229.9	230.1	229.8	228.9	228.1	227.2	226.3
130°	241.8	241.9	242.1	242.3	242.4	242.6	242.1	241.1	240.0	239.0	238.0
132.5°	254.7	255.0	255.0	255.0	254.9	254.9	254.5	253.6	252.8	252.0	251.2
135°	273.2	273.3	273.2	273.0	272.9	272.7	272.2	271.2	270.4	269.5	268.6
137.5°	291.2	291.2	291.0	290.8	290.6	290.4	290.0	289.3	288.5	287.8	287.1
140°	303.3	303.3	302.9	302.5	302.1	301.6	301.1	300.4	299.7	299.0	298.3
142.5°	314.2	314.1	313.9	313.6	313.3	313.1	312.6	311.8	311.1	310.4	309.7
145°	330.8	330.7	330.2	329.8	329.3	328.8	328.3	327.8	327.2	326.7	326.1
147.5°	345.4	345.2	344.9	344.6	344.2	343.9	343.4	342.7	342.0	341.4	340.7
150°	354.6	354.3	354.0	353.7	353.4	353.0	352.6	352.1	351.6	351.2	350.7
152.5°	363.8	363.5	363.0	362.6	362.2	361.9	361.4	361.0	360.5	360.0	359.6
155°	375.4	375.0	374.8	374.5	374.3	374.1	373.8	373.5	373.3	373.0	372.8
157.5°	386.1	385.6	385.4	385.3	385.2	385.0	384.9	384.7	384.5	384.4	384.2
160°	392.5	392.1	392.0	391.9	391.8	391.8	391.6	391.5	391.3	391.2	391.0
162.5°	398.4	397.8	397.8	397.7	397.6	397.5	397.5	397.4	397.4	397.4	397.3
165°	405.9	405.3	405.3	405.3	405.3	405.3	405.4	405.5	405.5	405.6	405.7
167.5°	412.0	411.5	411.5	411.5	411.5	411.6	411.7	411.9	412.2	412.4	412.6
170°	415.5	415.0	415.1	415.1	415.2	415.3	415.5	415.7	415.9	416.2	416.4
172.5°	418.1	417.5	417.6	417.7	417.8	417.8	418.0	418.2	418.5	418.7	418.9
175°	420.8	420.3	420.4	420.6	420.8	420.9	421.1	421.3	421.6	421.8	422.1
177.5°	422.3	421.9	422.0	422.2	422.3	422.4	422.6	422.8	422.9	423.1	423.3
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**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°	4.6	3.9	3.9	3.9	4.4	4.7	4.9	5.3	5.8	5.6	5.8
90°	1.3	2.2	3.2	4.1	5.6	7.3	9.0	10.7	12.5	12.3	12.2
92.5°	7.1	7.8	8.5	9.2	9.7	10.1	10.5	10.9	11.3	11.4	11.4
95°	19.4	20.1	20.9	21.7	22.2	22.3	22.5	22.7	22.8	22.8	22.8
97.5°	34.6	35.2	36.0	36.7	37.2	37.5	37.8	38.1	38.4	38.4	38.4
100°	45.9	46.6	47.3	47.9	48.3	48.5	48.8	49.0	49.3	49.3	49.3
102.5°	57.8	58.3	58.8	59.3	59.8	60.0	60.3	60.6	60.9	61.0	61.1
105°	77.0	77.2	77.5	77.7	77.9	78.1	78.2	78.4	78.5	78.7	78.8
107.5°	96.6	96.9	97.4	97.7	97.9	97.9	97.9	97.9	97.9	97.9	98.0
110°	109.3	109.8	110.3	110.7	111.0	111.0	111.0	111.0	111.0	111.0	111.0





TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	123.0	123.5	123.9	124.4	124.6	124.5	124.5	124.4	124.4	124.2	124.0
115°	143.2	143.7	144.1	144.6	144.8	144.6	144.4	144.3	144.1	144.1	144.0
117.5°	163.5	164.1	164.7	165.4	165.5	165.0	164.6	164.1	163.7	163.5	163.3
120°	176.9	177.5	178.1	178.7	178.7	178.1	177.5	176.9	176.2	176.2	176.2
122.5°	189.2	190.1	190.8	191.6	191.8	191.3	190.9	190.4	190.0	189.8	189.6
125°	208.3	209.0	209.7	210.5	210.8	210.5	210.3	210.1	209.7	209.5	209.3
127.5°	227.2	228.1	228.9	229.8	230.1	229.9	229.6	229.3	229.0	228.7	228.5
130°	239.0	240.0	241.1	242.1	242.6	242.4	242.3	242.1	241.9	241.8	241.6
132.5°	252.0	252.8	253.6	254.5	254.9	254.9	255.0	255.0	255.0	254.7	254.3
135°	269.5	270.4	271.2	272.2	272.7	272.9	273.0	273.2	273.3	273.2	273.2
137.5°	287.8	288.5	289.3	290.0	290.4	290.6	290.8	291.0	291.2	291.2	291.1
140°	299.0	299.7	300.4	301.1	301.6	302.1	302.5	302.9	303.3	303.3	303.3
142.5°	310.4	311.1	311.8	312.6	313.1	313.3	313.6	313.9	314.1	314.2	314.3
145°	326.7	327.2	327.8	328.3	328.8	329.3	329.8	330.2	330.7	330.8	330.9
147.5°	341.4	342.0	342.7	343.4	343.9	344.2	344.6	344.9	345.2	345.4	345.5
150°	351.2	351.6	352.1	352.6	353.0	353.4	353.7	354.0	354.3	354.6	354.8
152.5°	360.0	360.5	361.0	361.4	361.9	362.2	362.6	363.0	363.5	363.8	364.1
155°	373.0	373.3	373.5	373.8	374.1	374.3	374.5	374.8	375.0	375.4	375.8
157.5°	384.4	384.5	384.7	384.9	385.0	385.2	385.3	385.4	385.6	386.1	386.6
160°	391.2	391.3	391.5	391.6	391.8	391.8	391.9	392.0	392.1	392.5	393.0
162.5°	397.4	397.4	397.4	397.5	397.5	397.6	397.7	397.8	397.8	398.4	398.9
165°	405.6	405.5	405.5	405.4	405.3	405.3	405.3	405.3	405.3	405.9	406.4
167.5°	412.4	412.2	411.9	411.7	411.6	411.5	411.5	411.5	411.5	412.0	412.6
170°	416.2	415.9	415.7	415.5	415.3	415.2	415.1	415.1	415.0	415.5	416.1
172.5°	418.7	418.5	418.2	418.0	417.8	417.8	417.7	417.6	417.5	418.1	418.6
175°	421.8	421.6	421.3	421.1	420.9	420.8	420.6	420.4	420.3	420.8	421.4
177.5°	423.1	422.9	422.8	422.6	422.4	422.3	422.2	422.0	421.9	422.3	422.7
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



TEST NUMBER: P331616-840  
 CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**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°	5.6	5.5	5.5	5.5	5.6	5.6	5.4
90°	12.0	11.8	11.8	11.9	12.0	12.0	12.1
92.5°	11.4	11.5	11.5	11.5	11.5	11.5	11.5
95°	22.8	22.8	22.7	22.6	22.4	22.3	22.1
97.5°	38.4	38.4	38.4	38.4	38.4	38.4	38.3
100°	49.3	49.3	49.2	49.1	49.1	49.0	48.9
102.5°	61.1	61.2	61.2	61.1	61.0	61.0	60.9
105°	79.0	79.2	79.2	79.2	79.2	79.2	79.2
107.5°	98.1	98.1	98.0	97.6	97.3	96.8	96.4
110°	111.0	111.0	110.9	110.6	110.4	110.2	109.9



TEST NUMBER: P331616-840

CATALOG NUMBER: SA2XXRDIP-C290D330U840-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	123.8	123.6	123.4	123.3	123.1	122.9	122.7
115°	143.9	143.8	143.7	143.4	143.2	143.0	142.7
117.5°	163.1	162.9	162.7	162.5	162.3	162.0	161.8
120°	176.2	176.2	176.1	175.9	175.6	175.4	175.2
122.5°	189.3	189.1	189.0	188.8	188.6	188.4	188.3
125°	209.0	208.8	208.6	208.6	208.5	208.4	208.3
127.5°	228.2	227.9	227.6	227.4	227.1	226.9	226.6
130°	241.5	241.3	241.1	240.8	240.3	240.0	239.7
132.5°	254.0	253.7	253.4	253.1	252.9	252.6	252.4
135°	273.1	273.0	272.9	272.6	272.4	272.2	271.9
137.5°	291.0	291.0	290.8	290.5	290.2	289.9	289.5
140°	303.3	303.3	303.1	302.8	302.5	302.2	301.8
142.5°	314.3	314.4	314.3	314.0	313.6	313.3	313.0
145°	330.9	331.0	330.9	330.6	330.3	330.0	329.6
147.5°	345.7	345.9	345.8	345.5	345.2	344.9	344.6
150°	355.0	355.3	355.3	355.0	354.8	354.6	354.3
152.5°	364.4	364.7	364.7	364.4	364.1	363.8	363.5
155°	376.2	376.6	376.7	376.4	376.2	376.0	375.7
157.5°	387.2	387.7	387.8	387.4	387.0	386.7	386.3
160°	393.5	394.0	394.0	393.7	393.4	393.1	392.8
162.5°	399.4	400.0	400.0	399.7	399.3	398.9	398.5
165°	407.0	407.5	407.6	407.2	406.8	406.4	406.1
167.5°	413.1	413.7	413.8	413.4	412.9	412.5	412.1
170°	416.6	417.2	417.2	416.8	416.3	415.8	415.3
172.5°	419.2	419.7	419.8	419.3	418.8	418.4	417.9
175°	421.9	422.5	422.5	422.1	421.6	421.1	420.6
177.5°	423.0	423.4	423.4	423.0	422.7	422.3	421.9
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8

(END OF REPORT)