

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: P331242-830

Luminaire Tested: **SA2XXDIP-C290D330U830-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331242-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 330 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

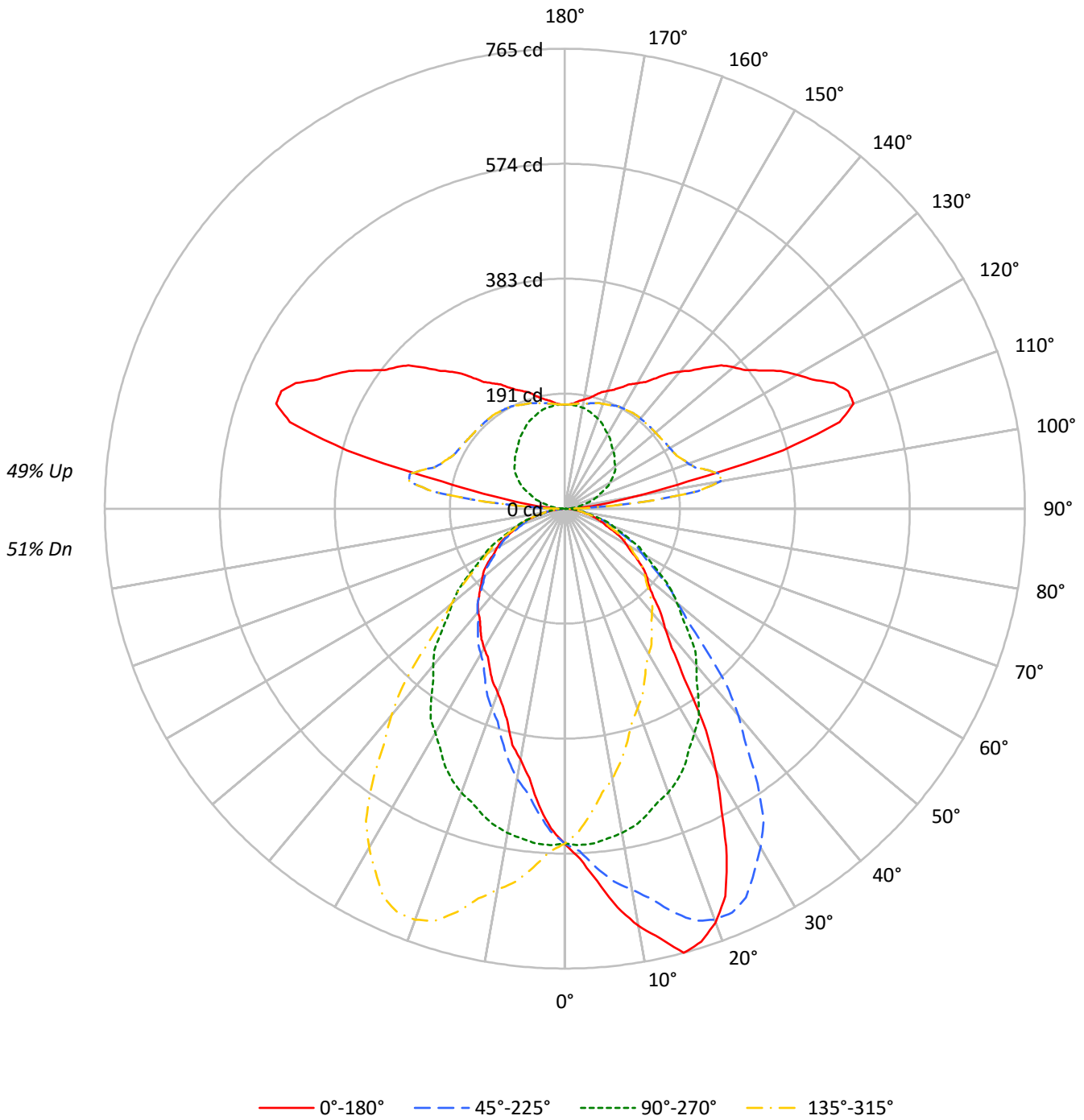
Lumens per Lamp: N/A  
Luminaire Lumens: 2435.7 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.23  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: General Diffuse

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	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	91	87	91	87	84	81	74	72	70	62	60	59	51	50	49	44
2	90	83	77	72	83	77	72	67	65	62	58	55	52	50	45	43	42	37
3	82	73	66	61	76	68	62	57	58	54	50	49	46	43	41	38	36	32
4	76	65	57	52	70	61	54	49	52	47	43	44	40	37	37	34	32	28
5	70	58	50	45	64	54	47	42	47	41	37	40	36	32	33	30	28	25
6	64	53	45	39	59	49	42	37	42	37	33	36	32	29	30	27	25	22
7	60	48	40	34	55	44	38	33	39	33	29	33	29	26	28	25	22	20
8	55	43	36	31	51	41	34	29	35	30	26	30	26	23	26	22	20	18
9	52	40	32	27	48	37	31	26	32	27	23	28	24	21	24	21	18	16
10	48	36	29	25	45	34	28	23	30	25	21	26	22	19	22	19	17	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	8995	8995	8995	8995
5°	10084	9054	8023	9054
10°	11555	8979	6943	8979
15°	12784	8816	6135	8816
20°	12589	8639	5593	8639
25°	11352	8402	5248	8402
30°	9380	8028	4998	8028
35°	6838	7634	4819	7634
40°	5461	7172	4719	7172
45°	4772	6635	4587	6635
50°	4486	6116	4496	6116
55°	4132	5588	4374	5588
60°	3788	5025	4191	5025
65°	3454	4523	4008	4523
70°	3135	4032	3744	4032
75°	2782	3487	3313	3487
80°	2390	2882	2669	2882
85°	2149	2149	1593	2149



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.1	2.2
10°-20°	154.2	6.3
20°-30°	223.9	9.2
30°-40°	236.2	9.7
40°-50°	209.2	8.6
50°-60°	166.9	6.9
60°-70°	113.4	4.7
70°-80°	58.2	2.4
80°-90°	15.6	0.6
90°-100°	69.2	2.8
100°-110°	235.0	9.6
110°-120°	249.6	10.2
120°-130°	205.5	8.4
130°-140°	165.0	6.8
140°-150°	124.7	5.1
150°-160°	87.6	3.6
160°-170°	51.6	2.1
170°-180°	16.8	0.7
0°-30°	431.2	17.7
0°-40°	667.4	27.4
0°-60°	1043.5	42.8
0°-90°	1230.7	50.5
90°-120°	553.8	22.7
90°-150°	1049.0	43.1
90°-180°	1205.0	49.5
0°-180°	2435.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	557	557	557	557	557	
5°	622	559	495	559	622	62
15°	765	527	367	527	765	211
25°	637	472	295	472	637	288
35°	347	387	244	387	347	226
45°	209	291	201	291	209	164
55°	147	198	155	198	147	132
65°	90	118	105	118	90	90
75°	45	56	53	56	45	48
85°	12	12	9	12	12	13
90°	11	0	11	0	11	6
95°	38	12	38	12	38	49
105°	375	41	375	41	375	363
115°	494	72	494	72	494	484
125°	401	100	401	100	401	362
135°	332	117	332	117	332	258
145°	265	134	265	134	265	168
155°	223	152	223	152	223	104
165°	196	166	196	166	196	56
175°	176	173	176	173	176	17
180°	173	173	173	173	173	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	582.8	583.0	583.3	580.6	580.2	580.2	577.9	575.8	573.3	570.1	570.5
5°	622.2	624.5	625.4	622.8	619.0	618.6	614.9	609.0	603.3	598.9	595.7
7.5°	669.2	670.1	668.1	664.7	661.9	656.7	649.9	643.3	634.0	625.5	619.2
10°	704.8	706.2	702.5	697.6	693.5	687.5	677.7	667.6	655.4	643.7	634.2
12.5°	731.9	735.1	730.4	729.8	722.8	714.5	702.9	697.8	680.6	664.2	654.0
15°	764.8	764.6	765.1	760.9	755.8	754.5	742.2	728.6	704.5	694.7	678.1
17.5°	755.3	758.6	760.1	760.0	759.9	759.0	755.1	746.6	734.4	718.8	699.6
20°	732.7	737.0	737.6	742.5	745.4	748.9	750.5	748.1	740.6	727.5	710.9
22.5°	697.8	699.0	701.0	708.6	714.6	723.8	728.5	736.5	733.6	727.2	713.2
25°	637.2	635.1	642.5	646.4	660.3	674.9	685.4	696.9	707.2	713.4	709.4
27.5°	564.5	561.3	572.5	582.8	594.0	609.8	626.1	645.5	661.5	681.6	688.5
30°	503.1	505.1	515.8	526.7	543.8	566.1	584.6	605.7	628.7	651.1	666.8
32.5°	437.1	444.4	451.2	468.0	483.1	507.8	534.9	561.4	589.9	615.5	639.7
35°	346.9	355.4	364.9	377.0	398.2	422.8	449.2	484.9	524.0	558.8	587.5
37.5°	292.0	290.6	296.0	304.8	322.0	341.9	372.2	407.5	453.4	494.4	534.9
40°	259.1	258.3	262.0	270.2	283.2	297.8	324.4	355.4	398.0	448.2	496.3
42.5°	236.5	237.0	239.1	244.9	253.8	265.8	285.7	312.1	351.1	398.3	450.1
45°	209.0	210.5	212.8	215.7	220.7	230.6	241.8	260.6	291.4	330.8	381.7
47.5°	189.2	189.3	191.6	194.1	197.1	202.6	211.8	223.6	245.3	277.4	321.2
50°	178.6	177.1	178.8	180.7	183.9	187.8	193.8	204.9	219.4	245.3	282.0
52.5°	165.5	165.6	167.1	167.9	170.7	174.6	180.0	187.8	201.0	221.2	251.3
55°	146.8	148.0	148.8	150.1	152.7	155.4	159.8	164.9	175.1	190.3	212.6
57.5°	129.3	129.7	130.5	133.0	134.6	137.1	141.2	145.9	152.6	163.8	180.6
60°	117.3	117.3	119.0	120.1	122.2	124.8	128.0	132.5	138.6	147.7	161.3
62.5°	106.4	106.2	106.9	108.7	110.3	112.6	115.8	119.7	125.4	133.6	144.6
65°	90.4	89.9	91.2	91.6	93.3	95.7	98.3	102.4	106.9	112.8	122.7
67.5°	74.9	75.5	76.2	76.9	77.9	80.4	82.1	84.9	88.8	93.8	100.4
70°	66.4	66.4	66.4	67.0	68.3	69.6	71.3	73.6	77.3	81.5	87.6
72.5°	56.7	57.5	58.2	57.8	59.4	60.1	62.2	63.5	67.0	69.7	75.0
75°	44.6	44.6	44.6	45.6	46.3	46.8	48.2	49.5	51.2	54.6	57.4
77.5°	33.3	33.2	33.4	33.6	34.3	35.1	35.4	36.6	38.2	39.8	42.1
80°	25.7	26.1	26.3	26.8	26.8	27.1	27.4	28.9	30.0	31.0	32.5
82.5°	19.9	20.0	20.0	20.1	20.3	20.5	21.1	21.6	22.0	22.8	23.9
85°	11.6	11.3	11.3	11.8	11.6	11.6	12.0	12.4	12.4	12.6	13.3
87.5°	6.7	6.7	6.8	6.7	6.7	6.8	6.6	6.6	6.8	7.1	7.2
90°	11.0	11.0	11.0	11.0	11.0	10.7	10.0	10.7	11.0	11.3	11.0
92.5°	18.5	18.9	18.8	19.8	20.1	22.1	24.9	29.0	36.6	43.3	42.7
95°	38.0	37.6	38.6	41.3	45.6	53.0	66.9	87.3	114.2	130.5	115.6
97.5°	74.7	77.6	82.4	90.6	106.5	130.5	166.5	203.6	233.8	222.8	167.9
100°	119.2	125.3	134.9	149.2	176.8	217.2	262.8	304.1	311.0	263.1	181.2
102.5°	209.8	217.9	230.0	254.4	284.5	327.2	360.5	369.9	339.8	264.4	176.1
105°	375.3	379.9	394.3	414.9	435.6	446.6	442.2	404.6	335.4	246.8	166.2
107.5°	479.5	485.6	488.5	489.7	487.0	470.9	436.3	379.6	306.1	227.8	161.3
110°	510.9	511.2	508.2	501.9	487.6	460.2	417.6	358.0	287.8	218.8	160.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	510.3	508.5	502.8	492.3	472.4	441.0	395.5	338.3	274.9	212.9	160.4
115°	493.9	490.9	482.2	466.9	443.3	409.0	365.3	314.1	259.1	206.5	161.8
117.5°	464.5	461.9	452.9	436.7	412.6	380.4	340.8	295.8	249.1	203.3	164.3
120°	445.6	442.2	432.6	417.0	393.6	363.4	328.0	286.7	243.7	201.5	165.9
122.5°	425.8	423.1	414.5	399.1	378.1	350.8	317.4	279.6	239.2	200.4	167.7
125°	400.7	397.9	389.6	377.0	357.7	332.7	303.4	269.1	232.8	198.5	170.5
127.5°	378.5	376.4	369.2	357.3	340.4	317.4	289.8	258.7	226.8	197.4	173.3
130°	366.0	363.4	356.7	345.3	329.0	307.1	280.8	252.1	222.8	196.8	175.5
132.5°	353.0	350.5	344.4	333.1	317.1	296.4	272.2	245.7	219.6	196.5	177.7
135°	332.1	330.7	324.7	313.7	299.4	280.8	258.7	236.8	215.1	196.1	180.2
137.5°	311.5	309.5	304.3	294.8	281.7	265.5	248.1	229.7	212.0	196.0	182.5
140°	297.4	295.4	290.4	281.7	271.1	256.5	241.1	225.1	210.1	195.9	183.5
142.5°	283.2	282.9	278.4	270.5	260.4	248.2	235.0	221.4	208.3	195.9	184.3
145°	265.0	264.1	260.8	255.1	247.1	237.4	227.2	216.1	205.9	195.1	185.1
147.5°	249.9	249.2	246.9	242.4	235.8	228.8	220.7	212.1	203.3	194.0	185.4
150°	240.8	240.4	238.5	234.4	229.4	223.5	216.5	209.2	201.1	193.1	185.1
152.5°	233.1	233.0	231.5	228.1	224.1	219.0	213.0	206.2	199.3	191.8	184.6
155°	222.8	223.5	222.2	219.8	216.1	212.4	207.5	202.2	195.9	189.5	183.8
157.5°	214.1	214.1	213.5	211.5	209.0	206.0	201.9	197.5	192.6	187.1	182.3
160°	208.5	208.5	208.1	206.5	204.2	201.8	198.1	194.4	190.1	185.5	181.5
162.5°	203.1	203.4	203.1	202.0	199.6	197.8	194.7	191.5	188.0	184.2	180.7
165°	195.5	195.9	195.9	194.4	193.1	191.8	189.5	187.2	184.5	181.5	179.2
167.5°	188.4	188.8	188.9	188.1	187.6	186.3	184.7	182.9	181.1	179.2	177.7
170°	184.2	184.8	185.1	184.2	183.8	183.1	181.8	180.9	179.2	177.9	176.8
172.5°	180.7	181.1	181.4	181.0	180.6	180.2	179.2	178.4	177.3	176.3	175.8
175°	176.2	176.8	177.2	176.8	176.8	176.5	176.2	175.9	174.8	174.5	174.2
177.5°	173.4	174.0	174.3	174.3	174.3	174.3	174.0	174.0	173.4	173.1	173.4
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	571.7	570.3	569.5	566.4	563.6	560.9	560.1	560.3	556.6	553.0	551.5
5°	594.0	589.7	585.6	579.9	573.0	565.4	561.7	558.6	551.1	543.0	538.3
7.5°	613.9	607.8	599.9	589.1	579.1	567.3	559.8	553.2	542.2	530.7	523.7
10°	626.0	617.7	607.7	594.4	582.2	567.8	557.8	547.7	534.9	521.1	512.6
12.5°	636.5	625.3	615.4	598.3	583.9	565.9	554.0	539.8	526.3	510.0	501.6
15°	661.4	640.6	621.8	602.5	584.8	559.7	546.4	527.4	509.6	489.5	479.8
17.5°	680.6	657.2	627.6	603.1	582.4	554.6	535.2	512.4	491.3	468.3	455.2
20°	691.5	664.8	632.9	603.8	579.0	547.2	526.0	502.8	478.2	452.2	438.1
22.5°	698.0	670.0	638.4	601.2	572.1	541.3	514.6	489.0	464.1	436.1	421.3
25°	700.1	674.5	641.0	599.1	563.5	528.7	496.5	471.6	441.5	415.4	393.8
27.5°	689.9	671.6	639.4	595.0	553.6	512.8	477.0	448.9	417.1	388.7	366.9
30°	677.4	666.8	635.5	591.0	545.7	501.9	462.5	430.6	398.9	370.2	347.9
32.5°	658.1	655.8	628.3	585.1	537.3	488.0	447.2	415.0	379.8	351.7	330.5
35°	620.1	630.4	613.0	572.1	521.6	468.3	424.1	387.3	350.9	324.0	304.1
37.5°	569.1	594.7	590.1	553.1	500.2	446.8	398.0	359.6	324.9	297.7	278.1
40°	534.0	566.6	571.3	538.5	485.2	430.2	378.5	340.3	306.4	281.5	261.8
42.5°	496.3	534.3	547.2	521.0	468.7	412.6	361.1	321.4	287.9	263.7	246.3
45°	433.2	483.4	506.8	491.8	441.3	383.9	330.8	290.6	260.1	237.4	223.9
47.5°	374.1	429.0	460.4	455.2	410.8	353.9	301.4	262.8	233.2	215.1	203.0
50°	332.3	388.8	426.7	428.5	388.8	332.5	279.8	243.5	216.2	199.3	189.5
52.5°	296.0	350.0	391.2	400.4	364.3	310.3	260.5	224.2	200.3	184.7	176.0
55°	248.5	294.2	340.0	356.8	327.8	276.4	230.4	198.5	176.0	165.3	157.6
57.5°	206.7	244.7	287.0	305.5	287.7	243.6	200.5	172.8	154.6	145.2	139.2
60°	184.5	214.5	252.2	274.3	258.8	219.7	182.0	155.6	140.6	132.3	126.8
62.5°	164.0	190.6	222.4	242.6	234.2	197.3	163.5	140.3	127.3	119.5	115.5
65°	135.3	156.3	181.0	199.5	194.0	166.0	138.3	118.4	108.1	101.9	98.7
67.5°	111.4	126.6	143.6	159.9	155.5	135.6	113.5	97.9	90.3	84.9	82.9
70°	96.3	107.9	123.1	136.2	132.5	116.3	98.7	85.4	78.8	74.3	72.4
72.5°	82.0	91.4	103.1	113.8	111.3	97.7	83.1	73.1	68.0	63.8	62.3
75°	61.9	69.2	76.3	83.3	82.7	72.2	63.6	55.9	51.8	48.6	48.0
77.5°	45.7	49.8	54.6	58.7	57.6	51.6	44.9	40.4	37.5	35.3	35.0
80°	34.9	37.2	40.7	43.6	42.2	39.6	34.2	31.0	28.9	26.8	25.9
82.5°	25.4	27.6	29.7	31.4	30.2	27.8	24.5	22.3	21.0	19.6	19.2
85°	13.3	14.5	15.5	15.8	15.5	13.9	12.4	11.6	10.5	9.8	9.6
87.5°	7.0	6.5	6.1	6.3	5.7	5.5	4.5	3.9	3.9	4.0	3.8
90°	9.0	6.7	5.0	4.0	3.3	2.6	1.3	0.4	1.3	2.6	3.3
92.5°	33.3	22.6	15.1	12.0	9.7	8.3	5.8	4.1	5.8	8.3	9.7
95°	76.9	48.0	32.6	24.6	19.3	16.3	13.0	11.7	13.0	16.3	19.3
97.5°	103.7	63.2	44.0	35.0	28.8	24.3	20.7	18.9	20.7	24.3	28.8
100°	109.2	68.6	51.0	41.7	35.0	29.6	26.7	25.6	26.7	29.6	35.0
102.5°	109.5	73.4	57.1	47.8	40.8	35.5	32.5	31.8	32.5	35.5	40.8
105°	111.2	81.6	66.0	56.6	49.3	44.3	41.9	40.6	41.9	44.3	49.3
107.5°	115.8	90.0	74.8	65.4	58.2	53.5	51.3	50.2	51.3	53.5	58.2
110°	119.5	95.6	81.0	71.3	64.3	59.9	58.0	56.6	58.0	59.9	64.3





TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	123.6	100.9	86.8	76.8	70.1	66.1	63.8	62.5	63.8	66.1	70.1
115°	129.5	109.2	94.9	86.0	79.3	75.3	73.2	71.6	73.2	75.3	79.3
117.5°	135.9	116.9	103.7	94.3	87.9	84.4	82.4	81.1	82.4	84.4	87.9
120°	140.3	122.2	109.2	99.9	93.2	90.3	88.2	86.9	88.2	90.3	93.2
122.5°	143.9	127.2	115.1	105.5	98.9	95.6	93.6	92.6	93.6	95.6	98.9
125°	149.9	134.9	122.9	113.6	106.9	102.9	100.9	99.9	100.9	102.9	106.9
127.5°	155.4	141.9	130.3	120.6	114.3	109.9	107.1	105.8	107.1	109.9	114.3
130°	158.8	146.2	134.5	125.3	118.6	113.9	110.6	109.2	110.6	113.9	118.6
132.5°	162.3	150.0	138.8	129.5	122.5	117.6	114.0	112.4	114.0	117.6	122.5
135°	166.8	155.2	144.5	135.3	127.5	122.5	118.6	117.3	118.6	122.5	127.5
137.5°	170.3	159.5	148.9	140.3	132.7	127.3	123.4	121.8	123.4	127.3	132.7
140°	172.2	161.8	151.8	143.2	135.9	130.5	126.6	125.3	126.6	130.5	135.9
142.5°	173.8	163.7	154.0	145.9	138.8	133.5	129.8	128.7	129.8	133.5	138.8
145°	175.9	166.5	157.5	150.2	143.5	138.6	135.3	133.8	135.3	138.6	143.5
147.5°	177.0	168.8	160.3	153.8	148.3	143.6	140.4	139.5	140.4	143.6	148.3
150°	177.5	169.8	162.2	156.2	151.2	146.8	144.2	143.2	144.2	146.8	151.2
152.5°	177.8	170.9	164.0	158.6	153.8	150.1	147.4	146.9	147.4	150.1	153.8
155°	178.1	172.5	166.8	161.8	158.2	154.5	152.5	152.2	152.5	154.5	158.2
157.5°	178.1	173.6	168.8	164.7	161.7	158.5	156.9	156.6	156.9	158.5	161.7
160°	178.1	174.2	170.2	166.5	163.8	161.2	159.9	159.5	159.9	161.2	163.8
162.5°	177.9	174.5	171.0	168.1	165.7	163.6	162.2	162.5	162.2	163.6	165.7
165°	177.2	174.8	171.8	169.8	168.1	166.2	165.5	165.9	165.5	166.2	168.1
167.5°	176.7	174.7	172.6	171.4	170.1	168.8	168.2	168.6	168.2	168.8	170.1
170°	176.2	174.5	172.9	171.8	171.2	170.2	169.8	170.5	169.8	170.2	171.2
172.5°	175.4	174.3	173.1	172.4	172.0	171.0	171.2	171.5	171.2	171.0	172.0
175°	174.5	173.8	173.1	172.9	172.9	172.2	172.5	172.9	172.5	172.2	172.9
177.5°	174.0	173.4	173.1	173.1	173.1	172.7	172.9	173.4	172.9	172.7	173.1
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	549.8	548.7	545.2	543.3	540.2	537.2	535.4	536.2	536.9	536.6	536.0
5°	534.0	529.9	523.7	518.4	514.5	507.5	504.4	502.9	501.6	500.2	498.7
7.5°	515.2	508.8	499.9	492.3	485.1	476.3	471.3	468.3	465.2	461.8	458.8
10°	501.9	492.9	483.4	472.8	464.2	456.3	449.2	444.5	440.2	436.1	433.2
12.5°	487.9	477.5	465.8	451.2	441.8	430.4	429.3	421.0	414.3	411.8	408.3
15°	465.5	450.9	436.1	418.8	411.3	401.1	394.6	388.1	382.4	378.3	377.3
17.5°	440.1	421.2	406.5	394.1	381.8	371.3	365.3	360.2	355.4	350.1	349.3
20°	420.8	404.4	388.4	377.5	364.9	354.1	346.9	341.8	337.6	334.4	331.7
22.5°	402.4	384.6	369.9	358.0	345.5	336.9	331.1	326.1	322.7	319.2	316.6
25°	373.0	359.1	343.0	329.5	319.2	313.7	309.0	304.7	302.6	300.2	297.2
27.5°	347.2	331.8	316.8	306.3	297.3	292.4	289.0	286.1	284.1	282.7	281.0
30°	329.1	313.5	301.7	291.4	283.9	279.0	276.8	275.1	272.8	271.9	271.1
32.5°	311.6	297.6	287.5	278.5	271.5	268.2	266.3	264.7	262.9	262.0	260.2
35°	286.9	275.1	265.3	260.3	254.6	251.8	250.3	248.2	246.5	245.6	245.3
37.5°	263.6	253.4	246.9	240.6	238.2	236.5	234.4	233.0	232.4	232.3	232.1
40°	248.5	240.3	234.4	229.3	228.3	225.6	223.9	222.7	222.7	222.9	222.7
42.5°	234.9	227.3	222.3	217.8	216.6	215.1	213.3	213.3	213.6	214.3	213.6
45°	214.1	208.8	205.1	203.0	200.7	199.2	198.9	199.5	199.7	200.0	200.7
47.5°	195.0	191.4	188.1	185.8	184.7	184.5	184.3	185.4	186.4	186.8	187.8
50°	183.7	179.6	176.8	175.3	174.5	174.1	174.5	175.8	176.6	177.7	178.3
52.5°	171.1	168.1	166.3	165.0	164.8	165.0	165.0	166.5	167.9	168.3	168.6
55°	153.5	151.4	151.0	149.0	149.9	149.7	150.7	151.6	152.9	154.2	154.4
57.5°	136.0	134.3	133.2	133.4	133.7	134.6	135.4	137.0	138.3	139.7	139.8
60°	124.4	123.6	122.9	122.9	123.3	124.6	125.6	127.1	128.0	128.9	129.5
62.5°	113.8	112.9	112.3	112.6	113.8	114.5	115.7	116.6	117.4	118.3	118.6
65°	97.0	96.6	97.2	97.6	97.8	98.9	100.4	101.0	101.9	102.4	103.9
67.5°	81.5	81.6	81.5	82.1	83.4	83.6	85.0	86.5	86.7	87.6	88.5
70°	71.1	71.5	71.9	72.4	73.4	73.9	74.9	75.6	76.4	77.1	77.8
72.5°	61.5	61.5	62.0	61.9	62.9	63.7	64.7	65.3	66.2	67.0	67.6
75°	47.3	47.3	47.8	48.0	49.0	50.1	49.9	50.3	51.2	52.0	52.5
77.5°	34.6	34.1	34.6	34.8	35.2	36.0	36.2	36.8	37.8	37.5	38.0
80°	26.3	25.7	26.3	26.6	26.6	27.6	27.6	28.1	28.7	28.1	28.7
82.5°	18.8	18.5	18.9	19.0	19.3	19.4	19.7	19.8	20.5	20.2	20.5
85°	9.4	9.2	9.4	9.2	9.4	9.6	9.6	9.4	9.4	9.8	9.2
87.5°	3.7	3.8	3.9	4.3	4.6	4.5	4.2	4.1	4.1	3.9	3.9
90°	4.0	5.0	6.7	9.0	11.0	11.3	11.0	10.7	10.0	10.7	11.0
92.5°	12.0	15.1	22.6	33.3	42.7	43.3	36.6	29.0	24.9	22.1	20.1
95°	24.6	32.6	48.0	76.9	115.6	130.5	114.2	87.3	66.9	53.0	45.6
97.5°	35.0	44.0	63.2	103.7	167.9	222.8	233.8	203.6	166.5	130.5	106.5
100°	41.7	51.0	68.6	109.2	181.2	263.1	311.0	304.1	262.8	217.2	176.8
102.5°	47.8	57.1	73.4	109.5	176.1	264.4	339.8	369.9	360.5	327.2	284.5
105°	56.6	66.0	81.6	111.2	166.2	246.8	335.4	404.6	442.2	446.6	435.6
107.5°	65.4	74.8	90.0	115.8	161.3	227.8	306.1	379.6	436.3	470.9	487.0
110°	71.3	81.0	95.6	119.5	160.2	218.8	287.8	358.0	417.6	460.2	487.6



TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	76.8	86.8	100.9	123.6	160.4	212.9	274.9	338.3	395.5	441.0	472.4
115°	86.0	94.9	109.2	129.5	161.8	206.5	259.1	314.1	365.3	409.0	443.3
117.5°	94.3	103.7	116.9	135.9	164.3	203.3	249.1	295.8	340.8	380.4	412.6
120°	99.9	109.2	122.2	140.3	165.9	201.5	243.7	286.7	328.0	363.4	393.6
122.5°	105.5	115.1	127.2	143.9	167.7	200.4	239.2	279.6	317.4	350.8	378.1
125°	113.6	122.9	134.9	149.9	170.5	198.5	232.8	269.1	303.4	332.7	357.7
127.5°	120.6	130.3	141.9	155.4	173.3	197.4	226.8	258.7	289.8	317.4	340.4
130°	125.3	134.5	146.2	158.8	175.5	196.8	222.8	252.1	280.8	307.1	329.0
132.5°	129.5	138.8	150.0	162.3	177.7	196.5	219.6	245.7	272.2	296.4	317.1
135°	135.3	144.5	155.2	166.8	180.2	196.1	215.1	236.8	258.7	280.8	299.4
137.5°	140.3	148.9	159.5	170.3	182.5	196.0	212.0	229.7	248.1	265.5	281.7
140°	143.2	151.8	161.8	172.2	183.5	195.9	210.1	225.1	241.1	256.5	271.1
142.5°	145.9	154.0	163.7	173.8	184.3	195.9	208.3	221.4	235.0	248.2	260.4
145°	150.2	157.5	166.5	175.9	185.1	195.1	205.9	216.1	227.2	237.4	247.1
147.5°	153.8	160.3	168.8	177.0	185.4	194.0	203.3	212.1	220.7	228.8	235.8
150°	156.2	162.2	169.8	177.5	185.1	193.1	201.1	209.2	216.5	223.5	229.4
152.5°	158.6	164.0	170.9	177.8	184.6	191.8	199.3	206.2	213.0	219.0	224.1
155°	161.8	166.8	172.5	178.1	183.8	189.5	195.9	202.2	207.5	212.4	216.1
157.5°	164.7	168.8	173.6	178.1	182.3	187.1	192.6	197.5	201.9	206.0	209.0
160°	166.5	170.2	174.2	178.1	181.5	185.5	190.1	194.4	198.1	201.8	204.2
162.5°	168.1	171.0	174.5	177.9	180.7	184.2	188.0	191.5	194.7	197.8	199.6
165°	169.8	171.8	174.8	177.2	179.2	181.5	184.5	187.2	189.5	191.8	193.1
167.5°	171.4	172.6	174.7	176.7	177.7	179.2	181.1	182.9	184.7	186.3	187.6
170°	171.8	172.9	174.5	176.2	176.8	177.9	179.2	180.9	181.8	183.1	183.8
172.5°	172.4	173.1	174.3	175.4	175.8	176.3	177.3	178.4	179.2	180.2	180.6
175°	172.9	173.1	173.8	174.5	174.2	174.5	174.8	175.9	176.2	176.5	176.8
177.5°	173.1	173.1	173.4	174.0	173.4	173.1	173.4	174.0	174.0	174.3	174.3
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331242-830  
 CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	534.3	534.0	534.0	532.4	534.0	534.0	534.3	536.0	536.6	536.9	536.2
5°	495.7	495.0	494.0	495.0	494.0	495.0	495.7	498.7	500.2	501.6	502.9
7.5°	457.4	454.9	454.5	451.9	454.5	454.9	457.4	458.8	461.8	465.2	468.3
10°	429.5	427.8	427.5	423.5	427.5	427.8	429.5	433.2	436.1	440.2	444.5
12.5°	408.3	404.2	405.0	402.7	405.0	404.2	408.3	408.3	411.8	414.3	421.0
15°	371.5	371.5	370.6	367.0	370.6	371.5	371.5	377.3	378.3	382.4	388.1
17.5°	345.1	344.6	342.6	343.7	342.6	344.6	345.1	349.3	350.1	355.4	360.2
20°	329.3	328.0	325.5	325.5	325.5	328.0	329.3	331.7	334.4	337.6	341.8
22.5°	314.4	314.3	311.6	312.5	311.6	314.3	314.4	316.6	319.2	322.7	326.1
25°	297.0	295.3	294.0	294.6	294.0	295.3	297.0	297.2	300.2	302.6	304.7
27.5°	280.4	279.5	279.4	277.7	279.4	279.5	280.4	281.0	282.7	284.1	286.1
30°	270.9	268.7	269.1	268.1	269.1	268.7	270.9	271.1	271.9	272.8	275.1
32.5°	259.9	259.1	258.7	257.8	258.7	259.1	259.9	260.2	262.0	262.9	264.7
35°	245.0	245.2	244.1	244.5	244.1	245.2	245.0	245.3	245.6	246.5	248.2
37.5°	231.9	232.5	232.1	232.1	232.1	232.5	231.9	232.1	232.3	232.4	233.0
40°	223.3	223.3	223.3	223.9	223.3	223.3	223.3	222.7	222.9	222.7	222.7
42.5°	215.1	214.7	214.4	214.3	214.4	214.7	215.1	213.6	214.3	213.6	213.3
45°	201.0	201.7	201.9	200.9	201.9	201.7	201.0	200.7	200.0	199.7	199.5
47.5°	188.3	188.4	188.3	189.3	188.3	188.4	188.3	187.8	186.8	186.4	185.4
50°	179.5	179.0	179.5	179.0	179.5	179.0	179.5	178.3	177.7	176.6	175.8
52.5°	170.0	170.1	169.8	169.8	169.8	170.1	170.0	168.6	168.3	167.9	166.5
55°	155.2	155.6	155.4	155.4	155.4	155.6	155.2	154.4	154.2	152.9	151.6
57.5°	140.0	140.3	140.6	139.7	140.6	140.3	140.0	139.8	139.7	138.3	137.0
60°	129.3	130.4	130.2	129.8	130.2	130.4	129.3	129.5	128.9	128.0	127.1
62.5°	119.5	120.0	119.9	119.8	119.9	120.0	119.5	118.6	118.3	117.4	116.6
65°	104.5	104.9	104.2	104.9	104.2	104.9	104.5	103.9	102.4	101.9	101.0
67.5°	88.2	88.4	88.9	89.2	88.9	88.4	88.2	88.5	87.6	86.7	86.5
70°	78.1	77.9	78.6	79.3	78.6	77.9	78.1	77.8	77.1	76.4	75.6
72.5°	67.5	68.0	67.8	68.2	67.8	68.0	67.5	67.6	67.0	66.2	65.3
75°	52.0	52.7	52.5	53.1	52.5	52.7	52.0	52.5	52.0	51.2	50.3
77.5°	37.6	37.7	37.6	38.0	37.6	37.7	37.6	38.0	37.5	37.8	36.8
80°	28.7	28.3	27.8	28.7	27.8	28.3	28.7	28.7	28.1	28.7	28.1
82.5°	20.0	20.2	19.8	19.8	19.8	20.2	20.0	20.5	20.2	20.5	19.8
85°	9.2	9.0	8.6	8.6	8.6	9.0	9.2	9.2	9.8	9.4	9.4
87.5°	3.9	3.8	3.8	3.6	3.8	3.8	3.9	3.9	3.9	4.1	4.1
90°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.7	10.0	10.7
92.5°	19.8	18.8	18.9	18.5	18.9	18.8	19.8	20.1	22.1	24.9	29.0
95°	41.3	38.6	37.6	38.0	37.6	38.6	41.3	45.6	53.0	66.9	87.3
97.5°	90.6	82.4	77.6	74.7	77.6	82.4	90.6	106.5	130.5	166.5	203.6
100°	149.2	134.9	125.3	119.2	125.3	134.9	149.2	176.8	217.2	262.8	304.1
102.5°	254.4	230.0	217.9	209.8	217.9	230.0	254.4	284.5	327.2	360.5	369.9
105°	414.9	394.3	379.9	375.3	379.9	394.3	414.9	435.6	446.6	442.2	404.6
107.5°	489.7	488.5	485.6	479.5	485.6	488.5	489.7	487.0	470.9	436.3	379.6
110°	501.9	508.2	511.2	510.9	511.2	508.2	501.9	487.6	460.2	417.6	358.0



TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	492.3	502.8	508.5	510.3	508.5	502.8	492.3	472.4	441.0	395.5	338.3
115°	466.9	482.2	490.9	493.9	490.9	482.2	466.9	443.3	409.0	365.3	314.1
117.5°	436.7	452.9	461.9	464.5	461.9	452.9	436.7	412.6	380.4	340.8	295.8
120°	417.0	432.6	442.2	445.6	442.2	432.6	417.0	393.6	363.4	328.0	286.7
122.5°	399.1	414.5	423.1	425.8	423.1	414.5	399.1	378.1	350.8	317.4	279.6
125°	377.0	389.6	397.9	400.7	397.9	389.6	377.0	357.7	332.7	303.4	269.1
127.5°	357.3	369.2	376.4	378.5	376.4	369.2	357.3	340.4	317.4	289.8	258.7
130°	345.3	356.7	363.4	366.0	363.4	356.7	345.3	329.0	307.1	280.8	252.1
132.5°	333.1	344.4	350.5	353.0	350.5	344.4	333.1	317.1	296.4	272.2	245.7
135°	313.7	324.7	330.7	332.1	330.7	324.7	313.7	299.4	280.8	258.7	236.8
137.5°	294.8	304.3	309.5	311.5	309.5	304.3	294.8	281.7	265.5	248.1	229.7
140°	281.7	290.4	295.4	297.4	295.4	290.4	281.7	271.1	256.5	241.1	225.1
142.5°	270.5	278.4	282.9	283.2	282.9	278.4	270.5	260.4	248.2	235.0	221.4
145°	255.1	260.8	264.1	265.0	264.1	260.8	255.1	247.1	237.4	227.2	216.1
147.5°	242.4	246.9	249.2	249.9	249.2	246.9	242.4	235.8	228.8	220.7	212.1
150°	234.4	238.5	240.4	240.8	240.4	238.5	234.4	229.4	223.5	216.5	209.2
152.5°	228.1	231.5	233.0	233.1	233.0	231.5	228.1	224.1	219.0	213.0	206.2
155°	219.8	222.2	223.5	222.8	223.5	222.2	219.8	216.1	212.4	207.5	202.2
157.5°	211.5	213.5	214.1	214.1	214.1	213.5	211.5	209.0	206.0	201.9	197.5
160°	206.5	208.1	208.5	208.5	208.5	208.1	206.5	204.2	201.8	198.1	194.4
162.5°	202.0	203.1	203.4	203.1	203.4	203.1	202.0	199.6	197.8	194.7	191.5
165°	194.4	195.9	195.9	195.5	195.9	195.9	194.4	193.1	191.8	189.5	187.2
167.5°	188.1	188.9	188.8	188.4	188.8	188.9	188.1	187.6	186.3	184.7	182.9
170°	184.2	185.1	184.8	184.2	184.8	185.1	184.2	183.8	183.1	181.8	180.9
172.5°	181.0	181.4	181.1	180.7	181.1	181.4	181.0	180.6	180.2	179.2	178.4
175°	176.8	177.2	176.8	176.2	176.8	177.2	176.8	176.8	176.5	176.2	175.9
177.5°	174.3	174.3	174.0	173.4	174.0	174.3	174.3	174.3	174.3	174.0	174.0
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	535.4	537.2	540.2	543.3	545.2	548.7	549.8	551.5	553.0	556.6	560.3
5°	504.4	507.5	514.5	518.4	523.7	529.9	534.0	538.3	543.0	551.1	558.6
7.5°	471.3	476.3	485.1	492.3	499.9	508.8	515.2	523.7	530.7	542.2	553.2
10°	449.2	456.3	464.2	472.8	483.4	492.9	501.9	512.6	521.1	534.9	547.7
12.5°	429.3	430.4	441.8	451.2	465.8	477.5	487.9	501.6	510.0	526.3	539.8
15°	394.6	401.1	411.3	418.8	436.1	450.9	465.5	479.8	489.5	509.6	527.4
17.5°	365.3	371.3	381.8	394.1	406.5	421.2	440.1	455.2	468.3	491.3	512.4
20°	346.9	354.1	364.9	377.5	388.4	404.4	420.8	438.1	452.2	478.2	502.8
22.5°	331.1	336.9	345.5	358.0	369.9	384.6	402.4	421.3	436.1	464.1	489.0
25°	309.0	313.7	319.2	329.5	343.0	359.1	373.0	393.8	415.4	441.5	471.6
27.5°	289.0	292.4	297.3	306.3	316.8	331.8	347.2	366.9	388.7	417.1	448.9
30°	276.8	279.0	283.9	291.4	301.7	313.5	329.1	347.9	370.2	398.9	430.6
32.5°	266.3	268.2	271.5	278.5	287.5	297.6	311.6	330.5	351.7	379.8	415.0
35°	250.3	251.8	254.6	260.3	265.3	275.1	286.9	304.1	324.0	350.9	387.3
37.5°	234.4	236.5	238.2	240.6	246.9	253.4	263.6	278.1	297.7	324.9	359.6
40°	223.9	225.6	228.3	229.3	234.4	240.3	248.5	261.8	281.5	306.4	340.3
42.5°	213.3	215.1	216.6	217.8	222.3	227.3	234.9	246.3	263.7	287.9	321.4
45°	198.9	199.2	200.7	203.0	205.1	208.8	214.1	223.9	237.4	260.1	290.6
47.5°	184.3	184.5	184.7	185.8	188.1	191.4	195.0	203.0	215.1	233.2	262.8
50°	174.5	174.1	174.5	175.3	176.8	179.6	183.7	189.5	199.3	216.2	243.5
52.5°	165.0	165.0	164.8	165.0	166.3	168.1	171.1	176.0	184.7	200.3	224.2
55°	150.7	149.7	149.9	149.0	151.0	151.4	153.5	157.6	165.3	176.0	198.5
57.5°	135.4	134.6	133.7	133.4	133.2	134.3	136.0	139.2	145.2	154.6	172.8
60°	125.6	124.6	123.3	122.9	122.9	123.6	124.4	126.8	132.3	140.6	155.6
62.5°	115.7	114.5	113.8	112.6	112.3	112.9	113.8	115.5	119.5	127.3	140.3
65°	100.4	98.9	97.8	97.6	97.2	96.6	97.0	98.7	101.9	108.1	118.4
67.5°	85.0	83.6	83.4	82.1	81.5	81.6	81.5	82.9	84.9	90.3	97.9
70°	74.9	73.9	73.4	72.4	71.9	71.5	71.1	72.4	74.3	78.8	85.4
72.5°	64.7	63.7	62.9	61.9	62.0	61.5	61.5	62.3	63.8	68.0	73.1
75°	49.9	50.1	49.0	48.0	47.8	47.3	47.3	48.0	48.6	51.8	55.9
77.5°	36.2	36.0	35.2	34.8	34.6	34.1	34.6	35.0	35.3	37.5	40.4
80°	27.6	27.6	26.6	26.6	26.3	25.7	26.3	25.9	26.8	28.9	31.0
82.5°	19.7	19.4	19.3	19.0	18.9	18.5	18.8	19.2	19.6	21.0	22.3
85°	9.6	9.6	9.4	9.2	9.4	9.2	9.4	9.6	9.8	10.5	11.6
87.5°	4.2	4.5	4.6	4.3	3.9	3.8	3.7	3.8	4.0	3.9	3.9
90°	11.0	11.3	11.0	9.0	6.7	5.0	4.0	3.3	2.6	1.3	0.4
92.5°	36.6	43.3	42.7	33.3	22.6	15.1	12.0	9.7	8.3	5.8	4.1
95°	114.2	130.5	115.6	76.9	48.0	32.6	24.6	19.3	16.3	13.0	11.7
97.5°	233.8	222.8	167.9	103.7	63.2	44.0	35.0	28.8	24.3	20.7	18.9
100°	311.0	263.1	181.2	109.2	68.6	51.0	41.7	35.0	29.6	26.7	25.6
102.5°	339.8	264.4	176.1	109.5	73.4	57.1	47.8	40.8	35.5	32.5	31.8
105°	335.4	246.8	166.2	111.2	81.6	66.0	56.6	49.3	44.3	41.9	40.6
107.5°	306.1	227.8	161.3	115.8	90.0	74.8	65.4	58.2	53.5	51.3	50.2
110°	287.8	218.8	160.2	119.5	95.6	81.0	71.3	64.3	59.9	58.0	56.6



TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	274.9	212.9	160.4	123.6	100.9	86.8	76.8	70.1	66.1	63.8	62.5
115°	259.1	206.5	161.8	129.5	109.2	94.9	86.0	79.3	75.3	73.2	71.6
117.5°	249.1	203.3	164.3	135.9	116.9	103.7	94.3	87.9	84.4	82.4	81.1
120°	243.7	201.5	165.9	140.3	122.2	109.2	99.9	93.2	90.3	88.2	86.9
122.5°	239.2	200.4	167.7	143.9	127.2	115.1	105.5	98.9	95.6	93.6	92.6
125°	232.8	198.5	170.5	149.9	134.9	122.9	113.6	106.9	102.9	100.9	99.9
127.5°	226.8	197.4	173.3	155.4	141.9	130.3	120.6	114.3	109.9	107.1	105.8
130°	222.8	196.8	175.5	158.8	146.2	134.5	125.3	118.6	113.9	110.6	109.2
132.5°	219.6	196.5	177.7	162.3	150.0	138.8	129.5	122.5	117.6	114.0	112.4
135°	215.1	196.1	180.2	166.8	155.2	144.5	135.3	127.5	122.5	118.6	117.3
137.5°	212.0	196.0	182.5	170.3	159.5	148.9	140.3	132.7	127.3	123.4	121.8
140°	210.1	195.9	183.5	172.2	161.8	151.8	143.2	135.9	130.5	126.6	125.3
142.5°	208.3	195.9	184.3	173.8	163.7	154.0	145.9	138.8	133.5	129.8	128.7
145°	205.9	195.1	185.1	175.9	166.5	157.5	150.2	143.5	138.6	135.3	133.8
147.5°	203.3	194.0	185.4	177.0	168.8	160.3	153.8	148.3	143.6	140.4	139.5
150°	201.1	193.1	185.1	177.5	169.8	162.2	156.2	151.2	146.8	144.2	143.2
152.5°	199.3	191.8	184.6	177.8	170.9	164.0	158.6	153.8	150.1	147.4	146.9
155°	195.9	189.5	183.8	178.1	172.5	166.8	161.8	158.2	154.5	152.5	152.2
157.5°	192.6	187.1	182.3	178.1	173.6	168.8	164.7	161.7	158.5	156.9	156.6
160°	190.1	185.5	181.5	178.1	174.2	170.2	166.5	163.8	161.2	159.9	159.5
162.5°	188.0	184.2	180.7	177.9	174.5	171.0	168.1	165.7	163.6	162.2	162.5
165°	184.5	181.5	179.2	177.2	174.8	171.8	169.8	168.1	166.2	165.5	165.9
167.5°	181.1	179.2	177.7	176.7	174.7	172.6	171.4	170.1	168.8	168.2	168.6
170°	179.2	177.9	176.8	176.2	174.5	172.9	171.8	171.2	170.2	169.8	170.5
172.5°	177.3	176.3	175.8	175.4	174.3	173.1	172.4	172.0	171.0	171.2	171.5
175°	174.8	174.5	174.2	174.5	173.8	173.1	172.9	172.9	172.2	172.5	172.9
177.5°	173.4	173.1	173.4	174.0	173.4	173.1	173.1	173.1	172.7	172.9	173.4
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	560.1	560.9	563.6	566.4	569.5	570.3	571.7	570.5	570.1	573.3	575.8
5°	561.7	565.4	573.0	579.9	585.6	589.7	594.0	595.7	598.9	603.3	609.0
7.5°	559.8	567.3	579.1	589.1	599.9	607.8	613.9	619.2	625.5	634.0	643.3
10°	557.8	567.8	582.2	594.4	607.7	617.7	626.0	634.2	643.7	655.4	667.6
12.5°	554.0	565.9	583.9	598.3	615.4	625.3	636.5	654.0	664.2	680.6	697.8
15°	546.4	559.7	584.8	602.5	621.8	640.6	661.4	678.1	694.7	704.5	728.6
17.5°	535.2	554.6	582.4	603.1	627.6	657.2	680.6	699.6	718.8	734.4	746.6
20°	526.0	547.2	579.0	603.8	632.9	664.8	691.5	710.9	727.5	740.6	748.1
22.5°	514.6	541.3	572.1	601.2	638.4	670.0	698.0	713.2	727.2	733.6	736.5
25°	496.5	528.7	563.5	599.1	641.0	674.5	700.1	709.4	713.4	707.2	696.9
27.5°	477.0	512.8	553.6	595.0	639.4	671.6	689.9	688.5	681.6	661.5	645.5
30°	462.5	501.9	545.7	591.0	635.5	666.8	677.4	666.8	651.1	628.7	605.7
32.5°	447.2	488.0	537.3	585.1	628.3	655.8	658.1	639.7	615.5	589.9	561.4
35°	424.1	468.3	521.6	572.1	613.0	630.4	620.1	587.5	558.8	524.0	484.9
37.5°	398.0	446.8	500.2	553.1	590.1	594.7	569.1	534.9	494.4	453.4	407.5
40°	378.5	430.2	485.2	538.5	571.3	566.6	534.0	496.3	448.2	398.0	355.4
42.5°	361.1	412.6	468.7	521.0	547.2	534.3	496.3	450.1	398.3	351.1	312.1
45°	330.8	383.9	441.3	491.8	506.8	483.4	433.2	381.7	330.8	291.4	260.6
47.5°	301.4	353.9	410.8	455.2	460.4	429.0	374.1	321.2	277.4	245.3	223.6
50°	279.8	332.5	388.8	428.5	426.7	388.8	332.3	282.0	245.3	219.4	204.9
52.5°	260.5	310.3	364.3	400.4	391.2	350.0	296.0	251.3	221.2	201.0	187.8
55°	230.4	276.4	327.8	356.8	340.0	294.2	248.5	212.6	190.3	175.1	164.9
57.5°	200.5	243.6	287.7	305.5	287.0	244.7	206.7	180.6	163.8	152.6	145.9
60°	182.0	219.7	258.8	274.3	252.2	214.5	184.5	161.3	147.7	138.6	132.5
62.5°	163.5	197.3	234.2	242.6	222.4	190.6	164.0	144.6	133.6	125.4	119.7
65°	138.3	166.0	194.0	199.5	181.0	156.3	135.3	122.7	112.8	106.9	102.4
67.5°	113.5	135.6	155.5	159.9	143.6	126.6	111.4	100.4	93.8	88.8	84.9
70°	98.7	116.3	132.5	136.2	123.1	107.9	96.3	87.6	81.5	77.3	73.6
72.5°	83.1	97.7	111.3	113.8	103.1	91.4	82.0	75.0	69.7	67.0	63.5
75°	63.6	72.2	82.7	83.3	76.3	69.2	61.9	57.4	54.6	51.2	49.5
77.5°	44.9	51.6	57.6	58.7	54.6	49.8	45.7	42.1	39.8	38.2	36.6
80°	34.2	39.6	42.2	43.6	40.7	37.2	34.9	32.5	31.0	30.0	28.9
82.5°	24.5	27.8	30.2	31.4	29.7	27.6	25.4	23.9	22.8	22.0	21.6
85°	12.4	13.9	15.5	15.8	15.5	14.5	13.3	13.3	12.6	12.4	12.4
87.5°	4.5	5.5	5.7	6.3	6.1	6.5	7.0	7.2	7.1	6.8	6.6
90°	1.3	2.6	3.3	4.0	5.0	6.7	9.0	11.0	11.3	11.0	10.7
92.5°	5.8	8.3	9.7	12.0	15.1	22.6	33.3	42.7	43.3	36.6	29.0
95°	13.0	16.3	19.3	24.6	32.6	48.0	76.9	115.6	130.5	114.2	87.3
97.5°	20.7	24.3	28.8	35.0	44.0	63.2	103.7	167.9	222.8	233.8	203.6
100°	26.7	29.6	35.0	41.7	51.0	68.6	109.2	181.2	263.1	311.0	304.1
102.5°	32.5	35.5	40.8	47.8	57.1	73.4	109.5	176.1	264.4	339.8	369.9
105°	41.9	44.3	49.3	56.6	66.0	81.6	111.2	166.2	246.8	335.4	404.6
107.5°	51.3	53.5	58.2	65.4	74.8	90.0	115.8	161.3	227.8	306.1	379.6
110°	58.0	59.9	64.3	71.3	81.0	95.6	119.5	160.2	218.8	287.8	358.0





TEST NUMBER: P331242-830

CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	63.8	66.1	70.1	76.8	86.8	100.9	123.6	160.4	212.9	274.9	338.3
115°	73.2	75.3	79.3	86.0	94.9	109.2	129.5	161.8	206.5	259.1	314.1
117.5°	82.4	84.4	87.9	94.3	103.7	116.9	135.9	164.3	203.3	249.1	295.8
120°	88.2	90.3	93.2	99.9	109.2	122.2	140.3	165.9	201.5	243.7	286.7
122.5°	93.6	95.6	98.9	105.5	115.1	127.2	143.9	167.7	200.4	239.2	279.6
125°	100.9	102.9	106.9	113.6	122.9	134.9	149.9	170.5	198.5	232.8	269.1
127.5°	107.1	109.9	114.3	120.6	130.3	141.9	155.4	173.3	197.4	226.8	258.7
130°	110.6	113.9	118.6	125.3	134.5	146.2	158.8	175.5	196.8	222.8	252.1
132.5°	114.0	117.6	122.5	129.5	138.8	150.0	162.3	177.7	196.5	219.6	245.7
135°	118.6	122.5	127.5	135.3	144.5	155.2	166.8	180.2	196.1	215.1	236.8
137.5°	123.4	127.3	132.7	140.3	148.9	159.5	170.3	182.5	196.0	212.0	229.7
140°	126.6	130.5	135.9	143.2	151.8	161.8	172.2	183.5	195.9	210.1	225.1
142.5°	129.8	133.5	138.8	145.9	154.0	163.7	173.8	184.3	195.9	208.3	221.4
145°	135.3	138.6	143.5	150.2	157.5	166.5	175.9	185.1	195.1	205.9	216.1
147.5°	140.4	143.6	148.3	153.8	160.3	168.8	177.0	185.4	194.0	203.3	212.1
150°	144.2	146.8	151.2	156.2	162.2	169.8	177.5	185.1	193.1	201.1	209.2
152.5°	147.4	150.1	153.8	158.6	164.0	170.9	177.8	184.6	191.8	199.3	206.2
155°	152.5	154.5	158.2	161.8	166.8	172.5	178.1	183.8	189.5	195.9	202.2
157.5°	156.9	158.5	161.7	164.7	168.8	173.6	178.1	182.3	187.1	192.6	197.5
160°	159.9	161.2	163.8	166.5	170.2	174.2	178.1	181.5	185.5	190.1	194.4
162.5°	162.2	163.6	165.7	168.1	171.0	174.5	177.9	180.7	184.2	188.0	191.5
165°	165.5	166.2	168.1	169.8	171.8	174.8	177.2	179.2	181.5	184.5	187.2
167.5°	168.2	168.8	170.1	171.4	172.6	174.7	176.7	177.7	179.2	181.1	182.9
170°	169.8	170.2	171.2	171.8	172.9	174.5	176.2	176.8	177.9	179.2	180.9
172.5°	171.2	171.0	172.0	172.4	173.1	174.3	175.4	175.8	176.3	177.3	178.4
175°	172.5	172.2	172.9	172.9	173.1	173.8	174.5	174.2	174.5	174.8	175.9
177.5°	172.9	172.7	173.1	173.1	173.1	173.4	174.0	173.4	173.1	173.4	174.0
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1	173.1



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	577.9	580.2	580.2	580.6	583.3	583.0	582.8
5°	614.9	618.6	619.0	622.8	625.4	624.5	622.2
7.5°	649.9	656.7	661.9	664.7	668.1	670.1	669.2
10°	677.7	687.5	693.5	697.6	702.5	706.2	704.8
12.5°	702.9	714.5	722.8	729.8	730.4	735.1	731.9
15°	742.2	754.5	755.8	760.9	765.1	764.6	764.8
17.5°	755.1	759.0	759.9	760.0	760.1	758.6	755.3
20°	750.5	748.9	745.4	742.5	737.6	737.0	732.7
22.5°	728.5	723.8	714.6	708.6	701.0	699.0	697.8
25°	685.4	674.9	660.3	646.4	642.5	635.1	637.2
27.5°	626.1	609.8	594.0	582.8	572.5	561.3	564.5
30°	584.6	566.1	543.8	526.7	515.8	505.1	503.1
32.5°	534.9	507.8	483.1	468.0	451.2	444.4	437.1
35°	449.2	422.8	398.2	377.0	364.9	355.4	346.9
37.5°	372.2	341.9	322.0	304.8	296.0	290.6	292.0
40°	324.4	297.8	283.2	270.2	262.0	258.3	259.1
42.5°	285.7	265.8	253.8	244.9	239.1	237.0	236.5
45°	241.8	230.6	220.7	215.7	212.8	210.5	209.0
47.5°	211.8	202.6	197.1	194.1	191.6	189.3	189.2
50°	193.8	187.8	183.9	180.7	178.8	177.1	178.6
52.5°	180.0	174.6	170.7	167.9	167.1	165.6	165.5
55°	159.8	155.4	152.7	150.1	148.8	148.0	146.8
57.5°	141.2	137.1	134.6	133.0	130.5	129.7	129.3
60°	128.0	124.8	122.2	120.1	119.0	117.3	117.3
62.5°	115.8	112.6	110.3	108.7	106.9	106.2	106.4
65°	98.3	95.7	93.3	91.6	91.2	89.9	90.4
67.5°	82.1	80.4	77.9	76.9	76.2	75.5	74.9
70°	71.3	69.6	68.3	67.0	66.4	66.4	66.4
72.5°	62.2	60.1	59.4	57.8	58.2	57.5	56.7
75°	48.2	46.8	46.3	45.6	44.6	44.6	44.6
77.5°	35.4	35.1	34.3	33.6	33.4	33.2	33.3
80°	27.4	27.1	26.8	26.8	26.3	26.1	25.7
82.5°	21.1	20.5	20.3	20.1	20.0	20.0	19.9
85°	12.0	11.6	11.6	11.8	11.3	11.3	11.6
87.5°	6.6	6.8	6.7	6.7	6.8	6.7	6.7
90°	10.0	10.7	11.0	11.0	11.0	11.0	11.0
92.5°	24.9	22.1	20.1	19.8	18.8	18.9	18.5
95°	66.9	53.0	45.6	41.3	38.6	37.6	38.0
97.5°	166.5	130.5	106.5	90.6	82.4	77.6	74.7
100°	262.8	217.2	176.8	149.2	134.9	125.3	119.2
102.5°	360.5	327.2	284.5	254.4	230.0	217.9	209.8
105°	442.2	446.6	435.6	414.9	394.3	379.9	375.3
107.5°	436.3	470.9	487.0	489.7	488.5	485.6	479.5
110°	417.6	460.2	487.6	501.9	508.2	511.2	510.9



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	395.5	441.0	472.4	492.3	502.8	508.5	510.3
115°	365.3	409.0	443.3	466.9	482.2	490.9	493.9
117.5°	340.8	380.4	412.6	436.7	452.9	461.9	464.5
120°	328.0	363.4	393.6	417.0	432.6	442.2	445.6
122.5°	317.4	350.8	378.1	399.1	414.5	423.1	425.8
125°	303.4	332.7	357.7	377.0	389.6	397.9	400.7
127.5°	289.8	317.4	340.4	357.3	369.2	376.4	378.5
130°	280.8	307.1	329.0	345.3	356.7	363.4	366.0
132.5°	272.2	296.4	317.1	333.1	344.4	350.5	353.0
135°	258.7	280.8	299.4	313.7	324.7	330.7	332.1
137.5°	248.1	265.5	281.7	294.8	304.3	309.5	311.5
140°	241.1	256.5	271.1	281.7	290.4	295.4	297.4
142.5°	235.0	248.2	260.4	270.5	278.4	282.9	283.2
145°	227.2	237.4	247.1	255.1	260.8	264.1	265.0
147.5°	220.7	228.8	235.8	242.4	246.9	249.2	249.9
150°	216.5	223.5	229.4	234.4	238.5	240.4	240.8
152.5°	213.0	219.0	224.1	228.1	231.5	233.0	233.1
155°	207.5	212.4	216.1	219.8	222.2	223.5	222.8
157.5°	201.9	206.0	209.0	211.5	213.5	214.1	214.1
160°	198.1	201.8	204.2	206.5	208.1	208.5	208.5
162.5°	194.7	197.8	199.6	202.0	203.1	203.4	203.1
165°	189.5	191.8	193.1	194.4	195.9	195.9	195.5
167.5°	184.7	186.3	187.6	188.1	188.9	188.8	188.4
170°	181.8	183.1	183.8	184.2	185.1	184.8	184.2
172.5°	179.2	180.2	180.6	181.0	181.4	181.1	180.7
175°	176.2	176.5	176.8	176.8	177.2	176.8	176.2
177.5°	174.0	174.3	174.3	174.3	174.3	174.0	173.4
180°	173.1	173.1	173.1	173.1	173.1	173.1	173.1

(END OF REPORT)