

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: P331242-840

Luminaire Tested: **SA2XXDIP-C290D330U840-4F0-1E-UDD-A4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331242-840  
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: SA2XXDIP-C290D330U840-4F0-1E-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**

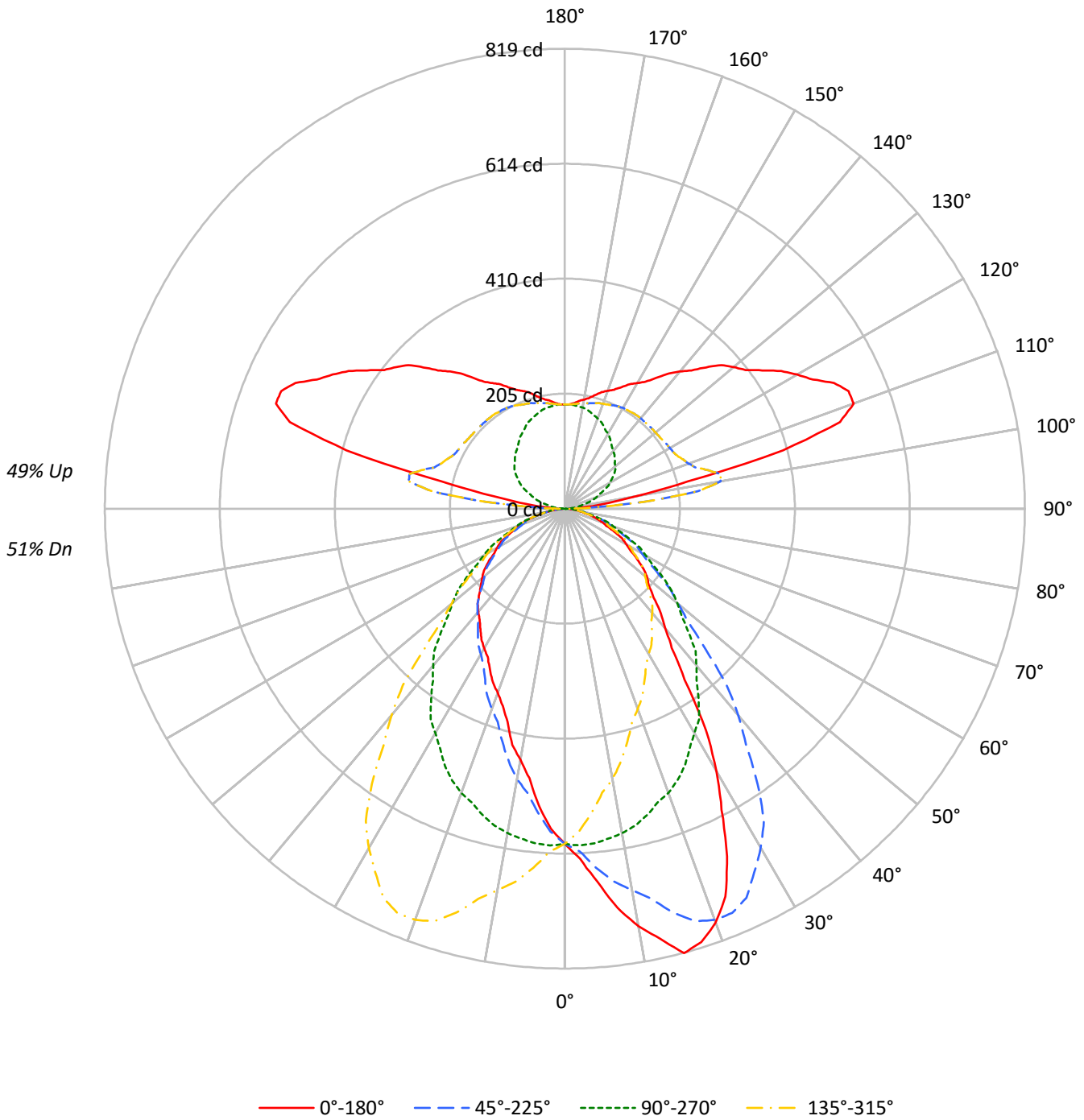
Lumens per Lamp: N/A  
Luminaire Lumens: 2609.7 lumens  
Efficiency: N/A  
Efficacy: 128.6 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.23  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: General Diffuse

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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51				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°	9637	9637	9637	9637
5°	10804	9700	8596	9700
10°	12381	9621	7438	9621
15°	13697	9444	6572	9444
20°	13490	9256	5991	9256
25°	12162	9002	5624	9002
30°	10051	8600	5354	8600
35°	7324	8180	5164	8180
40°	5851	7685	5056	7685
45°	5112	7108	4914	7108
50°	4808	6551	4818	6551
55°	4428	5987	4687	5987
60°	4059	5383	4492	5383
65°	3698	4844	4294	4844
70°	3356	4319	4008	4319
75°	2982	3737	3550	3737
80°	2566	3087	2854	3087
85°	2297	2297	1704	2297



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.8	2.2
10°-20°	165.3	6.3
20°-30°	239.9	9.2
30°-40°	253.1	9.7
40°-50°	224.1	8.6
50°-60°	178.8	6.9
60°-70°	121.6	4.7
70°-80°	62.3	2.4
80°-90°	16.7	0.6
90°-100°	74.2	2.8
100°-110°	251.8	9.6
110°-120°	267.5	10.2
120°-130°	220.2	8.4
130°-140°	176.8	6.8
140°-150°	133.6	5.1
150°-160°	93.9	3.6
160°-170°	55.3	2.1
170°-180°	18.0	0.7
0°-30°	462.0	17.7
0°-40°	715.1	27.4
0°-60°	1118.0	42.8
0°-90°	1318.6	50.5
90°-120°	593.4	22.7
90°-150°	1124.0	43.1
90°-180°	1291.0	49.5
0°-180°	2609.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	597	597	597	597	597	
5°	667	598	530	598	667	67
15°	819	565	393	565	819	226
25°	683	505	316	505	683	309
35°	372	415	262	415	372	242
45°	224	311	215	311	224	176
55°	157	213	166	213	157	141
65°	97	127	112	127	97	96
75°	48	60	57	60	48	51
85°	12	12	9	12	12	14
90°	12	0	12	0	12	7
95°	41	12	41	12	41	53
105°	402	44	402	44	402	389
115°	529	77	529	77	529	518
125°	429	107	429	107	429	388
135°	356	126	356	126	356	276
145°	284	143	284	143	284	180
155°	239	163	239	163	239	111
165°	209	178	209	178	209	60
175°	189	185	189	185	189	18
180°	186	186	186	186	186	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	624.4	624.6	625.0	622.1	621.7	621.7	619.1	616.9	614.3	610.9	611.3
5°	666.6	669.1	670.0	667.3	663.2	662.8	658.8	652.5	646.4	641.7	638.2
7.5°	717.0	718.0	715.8	712.2	709.1	703.6	696.3	689.2	679.2	670.1	663.4
10°	755.2	756.6	752.7	747.4	743.1	736.6	726.1	715.3	702.3	689.6	679.5
12.5°	784.2	787.6	782.5	781.9	774.5	765.6	753.1	747.6	729.2	711.7	700.7
15°	819.4	819.2	819.7	815.3	809.8	808.4	795.2	780.6	754.8	744.4	726.5
17.5°	809.2	812.7	814.4	814.3	814.2	813.2	809.0	799.9	786.9	770.1	749.5
20°	785.1	789.6	790.3	795.6	798.6	802.4	804.1	801.5	793.6	779.5	761.6
22.5°	747.6	748.9	751.0	759.2	765.7	775.5	780.5	789.1	786.0	779.1	764.2
25°	682.7	680.4	688.4	692.6	707.5	723.1	734.4	746.7	757.7	764.4	760.0
27.5°	604.8	601.4	613.4	624.4	636.4	653.4	670.9	691.6	708.7	730.3	737.7
30°	539.1	541.2	552.6	564.3	582.7	606.5	626.3	648.9	673.6	697.6	714.4
32.5°	468.3	476.2	483.4	501.4	517.6	544.1	573.1	601.5	632.1	659.4	685.4
35°	371.6	380.8	390.9	403.9	426.7	453.0	481.3	519.6	561.4	598.7	629.4
37.5°	312.9	311.3	317.1	326.6	345.0	366.3	398.8	436.6	485.7	529.7	573.1
40°	277.6	276.7	280.7	289.5	303.5	319.1	347.6	380.8	426.5	480.2	531.8
42.5°	253.4	253.9	256.2	262.4	272.0	284.8	306.1	334.4	376.2	426.8	482.2
45°	223.9	225.5	228.0	231.1	236.5	247.1	259.0	279.2	312.3	354.5	409.0
47.5°	202.7	202.8	205.3	207.9	211.2	217.1	226.9	239.5	262.9	297.2	344.2
50°	191.4	189.8	191.6	193.6	197.0	201.2	207.6	219.5	235.1	262.9	302.2
52.5°	177.3	177.4	179.0	179.9	182.9	187.0	192.9	201.2	215.3	237.0	269.2
55°	157.3	158.5	159.5	160.8	163.6	166.5	171.2	176.6	187.6	203.9	227.8
57.5°	138.6	139.0	139.9	142.5	144.2	146.9	151.3	156.3	163.5	175.5	193.5
60°	125.7	125.7	127.5	128.7	131.0	133.7	137.1	142.0	148.5	158.2	172.8
62.5°	114.0	113.8	114.5	116.4	118.2	120.7	124.1	128.3	134.3	143.1	154.9
65°	96.8	96.3	97.8	98.2	100.0	102.5	105.3	109.7	114.5	120.9	131.5
67.5°	80.3	80.9	81.6	82.4	83.4	86.1	88.0	91.0	95.1	100.5	107.6
70°	71.1	71.1	71.1	71.8	73.2	74.5	76.3	78.9	82.8	87.4	93.8
72.5°	60.8	61.6	62.3	61.9	63.6	64.4	66.7	68.1	71.8	74.7	80.4
75°	47.8	47.8	47.8	48.9	49.6	50.2	51.6	53.0	54.8	58.5	61.5
77.5°	35.6	35.5	35.7	36.1	36.8	37.6	38.0	39.2	40.9	42.6	45.1
80°	27.6	28.0	28.2	28.7	28.7	29.1	29.4	31.0	32.1	33.2	34.8
82.5°	21.3	21.4	21.4	21.5	21.7	22.0	22.6	23.1	23.5	24.4	25.7
85°	12.4	12.1	12.1	12.6	12.4	12.4	12.8	13.3	13.3	13.5	14.2
87.5°	7.2	7.2	7.3	7.2	7.2	7.3	7.1	7.1	7.3	7.6	7.7
90°	11.8	11.8	11.8	11.8	11.8	11.4	10.7	11.4	11.8	12.1	11.8
92.5°	19.8	20.3	20.1	21.2	21.5	23.7	26.7	31.1	39.2	46.4	45.7
95°	40.7	40.3	41.4	44.2	48.9	56.8	71.7	93.5	122.4	139.9	123.8
97.5°	80.1	83.1	88.3	97.0	114.1	139.9	178.4	218.1	250.4	238.7	179.9
100°	127.7	134.2	144.5	159.9	189.5	232.7	281.6	325.8	333.3	281.9	194.1
102.5°	224.8	233.5	246.4	272.6	304.8	350.5	386.3	396.3	364.1	283.3	188.6
105°	402.1	407.1	422.4	444.5	466.8	478.5	473.8	433.5	359.3	264.4	178.0
107.5°	513.7	520.3	523.4	524.6	521.8	504.5	467.5	406.7	328.0	244.1	172.8
110°	547.3	547.8	544.5	537.8	522.4	493.1	447.5	383.5	308.3	234.4	171.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	546.7	544.8	538.8	527.5	506.1	472.5	423.7	362.4	294.6	228.1	171.9
115°	529.2	525.9	516.6	500.3	474.9	438.2	391.4	336.5	277.6	221.3	173.4
117.5°	497.7	494.9	485.2	467.9	442.0	407.6	365.2	316.9	266.9	217.8	176.0
120°	477.5	473.8	463.5	446.8	421.7	389.3	351.4	307.2	261.2	215.9	177.7
122.5°	456.3	453.3	444.1	427.6	405.2	375.9	340.0	299.5	256.3	214.7	179.7
125°	429.3	426.4	417.5	403.9	383.2	356.5	325.1	288.3	249.4	212.7	182.7
127.5°	405.6	403.2	395.6	382.8	364.8	340.1	310.5	277.2	243.0	211.5	185.7
130°	392.1	389.3	382.1	370.0	352.5	329.0	300.8	270.1	238.7	210.9	188.0
132.5°	378.2	375.6	369.0	356.9	339.7	317.6	291.6	263.3	235.3	210.6	190.4
135°	355.8	354.4	347.9	336.1	320.7	300.8	277.2	253.7	230.5	210.2	193.1
137.5°	333.8	331.6	326.0	315.9	301.8	284.5	265.8	246.1	227.1	210.1	195.5
140°	318.6	316.5	311.1	301.8	290.4	274.8	258.3	241.2	225.1	209.8	196.6
142.5°	303.5	303.1	298.3	289.8	279.0	265.9	251.8	237.2	223.2	209.8	197.4
145°	284.0	283.0	279.4	273.3	264.8	254.4	243.4	231.6	220.6	209.0	198.3
147.5°	267.7	267.0	264.6	259.7	252.7	245.1	236.5	227.2	217.8	207.8	198.6
150°	258.0	257.6	255.5	251.2	245.8	239.4	232.0	224.1	215.5	206.9	198.3
152.5°	249.7	249.6	248.0	244.4	240.1	234.6	228.2	221.0	213.5	205.5	197.8
155°	238.7	239.4	238.0	235.5	231.6	227.6	222.3	216.6	209.8	203.0	196.9
157.5°	229.3	229.3	228.7	226.6	223.9	220.8	216.3	211.6	206.3	200.5	195.3
160°	223.4	223.4	223.0	221.3	218.7	216.2	212.3	208.3	203.7	198.7	194.5
162.5°	217.6	217.9	217.6	216.4	213.9	212.0	208.6	205.2	201.5	197.3	193.6
165°	209.4	209.8	209.8	208.3	206.9	205.5	203.0	200.6	197.6	194.5	192.0
167.5°	201.9	202.3	202.4	201.6	201.0	199.7	197.9	196.0	194.0	192.0	190.4
170°	197.3	198.0	198.3	197.3	196.9	196.2	194.8	193.8	192.0	190.6	189.5
172.5°	193.6	194.0	194.4	193.9	193.5	193.1	192.0	191.2	190.0	188.8	188.3
175°	188.7	189.5	189.9	189.5	189.5	189.1	188.7	188.4	187.3	186.9	186.6
177.5°	185.8	186.4	186.7	186.7	186.7	186.7	186.4	186.4	185.8	185.5	185.8
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	612.5	611.1	610.2	606.8	603.9	601.0	600.1	600.4	596.3	592.5	590.9
5°	636.4	631.8	627.4	621.3	613.9	605.8	601.8	598.5	590.5	581.8	576.7
7.5°	657.7	651.2	642.8	631.2	620.5	607.8	599.8	592.7	581.0	568.7	561.1
10°	670.8	661.9	651.1	636.8	623.8	608.3	597.6	586.8	573.1	558.4	549.2
12.5°	682.0	669.9	659.3	641.1	625.6	606.3	593.6	578.3	563.9	546.4	537.5
15°	708.6	686.4	666.2	645.5	626.5	599.7	585.4	565.0	546.0	524.4	514.1
17.5°	729.2	704.2	672.5	646.2	624.0	594.2	573.4	549.0	526.4	501.8	487.8
20°	740.9	712.3	678.1	646.9	620.4	586.3	563.6	538.7	512.3	484.5	469.4
22.5°	747.9	717.8	684.0	644.2	613.0	580.0	551.4	523.9	497.3	467.3	451.4
25°	750.1	722.7	686.8	641.9	603.8	566.4	532.0	505.3	473.0	445.0	421.9
27.5°	739.2	719.5	685.1	637.5	593.2	549.5	511.1	481.0	446.9	416.5	393.1
30°	725.8	714.4	680.9	633.2	584.7	537.8	495.5	461.3	427.4	396.7	372.7
32.5°	705.1	702.7	673.2	626.9	575.7	522.9	479.2	444.6	407.0	376.8	354.1
35°	664.4	675.4	656.8	613.0	558.9	501.7	454.4	415.0	376.0	347.1	325.8
37.5°	609.8	637.1	632.3	592.6	535.9	478.7	426.5	385.3	348.1	318.9	298.0
40°	572.1	607.0	612.1	576.9	519.9	460.9	405.6	364.6	328.3	301.6	280.5
42.5°	531.8	572.5	586.3	558.3	502.2	442.1	386.9	344.4	308.4	282.6	263.9
45°	464.1	518.0	543.0	526.9	472.8	411.3	354.5	311.3	278.7	254.4	239.9
47.5°	400.8	459.7	493.3	487.7	440.1	379.2	323.0	281.6	249.8	230.5	217.5
50°	356.1	416.6	457.2	459.1	416.6	356.3	299.8	260.8	231.7	213.6	203.0
52.5°	317.1	375.0	419.2	429.0	390.3	332.4	279.1	240.2	214.6	197.9	188.5
55°	266.3	315.2	364.3	382.2	351.2	296.2	246.8	212.7	188.5	177.1	168.8
57.5°	221.5	262.2	307.5	327.3	308.2	261.1	214.8	185.1	165.6	155.5	149.2
60°	197.7	229.8	270.2	293.9	277.3	235.4	195.0	166.7	150.7	141.8	135.8
62.5°	175.7	204.2	238.3	259.9	251.0	211.4	175.2	150.3	136.4	128.1	123.7
65°	145.0	167.4	193.9	213.8	207.8	177.8	148.1	126.8	115.8	109.2	105.7
67.5°	119.4	135.6	153.9	171.4	166.6	145.3	121.6	104.9	96.7	91.0	88.9
70°	103.2	115.6	131.9	145.9	142.0	124.6	105.7	91.5	84.4	79.6	77.6
72.5°	87.9	98.0	110.5	121.9	119.3	104.7	89.1	78.4	72.8	68.4	66.8
75°	66.3	74.1	81.7	89.3	88.6	77.4	68.2	59.9	55.5	52.1	51.4
77.5°	49.0	53.3	58.5	62.9	61.7	55.2	48.1	43.3	40.2	37.9	37.5
80°	37.4	39.9	43.6	46.8	45.2	42.4	36.7	33.2	31.0	28.7	27.8
82.5°	27.2	29.6	31.8	33.6	32.3	29.8	26.3	23.9	22.5	21.0	20.6
85°	14.2	15.6	16.6	17.0	16.6	14.9	13.3	12.4	11.2	10.5	10.3
87.5°	7.5	7.0	6.6	6.8	6.1	5.9	4.8	4.1	4.1	4.2	4.0
90°	9.6	7.2	5.4	4.2	3.5	2.8	1.4	0.4	1.4	2.8	3.5
92.5°	35.6	24.2	16.2	12.8	10.4	8.9	6.3	4.3	6.3	8.9	10.4
95°	82.4	51.4	34.9	26.4	20.7	17.5	13.9	12.5	13.9	17.5	20.7
97.5°	111.1	67.8	47.2	37.5	30.9	26.1	22.2	20.3	22.2	26.1	30.9
100°	117.0	73.5	54.6	44.6	37.5	31.7	28.6	27.5	28.6	31.7	37.5
102.5°	117.3	78.7	61.2	51.2	43.7	38.1	34.8	34.0	34.8	38.1	43.7
105°	119.2	87.5	70.7	60.7	52.8	47.5	44.9	43.5	44.9	47.5	52.8
107.5°	124.1	96.4	80.2	70.1	62.3	57.4	54.9	53.8	54.9	57.4	62.3
110°	128.1	102.4	86.7	76.3	68.9	64.2	62.1	60.7	62.1	64.2	68.9





TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	132.4	108.2	93.0	82.3	75.1	70.8	68.4	67.0	68.4	70.8	75.1
115°	138.8	117.0	101.7	92.1	84.9	80.7	78.5	76.7	78.5	80.7	84.9
117.5°	145.6	125.2	111.1	101.1	94.2	90.4	88.3	86.8	88.3	90.4	94.2
120°	150.3	131.0	117.0	107.0	99.9	96.7	94.5	93.1	94.5	96.7	99.9
122.5°	154.2	136.3	123.3	113.0	105.9	102.4	100.3	99.2	100.3	102.4	105.9
125°	160.6	144.5	131.7	121.7	114.5	110.3	108.2	107.0	108.2	110.3	114.5
127.5°	166.5	152.1	139.6	129.3	122.5	117.8	114.7	113.3	114.7	117.8	122.5
130°	170.2	156.6	144.1	134.2	127.0	122.0	118.5	117.0	118.5	122.0	127.0
132.5°	173.9	160.7	148.8	138.8	131.3	126.0	122.2	120.5	122.2	126.0	131.3
135°	178.7	166.3	154.8	144.9	136.6	131.3	127.0	125.6	127.0	131.3	136.6
137.5°	182.5	170.9	159.6	150.3	142.2	136.4	132.2	130.5	132.2	136.4	142.2
140°	184.5	173.4	162.7	153.4	145.6	139.9	135.6	134.2	135.6	139.9	145.6
142.5°	186.2	175.4	165.0	156.3	148.8	143.0	139.1	137.8	139.1	143.0	148.8
145°	188.4	178.4	168.7	161.0	153.8	148.5	144.9	143.4	144.9	148.5	153.8
147.5°	189.7	180.9	171.8	164.8	158.9	153.9	150.5	149.5	150.5	153.9	158.9
150°	190.2	182.0	173.8	167.3	162.0	157.3	154.5	153.4	154.5	157.3	162.0
152.5°	190.5	183.1	175.7	170.0	164.8	160.8	157.9	157.4	157.9	160.8	164.8
155°	190.9	184.8	178.7	173.4	169.5	165.5	163.4	163.1	163.4	165.5	169.5
157.5°	190.9	186.0	180.9	176.4	173.3	169.9	168.1	167.7	168.1	169.9	173.3
160°	190.9	186.6	182.4	178.4	175.5	172.7	171.3	170.9	171.3	172.7	175.5
162.5°	190.6	186.9	183.2	180.2	177.5	175.3	173.8	174.1	173.8	175.3	177.5
165°	189.9	187.3	184.1	182.0	180.2	178.0	177.3	177.7	177.3	178.0	180.2
167.5°	189.3	187.2	184.9	183.6	182.3	180.9	180.3	180.7	180.3	180.9	182.3
170°	188.7	186.9	185.2	184.1	183.4	182.4	182.0	182.7	182.0	182.4	183.4
172.5°	187.9	186.7	185.5	184.7	184.3	183.2	183.4	183.8	183.4	183.2	184.3
175°	186.9	186.2	185.5	185.2	185.2	184.5	184.8	185.2	184.8	184.5	185.2
177.5°	186.4	185.8	185.5	185.5	185.5	185.0	185.2	185.8	185.2	185.0	185.5
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5



TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	589.1	587.9	584.1	582.1	578.8	575.6	573.6	574.5	575.2	574.9	574.3
5°	572.1	567.7	561.1	555.4	551.3	543.7	540.5	538.9	537.5	535.9	534.3
7.5°	552.0	545.1	535.6	527.5	519.8	510.3	504.9	501.8	498.5	494.8	491.6
10°	537.8	528.1	518.0	506.5	497.4	488.9	481.3	476.3	471.6	467.3	464.1
12.5°	522.7	511.6	499.1	483.4	473.3	461.1	460.0	451.1	443.9	441.2	437.5
15°	498.8	483.1	467.3	448.7	440.7	429.7	422.8	415.9	409.7	405.4	404.2
17.5°	471.5	451.3	435.6	422.2	409.1	397.8	391.4	386.0	380.8	375.1	374.3
20°	450.8	433.3	416.2	404.5	390.9	379.4	371.6	366.2	361.7	358.3	355.4
22.5°	431.1	412.0	396.3	383.5	370.2	360.9	354.8	349.4	345.8	342.0	339.2
25°	399.6	384.8	367.5	353.0	342.0	336.1	331.0	326.5	324.2	321.6	318.4
27.5°	372.0	355.5	339.4	328.2	318.5	313.3	309.6	306.5	304.4	302.9	301.0
30°	352.6	335.9	323.3	312.3	304.2	298.9	296.6	294.8	292.3	291.3	290.4
32.5°	333.9	318.8	308.0	298.4	290.8	287.3	285.3	283.6	281.7	280.7	278.8
35°	307.4	294.8	284.3	278.9	272.8	269.7	268.2	265.9	264.1	263.2	262.9
37.5°	282.5	271.6	264.6	257.8	255.2	253.4	251.2	249.6	249.0	248.9	248.6
40°	266.3	257.4	251.2	245.7	244.6	241.8	239.9	238.6	238.6	238.8	238.6
42.5°	251.7	243.6	238.1	233.4	232.1	230.5	228.5	228.5	228.8	229.6	228.8
45°	229.4	223.7	219.7	217.5	215.0	213.4	213.1	213.8	214.0	214.3	215.0
47.5°	208.9	205.1	201.6	199.0	197.9	197.7	197.4	198.6	199.8	200.2	201.2
50°	196.8	192.5	189.5	187.8	186.9	186.5	186.9	188.3	189.2	190.4	191.1
52.5°	183.3	180.2	178.1	176.8	176.5	176.8	176.8	178.4	179.9	180.4	180.7
55°	164.5	162.2	161.8	159.7	160.6	160.4	161.5	162.4	163.8	165.2	165.4
57.5°	145.7	143.9	142.7	142.9	143.2	144.2	145.1	146.7	148.1	149.7	149.8
60°	133.3	132.4	131.7	131.7	132.1	133.5	134.6	136.2	137.1	138.1	138.8
62.5°	121.9	121.0	120.3	120.7	121.9	122.7	124.0	124.9	125.8	126.7	127.0
65°	103.9	103.5	104.1	104.6	104.8	105.9	107.6	108.3	109.2	109.7	111.3
67.5°	87.4	87.5	87.4	88.0	89.4	89.6	91.1	92.7	92.9	93.8	94.8
70°	76.1	76.6	77.1	77.6	78.7	79.2	80.3	81.0	81.9	82.6	83.3
72.5°	65.8	65.9	66.4	66.3	67.4	68.3	69.3	70.0	70.9	71.8	72.4
75°	50.7	50.7	51.2	51.4	52.5	53.7	53.4	53.9	54.8	55.7	56.2
77.5°	37.1	36.6	37.1	37.3	37.7	38.6	38.8	39.4	40.5	40.2	40.7
80°	28.2	27.6	28.2	28.5	28.5	29.6	29.6	30.1	30.7	30.1	30.7
82.5°	20.1	19.8	20.3	20.4	20.7	20.8	21.1	21.2	21.9	21.6	21.9
85°	10.1	9.9	10.1	9.9	10.1	10.3	10.3	10.1	10.1	10.5	9.9
87.5°	3.9	4.0	4.1	4.6	4.9	4.8	4.5	4.4	4.3	4.1	4.1
90°	4.2	5.4	7.2	9.6	11.8	12.1	11.8	11.4	10.7	11.4	11.8
92.5°	12.8	16.2	24.2	35.6	45.7	46.4	39.2	31.1	26.7	23.7	21.5
95°	26.4	34.9	51.4	82.4	123.8	139.9	122.4	93.5	71.7	56.8	48.9
97.5°	37.5	47.2	67.8	111.1	179.9	238.7	250.4	218.1	178.4	139.9	114.1
100°	44.6	54.6	73.5	117.0	194.1	281.9	333.3	325.8	281.6	232.7	189.5
102.5°	51.2	61.2	78.7	117.3	188.6	283.3	364.1	396.3	386.3	350.5	304.8
105°	60.7	70.7	87.5	119.2	178.0	264.4	359.3	433.5	473.8	478.5	466.8
107.5°	70.1	80.2	96.4	124.1	172.8	244.1	328.0	406.7	467.5	504.5	521.8
110°	76.3	86.7	102.4	128.1	171.7	234.4	308.3	383.5	447.5	493.1	522.4



TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	82.3	93.0	108.2	132.4	171.9	228.1	294.6	362.4	423.7	472.5	506.1
115°	92.1	101.7	117.0	138.8	173.4	221.3	277.6	336.5	391.4	438.2	474.9
117.5°	101.1	111.1	125.2	145.6	176.0	217.8	266.9	316.9	365.2	407.6	442.0
120°	107.0	117.0	131.0	150.3	177.7	215.9	261.2	307.2	351.4	389.3	421.7
122.5°	113.0	123.3	136.3	154.2	179.7	214.7	256.3	299.5	340.0	375.9	405.2
125°	121.7	131.7	144.5	160.6	182.7	212.7	249.4	288.3	325.1	356.5	383.2
127.5°	129.3	139.6	152.1	166.5	185.7	211.5	243.0	277.2	310.5	340.1	364.8
130°	134.2	144.1	156.6	170.2	188.0	210.9	238.7	270.1	300.8	329.0	352.5
132.5°	138.8	148.8	160.7	173.9	190.4	210.6	235.3	263.3	291.6	317.6	339.7
135°	144.9	154.8	166.3	178.7	193.1	210.2	230.5	253.7	277.2	300.8	320.7
137.5°	150.3	159.6	170.9	182.5	195.5	210.1	227.1	246.1	265.8	284.5	301.8
140°	153.4	162.7	173.4	184.5	196.6	209.8	225.1	241.2	258.3	274.8	290.4
142.5°	156.3	165.0	175.4	186.2	197.4	209.8	223.2	237.2	251.8	265.9	279.0
145°	161.0	168.7	178.4	188.4	198.3	209.0	220.6	231.6	243.4	254.4	264.8
147.5°	164.8	171.8	180.9	189.7	198.6	207.8	217.8	227.2	236.5	245.1	252.7
150°	167.3	173.8	182.0	190.2	198.3	206.9	215.5	224.1	232.0	239.4	245.8
152.5°	170.0	175.7	183.1	190.5	197.8	205.5	213.5	221.0	228.2	234.6	240.1
155°	173.4	178.7	184.8	190.9	196.9	203.0	209.8	216.6	222.3	227.6	231.6
157.5°	176.4	180.9	186.0	190.9	195.3	200.5	206.3	211.6	216.3	220.8	223.9
160°	178.4	182.4	186.6	190.9	194.5	198.7	203.7	208.3	212.3	216.2	218.7
162.5°	180.2	183.2	186.9	190.6	193.6	197.3	201.5	205.2	208.6	212.0	213.9
165°	182.0	184.1	187.3	189.9	192.0	194.5	197.6	200.6	203.0	205.5	206.9
167.5°	183.6	184.9	187.2	189.3	190.4	192.0	194.0	196.0	197.9	199.7	201.0
170°	184.1	185.2	186.9	188.7	189.5	190.6	192.0	193.8	194.8	196.2	196.9
172.5°	184.7	185.5	186.7	187.9	188.3	188.8	190.0	191.2	192.0	193.1	193.5
175°	185.2	185.5	186.2	186.9	186.6	186.9	187.3	188.4	188.7	189.1	189.5
177.5°	185.5	185.5	185.8	186.4	185.8	185.5	185.8	186.4	186.4	186.7	186.7
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5



TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	572.5	572.1	572.1	570.5	572.1	572.1	572.5	574.3	574.9	575.2	574.5
5°	531.1	530.4	529.3	530.4	529.3	530.4	531.1	534.3	535.9	537.5	538.9
7.5°	490.1	487.4	487.0	484.2	487.0	487.4	490.1	491.6	494.8	498.5	501.8
10°	460.2	458.4	458.1	453.7	458.1	458.4	460.2	464.1	467.3	471.6	476.3
12.5°	437.5	433.0	433.9	431.4	433.9	433.0	437.5	437.5	441.2	443.9	451.1
15°	398.0	398.0	397.1	393.2	397.1	398.0	398.0	404.2	405.4	409.7	415.9
17.5°	369.7	369.2	367.1	368.2	367.1	369.2	369.7	374.3	375.1	380.8	386.0
20°	352.8	351.4	348.7	348.7	348.7	351.4	352.8	355.4	358.3	361.7	366.2
22.5°	336.9	336.8	333.9	334.8	333.9	336.8	336.9	339.2	342.0	345.8	349.4
25°	318.2	316.4	315.0	315.7	315.0	316.4	318.2	318.4	321.6	324.2	326.5
27.5°	300.4	299.4	299.3	297.5	299.3	299.4	300.4	301.0	302.9	304.4	306.5
30°	290.2	287.9	288.3	287.2	288.3	287.9	290.2	290.4	291.3	292.3	294.8
32.5°	278.4	277.6	277.2	276.2	277.2	277.6	278.4	278.8	280.7	281.7	283.6
35°	262.5	262.7	261.6	262.0	261.6	262.7	262.5	262.9	263.2	264.1	265.9
37.5°	248.4	249.1	248.6	248.7	248.6	249.1	248.4	248.6	248.9	249.0	249.6
40°	239.2	239.2	239.2	239.9	239.2	239.2	239.2	238.6	238.8	238.6	238.6
42.5°	230.5	230.0	229.7	229.6	229.7	230.0	230.5	228.8	229.6	228.8	228.5
45°	215.4	216.1	216.3	215.2	216.3	216.1	215.4	215.0	214.3	214.0	213.8
47.5°	201.8	201.9	201.8	202.8	201.8	201.9	201.8	201.2	200.2	199.8	198.6
50°	192.3	191.8	192.3	191.8	192.3	191.8	192.3	191.1	190.4	189.2	188.3
52.5°	182.2	182.3	182.0	181.9	182.0	182.3	182.2	180.7	180.4	179.9	178.4
55°	166.3	166.7	166.5	166.5	166.5	166.7	166.3	165.4	165.2	163.8	162.4
57.5°	150.0	150.4	150.7	149.7	150.7	150.4	150.0	149.8	149.7	148.1	146.7
60°	138.6	139.7	139.5	139.1	139.5	139.7	138.6	138.8	138.1	137.1	136.2
62.5°	128.1	128.6	128.5	128.4	128.5	128.6	128.1	127.0	126.7	125.8	124.9
65°	112.0	112.4	111.7	112.4	111.7	112.4	112.0	111.3	109.7	109.2	108.3
67.5°	94.5	94.7	95.2	95.5	95.2	94.7	94.5	94.8	93.8	92.9	92.7
70°	83.7	83.5	84.2	84.9	84.2	83.5	83.7	83.3	82.6	81.9	81.0
72.5°	72.3	72.8	72.6	73.1	72.6	72.8	72.3	72.4	71.8	70.9	70.0
75°	55.7	56.5	56.2	56.9	56.2	56.5	55.7	56.2	55.7	54.8	53.9
77.5°	40.3	40.4	40.3	40.7	40.3	40.4	40.3	40.7	40.2	40.5	39.4
80°	30.7	30.3	29.8	30.7	29.8	30.3	30.7	30.7	30.1	30.7	30.1
82.5°	21.4	21.6	21.2	21.2	21.2	21.6	21.4	21.9	21.6	21.9	21.2
85°	9.9	9.6	9.2	9.2	9.2	9.6	9.9	9.9	10.5	10.1	10.1
87.5°	4.1	4.0	4.0	3.8	4.0	4.0	4.1	4.1	4.1	4.3	4.4
90°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.4	10.7	11.4
92.5°	21.2	20.1	20.3	19.8	20.3	20.1	21.2	21.5	23.7	26.7	31.1
95°	44.2	41.4	40.3	40.7	40.3	41.4	44.2	48.9	56.8	71.7	93.5
97.5°	97.0	88.3	83.1	80.1	83.1	88.3	97.0	114.1	139.9	178.4	218.1
100°	159.9	144.5	134.2	127.7	134.2	144.5	159.9	189.5	232.7	281.6	325.8
102.5°	272.6	246.4	233.5	224.8	233.5	246.4	272.6	304.8	350.5	386.3	396.3
105°	444.5	422.4	407.1	402.1	407.1	422.4	444.5	466.8	478.5	473.8	433.5
107.5°	524.6	523.4	520.3	513.7	520.3	523.4	524.6	521.8	504.5	467.5	406.7
110°	537.8	544.5	547.8	547.3	547.8	544.5	537.8	522.4	493.1	447.5	383.5



TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	527.5	538.8	544.8	546.7	544.8	538.8	527.5	506.1	472.5	423.7	362.4
115°	500.3	516.6	525.9	529.2	525.9	516.6	500.3	474.9	438.2	391.4	336.5
117.5°	467.9	485.2	494.9	497.7	494.9	485.2	467.9	442.0	407.6	365.2	316.9
120°	446.8	463.5	473.8	477.5	473.8	463.5	446.8	421.7	389.3	351.4	307.2
122.5°	427.6	444.1	453.3	456.3	453.3	444.1	427.6	405.2	375.9	340.0	299.5
125°	403.9	417.5	426.4	429.3	426.4	417.5	403.9	383.2	356.5	325.1	288.3
127.5°	382.8	395.6	403.2	405.6	403.2	395.6	382.8	364.8	340.1	310.5	277.2
130°	370.0	382.1	389.3	392.1	389.3	382.1	370.0	352.5	329.0	300.8	270.1
132.5°	356.9	369.0	375.6	378.2	375.6	369.0	356.9	339.7	317.6	291.6	263.3
135°	336.1	347.9	354.4	355.8	354.4	347.9	336.1	320.7	300.8	277.2	253.7
137.5°	315.9	326.0	331.6	333.8	331.6	326.0	315.9	301.8	284.5	265.8	246.1
140°	301.8	311.1	316.5	318.6	316.5	311.1	301.8	290.4	274.8	258.3	241.2
142.5°	289.8	298.3	303.1	303.5	303.1	298.3	289.8	279.0	265.9	251.8	237.2
145°	273.3	279.4	283.0	284.0	283.0	279.4	273.3	264.8	254.4	243.4	231.6
147.5°	259.7	264.6	267.0	267.7	267.0	264.6	259.7	252.7	245.1	236.5	227.2
150°	251.2	255.5	257.6	258.0	257.6	255.5	251.2	245.8	239.4	232.0	224.1
152.5°	244.4	248.0	249.6	249.7	249.6	248.0	244.4	240.1	234.6	228.2	221.0
155°	235.5	238.0	239.4	238.7	239.4	238.0	235.5	231.6	227.6	222.3	216.6
157.5°	226.6	228.7	229.3	229.3	229.3	228.7	226.6	223.9	220.8	216.3	211.6
160°	221.3	223.0	223.4	223.4	223.4	223.0	221.3	218.7	216.2	212.3	208.3
162.5°	216.4	217.6	217.9	217.6	217.9	217.6	216.4	213.9	212.0	208.6	205.2
165°	208.3	209.8	209.8	209.4	209.8	209.8	208.3	206.9	205.5	203.0	200.6
167.5°	201.6	202.4	202.3	201.9	202.3	202.4	201.6	201.0	199.7	197.9	196.0
170°	197.3	198.3	198.0	197.3	198.0	198.3	197.3	196.9	196.2	194.8	193.8
172.5°	193.9	194.4	194.0	193.6	194.0	194.4	193.9	193.5	193.1	192.0	191.2
175°	189.5	189.9	189.5	188.7	189.5	189.9	189.5	189.5	189.1	188.7	188.4
177.5°	186.7	186.7	186.4	185.8	186.4	186.7	186.7	186.7	186.7	186.4	186.4
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5



TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	573.6	575.6	578.8	582.1	584.1	587.9	589.1	590.9	592.5	596.3	600.4
5°	540.5	543.7	551.3	555.4	561.1	567.7	572.1	576.7	581.8	590.5	598.5
7.5°	504.9	510.3	519.8	527.5	535.6	545.1	552.0	561.1	568.7	581.0	592.7
10°	481.3	488.9	497.4	506.5	518.0	528.1	537.8	549.2	558.4	573.1	586.8
12.5°	460.0	461.1	473.3	483.4	499.1	511.6	522.7	537.5	546.4	563.9	578.3
15°	422.8	429.7	440.7	448.7	467.3	483.1	498.8	514.1	524.4	546.0	565.0
17.5°	391.4	397.8	409.1	422.2	435.6	451.3	471.5	487.8	501.8	526.4	549.0
20°	371.6	379.4	390.9	404.5	416.2	433.3	450.8	469.4	484.5	512.3	538.7
22.5°	354.8	360.9	370.2	383.5	396.3	412.0	431.1	451.4	467.3	497.3	523.9
25°	331.0	336.1	342.0	353.0	367.5	384.8	399.6	421.9	445.0	473.0	505.3
27.5°	309.6	313.3	318.5	328.2	339.4	355.5	372.0	393.1	416.5	446.9	481.0
30°	296.6	298.9	304.2	312.3	323.3	335.9	352.6	372.7	396.7	427.4	461.3
32.5°	285.3	287.3	290.8	298.4	308.0	318.8	333.9	354.1	376.8	407.0	444.6
35°	268.2	269.7	272.8	278.9	284.3	294.8	307.4	325.8	347.1	376.0	415.0
37.5°	251.2	253.4	255.2	257.8	264.6	271.6	282.5	298.0	318.9	348.1	385.3
40°	239.9	241.8	244.6	245.7	251.2	257.4	266.3	280.5	301.6	328.3	364.6
42.5°	228.5	230.5	232.1	233.4	238.1	243.6	251.7	263.9	282.6	308.4	344.4
45°	213.1	213.4	215.0	217.5	219.7	223.7	229.4	239.9	254.4	278.7	311.3
47.5°	197.4	197.7	197.9	199.0	201.6	205.1	208.9	217.5	230.5	249.8	281.6
50°	186.9	186.5	186.9	187.8	189.5	192.5	196.8	203.0	213.6	231.7	260.8
52.5°	176.8	176.8	176.5	176.8	178.1	180.2	183.3	188.5	197.9	214.6	240.2
55°	161.5	160.4	160.6	159.7	161.8	162.2	164.5	168.8	177.1	188.5	212.7
57.5°	145.1	144.2	143.2	142.9	142.7	143.9	145.7	149.2	155.5	165.6	185.1
60°	134.6	133.5	132.1	131.7	131.7	132.4	133.3	135.8	141.8	150.7	166.7
62.5°	124.0	122.7	121.9	120.7	120.3	121.0	121.9	123.7	128.1	136.4	150.3
65°	107.6	105.9	104.8	104.6	104.1	103.5	103.9	105.7	109.2	115.8	126.8
67.5°	91.1	89.6	89.4	88.0	87.4	87.5	87.4	88.9	91.0	96.7	104.9
70°	80.3	79.2	78.7	77.6	77.1	76.6	76.1	77.6	79.6	84.4	91.5
72.5°	69.3	68.3	67.4	66.3	66.4	65.9	65.8	66.8	68.4	72.8	78.4
75°	53.4	53.7	52.5	51.4	51.2	50.7	50.7	51.4	52.1	55.5	59.9
77.5°	38.8	38.6	37.7	37.3	37.1	36.6	37.1	37.5	37.9	40.2	43.3
80°	29.6	29.6	28.5	28.5	28.2	27.6	28.2	27.8	28.7	31.0	33.2
82.5°	21.1	20.8	20.7	20.4	20.3	19.8	20.1	20.6	21.0	22.5	23.9
85°	10.3	10.3	10.1	9.9	10.1	9.9	10.1	10.3	10.5	11.2	12.4
87.5°	4.5	4.8	4.9	4.6	4.1	4.0	3.9	4.0	4.2	4.1	4.1
90°	11.8	12.1	11.8	9.6	7.2	5.4	4.2	3.5	2.8	1.4	0.4
92.5°	39.2	46.4	45.7	35.6	24.2	16.2	12.8	10.4	8.9	6.3	4.3
95°	122.4	139.9	123.8	82.4	51.4	34.9	26.4	20.7	17.5	13.9	12.5
97.5°	250.4	238.7	179.9	111.1	67.8	47.2	37.5	30.9	26.1	22.2	20.3
100°	333.3	281.9	194.1	117.0	73.5	54.6	44.6	37.5	31.7	28.6	27.5
102.5°	364.1	283.3	188.6	117.3	78.7	61.2	51.2	43.7	38.1	34.8	34.0
105°	359.3	264.4	178.0	119.2	87.5	70.7	60.7	52.8	47.5	44.9	43.5
107.5°	328.0	244.1	172.8	124.1	96.4	80.2	70.1	62.3	57.4	54.9	53.8
110°	308.3	234.4	171.7	128.1	102.4	86.7	76.3	68.9	64.2	62.1	60.7



TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	294.6	228.1	171.9	132.4	108.2	93.0	82.3	75.1	70.8	68.4	67.0
115°	277.6	221.3	173.4	138.8	117.0	101.7	92.1	84.9	80.7	78.5	76.7
117.5°	266.9	217.8	176.0	145.6	125.2	111.1	101.1	94.2	90.4	88.3	86.8
120°	261.2	215.9	177.7	150.3	131.0	117.0	107.0	99.9	96.7	94.5	93.1
122.5°	256.3	214.7	179.7	154.2	136.3	123.3	113.0	105.9	102.4	100.3	99.2
125°	249.4	212.7	182.7	160.6	144.5	131.7	121.7	114.5	110.3	108.2	107.0
127.5°	243.0	211.5	185.7	166.5	152.1	139.6	129.3	122.5	117.8	114.7	113.3
130°	238.7	210.9	188.0	170.2	156.6	144.1	134.2	127.0	122.0	118.5	117.0
132.5°	235.3	210.6	190.4	173.9	160.7	148.8	138.8	131.3	126.0	122.2	120.5
135°	230.5	210.2	193.1	178.7	166.3	154.8	144.9	136.6	131.3	127.0	125.6
137.5°	227.1	210.1	195.5	182.5	170.9	159.6	150.3	142.2	136.4	132.2	130.5
140°	225.1	209.8	196.6	184.5	173.4	162.7	153.4	145.6	139.9	135.6	134.2
142.5°	223.2	209.8	197.4	186.2	175.4	165.0	156.3	148.8	143.0	139.1	137.8
145°	220.6	209.0	198.3	188.4	178.4	168.7	161.0	153.8	148.5	144.9	143.4
147.5°	217.8	207.8	198.6	189.7	180.9	171.8	164.8	158.9	153.9	150.5	149.5
150°	215.5	206.9	198.3	190.2	182.0	173.8	167.3	162.0	157.3	154.5	153.4
152.5°	213.5	205.5	197.8	190.5	183.1	175.7	170.0	164.8	160.8	157.9	157.4
155°	209.8	203.0	196.9	190.9	184.8	178.7	173.4	169.5	165.5	163.4	163.1
157.5°	206.3	200.5	195.3	190.9	186.0	180.9	176.4	173.3	169.9	168.1	167.7
160°	203.7	198.7	194.5	190.9	186.6	182.4	178.4	175.5	172.7	171.3	170.9
162.5°	201.5	197.3	193.6	190.6	186.9	183.2	180.2	177.5	175.3	173.8	174.1
165°	197.6	194.5	192.0	189.9	187.3	184.1	182.0	180.2	178.0	177.3	177.7
167.5°	194.0	192.0	190.4	189.3	187.2	184.9	183.6	182.3	180.9	180.3	180.7
170°	192.0	190.6	189.5	188.7	186.9	185.2	184.1	183.4	182.4	182.0	182.7
172.5°	190.0	188.8	188.3	187.9	186.7	185.5	184.7	184.3	183.2	183.4	183.8
175°	187.3	186.9	186.6	186.9	186.2	185.5	185.2	185.2	184.5	184.8	185.2
177.5°	185.8	185.5	185.8	186.4	185.8	185.5	185.5	185.5	185.0	185.2	185.8
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5



TEST NUMBER: P331242-840  
 CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	600.1	601.0	603.9	606.8	610.2	611.1	612.5	611.3	610.9	614.3	616.9
5°	601.8	605.8	613.9	621.3	627.4	631.8	636.4	638.2	641.7	646.4	652.5
7.5°	599.8	607.8	620.5	631.2	642.8	651.2	657.7	663.4	670.1	679.2	689.2
10°	597.6	608.3	623.8	636.8	651.1	661.9	670.8	679.5	689.6	702.3	715.3
12.5°	593.6	606.3	625.6	641.1	659.3	669.9	682.0	700.7	711.7	729.2	747.6
15°	585.4	599.7	626.5	645.5	666.2	686.4	708.6	726.5	744.4	754.8	780.6
17.5°	573.4	594.2	624.0	646.2	672.5	704.2	729.2	749.5	770.1	786.9	799.9
20°	563.6	586.3	620.4	646.9	678.1	712.3	740.9	761.6	779.5	793.6	801.5
22.5°	551.4	580.0	613.0	644.2	684.0	717.8	747.9	764.2	779.1	786.0	789.1
25°	532.0	566.4	603.8	641.9	686.8	722.7	750.1	760.0	764.4	757.7	746.7
27.5°	511.1	549.5	593.2	637.5	685.1	719.5	739.2	737.7	730.3	708.7	691.6
30°	495.5	537.8	584.7	633.2	680.9	714.4	725.8	714.4	697.6	673.6	648.9
32.5°	479.2	522.9	575.7	626.9	673.2	702.7	705.1	685.4	659.4	632.1	601.5
35°	454.4	501.7	558.9	613.0	656.8	675.4	664.4	629.4	598.7	561.4	519.6
37.5°	426.5	478.7	535.9	592.6	632.3	637.1	609.8	573.1	529.7	485.7	436.6
40°	405.6	460.9	519.9	576.9	612.1	607.0	572.1	531.8	480.2	426.5	380.8
42.5°	386.9	442.1	502.2	558.3	586.3	572.5	531.8	482.2	426.8	376.2	334.4
45°	354.5	411.3	472.8	526.9	543.0	518.0	464.1	409.0	354.5	312.3	279.2
47.5°	323.0	379.2	440.1	487.7	493.3	459.7	400.8	344.2	297.2	262.9	239.5
50°	299.8	356.3	416.6	459.1	457.2	416.6	356.1	302.2	262.9	235.1	219.5
52.5°	279.1	332.4	390.3	429.0	419.2	375.0	317.1	269.2	237.0	215.3	201.2
55°	246.8	296.2	351.2	382.2	364.3	315.2	266.3	227.8	203.9	187.6	176.6
57.5°	214.8	261.1	308.2	327.3	307.5	262.2	221.5	193.5	175.5	163.5	156.3
60°	195.0	235.4	277.3	293.9	270.2	229.8	197.7	172.8	158.2	148.5	142.0
62.5°	175.2	211.4	251.0	259.9	238.3	204.2	175.7	154.9	143.1	134.3	128.3
65°	148.1	177.8	207.8	213.8	193.9	167.4	145.0	131.5	120.9	114.5	109.7
67.5°	121.6	145.3	166.6	171.4	153.9	135.6	119.4	107.6	100.5	95.1	91.0
70°	105.7	124.6	142.0	145.9	131.9	115.6	103.2	93.8	87.4	82.8	78.9
72.5°	89.1	104.7	119.3	121.9	110.5	98.0	87.9	80.4	74.7	71.8	68.1
75°	68.2	77.4	88.6	89.3	81.7	74.1	66.3	61.5	58.5	54.8	53.0
77.5°	48.1	55.2	61.7	62.9	58.5	53.3	49.0	45.1	42.6	40.9	39.2
80°	36.7	42.4	45.2	46.8	43.6	39.9	37.4	34.8	33.2	32.1	31.0
82.5°	26.3	29.8	32.3	33.6	31.8	29.6	27.2	25.7	24.4	23.5	23.1
85°	13.3	14.9	16.6	17.0	16.6	15.6	14.2	14.2	13.5	13.3	13.3
87.5°	4.8	5.9	6.1	6.8	6.6	7.0	7.5	7.7	7.6	7.3	7.1
90°	1.4	2.8	3.5	4.2	5.4	7.2	9.6	11.8	12.1	11.8	11.4
92.5°	6.3	8.9	10.4	12.8	16.2	24.2	35.6	45.7	46.4	39.2	31.1
95°	13.9	17.5	20.7	26.4	34.9	51.4	82.4	123.8	139.9	122.4	93.5
97.5°	22.2	26.1	30.9	37.5	47.2	67.8	111.1	179.9	238.7	250.4	218.1
100°	28.6	31.7	37.5	44.6	54.6	73.5	117.0	194.1	281.9	333.3	325.8
102.5°	34.8	38.1	43.7	51.2	61.2	78.7	117.3	188.6	283.3	364.1	396.3
105°	44.9	47.5	52.8	60.7	70.7	87.5	119.2	178.0	264.4	359.3	433.5
107.5°	54.9	57.4	62.3	70.1	80.2	96.4	124.1	172.8	244.1	328.0	406.7
110°	62.1	64.2	68.9	76.3	86.7	102.4	128.1	171.7	234.4	308.3	383.5





TEST NUMBER: P331242-840

CATALOG NUMBER: SA2XXDIP-C290D330U840-4F0-1E-UDD-A4

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	68.4	70.8	75.1	82.3	93.0	108.2	132.4	171.9	228.1	294.6	362.4
115°	78.5	80.7	84.9	92.1	101.7	117.0	138.8	173.4	221.3	277.6	336.5
117.5°	88.3	90.4	94.2	101.1	111.1	125.2	145.6	176.0	217.8	266.9	316.9
120°	94.5	96.7	99.9	107.0	117.0	131.0	150.3	177.7	215.9	261.2	307.2
122.5°	100.3	102.4	105.9	113.0	123.3	136.3	154.2	179.7	214.7	256.3	299.5
125°	108.2	110.3	114.5	121.7	131.7	144.5	160.6	182.7	212.7	249.4	288.3
127.5°	114.7	117.8	122.5	129.3	139.6	152.1	166.5	185.7	211.5	243.0	277.2
130°	118.5	122.0	127.0	134.2	144.1	156.6	170.2	188.0	210.9	238.7	270.1
132.5°	122.2	126.0	131.3	138.8	148.8	160.7	173.9	190.4	210.6	235.3	263.3
135°	127.0	131.3	136.6	144.9	154.8	166.3	178.7	193.1	210.2	230.5	253.7
137.5°	132.2	136.4	142.2	150.3	159.6	170.9	182.5	195.5	210.1	227.1	246.1
140°	135.6	139.9	145.6	153.4	162.7	173.4	184.5	196.6	209.8	225.1	241.2
142.5°	139.1	143.0	148.8	156.3	165.0	175.4	186.2	197.4	209.8	223.2	237.2
145°	144.9	148.5	153.8	161.0	168.7	178.4	188.4	198.3	209.0	220.6	231.6
147.5°	150.5	153.9	158.9	164.8	171.8	180.9	189.7	198.6	207.8	217.8	227.2
150°	154.5	157.3	162.0	167.3	173.8	182.0	190.2	198.3	206.9	215.5	224.1
152.5°	157.9	160.8	164.8	170.0	175.7	183.1	190.5	197.8	205.5	213.5	221.0
155°	163.4	165.5	169.5	173.4	178.7	184.8	190.9	196.9	203.0	209.8	216.6
157.5°	168.1	169.9	173.3	176.4	180.9	186.0	190.9	195.3	200.5	206.3	211.6
160°	171.3	172.7	175.5	178.4	182.4	186.6	190.9	194.5	198.7	203.7	208.3
162.5°	173.8	175.3	177.5	180.2	183.2	186.9	190.6	193.6	197.3	201.5	205.2
165°	177.3	178.0	180.2	182.0	184.1	187.3	189.9	192.0	194.5	197.6	200.6
167.5°	180.3	180.9	182.3	183.6	184.9	187.2	189.3	190.4	192.0	194.0	196.0
170°	182.0	182.4	183.4	184.1	185.2	186.9	188.7	189.5	190.6	192.0	193.8
172.5°	183.4	183.2	184.3	184.7	185.5	186.7	187.9	188.3	188.8	190.0	191.2
175°	184.8	184.5	185.2	185.2	185.5	186.2	186.9	186.6	186.9	187.3	188.4
177.5°	185.2	185.0	185.5	185.5	185.5	185.8	186.4	185.8	185.5	185.8	186.4
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5	185.5



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	619.1	621.7	621.7	622.1	625.0	624.6	624.4
5°	658.8	662.8	663.2	667.3	670.0	669.1	666.6
7.5°	696.3	703.6	709.1	712.2	715.8	718.0	717.0
10°	726.1	736.6	743.1	747.4	752.7	756.6	755.2
12.5°	753.1	765.6	774.5	781.9	782.5	787.6	784.2
15°	795.2	808.4	809.8	815.3	819.7	819.2	819.4
17.5°	809.0	813.2	814.2	814.3	814.4	812.7	809.2
20°	804.1	802.4	798.6	795.6	790.3	789.6	785.1
22.5°	780.5	775.5	765.7	759.2	751.0	748.9	747.6
25°	734.4	723.1	707.5	692.6	688.4	680.4	682.7
27.5°	670.9	653.4	636.4	624.4	613.4	601.4	604.8
30°	626.3	606.5	582.7	564.3	552.6	541.2	539.1
32.5°	573.1	544.1	517.6	501.4	483.4	476.2	468.3
35°	481.3	453.0	426.7	403.9	390.9	380.8	371.6
37.5°	398.8	366.3	345.0	326.6	317.1	311.3	312.9
40°	347.6	319.1	303.5	289.5	280.7	276.7	277.6
42.5°	306.1	284.8	272.0	262.4	256.2	253.9	253.4
45°	259.0	247.1	236.5	231.1	228.0	225.5	223.9
47.5°	226.9	217.1	211.2	207.9	205.3	202.8	202.7
50°	207.6	201.2	197.0	193.6	191.6	189.8	191.4
52.5°	192.9	187.0	182.9	179.9	179.0	177.4	177.3
55°	171.2	166.5	163.6	160.8	159.5	158.5	157.3
57.5°	151.3	146.9	144.2	142.5	139.9	139.0	138.6
60°	137.1	133.7	131.0	128.7	127.5	125.7	125.7
62.5°	124.1	120.7	118.2	116.4	114.5	113.8	114.0
65°	105.3	102.5	100.0	98.2	97.8	96.3	96.8
67.5°	88.0	86.1	83.4	82.4	81.6	80.9	80.3
70°	76.3	74.5	73.2	71.8	71.1	71.1	71.1
72.5°	66.7	64.4	63.6	61.9	62.3	61.6	60.8
75°	51.6	50.2	49.6	48.9	47.8	47.8	47.8
77.5°	38.0	37.6	36.8	36.1	35.7	35.5	35.6
80°	29.4	29.1	28.7	28.7	28.2	28.0	27.6
82.5°	22.6	22.0	21.7	21.5	21.4	21.4	21.3
85°	12.8	12.4	12.4	12.6	12.1	12.1	12.4
87.5°	7.1	7.3	7.2	7.2	7.3	7.2	7.2
90°	10.7	11.4	11.8	11.8	11.8	11.8	11.8
92.5°	26.7	23.7	21.5	21.2	20.1	20.3	19.8
95°	71.7	56.8	48.9	44.2	41.4	40.3	40.7
97.5°	178.4	139.9	114.1	97.0	88.3	83.1	80.1
100°	281.6	232.7	189.5	159.9	144.5	134.2	127.7
102.5°	386.3	350.5	304.8	272.6	246.4	233.5	224.8
105°	473.8	478.5	466.8	444.5	422.4	407.1	402.1
107.5°	467.5	504.5	521.8	524.6	523.4	520.3	513.7
110°	447.5	493.1	522.4	537.8	544.5	547.8	547.3



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	423.7	472.5	506.1	527.5	538.8	544.8	546.7
115°	391.4	438.2	474.9	500.3	516.6	525.9	529.2
117.5°	365.2	407.6	442.0	467.9	485.2	494.9	497.7
120°	351.4	389.3	421.7	446.8	463.5	473.8	477.5
122.5°	340.0	375.9	405.2	427.6	444.1	453.3	456.3
125°	325.1	356.5	383.2	403.9	417.5	426.4	429.3
127.5°	310.5	340.1	364.8	382.8	395.6	403.2	405.6
130°	300.8	329.0	352.5	370.0	382.1	389.3	392.1
132.5°	291.6	317.6	339.7	356.9	369.0	375.6	378.2
135°	277.2	300.8	320.7	336.1	347.9	354.4	355.8
137.5°	265.8	284.5	301.8	315.9	326.0	331.6	333.8
140°	258.3	274.8	290.4	301.8	311.1	316.5	318.6
142.5°	251.8	265.9	279.0	289.8	298.3	303.1	303.5
145°	243.4	254.4	264.8	273.3	279.4	283.0	284.0
147.5°	236.5	245.1	252.7	259.7	264.6	267.0	267.7
150°	232.0	239.4	245.8	251.2	255.5	257.6	258.0
152.5°	228.2	234.6	240.1	244.4	248.0	249.6	249.7
155°	222.3	227.6	231.6	235.5	238.0	239.4	238.7
157.5°	216.3	220.8	223.9	226.6	228.7	229.3	229.3
160°	212.3	216.2	218.7	221.3	223.0	223.4	223.4
162.5°	208.6	212.0	213.9	216.4	217.6	217.9	217.6
165°	203.0	205.5	206.9	208.3	209.8	209.8	209.4
167.5°	197.9	199.7	201.0	201.6	202.4	202.3	201.9
170°	194.8	196.2	196.9	197.3	198.3	198.0	197.3
172.5°	192.0	193.1	193.5	193.9	194.4	194.0	193.6
175°	188.7	189.1	189.5	189.5	189.9	189.5	188.7
177.5°	186.4	186.7	186.7	186.7	186.7	186.4	185.8
180°	185.5	185.5	185.5	185.5	185.5	185.5	185.5

(END OF REPORT)