

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: P331240-830

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

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331240-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
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-A
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER
UPLIGHT 330 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

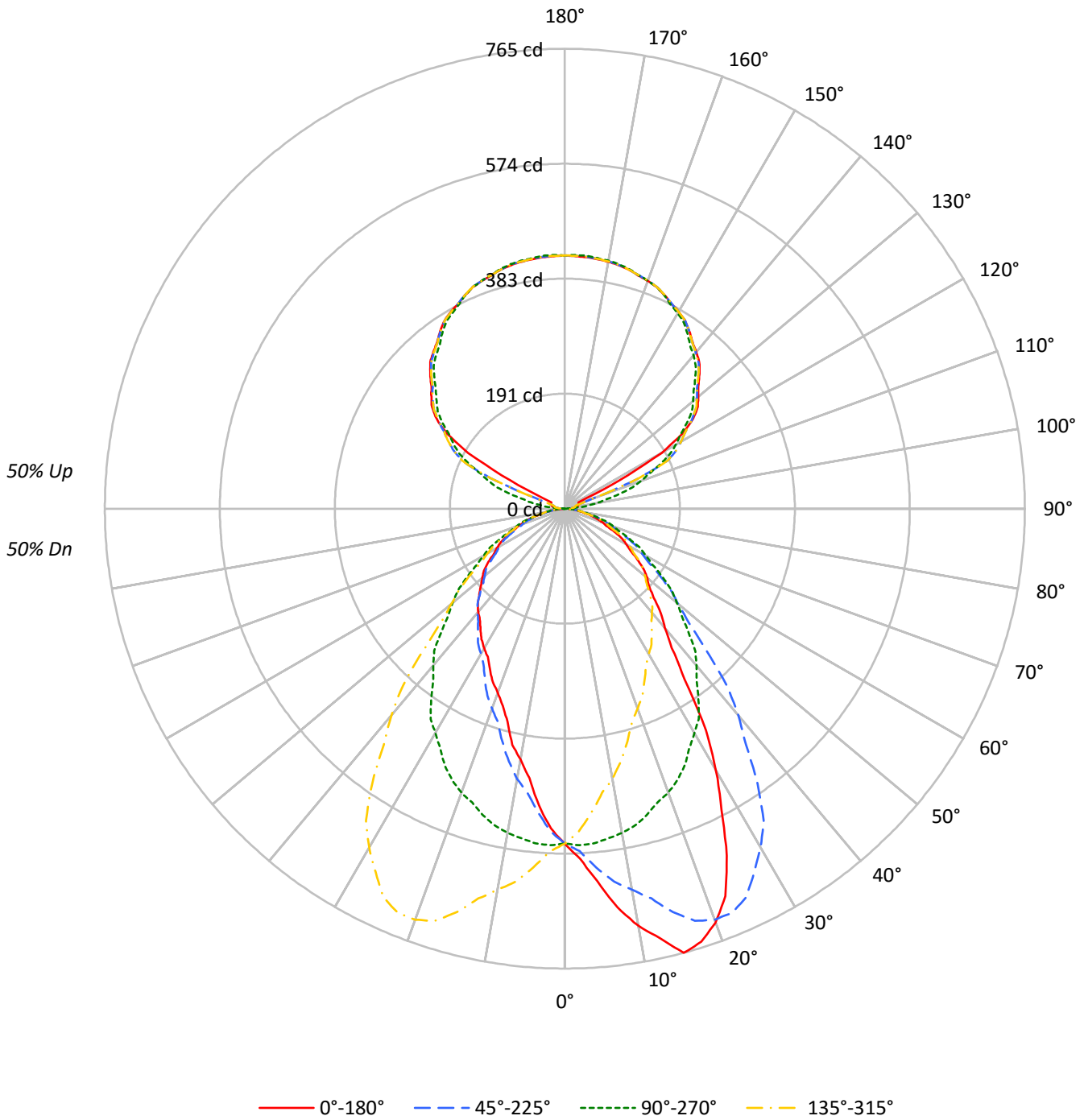
Lumens per Lamp: N/A
Luminaire Lumens: 2464.4 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.23
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: General Diffuse

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	83	83	83	69	69	69	56	56	56	50
1	98	94	90	87	91	87	84	81	74	71	69	62	60	58	50	49	48	43
2	90	83	77	72	83	77	72	67	65	61	58	55	52	50	45	43	41	37
3	82	73	66	60	76	68	62	57	58	53	49	49	45	43	40	38	36	32
4	75	65	57	52	69	60	54	49	52	47	43	44	40	37	36	33	31	28
5	69	58	50	45	64	54	47	42	47	41	37	39	35	32	33	30	28	24
6	64	52	45	39	59	49	42	37	42	37	33	36	32	28	30	27	24	22
7	59	47	40	34	55	44	37	32	38	33	29	33	29	25	28	24	22	19
8	55	43	36	30	51	40	34	29	35	30	26	30	26	23	25	22	20	17
9	52	40	32	27	48	37	30	26	32	27	23	28	24	21	24	20	18	16
10	48	36	29	25	45	34	28	23	30	25	21	26	22	19	22	19	16	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



TEST NUMBER: P331240-830

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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	9.1
30°-40°	236.2	9.6
40°-50°	209.2	8.5
50°-60°	166.9	6.8
60°-70°	113.4	4.6
70°-80°	58.2	2.4
80°-90°	15.1	0.6
90°-100°	14.0	0.6
100°-110°	51.5	2.1
110°-120°	137.7	5.6
120°-130°	227.3	9.2
130°-140°	241.8	9.8
140°-150°	224.7	9.1
150°-160°	180.7	7.3
160°-170°	116.4	4.7
170°-180°	40.1	1.6
0°-30°	431.2	17.5
0°-40°	667.4	27.1
0°-60°	1043.5	42.3
0°-90°	1230.1	49.9
90°-120°	203.3	8.2
90°-150°	897.1	36.4
90°-180°	1234.0	50.1
0°-180°	2464.4	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°	8	0	8	0	8	4
95°	13	20	13	20	13	12
105°	23	93	23	93	23	24
115°	25	175	25	175	25	63
125°	260	248	260	248	260	225
135°	317	307	317	307	317	244
145°	361	356	361	356	361	226
155°	392	392	392	392	392	181
165°	412	413	412	413	412	116
175°	420	422	420	422	420	40
180°	421	421	421	421	421	



TEST NUMBER: P331240-830

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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°	6.1	6.0	6.2	6.0	6.0	6.1	6.0	5.8	5.9	6.0	6.0
90°	8.2	8.1	7.9	7.8	7.7	7.4	7.1	6.8	6.4	6.1	5.6
92.5°	8.2	8.1	8.1	8.0	7.9	7.7	7.6	7.4	7.3	7.1	6.8
95°	13.1	13.2	13.2	13.3	13.4	13.2	12.9	12.5	12.3	11.9	11.4
97.5°	17.5	17.4	17.3	17.2	17.2	17.0	16.7	16.5	16.2	15.9	14.8
100°	20.5	20.3	20.2	20.0	19.9	19.5	19.0	18.5	17.9	17.3	16.2
102.5°	21.9	21.7	21.5	21.3	21.1	20.6	20.0	19.2	18.6	17.8	27.5
105°	23.2	22.9	22.6	22.3	22.1	21.6	20.8	20.1	19.3	18.6	37.0
107.5°	23.8	23.6	23.3	23.0	22.7	23.0	23.8	24.5	25.3	26.0	48.2
110°	24.0	23.8	23.6	23.3	23.0	26.2	33.0	39.8	46.6	53.3	72.9



TEST NUMBER: P331240-830

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	24.3	24.1	23.8	23.7	23.5	35.7	60.4	85.1	109.8	134.5	139.3
115°	25.0	29.9	34.8	39.6	44.5	62.6	94.0	125.4	156.7	188.0	186.3
117.5°	102.1	118.1	134.1	150.1	166.2	178.0	185.5	193.1	200.7	208.3	207.1
120°	185.9	195.0	204.2	213.3	222.4	226.6	225.8	225.0	224.2	223.4	222.2
122.5°	232.0	233.8	235.5	237.3	239.0	239.7	239.2	238.7	238.3	237.8	236.5
125°	260.5	260.3	260.1	260.0	259.8	259.4	258.9	258.4	258.0	257.5	256.2
127.5°	278.6	278.5	278.5	278.5	278.4	278.1	277.4	276.7	276.0	275.3	274.4
130°	289.8	289.9	289.9	290.0	290.1	289.7	289.0	288.2	287.5	286.8	286.1
132.5°	300.8	300.9	301.0	301.0	301.0	300.8	300.1	299.5	298.9	298.2	297.5
135°	316.6	316.8	316.9	317.1	317.2	316.9	316.2	315.6	314.9	314.2	313.6
137.5°	331.1	331.3	331.6	331.8	332.0	331.8	331.1	330.5	329.8	329.1	328.5
140°	340.1	340.4	340.8	341.1	341.5	341.3	340.7	340.1	339.5	338.8	338.2
142.5°	348.8	349.2	349.6	349.9	350.2	350.2	349.6	349.0	348.5	347.9	347.0
145°	361.1	361.5	361.8	362.1	362.5	362.4	361.9	361.5	361.0	360.5	359.4
147.5°	371.9	372.2	372.5	372.8	373.1	373.1	372.7	372.3	371.9	371.6	370.5
150°	378.5	378.8	379.2	379.6	379.8	379.8	379.4	379.0	378.6	378.2	377.1
152.5°	384.1	384.6	385.0	385.4	385.9	385.9	385.5	385.1	384.7	384.3	383.2
155°	391.9	392.5	393.0	393.5	394.1	394.2	393.7	393.3	392.9	392.5	391.7
157.5°	399.1	399.5	400.1	400.6	401.1	401.1	400.8	400.3	399.8	399.4	398.8
160°	403.2	403.7	404.2	404.6	405.1	405.1	404.7	404.4	403.9	403.5	403.1
162.5°	406.6	407.2	407.7	408.3	409.0	409.0	408.5	408.0	407.6	407.2	406.8
165°	411.7	412.2	412.6	413.1	413.6	413.6	413.1	412.6	412.2	411.7	411.5
167.5°	414.9	415.6	416.1	416.8	417.4	417.5	417.0	416.5	416.0	415.6	415.4
170°	416.9	417.5	418.1	418.8	419.3	419.4	419.0	418.5	418.0	417.5	417.4
172.5°	418.4	419.0	419.6	420.2	420.8	420.8	420.4	419.9	419.4	419.0	418.9
175°	419.6	420.3	421.0	421.7	422.4	422.4	422.0	421.5	421.0	420.6	420.5
177.5°	420.5	420.9	421.4	421.9	422.4	422.4	422.1	421.7	421.3	420.9	420.8
180°	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1



TEST NUMBER: P331240-830

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

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°	6.1	6.0	5.9	6.1	5.5	5.4	4.5	3.9	3.8	3.8	3.6
90°	5.0	4.4	4.0	3.3	2.5	1.8	1.0	0.3	1.0	1.8	2.5
92.5°	6.5	6.2	6.0	5.8	5.9	6.0	6.1	6.1	6.1	6.0	5.9
95°	10.9	10.5	10.0	10.8	13.1	15.4	17.5	19.8	17.5	15.4	13.1
97.5°	13.7	12.6	11.5	14.1	20.5	26.7	33.0	39.3	33.0	26.7	20.5
100°	15.1	13.9	12.7	16.9	26.1	35.3	44.7	53.9	44.7	35.3	26.1
102.5°	37.1	46.8	56.4	62.2	64.2	66.1	68.1	70.0	68.1	66.1	64.2
105°	55.6	74.1	92.6	100.8	98.8	96.7	94.6	92.7	94.6	96.7	98.8
107.5°	70.4	92.6	114.7	125.0	123.4	121.7	120.1	118.4	120.1	121.7	123.4
110°	92.5	112.1	131.6	140.7	139.3	137.9	136.4	135.0	136.4	137.9	139.3



TEST NUMBER: P331240-830

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	144.2	149.0	153.8	155.6	154.4	153.2	151.8	150.6	151.8	153.2	154.4
115°	184.6	182.9	181.3	179.8	178.7	177.6	176.3	175.2	176.3	177.6	178.7
117.5°	205.9	204.8	203.6	202.4	201.1	199.8	198.5	197.3	198.5	199.8	201.1
120°	220.9	219.7	218.5	217.4	216.4	215.4	214.3	213.3	214.3	215.4	216.4
122.5°	235.1	233.8	232.4	231.3	230.2	229.1	228.1	227.0	228.1	229.1	230.2
125°	255.0	253.6	252.4	251.3	250.4	249.5	248.6	247.8	248.6	249.5	250.4
127.5°	273.4	272.4	271.5	270.5	269.6	268.5	267.6	266.6	267.6	268.5	269.6
130°	285.3	284.6	283.8	282.9	281.8	280.7	279.7	278.5	279.7	280.7	281.8
132.5°	296.7	296.0	295.2	294.5	293.5	292.6	291.6	290.8	291.6	292.6	293.5
135°	313.0	312.4	311.8	310.9	309.8	308.8	307.6	306.6	307.6	308.8	309.8
137.5°	327.7	327.1	326.4	325.6	324.9	324.1	323.4	322.6	323.4	324.1	324.9
140°	337.4	336.7	335.9	335.3	334.7	334.1	333.7	333.1	333.7	334.1	334.7
142.5°	346.2	345.3	344.5	343.8	343.4	342.8	342.3	341.9	342.3	342.8	343.4
145°	358.3	357.0	355.9	355.3	355.4	355.5	355.6	355.6	355.6	355.5	355.4
147.5°	369.4	368.2	367.0	366.6	366.8	367.1	367.4	367.7	367.4	367.1	366.8
150°	376.1	374.9	373.9	373.5	374.0	374.5	374.9	375.4	374.9	374.5	374.0
152.5°	382.2	381.2	380.1	379.9	380.4	381.0	381.5	382.0	381.5	381.0	380.4
155°	390.9	390.1	389.3	389.2	389.7	390.4	391.0	391.6	391.0	390.4	389.7
157.5°	398.2	397.7	397.1	397.0	397.6	398.0	398.6	399.1	398.6	398.0	397.6
160°	402.7	402.3	401.9	401.9	402.3	402.7	403.1	403.5	403.1	402.7	402.3
162.5°	406.4	406.0	405.8	405.8	406.1	406.6	407.0	407.4	407.0	406.6	406.1
165°	411.3	411.1	410.9	411.0	411.4	411.8	412.3	412.6	412.3	411.8	411.4
167.5°	415.2	415.0	414.8	414.9	415.3	415.8	416.1	416.5	416.1	415.8	415.3
170°	417.3	417.1	417.0	417.1	417.5	417.9	418.3	418.8	418.3	417.9	417.5
172.5°	418.7	418.6	418.4	418.6	419.0	419.3	419.8	420.2	419.8	419.3	419.0
175°	420.3	420.2	420.0	420.2	420.7	421.1	421.6	422.1	421.6	421.1	420.7
177.5°	420.8	420.8	420.8	420.8	421.2	421.6	422.0	422.4	422.0	421.6	421.2
180°	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1



TEST NUMBER: P331240-830

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

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°	3.6	3.5	3.5	3.6	3.5	3.5	3.3	3.4	3.5	3.2	3.2
90°	3.3	4.0	4.4	5.0	5.6	6.1	6.4	6.8	7.1	7.4	7.7
92.5°	5.8	6.0	6.2	6.5	6.8	7.1	7.3	7.4	7.6	7.7	7.9
95°	10.8	10.0	10.5	10.9	11.4	11.9	12.3	12.5	12.9	13.2	13.4
97.5°	14.1	11.5	12.6	13.7	14.8	15.9	16.2	16.5	16.7	17.0	17.2
100°	16.9	12.7	13.9	15.1	16.2	17.3	17.9	18.5	19.0	19.5	19.9
102.5°	62.2	56.4	46.8	37.1	27.5	17.8	18.6	19.2	20.0	20.6	21.1
105°	100.8	92.6	74.1	55.6	37.0	18.6	19.3	20.1	20.8	21.6	22.1
107.5°	125.0	114.7	92.6	70.4	48.2	26.0	25.3	24.5	23.8	23.0	22.7
110°	140.7	131.6	112.1	92.5	72.9	53.3	46.6	39.8	33.0	26.2	23.0



TEST NUMBER: P331240-830

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

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	155.6	153.8	149.0	144.2	139.3	134.5	109.8	85.1	60.4	35.7	23.5
115°	179.8	181.3	182.9	184.6	186.3	188.0	156.7	125.4	94.0	62.6	44.5
117.5°	202.4	203.6	204.8	205.9	207.1	208.3	200.7	193.1	185.5	178.0	166.2
120°	217.4	218.5	219.7	220.9	222.2	223.4	224.2	225.0	225.8	226.6	222.4
122.5°	231.3	232.4	233.8	235.1	236.5	237.8	238.3	238.7	239.2	239.7	239.0
125°	251.3	252.4	253.6	255.0	256.2	257.5	258.0	258.4	258.9	259.4	259.8
127.5°	270.5	271.5	272.4	273.4	274.4	275.3	276.0	276.7	277.4	278.1	278.4
130°	282.9	283.8	284.6	285.3	286.1	286.8	287.5	288.2	289.0	289.7	290.1
132.5°	294.5	295.2	296.0	296.7	297.5	298.2	298.9	299.5	300.1	300.8	301.0
135°	310.9	311.8	312.4	313.0	313.6	314.2	314.9	315.6	316.2	316.9	317.2
137.5°	325.6	326.4	327.1	327.7	328.5	329.1	329.8	330.5	331.1	331.8	332.0
140°	335.3	335.9	336.7	337.4	338.2	338.8	339.5	340.1	340.7	341.3	341.5
142.5°	343.8	344.5	345.3	346.2	347.0	347.9	348.5	349.0	349.6	350.2	350.2
145°	355.3	355.9	357.0	358.3	359.4	360.5	361.0	361.5	361.9	362.4	362.5
147.5°	366.6	367.0	368.2	369.4	370.5	371.6	371.9	372.3	372.7	373.1	373.1
150°	373.5	373.9	374.9	376.1	377.1	378.2	378.6	379.0	379.4	379.8	379.8
152.5°	379.9	380.1	381.2	382.2	383.2	384.3	384.7	385.1	385.5	385.9	385.9
155°	389.2	389.3	390.1	390.9	391.7	392.5	392.9	393.3	393.7	394.2	394.1
157.5°	397.0	397.1	397.7	398.2	398.8	399.4	399.8	400.3	400.8	401.1	401.1
160°	401.9	401.9	402.3	402.7	403.1	403.5	403.9	404.4	404.7	405.1	405.1
162.5°	405.8	405.8	406.0	406.4	406.8	407.2	407.6	408.0	408.5	409.0	409.0
165°	411.0	410.9	411.1	411.3	411.5	411.7	412.2	412.6	413.1	413.6	413.6
167.5°	414.9	414.8	415.0	415.2	415.4	415.6	416.0	416.5	417.0	417.5	417.4
170°	417.1	417.0	417.1	417.3	417.4	417.5	418.0	418.5	419.0	419.4	419.3
172.5°	418.6	418.4	418.6	418.7	418.9	419.0	419.4	419.9	420.4	420.8	420.8
175°	420.2	420.0	420.2	420.3	420.5	420.6	421.0	421.5	422.0	422.4	422.4
177.5°	420.8	420.8	420.8	420.8	420.8	420.9	421.3	421.7	422.1	422.4	422.4
180°	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1



TEST NUMBER: P331240-830

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

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°	3.3	3.1	3.2	3.0	3.2	3.1	3.3	3.2	3.2	3.5	3.4
90°	7.8	7.9	8.1	8.2	8.1	7.9	7.8	7.7	7.4	7.1	6.8
92.5°	8.0	8.1	8.1	8.2	8.1	8.1	8.0	7.9	7.7	7.6	7.4
95°	13.3	13.2	13.2	13.1	13.2	13.2	13.3	13.4	13.2	12.9	12.5
97.5°	17.2	17.3	17.4	17.5	17.4	17.3	17.2	17.2	17.0	16.7	16.5
100°	20.0	20.2	20.3	20.5	20.3	20.2	20.0	19.9	19.5	19.0	18.5
102.5°	21.3	21.5	21.7	21.9	21.7	21.5	21.3	21.1	20.6	20.0	19.2
105°	22.3	22.6	22.9	23.2	22.9	22.6	22.3	22.1	21.6	20.8	20.1
107.5°	23.0	23.3	23.6	23.8	23.6	23.3	23.0	22.7	23.0	23.8	24.5
110°	23.3	23.6	23.8	24.0	23.8	23.6	23.3	23.0	26.2	33.0	39.8



TEST NUMBER: P331240-830

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	23.7	23.8	24.1	24.3	24.1	23.8	23.7	23.5	35.7	60.4	85.1
115°	39.6	34.8	29.9	25.0	29.9	34.8	39.6	44.5	62.6	94.0	125.4
117.5°	150.1	134.1	118.1	102.1	118.1	134.1	150.1	166.2	178.0	185.5	193.1
120°	213.3	204.2	195.0	185.9	195.0	204.2	213.3	222.4	226.6	225.8	225.0
122.5°	237.3	235.5	233.8	232.0	233.8	235.5	237.3	239.0	239.7	239.2	238.7
125°	260.0	260.1	260.3	260.5	260.3	260.1	260.0	259.8	259.4	258.9	258.4
127.5°	278.5	278.5	278.5	278.6	278.5	278.5	278.5	278.4	278.1	277.4	276.7
130°	290.0	289.9	289.9	289.8	289.9	289.9	290.0	290.1	289.7	289.0	288.2
132.5°	301.0	301.0	300.9	300.8	300.9	301.0	301.0	301.0	300.8	300.1	299.5
135°	317.1	316.9	316.8	316.6	316.8	316.9	317.1	317.2	316.9	316.2	315.6
137.5°	331.8	331.6	331.3	331.1	331.3	331.6	331.8	332.0	331.8	331.1	330.5
140°	341.1	340.8	340.4	340.1	340.4	340.8	341.1	341.5	341.3	340.7	340.1
142.5°	349.9	349.6	349.2	348.8	349.2	349.6	349.9	350.2	350.2	349.6	349.0
145°	362.1	361.8	361.5	361.1	361.5	361.8	362.1	362.5	362.4	361.9	361.5
147.5°	372.8	372.5	372.2	371.9	372.2	372.5	372.8	373.1	373.1	372.7	372.3
150°	379.6	379.2	378.8	378.5	378.8	379.2	379.6	379.8	379.8	379.4	379.0
152.5°	385.4	385.0	384.6	384.1	384.6	385.0	385.4	385.9	385.9	385.5	385.1
155°	393.5	393.0	392.5	391.9	392.5	393.0	393.5	394.1	394.2	393.7	393.3
157.5°	400.6	400.1	399.5	399.1	399.5	400.1	400.6	401.1	401.1	400.8	400.3
160°	404.6	404.2	403.7	403.2	403.7	404.2	404.6	405.1	405.1	404.7	404.4
162.5°	408.3	407.7	407.2	406.6	407.2	407.7	408.3	409.0	409.0	408.5	408.0
165°	413.1	412.6	412.2	411.7	412.2	412.6	413.1	413.6	413.6	413.1	412.6
167.5°	416.8	416.1	415.6	414.9	415.6	416.1	416.8	417.4	417.5	417.0	416.5
170°	418.8	418.1	417.5	416.9	417.5	418.1	418.8	419.3	419.4	419.0	418.5
172.5°	420.2	419.6	419.0	418.4	419.0	419.6	420.2	420.8	420.8	420.4	419.9
175°	421.7	421.0	420.3	419.6	420.3	421.0	421.7	422.4	422.4	422.0	421.5
177.5°	421.9	421.4	420.9	420.5	420.9	421.4	421.9	422.4	422.4	422.1	421.7
180°	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1



TEST NUMBER: P331240-830

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

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°	3.3	3.5	3.5	3.6	3.5	3.5	3.6	3.6	3.8	3.8	3.9
90°	6.4	6.1	5.6	5.0	4.4	4.0	3.3	2.5	1.8	1.0	0.3
92.5°	7.3	7.1	6.8	6.5	6.2	6.0	5.8	5.9	6.0	6.1	6.1
95°	12.3	11.9	11.4	10.9	10.5	10.0	10.8	13.1	15.4	17.5	19.8
97.5°	16.2	15.9	14.8	13.7	12.6	11.5	14.1	20.5	26.7	33.0	39.3
100°	17.9	17.3	16.2	15.1	13.9	12.7	16.9	26.1	35.3	44.7	53.9
102.5°	18.6	17.8	27.5	37.1	46.8	56.4	62.2	64.2	66.1	68.1	70.0
105°	19.3	18.6	37.0	55.6	74.1	92.6	100.8	98.8	96.7	94.6	92.7
107.5°	25.3	26.0	48.2	70.4	92.6	114.7	125.0	123.4	121.7	120.1	118.4
110°	46.6	53.3	72.9	92.5	112.1	131.6	140.7	139.3	137.9	136.4	135.0



TEST NUMBER: P331240-830

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

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	109.8	134.5	139.3	144.2	149.0	153.8	155.6	154.4	153.2	151.8	150.6
115°	156.7	188.0	186.3	184.6	182.9	181.3	179.8	178.7	177.6	176.3	175.2
117.5°	200.7	208.3	207.1	205.9	204.8	203.6	202.4	201.1	199.8	198.5	197.3
120°	224.2	223.4	222.2	220.9	219.7	218.5	217.4	216.4	215.4	214.3	213.3
122.5°	238.3	237.8	236.5	235.1	233.8	232.4	231.3	230.2	229.1	228.1	227.0
125°	258.0	257.5	256.2	255.0	253.6	252.4	251.3	250.4	249.5	248.6	247.8
127.5°	276.0	275.3	274.4	273.4	272.4	271.5	270.5	269.6	268.5	267.6	266.6
130°	287.5	286.8	286.1	285.3	284.6	283.8	282.9	281.8	280.7	279.7	278.5
132.5°	298.9	298.2	297.5	296.7	296.0	295.2	294.5	293.5	292.6	291.6	290.8
135°	314.9	314.2	313.6	313.0	312.4	311.8	310.9	309.8	308.8	307.6	306.6
137.5°	329.8	329.1	328.5	327.7	327.1	326.4	325.6	324.9	324.1	323.4	322.6
140°	339.5	338.8	338.2	337.4	336.7	335.9	335.3	334.7	334.1	333.7	333.1
142.5°	348.5	347.9	347.0	346.2	345.3	344.5	343.8	343.4	342.8	342.3	341.9
145°	361.0	360.5	359.4	358.3	357.0	355.9	355.3	355.4	355.5	355.6	355.6
147.5°	371.9	371.6	370.5	369.4	368.2	367.0	366.6	366.8	367.1	367.4	367.7
150°	378.6	378.2	377.1	376.1	374.9	373.9	373.5	374.0	374.5	374.9	375.4
152.5°	384.7	384.3	383.2	382.2	381.2	380.1	379.9	380.4	381.0	381.5	382.0
155°	392.9	392.5	391.7	390.9	390.1	389.3	389.2	389.7	390.4	391.0	391.6
157.5°	399.8	399.4	398.8	398.2	397.7	397.1	397.0	397.6	398.0	398.6	399.1
160°	403.9	403.5	403.1	402.7	402.3	401.9	401.9	402.3	402.7	403.1	403.5
162.5°	407.6	407.2	406.8	406.4	406.0	405.8	405.8	406.1	406.6	407.0	407.4
165°	412.2	411.7	411.5	411.3	411.1	410.9	411.0	411.4	411.8	412.3	412.6
167.5°	416.0	415.6	415.4	415.2	415.0	414.8	414.9	415.3	415.8	416.1	416.5
170°	418.0	417.5	417.4	417.3	417.1	417.0	417.1	417.5	417.9	418.3	418.8
172.5°	419.4	419.0	418.9	418.7	418.6	418.4	418.6	419.0	419.3	419.8	420.2
175°	421.0	420.6	420.5	420.3	420.2	420.0	420.2	420.7	421.1	421.6	422.1
177.5°	421.3	420.9	420.8	420.8	420.8	420.8	420.8	421.2	421.6	422.0	422.4
180°	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1



TEST NUMBER: P331240-830

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

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	5.4	5.5	6.1	5.9	6.0	6.1	6.0	6.0	5.9	5.8
90°	1.0	1.8	2.5	3.3	4.0	4.4	5.0	5.6	6.1	6.4	6.8
92.5°	6.1	6.0	5.9	5.8	6.0	6.2	6.5	6.8	7.1	7.3	7.4
95°	17.5	15.4	13.1	10.8	10.0	10.5	10.9	11.4	11.9	12.3	12.5
97.5°	33.0	26.7	20.5	14.1	11.5	12.6	13.7	14.8	15.9	16.2	16.5
100°	44.7	35.3	26.1	16.9	12.7	13.9	15.1	16.2	17.3	17.9	18.5
102.5°	68.1	66.1	64.2	62.2	56.4	46.8	37.1	27.5	17.8	18.6	19.2
105°	94.6	96.7	98.8	100.8	92.6	74.1	55.6	37.0	18.6	19.3	20.1
107.5°	120.1	121.7	123.4	125.0	114.7	92.6	70.4	48.2	26.0	25.3	24.5
110°	136.4	137.9	139.3	140.7	131.6	112.1	92.5	72.9	53.3	46.6	39.8



TEST NUMBER: P331240-830
 CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	151.8	153.2	154.4	155.6	153.8	149.0	144.2	139.3	134.5	109.8	85.1
115°	176.3	177.6	178.7	179.8	181.3	182.9	184.6	186.3	188.0	156.7	125.4
117.5°	198.5	199.8	201.1	202.4	203.6	204.8	205.9	207.1	208.3	200.7	193.1
120°	214.3	215.4	216.4	217.4	218.5	219.7	220.9	222.2	223.4	224.2	225.0
122.5°	228.1	229.1	230.2	231.3	232.4	233.8	235.1	236.5	237.8	238.3	238.7
125°	248.6	249.5	250.4	251.3	252.4	253.6	255.0	256.2	257.5	258.0	258.4
127.5°	267.6	268.5	269.6	270.5	271.5	272.4	273.4	274.4	275.3	276.0	276.7
130°	279.7	280.7	281.8	282.9	283.8	284.6	285.3	286.1	286.8	287.5	288.2
132.5°	291.6	292.6	293.5	294.5	295.2	296.0	296.7	297.5	298.2	298.9	299.5
135°	307.6	308.8	309.8	310.9	311.8	312.4	313.0	313.6	314.2	314.9	315.6
137.5°	323.4	324.1	324.9	325.6	326.4	327.1	327.7	328.5	329.1	329.8	330.5
140°	333.7	334.1	334.7	335.3	335.9	336.7	337.4	338.2	338.8	339.5	340.1
142.5°	342.3	342.8	343.4	343.8	344.5	345.3	346.2	347.0	347.9	348.5	349.0
145°	355.6	355.5	355.4	355.3	355.9	357.0	358.3	359.4	360.5	361.0	361.5
147.5°	367.4	367.1	366.8	366.6	367.0	368.2	369.4	370.5	371.6	371.9	372.3
150°	374.9	374.5	374.0	373.5	373.9	374.9	376.1	377.1	378.2	378.6	379.0
152.5°	381.5	381.0	380.4	379.9	380.1	381.2	382.2	383.2	384.3	384.7	385.1
155°	391.0	390.4	389.7	389.2	389.3	390.1	390.9	391.7	392.5	392.9	393.3
157.5°	398.6	398.0	397.6	397.0	397.1	397.7	398.2	398.8	399.4	399.8	400.3
160°	403.1	402.7	402.3	401.9	401.9	402.3	402.7	403.1	403.5	403.9	404.4
162.5°	407.0	406.6	406.1	405.8	405.8	406.0	406.4	406.8	407.2	407.6	408.0
165°	412.3	411.8	411.4	411.0	410.9	411.1	411.3	411.5	411.7	412.2	412.6
167.5°	416.1	415.8	415.3	414.9	414.8	415.0	415.2	415.4	415.6	416.0	416.5
170°	418.3	417.9	417.5	417.1	417.0	417.1	417.3	417.4	417.5	418.0	418.5
172.5°	419.8	419.3	419.0	418.6	418.4	418.6	418.7	418.9	419.0	419.4	419.9
175°	421.6	421.1	420.7	420.2	420.0	420.2	420.3	420.5	420.6	421.0	421.5
177.5°	422.0	421.6	421.2	420.8	420.8	420.8	420.8	420.8	420.9	421.3	421.7
180°	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1	421.1



TEST NUMBER: P331240-830
 CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A

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°	6.0	6.1	6.0	6.0	6.2	6.0	6.1
90°	7.1	7.4	7.7	7.8	7.9	8.1	8.2
92.5°	7.6	7.7	7.9	8.0	8.1	8.1	8.2
95°	12.9	13.2	13.4	13.3	13.2	13.2	13.1
97.5°	16.7	17.0	17.2	17.2	17.3	17.4	17.5
100°	19.0	19.5	19.9	20.0	20.2	20.3	20.5
102.5°	20.0	20.6	21.1	21.3	21.5	21.7	21.9
105°	20.8	21.6	22.1	22.3	22.6	22.9	23.2
107.5°	23.8	23.0	22.7	23.0	23.3	23.6	23.8
110°	33.0	26.2	23.0	23.3	23.6	23.8	24.0



TEST NUMBER: P331240-830
 CATALOG NUMBER: SA2XXDIP-C290D330U830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	60.4	35.7	23.5	23.7	23.8	24.1	24.3
115°	94.0	62.6	44.5	39.6	34.8	29.9	25.0
117.5°	185.5	178.0	166.2	150.1	134.1	118.1	102.1
120°	225.8	226.6	222.4	213.3	204.2	195.0	185.9
122.5°	239.2	239.7	239.0	237.3	235.5	233.8	232.0
125°	258.9	259.4	259.8	260.0	260.1	260.3	260.5
127.5°	277.4	278.1	278.4	278.5	278.5	278.5	278.6
130°	289.0	289.7	290.1	290.0	289.9	289.9	289.8
132.5°	300.1	300.8	301.0	301.0	301.0	300.9	300.8
135°	316.2	316.9	317.2	317.1	316.9	316.8	316.6
137.5°	331.1	331.8	332.0	331.8	331.6	331.3	331.1
140°	340.7	341.3	341.5	341.1	340.8	340.4	340.1
142.5°	349.6	350.2	350.2	349.9	349.6	349.2	348.8
145°	361.9	362.4	362.5	362.1	361.8	361.5	361.1
147.5°	372.7	373.1	373.1	372.8	372.5	372.2	371.9
150°	379.4	379.8	379.8	379.6	379.2	378.8	378.5
152.5°	385.5	385.9	385.9	385.4	385.0	384.6	384.1
155°	393.7	394.2	394.1	393.5	393.0	392.5	391.9
157.5°	400.8	401.1	401.1	400.6	400.1	399.5	399.1
160°	404.7	405.1	405.1	404.6	404.2	403.7	403.2
162.5°	408.5	409.0	409.0	408.3	407.7	407.2	406.6
165°	413.1	413.6	413.6	413.1	412.6	412.2	411.7
167.5°	417.0	417.5	417.4	416.8	416.1	415.6	414.9
170°	419.0	419.4	419.3	418.8	418.1	417.5	416.9
172.5°	420.4	420.8	420.8	420.2	419.6	419.0	418.4
175°	422.0	422.4	422.4	421.7	421.0	420.3	419.6
177.5°	422.1	422.4	422.4	421.9	421.4	420.9	420.5
180°	421.1	421.1	421.1	421.1	421.1	421.1	421.1

(END OF REPORT)