

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: P331615

Luminaire Tested: **SA2XXRDIP-C290D330U835-4F0-1E-UDD-A**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331615  
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: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER, REGRESSED HOUSING  
UPLIGHT 330 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

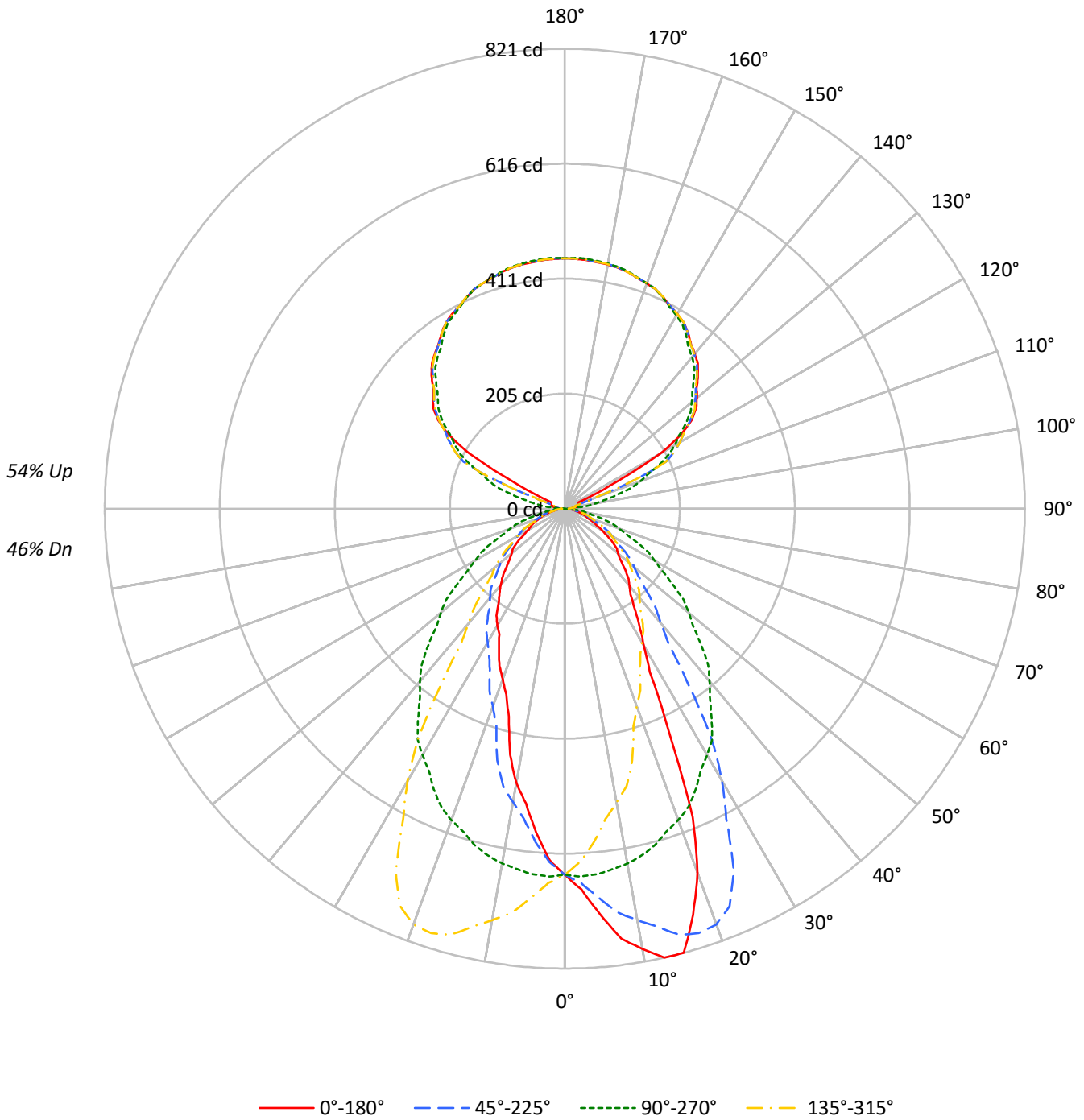
Lumens per Lamp: N/A  
Luminaire Lumens: 2440.4 lumens  
Efficiency: N/A  
Efficacy: 120.2 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 1.16 / 1.02  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 20.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	98	94	90	87	90	86	83	80	72	70	68	59	58	57	48	47	46	40
2	90	83	77	72	82	76	71	67	64	61	58	53	51	49	43	41	40	35
3	82	73	66	61	75	68	62	57	57	53	49	48	45	42	39	37	35	31
4	76	65	58	52	69	61	54	49	52	47	43	43	40	37	35	33	31	27
5	70	59	51	45	64	55	48	43	47	41	37	39	35	32	32	29	27	24
6	64	53	45	40	59	49	43	38	42	37	33	36	32	29	29	27	25	22
7	60	48	41	35	55	45	38	33	39	33	30	33	29	26	27	24	22	20
8	56	44	37	32	51	41	34	30	35	30	27	30	26	23	25	22	20	18
9	52	40	33	28	48	38	31	27	33	28	24	28	24	21	23	21	18	16
10	49	37	30	26	45	35	29	24	30	25	22	26	22	19	22	19	17	15

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

	0°	90°	180°	270°
0°	10555	10555	10555	10555
5°	11788	10621	9418	10621
10°	13080	10547	8163	10547
15°	13722	10392	6432	10392
20°	11897	10163	5565	10163
25°	7801	9850	4969	9850
30°	5252	9469	4497	9469
35°	4254	8990	4056	8990
40°	3781	8469	3754	8469
45°	3423	7857	3350	7857
50°	3115	7252	3105	7252
55°	2928	6579	2891	6579
60°	2451	5964	2422	5964
65°	2067	5414	2342	5414
70°	1907	4834	2209	4834
75°	1784	4211	2040	4211
80°	1646	3468	1813	3468
85°	1519	2742	1593	2742



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.0	2.5
10°-20°	172.7	7.1
20°-30°	222.5	9.1
30°-40°	211.5	8.7
40°-50°	181.1	7.4
50°-60°	137.9	5.7
60°-70°	87.2	3.6
70°-80°	43.5	1.8
80°-90°	12.4	0.5
90°-100°	14.9	0.6
100°-110°	54.7	2.2
110°-120°	146.1	6.0
120°-130°	241.2	9.9
130°-140°	256.5	10.5
140°-150°	238.4	9.8
150°-160°	191.7	7.9
160°-170°	123.5	5.1
170°-180°	42.5	1.7
0°-30°	457.2	18.7
0°-40°	668.6	27.4
0°-60°	987.7	40.5
0°-90°	1130.9	46.3
90°-120°	215.7	8.8
90°-150°	951.8	39.0
90°-180°	1309.0	53.6
0°-180°	2440.4	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	654	654	654	654	654	
5°	727	655	581	655	727	72
15°	821	622	385	622	821	221
25°	438	553	279	553	438	208
35°	216	456	206	456	216	138
45°	150	344	147	344	150	116
55°	104	234	103	234	104	91
65°	54	142	61	142	54	55
75°	29	68	33	68	29	30
85°	8	15	9	15	8	9
90°	9	0	9	0	9	4
95°	14	21	14	21	14	13
105°	25	98	25	98	25	26
115°	26	186	26	186	26	66
125°	276	263	276	263	276	239
135°	336	325	336	325	336	259
145°	383	377	383	377	383	240
155°	416	416	416	416	416	192
165°	437	438	437	438	437	123
175°	445	448	445	448	445	42
180°	447	447	447	447	447	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	680.3	680.8	681.4	680.1	680.1	679.0	676.6	674.8	669.7	669.0	669.0
5°	727.3	726.9	727.8	724.8	720.8	719.8	715.5	709.8	703.9	697.4	696.0
7.5°	774.1	773.4	771.6	771.1	768.0	761.1	754.2	746.8	737.0	727.4	722.6
10°	797.8	805.3	800.7	792.8	794.3	783.7	778.0	768.2	760.0	745.7	742.6
12.5°	821.0	824.0	822.5	818.0	816.0	808.6	800.9	792.4	777.3	764.5	753.3
15°	820.9	825.2	826.4	825.0	826.1	825.7	821.6	814.6	801.4	787.3	775.0
17.5°	760.3	763.3	770.8	775.8	782.2	795.6	802.3	804.8	802.9	794.8	786.2
20°	692.4	687.4	708.3	718.9	728.0	750.7	770.3	777.8	789.8	789.6	787.3
22.5°	596.0	597.2	617.0	629.7	656.2	679.0	701.2	729.4	752.7	768.1	777.1
25°	437.9	446.6	466.3	483.6	513.1	555.4	593.8	638.3	680.3	713.5	745.1
27.5°	328.9	329.6	345.2	361.2	378.7	413.3	461.7	514.8	574.7	624.2	681.0
30°	281.7	280.3	286.9	296.7	311.7	338.5	374.8	427.0	486.8	561.3	627.6
32.5°	248.2	248.3	253.3	260.5	272.9	291.0	315.9	358.4	414.8	488.1	565.8
35°	215.8	215.6	219.2	224.4	229.6	241.2	258.3	280.5	319.4	387.7	467.2
37.5°	192.5	193.5	195.3	198.6	204.3	210.8	221.0	236.0	263.6	304.1	370.9
40°	179.4	179.9	182.4	185.1	188.5	193.5	201.9	214.0	234.2	266.4	315.3
42.5°	167.5	167.9	169.7	172.2	174.9	179.9	186.9	197.3	213.7	238.8	279.1
45°	149.9	149.9	151.5	152.6	155.6	160.1	165.8	174.5	185.8	204.4	231.2
47.5°	133.5	133.5	134.6	136.5	138.4	141.9	147.5	154.6	162.8	177.2	200.1
50°	124.0	124.3	124.9	126.5	127.7	130.8	135.2	141.3	149.9	161.1	180.1
52.5°	116.4	116.3	117.1	117.8	118.6	120.8	124.1	129.5	137.2	146.9	162.7
55°	104.0	103.1	104.5	105.6	106.3	107.2	109.0	112.4	119.0	127.2	139.0
57.5°	88.6	88.2	89.2	90.2	92.4	94.8	96.4	98.5	101.9	107.8	119.5
60°	75.9	75.9	77.9	78.6	81.1	84.3	87.5	89.3	92.7	96.5	105.2
62.5°	64.6	64.8	65.7	66.4	67.8	71.7	76.2	80.2	83.4	87.1	92.8
65°	54.1	54.5	54.5	55.0	55.9	56.8	58.6	61.8	67.5	72.7	77.0
67.5°	45.9	46.0	46.2	46.6	46.8	47.8	48.6	50.0	51.3	56.2	61.6
70°	40.4	41.1	40.9	41.3	41.6	42.0	42.9	43.6	45.7	46.8	50.0
72.5°	35.3	35.8	35.8	36.1	36.7	36.8	37.5	38.2	39.5	40.4	42.2
75°	28.6	28.4	28.6	29.1	29.3	29.5	29.5	30.4	31.1	32.0	33.2
77.5°	22.1	22.3	22.3	22.3	22.4	22.8	22.7	23.1	23.8	24.3	24.8
80°	17.7	17.9	17.7	17.9	18.2	18.4	18.2	18.4	19.1	19.5	19.5
82.5°	13.7	13.8	13.9	13.9	14.0	14.0	14.4	14.4	14.9	14.8	15.0
85°	8.2	8.0	8.0	8.0	8.2	8.4	8.2	8.2	8.4	8.4	8.4
87.5°	4.7	4.8	4.8	4.7	4.7	4.7	4.6	4.7	4.5	4.6	4.3
90°	8.7	8.6	8.4	8.3	8.2	7.9	7.5	7.2	6.8	6.5	5.9
92.5°	8.7	8.6	8.6	8.5	8.4	8.2	8.1	7.9	7.7	7.5	7.2
95°	13.9	14.0	14.0	14.1	14.2	14.0	13.7	13.3	13.0	12.6	12.1
97.5°	18.6	18.5	18.4	18.3	18.2	18.0	17.7	17.5	17.2	16.9	15.7
100°	21.7	21.5	21.4	21.2	21.1	20.7	20.2	19.6	19.0	18.4	17.2
102.5°	23.2	23.0	22.8	22.6	22.4	21.9	21.2	20.4	19.7	18.9	29.2
105°	24.6	24.3	24.0	23.7	23.4	22.9	22.1	21.3	20.5	19.7	39.3
107.5°	25.3	25.0	24.7	24.4	24.1	24.4	25.2	26.0	26.8	27.6	51.1
110°	25.5	25.3	25.0	24.7	24.4	27.8	35.0	42.2	49.4	56.6	77.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	25.8	25.6	25.3	25.1	24.9	37.9	64.1	90.3	116.5	142.7	147.8
115°	26.5	31.7	36.9	42.0	47.2	66.4	99.7	133.0	166.2	199.5	197.7
117.5°	108.3	125.3	142.3	159.3	176.3	188.8	196.8	204.9	212.9	221.0	219.7
120°	197.2	206.9	216.6	226.3	236.0	240.4	239.6	238.7	237.9	237.0	235.7
122.5°	246.1	248.0	249.9	251.8	253.6	254.3	253.8	253.3	252.8	252.3	250.9
125°	276.4	276.2	276.0	275.8	275.6	275.2	274.7	274.2	273.7	273.2	271.8
127.5°	295.6	295.5	295.5	295.5	295.4	295.0	294.3	293.6	292.8	292.1	291.1
130°	307.5	307.6	307.6	307.7	307.8	307.4	306.6	305.8	305.0	304.3	303.5
132.5°	319.1	319.2	319.3	319.3	319.4	319.1	318.4	317.8	317.1	316.4	315.6
135°	335.9	336.1	336.2	336.4	336.5	336.2	335.5	334.8	334.1	333.4	332.7
137.5°	351.3	351.5	351.8	352.0	352.2	352.0	351.3	350.6	349.9	349.2	348.5
140°	360.8	361.2	361.6	361.9	362.3	362.1	361.5	360.8	360.2	359.5	358.8
142.5°	370.1	370.5	370.9	371.2	371.6	371.5	370.9	370.3	369.7	369.1	368.2
145°	383.1	383.5	383.9	384.2	384.6	384.5	384.0	383.5	383.0	382.5	381.3
147.5°	394.6	394.9	395.2	395.5	395.8	395.8	395.4	395.0	394.6	394.3	393.1
150°	401.6	401.9	402.3	402.7	403.0	403.0	402.5	402.1	401.7	401.3	400.1
152.5°	407.5	408.0	408.5	408.9	409.4	409.4	409.0	408.6	408.1	407.7	406.6
155°	415.8	416.4	417.0	417.5	418.1	418.2	417.7	417.3	416.9	416.4	415.6
157.5°	423.4	423.9	424.5	425.0	425.6	425.6	425.2	424.7	424.2	423.7	423.1
160°	427.8	428.3	428.8	429.3	429.8	429.8	429.4	429.0	428.5	428.1	427.7
162.5°	431.4	432.0	432.6	433.2	433.9	433.9	433.4	432.9	432.5	432.0	431.6
165°	436.8	437.3	437.8	438.3	438.8	438.8	438.3	437.8	437.3	436.8	436.6
167.5°	440.2	440.9	441.5	442.2	442.8	442.9	442.4	441.9	441.4	440.9	440.7
170°	442.3	443.0	443.6	444.3	444.9	445.0	444.5	444.0	443.5	443.0	442.8
172.5°	443.9	444.5	445.2	445.8	446.5	446.5	446.0	445.5	445.0	444.5	444.4
175°	445.2	445.9	446.7	447.4	448.1	448.2	447.7	447.2	446.7	446.2	446.1
177.5°	446.1	446.6	447.1	447.6	448.1	448.2	447.8	447.4	447.0	446.6	446.5
180°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	669.4	667.9	666.6	663.4	661.7	658.1	657.6	657.4	652.7	648.1	646.8
5°	692.4	688.7	683.3	676.9	670.3	663.5	659.0	655.3	646.2	637.6	632.6
7.5°	715.5	707.7	698.3	686.3	676.2	665.0	656.6	649.1	636.2	623.8	615.5
10°	732.8	720.1	707.6	691.0	678.0	665.3	653.5	643.3	628.8	612.4	600.8
12.5°	743.5	729.5	712.3	696.1	679.3	663.1	647.3	634.2	617.1	600.2	586.5
15°	758.0	743.0	722.1	698.9	677.4	656.2	638.1	621.7	599.5	579.2	562.4
17.5°	769.9	749.2	726.8	700.0	675.0	648.2	624.8	603.9	579.1	554.7	534.9
20°	773.7	753.2	727.3	700.5	671.0	639.4	614.2	591.5	564.9	538.3	515.6
22.5°	771.3	755.4	726.6	694.5	664.3	631.3	602.8	576.4	546.9	519.8	493.5
25°	755.3	749.8	722.6	687.6	653.1	614.7	581.7	552.9	519.3	490.2	461.6
27.5°	717.9	729.7	712.8	675.5	637.1	596.0	558.9	526.1	491.2	458.5	430.0
30°	681.9	708.9	701.7	667.1	624.2	583.8	542.2	507.9	470.7	437.0	408.9
32.5°	632.7	677.3	684.4	655.5	611.1	566.7	523.1	489.0	450.1	414.7	387.2
35°	554.2	621.0	651.7	633.3	588.8	540.8	495.9	456.1	417.0	382.1	354.8
37.5°	460.7	551.7	602.8	604.1	563.2	513.4	464.4	424.9	384.9	350.6	321.1
40°	400.0	498.6	565.2	579.9	545.4	491.6	442.0	401.8	362.8	329.1	295.3
42.5°	345.5	443.7	525.5	551.2	523.8	470.3	420.6	378.6	340.6	308.8	274.2
45°	279.4	365.3	455.4	501.3	486.1	436.6	384.1	344.1	308.5	281.0	247.8
47.5°	235.7	296.2	383.5	445.5	445.3	400.1	348.4	310.2	277.1	251.3	224.5
50°	210.8	263.5	337.3	407.7	413.6	375.7	326.6	288.7	257.8	230.8	209.2
52.5°	188.4	231.9	298.2	365.8	382.6	349.7	302.1	267.1	237.1	212.2	193.8
55°	159.2	192.9	243.3	306.4	331.9	308.7	266.4	233.7	209.4	188.5	172.6
57.5°	134.7	159.9	200.4	251.2	280.8	266.3	231.4	204.8	184.0	165.1	152.6
60°	119.3	139.9	174.2	216.7	249.4	239.2	209.4	184.7	167.0	150.6	138.8
62.5°	104.7	122.5	151.9	186.4	216.3	212.1	187.8	167.0	151.5	136.6	126.6
65°	84.3	97.2	120.2	147.2	171.3	173.3	155.8	141.7	127.9	116.1	107.2
67.5°	67.1	75.6	91.7	114.5	132.5	139.0	128.3	117.5	106.5	97.4	89.7
70°	56.6	63.4	75.2	93.6	110.2	117.0	110.8	102.4	92.9	85.4	78.8
72.5°	45.8	52.5	61.2	74.7	88.9	96.3	94.1	88.1	80.4	74.1	67.9
75°	34.5	36.6	42.5	51.6	62.7	69.1	70.6	67.5	61.3	56.6	52.9
77.5°	25.5	26.8	29.6	34.3	41.6	47.3	49.6	49.2	45.0	42.3	38.8
80°	20.4	21.1	22.5	24.5	30.0	35.7	37.3	37.3	34.3	33.2	29.8
82.5°	15.5	16.0	16.9	18.0	20.5	25.5	27.3	27.6	25.8	24.3	21.6
85°	8.9	8.6	9.1	9.8	10.2	11.6	14.3	14.8	14.3	12.5	11.8
87.5°	4.2	4.2	4.1	3.8	3.8	3.8	4.6	5.3	4.8	4.4	4.2
90°	5.3	4.7	4.2	3.5	2.7	1.9	1.1	0.3	1.1	1.9	2.7
92.5°	6.9	6.6	6.4	6.2	6.3	6.4	6.5	6.5	6.5	6.4	6.3
95°	11.6	11.1	10.6	11.5	13.9	16.3	18.6	21.0	18.6	16.3	13.9
97.5°	14.5	13.4	12.2	15.0	21.7	28.3	35.0	41.7	35.0	28.3	21.7
100°	16.0	14.8	13.5	17.9	27.7	37.5	47.4	57.2	47.4	37.5	27.7
102.5°	39.4	49.6	59.8	66.0	68.1	70.1	72.2	74.3	72.2	70.1	68.1
105°	59.0	78.6	98.2	106.9	104.8	102.6	100.4	98.3	100.4	102.6	104.8
107.5°	74.7	98.2	121.7	132.6	130.9	129.1	127.4	125.6	127.4	129.1	130.9
110°	98.1	118.9	139.6	149.3	147.8	146.3	144.7	143.2	144.7	146.3	147.8





TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	153.0	158.1	163.2	165.1	163.8	162.5	161.1	159.8	161.1	162.5	163.8
115°	195.9	194.1	192.3	190.8	189.6	188.4	187.1	185.9	187.1	188.4	189.6
117.5°	218.5	217.3	216.0	214.7	213.4	212.0	210.6	209.3	210.6	212.0	213.4
120°	234.4	233.1	231.8	230.6	229.6	228.5	227.4	226.3	227.4	228.5	229.6
122.5°	249.4	248.0	246.6	245.4	244.2	243.1	242.0	240.8	242.0	243.1	244.2
125°	270.5	269.1	267.8	266.6	265.7	264.7	263.8	262.9	263.8	264.7	265.7
127.5°	290.1	289.0	288.0	287.0	286.0	284.9	283.9	282.8	283.9	284.9	286.0
130°	302.7	301.9	301.1	300.1	299.0	297.8	296.7	295.5	296.7	297.8	299.0
132.5°	314.8	314.0	313.2	312.4	311.4	310.4	309.4	308.5	309.4	310.4	311.4
135°	332.1	331.4	330.8	329.9	328.7	327.6	326.4	325.3	326.4	327.6	328.7
137.5°	347.7	347.0	346.3	345.5	344.7	343.9	343.1	342.3	343.1	343.9	344.7
140°	358.0	357.2	356.4	355.7	355.1	354.5	354.0	353.4	354.0	354.5	355.1
142.5°	367.3	366.4	365.5	364.8	364.3	363.7	363.2	362.7	363.2	363.7	364.3
145°	380.1	378.8	377.6	377.0	377.1	377.2	377.3	377.3	377.3	377.2	377.1
147.5°	391.9	390.6	389.4	389.0	389.2	389.5	389.8	390.1	389.8	389.5	389.2
150°	399.0	397.8	396.7	396.3	396.8	397.3	397.8	398.3	397.8	397.3	396.8
152.5°	405.5	404.4	403.3	403.1	403.6	404.2	404.8	405.3	404.8	404.2	403.6
155°	414.7	413.9	413.0	412.9	413.5	414.2	414.8	415.5	414.8	414.2	413.5
157.5°	422.5	421.9	421.3	421.2	421.8	422.3	422.9	423.4	422.9	422.3	421.8
160°	427.2	426.8	426.4	426.4	426.8	427.2	427.7	428.1	427.7	427.2	426.8
162.5°	431.2	430.8	430.5	430.5	430.9	431.4	431.8	432.2	431.8	431.4	430.9
165°	436.4	436.2	436.0	436.1	436.5	436.9	437.4	437.8	437.4	436.9	436.5
167.5°	440.5	440.3	440.1	440.2	440.6	441.1	441.5	441.9	441.5	441.1	440.6
170°	442.7	442.5	442.4	442.5	443.0	443.4	443.8	444.3	443.8	443.4	443.0
172.5°	444.2	444.1	443.9	444.1	444.5	444.9	445.4	445.8	445.4	444.9	444.5
175°	445.9	445.8	445.6	445.8	446.3	446.8	447.3	447.8	447.3	446.8	446.3
177.5°	446.5	446.4	446.4	446.5	446.9	447.3	447.7	448.1	447.7	447.3	446.9
180°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8



TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	644.5	643.2	640.8	637.2	635.0	631.2	628.7	630.1	630.5	630.1	629.8
5°	627.2	622.4	615.8	609.4	603.5	597.2	593.5	592.0	588.8	587.0	586.0
7.5°	606.2	598.0	588.7	577.6	568.2	558.3	553.3	550.8	544.3	540.8	537.7
10°	590.6	577.6	568.3	553.8	544.9	532.0	523.1	523.4	514.5	509.5	505.9
12.5°	573.3	559.1	543.6	530.5	518.2	507.8	497.1	492.8	483.4	478.6	468.8
15°	544.7	528.1	511.8	494.1	481.6	465.4	450.0	431.1	415.9	402.7	399.1
17.5°	513.5	492.9	476.5	455.7	434.3	407.2	389.3	378.3	369.2	362.2	357.0
20°	492.0	471.1	453.6	422.3	393.4	375.0	361.9	353.4	343.9	336.4	332.3
22.5°	469.5	447.7	423.8	388.8	366.3	351.6	339.9	330.2	323.7	317.9	314.1
25°	437.5	413.6	374.3	350.3	332.1	316.6	308.5	302.6	295.8	287.8	284.2
27.5°	403.7	365.8	337.5	319.6	302.3	292.3	284.9	276.1	270.0	266.4	262.6
30°	378.4	340.5	318.5	298.9	286.7	275.5	266.9	261.9	256.0	249.9	247.4
32.5°	350.3	320.0	298.8	282.6	270.1	260.6	253.8	245.7	241.5	237.7	232.5
35°	315.3	292.3	273.0	259.9	248.0	240.3	232.4	227.6	219.9	216.7	214.7
37.5°	285.7	265.8	251.4	237.5	228.1	219.6	214.7	207.1	203.8	199.3	195.0
40°	268.9	249.4	235.6	224.2	213.7	207.4	201.3	195.1	190.1	188.1	182.9
42.5°	251.9	236.0	222.1	209.7	202.7	195.9	188.2	183.7	178.5	175.2	172.0
45°	228.3	214.2	202.4	192.2	184.4	177.4	172.4	164.9	162.0	155.4	152.6
47.5°	207.6	194.5	183.2	173.5	166.0	161.4	154.1	148.2	143.5	139.4	135.9
50°	192.9	181.9	171.0	162.4	155.6	149.0	141.5	138.6	131.3	129.2	127.2
52.5°	179.4	169.0	159.1	150.6	143.8	137.4	130.8	126.9	122.0	120.0	118.5
55°	160.6	150.6	141.1	133.6	126.8	120.2	116.1	111.3	109.0	107.4	105.6
57.5°	141.7	132.7	125.4	117.8	110.9	105.7	101.0	98.1	95.8	93.7	91.5
60°	129.7	121.1	114.5	107.4	100.4	96.1	92.5	89.0	86.3	83.1	82.2
62.5°	117.0	109.4	103.4	96.5	90.4	86.5	83.0	79.8	76.5	71.9	70.6
65°	99.5	93.6	87.2	81.5	76.1	72.2	67.2	63.6	62.2	61.8	61.6
67.5°	83.7	78.1	72.6	66.8	61.9	58.3	55.7	55.2	54.2	54.0	53.3
70°	73.1	67.9	62.5	57.0	52.2	51.6	50.7	49.7	48.6	48.2	47.7
72.5°	63.7	58.3	52.8	48.5	46.4	45.6	44.7	43.7	43.0	42.5	42.3
75°	48.8	43.8	40.2	38.6	37.5	36.8	35.4	34.8	34.3	33.6	33.4
77.5°	35.2	32.3	30.7	29.7	28.5	27.8	27.0	26.3	25.8	25.7	25.3
80°	26.8	25.4	24.3	22.9	22.5	21.6	21.4	20.7	20.9	20.2	20.2
82.5°	20.8	19.1	18.1	17.5	17.0	16.3	16.1	15.8	15.8	15.3	15.3
85°	10.7	10.2	9.8	9.3	9.3	8.6	8.9	8.6	8.6	8.2	8.0
87.5°	4.1	4.1	3.9	4.0	4.1	4.0	4.1	4.0	4.1	4.1	4.0
90°	3.5	4.2	4.7	5.3	5.9	6.5	6.8	7.2	7.5	7.9	8.2
92.5°	6.2	6.4	6.6	6.9	7.2	7.5	7.7	7.9	8.1	8.2	8.4
95°	11.5	10.6	11.1	11.6	12.1	12.6	13.0	13.3	13.7	14.0	14.2
97.5°	15.0	12.2	13.4	14.5	15.7	16.9	17.2	17.5	17.7	18.0	18.2
100°	17.9	13.5	14.8	16.0	17.2	18.4	19.0	19.6	20.2	20.7	21.1
102.5°	66.0	59.8	49.6	39.4	29.2	18.9	19.7	20.4	21.2	21.9	22.4
105°	106.9	98.2	78.6	59.0	39.3	19.7	20.5	21.3	22.1	22.9	23.4
107.5°	132.6	121.7	98.2	74.7	51.1	27.6	26.8	26.0	25.2	24.4	24.1
110°	149.3	139.6	118.9	98.1	77.3	56.6	49.4	42.2	35.0	27.8	24.4



TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	165.1	163.2	158.1	153.0	147.8	142.7	116.5	90.3	64.1	37.9	24.9
115°	190.8	192.3	194.1	195.9	197.7	199.5	166.2	133.0	99.7	66.4	47.2
117.5°	214.7	216.0	217.3	218.5	219.7	221.0	212.9	204.9	196.8	188.8	176.3
120°	230.6	231.8	233.1	234.4	235.7	237.0	237.9	238.7	239.6	240.4	236.0
122.5°	245.4	246.6	248.0	249.4	250.9	252.3	252.8	253.3	253.8	254.3	253.6
125°	266.6	267.8	269.1	270.5	271.8	273.2	273.7	274.2	274.7	275.2	275.6
127.5°	287.0	288.0	289.0	290.1	291.1	292.1	292.8	293.6	294.3	295.0	295.4
130°	300.1	301.1	301.9	302.7	303.5	304.3	305.0	305.8	306.6	307.4	307.8
132.5°	312.4	313.2	314.0	314.8	315.6	316.4	317.1	317.8	318.4	319.1	319.4
135°	329.9	330.8	331.4	332.1	332.7	333.4	334.1	334.8	335.5	336.2	336.5
137.5°	345.5	346.3	347.0	347.7	348.5	349.2	349.9	350.6	351.3	352.0	352.2
140°	355.7	356.4	357.2	358.0	358.8	359.5	360.2	360.8	361.5	362.1	362.3
142.5°	364.8	365.5	366.4	367.3	368.2	369.1	369.7	370.3	370.9	371.5	371.6
145°	377.0	377.6	378.8	380.1	381.3	382.5	383.0	383.5	384.0	384.5	384.6
147.5°	389.0	389.4	390.6	391.9	393.1	394.3	394.6	395.0	395.4	395.8	395.8
150°	396.3	396.7	397.8	399.0	400.1	401.3	401.7	402.1	402.5	403.0	403.0
152.5°	403.1	403.3	404.4	405.5	406.6	407.7	408.1	408.6	409.0	409.4	409.4
155°	412.9	413.0	413.9	414.7	415.6	416.4	416.9	417.3	417.7	418.2	418.1
157.5°	421.2	421.3	421.9	422.5	423.1	423.7	424.2	424.7	425.2	425.6	425.6
160°	426.4	426.4	426.8	427.2	427.7	428.1	428.5	429.0	429.4	429.8	429.8
162.5°	430.5	430.5	430.8	431.2	431.6	432.0	432.5	432.9	433.4	433.9	433.9
165°	436.1	436.0	436.2	436.4	436.6	436.8	437.3	437.8	438.3	438.8	438.8
167.5°	440.2	440.1	440.3	440.5	440.7	440.9	441.4	441.9	442.4	442.9	442.8
170°	442.5	442.4	442.5	442.7	442.8	443.0	443.5	444.0	444.5	445.0	444.9
172.5°	444.1	443.9	444.1	444.2	444.4	444.5	445.0	445.5	446.0	446.5	446.5
175°	445.8	445.6	445.8	445.9	446.1	446.2	446.7	447.2	447.7	448.2	448.1
177.5°	446.5	446.4	446.4	446.5	446.5	446.6	447.0	447.4	447.8	448.2	448.1
180°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8



TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	627.8	628.1	627.6	627.9	627.6	628.1	627.8	629.8	630.1	630.5	630.1
5°	584.9	582.2	581.7	581.1	581.7	582.2	584.9	586.0	587.0	588.8	592.0
7.5°	533.8	533.4	532.2	530.6	532.2	533.4	533.8	537.7	540.8	544.3	550.8
10°	500.9	499.7	499.5	497.9	499.5	499.7	500.9	505.9	509.5	514.5	523.4
12.5°	462.3	455.0	454.3	450.3	454.3	455.0	462.3	468.8	478.6	483.4	492.8
15°	393.7	392.3	387.7	384.8	387.7	392.3	393.7	399.1	402.7	415.9	431.1
17.5°	354.4	349.9	348.5	347.9	348.5	349.9	354.4	357.0	362.2	369.2	378.3
20°	329.1	325.1	324.4	323.9	324.4	325.1	329.1	332.3	336.4	343.9	353.4
22.5°	311.7	307.4	305.7	304.3	305.7	307.4	311.7	314.1	317.9	323.7	330.2
25°	281.9	280.3	279.4	278.9	279.4	280.3	281.9	284.2	287.8	295.8	302.6
27.5°	258.6	255.1	254.4	253.2	254.4	255.1	258.6	262.6	266.4	270.0	276.1
30°	245.3	244.2	242.6	241.2	242.6	244.2	245.3	247.4	249.9	256.0	261.9
32.5°	229.7	228.7	227.3	226.7	227.3	228.7	229.7	232.5	237.7	241.5	245.7
35°	212.4	209.2	207.8	205.8	207.8	209.2	212.4	214.7	216.7	219.9	227.6
37.5°	194.1	192.4	190.5	191.2	190.5	192.4	194.1	195.0	199.3	203.8	207.1
40°	179.9	178.8	178.3	178.1	178.3	178.8	179.9	182.9	188.1	190.1	195.1
42.5°	168.6	165.5	164.3	164.3	164.3	165.5	168.6	172.0	175.2	178.5	183.7
45°	151.5	148.6	146.5	146.7	146.5	148.6	151.5	152.6	155.4	162.0	164.9
47.5°	134.0	133.9	132.6	133.0	132.6	133.9	134.0	135.9	139.4	143.5	148.2
50°	125.6	124.3	123.3	123.6	123.3	124.3	125.6	127.2	129.2	131.3	138.6
52.5°	117.6	116.4	115.7	116.7	115.7	116.4	117.6	118.5	120.0	122.0	126.9
55°	104.5	103.1	102.9	102.7	102.9	103.1	104.5	105.6	107.4	109.0	111.3
57.5°	89.8	88.9	87.5	87.0	87.5	88.9	89.8	91.5	93.7	95.8	98.1
60°	79.3	77.5	75.2	75.0	75.2	77.5	79.3	82.2	83.1	86.3	89.0
62.5°	69.6	69.3	68.8	68.8	68.8	69.3	69.6	70.6	71.9	76.5	79.8
65°	61.1	60.9	61.1	61.3	61.1	60.9	61.1	61.6	61.8	62.2	63.6
67.5°	53.2	52.8	52.4	52.6	52.4	52.8	53.2	53.3	54.0	54.2	55.2
70°	47.2	47.0	46.8	46.8	46.8	47.0	47.2	47.7	48.2	48.6	49.7
72.5°	41.4	41.4	41.2	41.0	41.2	41.4	41.4	42.3	42.5	43.0	43.7
75°	33.2	32.7	32.7	32.7	32.7	32.7	33.2	33.4	33.6	34.3	34.8
77.5°	25.3	25.0	24.8	24.6	24.8	25.0	25.3	25.3	25.7	25.8	26.3
80°	20.0	19.8	19.5	19.5	19.5	19.8	20.0	20.2	20.2	20.9	20.7
82.5°	15.3	15.0	15.0	14.8	15.0	15.0	15.3	15.3	15.3	15.8	15.8
85°	8.2	8.4	8.2	8.6	8.2	8.4	8.2	8.0	8.2	8.6	8.6
87.5°	4.0	3.9	4.1	3.9	4.1	3.9	4.0	4.0	4.1	4.1	4.0
90°	8.3	8.4	8.6	8.7	8.6	8.4	8.3	8.2	7.9	7.5	7.2
92.5°	8.5	8.6	8.6	8.7	8.6	8.6	8.5	8.4	8.2	8.1	7.9
95°	14.1	14.0	14.0	13.9	14.0	14.0	14.1	14.2	14.0	13.7	13.3
97.5°	18.3	18.4	18.5	18.6	18.5	18.4	18.3	18.2	18.0	17.7	17.5
100°	21.2	21.4	21.5	21.7	21.5	21.4	21.2	21.1	20.7	20.2	19.6
102.5°	22.6	22.8	23.0	23.2	23.0	22.8	22.6	22.4	21.9	21.2	20.4
105°	23.7	24.0	24.3	24.6	24.3	24.0	23.7	23.4	22.9	22.1	21.3
107.5°	24.4	24.7	25.0	25.3	25.0	24.7	24.4	24.1	24.4	25.2	26.0
110°	24.7	25.0	25.3	25.5	25.3	25.0	24.7	24.4	27.8	35.0	42.2



TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	25.1	25.3	25.6	25.8	25.6	25.3	25.1	24.9	37.9	64.1	90.3
115°	42.0	36.9	31.7	26.5	31.7	36.9	42.0	47.2	66.4	99.7	133.0
117.5°	159.3	142.3	125.3	108.3	125.3	142.3	159.3	176.3	188.8	196.8	204.9
120°	226.3	216.6	206.9	197.2	206.9	216.6	226.3	236.0	240.4	239.6	238.7
122.5°	251.8	249.9	248.0	246.1	248.0	249.9	251.8	253.6	254.3	253.8	253.3
125°	275.8	276.0	276.2	276.4	276.2	276.0	275.8	275.6	275.2	274.7	274.2
127.5°	295.5	295.5	295.5	295.6	295.5	295.5	295.5	295.4	295.0	294.3	293.6
130°	307.7	307.6	307.6	307.5	307.6	307.6	307.7	307.8	307.4	306.6	305.8
132.5°	319.3	319.3	319.2	319.1	319.2	319.3	319.3	319.4	319.1	318.4	317.8
135°	336.4	336.2	336.1	335.9	336.1	336.2	336.4	336.5	336.2	335.5	334.8
137.5°	352.0	351.8	351.5	351.3	351.5	351.8	352.0	352.2	352.0	351.3	350.6
140°	361.9	361.6	361.2	360.8	361.2	361.6	361.9	362.3	362.1	361.5	360.8
142.5°	371.2	370.9	370.5	370.1	370.5	370.9	371.2	371.6	371.5	370.9	370.3
145°	384.2	383.9	383.5	383.1	383.5	383.9	384.2	384.6	384.5	384.0	383.5
147.5°	395.5	395.2	394.9	394.6	394.9	395.2	395.5	395.8	395.8	395.4	395.0
150°	402.7	402.3	401.9	401.6	401.9	402.3	402.7	403.0	403.0	402.5	402.1
152.5°	408.9	408.5	408.0	407.5	408.0	408.5	408.9	409.4	409.4	409.0	408.6
155°	417.5	417.0	416.4	415.8	416.4	417.0	417.5	418.1	418.2	417.7	417.3
157.5°	425.0	424.5	423.9	423.4	423.9	424.5	425.0	425.6	425.6	425.2	424.7
160°	429.3	428.8	428.3	427.8	428.3	428.8	429.3	429.8	429.8	429.4	429.0
162.5°	433.2	432.6	432.0	431.4	432.0	432.6	433.2	433.9	433.9	433.4	432.9
165°	438.3	437.8	437.3	436.8	437.3	437.8	438.3	438.8	438.8	438.3	437.8
167.5°	442.2	441.5	440.9	440.2	440.9	441.5	442.2	442.8	442.9	442.4	441.9
170°	444.3	443.6	443.0	442.3	443.0	443.6	444.3	444.9	445.0	444.5	444.0
172.5°	445.8	445.2	444.5	443.9	444.5	445.2	445.8	446.5	446.5	446.0	445.5
175°	447.4	446.7	445.9	445.2	445.9	446.7	447.4	448.1	448.2	447.7	447.2
177.5°	447.6	447.1	446.6	446.1	446.6	447.1	447.6	448.1	448.2	447.8	447.4
180°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8



TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	628.7	631.2	635.0	637.2	640.8	643.2	644.5	646.8	648.1	652.7	657.4
5°	593.5	597.2	603.5	609.4	615.8	622.4	627.2	632.6	637.6	646.2	655.3
7.5°	553.3	558.3	568.2	577.6	588.7	598.0	606.2	615.5	623.8	636.2	649.1
10°	523.1	532.0	544.9	553.8	568.3	577.6	590.6	600.8	612.4	628.8	643.3
12.5°	497.1	507.8	518.2	530.5	543.6	559.1	573.3	586.5	600.2	617.1	634.2
15°	450.0	465.4	481.6	494.1	511.8	528.1	544.7	562.4	579.2	599.5	621.7
17.5°	389.3	407.2	434.3	455.7	476.5	492.9	513.5	534.9	554.7	579.1	603.9
20°	361.9	375.0	393.4	422.3	453.6	471.1	492.0	515.6	538.3	564.9	591.5
22.5°	339.9	351.6	366.3	388.8	423.8	447.7	469.5	493.5	519.8	546.9	576.4
25°	308.5	316.6	332.1	350.3	374.3	413.6	437.5	461.6	490.2	519.3	552.9
27.5°	284.9	292.3	302.3	319.6	337.5	365.8	403.7	430.0	458.5	491.2	526.1
30°	266.9	275.5	286.7	298.9	318.5	340.5	378.4	408.9	437.0	470.7	507.9
32.5°	253.8	260.6	270.1	282.6	298.8	320.0	350.3	387.2	414.7	450.1	489.0
35°	232.4	240.3	248.0	259.9	273.0	292.3	315.3	354.8	382.1	417.0	456.1
37.5°	214.7	219.6	228.1	237.5	251.4	265.8	285.7	321.1	350.6	384.9	424.9
40°	201.3	207.4	213.7	224.2	235.6	249.4	268.9	295.3	329.1	362.8	401.8
42.5°	188.2	195.9	202.7	209.7	222.1	236.0	251.9	274.2	308.8	340.6	378.6
45°	172.4	177.4	184.4	192.2	202.4	214.2	228.3	247.8	281.0	308.5	344.1
47.5°	154.1	161.4	166.0	173.5	183.2	194.5	207.6	224.5	251.3	277.1	310.2
50°	141.5	149.0	155.6	162.4	171.0	181.9	192.9	209.2	230.8	257.8	288.7
52.5°	130.8	137.4	143.8	150.6	159.1	169.0	179.4	193.8	212.2	237.1	267.1
55°	116.1	120.2	126.8	133.6	141.1	150.6	160.6	172.6	188.5	209.4	233.7
57.5°	101.0	105.7	110.9	117.8	125.4	132.7	141.7	152.6	165.1	184.0	204.8
60°	92.5	96.1	100.4	107.4	114.5	121.1	129.7	138.8	150.6	167.0	184.7
62.5°	83.0	86.5	90.4	96.5	103.4	109.4	117.0	126.6	136.6	151.5	167.0
65°	67.2	72.2	76.1	81.5	87.2	93.6	99.5	107.2	116.1	127.9	141.7
67.5°	55.7	58.3	61.9	66.8	72.6	78.1	83.7	89.7	97.4	106.5	117.5
70°	50.7	51.6	52.2	57.0	62.5	67.9	73.1	78.8	85.4	92.9	102.4
72.5°	44.7	45.6	46.4	48.5	52.8	58.3	63.7	67.9	74.1	80.4	88.1
75°	35.4	36.8	37.5	38.6	40.2	43.8	48.8	52.9	56.6	61.3	67.5
77.5°	27.0	27.8	28.5	29.7	30.7	32.3	35.2	38.8	42.3	45.0	49.2
80°	21.4	21.6	22.5	22.9	24.3	25.4	26.8	29.8	33.2	34.3	37.3
82.5°	16.1	16.3	17.0	17.5	18.1	19.1	20.8	21.6	24.3	25.8	27.6
85°	8.9	8.6	9.3	9.3	9.8	10.2	10.7	11.8	12.5	14.3	14.8
87.5°	4.1	4.0	4.1	4.0	3.9	4.1	4.1	4.2	4.4	4.8	5.3
90°	6.8	6.5	5.9	5.3	4.7	4.2	3.5	2.7	1.9	1.1	0.3
92.5°	7.7	7.5	7.2	6.9	6.6	6.4	6.2	6.3	6.4	6.5	6.5
95°	13.0	12.6	12.1	11.6	11.1	10.6	11.5	13.9	16.3	18.6	21.0
97.5°	17.2	16.9	15.7	14.5	13.4	12.2	15.0	21.7	28.3	35.0	41.7
100°	19.0	18.4	17.2	16.0	14.8	13.5	17.9	27.7	37.5	47.4	57.2
102.5°	19.7	18.9	29.2	39.4	49.6	59.8	66.0	68.1	70.1	72.2	74.3
105°	20.5	19.7	39.3	59.0	78.6	98.2	106.9	104.8	102.6	100.4	98.3
107.5°	26.8	27.6	51.1	74.7	98.2	121.7	132.6	130.9	129.1	127.4	125.6
110°	49.4	56.6	77.3	98.1	118.9	139.6	149.3	147.8	146.3	144.7	143.2



TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	116.5	142.7	147.8	153.0	158.1	163.2	165.1	163.8	162.5	161.1	159.8
115°	166.2	199.5	197.7	195.9	194.1	192.3	190.8	189.6	188.4	187.1	185.9
117.5°	212.9	221.0	219.7	218.5	217.3	216.0	214.7	213.4	212.0	210.6	209.3
120°	237.9	237.0	235.7	234.4	233.1	231.8	230.6	229.6	228.5	227.4	226.3
122.5°	252.8	252.3	250.9	249.4	248.0	246.6	245.4	244.2	243.1	242.0	240.8
125°	273.7	273.2	271.8	270.5	269.1	267.8	266.6	265.7	264.7	263.8	262.9
127.5°	292.8	292.1	291.1	290.1	289.0	288.0	287.0	286.0	284.9	283.9	282.8
130°	305.0	304.3	303.5	302.7	301.9	301.1	300.1	299.0	297.8	296.7	295.5
132.5°	317.1	316.4	315.6	314.8	314.0	313.2	312.4	311.4	310.4	309.4	308.5
135°	334.1	333.4	332.7	332.1	331.4	330.8	329.9	328.7	327.6	326.4	325.3
137.5°	349.9	349.2	348.5	347.7	347.0	346.3	345.5	344.7	343.9	343.1	342.3
140°	360.2	359.5	358.8	358.0	357.2	356.4	355.7	355.1	354.5	354.0	353.4
142.5°	369.7	369.1	368.2	367.3	366.4	365.5	364.8	364.3	363.7	363.2	362.7
145°	383.0	382.5	381.3	380.1	378.8	377.6	377.0	377.1	377.2	377.3	377.3
147.5°	394.6	394.3	393.1	391.9	390.6	389.4	389.0	389.2	389.5	389.8	390.1
150°	401.7	401.3	400.1	399.0	397.8	396.7	396.3	396.8	397.3	397.8	398.3
152.5°	408.1	407.7	406.6	405.5	404.4	403.3	403.1	403.6	404.2	404.8	405.3
155°	416.9	416.4	415.6	414.7	413.9	413.0	412.9	413.5	414.2	414.8	415.5
157.5°	424.2	423.7	423.1	422.5	421.9	421.3	421.2	421.8	422.3	422.9	423.4
160°	428.5	428.1	427.7	427.2	426.8	426.4	426.4	426.8	427.2	427.7	428.1
162.5°	432.5	432.0	431.6	431.2	430.8	430.5	430.5	430.9	431.4	431.8	432.2
165°	437.3	436.8	436.6	436.4	436.2	436.0	436.1	436.5	436.9	437.4	437.8
167.5°	441.4	440.9	440.7	440.5	440.3	440.1	440.2	440.6	441.1	441.5	441.9
170°	443.5	443.0	442.8	442.7	442.5	442.4	442.5	443.0	443.4	443.8	444.3
172.5°	445.0	444.5	444.4	444.2	444.1	443.9	444.1	444.5	444.9	445.4	445.8
175°	446.7	446.2	446.1	445.9	445.8	445.6	445.8	446.3	446.8	447.3	447.8
177.5°	447.0	446.6	446.5	446.5	446.4	446.4	446.5	446.9	447.3	447.7	448.1
180°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8



TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	657.6	658.1	661.7	663.4	666.6	667.9	669.4	669.0	669.0	669.7	674.8
5°	659.0	663.5	670.3	676.9	683.3	688.7	692.4	696.0	697.4	703.9	709.8
7.5°	656.6	665.0	676.2	686.3	698.3	707.7	715.5	722.6	727.4	737.0	746.8
10°	653.5	665.3	678.0	691.0	707.6	720.1	732.8	742.6	745.7	760.0	768.2
12.5°	647.3	663.1	679.3	696.1	712.3	729.5	743.5	753.3	764.5	777.3	792.4
15°	638.1	656.2	677.4	698.9	722.1	743.0	758.0	775.0	787.3	801.4	814.6
17.5°	624.8	648.2	675.0	700.0	726.8	749.2	769.9	786.2	794.8	802.9	804.8
20°	614.2	639.4	671.0	700.5	727.3	753.2	773.7	787.3	789.6	789.8	777.8
22.5°	602.8	631.3	664.3	694.5	726.6	755.4	771.3	777.1	768.1	752.7	729.4
25°	581.7	614.7	653.1	687.6	722.6	749.8	755.3	745.1	713.5	680.3	638.3
27.5°	558.9	596.0	637.1	675.5	712.8	729.7	717.9	681.0	624.2	574.7	514.8
30°	542.2	583.8	624.2	667.1	701.7	708.9	681.9	627.6	561.3	486.8	427.0
32.5°	523.1	566.7	611.1	655.5	684.4	677.3	632.7	565.8	488.1	414.8	358.4
35°	495.9	540.8	588.8	633.3	651.7	621.0	554.2	467.2	387.7	319.4	280.5
37.5°	464.4	513.4	563.2	604.1	602.8	551.7	460.7	370.9	304.1	263.6	236.0
40°	442.0	491.6	545.4	579.9	565.2	498.6	400.0	315.3	266.4	234.2	214.0
42.5°	420.6	470.3	523.8	551.2	525.5	443.7	345.5	279.1	238.8	213.7	197.3
45°	384.1	436.6	486.1	501.3	455.4	365.3	279.4	231.2	204.4	185.8	174.5
47.5°	348.4	400.1	445.3	445.5	383.5	296.2	235.7	200.1	177.2	162.8	154.6
50°	326.6	375.7	413.6	407.7	337.3	263.5	210.8	180.1	161.1	149.9	141.3
52.5°	302.1	349.7	382.6	365.8	298.2	231.9	188.4	162.7	146.9	137.2	129.5
55°	266.4	308.7	331.9	306.4	243.3	192.9	159.2	139.0	127.2	119.0	112.4
57.5°	231.4	266.3	280.8	251.2	200.4	159.9	134.7	119.5	107.8	101.9	98.5
60°	209.4	239.2	249.4	216.7	174.2	139.9	119.3	105.2	96.5	92.7	89.3
62.5°	187.8	212.1	216.3	186.4	151.9	122.5	104.7	92.8	87.1	83.4	80.2
65°	155.8	173.3	171.3	147.2	120.2	97.2	84.3	77.0	72.7	67.5	61.8
67.5°	128.3	139.0	132.5	114.5	91.7	75.6	67.1	61.6	56.2	51.3	50.0
70°	110.8	117.0	110.2	93.6	75.2	63.4	56.6	50.0	46.8	45.7	43.6
72.5°	94.1	96.3	88.9	74.7	61.2	52.5	45.8	42.2	40.4	39.5	38.2
75°	70.6	69.1	62.7	51.6	42.5	36.6	34.5	33.2	32.0	31.1	30.4
77.5°	49.6	47.3	41.6	34.3	29.6	26.8	25.5	24.8	24.3	23.8	23.1
80°	37.3	35.7	30.0	24.5	22.5	21.1	20.4	19.5	19.5	19.1	18.4
82.5°	27.3	25.5	20.5	18.0	16.9	16.0	15.5	15.0	14.8	14.9	14.4
85°	14.3	11.6	10.2	9.8	9.1	8.6	8.9	8.4	8.4	8.4	8.2
87.5°	4.6	3.8	3.8	3.8	4.1	4.2	4.2	4.3	4.6	4.5	4.7
90°	1.1	1.9	2.7	3.5	4.2	4.7	5.3	5.9	6.5	6.8	7.2
92.5°	6.5	6.4	6.3	6.2	6.4	6.6	6.9	7.2	7.5	7.7	7.9
95°	18.6	16.3	13.9	11.5	10.6	11.1	11.6	12.1	12.6	13.0	13.3
97.5°	35.0	28.3	21.7	15.0	12.2	13.4	14.5	15.7	16.9	17.2	17.5
100°	47.4	37.5	27.7	17.9	13.5	14.8	16.0	17.2	18.4	19.0	19.6
102.5°	72.2	70.1	68.1	66.0	59.8	49.6	39.4	29.2	18.9	19.7	20.4
105°	100.4	102.6	104.8	106.9	98.2	78.6	59.0	39.3	19.7	20.5	21.3
107.5°	127.4	129.1	130.9	132.6	121.7	98.2	74.7	51.1	27.6	26.8	26.0
110°	144.7	146.3	147.8	149.3	139.6	118.9	98.1	77.3	56.6	49.4	42.2





TEST NUMBER: P331615

CATALOG NUMBER: SA2XXRDIP-C290D330U835-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	161.1	162.5	163.8	165.1	163.2	158.1	153.0	147.8	142.7	116.5	90.3
115°	187.1	188.4	189.6	190.8	192.3	194.1	195.9	197.7	199.5	166.2	133.0
117.5°	210.6	212.0	213.4	214.7	216.0	217.3	218.5	219.7	221.0	212.9	204.9
120°	227.4	228.5	229.6	230.6	231.8	233.1	234.4	235.7	237.0	237.9	238.7
122.5°	242.0	243.1	244.2	245.4	246.6	248.0	249.4	250.9	252.3	252.8	253.3
125°	263.8	264.7	265.7	266.6	267.8	269.1	270.5	271.8	273.2	273.7	274.2
127.5°	283.9	284.9	286.0	287.0	288.0	289.0	290.1	291.1	292.1	292.8	293.6
130°	296.7	297.8	299.0	300.1	301.1	301.9	302.7	303.5	304.3	305.0	305.8
132.5°	309.4	310.4	311.4	312.4	313.2	314.0	314.8	315.6	316.4	317.1	317.8
135°	326.4	327.6	328.7	329.9	330.8	331.4	332.1	332.7	333.4	334.1	334.8
137.5°	343.1	343.9	344.7	345.5	346.3	347.0	347.7	348.5	349.2	349.9	350.6
140°	354.0	354.5	355.1	355.7	356.4	357.2	358.0	358.8	359.5	360.2	360.8
142.5°	363.2	363.7	364.3	364.8	365.5	366.4	367.3	368.2	369.1	369.7	370.3
145°	377.3	377.2	377.1	377.0	377.6	378.8	380.1	381.3	382.5	383.0	383.5
147.5°	389.8	389.5	389.2	389.0	389.4	390.6	391.9	393.1	394.3	394.6	395.0
150°	397.8	397.3	396.8	396.3	396.7	397.8	399.0	400.1	401.3	401.7	402.1
152.5°	404.8	404.2	403.6	403.1	403.3	404.4	405.5	406.6	407.7	408.1	408.6
155°	414.8	414.2	413.5	412.9	413.0	413.9	414.7	415.6	416.4	416.9	417.3
157.5°	422.9	422.3	421.8	421.2	421.3	421.9	422.5	423.1	423.7	424.2	424.7
160°	427.7	427.2	426.8	426.4	426.4	426.8	427.2	427.7	428.1	428.5	429.0
162.5°	431.8	431.4	430.9	430.5	430.5	430.8	431.2	431.6	432.0	432.5	432.9
165°	437.4	436.9	436.5	436.1	436.0	436.2	436.4	436.6	436.8	437.3	437.8
167.5°	441.5	441.1	440.6	440.2	440.1	440.3	440.5	440.7	440.9	441.4	441.9
170°	443.8	443.4	443.0	442.5	442.4	442.5	442.7	442.8	443.0	443.5	444.0
172.5°	445.4	444.9	444.5	444.1	443.9	444.1	444.2	444.4	444.5	445.0	445.5
175°	447.3	446.8	446.3	445.8	445.6	445.8	445.9	446.1	446.2	446.7	447.2
177.5°	447.7	447.3	446.9	446.5	446.4	446.4	446.5	446.5	446.6	447.0	447.4
180°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	676.6	679.0	680.1	680.1	681.4	680.8	680.3
5°	715.5	719.8	720.8	724.8	727.8	726.9	727.3
7.5°	754.2	761.1	768.0	771.1	771.6	773.4	774.1
10°	778.0	783.7	794.3	792.8	800.7	805.3	797.8
12.5°	800.9	808.6	816.0	818.0	822.5	824.0	821.0
15°	821.6	825.7	826.1	825.0	826.4	825.2	820.9
17.5°	802.3	795.6	782.2	775.8	770.8	763.3	760.3
20°	770.3	750.7	728.0	718.9	708.3	687.4	692.4
22.5°	701.2	679.0	656.2	629.7	617.0	597.2	596.0
25°	593.8	555.4	513.1	483.6	466.3	446.6	437.9
27.5°	461.7	413.3	378.7	361.2	345.2	329.6	328.9
30°	374.8	338.5	311.7	296.7	286.9	280.3	281.7
32.5°	315.9	291.0	272.9	260.5	253.3	248.3	248.2
35°	258.3	241.2	229.6	224.4	219.2	215.6	215.8
37.5°	221.0	210.8	204.3	198.6	195.3	193.5	192.5
40°	201.9	193.5	188.5	185.1	182.4	179.9	179.4
42.5°	186.9	179.9	174.9	172.2	169.7	167.9	167.5
45°	165.8	160.1	155.6	152.6	151.5	149.9	149.9
47.5°	147.5	141.9	138.4	136.5	134.6	133.5	133.5
50°	135.2	130.8	127.7	126.5	124.9	124.3	124.0
52.5°	124.1	120.8	118.6	117.8	117.1	116.3	116.4
55°	109.0	107.2	106.3	105.6	104.5	103.1	104.0
57.5°	96.4	94.8	92.4	90.2	89.2	88.2	88.6
60°	87.5	84.3	81.1	78.6	77.9	75.9	75.9
62.5°	76.2	71.7	67.8	66.4	65.7	64.8	64.6
65°	58.6	56.8	55.9	55.0	54.5	54.5	54.1
67.5°	48.6	47.8	46.8	46.6	46.2	46.0	45.9
70°	42.9	42.0	41.6	41.3	40.9	41.1	40.4
72.5°	37.5	36.8	36.7	36.1	35.8	35.8	35.3
75°	29.5	29.5	29.3	29.1	28.6	28.4	28.6
77.5°	22.7	22.8	22.4	22.3	22.3	22.3	22.1
80°	18.2	18.4	18.2	17.9	17.7	17.9	17.7
82.5°	14.4	14.0	14.0	13.9	13.9	13.8	13.7
85°	8.2	8.4	8.2	8.0	8.0	8.0	8.2
87.5°	4.6	4.7	4.7	4.7	4.8	4.8	4.7
90°	7.5	7.9	8.2	8.3	8.4	8.6	8.7
92.5°	8.1	8.2	8.4	8.5	8.6	8.6	8.7
95°	13.7	14.0	14.2	14.1	14.0	14.0	13.9
97.5°	17.7	18.0	18.2	18.3	18.4	18.5	18.6
100°	20.2	20.7	21.1	21.2	21.4	21.5	21.7
102.5°	21.2	21.9	22.4	22.6	22.8	23.0	23.2
105°	22.1	22.9	23.4	23.7	24.0	24.3	24.6
107.5°	25.2	24.4	24.1	24.4	24.7	25.0	25.3
110°	35.0	27.8	24.4	24.7	25.0	25.3	25.5



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	64.1	37.9	24.9	25.1	25.3	25.6	25.8
115°	99.7	66.4	47.2	42.0	36.9	31.7	26.5
117.5°	196.8	188.8	176.3	159.3	142.3	125.3	108.3
120°	239.6	240.4	236.0	226.3	216.6	206.9	197.2
122.5°	253.8	254.3	253.6	251.8	249.9	248.0	246.1
125°	274.7	275.2	275.6	275.8	276.0	276.2	276.4
127.5°	294.3	295.0	295.4	295.5	295.5	295.5	295.6
130°	306.6	307.4	307.8	307.7	307.6	307.6	307.5
132.5°	318.4	319.1	319.4	319.3	319.3	319.2	319.1
135°	335.5	336.2	336.5	336.4	336.2	336.1	335.9
137.5°	351.3	352.0	352.2	352.0	351.8	351.5	351.3
140°	361.5	362.1	362.3	361.9	361.6	361.2	360.8
142.5°	370.9	371.5	371.6	371.2	370.9	370.5	370.1
145°	384.0	384.5	384.6	384.2	383.9	383.5	383.1
147.5°	395.4	395.8	395.8	395.5	395.2	394.9	394.6
150°	402.5	403.0	403.0	402.7	402.3	401.9	401.6
152.5°	409.0	409.4	409.4	408.9	408.5	408.0	407.5
155°	417.7	418.2	418.1	417.5	417.0	416.4	415.8
157.5°	425.2	425.6	425.6	425.0	424.5	423.9	423.4
160°	429.4	429.8	429.8	429.3	428.8	428.3	427.8
162.5°	433.4	433.9	433.9	433.2	432.6	432.0	431.4
165°	438.3	438.8	438.8	438.3	437.8	437.3	436.8
167.5°	442.4	442.9	442.8	442.2	441.5	440.9	440.2
170°	444.5	445.0	444.9	444.3	443.6	443.0	442.3
172.5°	446.0	446.5	446.5	445.8	445.2	444.5	443.9
175°	447.7	448.2	448.1	447.4	446.7	445.9	445.2
177.5°	447.8	448.2	448.1	447.6	447.1	446.6	446.1
180°	446.8	446.8	446.8	446.8	446.8	446.8	446.8

(END OF REPORT)