

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: P331466-830

Luminaire Tested: **S122DIW-S290D435U830-4F0-1E-UDD-A1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331466-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIW-S290D435U830-4F0-1E-UDD-A1  
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 290 LUMENS PER FOOT, ASYMMETRIC DIFFUSER  
UPLIGHT 435 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2646.1 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.16 / 1.23  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: General Diffuse

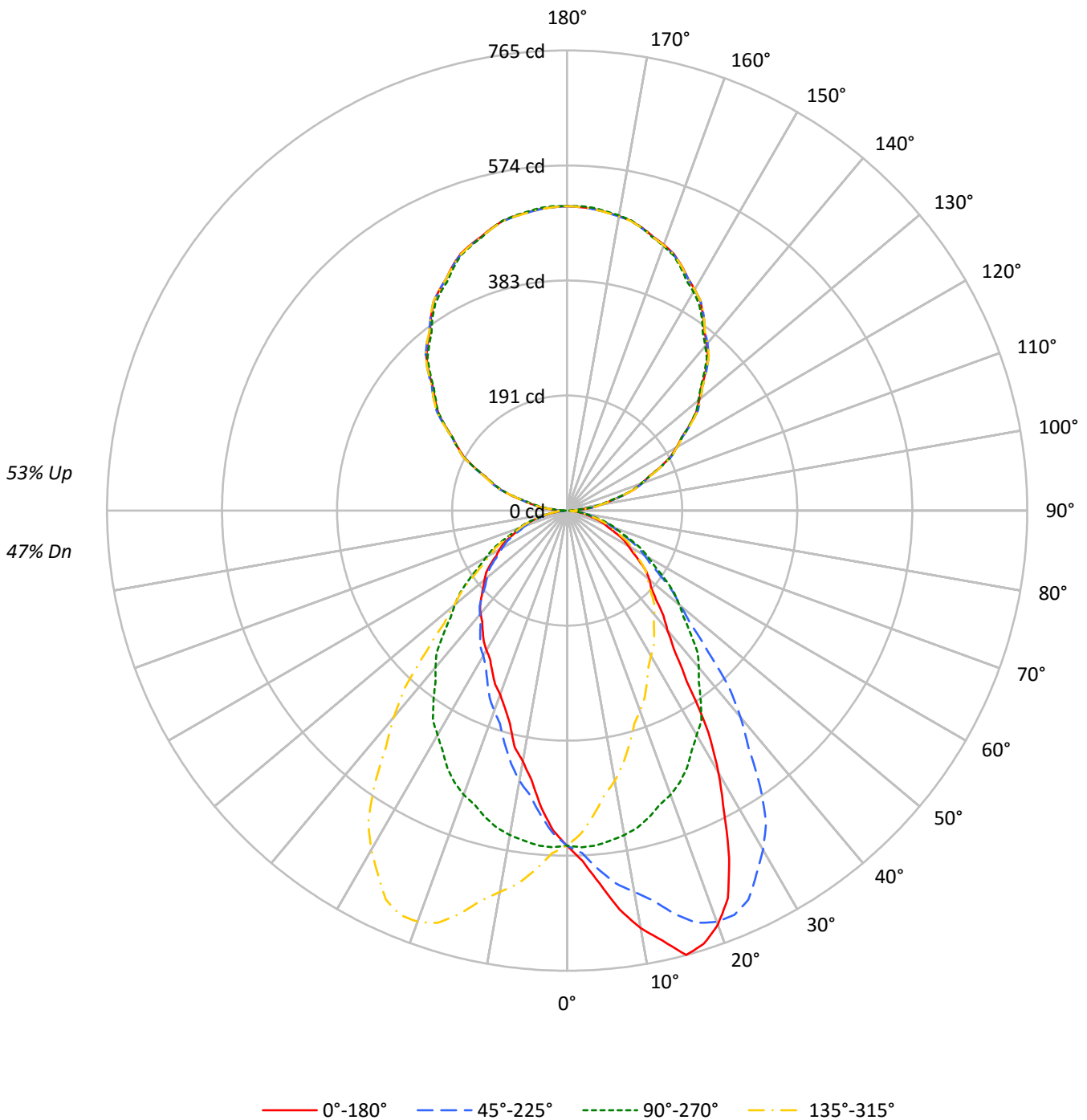
Input Watts (W): 23  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	67	67	67	53	53	53	47
1	97	93	90	86	89	86	83	80	72	70	68	59	58	56	47	46	46	40
2	89	82	76	71	82	76	71	66	64	60	57	53	50	48	42	41	39	34
3	82	72	65	60	75	67	61	56	56	52	48	47	44	41	38	36	34	30
4	75	64	57	51	69	60	53	48	50	45	41	42	38	35	34	32	29	26
5	69	58	50	44	63	53	46	41	45	40	36	38	34	31	31	28	26	23
6	64	52	44	38	58	48	41	36	41	36	32	34	30	27	28	25	23	20
7	59	47	39	34	54	44	37	32	37	32	28	31	27	24	26	23	21	18
8	55	43	35	30	50	40	33	28	34	29	25	29	25	22	24	21	19	16
9	51	39	32	27	47	36	30	25	31	26	23	27	23	20	22	19	17	15
10	48	36	29	24	44	33	27	23	29	24	20	25	21	18	21	18	15	14

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

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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.1	2.0
10°-20°	154.2	5.8
20°-30°	223.9	8.5
30°-40°	236.2	8.9
40°-50°	209.2	7.9
50°-60°	166.9	6.3
60°-70°	113.4	4.3
70°-80°	58.2	2.2
80°-90°	16.0	0.6
90°-100°	32.1	1.2
100°-110°	99.6	3.8
110°-120°	170.2	6.4
120°-130°	223.9	8.5
130°-140°	251.3	9.5
140°-150°	246.4	9.3
150°-160°	206.6	7.8
160°-170°	137.1	5.2
170°-180°	47.9	1.8
0°-30°	431.2	16.3
0°-40°	667.4	25.2
0°-60°	1043.5	39.4
0°-90°	1231.1	46.5
90°-120°	301.9	11.4
90°-150°	1023.3	38.7
90°-180°	1415.0	53.5
0°-180°	2646.1	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°	14	0	14	0	14	7
95°	26	22	26	22	26	30
105°	95	92	95	92	95	100
115°	171	171	171	171	171	169
125°	249	248	249	248	249	222
135°	325	322	325	322	325	250
145°	394	390	394	390	394	246
155°	450	446	450	446	450	207
165°	486	486	486	486	486	137
175°	504	505	504	505	504	48
180°	506	506	506	506	506	



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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°	7.4	7.4	7.4	7.3	7.3	7.4	7.5	7.4	7.5	7.8	7.5
90°	14.5	14.4	14.3	14.2	14.1	14.2	14.4	14.6	14.8	15.0	12.8
92.5°	13.9	13.9	13.8	13.8	13.8	13.8	13.7	13.7	13.6	13.6	13.1
95°	26.5	26.7	26.9	27.1	27.2	27.3	27.3	27.3	27.3	27.3	27.1
97.5°	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.6
100°	58.5	58.6	58.7	58.8	58.9	58.9	58.9	58.9	58.9	58.9	58.6
102.5°	72.9	73.0	73.0	73.1	73.2	73.2	73.1	73.0	73.0	73.0	72.6
105°	94.8	94.8	94.8	94.8	94.8	94.7	94.5	94.3	94.2	94.0	93.8
107.5°	115.5	115.9	116.3	116.8	117.3	117.4	117.3	117.3	117.2	117.1	117.1
110°	131.5	131.8	132.1	132.3	132.6	132.8	132.8	132.8	132.8	132.8	132.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	146.9	147.1	147.3	147.5	147.7	148.0	148.2	148.5	148.6	148.8	148.9
115°	170.8	171.1	171.4	171.6	171.9	172.1	172.2	172.3	172.4	172.5	172.7
117.5°	193.6	193.9	194.2	194.4	194.7	195.0	195.2	195.5	195.7	196.0	196.4
120°	209.7	210.0	210.3	210.6	210.8	210.9	210.9	210.9	210.9	210.9	211.7
122.5°	225.4	225.6	225.8	226.0	226.2	226.4	226.7	226.9	227.2	227.3	227.9
125°	249.4	249.5	249.6	249.7	249.8	250.0	250.2	250.5	250.8	251.1	251.4
127.5°	271.3	271.5	271.8	272.1	272.5	272.8	273.1	273.4	273.8	274.2	274.5
130°	287.0	287.4	287.8	288.1	288.5	288.8	289.0	289.2	289.4	289.5	289.7
132.5°	302.0	302.3	302.6	302.9	303.2	303.6	304.0	304.4	304.8	305.2	305.2
135°	325.4	325.6	325.9	326.2	326.5	326.7	326.8	326.9	327.0	327.1	326.9
137.5°	346.6	346.9	347.3	347.7	348.1	348.4	348.4	348.5	348.6	348.6	348.4
140°	361.3	361.7	362.0	362.4	362.8	363.0	363.0	363.0	363.0	363.0	362.5
142.5°	374.6	374.9	375.3	375.7	376.1	376.3	376.2	376.1	376.1	376.0	375.6
145°	394.5	394.9	395.3	395.7	396.1	396.2	396.2	396.1	396.0	395.9	395.3
147.5°	412.5	412.7	413.1	413.5	413.9	414.0	413.8	413.5	413.3	413.1	412.7
150°	424.0	424.3	424.6	424.9	425.2	425.2	424.9	424.6	424.3	424.0	423.7
152.5°	435.0	435.4	435.6	436.0	436.4	436.4	436.0	435.6	435.4	435.0	434.5
155°	449.7	450.0	450.3	450.5	450.8	450.7	450.3	449.8	449.3	448.8	448.6
157.5°	462.3	462.8	463.2	463.6	464.1	464.0	463.4	462.7	462.1	461.5	461.3
160°	470.1	470.5	470.9	471.3	471.6	471.6	471.0	470.4	469.9	469.3	469.2
162.5°	477.0	477.4	477.9	478.3	478.8	478.7	478.1	477.4	476.7	476.2	476.1
165°	486.0	486.4	486.9	487.4	487.9	487.8	487.1	486.4	485.8	485.1	485.1
167.5°	493.3	493.8	494.3	494.7	495.3	495.2	494.6	493.9	493.2	492.6	492.6
170°	497.1	497.7	498.2	498.8	499.4	499.3	498.6	497.9	497.3	496.6	496.7
172.5°	500.1	500.7	501.2	501.8	502.4	502.4	501.7	501.1	500.4	499.7	499.8
175°	503.5	504.1	504.6	505.2	505.8	505.7	505.0	504.4	503.7	503.0	503.2
177.5°	505.0	505.5	506.0	506.3	506.8	506.8	506.3	506.0	505.5	505.0	505.1
180°	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	571.7	570.3	569.5	566.4	563.6	560.9	560.1	560.3	556.6	553.0	551.5
5°	594.0	589.7	585.6	579.9	573.0	565.4	561.7	558.6	551.1	543.0	538.3
7.5°	613.9	607.8	599.9	589.1	579.1	567.3	559.8	553.2	542.2	530.7	523.7
10°	626.0	617.7	607.7	594.4	582.2	567.8	557.8	547.7	534.9	521.1	512.6
12.5°	636.5	625.3	615.4	598.3	583.9	565.9	554.0	539.8	526.3	510.0	501.6
15°	661.4	640.6	621.8	602.5	584.8	559.7	546.4	527.4	509.6	489.5	479.8
17.5°	680.6	657.2	627.6	603.1	582.4	554.6	535.2	512.4	491.3	468.3	455.2
20°	691.5	664.8	632.9	603.8	579.0	547.2	526.0	502.8	478.2	452.2	438.1
22.5°	698.0	670.0	638.4	601.2	572.1	541.3	514.6	489.0	464.1	436.1	421.3
25°	700.1	674.5	641.0	599.1	563.5	528.7	496.5	471.6	441.5	415.4	393.8
27.5°	689.9	671.6	639.4	595.0	553.6	512.8	477.0	448.9	417.1	388.7	366.9
30°	677.4	666.8	635.5	591.0	545.7	501.9	462.5	430.6	398.9	370.2	347.9
32.5°	658.1	655.8	628.3	585.1	537.3	488.0	447.2	415.0	379.8	351.7	330.5
35°	620.1	630.4	613.0	572.1	521.6	468.3	424.1	387.3	350.9	324.0	304.1
37.5°	569.1	594.7	590.1	553.1	500.2	446.8	398.0	359.6	324.9	297.7	278.1
40°	534.0	566.6	571.3	538.5	485.2	430.2	378.5	340.3	306.4	281.5	261.8
42.5°	496.3	534.3	547.2	521.0	468.7	412.6	361.1	321.4	287.9	263.7	246.3
45°	433.2	483.4	506.8	491.8	441.3	383.9	330.8	290.6	260.1	237.4	223.9
47.5°	374.1	429.0	460.4	455.2	410.8	353.9	301.4	262.8	233.2	215.1	203.0
50°	332.3	388.8	426.7	428.5	388.8	332.5	279.8	243.5	216.2	199.3	189.5
52.5°	296.0	350.0	391.2	400.4	364.3	310.3	260.5	224.2	200.3	184.7	176.0
55°	248.5	294.2	340.0	356.8	327.8	276.4	230.4	198.5	176.0	165.3	157.6
57.5°	206.7	244.7	287.0	305.5	287.7	243.6	200.5	172.8	154.6	145.2	139.2
60°	184.5	214.5	252.2	274.3	258.8	219.7	182.0	155.6	140.6	132.3	126.8
62.5°	164.0	190.6	222.4	242.6	234.2	197.3	163.5	140.3	127.3	119.5	115.5
65°	135.3	156.3	181.0	199.5	194.0	166.0	138.3	118.4	108.1	101.9	98.7
67.5°	111.4	126.6	143.6	159.9	155.5	135.6	113.5	97.9	90.3	84.9	82.9
70°	96.3	107.9	123.1	136.2	132.5	116.3	98.7	85.4	78.8	74.3	72.4
72.5°	82.0	91.4	103.1	113.8	111.3	97.7	83.1	73.1	68.0	63.8	62.3
75°	61.9	69.2	76.3	83.3	82.7	72.2	63.6	55.9	51.8	48.6	48.0
77.5°	45.7	49.8	54.6	58.7	57.6	51.6	44.9	40.4	37.5	35.3	35.0
80°	34.9	37.2	40.7	43.6	42.2	39.6	34.2	31.0	28.9	26.8	25.9
82.5°	25.4	27.6	29.7	31.4	30.2	27.8	24.5	22.3	21.0	19.6	19.2
85°	13.3	14.5	15.5	15.8	15.5	13.9	12.4	11.6	10.5	9.8	9.6
87.5°	7.3	6.9	6.5	6.5	5.7	5.5	4.6	3.9	3.9	4.0	3.9
90°	10.7	8.7	6.6	5.0	3.9	2.7	1.6	0.5	1.6	2.7	3.9
92.5°	12.6	12.1	11.6	10.9	10.1	9.2	8.5	7.6	8.5	9.2	10.1
95°	27.0	26.8	26.6	26.0	25.1	24.1	23.2	22.2	23.2	24.1	25.1
97.5°	45.2	44.9	44.5	43.9	43.1	42.2	41.4	40.5	41.4	42.2	43.1
100°	58.3	58.1	57.8	57.3	56.6	55.7	55.0	54.2	55.0	55.7	56.6
102.5°	72.2	71.8	71.5	71.0	70.4	69.7	69.2	68.6	69.2	69.7	70.4
105°	93.6	93.4	93.2	92.9	92.7	92.4	92.1	91.8	92.1	92.4	92.7
107.5°	117.1	117.1	117.1	116.9	116.5	116.0	115.6	115.2	115.6	116.0	116.5
110°	132.8	132.8	132.8	132.5	132.0	131.4	130.8	130.3	130.8	131.4	132.0





TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	149.0	149.1	149.2	148.9	148.4	147.8	147.2	146.7	147.2	147.8	148.4
115°	172.9	173.1	173.2	173.1	172.5	171.9	171.4	170.8	171.4	171.9	172.5
117.5°	197.0	197.6	198.0	197.9	197.2	196.4	195.7	194.9	195.7	196.4	197.2
120°	212.4	213.2	214.0	214.0	213.2	212.4	211.7	210.9	211.7	212.4	213.2
122.5°	228.4	228.9	229.5	229.3	228.4	227.4	226.6	225.6	226.6	227.4	228.4
125°	251.7	251.9	252.2	251.9	251.1	250.2	249.4	248.5	249.4	250.2	251.1
127.5°	274.8	275.2	275.5	275.1	274.1	273.0	271.9	270.8	271.9	273.0	274.1
130°	289.9	290.1	290.3	289.7	288.5	287.3	286.1	284.8	286.1	287.3	288.5
132.5°	305.2	305.1	305.1	304.5	303.6	302.6	301.5	300.6	301.5	302.6	303.6
135°	326.7	326.5	326.3	325.7	324.7	323.7	322.6	321.6	322.6	323.7	324.7
137.5°	348.2	347.9	347.6	347.0	346.2	345.3	344.5	343.7	344.5	345.3	346.2
140°	362.0	361.6	361.1	360.4	359.6	358.7	357.9	357.0	357.9	358.7	359.6
142.5°	375.3	374.9	374.7	374.1	373.2	372.4	371.6	370.7	371.6	372.4	373.2
145°	394.7	394.2	393.6	392.9	392.3	391.6	391.0	390.3	391.0	391.6	392.3
147.5°	412.4	412.0	411.6	411.0	410.2	409.4	408.6	407.8	408.6	409.4	410.2
150°	423.3	422.9	422.5	422.1	421.5	420.9	420.4	419.8	420.4	420.9	421.5
152.5°	434.0	433.6	433.2	432.6	432.1	431.5	430.9	430.4	430.9	431.5	432.1
155°	448.3	448.0	447.7	447.4	447.1	446.8	446.5	446.2	446.5	446.8	447.1
157.5°	461.1	460.9	460.7	460.6	460.4	460.2	460.1	459.9	460.1	460.2	460.4
160°	469.1	469.0	468.9	468.8	468.6	468.4	468.3	468.1	468.3	468.4	468.6
162.5°	476.0	475.9	475.8	475.7	475.6	475.6	475.6	475.5	475.6	475.6	475.6
165°	485.1	485.1	485.1	485.1	485.2	485.3	485.4	485.5	485.4	485.3	485.2
167.5°	492.6	492.6	492.6	492.8	493.0	493.3	493.6	493.9	493.6	493.3	493.0
170°	496.8	496.9	497.0	497.2	497.5	497.8	498.0	498.3	498.0	497.8	497.5
172.5°	499.9	500.0	500.1	500.3	500.6	500.9	501.1	501.4	501.1	500.9	500.6
175°	503.4	503.6	503.8	504.1	504.4	504.6	504.9	505.2	504.9	504.6	504.4
177.5°	505.3	505.5	505.6	505.8	506.1	506.2	506.5	506.7	506.5	506.2	506.1
180°	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1



TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**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°	3.9	4.1	4.3	4.7	5.0	5.2	5.0	5.0	4.9	4.5	4.5
90°	5.0	6.6	8.7	10.7	12.8	15.0	14.8	14.6	14.4	14.2	14.1
92.5°	10.9	11.6	12.1	12.6	13.1	13.6	13.6	13.7	13.7	13.8	13.8
95°	26.0	26.6	26.8	27.0	27.1	27.3	27.3	27.3	27.3	27.3	27.2
97.5°	43.9	44.5	44.9	45.2	45.6	45.9	45.9	45.9	45.9	45.9	45.9
100°	57.3	57.8	58.1	58.3	58.6	58.9	58.9	58.9	58.9	58.9	58.9
102.5°	71.0	71.5	71.8	72.2	72.6	73.0	73.0	73.0	73.1	73.2	73.2
105°	92.9	93.2	93.4	93.6	93.8	94.0	94.2	94.3	94.5	94.7	94.8
107.5°	116.9	117.1	117.1	117.1	117.1	117.1	117.2	117.3	117.3	117.4	117.3
110°	132.5	132.8	132.8	132.8	132.8	132.8	132.8	132.8	132.8	132.8	132.6



TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	148.9	149.2	149.1	149.0	148.9	148.8	148.6	148.5	148.2	148.0	147.7
115°	173.1	173.2	173.1	172.9	172.7	172.5	172.4	172.3	172.2	172.1	171.9
117.5°	197.9	198.0	197.6	197.0	196.4	196.0	195.7	195.5	195.2	195.0	194.7
120°	214.0	214.0	213.2	212.4	211.7	210.9	210.9	210.9	210.9	210.9	210.8
122.5°	229.3	229.5	228.9	228.4	227.9	227.3	227.2	226.9	226.7	226.4	226.2
125°	251.9	252.2	251.9	251.7	251.4	251.1	250.8	250.5	250.2	250.0	249.8
127.5°	275.1	275.5	275.2	274.8	274.5	274.2	273.8	273.4	273.1	272.8	272.5
130°	289.7	290.3	290.1	289.9	289.7	289.5	289.4	289.2	289.0	288.8	288.5
132.5°	304.5	305.1	305.1	305.2	305.2	305.2	304.8	304.4	304.0	303.6	303.2
135°	325.7	326.3	326.5	326.7	326.9	327.1	327.0	326.9	326.8	326.7	326.5
137.5°	347.0	347.6	347.9	348.2	348.4	348.6	348.6	348.5	348.4	348.4	348.1
140°	360.4	361.1	361.6	362.0	362.5	363.0	363.0	363.0	363.0	363.0	362.8
142.5°	374.1	374.7	374.9	375.3	375.6	376.0	376.1	376.1	376.2	376.3	376.1
145°	392.9	393.6	394.2	394.7	395.3	395.9	396.0	396.1	396.2	396.2	396.1
147.5°	411.0	411.6	412.0	412.4	412.7	413.1	413.3	413.5	413.8	414.0	413.9
150°	422.1	422.5	422.9	423.3	423.7	424.0	424.3	424.6	424.9	425.2	425.2
152.5°	432.6	433.2	433.6	434.0	434.5	435.0	435.4	435.6	436.0	436.4	436.4
155°	447.4	447.7	448.0	448.3	448.6	448.8	449.3	449.8	450.3	450.7	450.8
157.5°	460.6	460.7	460.9	461.1	461.3	461.5	462.1	462.7	463.4	464.0	464.1
160°	468.8	468.9	469.0	469.1	469.2	469.3	469.9	470.4	471.0	471.6	471.6
162.5°	475.7	475.8	475.9	476.0	476.1	476.2	476.7	477.4	478.1	478.7	478.8
165°	485.1	485.1	485.1	485.1	485.1	485.1	485.8	486.4	487.1	487.8	487.9
167.5°	492.8	492.6	492.6	492.6	492.6	492.6	493.2	493.9	494.6	495.2	495.3
170°	497.2	497.0	496.9	496.8	496.7	496.6	497.3	497.9	498.6	499.3	499.4
172.5°	500.3	500.1	500.0	499.9	499.8	499.7	500.4	501.1	501.7	502.4	502.4
175°	504.1	503.8	503.6	503.4	503.2	503.0	503.7	504.4	505.0	505.7	505.8
177.5°	505.8	505.6	505.5	505.3	505.1	505.0	505.5	506.0	506.3	506.8	506.8
180°	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1



TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**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°	4.5	4.4	4.4	4.2	4.4	4.4	4.5	4.5	4.5	4.9	5.0
90°	14.2	14.3	14.4	14.5	14.4	14.3	14.2	14.1	14.2	14.4	14.6
92.5°	13.8	13.8	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.7	13.7
95°	27.1	26.9	26.7	26.5	26.7	26.9	27.1	27.2	27.3	27.3	27.3
97.5°	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
100°	58.8	58.7	58.6	58.5	58.6	58.7	58.8	58.9	58.9	58.9	58.9
102.5°	73.1	73.0	73.0	72.9	73.0	73.0	73.1	73.2	73.2	73.1	73.0
105°	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.7	94.5	94.3
107.5°	116.8	116.3	115.9	115.5	115.9	116.3	116.8	117.3	117.4	117.3	117.3
110°	132.3	132.1	131.8	131.5	131.8	132.1	132.3	132.6	132.8	132.8	132.8



TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	147.5	147.3	147.1	146.9	147.1	147.3	147.5	147.7	148.0	148.2	148.5
115°	171.6	171.4	171.1	170.8	171.1	171.4	171.6	171.9	172.1	172.2	172.3
117.5°	194.4	194.2	193.9	193.6	193.9	194.2	194.4	194.7	195.0	195.2	195.5
120°	210.6	210.3	210.0	209.7	210.0	210.3	210.6	210.8	210.9	210.9	210.9
122.5°	226.0	225.8	225.6	225.4	225.6	225.8	226.0	226.2	226.4	226.7	226.9
125°	249.7	249.6	249.5	249.4	249.5	249.6	249.7	249.8	250.0	250.2	250.5
127.5°	272.1	271.8	271.5	271.3	271.5	271.8	272.1	272.5	272.8	273.1	273.4
130°	288.1	287.8	287.4	287.0	287.4	287.8	288.1	288.5	288.8	289.0	289.2
132.5°	302.9	302.6	302.3	302.0	302.3	302.6	302.9	303.2	303.6	304.0	304.4
135°	326.2	325.9	325.6	325.4	325.6	325.9	326.2	326.5	326.7	326.8	326.9
137.5°	347.7	347.3	346.9	346.6	346.9	347.3	347.7	348.1	348.4	348.4	348.5
140°	362.4	362.0	361.7	361.3	361.7	362.0	362.4	362.8	363.0	363.0	363.0
142.5°	375.7	375.3	374.9	374.6	374.9	375.3	375.7	376.1	376.3	376.2	376.1
145°	395.7	395.3	394.9	394.5	394.9	395.3	395.7	396.1	396.2	396.2	396.1
147.5°	413.5	413.1	412.7	412.5	412.7	413.1	413.5	413.9	414.0	413.8	413.5
150°	424.9	424.6	424.3	424.0	424.3	424.6	424.9	425.2	425.2	424.9	424.6
152.5°	436.0	435.6	435.4	435.0	435.4	435.6	436.0	436.4	436.4	436.0	435.6
155°	450.5	450.3	450.0	449.7	450.0	450.3	450.5	450.8	450.7	450.3	449.8
157.5°	463.6	463.2	462.8	462.3	462.8	463.2	463.6	464.1	464.0	463.4	462.7
160°	471.3	470.9	470.5	470.1	470.5	470.9	471.3	471.6	471.6	471.0	470.4
162.5°	478.3	477.9	477.4	477.0	477.4	477.9	478.3	478.8	478.7	478.1	477.4
165°	487.4	486.9	486.4	486.0	486.4	486.9	487.4	487.9	487.8	487.1	486.4
167.5°	494.7	494.3	493.8	493.3	493.8	494.3	494.7	495.3	495.2	494.6	493.9
170°	498.8	498.2	497.7	497.1	497.7	498.2	498.8	499.4	499.3	498.6	497.9
172.5°	501.8	501.2	500.7	500.1	500.7	501.2	501.8	502.4	502.4	501.7	501.1
175°	505.2	504.6	504.1	503.5	504.1	504.6	505.2	505.8	505.7	505.0	504.4
177.5°	506.3	506.0	505.5	505.0	505.5	506.0	506.3	506.8	506.8	506.3	506.0
180°	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1



TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**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°	5.0	5.2	5.0	4.7	4.3	4.1	3.9	3.9	4.0	3.9	3.9
90°	14.8	15.0	12.8	10.7	8.7	6.6	5.0	3.9	2.7	1.6	0.5
92.5°	13.6	13.6	13.1	12.6	12.1	11.6	10.9	10.1	9.2	8.5	7.6
95°	27.3	27.3	27.1	27.0	26.8	26.6	26.0	25.1	24.1	23.2	22.2
97.5°	45.9	45.9	45.6	45.2	44.9	44.5	43.9	43.1	42.2	41.4	40.5
100°	58.9	58.9	58.6	58.3	58.1	57.8	57.3	56.6	55.7	55.0	54.2
102.5°	73.0	73.0	72.6	72.2	71.8	71.5	71.0	70.4	69.7	69.2	68.6
105°	94.2	94.0	93.8	93.6	93.4	93.2	92.9	92.7	92.4	92.1	91.8
107.5°	117.2	117.1	117.1	117.1	117.1	117.1	116.9	116.5	116.0	115.6	115.2
110°	132.8	132.8	132.8	132.8	132.8	132.8	132.5	132.0	131.4	130.8	130.3



TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	148.6	148.8	148.9	149.0	149.1	149.2	148.9	148.4	147.8	147.2	146.7
115°	172.4	172.5	172.7	172.9	173.1	173.2	173.1	172.5	171.9	171.4	170.8
117.5°	195.7	196.0	196.4	197.0	197.6	198.0	197.9	197.2	196.4	195.7	194.9
120°	210.9	210.9	211.7	212.4	213.2	214.0	214.0	213.2	212.4	211.7	210.9
122.5°	227.2	227.3	227.9	228.4	228.9	229.5	229.3	228.4	227.4	226.6	225.6
125°	250.8	251.1	251.4	251.7	251.9	252.2	251.9	251.1	250.2	249.4	248.5
127.5°	273.8	274.2	274.5	274.8	275.2	275.5	275.1	274.1	273.0	271.9	270.8
130°	289.4	289.5	289.7	289.9	290.1	290.3	289.7	288.5	287.3	286.1	284.8
132.5°	304.8	305.2	305.2	305.2	305.1	305.1	304.5	303.6	302.6	301.5	300.6
135°	327.0	327.1	326.9	326.7	326.5	326.3	325.7	324.7	323.7	322.6	321.6
137.5°	348.6	348.6	348.4	348.2	347.9	347.6	347.0	346.2	345.3	344.5	343.7
140°	363.0	363.0	362.5	362.0	361.6	361.1	360.4	359.6	358.7	357.9	357.0
142.5°	376.1	376.0	375.6	375.3	374.9	374.7	374.1	373.2	372.4	371.6	370.7
145°	396.0	395.9	395.3	394.7	394.2	393.6	392.9	392.3	391.6	391.0	390.3
147.5°	413.3	413.1	412.7	412.4	412.0	411.6	411.0	410.2	409.4	408.6	407.8
150°	424.3	424.0	423.7	423.3	422.9	422.5	422.1	421.5	420.9	420.4	419.8
152.5°	435.4	435.0	434.5	434.0	433.6	433.2	432.6	432.1	431.5	430.9	430.4
155°	449.3	448.8	448.6	448.3	448.0	447.7	447.4	447.1	446.8	446.5	446.2
157.5°	462.1	461.5	461.3	461.1	460.9	460.7	460.6	460.4	460.2	460.1	459.9
160°	469.9	469.3	469.2	469.1	469.0	468.9	468.8	468.6	468.4	468.3	468.1
162.5°	476.7	476.2	476.1	476.0	475.9	475.8	475.7	475.6	475.6	475.6	475.5
165°	485.8	485.1	485.1	485.1	485.1	485.1	485.1	485.2	485.3	485.4	485.5
167.5°	493.2	492.6	492.6	492.6	492.6	492.6	492.8	493.0	493.3	493.6	493.9
170°	497.3	496.6	496.7	496.8	496.9	497.0	497.2	497.5	497.8	498.0	498.3
172.5°	500.4	499.7	499.8	499.9	500.0	500.1	500.3	500.6	500.9	501.1	501.4
175°	503.7	503.0	503.2	503.4	503.6	503.8	504.1	504.4	504.6	504.9	505.2
177.5°	505.5	505.0	505.1	505.3	505.5	505.6	505.8	506.1	506.2	506.5	506.7
180°	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1



TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**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°	4.6	5.5	5.7	6.5	6.5	6.9	7.3	7.5	7.8	7.5	7.4
90°	1.6	2.7	3.9	5.0	6.6	8.7	10.7	12.8	15.0	14.8	14.6
92.5°	8.5	9.2	10.1	10.9	11.6	12.1	12.6	13.1	13.6	13.6	13.7
95°	23.2	24.1	25.1	26.0	26.6	26.8	27.0	27.1	27.3	27.3	27.3
97.5°	41.4	42.2	43.1	43.9	44.5	44.9	45.2	45.6	45.9	45.9	45.9
100°	55.0	55.7	56.6	57.3	57.8	58.1	58.3	58.6	58.9	58.9	58.9
102.5°	69.2	69.7	70.4	71.0	71.5	71.8	72.2	72.6	73.0	73.0	73.0
105°	92.1	92.4	92.7	92.9	93.2	93.4	93.6	93.8	94.0	94.2	94.3
107.5°	115.6	116.0	116.5	116.9	117.1	117.1	117.1	117.1	117.1	117.2	117.3
110°	130.8	131.4	132.0	132.5	132.8	132.8	132.8	132.8	132.8	132.8	132.8





TEST NUMBER: P331466-830

CATALOG NUMBER: S122DIW-S290D435U830-4F0-1E-UDD-A1

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	147.2	147.8	148.4	148.9	149.2	149.1	149.0	148.9	148.8	148.6	148.5
115°	171.4	171.9	172.5	173.1	173.2	173.1	172.9	172.7	172.5	172.4	172.3
117.5°	195.7	196.4	197.2	197.9	198.0	197.6	197.0	196.4	196.0	195.7	195.5
120°	211.7	212.4	213.2	214.0	214.0	213.2	212.4	211.7	210.9	210.9	210.9
122.5°	226.6	227.4	228.4	229.3	229.5	228.9	228.4	227.9	227.3	227.2	226.9
125°	249.4	250.2	251.1	251.9	252.2	251.9	251.7	251.4	251.1	250.8	250.5
127.5°	271.9	273.0	274.1	275.1	275.5	275.2	274.8	274.5	274.2	273.8	273.4
130°	286.1	287.3	288.5	289.7	290.3	290.1	289.9	289.7	289.5	289.4	289.2
132.5°	301.5	302.6	303.6	304.5	305.1	305.1	305.2	305.2	305.2	304.8	304.4
135°	322.6	323.7	324.7	325.7	326.3	326.5	326.7	326.9	327.1	327.0	326.9
137.5°	344.5	345.3	346.2	347.0	347.6	347.9	348.2	348.4	348.6	348.6	348.5
140°	357.9	358.7	359.6	360.4	361.1	361.6	362.0	362.5	363.0	363.0	363.0
142.5°	371.6	372.4	373.2	374.1	374.7	374.9	375.3	375.6	376.0	376.1	376.1
145°	391.0	391.6	392.3	392.9	393.6	394.2	394.7	395.3	395.9	396.0	396.1
147.5°	408.6	409.4	410.2	411.0	411.6	412.0	412.4	412.7	413.1	413.3	413.5
150°	420.4	420.9	421.5	422.1	422.5	422.9	423.3	423.7	424.0	424.3	424.6
152.5°	430.9	431.5	432.1	432.6	433.2	433.6	434.0	434.5	435.0	435.4	435.6
155°	446.5	446.8	447.1	447.4	447.7	448.0	448.3	448.6	448.8	449.3	449.8
157.5°	460.1	460.2	460.4	460.6	460.7	460.9	461.1	461.3	461.5	462.1	462.7
160°	468.3	468.4	468.6	468.8	468.9	469.0	469.1	469.2	469.3	469.9	470.4
162.5°	475.6	475.6	475.6	475.7	475.8	475.9	476.0	476.1	476.2	476.7	477.4
165°	485.4	485.3	485.2	485.1	485.1	485.1	485.1	485.1	485.1	485.8	486.4
167.5°	493.6	493.3	493.0	492.8	492.6	492.6	492.6	492.6	492.6	493.2	493.9
170°	498.0	497.8	497.5	497.2	497.0	496.9	496.8	496.7	496.6	497.3	497.9
172.5°	501.1	500.9	500.6	500.3	500.1	500.0	499.9	499.8	499.7	500.4	501.1
175°	504.9	504.6	504.4	504.1	503.8	503.6	503.4	503.2	503.0	503.7	504.4
177.5°	506.5	506.2	506.1	505.8	505.6	505.5	505.3	505.1	505.0	505.5	506.0
180°	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1	506.1



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	557.1	557.1	557.1	557.1	557.1	557.1	557.1
2.5°	577.9	580.2	580.2	580.6	583.3	583.0	582.8
5°	614.9	618.6	619.0	622.8	625.4	624.5	622.2
7.5°	649.9	656.7	661.9	664.7	668.1	670.1	669.2
10°	677.7	687.5	693.5	697.6	702.5	706.2	704.8
12.5°	702.9	714.5	722.8	729.8	730.4	735.1	731.9
15°	742.2	754.5	755.8	760.9	765.1	764.6	764.8
17.5°	755.1	759.0	759.9	760.0	760.1	758.6	755.3
20°	750.5	748.9	745.4	742.5	737.6	737.0	732.7
22.5°	728.5	723.8	714.6	708.6	701.0	699.0	697.8
25°	685.4	674.9	660.3	646.4	642.5	635.1	637.2
27.5°	626.1	609.8	594.0	582.8	572.5	561.3	564.5
30°	584.6	566.1	543.8	526.7	515.8	505.1	503.1
32.5°	534.9	507.8	483.1	468.0	451.2	444.4	437.1
35°	449.2	422.8	398.2	377.0	364.9	355.4	346.9
37.5°	372.2	341.9	322.0	304.8	296.0	290.6	292.0
40°	324.4	297.8	283.2	270.2	262.0	258.3	259.1
42.5°	285.7	265.8	253.8	244.9	239.1	237.0	236.5
45°	241.8	230.6	220.7	215.7	212.8	210.5	209.0
47.5°	211.8	202.6	197.1	194.1	191.6	189.3	189.2
50°	193.8	187.8	183.9	180.7	178.8	177.1	178.6
52.5°	180.0	174.6	170.7	167.9	167.1	165.6	165.5
55°	159.8	155.4	152.7	150.1	148.8	148.0	146.8
57.5°	141.2	137.1	134.6	133.0	130.5	129.7	129.3
60°	128.0	124.8	122.2	120.1	119.0	117.3	117.3
62.5°	115.8	112.6	110.3	108.7	106.9	106.2	106.4
65°	98.3	95.7	93.3	91.6	91.2	89.9	90.4
67.5°	82.1	80.4	77.9	76.9	76.2	75.5	74.9
70°	71.3	69.6	68.3	67.0	66.4	66.4	66.4
72.5°	62.2	60.1	59.4	57.8	58.2	57.5	56.7
75°	48.2	46.8	46.3	45.6	44.6	44.6	44.6
77.5°	35.4	35.1	34.3	33.6	33.4	33.2	33.3
80°	27.4	27.1	26.8	26.8	26.3	26.1	25.7
82.5°	21.1	20.5	20.3	20.1	20.0	20.0	19.9
85°	12.0	11.6	11.6	11.8	11.3	11.3	11.6
87.5°	7.5	7.4	7.3	7.3	7.4	7.4	7.4
90°	14.4	14.2	14.1	14.2	14.3	14.4	14.5
92.5°	13.7	13.8	13.8	13.8	13.8	13.9	13.9
95°	27.3	27.3	27.2	27.1	26.9	26.7	26.5
97.5°	45.9	45.9	45.9	45.9	45.9	45.9	45.9
100°	58.9	58.9	58.9	58.8	58.7	58.6	58.5
102.5°	73.1	73.2	73.2	73.1	73.0	73.0	72.9
105°	94.5	94.7	94.8	94.8	94.8	94.8	94.8
107.5°	117.3	117.4	117.3	116.8	116.3	115.9	115.5
110°	132.8	132.8	132.6	132.3	132.1	131.8	131.5



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**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	148.2	148.0	147.7	147.5	147.3	147.1	146.9
115°	172.2	172.1	171.9	171.6	171.4	171.1	170.8
117.5°	195.2	195.0	194.7	194.4	194.2	193.9	193.6
120°	210.9	210.9	210.8	210.6	210.3	210.0	209.7
122.5°	226.7	226.4	226.2	226.0	225.8	225.6	225.4
125°	250.2	250.0	249.8	249.7	249.6	249.5	249.4
127.5°	273.1	272.8	272.5	272.1	271.8	271.5	271.3
130°	289.0	288.8	288.5	288.1	287.8	287.4	287.0
132.5°	304.0	303.6	303.2	302.9	302.6	302.3	302.0
135°	326.8	326.7	326.5	326.2	325.9	325.6	325.4
137.5°	348.4	348.4	348.1	347.7	347.3	346.9	346.6
140°	363.0	363.0	362.8	362.4	362.0	361.7	361.3
142.5°	376.2	376.3	376.1	375.7	375.3	374.9	374.6
145°	396.2	396.2	396.1	395.7	395.3	394.9	394.5
147.5°	413.8	414.0	413.9	413.5	413.1	412.7	412.5
150°	424.9	425.2	425.2	424.9	424.6	424.3	424.0
152.5°	436.0	436.4	436.4	436.0	435.6	435.4	435.0
155°	450.3	450.7	450.8	450.5	450.3	450.0	449.7
157.5°	463.4	464.0	464.1	463.6	463.2	462.8	462.3
160°	471.0	471.6	471.6	471.3	470.9	470.5	470.1
162.5°	478.1	478.7	478.8	478.3	477.9	477.4	477.0
165°	487.1	487.8	487.9	487.4	486.9	486.4	486.0
167.5°	494.6	495.2	495.3	494.7	494.3	493.8	493.3
170°	498.6	499.3	499.4	498.8	498.2	497.7	497.1
172.5°	501.7	502.4	502.4	501.8	501.2	500.7	500.1
175°	505.0	505.7	505.8	505.2	504.6	504.1	503.5
177.5°	506.3	506.8	506.8	506.3	506.0	505.5	505.0
180°	506.1	506.1	506.1	506.1	506.1	506.1	506.1

(END OF REPORT)