

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P999513

Luminaire Tested: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P999513
REPORT IS A COMBINATION OF REPORTS P988066 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K
Description: Define 2 Regressed Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721}
{m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

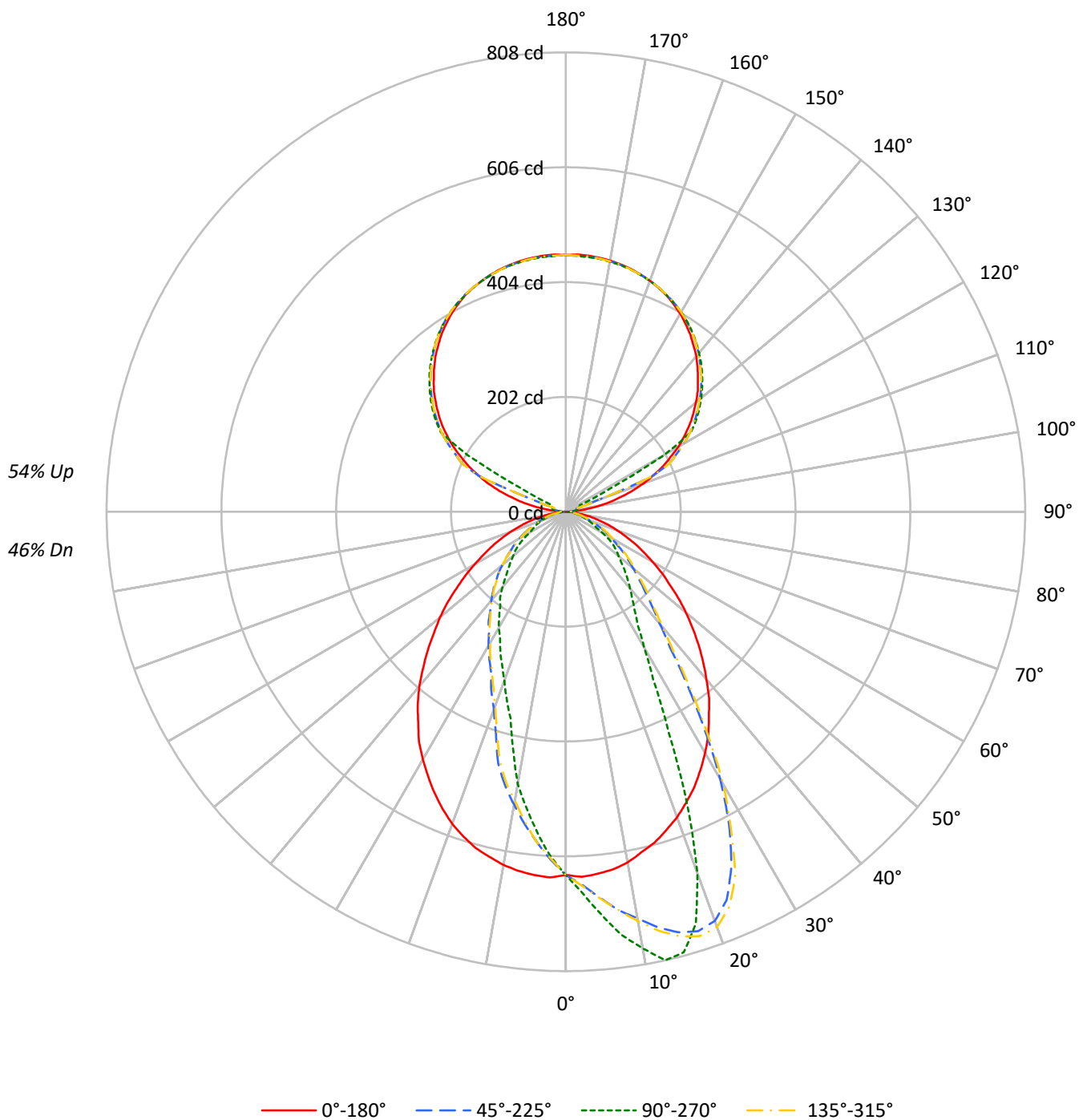
Lumens per Lamp: N/A
Luminaire Lumens: 2428.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 22.3
Input Voltage (V):
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: 24 FT

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Luminous Intensity Polar Plot



TEST NUMBER: P999513

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46		
1	97	93	90	87	89	86	83	80	72	70	68	59	57	56	47	46	45	40		
2	89	82	77	72	82	76	71	67	64	60	57	53	50	48	42	41	39	34		
3	82	73	66	61	75	68	62	57	57	53	49	47	44	42	38	36	34	30		
4	75	65	58	52	69	60	54	49	51	46	43	43	39	36	35	32	30	27		
5	70	59	51	45	64	54	48	43	46	41	37	39	35	32	32	29	27	24		
6	64	53	45	40	59	49	42	37	42	37	33	35	31	29	29	26	24	21		
7	60	48	40	35	55	45	38	33	38	33	29	32	28	26	27	24	22	19		
8	56	44	36	31	51	41	34	30	35	30	26	30	26	23	25	22	20	18		
9	52	40	33	28	48	38	31	27	32	27	24	28	24	21	23	20	18	16		
10	49	37	30	26	45	35	28	24	30	25	22	26	22	19	22	19	17	15		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10112	10112	10112	10112
5°	10136	10742	10171	8581
10°	10024	11353	10096	7086
15°	9806	11356	9972	5323
20°	9545	9388	9752	4391
25°	9228	5866	9428	3736
30°	8823	3755	9063	3216
35°	8330	2887	8599	2752
40°	7782	2427	8114	2407
45°	7194	2065	7495	2021
50°	6593	1755	6901	1749
55°	5926	1525	6246	1504
60°	5335	1162	5617	1149
65°	4781	874	5066	992
70°	4170	699	4500	808
75°	3524	536	3849	612
80°	2802	364	3010	402
85°	1949	188	2133	198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 165°

Vertical Angle: 45°

Luminance: 9250 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	2.5
10°-20°	169.1	7.0
20°-30°	217.7	9.0
30°-40°	206.5	8.5
40°-50°	177.0	7.3
50°-60°	134.8	5.6
60°-70°	85.0	3.5
70°-80°	42.4	1.7
80°-90°	11.7	0.5
90°-100°	14.9	0.6
100°-110°	55.5	2.3
110°-120°	147.1	6.1
120°-130°	244.0	10.1
130°-140°	259.2	10.7
140°-150°	240.9	9.9
150°-160°	193.7	8.0
160°-170°	124.8	5.1
170°-180°	43.0	1.8
0°-30°	447.4	18.4
0°-40°	653.9	26.9
0°-60°	965.7	39.8
0°-90°	1104.8	45.5
90°-120°	217.5	9.0
90°-150°	961.7	39.6
90°-180°	1323.0	54.5
0°-180°	2428.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	639	639	639	639	639	
5°	639	711	642	568	639	61
15°	602	802	613	376	602	169
25°	534	428	546	273	534	245
35°	439	211	453	201	439	274
45°	329	146	343	143	329	254
55°	222	102	234	100	222	200
65°	134	53	142	60	134	133
75°	63	28	69	32	63	68
85°	14	8	15	8	14	16
90°	0	9	0	9	0	2
95°	21	14	21	14	21	25
105°	99	25	99	25	99	106
115°	188	27	188	27	188	185
125°	266	279	266	279	266	237
135°	329	339	329	339	329	254
145°	381	387	381	387	381	238
155°	420	420	420	420	420	193
165°	442	441	442	441	442	125
175°	452	450	452	450	452	43
180°	451	451	451	451	451	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
2.5°	642.8	645.5	646.8	648.6	652.6	655.3	659.3	660.2	659.7	661.5	656.6
5°	639.3	645.1	650.4	654.8	661.9	666.4	671.3	677.0	678.4	685.0	681.0
7.5°	634.4	642.8	650.4	659.3	669.9	675.7	683.2	692.1	696.1	704.1	706.3
10°	626.4	638.4	651.3	660.6	675.2	685.5	692.6	706.8	716.1	728.1	726.3
12.5°	613.5	629.1	646.4	661.9	681.0	687.7	701.0	715.6	727.6	738.7	748.5
15°	602.4	620.2	639.3	658.4	680.1	692.6	705.9	725.0	737.8	757.4	765.8
17.5°	587.3	610.0	632.6	653.9	679.7	693.9	710.3	729.0	748.1	766.7	773.4
20°	571.8	596.2	620.6	649.5	678.8	692.6	709.4	732.5	751.2	765.8	765.8
22.5°	553.2	582.9	610.9	638.4	670.4	690.3	707.7	734.7	748.1	751.2	739.2
25°	534.5	564.3	594.9	629.1	665.5	683.2	702.8	728.1	732.5	720.1	689.0
27.5°	512.3	545.6	580.2	617.1	655.3	677.5	695.2	712.1	703.7	670.4	622.0
30°	489.7	525.6	564.7	599.8	645.9	666.4	681.5	686.3	659.7	605.5	542.9
32.5°	466.1	501.2	542.5	584.7	631.3	650.8	660.6	647.7	598.9	530.5	454.2
35°	438.6	478.1	521.2	565.1	611.3	626.0	631.7	600.2	537.6	449.3	373.4
37.5°	413.8	453.3	499.4	544.3	589.1	597.1	591.3	542.1	462.6	375.1	301.0
40°	384.5	426.6	471.9	522.1	558.9	561.2	546.9	483.0	384.5	302.3	256.6
42.5°	357.4	400.0	445.3	496.3	524.3	516.8	497.7	413.8	321.0	260.6	223.8
45°	329.4	369.8	418.6	463.9	483.9	466.1	437.3	348.1	269.5	224.2	195.8
47.5°	302.3	340.1	388.5	432.0	435.5	415.5	381.4	291.7	233.5	197.1	174.0
50°	275.7	313.4	358.7	394.7	391.1	363.6	325.0	253.5	202.9	174.0	154.9
52.5°	249.1	283.2	327.2	355.6	340.5	313.9	275.7	214.9	177.1	151.8	137.2
55°	222.4	254.4	292.1	315.6	291.7	261.0	234.0	184.2	153.6	133.2	122.1
57.5°	200.2	225.5	260.2	274.4	245.5	221.5	198.0	158.5	133.2	118.5	105.7
60°	175.8	198.9	227.3	235.7	206.0	186.5	166.5	134.1	114.1	101.2	92.8
62.5°	154.9	174.0	195.8	195.8	169.6	154.9	139.8	112.3	95.9	85.7	81.7
65°	134.5	148.3	163.8	162.0	139.8	127.0	115.0	92.8	80.4	73.3	69.3
67.5°	114.5	125.2	135.4	129.2	113.2	102.1	91.0	75.0	66.6	61.7	56.4
70°	96.3	104.8	110.1	104.3	88.3	79.0	71.0	60.4	53.7	47.5	44.4
72.5°	80.8	84.4	86.1	79.0	65.7	60.4	54.6	47.1	41.3	38.2	37.3
75°	63.0	66.1	64.8	59.5	48.4	44.4	40.0	34.6	33.3	31.5	30.6
77.5°	49.3	49.3	47.1	42.2	34.6	31.5	29.7	27.1	25.7	25.3	24.4
80°	35.1	34.6	33.3	28.0	23.5	21.8	21.8	20.0	19.5	18.6	18.6
82.5°	23.1	23.1	21.3	16.9	15.5	15.1	14.7	13.8	13.8	13.3	13.3
85°	13.8	12.9	10.7	9.3	8.9	8.9	8.4	8.0	8.4	8.0	8.0
87.5°	6.2	4.9	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
90°	0.3	1.1	1.9	2.7	3.5	3.9	4.2	4.8	5.3	5.9	6.5
92.5°	8.2	7.9	7.6	7.3	7.0	6.9	7.0	7.2	7.4	7.6	7.8
95°	21.2	18.8	16.4	14.1	11.7	10.5	10.7	11.2	11.7	12.2	12.7
97.5°	38.2	32.2	26.3	20.3	14.4	11.4	12.0	13.2	14.3	15.5	16.7
100°	57.8	47.9	37.9	28.0	18.1	13.1	13.7	14.9	16.2	17.4	18.6
102.5°	79.4	79.2	79.1	78.9	78.8	78.7	72.1	58.9	45.7	32.5	19.3
105°	99.3	101.5	103.7	105.8	108.0	109.1	99.2	79.4	59.5	39.7	19.9
107.5°	122.5	124.3	126.1	127.9	129.7	130.6	118.4	93.9	69.5	45.0	20.6
110°	144.7	146.2	147.7	149.2	150.7	151.5	141.0	120.1	99.1	78.2	57.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	165.6	166.9	168.2	169.5	170.8	171.5	170.9	169.6	168.4	167.1	165.9
115°	187.8	189.0	190.2	191.5	192.7	193.3	194.2	196.0	197.9	199.7	201.5
117.5°	207.1	208.5	210.0	211.4	212.9	213.6	214.2	215.4	216.7	217.9	219.1
120°	228.6	229.7	230.8	231.9	233.0	233.5	234.2	235.5	236.8	238.1	239.4
122.5°	246.9	248.1	249.2	250.4	251.5	252.1	252.8	254.3	255.8	257.2	258.7
125°	265.5	266.5	267.4	268.4	269.3	269.8	270.5	271.9	273.2	274.6	276.0
127.5°	282.5	283.5	284.5	285.6	286.6	287.1	287.6	288.7	289.8	290.9	292.0
130°	298.5	299.7	300.8	302.0	303.1	303.7	304.1	304.9	305.7	306.5	307.3
132.5°	314.8	315.8	316.7	317.7	318.6	319.1	319.5	320.3	321.1	321.9	322.7
135°	328.6	329.8	330.9	332.1	333.2	333.8	334.1	334.8	335.4	336.1	336.7
137.5°	342.9	343.8	344.6	345.5	346.4	346.8	347.2	347.9	348.6	349.4	350.1
140°	357.0	357.6	358.2	358.7	359.3	359.6	360.0	360.8	361.6	362.4	363.2
142.5°	368.7	369.2	369.7	370.2	370.7	371.0	371.5	372.4	373.4	374.3	375.3
145°	381.1	381.0	381.0	380.9	380.8	380.8	381.4	382.7	383.9	385.2	386.4
147.5°	391.9	391.7	391.5	391.2	391.0	390.9	391.5	392.8	394.0	395.3	396.5
150°	402.4	401.9	401.4	400.9	400.4	400.1	400.7	401.8	403.0	404.1	405.3
152.5°	411.2	410.6	410.0	409.5	408.9	408.6	409.1	410.2	411.3	412.4	413.5
155°	419.7	419.0	418.4	417.7	417.0	416.7	417.1	418.0	418.9	419.8	420.7
157.5°	426.5	425.9	425.3	424.8	424.2	423.9	424.2	424.9	425.6	426.2	426.9
160°	432.4	432.0	431.6	431.1	430.7	430.5	430.7	431.1	431.6	432.0	432.4
162.5°	437.6	437.2	436.8	436.3	435.9	435.7	435.9	436.2	436.6	436.9	437.3
165°	442.2	441.8	441.3	440.9	440.4	440.2	440.3	440.5	440.8	441.0	441.2
167.5°	445.8	445.4	444.9	444.5	444.0	443.8	443.9	444.1	444.4	444.6	444.8
170°	448.7	448.3	447.9	447.4	447.0	446.8	446.9	447.0	447.1	447.3	447.4
172.5°	450.7	450.3	449.8	449.4	448.9	448.7	448.8	448.9	449.1	449.2	449.4
175°	452.3	451.8	451.3	450.8	450.3	450.0	450.1	450.2	450.4	450.5	450.7
177.5°	453.0	452.5	452.0	451.5	451.0	450.7	450.7	450.8	450.9	450.9	451.0
180°	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
2.5°	661.5	662.4	663.7	669.9	670.8	672.6	671.7	671.7	672.1	671.3	671.7
5°	689.9	691.2	697.9	705.4	707.2	705.4	707.7	710.8	710.8	710.8	709.9
7.5°	716.5	721.4	729.0	740.1	742.3	744.5	748.5	745.8	746.7	750.7	749.4
10°	742.3	749.4	757.8	767.1	772.0	775.1	776.9	780.9	790.2	779.6	783.6
12.5°	766.7	776.9	785.8	796.0	799.6	803.5	804.9	808.4	808.4	808.0	811.1
15°	782.7	792.0	800.0	806.7	807.5	806.7	805.8	806.2	807.5	802.2	805.3
17.5°	786.2	787.1	789.8	787.1	787.6	778.2	772.9	771.6	759.2	759.6	769.8
20°	768.9	753.8	749.8	735.2	726.3	702.3	701.4	694.8	668.6	676.6	674.8
22.5°	721.4	695.7	661.5	644.6	636.2	610.9	591.3	577.6	568.3	558.9	554.9
25°	658.8	617.1	568.7	535.4	530.5	507.0	471.0	454.2	434.2	428.0	438.6
27.5°	578.0	523.9	469.3	418.2	408.9	387.6	369.4	357.4	334.3	333.0	333.8
30°	468.4	413.8	368.0	334.7	311.7	301.9	289.9	281.0	271.7	275.2	276.1
32.5°	384.9	333.0	290.3	272.6	261.9	255.7	245.5	239.7	235.7	234.4	234.0
35°	305.9	271.3	252.2	234.8	228.6	224.2	216.6	214.0	210.4	210.9	210.9
37.5°	261.9	233.1	218.9	210.0	204.2	202.0	197.1	194.4	192.2	191.3	192.7
40°	226.0	206.0	197.1	189.1	184.2	183.4	180.7	177.6	174.9	175.4	176.7
42.5°	199.8	188.2	177.6	171.4	167.8	166.5	164.3	162.0	162.0	160.7	160.3
45°	178.9	169.6	160.7	154.9	152.7	150.9	148.3	147.8	146.1	146.5	146.9
47.5°	160.3	152.7	146.1	140.3	138.1	137.6	135.0	133.2	133.2	132.7	132.3
50°	143.4	135.8	130.1	127.0	123.9	123.0	122.5	122.1	121.2	121.2	121.6
52.5°	129.6	122.1	117.6	115.0	113.2	112.3	112.3	111.9	111.9	111.9	111.4
55°	114.5	108.3	104.8	103.9	103.0	102.6	102.1	101.2	100.8	101.7	100.8
57.5°	100.3	98.1	95.0	94.1	91.9	91.9	90.6	89.7	88.8	89.7	89.7
60°	89.2	86.1	84.4	81.7	79.9	78.1	75.9	75.5	74.6	74.1	73.7
62.5°	77.7	75.0	70.6	66.6	63.9	62.2	61.3	60.8	60.8	60.4	60.4
65°	64.8	58.6	56.4	55.0	54.6	54.2	53.3	52.8	53.3	52.8	53.3
67.5°	50.6	49.7	48.4	47.5	47.1	46.6	46.6	46.2	46.2	46.2	46.2
70°	44.0	41.7	41.3	40.4	40.4	40.0	40.0	40.0	40.0	39.5	40.4
72.5°	36.4	35.1	34.6	34.2	34.2	34.2	33.7	33.7	33.7	33.3	33.7
75°	29.7	29.3	28.4	28.4	28.0	28.4	28.0	28.0	27.5	28.0	28.0
77.5°	24.0	23.5	23.1	23.1	22.6	22.6	22.6	22.6	22.6	22.6	23.1
80°	18.2	17.8	17.3	17.8	17.3	17.8	17.3	17.3	17.8	17.3	17.3
82.5°	13.3	12.9	12.9	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
85°	8.0	7.5	7.5	8.0	7.5	8.0	7.5	7.5	7.5	8.0	8.0
87.5°	3.6	4.0	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.0
90°	6.9	7.3	7.6	8.0	8.2	8.3	8.4	8.5	8.7	8.8	8.7
92.5°	8.0	8.1	8.3	8.4	8.5	8.5	8.6	8.7	8.7	8.8	8.7
95°	13.1	13.5	13.8	14.2	14.4	14.4	14.3	14.2	14.1	14.0	14.1
97.5°	16.9	17.1	17.3	17.5	17.6	17.6	17.7	17.8	17.9	18.0	17.9
100°	19.2	19.8	20.3	20.9	21.2	21.3	21.4	21.6	21.7	21.9	21.7
102.5°	20.1	20.9	21.7	22.5	22.9	23.0	23.2	23.4	23.6	23.8	23.6
105°	20.7	21.5	22.3	23.1	23.5	23.6	23.9	24.2	24.5	24.8	24.5
107.5°	21.4	22.2	23.0	23.8	24.2	24.3	24.6	24.9	25.2	25.5	25.2
110°	49.9	42.7	35.4	28.1	24.5	24.6	24.9	25.2	25.5	25.8	25.5

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	134.6	103.3	72.0	40.7	25.1	25.2	25.4	25.7	25.9	26.1	25.9
115°	167.9	134.3	100.7	67.1	50.3	47.7	42.5	37.2	32.0	26.8	32.0
117.5°	208.7	198.3	188.0	177.6	172.4	162.9	143.9	124.9	105.9	86.9	105.9
120°	240.3	241.1	242.0	242.9	243.3	238.4	228.6	218.8	209.0	199.2	209.0
122.5°	259.1	259.5	260.0	260.4	260.6	260.6	260.7	260.8	260.8	260.9	260.8
125°	276.5	277.0	277.5	278.0	278.3	278.4	278.6	278.8	279.0	279.2	279.0
127.5°	292.7	293.4	294.1	294.8	295.2	295.2	295.3	295.4	295.5	295.6	295.5
130°	308.1	308.9	309.7	310.5	310.9	310.9	310.8	310.7	310.7	310.6	310.7
132.5°	323.3	324.0	324.6	325.3	325.6	325.6	325.5	325.4	325.4	325.3	325.4
135°	337.4	338.2	338.9	339.6	340.0	339.9	339.8	339.6	339.5	339.3	339.5
137.5°	350.8	351.6	352.3	353.0	353.4	353.3	353.1	352.8	352.6	352.4	352.6
140°	363.8	364.5	365.1	365.8	366.1	365.9	365.6	365.2	364.9	364.5	364.9
142.5°	375.9	376.5	377.0	377.6	377.9	377.7	377.3	377.0	376.6	376.2	376.6
145°	386.9	387.4	387.9	388.4	388.6	388.4	388.1	387.7	387.4	387.0	387.4
147.5°	396.9	397.2	397.6	397.9	398.1	398.0	397.7	397.4	397.1	396.8	397.1
150°	405.7	406.2	406.6	407.1	407.3	407.1	406.7	406.4	406.0	405.6	406.0
152.5°	413.9	414.3	414.8	415.2	415.4	415.1	414.6	414.1	413.6	413.1	413.6
155°	421.1	421.5	422.0	422.4	422.6	422.3	421.7	421.2	420.6	420.0	420.6
157.5°	427.4	427.9	428.4	428.9	429.1	428.8	428.2	427.7	427.1	426.5	427.1
160°	432.8	433.3	433.7	434.2	434.4	434.1	433.6	433.1	432.6	432.1	432.6
162.5°	437.8	438.3	438.8	439.3	439.6	439.3	438.6	438.0	437.3	436.7	437.3
165°	441.7	442.2	442.7	443.2	443.5	443.2	442.7	442.2	441.7	441.2	441.7
167.5°	445.3	445.8	446.3	446.8	447.1	446.8	446.1	445.5	444.8	444.2	444.8
170°	447.9	448.4	448.9	449.4	449.7	449.4	448.7	448.1	447.4	446.8	447.4
172.5°	449.9	450.4	450.9	451.4	451.7	451.4	450.7	450.0	449.4	448.7	449.4
175°	451.2	451.7	452.2	452.7	453.0	452.6	451.9	451.2	450.4	449.7	450.4
177.5°	451.5	452.0	452.5	453.0	453.3	453.0	452.3	451.7	451.0	450.4	451.0
180°	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
2.5°	673.5	670.4	669.5	670.4	669.5	669.9	666.8	655.3	658.4	653.5	656.2
5°	711.7	709.0	703.2	702.3	701.4	700.6	696.1	685.9	681.9	675.2	674.8
7.5°	748.1	748.1	743.6	740.5	736.5	733.4	727.6	712.5	706.3	698.3	693.9
10°	784.0	772.5	777.4	774.2	764.5	762.7	752.1	743.2	731.2	723.2	716.1
12.5°	809.8	806.2	801.8	799.1	796.4	790.7	783.6	760.9	754.7	738.7	730.7
15°	808.9	806.7	808.0	808.0	807.1	805.8	800.0	783.6	772.9	757.4	743.6
17.5°	765.4	771.1	776.9	780.9	789.8	793.8	799.1	789.3	782.7	769.4	754.7
20°	689.5	703.7	720.5	724.1	732.1	755.6	766.3	774.7	777.4	772.9	760.9
22.5°	583.8	595.8	636.6	635.7	647.3	675.2	706.3	731.6	751.6	762.7	758.3
25°	457.3	474.1	495.9	512.3	550.1	591.8	630.4	670.8	705.4	736.1	743.6
27.5°	345.8	368.0	385.3	407.1	426.2	475.5	525.2	588.2	628.6	686.8	717.0
30°	279.7	289.9	307.2	317.4	326.7	364.5	420.9	483.0	554.0	621.1	673.0
32.5°	238.8	245.9	258.8	263.3	273.0	298.3	333.8	390.7	463.9	545.2	613.5
35°	214.4	222.0	224.6	228.6	236.6	252.6	277.0	318.3	384.5	463.9	545.6
37.5°	193.6	197.6	205.1	207.8	210.4	222.4	238.8	267.7	311.7	376.9	467.5
40°	178.9	181.1	185.1	187.3	189.1	197.6	212.2	231.7	264.1	313.9	397.3
42.5°	163.4	166.0	168.7	171.4	173.6	180.2	189.1	207.8	229.5	267.3	327.6
45°	148.3	150.1	153.2	154.9	158.0	163.4	171.4	184.2	203.8	227.7	276.6
47.5°	134.5	136.7	138.1	140.3	142.5	148.3	155.8	164.3	180.2	203.8	239.3
50°	122.1	124.7	126.5	127.0	128.7	134.1	140.3	149.6	159.8	178.0	209.1
52.5°	113.2	113.7	115.0	116.8	116.3	119.4	125.2	132.3	143.0	157.6	180.2
55°	103.0	104.3	105.2	105.7	105.7	108.3	111.4	118.1	126.5	138.5	157.6
57.5°	90.1	91.5	94.1	95.0	96.3	97.7	99.0	103.4	110.5	122.1	137.6
60°	76.8	77.7	80.4	82.1	83.0	86.6	88.3	91.9	95.9	104.3	119.0
62.5°	61.7	62.6	63.9	65.7	67.5	72.8	77.2	80.8	83.9	89.7	101.7
65°	53.7	54.2	55.0	55.5	55.9	58.2	62.2	67.0	72.8	77.2	84.4
67.5°	46.6	47.1	47.5	48.4	48.8	49.3	51.1	52.4	58.2	64.4	69.7
70°	40.0	40.8	41.3	41.3	41.7	42.6	43.5	45.3	47.1	50.2	56.8
72.5°	33.7	34.2	35.1	35.1	35.1	36.0	36.8	37.7	38.6	40.4	43.1
75°	28.0	28.9	28.9	28.9	29.3	29.3	30.2	31.1	32.0	33.3	34.2
77.5°	23.1	23.1	23.1	23.1	23.5	23.5	24.0	24.9	25.3	25.7	26.6
80°	17.3	17.8	17.8	17.8	18.2	18.2	18.2	19.1	19.5	19.5	20.4
82.5°	12.9	12.9	12.9	13.3	12.9	13.3	13.3	13.8	13.3	13.8	14.2
85°	8.0	8.0	8.0	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.9
87.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.0	4.0
90°	8.5	8.4	8.3	8.2	8.0	7.6	7.3	6.9	6.5	5.9	5.3
92.5°	8.7	8.6	8.5	8.5	8.4	8.3	8.1	8.0	7.8	7.6	7.4
95°	14.2	14.3	14.4	14.4	14.2	13.8	13.5	13.1	12.7	12.2	11.7
97.5°	17.8	17.7	17.6	17.6	17.5	17.3	17.1	16.9	16.7	15.5	14.3
100°	21.6	21.4	21.3	21.2	20.9	20.3	19.8	19.2	18.6	17.4	16.2
102.5°	23.4	23.2	23.0	22.9	22.5	21.7	20.9	20.1	19.3	32.5	45.7
105°	24.2	23.9	23.6	23.5	23.1	22.3	21.5	20.7	19.9	39.7	59.5
107.5°	24.9	24.6	24.3	24.2	23.8	23.0	22.2	21.4	20.6	45.0	69.5
110°	25.2	24.9	24.6	24.5	28.1	35.4	42.7	49.9	57.2	78.2	99.1

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	25.7	25.4	25.2	25.1	40.7	72.0	103.3	134.6	165.9	167.1	168.4
115°	37.2	42.5	47.7	50.3	67.1	100.7	134.3	167.9	201.5	199.7	197.9
117.5°	124.9	143.9	162.9	172.4	177.6	188.0	198.3	208.7	219.1	217.9	216.7
120°	218.8	228.6	238.4	243.3	242.9	242.0	241.1	240.3	239.4	238.1	236.8
122.5°	260.8	260.7	260.6	260.6	260.4	260.0	259.5	259.1	258.7	257.2	255.8
125°	278.8	278.6	278.4	278.3	278.0	277.5	277.0	276.5	276.0	274.6	273.2
127.5°	295.4	295.3	295.2	295.2	294.8	294.1	293.4	292.7	292.0	290.9	289.8
130°	310.7	310.8	310.9	310.9	310.5	309.7	308.9	308.1	307.3	306.5	305.7
132.5°	325.4	325.5	325.6	325.6	325.3	324.6	324.0	323.3	322.7	321.9	321.1
135°	339.6	339.8	339.9	340.0	339.6	338.9	338.2	337.4	336.7	336.1	335.4
137.5°	352.8	353.1	353.3	353.4	353.0	352.3	351.6	350.8	350.1	349.4	348.6
140°	365.2	365.6	365.9	366.1	365.8	365.1	364.5	363.8	363.2	362.4	361.6
142.5°	377.0	377.3	377.7	377.9	377.6	377.0	376.5	375.9	375.3	374.3	373.4
145°	387.7	388.1	388.4	388.6	388.4	387.9	387.4	386.9	386.4	385.2	383.9
147.5°	397.4	397.7	398.0	398.1	397.9	397.6	397.2	396.9	396.5	395.3	394.0
150°	406.4	406.7	407.1	407.3	407.1	406.6	406.2	405.7	405.3	404.1	403.0
152.5°	414.1	414.6	415.1	415.4	415.2	414.8	414.3	413.9	413.5	412.4	411.3
155°	421.2	421.7	422.3	422.6	422.4	422.0	421.5	421.1	420.7	419.8	418.9
157.5°	427.7	428.2	428.8	429.1	428.9	428.4	427.9	427.4	426.9	426.2	425.6
160°	433.1	433.6	434.1	434.4	434.2	433.7	433.3	432.8	432.4	432.0	431.6
162.5°	438.0	438.6	439.3	439.6	439.3	438.8	438.3	437.8	437.3	436.9	436.6
165°	442.2	442.7	443.2	443.5	443.2	442.7	442.2	441.7	441.2	441.0	440.8
167.5°	445.5	446.1	446.8	447.1	446.8	446.3	445.8	445.3	444.8	444.6	444.4
170°	448.1	448.7	449.4	449.7	449.4	448.9	448.4	447.9	447.4	447.3	447.1
172.5°	450.0	450.7	451.4	451.7	451.4	450.9	450.4	449.9	449.4	449.2	449.1
175°	451.2	451.9	452.6	453.0	452.7	452.2	451.7	451.2	450.7	450.5	450.4
177.5°	451.7	452.3	453.0	453.3	453.0	452.5	452.0	451.5	451.0	450.9	450.9
180°	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
2.5°	652.2	649.9	649.9	648.6	648.6	641.5	641.5	643.7	641.1	638.0	633.5
5°	669.0	664.1	662.8	661.0	655.3	646.4	642.8	641.5	636.2	629.5	622.0
7.5°	685.0	677.0	673.0	669.0	661.5	649.1	642.0	637.1	629.1	618.9	609.1
10°	700.6	690.3	680.1	675.2	664.6	649.1	638.8	630.9	619.3	605.5	591.8
12.5°	714.8	693.4	691.7	681.9	666.4	648.6	633.1	621.5	606.9	590.9	574.9
15°	727.2	705.4	694.8	685.9	665.5	643.3	626.9	612.6	593.1	574.9	555.4
17.5°	733.4	709.9	702.8	688.1	667.3	638.4	616.2	598.9	577.6	555.8	533.6
20°	739.6	712.1	700.6	690.3	661.9	629.1	604.2	584.2	560.7	535.0	510.5
22.5°	742.7	712.1	698.3	684.1	656.6	618.9	589.6	566.0	538.5	512.3	483.0
25°	737.4	709.4	693.0	678.4	647.3	606.4	572.7	546.1	516.8	487.0	457.3
27.5°	724.1	703.2	684.1	669.0	634.4	590.5	554.9	524.7	494.6	461.3	431.1
30°	699.2	689.9	674.8	657.9	620.2	576.2	534.1	503.0	469.7	436.4	404.9
32.5°	660.6	668.6	658.8	644.2	603.3	556.7	511.9	480.4	443.9	408.0	379.1
35°	613.5	642.0	636.6	626.4	585.6	535.8	491.0	452.8	416.4	380.0	351.2
37.5°	562.0	605.1	609.5	603.3	565.1	514.5	465.3	428.0	390.7	353.8	324.5
40°	491.5	557.6	571.8	574.5	543.8	488.8	437.3	400.9	364.0	328.1	292.6
42.5°	426.6	510.1	527.9	539.0	516.8	463.5	411.5	371.1	334.7	302.3	266.8
45°	365.8	452.8	481.7	495.9	486.1	434.6	380.9	343.2	309.9	280.1	245.9
47.5°	303.2	390.7	431.1	453.7	453.7	405.3	351.6	314.3	282.4	257.0	226.9
50°	261.5	334.3	376.0	405.8	413.8	375.6	325.0	288.6	258.4	230.9	207.8
52.5°	222.9	288.1	322.8	353.8	376.9	343.6	295.2	262.4	232.6	206.9	188.7
55°	192.7	241.5	273.0	307.2	333.0	311.2	266.4	234.4	208.7	187.3	171.8
57.5°	163.8	206.4	232.2	262.4	289.9	273.5	237.5	210.0	187.3	168.7	154.9
60°	139.4	174.0	194.0	217.5	251.7	240.2	210.4	185.1	166.9	150.1	138.5
62.5°	118.5	146.1	162.9	179.8	210.9	205.5	182.5	162.9	147.4	133.2	123.4
65°	97.2	119.9	133.2	147.8	172.7	174.9	156.3	142.5	128.3	115.9	107.0
67.5°	78.6	96.3	108.3	120.8	140.7	146.9	134.1	122.5	110.5	100.3	92.3
70°	63.5	75.9	84.8	94.6	111.0	118.5	111.9	103.9	94.1	85.7	78.6
72.5°	50.2	58.2	63.5	71.0	84.4	91.9	91.5	84.4	77.2	71.5	65.7
75°	36.8	43.1	47.5	52.4	63.0	70.1	71.9	68.8	61.7	57.3	52.8
77.5°	28.0	31.5	33.7	37.3	44.8	51.1	53.7	52.8	47.9	44.4	41.3
80°	21.3	22.2	23.1	24.4	30.6	36.4	38.2	37.7	35.1	33.7	30.2
82.5°	15.1	15.5	16.0	16.4	18.6	23.5	25.3	26.2	24.0	22.6	19.5
85°	8.9	9.3	9.3	10.2	10.7	12.0	15.1	15.1	14.7	12.9	12.4
87.5°	4.4	4.4	4.0	4.0	4.4	4.9	5.8	6.7	5.8	5.3	4.9
90°	4.8	4.2	3.9	3.5	2.7	1.9	1.1	0.3	1.1	1.9	2.7
92.5°	7.2	7.0	6.9	7.0	7.3	7.6	7.9	8.2	7.9	7.6	7.3
95°	11.2	10.7	10.5	11.7	14.1	16.4	18.8	21.2	18.8	16.4	14.1
97.5°	13.2	12.0	11.4	14.4	20.3	26.3	32.2	38.2	32.2	26.3	20.3
100°	14.9	13.7	13.1	18.1	28.0	37.9	47.9	57.8	47.9	37.9	28.0
102.5°	58.9	72.1	78.7	78.8	78.9	79.1	79.2	79.4	79.2	79.1	78.9
105°	79.4	99.2	109.1	108.0	105.8	103.7	101.5	99.3	101.5	103.7	105.8
107.5°	93.9	118.4	130.6	129.7	127.9	126.1	124.3	122.5	124.3	126.1	127.9
110°	120.1	141.0	151.5	150.7	149.2	147.7	146.2	144.7	146.2	147.7	149.2

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
112.5°	169.6	170.9	171.5	170.8	169.5	168.2	166.9	165.6	166.9	168.2	169.5
115°	196.0	194.2	193.3	192.7	191.5	190.2	189.0	187.8	189.0	190.2	191.5
117.5°	215.4	214.2	213.6	212.9	211.4	210.0	208.5	207.1	208.5	210.0	211.4
120°	235.5	234.2	233.5	233.0	231.9	230.8	229.7	228.6	229.7	230.8	231.9
122.5°	254.3	252.8	252.1	251.5	250.4	249.2	248.1	246.9	248.1	249.2	250.4
125°	271.9	270.5	269.8	269.3	268.4	267.4	266.5	265.5	266.5	267.4	268.4
127.5°	288.7	287.6	287.1	286.6	285.6	284.5	283.5	282.5	283.5	284.5	285.6
130°	304.9	304.1	303.7	303.1	302.0	300.8	299.7	298.5	299.7	300.8	302.0
132.5°	320.3	319.5	319.1	318.6	317.7	316.7	315.8	314.8	315.8	316.7	317.7
135°	334.8	334.1	333.8	333.2	332.1	330.9	329.8	328.6	329.8	330.9	332.1
137.5°	347.9	347.2	346.8	346.4	345.5	344.6	343.8	342.9	343.8	344.6	345.5
140°	360.8	360.0	359.6	359.3	358.7	358.2	357.6	357.0	357.6	358.2	358.7
142.5°	372.4	371.5	371.0	370.7	370.2	369.7	369.2	368.7	369.2	369.7	370.2
145°	382.7	381.4	380.8	380.8	380.9	381.0	381.0	381.1	381.0	381.0	380.9
147.5°	392.8	391.5	390.9	391.0	391.2	391.5	391.7	391.9	391.7	391.5	391.2
150°	401.8	400.7	400.1	400.4	400.9	401.4	401.9	402.4	401.9	401.4	400.9
152.5°	410.2	409.1	408.6	408.9	409.5	410.0	410.6	411.2	410.6	410.0	409.5
155°	418.0	417.1	416.7	417.0	417.7	418.4	419.0	419.7	419.0	418.4	417.7
157.5°	424.9	424.2	423.9	424.2	424.8	425.3	425.9	426.5	425.9	425.3	424.8
160°	431.1	430.7	430.5	430.7	431.1	431.6	432.0	432.4	432.0	431.6	431.1
162.5°	436.2	435.9	435.7	435.9	436.3	436.8	437.2	437.6	437.2	436.8	436.3
165°	440.5	440.3	440.2	440.4	440.9	441.3	441.8	442.2	441.8	441.3	440.9
167.5°	444.1	443.9	443.8	444.0	444.5	444.9	445.4	445.8	445.4	444.9	444.5
170°	447.0	446.9	446.8	447.0	447.4	447.9	448.3	448.7	448.3	447.9	447.4
172.5°	448.9	448.8	448.7	448.9	449.4	449.8	450.3	450.7	450.3	449.8	449.4
175°	450.2	450.1	450.0	450.3	450.8	451.3	451.8	452.3	451.8	451.3	450.8
177.5°	450.8	450.7	450.7	451.0	451.5	452.0	452.5	453.0	452.5	452.0	451.5
180°	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
2.5°	631.7	632.2	633.5	629.5	623.3	620.6	612.6	611.3	610.0	610.0	611.3
5°	617.5	615.8	616.2	608.7	599.8	594.4	583.3	585.1	579.4	575.8	576.7
7.5°	602.0	597.1	596.7	586.9	575.8	566.0	554.5	551.8	546.5	540.3	537.6
10°	582.5	578.9	572.3	561.2	546.9	539.0	523.4	514.1	512.8	503.4	499.9
12.5°	562.5	556.3	549.6	534.1	518.1	505.2	493.7	483.5	476.4	468.4	463.0
15°	539.4	531.9	524.3	507.9	489.2	476.4	459.0	443.9	423.1	406.7	397.3
17.5°	514.1	505.7	495.4	477.2	459.0	441.3	409.3	391.6	376.9	367.1	361.4
20°	487.9	478.6	468.4	450.2	418.6	387.6	369.8	356.0	347.2	337.4	330.3
22.5°	460.4	450.6	439.5	411.1	377.8	356.0	342.3	329.4	316.5	311.2	307.7
25°	434.6	425.7	411.5	372.9	346.7	326.7	311.2	302.8	296.1	289.0	282.4
27.5°	408.0	391.6	371.6	339.2	322.8	302.3	291.2	285.0	273.5	268.6	265.5
30°	376.0	357.8	338.7	315.6	296.6	282.4	272.1	261.9	255.3	250.4	245.1
32.5°	343.6	326.3	314.3	290.3	276.1	261.5	251.7	245.5	235.7	232.6	230.4
35°	315.6	301.0	290.3	270.8	257.5	244.2	237.1	227.7	221.5	215.8	212.2
37.5°	288.1	280.1	269.0	252.6	238.4	227.7	218.0	214.9	206.4	203.3	199.8
40°	269.0	257.0	247.7	233.5	221.5	210.0	203.8	196.7	190.9	186.0	184.7
42.5°	245.9	237.1	231.7	216.2	203.8	197.1	189.6	181.6	177.1	173.1	168.3
45°	228.6	220.6	213.1	200.7	189.6	181.1	174.5	169.1	161.6	159.8	152.3
47.5°	210.4	202.4	196.7	184.2	174.0	166.0	161.2	154.1	147.8	143.8	140.3
50°	192.2	185.6	180.2	169.6	160.7	152.3	145.6	138.5	135.8	129.2	127.0
52.5°	174.9	170.5	164.7	154.5	145.6	138.5	131.4	125.6	121.6	118.1	115.4
55°	160.3	153.2	150.5	139.4	131.9	124.3	118.1	114.5	109.7	107.4	105.2
57.5°	143.8	139.8	135.4	127.0	118.5	111.4	107.0	101.7	99.0	96.3	94.6
60°	129.6	123.9	120.3	113.2	105.7	99.0	95.0	91.0	87.5	85.2	81.7
62.5°	113.2	108.8	106.5	99.0	92.8	86.6	83.0	79.0	76.4	72.4	67.9
65°	99.0	95.4	92.8	86.6	80.8	75.0	71.5	66.6	63.0	60.8	60.4
67.5°	86.6	83.9	79.9	74.1	68.4	63.9	59.9	55.9	55.5	54.6	54.6
70°	72.8	70.1	67.9	61.7	56.8	51.9	51.1	49.7	48.4	47.9	47.1
72.5°	60.8	58.6	55.9	50.6	45.7	44.4	43.5	42.6	41.3	40.8	40.4
75°	49.3	46.2	44.4	39.5	38.2	37.3	36.4	35.1	34.2	33.7	32.9
77.5°	37.7	34.6	34.6	32.0	31.1	29.7	28.9	28.0	27.5	26.6	26.6
80°	26.6	26.6	25.7	24.4	23.1	22.6	21.3	20.9	20.4	20.9	20.0
82.5°	19.5	17.8	17.8	16.9	16.0	15.5	14.7	14.7	14.2	14.2	14.2
85°	11.1	11.1	10.7	9.8	9.3	9.3	8.9	8.9	8.4	8.4	8.0
87.5°	4.4	4.0	4.4	4.0	4.0	3.6	3.6	3.6	3.1	3.6	3.1
90°	3.5	3.9	4.2	4.8	5.3	5.9	6.5	6.9	7.3	7.6	8.0
92.5°	7.0	6.9	7.0	7.2	7.4	7.6	7.8	8.0	8.1	8.3	8.4
95°	11.7	10.5	10.7	11.2	11.7	12.2	12.7	13.1	13.5	13.8	14.2
97.5°	14.4	11.4	12.0	13.2	14.3	15.5	16.7	16.9	17.1	17.3	17.5
100°	18.1	13.1	13.7	14.9	16.2	17.4	18.6	19.2	19.8	20.3	20.9
102.5°	78.8	78.7	72.1	58.9	45.7	32.5	19.3	20.1	20.9	21.7	22.5
105°	108.0	109.1	99.2	79.4	59.5	39.7	19.9	20.7	21.5	22.3	23.1
107.5°	129.7	130.6	118.4	93.9	69.5	45.0	20.6	21.4	22.2	23.0	23.8
110°	150.7	151.5	141.0	120.1	99.1	78.2	57.2	49.9	42.7	35.4	28.1

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
112.5°	170.8	171.5	170.9	169.6	168.4	167.1	165.9	134.6	103.3	72.0	40.7
115°	192.7	193.3	194.2	196.0	197.9	199.7	201.5	167.9	134.3	100.7	67.1
117.5°	212.9	213.6	214.2	215.4	216.7	217.9	219.1	208.7	198.3	188.0	177.6
120°	233.0	233.5	234.2	235.5	236.8	238.1	239.4	240.3	241.1	242.0	242.9
122.5°	251.5	252.1	252.8	254.3	255.8	257.2	258.7	259.1	259.5	260.0	260.4
125°	269.3	269.8	270.5	271.9	273.2	274.6	276.0	276.5	277.0	277.5	278.0
127.5°	286.6	287.1	287.6	288.7	289.8	290.9	292.0	292.7	293.4	294.1	294.8
130°	303.1	303.7	304.1	304.9	305.7	306.5	307.3	308.1	308.9	309.7	310.5
132.5°	318.6	319.1	319.5	320.3	321.1	321.9	322.7	323.3	324.0	324.6	325.3
135°	333.2	333.8	334.1	334.8	335.4	336.1	336.7	337.4	338.2	338.9	339.6
137.5°	346.4	346.8	347.2	347.9	348.6	349.4	350.1	350.8	351.6	352.3	353.0
140°	359.3	359.6	360.0	360.8	361.6	362.4	363.2	363.8	364.5	365.1	365.8
142.5°	370.7	371.0	371.5	372.4	373.4	374.3	375.3	375.9	376.5	377.0	377.6
145°	380.8	380.8	381.4	382.7	383.9	385.2	386.4	386.9	387.4	387.9	388.4
147.5°	391.0	390.9	391.5	392.8	394.0	395.3	396.5	396.9	397.2	397.6	397.9
150°	400.4	400.1	400.7	401.8	403.0	404.1	405.3	405.7	406.2	406.6	407.1
152.5°	408.9	408.6	409.1	410.2	411.3	412.4	413.5	413.9	414.3	414.8	415.2
155°	417.0	416.7	417.1	418.0	418.9	419.8	420.7	421.1	421.5	422.0	422.4
157.5°	424.2	423.9	424.2	424.9	425.6	426.2	426.9	427.4	427.9	428.4	428.9
160°	430.7	430.5	430.7	431.1	431.6	432.0	432.4	432.8	433.3	433.7	434.2
162.5°	435.9	435.7	435.9	436.2	436.6	436.9	437.3	437.8	438.3	438.8	439.3
165°	440.4	440.2	440.3	440.5	440.8	441.0	441.2	441.7	442.2	442.7	443.2
167.5°	444.0	443.8	443.9	444.1	444.4	444.6	444.8	445.3	445.8	446.3	446.8
170°	447.0	446.8	446.9	447.0	447.1	447.3	447.4	447.9	448.4	448.9	449.4
172.5°	448.9	448.7	448.8	448.9	449.1	449.2	449.4	449.9	450.4	450.9	451.4
175°	450.3	450.0	450.1	450.2	450.4	450.5	450.7	451.2	451.7	452.2	452.7
177.5°	451.0	450.7	450.7	450.8	450.9	450.9	451.0	451.5	452.0	452.5	453.0
180°	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
2.5°	611.3	610.4	607.8	608.7	607.3	607.3	606.4	606.4	606.4	608.7	607.3
5°	578.0	574.9	571.8	570.5	569.1	567.8	567.8	567.4	571.4	570.5	574.0
7.5°	536.7	535.8	529.6	529.6	527.4	526.5	528.7	529.2	529.6	530.5	532.7
10°	499.9	497.7	488.8	489.7	488.3	486.6	487.9	487.0	490.1	491.0	490.1
12.5°	456.4	452.4	442.6	437.7	432.4	428.4	433.3	429.7	442.2	445.7	455.5
15°	398.7	391.1	384.5	384.5	379.6	376.0	378.2	382.2	384.9	388.9	390.7
17.5°	360.0	356.9	351.6	348.5	347.2	345.8	345.8	347.6	353.4	352.9	356.5
20°	327.2	325.4	322.8	318.8	317.4	316.5	316.5	316.5	320.5	324.1	326.3
22.5°	304.5	303.2	301.4	296.1	293.5	292.6	294.8	296.1	299.2	301.9	304.1
25°	281.9	278.8	275.7	273.9	272.6	272.6	273.5	273.9	275.2	276.6	279.2
27.5°	263.3	261.0	256.6	251.7	251.7	250.4	251.3	252.2	255.3	259.7	261.9
30°	242.4	242.0	240.2	238.4	236.6	235.7	237.5	238.8	239.3	241.5	241.5
32.5°	227.3	224.2	221.1	219.3	218.4	218.0	218.4	220.2	220.2	222.9	226.0
35°	212.2	210.4	207.3	204.2	203.3	201.1	202.9	204.7	207.8	209.1	210.4
37.5°	195.8	193.6	192.2	191.3	189.6	190.0	188.7	191.3	194.0	193.6	194.4
40°	183.4	179.4	175.4	174.9	174.5	174.0	174.0	174.5	176.2	178.0	180.7
42.5°	167.4	166.0	162.5	158.9	158.0	157.2	156.3	158.0	161.6	164.7	166.0
45°	150.9	149.2	148.3	145.6	143.8	143.4	142.5	144.7	147.8	149.2	150.1
47.5°	135.8	135.4	132.7	133.2	131.9	132.3	131.9	133.2	133.2	134.5	135.4
50°	125.6	124.3	123.0	122.1	120.8	120.8	120.3	120.8	122.5	124.3	123.9
52.5°	115.4	113.2	112.8	112.3	111.4	112.3	111.0	111.4	113.2	114.1	113.7
55°	103.4	103.0	102.1	101.2	100.8	100.3	100.3	100.3	102.1	103.4	103.9
57.5°	94.1	91.9	90.1	90.1	88.3	87.9	88.8	89.2	90.6	91.5	92.3
60°	81.2	80.4	77.7	76.4	73.7	73.3	73.3	75.0	77.2	80.4	81.2
62.5°	67.5	66.1	65.7	65.7	65.7	65.7	65.7	65.7	65.7	66.1	66.1
65°	59.9	60.4	59.9	59.5	59.9	59.9	59.5	59.5	59.5	59.9	60.4
67.5°	53.7	53.3	53.7	53.3	52.8	52.8	52.4	52.8	53.3	53.7	53.7
70°	46.6	46.6	46.2	46.6	46.2	45.7	45.3	45.3	46.2	46.6	46.6
72.5°	40.0	40.0	39.5	39.5	38.6	38.6	39.1	38.6	38.6	40.0	40.0
75°	33.3	32.9	32.4	32.4	32.0	32.0	32.0	31.5	32.4	32.4	32.9
77.5°	26.2	26.2	26.2	25.7	25.7	25.3	25.3	25.7	25.7	25.7	26.2
80°	20.0	20.0	20.0	19.5	19.1	19.1	19.1	19.1	19.1	19.5	19.1
82.5°	13.8	13.8	13.8	13.8	13.8	13.3	13.3	13.3	13.8	13.8	13.3
85°	8.4	8.0	8.4	8.4	8.0	8.4	8.0	8.0	7.5	7.5	8.0
87.5°	3.6	3.1	2.7	2.7	3.1	2.7	2.7	2.7	3.1	2.7	2.7
90°	8.2	8.3	8.4	8.5	8.7	8.8	8.7	8.5	8.4	8.3	8.2
92.5°	8.5	8.5	8.6	8.7	8.7	8.8	8.7	8.7	8.6	8.5	8.5
95°	14.4	14.4	14.3	14.2	14.1	14.0	14.1	14.2	14.3	14.4	14.4
97.5°	17.6	17.6	17.7	17.8	17.9	18.0	17.9	17.8	17.7	17.6	17.6
100°	21.2	21.3	21.4	21.6	21.7	21.9	21.7	21.6	21.4	21.3	21.2
102.5°	22.9	23.0	23.2	23.4	23.6	23.8	23.6	23.4	23.2	23.0	22.9
105°	23.5	23.6	23.9	24.2	24.5	24.8	24.5	24.2	23.9	23.6	23.5
107.5°	24.2	24.3	24.6	24.9	25.2	25.5	25.2	24.9	24.6	24.3	24.2
110°	24.5	24.6	24.9	25.2	25.5	25.8	25.5	25.2	24.9	24.6	24.5

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
112.5°	25.1	25.2	25.4	25.7	25.9	26.1	25.9	25.7	25.4	25.2	25.1
115°	50.3	47.7	42.5	37.2	32.0	26.8	32.0	37.2	42.5	47.7	50.3
117.5°	172.4	162.9	143.9	124.9	105.9	86.9	105.9	124.9	143.9	162.9	172.4
120°	243.3	238.4	228.6	218.8	209.0	199.2	209.0	218.8	228.6	238.4	243.3
122.5°	260.6	260.6	260.7	260.8	260.8	260.9	260.8	260.8	260.7	260.6	260.6
125°	278.3	278.4	278.6	278.8	279.0	279.2	279.0	278.8	278.6	278.4	278.3
127.5°	295.2	295.2	295.3	295.4	295.5	295.6	295.5	295.4	295.3	295.2	295.2
130°	310.9	310.9	310.8	310.7	310.7	310.6	310.7	310.7	310.8	310.9	310.9
132.5°	325.6	325.6	325.5	325.4	325.4	325.3	325.4	325.4	325.5	325.6	325.6
135°	340.0	339.9	339.8	339.6	339.5	339.3	339.5	339.6	339.8	339.9	340.0
137.5°	353.4	353.3	353.1	352.8	352.6	352.4	352.6	352.8	353.1	353.3	353.4
140°	366.1	365.9	365.6	365.2	364.9	364.5	364.9	365.2	365.6	365.9	366.1
142.5°	377.9	377.7	377.3	377.0	376.6	376.2	376.6	377.0	377.3	377.7	377.9
145°	388.6	388.4	388.1	387.7	387.4	387.0	387.4	387.7	388.1	388.4	388.6
147.5°	398.1	398.0	397.7	397.4	397.1	396.8	397.1	397.4	397.7	398.0	398.1
150°	407.3	407.1	406.7	406.4	406.0	405.6	406.0	406.4	406.7	407.1	407.3
152.5°	415.4	415.1	414.6	414.1	413.6	413.1	413.6	414.1	414.6	415.1	415.4
155°	422.6	422.3	421.7	421.2	420.6	420.0	420.6	421.2	421.7	422.3	422.6
157.5°	429.1	428.8	428.2	427.7	427.1	426.5	427.1	427.7	428.2	428.8	429.1
160°	434.4	434.1	433.6	433.1	432.6	432.1	432.6	433.1	433.6	434.1	434.4
162.5°	439.6	439.3	438.6	438.0	437.3	436.7	437.3	438.0	438.6	439.3	439.6
165°	443.5	443.2	442.7	442.2	441.7	441.2	441.7	442.2	442.7	443.2	443.5
167.5°	447.1	446.8	446.1	445.5	444.8	444.2	444.8	445.5	446.1	446.8	447.1
170°	449.7	449.4	448.7	448.1	447.4	446.8	447.4	448.1	448.7	449.4	449.7
172.5°	451.7	451.4	450.7	450.0	449.4	448.7	449.4	450.0	450.7	451.4	451.7
175°	453.0	452.6	451.9	451.2	450.4	449.7	450.4	451.2	451.9	452.6	453.0
177.5°	453.3	453.0	452.3	451.7	451.0	450.4	451.0	451.7	452.3	453.0	453.3
180°	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
2.5°	608.7	610.9	610.0	605.1	610.0	611.3	614.0	616.6	618.4	621.1	623.3
5°	570.5	574.9	577.6	574.9	583.8	585.1	591.3	594.9	600.2	604.7	608.2
7.5°	534.5	538.1	543.4	544.3	549.6	555.8	564.7	573.6	582.0	586.5	590.5
10°	495.9	502.1	510.1	508.3	516.3	526.1	535.4	549.6	556.7	564.7	571.8
12.5°	457.3	461.3	471.9	475.5	487.0	494.6	507.4	516.3	534.1	543.4	549.6
15°	389.8	406.2	419.5	435.5	450.6	464.8	476.4	492.3	507.9	515.0	525.2
17.5°	359.2	366.7	374.7	382.7	402.2	427.5	447.9	465.3	478.6	487.9	499.9
20°	327.2	334.7	343.6	351.2	363.2	381.4	406.7	436.4	452.4	462.2	473.7
22.5°	304.5	311.7	317.4	324.1	333.4	346.7	365.8	402.7	424.0	436.0	446.2
25°	280.1	289.0	295.2	300.1	307.7	322.3	337.8	358.7	396.9	406.2	420.4
27.5°	263.3	265.9	273.0	280.6	288.1	296.1	312.1	329.9	355.6	376.0	393.3
30°	243.3	249.9	256.6	259.7	266.4	277.9	287.7	306.8	326.7	342.7	363.6
32.5°	228.2	232.2	236.6	244.2	250.4	258.4	268.1	284.1	301.0	311.2	327.2
35°	211.3	214.0	223.3	226.4	232.6	240.6	250.4	262.8	281.0	289.0	300.6
37.5°	195.3	201.6	204.2	211.3	217.1	225.1	232.2	246.4	258.4	267.7	278.4
40°	182.9	185.6	190.5	196.7	201.6	207.8	216.6	226.9	239.7	247.3	256.6
42.5°	167.8	170.0	176.2	179.8	187.8	193.6	198.9	211.3	222.9	228.6	238.0
45°	151.4	156.7	160.7	167.8	172.3	179.4	186.0	194.9	205.5	212.2	217.5
47.5°	137.2	142.5	146.5	153.2	160.3	163.4	170.5	179.8	189.6	194.9	202.4
50°	125.6	127.4	135.0	138.1	145.6	151.8	156.7	164.7	175.4	178.5	184.7
52.5°	114.5	115.9	120.8	124.7	131.4	136.7	143.0	150.5	159.4	164.3	169.1
55°	104.8	105.7	107.9	112.3	116.8	123.4	129.2	136.3	143.8	149.2	153.6
57.5°	93.7	95.4	97.2	99.9	104.3	110.5	116.8	123.4	129.6	133.2	139.0
60°	80.8	83.5	86.6	89.7	92.8	97.2	104.3	110.5	116.3	119.4	123.9
62.5°	67.0	72.4	75.0	78.6	81.2	85.2	90.6	97.7	101.7	105.7	109.2
65°	60.4	60.8	61.3	64.8	69.7	73.7	78.6	83.9	90.1	92.8	95.4
67.5°	53.7	54.2	55.0	55.5	57.3	61.7	67.0	72.8	77.7	79.5	82.1
70°	47.1	47.1	48.8	49.3	49.7	50.2	54.6	60.4	64.8	67.0	70.1
72.5°	40.0	40.4	41.3	41.7	42.6	43.5	44.8	47.9	53.3	55.5	59.0
75°	32.9	33.3	33.7	34.2	35.5	36.0	37.3	39.1	41.3	44.0	46.2
77.5°	26.2	26.2	26.6	27.5	28.4	28.9	30.2	31.1	32.0	33.3	35.1
80°	19.5	20.0	20.0	20.9	20.9	21.3	21.8	23.1	24.0	24.9	25.7
82.5°	13.3	14.2	14.2	14.2	14.7	15.1	15.5	15.5	16.4	16.9	18.2
85°	8.0	8.4	8.4	8.4	8.0	8.9	8.9	9.3	9.3	9.3	9.8
87.5°	3.1	2.7	3.1	3.1	3.1	3.6	3.1	3.1	3.6	4.0	4.0
90°	8.0	7.6	7.3	6.9	6.5	5.9	5.3	4.8	4.2	3.9	3.5
92.5°	8.4	8.3	8.1	8.0	7.8	7.6	7.4	7.2	7.0	6.9	7.0
95°	14.2	13.8	13.5	13.1	12.7	12.2	11.7	11.2	10.7	10.5	11.7
97.5°	17.5	17.3	17.1	16.9	16.7	15.5	14.3	13.2	12.0	11.4	14.4
100°	20.9	20.3	19.8	19.2	18.6	17.4	16.2	14.9	13.7	13.1	18.1
102.5°	22.5	21.7	20.9	20.1	19.3	32.5	45.7	58.9	72.1	78.7	78.8
105°	23.1	22.3	21.5	20.7	19.9	39.7	59.5	79.4	99.2	109.1	108.0
107.5°	23.8	23.0	22.2	21.4	20.6	45.0	69.5	93.9	118.4	130.6	129.7
110°	28.1	35.4	42.7	49.9	57.2	78.2	99.1	120.1	141.0	151.5	150.7

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
112.5°	40.7	72.0	103.3	134.6	165.9	167.1	168.4	169.6	170.9	171.5	170.8
115°	67.1	100.7	134.3	167.9	201.5	199.7	197.9	196.0	194.2	193.3	192.7
117.5°	177.6	188.0	198.3	208.7	219.1	217.9	216.7	215.4	214.2	213.6	212.9
120°	242.9	242.0	241.1	240.3	239.4	238.1	236.8	235.5	234.2	233.5	233.0
122.5°	260.4	260.0	259.5	259.1	258.7	257.2	255.8	254.3	252.8	252.1	251.5
125°	278.0	277.5	277.0	276.5	276.0	274.6	273.2	271.9	270.5	269.8	269.3
127.5°	294.8	294.1	293.4	292.7	292.0	290.9	289.8	288.7	287.6	287.1	286.6
130°	310.5	309.7	308.9	308.1	307.3	306.5	305.7	304.9	304.1	303.7	303.1
132.5°	325.3	324.6	324.0	323.3	322.7	321.9	321.1	320.3	319.5	319.1	318.6
135°	339.6	338.9	338.2	337.4	336.7	336.1	335.4	334.8	334.1	333.8	333.2
137.5°	353.0	352.3	351.6	350.8	350.1	349.4	348.6	347.9	347.2	346.8	346.4
140°	365.8	365.1	364.5	363.8	363.2	362.4	361.6	360.8	360.0	359.6	359.3
142.5°	377.6	377.0	376.5	375.9	375.3	374.3	373.4	372.4	371.5	371.0	370.7
145°	388.4	387.9	387.4	386.9	386.4	385.2	383.9	382.7	381.4	380.8	380.8
147.5°	397.9	397.6	397.2	396.9	396.5	395.3	394.0	392.8	391.5	390.9	391.0
150°	407.1	406.6	406.2	405.7	405.3	404.1	403.0	401.8	400.7	400.1	400.4
152.5°	415.2	414.8	414.3	413.9	413.5	412.4	411.3	410.2	409.1	408.6	408.9
155°	422.4	422.0	421.5	421.1	420.7	419.8	418.9	418.0	417.1	416.7	417.0
157.5°	428.9	428.4	427.9	427.4	426.9	426.2	425.6	424.9	424.2	423.9	424.2
160°	434.2	433.7	433.3	432.8	432.4	432.0	431.6	431.1	430.7	430.5	430.7
162.5°	439.3	438.8	438.3	437.8	437.3	436.9	436.6	436.2	435.9	435.7	435.9
165°	443.2	442.7	442.2	441.7	441.2	441.0	440.8	440.5	440.3	440.2	440.4
167.5°	446.8	446.3	445.8	445.3	444.8	444.6	444.4	444.1	443.9	443.8	444.0
170°	449.4	448.9	448.4	447.9	447.4	447.3	447.1	447.0	446.9	446.8	447.0
172.5°	451.4	450.9	450.4	449.9	449.4	449.2	449.1	448.9	448.8	448.7	448.9
175°	452.7	452.2	451.7	451.2	450.7	450.5	450.4	450.2	450.1	450.0	450.3
177.5°	453.0	452.5	452.0	451.5	451.0	450.9	450.9	450.8	450.7	450.7	451.0
180°	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4	451.4

TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	638.8	638.8	638.8	638.8
2.5°	627.3	626.0	634.0	642.8
5°	614.4	616.6	626.9	639.3
7.5°	601.1	606.0	618.0	634.4
10°	582.5	591.3	609.5	626.4
12.5°	564.3	576.2	593.6	613.5
15°	543.8	557.2	578.5	602.4
17.5°	521.2	536.3	561.2	587.3
20°	497.2	517.2	543.4	571.8
22.5°	470.6	494.6	521.6	553.2
25°	444.8	471.0	498.1	534.5
27.5°	419.5	445.3	475.5	512.3
30°	394.2	417.8	450.2	489.7
32.5°	367.1	391.6	425.7	466.1
35°	342.3	366.7	398.7	438.6
37.5°	315.6	341.8	372.5	413.8
40°	284.6	315.2	344.9	384.5
42.5°	258.8	291.2	320.1	357.4
45°	238.4	269.0	293.0	329.4
47.5°	219.3	244.2	268.6	302.3
50°	201.1	220.2	245.5	275.7
52.5°	182.5	198.9	220.6	249.1
55°	165.6	181.1	200.7	222.4
57.5°	150.1	161.2	180.7	200.2
60°	132.7	144.3	159.4	175.8
62.5°	118.1	127.0	141.2	154.9
65°	102.6	111.0	121.6	134.5
67.5°	88.3	95.9	104.3	114.5
70°	75.5	81.2	87.5	96.3
72.5°	61.7	67.9	73.7	80.8
75°	50.6	53.3	58.2	63.0
77.5°	39.1	42.6	45.3	49.3
80°	28.0	31.1	32.0	35.1
82.5°	18.6	20.4	22.2	23.1
85°	10.7	11.5	13.3	13.8
87.5°	4.0	4.4	5.3	6.2
90°	2.7	1.9	1.1	0.3
92.5°	7.3	7.6	7.9	8.2
95°	14.1	16.4	18.8	21.2
97.5°	20.3	26.3	32.2	38.2
100°	28.0	37.9	47.9	57.8
102.5°	78.9	79.1	79.2	79.4
105°	105.8	103.7	101.5	99.3
107.5°	127.9	126.1	124.3	122.5
110°	149.2	147.7	146.2	144.7



TEST NUMBER: P999513

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
112.5°	169.5	168.2	166.9	165.6
115°	191.5	190.2	189.0	187.8
117.5°	211.4	210.0	208.5	207.1
120°	231.9	230.8	229.7	228.6
122.5°	250.4	249.2	248.1	246.9
125°	268.4	267.4	266.5	265.5
127.5°	285.6	284.5	283.5	282.5
130°	302.0	300.8	299.7	298.5
132.5°	317.7	316.7	315.8	314.8
135°	332.1	330.9	329.8	328.6
137.5°	345.5	344.6	343.8	342.9
140°	358.7	358.2	357.6	357.0
142.5°	370.2	369.7	369.2	368.7
145°	380.9	381.0	381.0	381.1
147.5°	391.2	391.5	391.7	391.9
150°	400.9	401.4	401.9	402.4
152.5°	409.5	410.0	410.6	411.2
155°	417.7	418.4	419.0	419.7
157.5°	424.8	425.3	425.9	426.5
160°	431.1	431.6	432.0	432.4
162.5°	436.3	436.8	437.2	437.6
165°	440.9	441.3	441.8	442.2
167.5°	444.5	444.9	445.4	445.8
170°	447.4	447.9	448.3	448.7
172.5°	449.4	449.8	450.3	450.7
175°	450.8	451.3	451.8	452.3
177.5°	451.5	452.0	452.5	453.0
180°	451.4	451.4	451.4	451.4

(END OF REPORT)