

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: P999514

Luminaire Tested: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P999514
REPORT IS A COMBINATION OF REPORTS P988067 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_4000K
Description: Define 2 Regressed Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865}
{m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

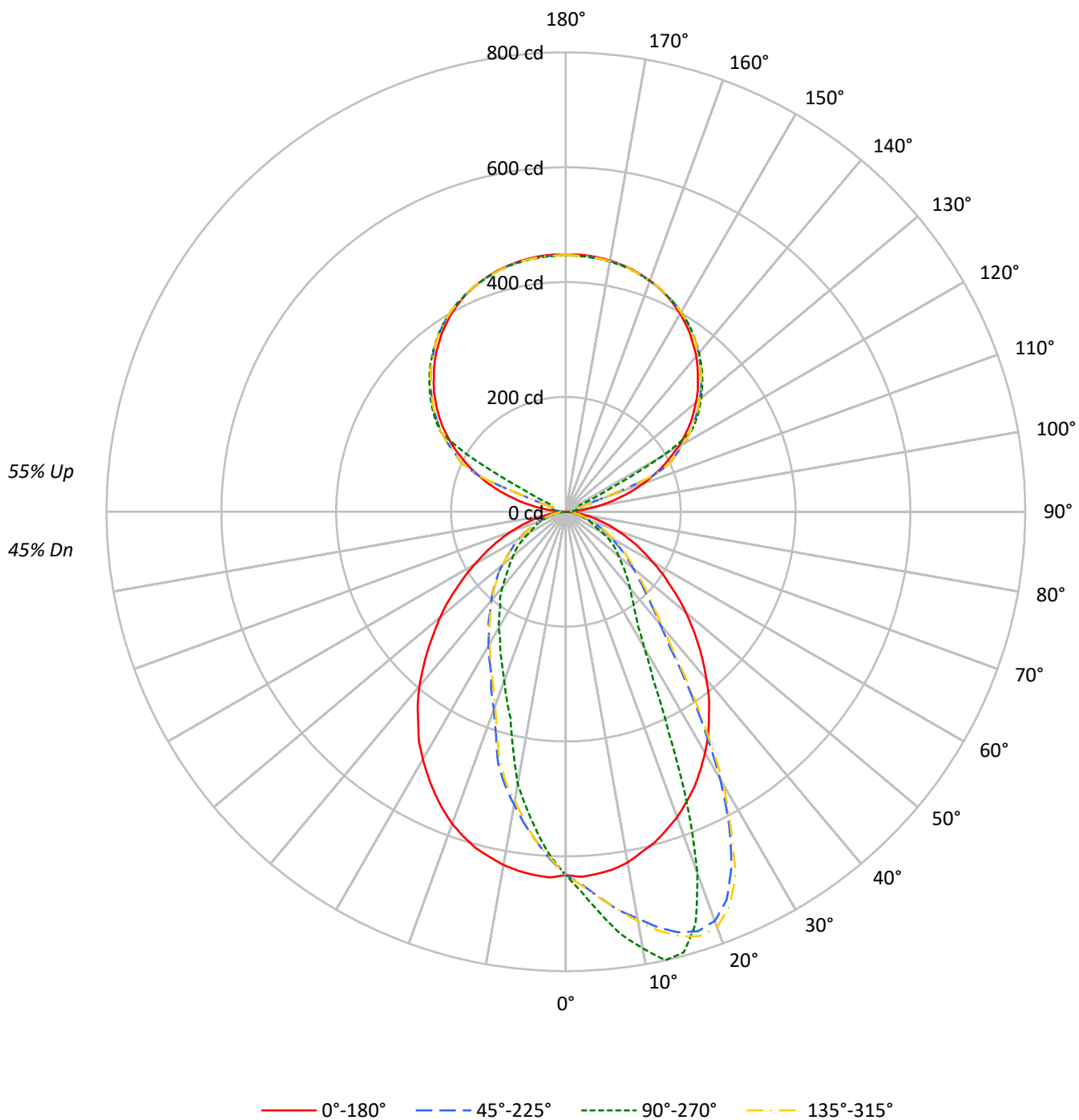
Lumens per Lamp: N/A
Luminaire Lumens: 2404.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10012	10012	10012	10012
5°	10035	10634	10070	8496
10°	9925	11240	9995	7015
15°	9709	11243	9873	5270
20°	9450	9293	9655	4348
25°	9136	5807	9333	3699
30°	8735	3718	8973	3185
35°	8248	2858	8514	2725
40°	7703	2402	8033	2384
45°	7122	2044	7421	2001
50°	6526	1737	6832	1731
55°	5867	1510	6185	1489
60°	5283	1151	5562	1137
65°	4735	866	5016	982
70°	4131	692	4452	801
75°	3491	530	3810	605
80°	2770	359	2986	397
85°	1921	186	2105	198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 165°

Vertical Angle: 45°

Luminance: 9159 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.0	2.5
10°-20°	167.5	7.0
20°-30°	215.5	9.0
30°-40°	204.5	8.5
40°-50°	175.2	7.3
50°-60°	133.4	5.6
60°-70°	84.2	3.5
70°-80°	42.0	1.7
80°-90°	11.6	0.5
90°-100°	14.7	0.6
100°-110°	54.9	2.3
110°-120°	145.7	6.1
120°-130°	241.7	10.1
130°-140°	256.7	10.7
140°-150°	238.6	9.9
150°-160°	191.8	8.0
160°-170°	123.6	5.1
170°-180°	42.5	1.8
0°-30°	443.0	18.4
0°-40°	647.4	26.9
0°-60°	956.1	39.8
0°-90°	1093.8	45.5
90°-120°	215.4	9.0
90°-150°	952.3	39.6
90°-180°	1310.0	54.5
0°-180°	2404.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	632	632	632	632	632	
5°	633	704	635	562	633	60
15°	596	794	606	372	596	168
25°	529	424	541	270	529	243
35°	434	209	448	199	434	272
45°	326	145	340	142	326	252
55°	220	101	232	99	220	198
65°	133	52	141	59	133	132
75°	62	28	68	32	62	68
85°	14	8	15	8	14	15
90°	0	9	0	9	0	2
95°	21	14	21	14	21	25
105°	98	25	98	25	98	105
115°	186	26	186	26	186	183
125°	263	276	263	276	263	234
135°	325	336	325	336	325	251
145°	377	383	377	383	377	236
155°	416	416	416	416	416	191
165°	438	437	438	437	438	124
175°	448	445	448	445	448	43
180°	447	447	447	447	447	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
2.5°	636.4	639.1	640.4	642.1	646.1	648.7	652.7	653.6	653.1	654.9	650.1
5°	632.9	638.6	643.9	648.3	655.3	659.7	664.6	670.3	671.6	678.2	674.2
7.5°	628.1	636.4	643.9	652.7	663.2	669.0	676.4	685.2	689.2	697.1	699.3
10°	620.2	632.0	644.8	654.0	668.5	678.6	685.7	699.7	709.0	720.8	719.1
12.5°	607.4	622.8	639.9	655.3	674.2	680.8	694.0	708.5	720.4	731.4	741.0
15°	596.4	614.0	632.9	651.8	673.4	685.7	698.8	717.7	730.5	749.8	758.2
17.5°	581.5	603.9	626.3	647.4	672.9	687.0	703.2	721.7	740.6	759.1	765.7
20°	566.1	590.3	614.5	643.0	672.0	685.7	702.4	725.2	743.7	758.2	758.2
22.5°	547.6	577.1	604.8	632.0	663.7	683.5	700.6	727.4	740.6	743.7	731.8
25°	529.2	558.6	589.0	622.8	658.8	676.4	695.8	720.8	725.2	712.9	682.1
27.5°	507.2	540.2	574.5	610.9	648.7	670.7	688.3	705.0	696.6	663.7	615.8
30°	484.8	520.4	559.1	593.8	639.5	659.7	674.7	679.5	653.1	599.5	537.5
32.5°	461.5	496.2	537.1	578.9	625.0	644.3	654.0	641.3	592.9	525.2	449.6
35°	434.3	473.4	516.0	559.5	605.2	619.7	625.4	594.2	532.3	444.8	369.6
37.5°	409.6	448.8	494.5	538.9	583.3	591.2	585.4	536.7	458.0	371.4	298.0
40°	380.6	422.4	467.2	516.9	553.4	555.6	541.5	478.2	380.6	299.3	254.0
42.5°	353.8	396.0	440.8	491.4	519.1	511.6	492.7	409.6	317.8	258.0	221.5
45°	326.1	366.1	414.5	459.3	479.1	461.5	432.9	344.6	266.8	222.0	193.8
47.5°	299.3	336.7	384.6	427.7	431.2	411.4	377.6	288.8	231.2	195.1	172.3
50°	272.9	310.3	355.1	390.7	387.2	360.0	321.7	251.0	200.9	172.3	153.4
52.5°	246.6	280.4	323.9	352.1	337.1	310.7	272.9	212.7	175.4	150.3	135.8
55°	220.2	251.8	289.2	312.5	288.8	258.4	231.6	182.4	152.1	131.9	120.9
57.5°	198.2	223.3	257.6	271.6	243.1	219.3	196.0	156.9	131.9	117.4	104.6
60°	174.1	196.9	225.0	233.4	203.9	184.6	164.8	132.7	113.0	100.2	91.9
62.5°	153.4	172.3	193.8	193.8	167.9	153.4	138.5	111.2	94.9	84.8	80.9
65°	133.2	146.8	162.2	160.4	138.5	125.7	113.8	91.9	79.6	72.5	68.6
67.5°	113.4	123.9	134.1	127.9	112.1	101.1	90.1	74.3	65.9	61.1	55.8
70°	95.4	103.7	109.0	103.3	87.5	78.2	70.3	59.8	53.2	47.0	44.0
72.5°	80.0	83.5	85.3	78.2	65.0	59.8	54.1	46.6	40.9	37.8	36.9
75°	62.4	65.5	64.2	58.9	47.9	44.0	39.6	34.3	33.0	31.2	30.3
77.5°	48.8	48.8	46.6	41.8	34.3	31.2	29.4	26.8	25.5	25.1	24.2
80°	34.7	34.3	33.0	27.7	23.3	21.5	21.5	19.8	19.3	18.5	18.5
82.5°	22.9	22.9	21.1	16.7	15.4	14.9	14.5	13.6	13.6	13.2	13.2
85°	13.6	12.7	10.5	9.2	8.8	8.8	8.4	7.9	8.4	7.9	7.9
87.5°	6.2	4.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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°	8.1	7.8	7.5	7.2	6.9	6.8	6.9	7.1	7.4	7.6	7.8
95°	21.0	18.6	16.2	13.9	11.5	10.3	10.6	11.1	11.6	12.1	12.6
97.5°	37.8	31.9	26.0	20.1	14.2	11.3	11.9	13.0	14.2	15.3	16.5
100°	57.2	47.4	37.5	27.7	17.8	12.9	13.5	14.7	16.0	17.2	18.4
102.5°	78.6	78.4	78.3	78.1	78.0	77.9	71.4	58.3	45.2	32.2	19.1
105°	98.3	100.5	102.6	104.8	106.9	108.0	98.2	78.6	58.9	39.3	19.7
107.5°	121.3	123.1	124.9	126.7	128.5	129.4	117.3	93.1	68.8	44.6	20.4
110°	143.3	144.8	146.3	147.8	149.3	150.1	139.7	118.9	98.2	77.4	56.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	164.0	165.3	166.6	167.9	169.2	169.8	169.2	168.0	166.7	165.5	164.3
115°	185.9	187.1	188.3	189.6	190.8	191.4	192.3	194.1	195.9	197.7	199.5
117.5°	205.0	206.4	207.9	209.3	210.8	211.5	212.1	213.3	214.6	215.8	217.0
120°	226.4	227.5	228.5	229.6	230.7	231.2	231.8	233.1	234.4	235.7	237.0
122.5°	244.5	245.7	246.8	248.0	249.1	249.7	250.4	251.8	253.3	254.7	256.1
125°	262.9	263.8	264.8	265.7	266.6	267.1	267.8	269.2	270.5	271.9	273.3
127.5°	279.7	280.7	281.7	282.8	283.8	284.3	284.8	285.9	287.0	288.0	289.1
130°	295.6	296.7	297.9	299.0	300.1	300.7	301.1	301.9	302.7	303.5	304.3
132.5°	311.7	312.6	313.6	314.5	315.4	315.9	316.3	317.1	317.9	318.7	319.5
135°	325.3	326.5	327.6	328.8	329.9	330.5	330.8	331.5	332.1	332.8	333.4
137.5°	339.6	340.4	341.3	342.1	343.0	343.4	343.8	344.5	345.2	346.0	346.7
140°	353.5	354.1	354.6	355.2	355.7	356.0	356.4	357.2	358.0	358.8	359.6
142.5°	365.1	365.6	366.1	366.6	367.1	367.4	367.9	368.8	369.7	370.7	371.6
145°	377.4	377.3	377.3	377.2	377.1	377.1	377.7	378.9	380.2	381.4	382.6
147.5°	388.1	387.9	387.7	387.4	387.2	387.1	387.7	388.9	390.2	391.4	392.6
150°	398.4	397.9	397.4	396.9	396.4	396.1	396.7	397.8	399.0	400.1	401.3
152.5°	407.1	406.5	406.0	405.4	404.9	404.6	405.1	406.2	407.3	408.3	409.4
155°	415.6	414.9	414.3	413.6	412.9	412.6	413.0	413.9	414.8	415.6	416.5
157.5°	422.3	421.7	421.2	420.6	420.1	419.8	420.1	420.8	421.4	422.1	422.7
160°	428.2	427.8	427.3	426.9	426.4	426.2	426.4	426.9	427.3	427.8	428.2
162.5°	433.3	432.9	432.5	432.0	431.6	431.4	431.6	431.9	432.3	432.6	433.0
165°	437.9	437.5	437.0	436.6	436.1	435.9	436.0	436.2	436.5	436.7	436.9
167.5°	441.4	441.0	440.6	440.1	439.7	439.5	439.6	439.8	440.1	440.3	440.5
170°	444.3	443.9	443.5	443.0	442.6	442.4	442.5	442.6	442.7	442.9	443.0
172.5°	446.3	445.9	445.4	445.0	444.5	444.3	444.4	444.5	444.7	444.8	445.0
175°	447.9	447.4	446.9	446.4	445.9	445.6	445.7	445.8	446.0	446.1	446.3
177.5°	448.5	448.0	447.5	447.0	446.5	446.3	446.3	446.4	446.5	446.5	446.6
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
2.5°	654.9	655.8	657.1	663.2	664.1	665.9	665.0	665.0	665.4	664.6	665.0
5°	683.0	684.3	690.9	698.4	700.2	698.4	700.6	703.7	703.7	703.7	702.8
7.5°	709.4	714.2	721.7	732.7	734.9	737.1	741.0	738.4	739.3	743.2	741.9
10°	734.9	741.9	750.3	759.5	764.3	767.4	769.2	773.1	782.4	771.8	775.8
12.5°	759.1	769.2	778.0	788.1	791.6	795.5	796.9	800.4	800.4	799.9	803.0
15°	774.9	784.1	792.0	798.6	799.5	798.6	797.7	798.2	799.5	794.2	797.3
17.5°	778.4	779.3	781.9	779.3	779.7	770.5	765.2	763.9	751.6	752.0	762.1
20°	761.3	746.3	742.4	727.9	719.1	695.3	694.5	687.9	661.9	669.8	668.1
22.5°	714.2	688.7	654.9	638.2	629.8	604.8	585.4	571.8	562.6	553.4	549.4
25°	652.3	610.9	563.0	530.1	525.2	501.9	466.3	449.6	429.9	423.7	434.3
27.5°	572.3	518.6	464.6	414.0	404.8	383.7	365.7	353.8	331.0	329.6	330.5
30°	463.7	409.6	364.4	331.4	308.5	298.9	287.0	278.2	269.0	272.5	273.4
32.5°	381.1	329.6	287.4	269.9	259.3	253.2	243.1	237.3	233.4	232.1	231.6
35°	302.8	268.6	249.7	232.5	226.4	222.0	214.5	211.9	208.3	208.8	208.8
37.5°	259.3	230.8	216.7	207.9	202.2	200.0	195.1	192.5	190.3	189.4	190.8
40°	223.7	203.9	195.1	187.2	182.4	181.5	178.9	175.8	173.2	173.6	174.9
42.5°	197.8	186.4	175.8	169.7	166.1	164.8	162.6	160.4	160.4	159.1	158.7
45°	177.1	167.9	159.1	153.4	151.2	149.4	146.8	146.4	144.6	145.0	145.5
47.5°	158.7	151.2	144.6	138.9	136.7	136.3	133.6	131.9	131.9	131.4	131.0
50°	142.0	134.5	128.8	125.7	122.6	121.7	121.3	120.9	120.0	120.0	120.4
52.5°	128.3	120.9	116.5	113.8	112.1	111.2	111.2	110.8	110.8	110.8	110.3
55°	113.4	107.2	103.7	102.8	102.0	101.5	101.1	100.2	99.8	100.7	99.8
57.5°	99.3	97.1	94.1	93.2	91.0	91.0	89.7	88.8	87.9	88.8	88.8
60°	88.3	85.3	83.5	80.9	79.1	77.4	75.2	74.7	73.8	73.4	73.0
62.5°	76.9	74.3	69.9	65.9	63.3	61.5	60.7	60.2	60.2	59.8	59.8
65°	64.2	58.0	55.8	54.5	54.1	53.6	52.7	52.3	52.7	52.3	52.7
67.5°	50.1	49.2	47.9	47.0	46.6	46.2	46.2	45.7	45.7	45.7	45.7
70°	43.5	41.3	40.9	40.0	40.0	39.6	39.6	39.6	39.6	39.1	40.0
72.5°	36.0	34.7	34.3	33.8	33.8	33.8	33.4	33.4	33.4	33.0	33.4
75°	29.4	29.0	28.1	28.1	27.7	28.1	27.7	27.7	27.3	27.7	27.7
77.5°	23.7	23.3	22.9	22.9	22.4	22.4	22.4	22.4	22.4	22.4	22.9
80°	18.0	17.6	17.1	17.6	17.1	17.6	17.1	17.1	17.6	17.1	17.1
82.5°	13.2	12.7	12.7	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
85°	7.9	7.5	7.5	7.9	7.5	7.9	7.5	7.5	7.5	7.9	7.9
87.5°	3.5	4.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0
90°	6.9	7.2	7.6	7.9	8.1	8.2	8.3	8.4	8.6	8.7	8.6
92.5°	7.9	8.1	8.2	8.3	8.4	8.4	8.5	8.6	8.6	8.7	8.6
95°	13.0	13.3	13.7	14.0	14.2	14.2	14.1	14.0	14.0	13.9	14.0
97.5°	16.7	16.9	17.2	17.4	17.5	17.5	17.6	17.7	17.7	17.8	17.7
100°	19.0	19.6	20.1	20.7	21.0	21.1	21.2	21.4	21.5	21.7	21.5
102.5°	19.9	20.7	21.4	22.2	22.6	22.7	22.9	23.2	23.4	23.6	23.4
105°	20.5	21.3	22.1	22.9	23.3	23.4	23.7	24.0	24.3	24.6	24.3
107.5°	21.2	22.0	22.7	23.5	23.9	24.0	24.3	24.6	24.9	25.2	24.9
110°	49.4	42.2	35.1	27.9	24.3	24.4	24.7	25.0	25.2	25.5	25.2

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	133.3	102.3	71.4	40.4	24.9	25.0	25.2	25.5	25.7	25.9	25.7
115°	166.2	133.0	99.7	66.4	49.8	47.2	42.0	36.9	31.7	26.5	31.7
117.5°	206.7	196.4	186.1	175.8	170.7	161.3	142.5	123.6	104.8	86.0	104.8
120°	237.9	238.7	239.6	240.5	240.9	236.1	226.4	216.7	207.0	197.3	207.0
122.5°	256.5	257.0	257.4	257.9	258.1	258.1	258.2	258.3	258.3	258.4	258.3
125°	273.8	274.3	274.8	275.3	275.5	275.6	275.8	276.1	276.3	276.5	276.3
127.5°	289.8	290.5	291.2	291.9	292.3	292.3	292.4	292.5	292.6	292.7	292.6
130°	305.1	305.9	306.7	307.5	307.9	307.9	307.8	307.7	307.6	307.5	307.6
132.5°	320.1	320.8	321.4	322.1	322.4	322.4	322.3	322.2	322.2	322.1	322.2
135°	334.1	334.8	335.5	336.2	336.6	336.5	336.4	336.3	336.1	336.0	336.1
137.5°	347.4	348.1	348.8	349.5	349.9	349.8	349.6	349.3	349.1	348.9	349.1
140°	360.2	360.9	361.5	362.2	362.5	362.3	362.0	361.6	361.3	360.9	361.3
142.5°	372.2	372.8	373.3	373.9	374.2	374.0	373.6	373.3	372.9	372.5	372.9
145°	383.1	383.6	384.1	384.6	384.8	384.6	384.3	383.9	383.6	383.2	383.6
147.5°	393.0	393.3	393.7	394.0	394.2	394.1	393.8	393.5	393.2	392.9	393.2
150°	401.7	402.2	402.6	403.1	403.3	403.1	402.7	402.4	402.0	401.6	402.0
152.5°	409.8	410.2	410.7	411.1	411.3	411.1	410.6	410.1	409.6	409.1	409.6
155°	416.9	417.4	417.8	418.3	418.5	418.2	417.6	417.1	416.5	415.9	416.5
157.5°	423.2	423.7	424.2	424.7	424.9	424.6	424.0	423.5	422.9	422.3	422.9
160°	428.6	429.0	429.5	429.9	430.1	429.8	429.3	428.8	428.3	427.8	428.3
162.5°	433.5	434.0	434.5	435.0	435.3	435.0	434.3	433.7	433.0	432.4	433.0
165°	437.4	437.9	438.4	438.9	439.2	438.9	438.4	437.9	437.4	436.9	437.4
167.5°	441.0	441.5	442.0	442.5	442.7	442.4	441.7	441.1	440.4	439.8	440.4
170°	443.5	444.0	444.5	445.0	445.3	445.0	444.3	443.7	443.0	442.4	443.0
172.5°	445.5	446.0	446.5	447.0	447.2	446.9	446.2	445.6	444.9	444.3	444.9
175°	446.8	447.3	447.8	448.3	448.5	448.1	447.4	446.7	446.0	445.3	446.0
177.5°	447.1	447.6	448.1	448.6	448.9	448.6	447.9	447.3	446.6	446.0	446.6
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
2.5°	666.8	663.7	662.8	663.7	662.8	663.2	660.2	648.7	651.8	647.0	649.6
5°	704.6	701.9	696.2	695.3	694.5	693.6	689.2	679.1	675.1	668.5	668.1
7.5°	740.6	740.6	736.2	733.1	729.2	726.1	720.4	705.4	699.3	691.4	687.0
10°	776.2	764.8	769.6	766.5	756.9	755.1	744.6	735.8	723.9	716.0	709.0
12.5°	801.7	798.2	793.8	791.1	788.5	782.8	775.8	753.3	747.2	731.4	723.5
15°	800.8	798.6	799.9	799.9	799.1	797.7	792.0	775.8	765.2	749.8	736.2
17.5°	757.7	763.5	769.2	773.1	781.9	785.9	791.1	781.5	774.9	761.7	747.2
20°	682.6	696.6	713.4	716.9	724.8	748.1	758.6	767.0	769.6	765.2	753.3
22.5°	578.0	589.8	630.3	629.4	640.8	668.5	699.3	724.3	744.1	755.1	750.7
25°	452.7	469.4	491.0	507.2	544.6	585.9	624.1	664.1	698.4	728.7	736.2
27.5°	342.4	364.4	381.5	403.0	421.9	470.7	520.0	582.4	622.4	679.9	709.8
30°	276.9	287.0	304.2	314.3	323.5	360.9	416.7	478.2	548.5	614.9	666.3
32.5°	236.5	243.5	256.2	260.6	270.3	295.4	330.5	386.8	459.3	539.7	607.4
35°	212.3	219.8	222.4	226.4	234.3	250.1	274.3	315.1	380.6	459.3	540.2
37.5°	191.6	195.6	203.1	205.7	208.3	220.2	236.5	265.0	308.5	373.2	462.8
40°	177.1	179.3	183.3	185.5	187.2	195.6	210.1	229.4	261.5	310.7	393.4
42.5°	161.7	164.4	167.0	169.7	171.9	178.4	187.2	205.7	227.2	264.6	324.4
45°	146.8	148.6	151.6	153.4	156.5	161.7	169.7	182.4	201.7	225.5	273.8
47.5°	133.2	135.4	136.7	138.9	141.1	146.8	154.3	162.6	178.4	201.7	236.9
50°	120.9	123.5	125.3	125.7	127.5	132.7	138.9	148.1	158.2	176.2	207.0
52.5°	112.1	112.5	113.8	115.6	115.2	118.2	123.9	131.0	141.5	156.0	178.4
55°	102.0	103.3	104.2	104.6	104.6	107.2	110.3	116.9	125.3	137.1	156.0
57.5°	89.2	90.5	93.2	94.1	95.4	96.7	98.0	102.4	109.4	120.9	136.3
60°	76.0	76.9	79.6	81.3	82.2	85.7	87.5	91.0	94.9	103.3	117.8
62.5°	61.1	62.0	63.3	65.0	66.8	72.1	76.5	80.0	83.1	88.8	100.7
65°	53.2	53.6	54.5	54.9	55.4	57.6	61.5	66.4	72.1	76.5	83.5
67.5°	46.2	46.6	47.0	47.9	48.3	48.8	50.5	51.9	57.6	63.7	69.0
70°	39.6	40.4	40.9	40.9	41.3	42.2	43.1	44.8	46.6	49.7	56.3
72.5°	33.4	33.8	34.7	34.7	34.7	35.6	36.5	37.4	38.2	40.0	42.6
75°	27.7	28.6	28.6	28.6	29.0	29.0	29.9	30.8	31.6	33.0	33.8
77.5°	22.9	22.9	22.9	22.9	23.3	23.3	23.7	24.6	25.1	25.5	26.4
80°	17.1	17.6	17.6	17.6	18.0	18.0	18.0	18.9	19.3	19.3	20.2
82.5°	12.7	12.7	12.7	13.2	12.7	13.2	13.2	13.6	13.2	13.6	14.1
85°	7.9	7.9	7.9	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.8
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°	8.4	8.3	8.2	8.1	7.9	7.6	7.2	6.9	6.5	5.9	5.3
92.5°	8.6	8.5	8.4	8.4	8.3	8.2	8.1	7.9	7.8	7.6	7.4
95°	14.0	14.1	14.2	14.2	14.0	13.7	13.3	13.0	12.6	12.1	11.6
97.5°	17.7	17.6	17.5	17.5	17.4	17.2	16.9	16.7	16.5	15.3	14.2
100°	21.4	21.2	21.1	21.0	20.7	20.1	19.6	19.0	18.4	17.2	16.0
102.5°	23.2	22.9	22.7	22.6	22.2	21.4	20.7	19.9	19.1	32.2	45.2
105°	24.0	23.7	23.4	23.3	22.9	22.1	21.3	20.5	19.7	39.3	58.9
107.5°	24.6	24.3	24.0	23.9	23.5	22.7	22.0	21.2	20.4	44.6	68.8
110°	25.0	24.7	24.4	24.3	27.9	35.1	42.2	49.4	56.6	77.4	98.2

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	25.5	25.2	25.0	24.9	40.4	71.4	102.3	133.3	164.3	165.5	166.7
115°	36.9	42.0	47.2	49.8	66.4	99.7	133.0	166.2	199.5	197.7	195.9
117.5°	123.6	142.5	161.3	170.7	175.8	186.1	196.4	206.7	217.0	215.8	214.6
120°	216.7	226.4	236.1	240.9	240.5	239.6	238.7	237.9	237.0	235.7	234.4
122.5°	258.3	258.2	258.1	258.1	257.9	257.4	257.0	256.5	256.1	254.7	253.3
125°	276.1	275.8	275.6	275.5	275.3	274.8	274.3	273.8	273.3	271.9	270.5
127.5°	292.5	292.4	292.3	292.3	291.9	291.2	290.5	289.8	289.1	288.0	287.0
130°	307.7	307.8	307.9	307.9	307.5	306.7	305.9	305.1	304.3	303.5	302.7
132.5°	322.2	322.3	322.4	322.4	322.1	321.4	320.8	320.1	319.5	318.7	317.9
135°	336.3	336.4	336.5	336.6	336.2	335.5	334.8	334.1	333.4	332.8	332.1
137.5°	349.3	349.6	349.8	349.9	349.5	348.8	348.1	347.4	346.7	346.0	345.2
140°	361.6	362.0	362.3	362.5	362.2	361.5	360.9	360.2	359.6	358.8	358.0
142.5°	373.3	373.6	374.0	374.2	373.9	373.3	372.8	372.2	371.6	370.7	369.7
145°	383.9	384.3	384.6	384.8	384.6	384.1	383.6	383.1	382.6	381.4	380.2
147.5°	393.5	393.8	394.1	394.2	394.0	393.7	393.3	393.0	392.6	391.4	390.2
150°	402.4	402.7	403.1	403.3	403.1	402.6	402.2	401.7	401.3	400.1	399.0
152.5°	410.1	410.6	411.1	411.3	411.1	410.7	410.2	409.8	409.4	408.3	407.3
155°	417.1	417.6	418.2	418.5	418.3	417.8	417.4	416.9	416.5	415.6	414.8
157.5°	423.5	424.0	424.6	424.9	424.7	424.2	423.7	423.2	422.7	422.1	421.4
160°	428.8	429.3	429.8	430.1	429.9	429.5	429.0	428.6	428.2	427.8	427.3
162.5°	433.7	434.3	435.0	435.3	435.0	434.5	434.0	433.5	433.0	432.6	432.3
165°	437.9	438.4	438.9	439.2	438.9	438.4	437.9	437.4	436.9	436.7	436.5
167.5°	441.1	441.7	442.4	442.7	442.5	442.0	441.5	441.0	440.5	440.3	440.1
170°	443.7	444.3	445.0	445.3	445.0	444.5	444.0	443.5	443.0	442.9	442.7
172.5°	445.6	446.2	446.9	447.2	447.0	446.5	446.0	445.5	445.0	444.8	444.7
175°	446.7	447.4	448.1	448.5	448.3	447.8	447.3	446.8	446.3	446.1	446.0
177.5°	447.3	447.9	448.6	448.9	448.6	448.1	447.6	447.1	446.6	446.5	446.5
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
2.5°	645.7	643.5	643.5	642.1	642.1	635.1	635.1	637.3	634.7	631.6	627.2
5°	662.4	657.5	656.2	654.5	648.7	639.9	636.4	635.1	629.8	623.2	615.8
7.5°	678.2	670.3	666.3	662.4	654.9	642.6	635.6	630.7	622.8	612.7	603.0
10°	693.6	683.5	673.4	668.5	658.0	642.6	632.5	624.6	613.1	599.5	585.9
12.5°	707.6	686.5	684.8	675.1	659.7	642.1	626.8	615.3	600.8	585.0	569.2
15°	719.9	698.4	687.9	679.1	658.8	636.9	620.6	606.5	587.2	569.2	549.8
17.5°	726.1	702.8	695.8	681.3	660.6	632.0	610.1	592.9	571.8	550.3	528.3
20°	732.3	705.0	693.6	683.5	655.3	622.8	598.2	578.4	555.1	529.6	505.5
22.5°	735.3	705.0	691.4	677.3	650.1	612.7	583.7	560.4	533.1	507.2	478.2
25°	730.1	702.4	686.1	671.6	640.8	600.4	567.0	540.6	511.6	482.2	452.7
27.5°	716.9	696.2	677.3	662.4	628.1	584.6	549.4	519.5	489.6	456.7	426.8
30°	692.3	683.0	668.1	651.4	614.0	570.5	528.7	498.0	465.0	432.1	400.8
32.5°	654.0	661.9	652.3	637.8	597.3	551.2	506.8	475.6	439.5	403.9	375.4
35°	607.4	635.6	630.3	620.2	579.7	530.5	486.1	448.3	412.3	376.2	347.7
37.5°	556.4	599.1	603.5	597.3	559.5	509.4	460.6	423.7	386.8	350.3	321.3
40°	486.6	552.0	566.1	568.7	538.4	483.9	432.9	396.9	360.4	324.8	289.6
42.5°	422.4	505.0	522.6	533.6	511.6	458.9	407.4	367.4	331.4	299.3	264.2
45°	362.2	448.3	476.9	491.0	481.3	430.3	377.1	339.8	306.8	277.3	243.5
47.5°	300.2	386.8	426.8	449.2	449.2	401.3	348.1	311.2	279.5	254.5	224.6
50°	258.9	331.0	372.3	401.7	409.6	371.8	321.7	285.7	255.8	228.6	205.7
52.5°	220.6	285.3	319.5	350.3	373.2	340.2	292.3	259.8	230.3	204.8	186.8
55°	190.8	239.1	270.3	304.2	329.6	308.1	263.7	232.1	206.6	185.5	170.1
57.5°	162.2	204.4	229.9	259.8	287.0	270.7	235.1	207.9	185.5	167.0	153.4
60°	138.0	172.3	192.1	215.4	249.2	237.8	208.3	183.3	165.3	148.6	137.1
62.5°	117.4	144.6	161.3	178.0	208.8	203.5	180.6	161.3	145.9	131.9	122.2
65°	96.3	118.7	131.9	146.4	171.0	173.2	154.7	141.1	127.0	114.7	105.9
67.5°	77.8	95.4	107.2	119.6	139.3	145.5	132.7	121.3	109.4	99.3	91.4
70°	62.9	75.2	83.9	93.6	109.9	117.4	110.8	102.8	93.2	84.8	77.8
72.5°	49.7	57.6	62.9	70.3	83.5	91.0	90.5	83.5	76.5	70.8	65.0
75°	36.5	42.6	47.0	51.9	62.4	69.4	71.2	68.1	61.1	56.7	52.3
77.5°	27.7	31.2	33.4	36.9	44.4	50.5	53.2	52.3	47.5	44.0	40.9
80°	21.1	22.0	22.9	24.2	30.3	36.0	37.8	37.4	34.7	33.4	29.9
82.5°	14.9	15.4	15.8	16.3	18.5	23.3	25.1	25.9	23.7	22.4	19.3
85°	8.8	9.2	9.2	10.1	10.5	11.9	14.9	14.9	14.5	12.7	12.3
87.5°	4.4	4.4	4.0	4.0	4.4	4.8	5.7	6.6	5.7	5.3	4.8
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°	7.1	6.9	6.8	6.9	7.2	7.5	7.8	8.1	7.8	7.5	7.2
95°	11.1	10.6	10.3	11.5	13.9	16.2	18.6	21.0	18.6	16.2	13.9
97.5°	13.0	11.9	11.3	14.2	20.1	26.0	31.9	37.8	31.9	26.0	20.1
100°	14.7	13.5	12.9	17.8	27.7	37.5	47.4	57.2	47.4	37.5	27.7
102.5°	58.3	71.4	77.9	78.0	78.1	78.3	78.4	78.6	78.4	78.3	78.1
105°	78.6	98.2	108.0	106.9	104.8	102.6	100.5	98.3	100.5	102.6	104.8
107.5°	93.1	117.3	129.4	128.5	126.7	124.9	123.1	121.3	123.1	124.9	126.7
110°	118.9	139.7	150.1	149.3	147.8	146.3	144.8	143.3	144.8	146.3	147.8

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
112.5°	168.0	169.2	169.8	169.2	167.9	166.6	165.3	164.0	165.3	166.6	167.9
115°	194.1	192.3	191.4	190.8	189.6	188.3	187.1	185.9	187.1	188.3	189.6
117.5°	213.3	212.1	211.5	210.8	209.3	207.9	206.4	205.0	206.4	207.9	209.3
120°	233.1	231.8	231.2	230.7	229.6	228.5	227.5	226.4	227.5	228.5	229.6
122.5°	251.8	250.4	249.7	249.1	248.0	246.8	245.7	244.5	245.7	246.8	248.0
125°	269.2	267.8	267.1	266.6	265.7	264.8	263.8	262.9	263.8	264.8	265.7
127.5°	285.9	284.8	284.3	283.8	282.8	281.7	280.7	279.7	280.7	281.7	282.8
130°	301.9	301.1	300.7	300.1	299.0	297.9	296.7	295.6	296.7	297.9	299.0
132.5°	317.1	316.3	315.9	315.4	314.5	313.6	312.6	311.7	312.6	313.6	314.5
135°	331.5	330.8	330.5	329.9	328.8	327.6	326.5	325.3	326.5	327.6	328.8
137.5°	344.5	343.8	343.4	343.0	342.1	341.3	340.4	339.6	340.4	341.3	342.1
140°	357.2	356.4	356.0	355.7	355.2	354.6	354.1	353.5	354.1	354.6	355.2
142.5°	368.8	367.9	367.4	367.1	366.6	366.1	365.6	365.1	365.6	366.1	366.6
145°	378.9	377.7	377.1	377.1	377.2	377.3	377.3	377.4	377.3	377.3	377.2
147.5°	388.9	387.7	387.1	387.2	387.4	387.7	387.9	388.1	387.9	387.7	387.4
150°	397.8	396.7	396.1	396.4	396.9	397.4	397.9	398.4	397.9	397.4	396.9
152.5°	406.2	405.1	404.6	404.9	405.4	406.0	406.5	407.1	406.5	406.0	405.4
155°	413.9	413.0	412.6	412.9	413.6	414.3	414.9	415.6	414.9	414.3	413.6
157.5°	420.8	420.1	419.8	420.1	420.6	421.2	421.7	422.3	421.7	421.2	420.6
160°	426.9	426.4	426.2	426.4	426.9	427.3	427.8	428.2	427.8	427.3	426.9
162.5°	431.9	431.6	431.4	431.6	432.0	432.5	432.9	433.3	432.9	432.5	432.0
165°	436.2	436.0	435.9	436.1	436.6	437.0	437.5	437.9	437.5	437.0	436.6
167.5°	439.8	439.6	439.5	439.7	440.1	440.6	441.0	441.4	441.0	440.6	440.1
170°	442.6	442.5	442.4	442.6	443.0	443.5	443.9	444.3	443.9	443.5	443.0
172.5°	444.5	444.4	444.3	444.5	445.0	445.4	445.9	446.3	445.9	445.4	445.0
175°	445.8	445.7	445.6	445.9	446.4	446.9	447.4	447.9	447.4	446.9	446.4
177.5°	446.4	446.3	446.3	446.5	447.0	447.5	448.0	448.5	448.0	447.5	447.0
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
2.5°	625.4	625.9	627.2	623.2	617.1	614.5	606.5	605.2	603.9	603.9	605.2
5°	611.4	609.6	610.1	602.6	593.8	588.5	577.5	579.3	573.6	570.1	570.9
7.5°	596.0	591.2	590.7	581.1	570.1	560.4	549.0	546.3	541.1	534.9	532.3
10°	576.7	573.1	566.5	555.6	541.5	533.6	518.2	509.0	507.7	498.4	494.9
12.5°	556.9	550.7	544.1	528.7	512.9	500.2	488.8	478.6	471.6	463.7	458.4
15°	534.0	526.6	519.1	502.8	484.4	471.6	454.5	439.5	418.9	402.6	393.4
17.5°	509.0	500.6	490.5	472.5	454.5	436.9	405.2	387.7	373.2	363.5	357.8
20°	483.0	473.8	463.7	445.7	414.5	383.7	366.1	352.5	343.7	334.0	327.0
22.5°	455.8	446.1	435.1	407.0	374.0	352.5	338.9	326.1	313.4	308.1	304.6
25°	430.3	421.5	407.4	369.2	343.3	323.5	308.1	299.8	293.2	286.1	279.5
27.5°	403.9	387.7	367.9	335.8	319.5	299.3	288.3	282.2	270.7	265.9	262.8
30°	372.3	354.3	335.4	312.5	293.6	279.5	269.4	259.3	252.7	247.9	242.6
32.5°	340.2	323.1	311.2	287.4	273.4	258.9	249.2	243.1	233.4	230.3	228.1
35°	312.5	298.0	287.4	268.1	254.9	241.7	234.7	225.5	219.3	213.6	210.1
37.5°	285.3	277.3	266.4	250.1	236.0	225.5	215.8	212.7	204.4	201.3	197.8
40°	266.4	254.5	245.3	231.2	219.3	207.9	201.7	194.7	189.0	184.2	182.8
42.5°	243.5	234.7	229.4	214.0	201.7	195.1	187.7	179.8	175.4	171.4	166.6
45°	226.4	218.4	211.0	198.7	187.7	179.3	172.7	167.5	160.0	158.2	150.8
47.5°	208.3	200.4	194.7	182.4	172.3	164.4	159.5	152.5	146.4	142.4	138.9
50°	190.3	183.7	178.4	167.9	159.1	150.8	144.2	137.1	134.5	127.9	125.7
52.5°	173.2	168.8	163.1	153.0	144.2	137.1	130.1	124.4	120.4	116.9	114.3
55°	158.7	151.6	149.0	138.0	130.5	123.1	116.9	113.4	108.6	106.4	104.2
57.5°	142.4	138.5	134.1	125.7	117.4	110.3	105.9	100.7	98.0	95.4	93.6
60°	128.3	122.6	119.1	112.1	104.6	98.0	94.1	90.1	86.6	84.4	80.9
62.5°	112.1	107.7	105.5	98.0	91.9	85.7	82.2	78.2	75.6	71.6	67.2
65°	98.0	94.5	91.9	85.7	80.0	74.3	70.8	65.9	62.4	60.2	59.8
67.5°	85.7	83.1	79.1	73.4	67.7	63.3	59.3	55.4	54.9	54.1	54.1
70°	72.1	69.4	67.2	61.1	56.3	51.4	50.5	49.2	47.9	47.5	46.6
72.5°	60.2	58.0	55.4	50.1	45.3	44.0	43.1	42.2	40.9	40.4	40.0
75°	48.8	45.7	44.0	39.1	37.8	36.9	36.0	34.7	33.8	33.4	32.5
77.5°	37.4	34.3	34.3	31.6	30.8	29.4	28.6	27.7	27.3	26.4	26.4
80°	26.4	26.4	25.5	24.2	22.9	22.4	21.1	20.7	20.2	20.7	19.8
82.5°	19.3	17.6	17.6	16.7	15.8	15.4	14.5	14.5	14.1	14.1	14.1
85°	11.0	11.0	10.5	9.7	9.2	9.2	8.8	8.8	8.4	8.4	7.9
87.5°	4.4	4.0	4.4	4.0	4.0	3.5	3.5	3.5	3.1	3.5	3.1
90°	3.5	3.9	4.2	4.8	5.3	5.9	6.5	6.9	7.2	7.6	7.9
92.5°	6.9	6.8	6.9	7.1	7.4	7.6	7.8	7.9	8.1	8.2	8.3
95°	11.5	10.3	10.6	11.1	11.6	12.1	12.6	13.0	13.3	13.7	14.0
97.5°	14.2	11.3	11.9	13.0	14.2	15.3	16.5	16.7	16.9	17.2	17.4
100°	17.8	12.9	13.5	14.7	16.0	17.2	18.4	19.0	19.6	20.1	20.7
102.5°	78.0	77.9	71.4	58.3	45.2	32.2	19.1	19.9	20.7	21.4	22.2
105°	106.9	108.0	98.2	78.6	58.9	39.3	19.7	20.5	21.3	22.1	22.9
107.5°	128.5	129.4	117.3	93.1	68.8	44.6	20.4	21.2	22.0	22.7	23.5
110°	149.3	150.1	139.7	118.9	98.2	77.4	56.6	49.4	42.2	35.1	27.9

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
112.5°	169.2	169.8	169.2	168.0	166.7	165.5	164.3	133.3	102.3	71.4	40.4
115°	190.8	191.4	192.3	194.1	195.9	197.7	199.5	166.2	133.0	99.7	66.4
117.5°	210.8	211.5	212.1	213.3	214.6	215.8	217.0	206.7	196.4	186.1	175.8
120°	230.7	231.2	231.8	233.1	234.4	235.7	237.0	237.9	238.7	239.6	240.5
122.5°	249.1	249.7	250.4	251.8	253.3	254.7	256.1	256.5	257.0	257.4	257.9
125°	266.6	267.1	267.8	269.2	270.5	271.9	273.3	273.8	274.3	274.8	275.3
127.5°	283.8	284.3	284.8	285.9	287.0	288.0	289.1	289.8	290.5	291.2	291.9
130°	300.1	300.7	301.1	301.9	302.7	303.5	304.3	305.1	305.9	306.7	307.5
132.5°	315.4	315.9	316.3	317.1	317.9	318.7	319.5	320.1	320.8	321.4	322.1
135°	329.9	330.5	330.8	331.5	332.1	332.8	333.4	334.1	334.8	335.5	336.2
137.5°	343.0	343.4	343.8	344.5	345.2	346.0	346.7	347.4	348.1	348.8	349.5
140°	355.7	356.0	356.4	357.2	358.0	358.8	359.6	360.2	360.9	361.5	362.2
142.5°	367.1	367.4	367.9	368.8	369.7	370.7	371.6	372.2	372.8	373.3	373.9
145°	377.1	377.1	377.7	378.9	380.2	381.4	382.6	383.1	383.6	384.1	384.6
147.5°	387.2	387.1	387.7	388.9	390.2	391.4	392.6	393.0	393.3	393.7	394.0
150°	396.4	396.1	396.7	397.8	399.0	400.1	401.3	401.7	402.2	402.6	403.1
152.5°	404.9	404.6	405.1	406.2	407.3	408.3	409.4	409.8	410.2	410.7	411.1
155°	412.9	412.6	413.0	413.9	414.8	415.6	416.5	416.9	417.4	417.8	418.3
157.5°	420.1	419.8	420.1	420.8	421.4	422.1	422.7	423.2	423.7	424.2	424.7
160°	426.4	426.2	426.4	426.9	427.3	427.8	428.2	428.6	429.0	429.5	429.9
162.5°	431.6	431.4	431.6	431.9	432.3	432.6	433.0	433.5	434.0	434.5	435.0
165°	436.1	435.9	436.0	436.2	436.5	436.7	436.9	437.4	437.9	438.4	438.9
167.5°	439.7	439.5	439.6	439.8	440.1	440.3	440.5	441.0	441.5	442.0	442.5
170°	442.6	442.4	442.5	442.6	442.7	442.9	443.0	443.5	444.0	444.5	445.0
172.5°	444.5	444.3	444.4	444.5	444.7	444.8	445.0	445.5	446.0	446.5	447.0
175°	445.9	445.6	445.7	445.8	446.0	446.1	446.3	446.8	447.3	447.8	448.3
177.5°	446.5	446.3	446.3	446.4	446.5	446.5	446.6	447.1	447.6	448.1	448.6
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
2.5°	605.2	604.3	601.7	602.6	601.3	601.3	600.4	600.4	600.4	602.6	601.3
5°	572.3	569.2	566.1	564.8	563.5	562.2	562.2	561.7	565.7	564.8	568.3
7.5°	531.4	530.5	524.4	524.4	522.2	521.3	523.5	523.9	524.4	525.2	527.4
10°	494.9	492.7	483.9	484.8	483.5	481.7	483.0	482.2	485.2	486.1	485.2
12.5°	451.8	447.9	438.2	433.4	428.1	424.1	429.0	425.5	437.8	441.3	451.0
15°	394.7	387.2	380.6	380.6	375.8	372.3	374.5	378.4	381.1	385.0	386.8
17.5°	356.5	353.4	348.1	345.0	343.7	342.4	342.4	344.1	349.9	349.4	352.9
20°	323.9	322.2	319.5	315.6	314.3	313.4	313.4	313.4	317.3	320.9	323.1
22.5°	301.5	300.2	298.4	293.2	290.5	289.6	291.8	293.2	296.2	298.9	301.1
25°	279.1	276.0	272.9	271.2	269.9	269.9	270.7	271.2	272.5	273.8	276.5
27.5°	260.6	258.4	254.0	249.2	249.2	247.9	248.8	249.7	252.7	257.1	259.3
30°	240.0	239.5	237.8	236.0	234.3	233.4	235.1	236.5	236.9	239.1	239.1
32.5°	225.0	222.0	218.9	217.1	216.2	215.8	216.2	218.0	218.0	220.6	223.7
35°	210.1	208.3	205.3	202.2	201.3	199.1	200.9	202.6	205.7	207.0	208.3
37.5°	193.8	191.6	190.3	189.4	187.7	188.1	186.8	189.4	192.1	191.6	192.5
40°	181.5	177.6	173.6	173.2	172.7	172.3	172.3	172.7	174.5	176.2	178.9
42.5°	165.7	164.4	160.9	157.4	156.5	155.6	154.7	156.5	160.0	163.1	164.4
45°	149.4	147.7	146.8	144.2	142.4	142.0	141.1	143.3	146.4	147.7	148.6
47.5°	134.5	134.1	131.4	131.9	130.5	131.0	130.5	131.9	131.9	133.2	134.1
50°	124.4	123.1	121.7	120.9	119.6	119.6	119.1	119.6	121.3	123.1	122.6
52.5°	114.3	112.1	111.6	111.2	110.3	111.2	109.9	110.3	112.1	113.0	112.5
55°	102.4	102.0	101.1	100.2	99.8	99.3	99.3	99.3	101.1	102.4	102.8
57.5°	93.2	91.0	89.2	89.2	87.5	87.0	87.9	88.3	89.7	90.5	91.4
60°	80.4	79.6	76.9	75.6	73.0	72.5	72.5	74.3	76.5	79.6	80.4
62.5°	66.8	65.5	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.5	65.5
65°	59.3	59.8	59.3	58.9	59.3	59.3	58.9	58.9	58.9	59.3	59.8
67.5°	53.2	52.7	53.2	52.7	52.3	52.3	51.9	52.3	52.7	53.2	53.2
70°	46.2	46.2	45.7	46.2	45.7	45.3	44.8	44.8	45.7	46.2	46.2
72.5°	39.6	39.6	39.1	39.1	38.2	38.2	38.7	38.2	38.2	39.6	39.6
75°	33.0	32.5	32.1	32.1	31.6	31.6	31.6	31.2	32.1	32.1	32.5
77.5°	25.9	25.9	25.9	25.5	25.5	25.1	25.1	25.5	25.5	25.5	25.9
80°	19.8	19.8	19.8	19.3	18.9	18.9	18.9	18.9	18.9	19.3	18.9
82.5°	13.6	13.6	13.6	13.6	13.6	13.2	13.2	13.2	13.6	13.6	13.2
85°	8.4	7.9	8.4	8.4	7.9	8.4	7.9	7.9	7.5	7.5	7.9
87.5°	3.5	3.1	2.6	2.6	3.1	2.6	2.6	2.6	3.1	2.6	2.6
90°	8.1	8.2	8.3	8.4	8.6	8.7	8.6	8.4	8.3	8.2	8.1
92.5°	8.4	8.4	8.5	8.6	8.6	8.7	8.6	8.6	8.5	8.4	8.4
95°	14.2	14.2	14.1	14.0	14.0	13.9	14.0	14.0	14.1	14.2	14.2
97.5°	17.5	17.5	17.6	17.7	17.7	17.8	17.7	17.7	17.6	17.5	17.5
100°	21.0	21.1	21.2	21.4	21.5	21.7	21.5	21.4	21.2	21.1	21.0
102.5°	22.6	22.7	22.9	23.2	23.4	23.6	23.4	23.2	22.9	22.7	22.6
105°	23.3	23.4	23.7	24.0	24.3	24.6	24.3	24.0	23.7	23.4	23.3
107.5°	23.9	24.0	24.3	24.6	24.9	25.2	24.9	24.6	24.3	24.0	23.9
110°	24.3	24.4	24.7	25.0	25.2	25.5	25.2	25.0	24.7	24.4	24.3

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
112.5°	24.9	25.0	25.2	25.5	25.7	25.9	25.7	25.5	25.2	25.0	24.9
115°	49.8	47.2	42.0	36.9	31.7	26.5	31.7	36.9	42.0	47.2	49.8
117.5°	170.7	161.3	142.5	123.6	104.8	86.0	104.8	123.6	142.5	161.3	170.7
120°	240.9	236.1	226.4	216.7	207.0	197.3	207.0	216.7	226.4	236.1	240.9
122.5°	258.1	258.1	258.2	258.3	258.3	258.4	258.3	258.3	258.2	258.1	258.1
125°	275.5	275.6	275.8	276.1	276.3	276.5	276.3	276.1	275.8	275.6	275.5
127.5°	292.3	292.3	292.4	292.5	292.6	292.7	292.6	292.5	292.4	292.3	292.3
130°	307.9	307.9	307.8	307.7	307.6	307.5	307.6	307.7	307.8	307.9	307.9
132.5°	322.4	322.4	322.3	322.2	322.2	322.1	322.2	322.2	322.3	322.4	322.4
135°	336.6	336.5	336.4	336.3	336.1	336.0	336.1	336.3	336.4	336.5	336.6
137.5°	349.9	349.8	349.6	349.3	349.1	348.9	349.1	349.3	349.6	349.8	349.9
140°	362.5	362.3	362.0	361.6	361.3	360.9	361.3	361.6	362.0	362.3	362.5
142.5°	374.2	374.0	373.6	373.3	372.9	372.5	372.9	373.3	373.6	374.0	374.2
145°	384.8	384.6	384.3	383.9	383.6	383.2	383.6	383.9	384.3	384.6	384.8
147.5°	394.2	394.1	393.8	393.5	393.2	392.9	393.2	393.5	393.8	394.1	394.2
150°	403.3	403.1	402.7	402.4	402.0	401.6	402.0	402.4	402.7	403.1	403.3
152.5°	411.3	411.1	410.6	410.1	409.6	409.1	409.6	410.1	410.6	411.1	411.3
155°	418.5	418.2	417.6	417.1	416.5	415.9	416.5	417.1	417.6	418.2	418.5
157.5°	424.9	424.6	424.0	423.5	422.9	422.3	422.9	423.5	424.0	424.6	424.9
160°	430.1	429.8	429.3	428.8	428.3	427.8	428.3	428.8	429.3	429.8	430.1
162.5°	435.3	435.0	434.3	433.7	433.0	432.4	433.0	433.7	434.3	435.0	435.3
165°	439.2	438.9	438.4	437.9	437.4	436.9	437.4	437.9	438.4	438.9	439.2
167.5°	442.7	442.4	441.7	441.1	440.4	439.8	440.4	441.1	441.7	442.4	442.7
170°	445.3	445.0	444.3	443.7	443.0	442.4	443.0	443.7	444.3	445.0	445.3
172.5°	447.2	446.9	446.2	445.6	444.9	444.3	444.9	445.6	446.2	446.9	447.2
175°	448.5	448.1	447.4	446.7	446.0	445.3	446.0	446.7	447.4	448.1	448.5
177.5°	448.9	448.6	447.9	447.3	446.6	446.0	446.6	447.3	447.9	448.6	448.9
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
2.5°	602.6	604.8	603.9	599.1	603.9	605.2	607.9	610.5	612.3	614.9	617.1
5°	564.8	569.2	571.8	569.2	578.0	579.3	585.4	589.0	594.2	598.6	602.2
7.5°	529.2	532.7	538.0	538.9	544.1	550.3	559.1	567.9	576.2	580.6	584.6
10°	491.0	497.1	505.0	503.3	511.2	520.8	530.1	544.1	551.2	559.1	566.1
12.5°	452.7	456.7	467.2	470.7	482.2	489.6	502.4	511.2	528.7	538.0	544.1
15°	385.9	402.2	415.4	431.2	446.1	460.2	471.6	487.4	502.8	509.9	520.0
17.5°	355.6	363.0	371.0	378.9	398.2	423.3	443.5	460.6	473.8	483.0	494.9
20°	323.9	331.4	340.2	347.7	359.5	377.6	402.6	432.1	447.9	457.5	469.0
22.5°	301.5	308.5	314.3	320.9	330.1	343.3	362.2	398.6	419.7	431.6	441.7
25°	277.3	286.1	292.3	297.1	304.6	319.1	334.5	355.1	392.9	402.2	416.2
27.5°	260.6	263.3	270.3	277.8	285.3	293.2	309.0	326.6	352.1	372.3	389.4
30°	240.9	247.5	254.0	257.1	263.7	275.1	284.8	303.7	323.5	339.3	360.0
32.5°	225.9	229.9	234.3	241.7	247.9	255.8	265.5	281.3	298.0	308.1	323.9
35°	209.2	211.9	221.1	224.2	230.3	238.2	247.9	260.2	278.2	286.1	297.6
37.5°	193.4	199.5	202.2	209.2	214.9	222.8	229.9	243.9	255.8	265.0	275.6
40°	181.1	183.7	188.6	194.7	199.5	205.7	214.5	224.6	237.3	244.8	254.0
42.5°	166.1	168.3	174.5	178.0	185.9	191.6	196.9	209.2	220.6	226.4	235.6
45°	149.9	155.2	159.1	166.1	170.5	177.6	184.2	193.0	203.5	210.1	215.4
47.5°	135.8	141.1	145.0	151.6	158.7	161.7	168.8	178.0	187.7	193.0	200.4
50°	124.4	126.1	133.6	136.7	144.2	150.3	155.2	163.1	173.6	176.7	182.8
52.5°	113.4	114.7	119.6	123.5	130.1	135.4	141.5	149.0	157.8	162.6	167.5
55°	103.7	104.6	106.8	111.2	115.6	122.2	127.9	134.9	142.4	147.7	152.1
57.5°	92.7	94.5	96.3	98.9	103.3	109.4	115.6	122.2	128.3	131.9	137.6
60°	80.0	82.6	85.7	88.8	91.9	96.3	103.3	109.4	115.2	118.2	122.6
62.5°	66.4	71.6	74.3	77.8	80.4	84.4	89.7	96.7	100.7	104.6	108.1
65°	59.8	60.2	60.7	64.2	69.0	73.0	77.8	83.1	89.2	91.9	94.5
67.5°	53.2	53.6	54.5	54.9	56.7	61.1	66.4	72.1	76.9	78.7	81.3
70°	46.6	46.6	48.3	48.8	49.2	49.7	54.1	59.8	64.2	66.4	69.4
72.5°	39.6	40.0	40.9	41.3	42.2	43.1	44.4	47.5	52.7	54.9	58.5
75°	32.5	33.0	33.4	33.8	35.2	35.6	36.9	38.7	40.9	43.5	45.7
77.5°	25.9	25.9	26.4	27.3	28.1	28.6	29.9	30.8	31.6	33.0	34.7
80°	19.3	19.8	19.8	20.7	20.7	21.1	21.5	22.9	23.7	24.6	25.5
82.5°	13.2	14.1	14.1	14.1	14.5	14.9	15.4	15.4	16.3	16.7	18.0
85°	7.9	8.4	8.4	8.4	7.9	8.8	8.8	9.2	9.2	9.2	9.7
87.5°	3.1	2.6	3.1	3.1	3.1	3.5	3.1	3.1	3.5	4.0	4.0
90°	7.9	7.6	7.2	6.9	6.5	5.9	5.3	4.8	4.2	3.9	3.5
92.5°	8.3	8.2	8.1	7.9	7.8	7.6	7.4	7.1	6.9	6.8	6.9
95°	14.0	13.7	13.3	13.0	12.6	12.1	11.6	11.1	10.6	10.3	11.5
97.5°	17.4	17.2	16.9	16.7	16.5	15.3	14.2	13.0	11.9	11.3	14.2
100°	20.7	20.1	19.6	19.0	18.4	17.2	16.0	14.7	13.5	12.9	17.8
102.5°	22.2	21.4	20.7	19.9	19.1	32.2	45.2	58.3	71.4	77.9	78.0
105°	22.9	22.1	21.3	20.5	19.7	39.3	58.9	78.6	98.2	108.0	106.9
107.5°	23.5	22.7	22.0	21.2	20.4	44.6	68.8	93.1	117.3	129.4	128.5
110°	27.9	35.1	42.2	49.4	56.6	77.4	98.2	118.9	139.7	150.1	149.3

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
112.5°	40.4	71.4	102.3	133.3	164.3	165.5	166.7	168.0	169.2	169.8	169.2
115°	66.4	99.7	133.0	166.2	199.5	197.7	195.9	194.1	192.3	191.4	190.8
117.5°	175.8	186.1	196.4	206.7	217.0	215.8	214.6	213.3	212.1	211.5	210.8
120°	240.5	239.6	238.7	237.9	237.0	235.7	234.4	233.1	231.8	231.2	230.7
122.5°	257.9	257.4	257.0	256.5	256.1	254.7	253.3	251.8	250.4	249.7	249.1
125°	275.3	274.8	274.3	273.8	273.3	271.9	270.5	269.2	267.8	267.1	266.6
127.5°	291.9	291.2	290.5	289.8	289.1	288.0	287.0	285.9	284.8	284.3	283.8
130°	307.5	306.7	305.9	305.1	304.3	303.5	302.7	301.9	301.1	300.7	300.1
132.5°	322.1	321.4	320.8	320.1	319.5	318.7	317.9	317.1	316.3	315.9	315.4
135°	336.2	335.5	334.8	334.1	333.4	332.8	332.1	331.5	330.8	330.5	329.9
137.5°	349.5	348.8	348.1	347.4	346.7	346.0	345.2	344.5	343.8	343.4	343.0
140°	362.2	361.5	360.9	360.2	359.6	358.8	358.0	357.2	356.4	356.0	355.7
142.5°	373.9	373.3	372.8	372.2	371.6	370.7	369.7	368.8	367.9	367.4	367.1
145°	384.6	384.1	383.6	383.1	382.6	381.4	380.2	378.9	377.7	377.1	377.1
147.5°	394.0	393.7	393.3	393.0	392.6	391.4	390.2	388.9	387.7	387.1	387.2
150°	403.1	402.6	402.2	401.7	401.3	400.1	399.0	397.8	396.7	396.1	396.4
152.5°	411.1	410.7	410.2	409.8	409.4	408.3	407.3	406.2	405.1	404.6	404.9
155°	418.3	417.8	417.4	416.9	416.5	415.6	414.8	413.9	413.0	412.6	412.9
157.5°	424.7	424.2	423.7	423.2	422.7	422.1	421.4	420.8	420.1	419.8	420.1
160°	429.9	429.5	429.0	428.6	428.2	427.8	427.3	426.9	426.4	426.2	426.4
162.5°	435.0	434.5	434.0	433.5	433.0	432.6	432.3	431.9	431.6	431.4	431.6
165°	438.9	438.4	437.9	437.4	436.9	436.7	436.5	436.2	436.0	435.9	436.1
167.5°	442.5	442.0	441.5	441.0	440.5	440.3	440.1	439.8	439.6	439.5	439.7
170°	445.0	444.5	444.0	443.5	443.0	442.9	442.7	442.6	442.5	442.4	442.6
172.5°	447.0	446.5	446.0	445.5	445.0	444.8	444.7	444.5	444.4	444.3	444.5
175°	448.3	447.8	447.3	446.8	446.3	446.1	446.0	445.8	445.7	445.6	445.9
177.5°	448.6	448.1	447.6	447.1	446.6	446.5	446.5	446.4	446.3	446.3	446.5
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	632.5	632.5	632.5	632.5
2.5°	621.1	619.7	627.6	636.4
5°	608.3	610.5	620.6	632.9
7.5°	595.1	600.0	611.8	628.1
10°	576.7	585.4	603.5	620.2
12.5°	558.6	570.5	587.6	607.4
15°	538.4	551.6	572.7	596.4
17.5°	516.0	530.9	555.6	581.5
20°	492.3	512.0	538.0	566.1
22.5°	465.9	489.6	516.4	547.6
25°	440.4	466.3	493.1	529.2
27.5°	415.4	440.8	470.7	507.2
30°	390.3	413.6	445.7	484.8
32.5°	363.5	387.7	421.5	461.5
35°	338.9	363.0	394.7	434.3
37.5°	312.5	338.4	368.8	409.6
40°	281.7	312.1	341.5	380.6
42.5°	256.2	288.3	316.9	353.8
45°	236.0	266.4	290.1	326.1
47.5°	217.1	241.7	265.9	299.3
50°	199.1	218.0	243.1	272.9
52.5°	180.6	196.9	218.4	246.6
55°	163.9	179.3	198.7	220.2
57.5°	148.6	159.5	178.9	198.2
60°	131.4	142.8	157.8	174.1
62.5°	116.9	125.7	139.8	153.4
65°	101.5	109.9	120.4	133.2
67.5°	87.5	94.9	103.3	113.4
70°	74.7	80.4	86.6	95.4
72.5°	61.1	67.2	73.0	80.0
75°	50.1	52.7	57.6	62.4
77.5°	38.7	42.2	44.8	48.8
80°	27.7	30.8	31.6	34.7
82.5°	18.5	20.2	22.0	22.9
85°	10.5	11.4	13.2	13.6
87.5°	4.0	4.4	5.3	6.2
90°	2.7	1.9	1.1	0.3
92.5°	7.2	7.5	7.8	8.1
95°	13.9	16.2	18.6	21.0
97.5°	20.1	26.0	31.9	37.8
100°	27.7	37.5	47.4	57.2
102.5°	78.1	78.3	78.4	78.6
105°	104.8	102.6	100.5	98.3
107.5°	126.7	124.9	123.1	121.3
110°	147.8	146.3	144.8	143.3

TEST NUMBER: P999514

CATALOG NUMBER: SA2XXRDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
112.5°	167.9	166.6	165.3	164.0
115°	189.6	188.3	187.1	185.9
117.5°	209.3	207.9	206.4	205.0
120°	229.6	228.5	227.5	226.4
122.5°	248.0	246.8	245.7	244.5
125°	265.7	264.8	263.8	262.9
127.5°	282.8	281.7	280.7	279.7
130°	299.0	297.9	296.7	295.6
132.5°	314.5	313.6	312.6	311.7
135°	328.8	327.6	326.5	325.3
137.5°	342.1	341.3	340.4	339.6
140°	355.2	354.6	354.1	353.5
142.5°	366.6	366.1	365.6	365.1
145°	377.2	377.3	377.3	377.4
147.5°	387.4	387.7	387.9	388.1
150°	396.9	397.4	397.9	398.4
152.5°	405.4	406.0	406.5	407.1
155°	413.6	414.3	414.9	415.6
157.5°	420.6	421.2	421.7	422.3
160°	426.9	427.3	427.8	428.2
162.5°	432.0	432.5	432.9	433.3
165°	436.6	437.0	437.5	437.9
167.5°	440.1	440.6	441.0	441.4
170°	443.0	443.5	443.9	444.3
172.5°	445.0	445.4	445.9	446.3
175°	446.4	446.9	447.4	447.9
177.5°	447.0	447.5	448.0	448.5
180°	446.9	446.9	446.9	446.9

(END OF REPORT)