

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P998209

Luminaire Tested: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998209
REPORT IS A COMBINATION OF REPORTS P983949 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

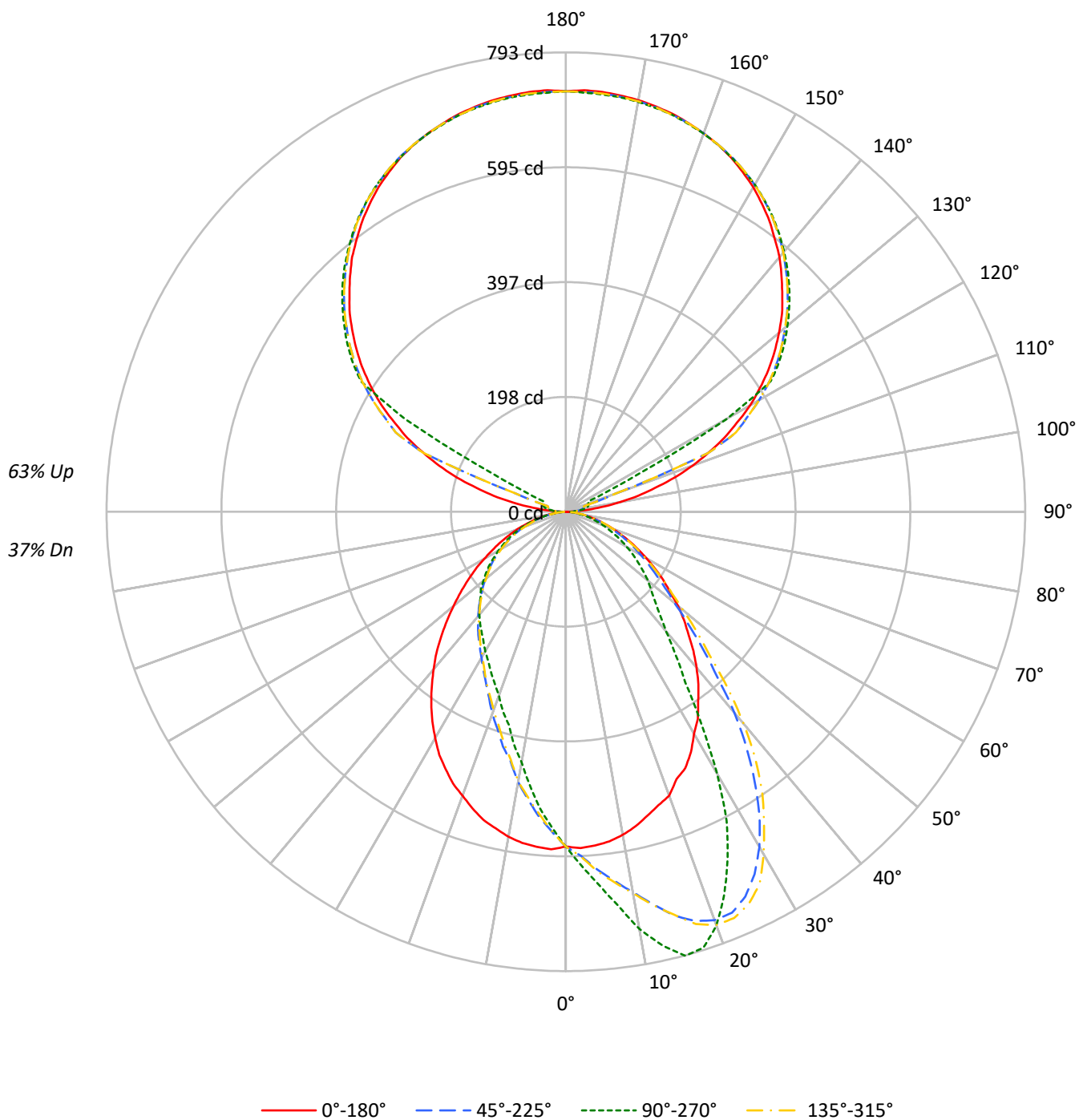
Lumens per Lamp: N/A
Luminaire Lumens: 3404.0 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 28.4
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				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45
1	95	91	88	84	86	83	80	77	67	65	63	53	52	50	40	39	38
2	87	80	74	69	79	73	68	64	59	56	53	47	45	43	36	34	33
3	80	71	64	58	72	64	58	54	53	48	45	42	39	37	32	30	28
4	73	63	55	49	66	57	51	46	47	42	39	38	34	32	29	27	25
5	67	56	48	42	61	51	44	39	42	37	33	34	30	28	26	24	22
6	62	50	43	37	56	46	39	34	38	33	29	31	27	24	24	21	19
7	57	45	38	32	52	42	35	30	35	30	26	28	24	22	22	19	17
8	53	41	34	29	48	38	31	27	32	27	23	26	22	19	20	18	16
9	49	38	30	26	45	35	28	24	29	24	21	24	20	17	19	16	14
10	46	35	28	23	42	32	26	21	27	22	19	22	18	16	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9148	9148	9148	9148
5°	9169	9753	9205	7760
10°	9062	10647	9120	6398
15°	8843	11230	8966	5389
20°	8706	10545	8706	4684
25°	8428	9060	8466	4189
30°	7971	7121	8124	3794
35°	7566	4924	7693	3471
40°	7102	3717	7183	3214
45°	6528	3056	6635	2936
50°	6033	2681	6043	2688
55°	5468	2286	5502	2418
60°	4867	1908	4934	2111
65°	4326	1552	4405	1802
70°	3789	1217	3885	1454
75°	3183	884	3306	1055
80°	2483	561	2659	626
85°	1624	282	1752	209

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 9457 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	1.6
10°-20°	160.2	4.7
20°-30°	232.5	6.8
30°-40°	245.1	7.2
40°-50°	216.9	6.4
50°-60°	173.2	5.1
60°-70°	117.6	3.5
70°-80°	60.2	1.8
80°-90°	15.5	0.5
90°-100°	23.9	0.7
100°-110°	89.2	2.6
110°-120°	236.6	7.0
120°-130°	392.4	11.5
130°-140°	416.8	12.2
140°-150°	387.4	11.4
150°-160°	311.5	9.2
160°-170°	200.7	5.9
170°-180°	69.1	2.0
0°-30°	447.8	13.2
0°-40°	692.9	20.4
0°-60°	1083.0	31.8
0°-90°	1276.3	37.5
90°-120°	349.8	10.3
90°-150°	1546.5	45.4
90°-180°	2128.0	62.5
0°-180°	3404.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	578	578	578	578	578	
5°	578	645	581	514	578	55
15°	543	793	551	381	543	153
25°	488	661	490	306	488	223
35°	398	360	405	254	398	249
45°	299	217	304	208	299	232
55°	205	152	206	161	205	183
65°	122	94	124	109	122	121
75°	57	46	59	55	57	61
85°	12	12	12	9	12	13
90°	0	14	0	14	0	3
95°	34	23	34	23	34	40
105°	160	40	160	40	160	171
115°	302	43	302	43	302	297
125°	427	449	427	449	427	381
135°	528	546	528	546	528	408
145°	613	622	613	622	613	383
155°	675	675	675	675	675	311
165°	711	710	711	710	711	201
175°	727	723	727	723	727	69
180°	726	726	726	726	726	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9
2.5°	581.0	582.3	584.6	585.0	589.4	593.0	597.0	597.0	598.3	597.9	594.3
5°	578.3	582.3	588.1	593.0	601.0	604.5	609.9	613.9	617.4	620.1	619.6
7.5°	573.9	581.0	589.4	598.8	609.4	615.6	623.2	630.3	635.2	639.6	642.7
10°	566.3	578.3	589.9	602.3	616.1	624.5	633.4	642.7	650.3	658.7	666.7
12.5°	556.1	573.4	587.7	604.1	621.0	630.3	644.5	651.6	666.3	687.6	693.4
15°	543.2	566.8	580.1	601.0	623.2	630.7	650.3	661.8	692.0	705.4	721.4
17.5°	531.2	557.5	575.2	599.2	621.0	635.6	654.7	678.3	703.6	722.7	740.5
20°	521.5	546.8	568.1	594.8	622.3	641.0	661.0	689.4	716.9	736.5	750.2
22.5°	499.3	531.7	556.6	586.3	619.6	645.4	664.5	695.6	725.4	737.4	749.3
25°	488.2	516.1	545.0	578.8	617.9	648.5	665.0	699.6	725.8	730.2	732.9
27.5°	467.7	499.3	533.0	571.7	617.4	643.2	664.1	695.6	716.5	713.4	705.4
30°	442.4	481.1	518.4	560.1	611.2	639.2	658.7	687.6	698.3	682.3	668.1
32.5°	423.8	460.2	501.5	549.9	604.1	630.7	649.8	672.5	674.7	645.9	621.9
35°	398.4	438.9	485.5	536.6	592.1	616.1	633.9	647.6	637.0	596.5	568.1
37.5°	375.8	415.8	465.5	517.5	575.7	599.2	613.4	615.6	589.4	553.9	512.1
40°	350.9	392.2	444.2	498.8	557.5	577.9	586.8	580.1	542.4	501.0	452.6
42.5°	326.0	366.9	422.9	478.8	534.4	551.7	555.2	537.0	490.8	442.4	386.4
45°	298.9	341.6	397.5	454.0	507.7	517.5	517.9	491.7	437.1	386.4	334.5
47.5°	276.7	316.3	371.8	428.2	473.5	480.2	477.5	447.3	387.8	330.9	285.6
50°	252.3	290.1	345.1	400.7	439.3	441.1	434.4	391.3	333.1	281.2	245.2
52.5°	226.1	264.3	314.9	368.2	402.9	400.2	387.3	341.1	286.5	243.4	215.9
55°	205.2	239.0	286.5	338.5	362.9	355.4	341.1	294.1	251.0	214.5	190.6
57.5°	182.1	211.9	258.5	303.8	318.0	310.9	296.7	252.7	212.8	185.2	169.2
60°	160.4	187.4	228.3	266.1	277.2	269.6	253.2	213.7	184.8	161.7	149.7
62.5°	140.4	163.9	198.1	232.8	237.2	229.6	215.4	183.4	158.6	140.4	131.5
65°	121.7	143.9	171.5	197.7	201.7	193.7	179.0	155.9	135.0	123.5	115.0
67.5°	103.5	121.3	145.7	164.8	167.0	159.5	147.5	128.8	115.9	103.5	97.3
70°	87.5	100.8	119.9	135.5	136.4	129.3	123.0	106.2	96.4	87.5	82.6
72.5°	72.0	81.3	95.9	107.5	107.9	103.5	97.7	87.1	78.6	72.4	67.5
75°	56.9	64.9	73.7	84.0	83.5	80.0	75.5	68.8	61.7	57.7	55.5
77.5°	43.5	48.4	55.5	62.2	62.2	60.4	57.7	52.9	48.4	44.4	42.2
80°	31.1	34.2	40.0	42.2	43.1	42.6	40.4	36.9	35.1	32.0	31.1
82.5°	20.0	22.2	24.9	27.1	28.4	27.5	27.1	25.3	22.7	21.8	20.9
85°	11.5	12.4	13.8	15.1	15.5	15.1	16.0	14.7	13.3	13.3	12.9
87.5°	4.9	5.3	6.2	6.2	6.7	6.7	6.2	6.7	6.7	6.2	5.8
90°	0.5	1.8	3.1	4.4	5.7	6.3	6.8	7.7	8.6	9.6	10.5
92.5°	13.1	12.6	12.2	11.7	11.2	11.0	11.2	11.5	11.9	12.2	12.6
95°	34.1	30.3	26.4	22.6	18.7	16.8	17.2	18.0	18.9	19.7	20.5
97.5°	61.4	51.8	42.3	32.7	23.2	18.4	19.3	21.2	23.1	24.9	26.8
100°	93.0	77.0	61.0	45.0	29.0	21.0	22.0	24.0	25.9	27.9	29.9
102.5°	127.6	127.4	127.2	126.9	126.7	126.6	116.0	94.7	73.5	52.2	31.0
105°	159.6	163.1	166.6	170.1	173.6	175.4	159.5	127.6	95.7	63.9	32.0
107.5°	196.9	199.8	202.8	205.7	208.6	210.1	190.4	151.1	111.8	72.4	33.1
110°	232.6	235.1	237.5	240.0	242.5	243.7	226.8	193.1	159.4	125.6	91.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	266.3	268.4	270.5	272.6	274.7	275.7	274.7	272.7	270.8	268.8	266.8
115°	302.0	304.0	306.0	307.9	309.9	310.9	312.4	315.3	318.2	321.1	324.0
117.5°	333.0	335.3	337.7	340.0	342.3	343.5	344.5	346.5	348.4	350.4	352.4
120°	367.6	369.4	371.1	372.9	374.6	375.5	376.5	378.6	380.7	382.8	384.9
122.5°	397.0	398.9	400.7	402.6	404.5	405.4	406.6	408.9	411.2	413.6	415.9
125°	427.0	428.5	430.0	431.5	433.0	433.8	434.9	437.1	439.4	441.6	443.8
127.5°	454.3	455.9	457.5	459.2	460.8	461.6	462.5	464.2	466.0	467.7	469.5
130°	480.0	481.9	483.7	485.6	487.5	488.4	489.0	490.3	491.6	492.9	494.2
132.5°	506.3	507.8	509.3	510.8	512.3	513.1	513.7	515.0	516.3	517.6	518.9
135°	528.3	530.2	532.0	533.9	535.8	536.7	537.2	538.3	539.3	540.4	541.4
137.5°	551.4	552.8	554.2	555.6	557.0	557.7	558.3	559.5	560.6	561.8	563.0
140°	574.0	574.9	575.9	576.8	577.7	578.2	578.8	580.1	581.4	582.7	584.0
142.5°	592.9	593.7	594.5	595.4	596.2	596.6	597.4	598.9	600.4	601.9	603.4
145°	612.9	612.8	612.6	612.5	612.4	612.3	613.3	615.3	617.3	619.3	621.3
147.5°	630.2	629.8	629.5	629.1	628.8	628.6	629.6	631.6	633.5	635.5	637.5
150°	647.0	646.2	645.4	644.5	643.7	643.3	644.2	646.1	648.0	649.8	651.7
152.5°	661.2	660.3	659.3	658.4	657.5	657.0	657.9	659.6	661.4	663.1	664.9
155°	674.8	673.8	672.7	671.7	670.6	670.1	670.8	672.2	673.6	675.0	676.4
157.5°	685.9	685.0	684.0	683.1	682.2	681.7	682.2	683.3	684.3	685.4	686.4
160°	695.3	694.6	693.9	693.2	692.5	692.2	692.5	693.2	693.9	694.6	695.3
162.5°	703.7	703.0	702.3	701.6	700.9	700.6	700.9	701.5	702.0	702.6	703.2
165°	711.1	710.4	709.7	709.0	708.3	707.9	708.1	708.4	708.8	709.1	709.5
167.5°	716.8	716.1	715.4	714.7	714.0	713.7	713.9	714.2	714.6	714.9	715.3
170°	721.6	720.9	720.2	719.5	718.8	718.4	718.5	718.8	719.0	719.3	719.5
172.5°	724.7	724.0	723.3	722.6	721.9	721.6	721.7	721.9	722.2	722.4	722.6
175°	727.4	726.6	725.8	724.9	724.1	723.7	723.8	724.0	724.3	724.5	724.7
177.5°	728.4	727.6	726.8	725.9	725.1	724.7	724.8	724.9	725.0	725.2	725.3
180°	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9
2.5°	600.5	601.0	601.9	606.3	608.5	609.0	607.2	611.2	612.5	611.2	610.3
5°	629.0	631.6	637.0	642.7	642.3	642.7	645.4	648.1	649.0	645.4	646.7
7.5°	653.8	659.2	665.0	673.8	673.8	678.3	680.1	682.3	687.6	684.9	684.1
10°	682.3	689.4	700.0	714.3	714.7	719.1	723.6	730.7	732.9	731.1	732.0
12.5°	717.8	731.6	732.5	748.0	755.1	756.0	763.1	761.8	766.2	766.2	773.8
15°	733.4	754.7	766.7	781.8	786.2	780.9	786.7	792.9	793.3	793.3	792.9
17.5°	761.3	769.8	781.8	789.8	791.5	791.5	792.0	794.7	792.9	789.3	792.0
20°	767.1	770.7	775.1	774.2	775.1	770.7	766.2	761.8	762.2	760.0	766.7
22.5°	756.5	755.6	745.3	738.7	738.7	729.8	721.4	717.4	713.4	714.7	716.9
25°	729.8	716.0	703.6	693.8	691.6	677.4	665.8	662.3	655.6	661.0	661.8
27.5°	687.2	671.6	651.6	643.2	631.6	625.9	617.9	607.2	593.4	601.4	600.1
30°	641.4	618.3	601.9	581.4	563.2	561.9	546.8	529.0	521.9	521.9	525.9
32.5°	590.3	559.7	535.7	506.8	489.1	481.5	463.3	445.5	449.5	436.2	441.1
35°	530.8	490.4	460.2	432.2	418.9	410.0	386.4	376.7	366.0	359.8	371.3
37.5°	473.9	427.3	388.7	358.0	353.1	337.1	321.1	314.9	308.7	311.4	310.9
40°	404.7	363.3	328.7	304.7	296.3	288.7	278.1	270.5	266.5	268.7	269.2
42.5°	342.0	307.4	281.6	264.7	257.6	252.3	247.0	240.8	239.4	239.4	241.2
45°	293.6	265.2	247.9	234.1	230.1	226.1	222.1	219.4	218.5	216.8	218.1
47.5°	255.0	232.3	221.7	211.4	207.0	206.1	202.6	201.2	199.4	199.0	199.4
50°	222.5	208.3	198.6	192.8	189.7	188.3	186.6	183.9	183.0	185.2	184.3
52.5°	199.9	186.6	181.2	175.5	173.7	171.9	169.2	169.7	169.2	168.3	168.3
55°	177.2	168.8	163.5	159.0	158.6	156.8	154.6	153.7	153.2	152.4	153.7
57.5°	159.0	152.4	147.5	143.5	141.7	141.7	139.5	137.7	137.7	137.3	137.7
60°	140.8	134.1	131.0	127.0	125.7	125.3	123.9	123.0	121.7	121.7	121.7
62.5°	123.9	118.6	115.0	111.5	111.9	109.7	107.9	107.0	107.0	107.5	107.5
65°	107.9	104.4	99.9	96.8	95.9	95.5	94.6	94.2	92.8	93.7	93.7
67.5°	93.3	88.4	85.7	84.4	83.1	82.6	81.7	80.8	80.4	80.0	80.8
70°	78.6	74.6	72.4	71.5	70.2	69.7	69.3	68.0	68.4	68.8	69.3
72.5°	65.3	61.7	61.3	58.6	58.6	58.6	56.9	57.7	57.3	56.4	57.3
75°	51.5	49.7	48.9	47.5	48.0	47.5	47.1	45.8	45.8	46.2	46.6
77.5°	40.9	39.1	38.6	37.3	36.4	37.3	36.4	36.0	36.0	36.4	36.4
80°	30.2	29.3	28.0	28.0	28.0	27.5	27.5	27.5	27.1	26.7	27.1
82.5°	20.0	20.0	19.5	19.1	19.5	18.7	19.1	19.1	19.1	19.1	19.1
85°	12.9	12.4	12.4	12.0	12.0	12.0	12.4	11.5	11.5	12.0	12.0
87.5°	5.8	5.8	5.8	6.2	5.8	5.8	5.8	6.2	5.8	5.8	5.8
90°	11.1	11.7	12.2	12.8	13.1	13.2	13.5	13.7	14.0	14.2	14.0
92.5°	12.8	13.1	13.3	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.1
95°	21.1	21.7	22.2	22.8	23.1	23.0	22.9	22.8	22.7	22.6	22.7
97.5°	27.2	27.5	27.9	28.2	28.4	28.5	28.6	28.7	28.8	28.9	28.8
100°	30.8	31.8	32.7	33.6	34.1	34.2	34.5	34.7	35.0	35.2	35.0
102.5°	32.3	33.6	34.9	36.2	36.8	37.0	37.3	37.6	38.0	38.3	38.0
105°	33.3	34.6	35.9	37.2	37.8	38.0	38.5	39.0	39.4	39.9	39.4
107.5°	34.4	35.7	37.0	38.3	38.9	39.1	39.6	40.1	40.5	41.0	40.5
110°	80.2	68.6	56.9	45.2	39.4	39.6	40.1	40.6	41.0	41.5	41.0

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	216.5	166.2	115.9	65.6	40.4	40.6	40.9	41.3	41.6	42.0	41.6
115°	270.0	216.0	161.9	107.9	80.9	76.7	68.3	59.9	51.5	43.1	51.5
117.5°	335.7	319.0	302.3	285.6	277.3	262.0	231.4	200.9	170.3	139.7	170.3
120°	386.3	387.7	389.1	390.5	391.2	383.3	367.6	351.9	336.1	320.4	336.1
122.5°	416.6	417.3	418.0	418.7	419.1	419.2	419.3	419.4	419.5	419.6	419.5
125°	444.6	445.4	446.2	447.0	447.4	447.6	447.9	448.3	448.6	449.0	448.6
127.5°	470.7	471.8	473.0	474.1	474.7	474.8	474.9	475.0	475.2	475.3	475.2
130°	495.5	496.8	498.1	499.4	500.0	499.9	499.8	499.7	499.5	499.4	499.5
132.5°	519.9	521.0	522.0	523.1	523.6	523.5	523.4	523.3	523.2	523.1	523.2
135°	542.6	543.8	544.9	546.1	546.7	546.6	546.3	546.1	545.8	545.6	545.8
137.5°	564.2	565.3	566.5	567.6	568.2	568.0	567.7	567.4	567.0	566.7	567.0
140°	585.0	586.1	587.1	588.2	588.7	588.4	587.8	587.3	586.7	586.1	586.7
142.5°	604.3	605.3	606.2	607.1	607.6	607.3	606.7	606.2	605.6	605.0	605.6
145°	622.1	622.9	623.7	624.5	624.9	624.6	624.0	623.5	622.9	622.3	622.9
147.5°	638.1	638.7	639.3	639.9	640.2	640.0	639.5	639.0	638.6	638.1	638.6
150°	652.4	653.1	653.8	654.5	654.9	654.6	654.0	653.5	652.9	652.3	652.9
152.5°	665.6	666.3	667.0	667.7	668.0	667.6	666.8	665.9	665.1	664.3	665.1
155°	677.1	677.8	678.5	679.2	679.6	679.1	678.2	677.3	676.3	675.4	676.3
157.5°	687.2	688.0	688.9	689.7	690.1	689.6	688.7	687.8	686.8	685.9	686.8
160°	696.0	696.7	697.4	698.1	698.5	698.1	697.3	696.4	695.6	694.8	695.6
162.5°	704.0	704.8	705.7	706.5	706.9	706.4	705.3	704.2	703.2	702.1	703.2
165°	710.3	711.1	712.0	712.8	713.2	712.8	712.0	711.1	710.3	709.5	710.3
167.5°	716.1	716.9	717.7	718.5	718.9	718.4	717.3	716.3	715.2	714.2	715.2
170°	720.3	721.1	722.0	722.8	723.2	722.7	721.6	720.5	719.5	718.4	719.5
172.5°	723.4	724.2	725.1	725.9	726.3	725.8	724.7	723.7	722.6	721.6	722.6
175°	725.5	726.3	727.2	728.0	728.4	727.8	726.7	725.5	724.4	723.2	724.4
177.5°	726.1	726.9	727.7	728.5	728.9	728.4	727.3	726.3	725.2	724.2	725.2
180°	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9
2.5°	612.5	609.4	606.8	607.2	609.4	607.7	603.2	597.4	595.2	592.5	595.2
5°	649.4	646.7	641.4	641.9	640.5	638.7	631.6	622.8	622.8	615.6	614.8
7.5°	685.8	681.8	678.3	677.4	672.5	668.9	662.7	650.3	645.4	637.0	632.1
10°	726.7	723.6	719.6	714.7	712.0	705.8	695.6	677.4	668.5	657.0	648.5
12.5°	768.0	767.6	758.7	748.9	748.5	738.7	731.6	707.1	695.2	679.6	659.6
15°	794.2	792.0	787.1	782.2	783.5	772.9	756.9	728.0	720.0	701.4	680.1
17.5°	793.8	793.8	792.4	791.5	790.2	787.1	778.2	759.1	746.2	722.7	702.7
20°	768.4	774.2	775.6	775.1	779.6	781.8	781.3	769.3	759.1	738.2	717.8
22.5°	717.8	731.1	736.9	740.5	749.8	754.7	766.2	761.8	759.1	743.6	726.2
25°	670.7	675.2	692.5	693.4	706.3	718.3	729.8	737.4	747.1	741.4	726.7
27.5°	609.9	620.1	632.5	641.9	644.5	668.9	688.0	702.3	724.5	726.2	721.4
30°	541.0	545.9	566.3	578.8	593.0	610.8	638.3	662.7	682.7	700.9	707.1
32.5°	457.1	477.1	489.1	504.2	516.6	548.1	581.9	613.4	636.5	667.2	680.5
35°	380.2	395.8	416.2	422.4	445.1	471.7	515.7	556.1	591.2	622.3	649.4
37.5°	316.7	329.1	350.9	360.7	374.0	408.2	445.1	495.3	537.5	575.7	609.4
40°	273.2	282.5	298.9	302.0	313.2	344.2	374.0	421.1	477.1	528.6	565.5
42.5°	243.4	247.9	259.0	263.0	270.1	290.9	317.6	362.0	414.0	467.3	519.3
45°	222.1	225.2	231.9	235.4	244.3	253.6	275.4	310.9	351.8	405.5	461.5
47.5°	203.0	207.0	209.7	211.9	216.8	227.0	241.2	267.4	306.5	355.8	410.0
50°	187.0	188.3	193.2	193.7	196.8	203.4	216.8	232.8	263.8	303.8	356.2
52.5°	171.0	172.3	175.5	178.6	179.9	185.2	194.1	207.4	230.5	262.1	308.7
55°	155.0	156.8	159.9	162.1	163.5	167.9	173.2	186.1	204.3	226.5	264.7
57.5°	139.0	143.0	143.9	145.2	147.5	152.4	157.2	164.8	179.0	199.4	227.4
60°	123.9	125.3	128.4	129.7	131.9	134.6	140.8	146.6	156.8	172.8	198.1
62.5°	108.4	111.5	112.8	114.2	115.9	119.0	123.0	129.3	138.1	151.0	171.0
65°	95.1	95.5	98.2	99.9	101.7	103.9	107.9	113.7	119.0	131.0	145.7
67.5°	82.2	83.1	84.0	85.7	87.9	90.2	93.7	96.8	103.5	111.5	123.0
70°	69.7	69.7	72.0	73.3	72.8	75.5	78.2	81.7	86.6	94.2	103.5
72.5°	58.6	58.2	60.0	60.4	61.3	63.1	64.9	68.4	71.1	76.8	84.0
75°	46.6	47.5	48.4	48.4	49.7	51.1	52.9	54.6	57.7	61.3	66.6
77.5°	36.9	36.9	37.8	38.2	39.5	39.1	40.9	42.6	44.9	48.0	52.0
80°	27.1	28.0	28.0	28.0	28.4	28.9	30.6	32.0	33.3	35.5	37.3
82.5°	19.1	19.1	20.0	20.0	20.0	20.9	20.9	21.3	22.2	23.5	24.9
85°	12.0	12.0	12.0	12.4	12.0	12.4	13.3	12.9	13.3	14.2	14.2
87.5°	5.8	5.8	5.8	5.8	5.8	6.2	5.8	6.2	6.7	6.7	6.7
90°	13.7	13.5	13.2	13.1	12.8	12.2	11.7	11.1	10.5	9.6	8.6
92.5°	14.0	13.9	13.8	13.7	13.6	13.3	13.1	12.8	12.6	12.2	11.9
95°	22.8	22.9	23.0	23.1	22.8	22.2	21.7	21.1	20.5	19.7	18.9
97.5°	28.7	28.6	28.5	28.4	28.2	27.9	27.5	27.2	26.8	24.9	23.1
100°	34.7	34.5	34.2	34.1	33.6	32.7	31.8	30.8	29.9	27.9	25.9
102.5°	37.6	37.3	37.0	36.8	36.2	34.9	33.6	32.3	31.0	52.2	73.5
105°	39.0	38.5	38.0	37.8	37.2	35.9	34.6	33.3	32.0	63.9	95.7
107.5°	40.1	39.6	39.1	38.9	38.3	37.0	35.7	34.4	33.1	72.4	111.8
110°	40.6	40.1	39.6	39.4	45.2	56.9	68.6	80.2	91.9	125.6	159.4

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	41.3	40.9	40.6	40.4	65.6	115.9	166.2	216.5	266.8	268.8	270.8
115°	59.9	68.3	76.7	80.9	107.9	161.9	216.0	270.0	324.0	321.1	318.2
117.5°	200.9	231.4	262.0	277.3	285.6	302.3	319.0	335.7	352.4	350.4	348.4
120°	351.9	367.6	383.3	391.2	390.5	389.1	387.7	386.3	384.9	382.8	380.7
122.5°	419.4	419.3	419.2	419.1	418.7	418.0	417.3	416.6	415.9	413.6	411.2
125°	448.3	447.9	447.6	447.4	447.0	446.2	445.4	444.6	443.8	441.6	439.4
127.5°	475.0	474.9	474.8	474.7	474.1	473.0	471.8	470.7	469.5	467.7	466.0
130°	499.7	499.8	499.9	500.0	499.4	498.1	496.8	495.5	494.2	492.9	491.6
132.5°	523.3	523.4	523.5	523.6	523.1	522.0	521.0	519.9	518.9	517.6	516.3
135°	546.1	546.3	546.6	546.7	546.1	544.9	543.8	542.6	541.4	540.4	539.3
137.5°	567.4	567.7	568.0	568.2	567.6	566.5	565.3	564.2	563.0	561.8	560.6
140°	587.3	587.8	588.4	588.7	588.2	587.1	586.1	585.0	584.0	582.7	581.4
142.5°	606.2	606.7	607.3	607.6	607.1	606.2	605.3	604.3	603.4	601.9	600.4
145°	623.5	624.0	624.6	624.9	624.5	623.7	622.9	622.1	621.3	619.3	617.3
147.5°	639.0	639.5	640.0	640.2	639.9	639.3	638.7	638.1	637.5	635.5	633.5
150°	653.5	654.0	654.6	654.9	654.5	653.8	653.1	652.4	651.7	649.8	648.0
152.5°	665.9	666.8	667.6	668.0	667.7	667.0	666.3	665.6	664.9	663.1	661.4
155°	677.3	678.2	679.1	679.6	679.2	678.5	677.8	677.1	676.4	675.0	673.6
157.5°	687.8	688.7	689.6	690.1	689.7	688.9	688.0	687.2	686.4	685.4	684.3
160°	696.4	697.3	698.1	698.5	698.1	697.4	696.7	696.0	695.3	694.6	693.9
162.5°	704.2	705.3	706.4	706.9	706.5	705.7	704.8	704.0	703.2	702.6	702.0
165°	711.1	712.0	712.8	713.2	712.8	712.0	711.1	710.3	709.5	709.1	708.8
167.5°	716.3	717.3	718.4	718.9	718.5	717.7	716.9	716.1	715.3	714.9	714.6
170°	720.5	721.6	722.7	723.2	722.8	722.0	721.1	720.3	719.5	719.3	719.0
172.5°	723.7	724.7	725.8	726.3	725.9	725.1	724.2	723.4	722.6	722.4	722.2
175°	725.5	726.7	727.8	728.4	728.0	727.2	726.3	725.5	724.7	724.5	724.3
177.5°	726.3	727.3	728.4	728.9	728.5	727.7	726.9	726.1	725.3	725.2	725.0
180°	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9
2.5°	593.0	590.8	589.4	590.3	587.7	581.0	581.0	583.2	580.6	577.9	573.9
5°	609.4	605.0	602.3	601.9	595.7	585.0	582.8	580.6	574.8	568.6	561.9
7.5°	625.4	617.4	613.0	609.9	601.0	587.2	581.4	576.6	567.2	557.9	549.5
10°	638.7	627.2	621.9	617.0	605.4	588.1	578.8	569.9	557.9	545.9	535.2
12.5°	649.4	636.1	629.4	622.3	608.1	585.4	573.9	559.7	547.7	531.7	521.0
15°	667.2	639.6	633.4	626.8	612.1	581.0	566.8	550.8	534.4	513.0	501.5
17.5°	681.4	644.5	644.1	629.9	610.8	579.2	557.5	536.6	518.8	497.5	479.3
20°	689.8	652.1	645.0	630.3	606.3	567.2	544.6	521.5	502.4	476.6	458.4
22.5°	696.9	662.7	644.1	626.3	597.0	563.2	529.9	508.2	481.9	454.0	436.6
25°	699.6	665.0	645.4	625.0	590.3	551.7	513.9	490.4	461.1	435.7	412.2
27.5°	700.0	664.5	640.5	619.2	581.0	536.6	497.9	473.1	440.6	411.3	387.8
30°	695.6	659.6	637.9	614.8	572.1	522.8	478.4	450.9	416.2	386.9	362.5
32.5°	682.3	649.8	632.1	606.8	560.6	503.7	459.7	429.1	392.7	363.8	340.2
35°	660.1	637.9	618.3	594.8	545.5	485.9	441.1	405.1	368.2	340.7	318.5
37.5°	632.5	620.5	602.3	579.2	528.1	470.0	420.2	380.2	343.4	316.7	294.9
40°	595.2	598.3	580.6	559.7	507.7	448.2	393.1	354.9	320.3	295.4	274.1
42.5°	554.8	567.7	557.5	537.5	485.1	424.2	373.1	330.9	297.2	271.4	253.6
45°	511.3	533.5	527.3	512.6	461.5	398.9	344.7	303.8	274.1	249.2	233.6
47.5°	463.7	495.3	495.3	484.6	435.3	373.6	320.3	278.5	249.2	231.4	216.3
50°	415.3	450.9	456.6	449.5	406.0	344.7	290.5	252.7	227.4	210.1	199.0
52.5°	364.7	406.0	416.6	413.1	374.9	317.2	266.1	229.2	206.1	191.0	181.2
55°	316.3	364.2	375.8	377.1	341.6	286.9	239.0	206.5	184.3	174.1	165.7
57.5°	270.5	316.7	329.6	331.8	307.8	259.4	213.7	185.2	165.2	156.8	150.1
60°	231.4	270.1	286.9	291.8	271.0	227.4	190.1	162.6	147.5	139.5	133.3
62.5°	199.4	230.5	248.3	249.6	240.3	199.4	165.7	142.6	129.7	122.6	119.5
65°	168.3	196.3	207.0	212.3	204.8	172.8	143.0	123.9	113.7	107.5	104.4
67.5°	143.5	161.2	170.1	177.2	169.7	145.7	121.7	106.2	98.6	92.4	90.6
70°	117.7	132.4	139.0	146.1	139.5	121.3	103.9	89.7	83.1	78.2	76.0
72.5°	94.2	105.7	111.9	116.4	112.4	97.3	83.1	73.3	68.4	64.9	63.5
75°	74.6	82.6	86.2	89.3	87.5	76.0	67.1	59.1	54.6	51.5	50.6
77.5°	56.9	62.6	66.6	67.5	65.3	57.7	50.2	45.3	41.8	40.0	39.1
80°	40.4	44.0	46.2	47.5	45.3	42.2	36.9	33.3	30.2	28.0	27.5
82.5°	27.1	28.9	30.6	30.2	29.3	26.7	23.5	21.8	20.4	18.7	18.7
85°	15.5	16.0	16.9	17.3	16.9	15.1	13.3	12.4	11.5	10.2	10.2
87.5°	6.7	7.1	7.1	7.6	6.7	6.7	5.8	4.9	4.9	4.4	4.0
90°	7.7	6.8	6.3	5.7	4.4	3.1	1.8	0.5	1.8	3.1	4.4
92.5°	11.5	11.2	11.0	11.2	11.7	12.2	12.6	13.1	12.6	12.2	11.7
95°	18.0	17.2	16.8	18.7	22.6	26.4	30.3	34.1	30.3	26.4	22.6
97.5°	21.2	19.3	18.4	23.2	32.7	42.3	51.8	61.4	51.8	42.3	32.7
100°	24.0	22.0	21.0	29.0	45.0	61.0	77.0	93.0	77.0	61.0	45.0
102.5°	94.7	116.0	126.6	126.7	126.9	127.2	127.4	127.6	127.4	127.2	126.9
105°	127.6	159.5	175.4	173.6	170.1	166.6	163.1	159.6	163.1	166.6	170.1
107.5°	151.1	190.4	210.1	208.6	205.7	202.8	199.8	196.9	199.8	202.8	205.7
110°	193.1	226.8	243.7	242.5	240.0	237.5	235.1	232.6	235.1	237.5	240.0

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
112.5°	272.7	274.7	275.7	274.7	272.6	270.5	268.4	266.3	268.4	270.5	272.6
115°	315.3	312.4	310.9	309.9	307.9	306.0	304.0	302.0	304.0	306.0	307.9
117.5°	346.5	344.5	343.5	342.3	340.0	337.7	335.3	333.0	335.3	337.7	340.0
120°	378.6	376.5	375.5	374.6	372.9	371.1	369.4	367.6	369.4	371.1	372.9
122.5°	408.9	406.6	405.4	404.5	402.6	400.7	398.9	397.0	398.9	400.7	402.6
125°	437.1	434.9	433.8	433.0	431.5	430.0	428.5	427.0	428.5	430.0	431.5
127.5°	464.2	462.5	461.6	460.8	459.2	457.5	455.9	454.3	455.9	457.5	459.2
130°	490.3	489.0	488.4	487.5	485.6	483.7	481.9	480.0	481.9	483.7	485.6
132.5°	515.0	513.7	513.1	512.3	510.8	509.3	507.8	506.3	507.8	509.3	510.8
135°	538.3	537.2	536.7	535.8	533.9	532.0	530.2	528.3	530.2	532.0	533.9
137.5°	559.5	558.3	557.7	557.0	555.6	554.2	552.8	551.4	552.8	554.2	555.6
140°	580.1	578.8	578.2	577.7	576.8	575.9	574.9	574.0	574.9	575.9	576.8
142.5°	598.9	597.4	596.6	596.2	595.4	594.5	593.7	592.9	593.7	594.5	595.4
145°	615.3	613.3	612.3	612.4	612.5	612.6	612.8	612.9	612.8	612.6	612.5
147.5°	631.6	629.6	628.6	628.8	629.1	629.5	629.8	630.2	629.8	629.5	629.1
150°	646.1	644.2	643.3	643.7	644.5	645.4	646.2	647.0	646.2	645.4	644.5
152.5°	659.6	657.9	657.0	657.5	658.4	659.3	660.3	661.2	660.3	659.3	658.4
155°	672.2	670.8	670.1	670.6	671.7	672.7	673.8	674.8	673.8	672.7	671.7
157.5°	683.3	682.2	681.7	682.2	683.1	684.0	685.0	685.9	685.0	684.0	683.1
160°	693.2	692.5	692.2	692.5	693.2	693.9	694.6	695.3	694.6	693.9	693.2
162.5°	701.5	700.9	700.6	700.9	701.6	702.3	703.0	703.7	703.0	702.3	701.6
165°	708.4	708.1	707.9	708.3	709.0	709.7	710.4	711.1	710.4	709.7	709.0
167.5°	714.2	713.9	713.7	714.0	714.7	715.4	716.1	716.8	716.1	715.4	714.7
170°	718.8	718.5	718.4	718.8	719.5	720.2	720.9	721.6	720.9	720.2	719.5
172.5°	721.9	721.7	721.6	721.9	722.6	723.3	724.0	724.7	724.0	723.3	722.6
175°	724.0	723.8	723.7	724.1	724.9	725.8	726.6	727.4	726.6	725.8	724.9
177.5°	724.9	724.8	724.7	725.1	725.9	726.8	727.6	728.4	727.6	726.8	725.9
180°	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9
2.5°	571.7	573.9	573.4	569.0	564.1	560.1	552.6	553.5	550.8	551.2	553.9
5°	557.5	557.5	555.7	549.5	541.5	537.0	528.6	526.4	521.0	520.6	520.1
7.5°	542.4	540.1	537.9	529.0	519.3	512.1	500.6	497.9	492.6	489.1	487.3
10°	524.6	521.5	517.0	506.8	494.8	485.9	473.9	470.4	460.2	455.7	453.1
12.5°	505.0	503.3	496.2	487.7	468.2	458.4	441.1	444.6	434.4	425.5	424.2
15°	485.5	478.8	474.8	461.1	437.5	433.1	419.3	412.2	402.9	395.8	395.8
17.5°	466.4	456.2	447.3	432.6	415.3	402.9	392.7	389.1	377.6	370.5	369.1
20°	441.1	429.5	427.3	406.4	394.4	380.7	370.9	362.0	353.6	350.5	348.2
22.5°	417.1	403.8	400.2	382.4	370.5	356.7	346.9	340.7	334.5	332.3	328.3
25°	391.3	383.3	378.0	358.9	345.6	332.7	326.0	321.6	315.8	315.4	312.7
27.5°	366.5	358.9	353.6	335.4	325.6	313.6	308.3	303.4	300.3	298.9	297.6
30°	345.1	336.7	330.5	317.2	305.2	295.4	290.9	287.8	286.1	283.8	283.4
32.5°	321.6	316.7	308.3	298.1	288.7	279.4	276.7	274.5	271.8	271.0	270.5
35°	301.6	294.9	289.6	278.1	274.1	266.1	263.0	261.2	257.6	256.7	255.9
37.5°	282.1	275.8	270.1	263.0	255.4	251.0	249.2	246.5	244.7	245.2	244.3
40°	262.5	257.6	253.2	245.6	241.2	239.0	235.4	232.8	231.9	232.3	231.9
42.5°	243.4	239.0	236.3	230.5	226.1	223.9	221.7	219.0	220.3	220.3	221.7
45°	226.1	222.1	220.3	215.9	213.2	209.7	207.4	207.0	208.8	208.3	208.3
47.5°	208.3	207.0	204.8	200.8	197.2	195.0	194.6	194.6	196.3	197.2	196.8
50°	194.6	191.9	189.2	186.1	183.4	182.6	181.2	182.1	183.9	183.9	184.8
52.5°	177.2	175.5	174.6	171.9	170.1	170.1	170.1	170.6	171.9	173.2	172.8
55°	162.1	160.8	159.9	158.6	156.4	156.8	156.4	157.2	158.6	159.9	160.8
57.5°	146.1	145.7	144.8	142.6	142.6	142.1	143.5	143.9	146.1	147.0	148.4
60°	131.9	130.6	130.6	128.8	128.8	128.8	130.1	131.5	133.3	133.7	134.6
62.5°	116.8	116.8	116.4	115.0	115.0	116.4	116.8	118.6	119.5	119.5	120.8
65°	102.6	102.2	101.7	102.2	102.6	102.6	103.9	104.8	105.7	106.2	106.6
67.5°	88.4	87.9	88.8	88.4	89.3	91.1	90.6	91.9	93.3	93.3	93.7
70°	75.1	76.0	75.5	76.4	76.0	76.8	78.2	78.6	78.6	79.1	80.4
72.5°	62.6	62.6	62.6	62.2	62.6	63.5	64.4	64.9	65.7	66.2	67.5
75°	50.6	50.6	49.7	50.6	50.6	51.5	52.4	52.4	52.4	53.3	54.6
77.5°	38.2	38.6	38.2	39.1	39.1	39.5	40.4	40.0	40.9	41.3	41.8
80°	28.0	27.5	27.5	27.5	28.0	28.0	28.9	29.3	29.3	30.6	29.8
82.5°	17.8	18.2	17.8	18.2	18.2	18.7	18.2	18.7	19.1	20.0	19.5
85°	10.2	9.8	9.8	10.2	9.8	9.8	10.2	9.8	10.2	9.8	10.2
87.5°	4.0	3.6	3.6	3.6	3.6	3.1	3.1	2.7	2.7	2.7	2.2
90°	5.7	6.3	6.8	7.7	8.6	9.6	10.5	11.1	11.7	12.2	12.8
92.5°	11.2	11.0	11.2	11.5	11.9	12.2	12.6	12.8	13.1	13.3	13.6
95°	18.7	16.8	17.2	18.0	18.9	19.7	20.5	21.1	21.7	22.2	22.8
97.5°	23.2	18.4	19.3	21.2	23.1	24.9	26.8	27.2	27.5	27.9	28.2
100°	29.0	21.0	22.0	24.0	25.9	27.9	29.9	30.8	31.8	32.7	33.6
102.5°	126.7	126.6	116.0	94.7	73.5	52.2	31.0	32.3	33.6	34.9	36.2
105°	173.6	175.4	159.5	127.6	95.7	63.9	32.0	33.3	34.6	35.9	37.2
107.5°	208.6	210.1	190.4	151.1	111.8	72.4	33.1	34.4	35.7	37.0	38.3
110°	242.5	243.7	226.8	193.1	159.4	125.6	91.9	80.2	68.6	56.9	45.2

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
112.5°	274.7	275.7	274.7	272.7	270.8	268.8	266.8	216.5	166.2	115.9	65.6
115°	309.9	310.9	312.4	315.3	318.2	321.1	324.0	270.0	216.0	161.9	107.9
117.5°	342.3	343.5	344.5	346.5	348.4	350.4	352.4	335.7	319.0	302.3	285.6
120°	374.6	375.5	376.5	378.6	380.7	382.8	384.9	386.3	387.7	389.1	390.5
122.5°	404.5	405.4	406.6	408.9	411.2	413.6	415.9	416.6	417.3	418.0	418.7
125°	433.0	433.8	434.9	437.1	439.4	441.6	443.8	444.6	445.4	446.2	447.0
127.5°	460.8	461.6	462.5	464.2	466.0	467.7	469.5	470.7	471.8	473.0	474.1
130°	487.5	488.4	489.0	490.3	491.6	492.9	494.2	495.5	496.8	498.1	499.4
132.5°	512.3	513.1	513.7	515.0	516.3	517.6	518.9	519.9	521.0	522.0	523.1
135°	535.8	536.7	537.2	538.3	539.3	540.4	541.4	542.6	543.8	544.9	546.1
137.5°	557.0	557.7	558.3	559.5	560.6	561.8	563.0	564.2	565.3	566.5	567.6
140°	577.7	578.2	578.8	580.1	581.4	582.7	584.0	585.0	586.1	587.1	588.2
142.5°	596.2	596.6	597.4	598.9	600.4	601.9	603.4	604.3	605.3	606.2	607.1
145°	612.4	612.3	613.3	615.3	617.3	619.3	621.3	622.1	622.9	623.7	624.5
147.5°	628.8	628.6	629.6	631.6	633.5	635.5	637.5	638.1	638.7	639.3	639.9
150°	643.7	643.3	644.2	646.1	648.0	649.8	651.7	652.4	653.1	653.8	654.5
152.5°	657.5	657.0	657.9	659.6	661.4	663.1	664.9	665.6	666.3	667.0	667.7
155°	670.6	670.1	670.8	672.2	673.6	675.0	676.4	677.1	677.8	678.5	679.2
157.5°	682.2	681.7	682.2	683.3	684.3	685.4	686.4	687.2	688.0	688.9	689.7
160°	692.5	692.2	692.5	693.2	693.9	694.6	695.3	696.0	696.7	697.4	698.1
162.5°	700.9	700.6	700.9	701.5	702.0	702.6	703.2	704.0	704.8	705.7	706.5
165°	708.3	707.9	708.1	708.4	708.8	709.1	709.5	710.3	711.1	712.0	712.8
167.5°	714.0	713.7	713.9	714.2	714.6	714.9	715.3	716.1	716.9	717.7	718.5
170°	718.8	718.4	718.5	718.8	719.0	719.3	719.5	720.3	721.1	722.0	722.8
172.5°	721.9	721.6	721.7	721.9	722.2	722.4	722.6	723.4	724.2	725.1	725.9
175°	724.1	723.7	723.8	724.0	724.3	724.5	724.7	725.5	726.3	727.2	728.0
177.5°	725.1	724.7	724.8	724.9	725.0	725.2	725.3	726.1	726.9	727.7	728.5
180°	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9
2.5°	550.8	552.1	549.0	548.1	549.0	545.9	546.8	547.7	547.7	549.0	549.9
5°	518.8	517.0	513.9	513.0	512.1	513.5	512.6	513.9	514.4	517.5	517.9
7.5°	487.3	484.6	481.9	479.3	478.4	476.2	478.4	478.4	481.5	480.6	482.8
10°	450.0	449.5	446.0	444.6	442.9	439.3	444.2	442.9	445.1	449.1	450.0
12.5°	422.4	417.5	419.8	413.5	415.8	412.2	412.7	412.7	416.2	416.6	415.8
15°	396.2	392.2	386.4	383.8	382.4	380.7	386.4	386.9	384.2	390.4	388.2
17.5°	369.6	369.6	364.2	362.9	359.3	361.1	360.2	360.7	359.8	364.2	366.5
20°	346.5	344.2	342.5	342.9	338.5	337.6	336.7	337.6	340.7	343.8	344.7
22.5°	327.8	326.5	322.0	322.9	319.4	320.7	319.8	322.0	322.5	322.5	325.6
25°	310.0	308.3	308.7	306.9	305.6	305.6	304.3	305.6	307.4	308.3	308.7
27.5°	296.7	295.4	293.2	291.8	292.7	290.5	292.3	293.6	293.6	292.7	293.6
30°	280.7	281.6	281.6	277.2	279.0	278.1	279.4	280.3	280.3	280.7	279.8
32.5°	270.1	267.4	267.0	266.5	266.5	264.7	264.7	266.1	266.5	267.0	268.3
35°	255.9	255.9	253.6	255.0	253.2	253.6	253.2	253.6	254.5	253.2	254.5
37.5°	243.0	243.4	242.5	243.4	243.9	243.0	242.1	243.9	243.0	243.0	242.1
40°	231.9	231.4	231.9	231.9	231.9	232.3	231.4	231.4	231.4	230.5	229.6
42.5°	222.5	219.9	220.8	221.2	219.9	219.9	220.3	219.9	221.2	218.5	218.5
45°	209.2	208.3	208.8	208.8	209.7	208.3	209.2	209.7	208.3	207.9	207.0
47.5°	197.2	198.1	197.2	198.1	198.1	199.0	197.2	197.7	198.1	196.3	195.0
50°	185.2	185.2	186.6	186.1	186.6	185.7	185.7	185.2	185.7	184.8	183.4
52.5°	174.1	172.8	175.0	174.6	174.1	173.7	173.2	173.7	172.8	171.9	171.9
55°	160.4	160.4	161.7	162.1	162.1	161.2	160.4	160.8	160.4	159.9	159.5
57.5°	149.2	147.5	148.4	148.8	148.8	147.5	148.4	147.5	147.5	147.9	146.6
60°	135.0	135.0	134.1	135.5	135.5	134.6	134.6	135.0	134.1	133.7	133.3
62.5°	119.9	120.4	121.7	122.2	122.6	121.7	120.8	121.3	121.3	119.9	120.4
65°	107.0	107.9	109.7	109.3	108.4	108.8	107.9	108.4	107.0	107.5	106.2
67.5°	94.6	94.2	94.6	94.6	95.5	95.1	94.2	94.2	93.7	95.1	93.7
70°	81.3	81.3	81.3	81.3	81.7	82.2	81.3	80.4	80.8	80.0	79.5
72.5°	67.5	68.0	67.5	68.4	67.1	68.0	68.0	67.5	67.1	67.1	67.1
75°	54.6	55.5	54.2	54.6	54.2	55.1	54.6	54.6	53.7	53.3	53.7
77.5°	41.8	42.2	41.3	41.8	41.3	41.8	41.8	41.3	41.3	41.3	41.3
80°	29.8	30.2	29.8	29.3	28.9	29.8	28.9	29.3	29.8	29.3	30.2
82.5°	19.1	19.1	18.7	19.1	18.2	18.2	18.7	18.7	18.2	19.1	18.2
85°	9.3	9.3	10.2	9.3	8.9	8.9	8.9	9.3	8.9	9.8	9.3
87.5°	2.2	1.8	2.2	2.2	1.8	1.8	2.2	1.8	2.2	2.7	1.8
90°	13.1	13.2	13.5	13.7	14.0	14.2	14.0	13.7	13.5	13.2	13.1
92.5°	13.7	13.8	13.9	14.0	14.1	14.2	14.1	14.0	13.9	13.8	13.7
95°	23.1	23.0	22.9	22.8	22.7	22.6	22.7	22.8	22.9	23.0	23.1
97.5°	28.4	28.5	28.6	28.7	28.8	28.9	28.8	28.7	28.6	28.5	28.4
100°	34.1	34.2	34.5	34.7	35.0	35.2	35.0	34.7	34.5	34.2	34.1
102.5°	36.8	37.0	37.3	37.6	38.0	38.3	38.0	37.6	37.3	37.0	36.8
105°	37.8	38.0	38.5	39.0	39.4	39.9	39.4	39.0	38.5	38.0	37.8
107.5°	38.9	39.1	39.6	40.1	40.5	41.0	40.5	40.1	39.6	39.1	38.9
110°	39.4	39.6	40.1	40.6	41.0	41.5	41.0	40.6	40.1	39.6	39.4

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
112.5°	40.4	40.6	40.9	41.3	41.6	42.0	41.6	41.3	40.9	40.6	40.4
115°	80.9	76.7	68.3	59.9	51.5	43.1	51.5	59.9	68.3	76.7	80.9
117.5°	277.3	262.0	231.4	200.9	170.3	139.7	170.3	200.9	231.4	262.0	277.3
120°	391.2	383.3	367.6	351.9	336.1	320.4	336.1	351.9	367.6	383.3	391.2
122.5°	419.1	419.2	419.3	419.4	419.5	419.6	419.5	419.4	419.3	419.2	419.1
125°	447.4	447.6	447.9	448.3	448.6	449.0	448.6	448.3	447.9	447.6	447.4
127.5°	474.7	474.8	474.9	475.0	475.2	475.3	475.2	475.0	474.9	474.8	474.7
130°	500.0	499.9	499.8	499.7	499.5	499.4	499.5	499.7	499.8	499.9	500.0
132.5°	523.6	523.5	523.4	523.3	523.2	523.1	523.2	523.3	523.4	523.5	523.6
135°	546.7	546.6	546.3	546.1	545.8	545.6	545.8	546.1	546.3	546.6	546.7
137.5°	568.2	568.0	567.7	567.4	567.0	566.7	567.0	567.4	567.7	568.0	568.2
140°	588.7	588.4	587.8	587.3	586.7	586.1	586.7	587.3	587.8	588.4	588.7
142.5°	607.6	607.3	606.7	606.2	605.6	605.0	605.6	606.2	606.7	607.3	607.6
145°	624.9	624.6	624.0	623.5	622.9	622.3	622.9	623.5	624.0	624.6	624.9
147.5°	640.2	640.0	639.5	639.0	638.6	638.1	638.6	639.0	639.5	640.0	640.2
150°	654.9	654.6	654.0	653.5	652.9	652.3	652.9	653.5	654.0	654.6	654.9
152.5°	668.0	667.6	666.8	665.9	665.1	664.3	665.1	665.9	666.8	667.6	668.0
155°	679.6	679.1	678.2	677.3	676.3	675.4	676.3	677.3	678.2	679.1	679.6
157.5°	690.1	689.6	688.7	687.8	686.8	685.9	686.8	687.8	688.7	689.6	690.1
160°	698.5	698.1	697.3	696.4	695.6	694.8	695.6	696.4	697.3	698.1	698.5
162.5°	706.9	706.4	705.3	704.2	703.2	702.1	703.2	704.2	705.3	706.4	706.9
165°	713.2	712.8	712.0	711.1	710.3	709.5	710.3	711.1	712.0	712.8	713.2
167.5°	718.9	718.4	717.3	716.3	715.2	714.2	715.2	716.3	717.3	718.4	718.9
170°	723.2	722.7	721.6	720.5	719.5	718.4	719.5	720.5	721.6	722.7	723.2
172.5°	726.3	725.8	724.7	723.7	722.6	721.6	722.6	723.7	724.7	725.8	726.3
175°	728.4	727.8	726.7	725.5	724.4	723.2	724.4	725.5	726.7	727.8	728.4
177.5°	728.9	728.4	727.3	726.3	725.2	724.2	725.2	726.3	727.3	728.4	728.9
180°	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8

TEST NUMBER: P998209

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9	577.9
2.5°	548.6	552.1	550.8	545.9	551.7	551.7	555.7	555.7	560.6	562.3	565.0
5°	517.5	520.1	522.4	520.1	524.1	530.4	533.9	537.0	543.7	546.4	550.3
7.5°	484.2	489.1	491.3	491.3	497.9	505.0	512.1	516.6	525.9	529.5	533.5
10°	451.7	457.5	462.0	461.5	472.6	477.1	485.9	496.2	505.5	510.8	516.6
12.5°	417.5	420.6	426.9	435.7	438.4	446.4	456.6	469.5	486.4	491.3	499.7
15°	389.1	397.5	402.4	406.4	412.7	420.2	431.3	443.7	460.6	471.3	480.2
17.5°	365.1	376.2	379.3	378.4	386.4	398.0	410.9	420.2	435.3	448.2	456.6
20°	345.6	350.0	355.4	357.6	363.8	376.2	388.7	399.3	411.8	422.0	431.8
22.5°	326.0	329.6	334.0	338.0	342.9	350.0	362.0	375.3	387.3	397.1	408.2
25°	310.0	312.3	316.3	319.4	324.7	329.6	338.0	352.7	366.9	372.7	382.4
27.5°	294.5	296.3	298.9	302.5	305.2	310.0	317.6	329.6	344.2	350.0	363.3
30°	280.7	282.1	284.7	286.5	287.8	293.6	299.4	308.7	319.8	327.8	337.6
32.5°	267.8	269.2	271.8	272.3	274.1	277.2	282.5	290.9	300.7	307.4	315.8
35°	253.6	254.5	257.2	258.1	259.4	262.1	266.1	272.3	281.2	286.1	293.6
37.5°	242.5	242.1	243.9	245.2	247.0	248.3	249.6	255.9	262.5	267.0	272.7
40°	230.5	229.6	230.1	231.9	232.8	234.5	234.5	240.8	245.2	248.7	253.2
42.5°	218.5	218.1	217.2	218.1	219.0	219.4	219.9	224.3	228.8	231.9	236.8
45°	206.5	206.1	205.2	205.7	205.7	206.5	207.9	209.7	212.8	215.4	218.1
47.5°	195.4	194.6	193.2	192.8	193.7	193.7	193.7	195.4	198.6	199.4	202.1
50°	183.9	182.6	180.8	179.9	179.9	179.5	180.3	180.8	183.4	184.3	186.6
52.5°	171.5	170.6	168.8	167.0	167.5	166.6	167.0	167.5	168.3	169.7	171.0
55°	159.0	157.2	155.9	155.5	154.1	154.1	152.8	154.6	154.1	154.6	156.4
57.5°	147.0	145.2	143.0	142.1	140.8	140.4	139.5	139.0	139.5	140.8	142.1
60°	132.8	131.9	130.6	129.3	128.4	127.0	126.1	126.1	125.7	125.7	126.1
62.5°	119.0	118.6	116.8	116.4	115.5	114.6	113.3	112.4	112.4	113.3	113.7
65°	105.7	105.3	103.9	103.5	101.3	100.4	99.9	99.5	98.6	98.6	98.6
67.5°	93.3	91.9	91.9	89.7	87.9	87.1	86.2	85.7	85.7	85.7	86.2
70°	79.5	79.5	78.2	76.8	75.1	75.5	74.2	72.8	72.8	72.0	72.4
72.5°	66.2	65.7	64.4	64.0	62.6	61.3	60.4	61.3	60.0	59.5	60.0
75°	53.3	52.9	52.0	51.1	51.5	50.2	48.9	48.4	48.4	47.5	47.5
77.5°	40.9	41.8	40.0	39.5	38.6	37.8	37.3	36.9	36.9	36.9	37.8
80°	28.4	28.9	28.9	28.0	28.4	27.1	27.1	27.1	25.8	26.2	26.7
82.5°	18.2	18.2	17.8	18.2	17.8	17.8	17.3	17.3	16.9	16.9	17.3
85°	10.2	9.8	9.3	10.2	9.8	9.8	9.3	9.3	9.3	9.3	9.3
87.5°	2.2	2.7	2.7	2.7	2.7	3.1	3.1	3.1	3.6	3.6	3.6
90°	12.8	12.2	11.7	11.1	10.5	9.6	8.6	7.7	6.8	6.3	5.7
92.5°	13.6	13.3	13.1	12.8	12.6	12.2	11.9	11.5	11.2	11.0	11.2
95°	22.8	22.2	21.7	21.1	20.5	19.7	18.9	18.0	17.2	16.8	18.7
97.5°	28.2	27.9	27.5	27.2	26.8	24.9	23.1	21.2	19.3	18.4	23.2
100°	33.6	32.7	31.8	30.8	29.9	27.9	25.9	24.0	22.0	21.0	29.0
102.5°	36.2	34.9	33.6	32.3	31.0	52.2	73.5	94.7	116.0	126.6	126.7
105°	37.2	35.9	34.6	33.3	32.0	63.9	95.7	127.6	159.5	175.4	173.6
107.5°	38.3	37.0	35.7	34.4	33.1	72.4	111.8	151.1	190.4	210.1	208.6
110°	45.2	56.9	68.6	80.2	91.9	125.6	159.4	193.1	226.8	243.7	242.5

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
112.5°	65.6	115.9	166.2	216.5	266.8	268.8	270.8	272.7	274.7	275.7	274.7
115°	107.9	161.9	216.0	270.0	324.0	321.1	318.2	315.3	312.4	310.9	309.9
117.5°	285.6	302.3	319.0	335.7	352.4	350.4	348.4	346.5	344.5	343.5	342.3
120°	390.5	389.1	387.7	386.3	384.9	382.8	380.7	378.6	376.5	375.5	374.6
122.5°	418.7	418.0	417.3	416.6	415.9	413.6	411.2	408.9	406.6	405.4	404.5
125°	447.0	446.2	445.4	444.6	443.8	441.6	439.4	437.1	434.9	433.8	433.0
127.5°	474.1	473.0	471.8	470.7	469.5	467.7	466.0	464.2	462.5	461.6	460.8
130°	499.4	498.1	496.8	495.5	494.2	492.9	491.6	490.3	489.0	488.4	487.5
132.5°	523.1	522.0	521.0	519.9	518.9	517.6	516.3	515.0	513.7	513.1	512.3
135°	546.1	544.9	543.8	542.6	541.4	540.4	539.3	538.3	537.2	536.7	535.8
137.5°	567.6	566.5	565.3	564.2	563.0	561.8	560.6	559.5	558.3	557.7	557.0
140°	588.2	587.1	586.1	585.0	584.0	582.7	581.4	580.1	578.8	578.2	577.7
142.5°	607.1	606.2	605.3	604.3	603.4	601.9	600.4	598.9	597.4	596.6	596.2
145°	624.5	623.7	622.9	622.1	621.3	619.3	617.3	615.3	613.3	612.3	612.4
147.5°	639.9	639.3	638.7	638.1	637.5	635.5	633.5	631.6	629.6	628.6	628.8
150°	654.5	653.8	653.1	652.4	651.7	649.8	648.0	646.1	644.2	643.3	643.7
152.5°	667.7	667.0	666.3	665.6	664.9	663.1	661.4	659.6	657.9	657.0	657.5
155°	679.2	678.5	677.8	677.1	676.4	675.0	673.6	672.2	670.8	670.1	670.6
157.5°	689.7	688.9	688.0	687.2	686.4	685.4	684.3	683.3	682.2	681.7	682.2
160°	698.1	697.4	696.7	696.0	695.3	694.6	693.9	693.2	692.5	692.2	692.5
162.5°	706.5	705.7	704.8	704.0	703.2	702.6	702.0	701.5	700.9	700.6	700.9
165°	712.8	712.0	711.1	710.3	709.5	709.1	708.8	708.4	708.1	707.9	708.3
167.5°	718.5	717.7	716.9	716.1	715.3	714.9	714.6	714.2	713.9	713.7	714.0
170°	722.8	722.0	721.1	720.3	719.5	719.3	719.0	718.8	718.5	718.4	718.8
172.5°	725.9	725.1	724.2	723.4	722.6	722.4	722.2	721.9	721.7	721.6	721.9
175°	728.0	727.2	726.3	725.5	724.7	724.5	724.3	724.0	723.8	723.7	724.1
177.5°	728.5	727.7	726.9	726.1	725.3	725.2	725.0	724.9	724.8	724.7	725.1
180°	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8	725.8

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	577.9	577.9	577.9	577.9
2.5°	567.2	567.2	573.9	581.0
5°	554.8	557.9	568.6	578.3
7.5°	542.8	548.1	561.5	573.9
10°	528.1	535.2	551.7	566.3
12.5°	513.9	520.6	539.7	556.1
15°	493.9	502.4	522.8	543.2
17.5°	473.9	482.4	507.3	531.2
20°	450.4	461.5	489.5	521.5
22.5°	428.6	442.4	473.5	499.3
25°	404.7	426.0	454.8	488.2
27.5°	383.3	404.7	434.0	467.7
30°	359.3	381.1	411.3	442.4
32.5°	336.3	356.2	385.6	423.8
35°	312.3	331.4	359.8	398.4
37.5°	290.5	309.2	340.2	375.8
40°	269.2	288.7	315.4	350.9
42.5°	249.2	266.5	290.5	326.0
45°	231.0	243.4	265.6	298.9
47.5°	211.9	223.0	243.4	276.7
50°	194.1	203.4	221.2	252.3
52.5°	176.8	184.8	201.2	226.1
55°	161.2	168.8	180.8	205.2
57.5°	145.2	151.0	162.6	182.1
60°	129.7	135.0	144.4	160.4
62.5°	114.2	118.6	127.5	140.4
65°	100.4	103.9	110.6	121.7
67.5°	87.1	89.3	94.6	103.5
70°	74.2	76.0	80.4	87.5
72.5°	60.4	62.2	67.1	72.0
75°	48.9	49.3	52.9	56.9
77.5°	38.2	37.8	40.4	43.5
80°	26.2	27.5	29.8	31.1
82.5°	17.8	18.2	19.1	20.0
85°	9.8	10.2	10.2	11.5
87.5°	4.0	4.4	4.4	4.9
90°	4.4	3.1	1.8	0.5
92.5°	11.7	12.2	12.6	13.1
95°	22.6	26.4	30.3	34.1
97.5°	32.7	42.3	51.8	61.4
100°	45.0	61.0	77.0	93.0
102.5°	126.9	127.2	127.4	127.6
105°	170.1	166.6	163.1	159.6
107.5°	205.7	202.8	199.8	196.9
110°	240.0	237.5	235.1	232.6



TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
112.5°	272.6	270.5	268.4	266.3
115°	307.9	306.0	304.0	302.0
117.5°	340.0	337.7	335.3	333.0
120°	372.9	371.1	369.4	367.6
122.5°	402.6	400.7	398.9	397.0
125°	431.5	430.0	428.5	427.0
127.5°	459.2	457.5	455.9	454.3
130°	485.6	483.7	481.9	480.0
132.5°	510.8	509.3	507.8	506.3
135°	533.9	532.0	530.2	528.3
137.5°	555.6	554.2	552.8	551.4
140°	576.8	575.9	574.9	574.0
142.5°	595.4	594.5	593.7	592.9
145°	612.5	612.6	612.8	612.9
147.5°	629.1	629.5	629.8	630.2
150°	644.5	645.4	646.2	647.0
152.5°	658.4	659.3	660.3	661.2
155°	671.7	672.7	673.8	674.8
157.5°	683.1	684.0	685.0	685.9
160°	693.2	693.9	694.6	695.3
162.5°	701.6	702.3	703.0	703.7
165°	709.0	709.7	710.4	711.1
167.5°	714.7	715.4	716.1	716.8
170°	719.5	720.2	720.9	721.6
172.5°	722.6	723.3	724.0	724.7
175°	724.9	725.8	726.6	727.4
177.5°	725.9	726.8	727.6	728.4
180°	725.8	725.8	725.8	725.8

TEST NUMBER: P998209

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_3500K

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	12.24	12.98	13.30	14.04	15.48	9.73	10.47	10.80	11.53	12.97
	3H	13.04	13.70	14.12	14.77	16.23	11.07	11.73	12.14	12.80	14.26
	4H	13.21	13.83	14.29	14.90	16.37	11.53	12.15	12.61	13.22	14.69
	6H	13.24	13.82	14.34	14.89	16.37	11.83	12.40	12.92	13.48	14.96
	8H	13.22	13.77	14.32	14.86	16.33	11.91	12.45	13.00	13.54	15.02
	12H	13.18	13.70	14.28	14.78	16.28	11.95	12.46	13.05	13.55	15.04
4H	2H	12.27	12.89	13.36	13.96	15.43	10.16	10.79	11.26	11.86	13.33
	3H	13.24	13.76	14.33	14.86	16.33	11.61	12.13	12.71	13.23	14.71
	4H	13.51	13.98	14.61	15.07	16.57	12.14	12.62	13.25	13.71	15.21
	6H	13.63	14.04	14.74	15.15	16.65	12.52	12.92	13.63	14.04	15.53
	8H	13.63	14.01	14.74	15.11	16.62	12.63	13.01	13.73	14.11	15.62
	12H	13.59	13.93	14.71	15.05	16.56	12.68	13.02	13.80	14.14	15.65
8H	4H	13.51	13.89	14.62	14.99	16.50	12.28	12.66	13.39	13.76	15.27
	6H	13.68	14.00	14.81	15.14	16.65	12.71	13.02	13.84	14.17	15.67
	8H	13.71	13.99	14.85	15.11	16.64	12.86	13.13	13.99	14.26	15.79
	12H	13.69	13.93	14.83	15.06	16.62	12.94	13.18	14.08	14.31	15.87
12H	4H	13.46	13.80	14.59	14.92	16.44	12.25	12.59	13.37	13.71	15.22
	6H	13.66	13.94	14.80	15.06	16.59	12.71	12.98	13.84	14.11	15.64
	8H	13.69	13.93	14.83	15.05	16.62	12.86	13.10	14.00	14.22	15.79