

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: P998147

Luminaire Tested: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998147
REPORT IS A COMBINATION OF REPORTS P983887 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

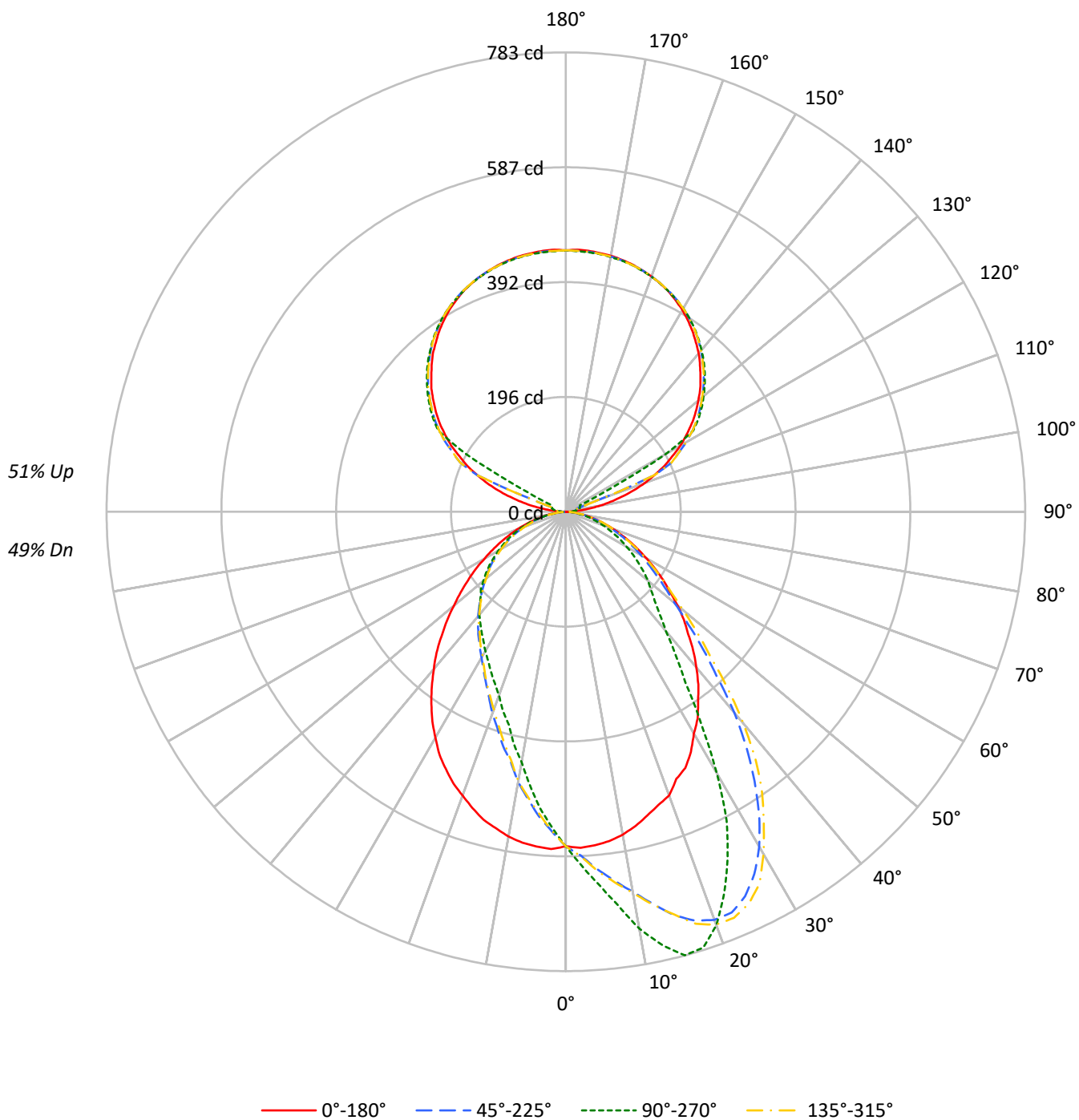
Lumens per Lamp: N/A
Luminaire Lumens: 2565.0 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 22.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 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	107	107	107	107	99	99	99	99	83	83	83	68	68	68	55	55	55
1	98	94	90	87	90	87	84	81	73	71	69	61	59	58	50	49	48
2	90	83	77	72	82	76	71	67	65	61	58	54	51	49	44	42	41
3	82	73	66	60	75	68	61	57	58	53	49	48	45	42	40	37	35
4	75	65	57	51	69	60	54	48	51	46	42	43	40	36	36	33	31
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	32	29	27
6	64	52	44	39	59	49	42	37	42	36	32	36	31	28	30	27	24
7	59	47	40	34	55	44	37	32	38	33	29	32	28	25	27	24	22
8	55	43	36	30	51	40	33	29	35	29	26	30	26	23	25	22	20
9	51	39	32	27	47	37	30	26	32	27	23	27	23	20	23	20	18
10	48	36	29	24	44	34	28	23	30	24	21	25	21	19	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9026	9026	9026	9026
5°	9047	9623	9082	7656
10°	8942	10506	8998	6312
15°	8725	11080	8846	5317
20°	8589	10405	8589	4622
25°	8316	8938	8353	4132
30°	7865	7027	8014	3744
35°	7466	4859	7591	3424
40°	7007	3669	7088	3171
45°	6443	3015	6548	2896
50°	5952	2646	5964	2652
55°	5396	2254	5430	2386
60°	4801	1883	4867	2082
65°	4269	1532	4348	1779
70°	3737	1201	3833	1435
75°	3138	873	3261	1039
80°	2451	553	2627	618
85°	1610	277	1737	207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 9330 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	2.1
10°-20°	158.1	6.2
20°-30°	229.4	8.9
30°-40°	241.8	9.4
40°-50°	214.0	8.3
50°-60°	170.9	6.7
60°-70°	116.1	4.5
70°-80°	59.4	2.3
80°-90°	14.8	0.6
90°-100°	14.7	0.6
100°-110°	54.8	2.1
110°-120°	145.3	5.7
120°-130°	240.9	9.4
130°-140°	255.9	10.0
140°-150°	237.8	9.3
150°-160°	191.2	7.5
160°-170°	123.2	4.8
170°-180°	42.4	1.7
0°-30°	441.8	17.2
0°-40°	683.6	26.7
0°-60°	1068.5	41.7
0°-90°	1258.8	49.1
90°-120°	214.7	8.4
90°-150°	949.4	37.0
90°-180°	1306.0	50.9
0°-180°	2565.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	570	570	570	570	570	
5°	571	637	573	507	571	54
15°	536	783	543	376	536	151
25°	482	652	484	302	482	220
35°	393	355	400	250	393	246
45°	295	214	300	206	295	229
55°	202	150	204	159	202	181
65°	120	92	122	107	120	119
75°	56	46	58	54	56	60
85°	11	12	12	9	11	13
90°	0	9	0	9	0	2
95°	21	14	21	14	21	25
105°	98	24	98	24	98	105
115°	185	26	185	26	185	183
125°	262	276	262	276	262	234
135°	324	335	324	335	324	251
145°	376	382	376	382	376	235
155°	414	415	414	415	414	191
165°	436	436	436	436	436	123
175°	446	444	446	444	446	42
180°	446	446	446	446	446	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	573.3	574.6	576.8	577.2	581.6	585.1	589.0	589.0	590.3	589.9	586.4
5°	570.6	574.6	580.3	585.1	593.0	596.5	601.7	605.7	609.2	611.8	611.4
7.5°	566.2	573.3	581.6	590.8	601.3	607.4	614.9	621.9	626.7	631.1	634.2
10°	558.8	570.6	582.0	594.3	607.9	616.2	625.0	634.2	641.6	649.9	657.8
12.5°	548.7	565.8	579.8	596.0	612.7	621.9	635.9	642.9	657.4	678.4	684.1
15°	536.0	559.2	572.4	593.0	614.9	622.3	641.6	653.0	682.8	696.0	711.7
17.5°	524.2	550.0	567.6	591.2	612.7	627.2	646.0	669.2	694.2	713.1	730.6
20°	514.5	539.5	560.5	586.8	614.0	632.4	652.1	680.2	707.4	726.6	740.2
22.5°	492.6	524.6	549.1	578.5	611.4	636.8	655.6	686.3	715.7	727.5	739.4
25°	481.7	509.3	537.8	571.1	609.6	639.9	656.1	690.3	716.1	720.5	723.1
27.5°	461.5	492.6	525.9	564.0	609.2	634.6	655.2	686.3	706.9	703.9	696.0
30°	436.5	474.6	511.5	552.7	603.1	630.7	649.9	678.4	689.0	673.2	659.2
32.5°	418.1	454.0	494.8	542.6	596.0	622.3	641.2	663.5	665.7	637.2	613.6
35°	393.1	433.0	479.0	529.4	584.2	607.9	625.4	639.0	628.5	588.6	560.5
37.5°	370.8	410.2	459.3	510.6	568.0	591.2	605.2	607.4	581.6	546.5	505.3
40°	346.2	387.0	438.3	492.2	550.0	570.2	578.9	572.4	535.1	494.4	446.6
42.5°	321.7	362.0	417.2	472.5	527.2	544.3	547.8	529.9	484.3	436.5	381.3
45°	295.0	337.0	392.2	447.9	500.9	510.6	511.0	485.2	431.3	381.3	330.0
47.5°	273.0	312.0	366.8	422.5	467.2	473.8	471.1	441.3	382.6	326.5	281.8
50°	248.9	286.2	340.5	395.3	433.4	435.2	428.6	386.1	328.7	277.4	241.9
52.5°	223.1	260.8	310.7	363.3	397.5	394.9	382.2	336.6	282.7	240.2	213.0
55°	202.5	235.8	282.7	334.0	358.1	350.6	336.6	290.1	247.6	211.7	188.0
57.5°	179.7	209.1	255.1	299.8	313.8	306.8	292.8	249.4	209.9	182.8	167.0
60°	158.2	184.9	225.3	262.5	273.5	266.0	249.8	210.8	182.3	159.5	147.7
62.5°	138.5	161.7	195.5	229.7	234.0	226.6	212.6	181.0	156.5	138.5	129.7
65°	120.1	142.0	169.2	195.0	199.0	191.1	176.6	153.8	133.2	121.8	113.5
67.5°	102.1	119.6	143.8	162.6	164.8	157.3	145.5	127.1	114.4	102.1	96.0
70°	86.3	99.5	118.3	133.7	134.5	127.5	121.4	104.7	95.1	86.3	81.5
72.5°	71.0	80.2	94.7	106.1	106.5	102.1	96.4	85.9	77.6	71.4	66.6
75°	56.1	64.0	72.8	82.8	82.4	78.9	74.5	67.9	60.9	57.0	54.8
77.5°	43.0	47.8	54.8	61.4	61.4	59.6	57.0	52.2	47.8	43.8	41.6
80°	30.7	33.7	39.4	41.6	42.5	42.1	39.9	36.4	34.6	31.6	30.7
82.5°	19.7	21.9	24.5	26.7	28.0	27.2	26.7	25.0	22.4	21.5	20.6
85°	11.4	12.3	13.6	14.9	15.3	14.9	15.8	14.5	13.1	13.1	12.7
87.5°	4.8	5.3	6.1	6.1	6.6	6.6	6.1	6.6	6.6	6.1	5.7
90°	0.3	1.1	1.9	2.7	3.5	3.9	4.2	4.7	5.3	5.8	6.4
92.5°	8.1	7.8	7.5	7.2	6.9	6.8	6.9	7.1	7.3	7.5	7.7
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°	37.7	31.8	26.0	20.1	14.2	11.3	11.9	13.0	14.1	15.3	16.4
100°	57.1	47.3	37.5	27.6	17.8	12.9	13.5	14.7	16.0	17.2	18.4
102.5°	78.3	78.2	78.0	77.9	77.8	77.7	71.2	58.1	45.1	32.0	19.0
105°	98.0	100.2	102.3	104.5	106.6	107.7	97.9	78.4	58.8	39.3	19.7
107.5°	120.9	122.7	124.5	126.3	128.1	129.0	116.9	92.8	68.6	44.5	20.3
110°	142.8	144.3	145.8	147.3	148.8	149.6	139.2	118.5	97.8	77.1	56.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	163.5	164.8	166.1	167.4	168.7	169.3	168.7	167.5	166.2	165.0	163.8
115°	185.4	186.6	187.8	189.1	190.3	190.9	191.8	193.6	195.3	197.1	198.9
117.5°	204.4	205.8	207.2	208.7	210.1	210.8	211.4	212.6	213.9	215.1	216.3
120°	225.7	226.8	227.8	228.9	230.0	230.5	231.1	232.4	233.7	235.0	236.3
122.5°	243.7	244.9	246.0	247.2	248.3	248.9	249.6	251.0	252.5	253.9	255.3
125°	262.1	263.0	264.0	264.9	265.8	266.3	267.0	268.3	269.7	271.0	272.4
127.5°	278.9	279.9	280.9	281.9	282.9	283.4	283.9	285.0	286.1	287.1	288.2
130°	294.7	295.8	297.0	298.1	299.2	299.8	300.2	301.0	301.8	302.6	303.4
132.5°	310.8	311.7	312.7	313.6	314.5	315.0	315.4	316.2	316.9	317.7	318.5
135°	324.3	325.5	326.6	327.8	328.9	329.5	329.8	330.5	331.1	331.8	332.4
137.5°	338.5	339.4	340.2	341.1	342.0	342.4	342.8	343.5	344.2	344.9	345.6
140°	352.4	353.0	353.6	354.1	354.7	355.0	355.4	356.2	356.9	357.7	358.5
142.5°	364.0	364.5	365.0	365.5	366.0	366.2	366.7	367.6	368.5	369.5	370.4
145°	376.2	376.1	376.1	376.0	375.9	375.9	376.5	377.7	379.0	380.2	381.4
147.5°	386.9	386.7	386.5	386.2	386.0	385.9	386.5	387.7	389.0	390.2	391.4
150°	397.2	396.7	396.2	395.7	395.2	394.9	395.5	396.6	397.8	398.9	400.1
152.5°	405.9	405.3	404.7	404.2	403.6	403.3	403.8	404.9	406.0	407.1	408.2
155°	414.3	413.7	413.0	412.4	411.7	411.4	411.8	412.7	413.6	414.4	415.3
157.5°	421.1	420.5	419.9	419.4	418.8	418.5	418.8	419.5	420.1	420.8	421.4
160°	426.9	426.5	426.0	425.6	425.1	424.9	425.1	425.6	426.0	426.5	426.9
162.5°	432.0	431.6	431.2	430.7	430.3	430.1	430.3	430.6	431.0	431.3	431.7
165°	436.5	436.1	435.7	435.2	434.8	434.6	434.7	434.9	435.2	435.4	435.6
167.5°	440.1	439.7	439.2	438.8	438.3	438.1	438.2	438.4	438.7	438.9	439.1
170°	443.0	442.6	442.1	441.7	441.2	441.0	441.1	441.2	441.4	441.5	441.7
172.5°	444.9	444.5	444.1	443.6	443.2	443.0	443.1	443.2	443.3	443.5	443.6
175°	446.5	446.0	445.5	445.0	444.5	444.3	444.4	444.5	444.6	444.8	444.9
177.5°	447.2	446.7	446.2	445.7	445.2	444.9	444.9	445.0	445.1	445.1	445.2
180°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	592.5	593.0	593.9	598.2	600.4	600.9	599.1	603.1	604.4	603.1	602.2
5°	620.6	623.2	628.5	634.2	633.7	634.2	636.8	639.4	640.3	636.8	638.1
7.5°	645.1	650.4	656.1	664.8	664.8	669.2	671.0	673.2	678.4	675.8	674.9
10°	673.2	680.2	690.7	704.7	705.2	709.6	713.9	720.9	723.1	721.4	722.3
12.5°	708.2	721.8	722.7	738.0	745.1	745.9	752.9	751.6	756.0	756.0	763.5
15°	723.6	744.6	756.4	771.3	775.7	770.5	776.2	782.3	782.7	782.7	782.3
17.5°	751.2	759.5	771.3	779.2	781.0	781.0	781.4	784.1	782.3	778.8	781.4
20°	756.9	760.4	764.8	763.9	764.8	760.4	756.0	751.6	752.1	749.9	756.4
22.5°	746.4	745.5	735.4	728.8	728.8	720.1	711.7	707.8	703.9	705.2	707.4
25°	720.1	706.5	694.2	684.6	682.4	668.4	657.0	653.5	646.9	652.1	653.0
27.5°	678.0	662.7	642.9	634.6	623.2	617.5	609.6	599.1	585.5	593.4	592.1
30°	632.9	610.1	593.9	573.7	555.7	554.4	539.5	522.0	515.0	515.0	518.9
32.5°	582.5	552.2	528.5	500.1	482.5	475.1	457.1	439.6	443.5	430.4	435.2
35°	523.7	483.8	454.0	426.4	413.3	404.5	381.3	371.6	361.1	355.0	366.4
37.5°	467.6	421.6	383.5	353.2	348.4	332.6	316.9	310.7	304.6	307.2	306.8
40°	399.3	358.5	324.3	300.7	292.3	284.9	274.4	266.9	263.0	265.2	265.6
42.5°	337.5	303.3	277.9	261.2	254.2	248.9	243.7	237.5	236.2	236.2	238.0
45°	289.7	261.6	244.6	231.0	227.0	223.1	219.1	216.5	215.6	213.9	215.2
47.5°	251.6	229.2	218.7	208.6	204.2	203.4	199.8	198.5	196.8	196.3	196.8
50°	219.6	205.5	195.9	190.2	187.1	185.8	184.1	181.4	180.6	182.8	181.9
52.5°	197.2	184.1	178.8	173.1	171.4	169.6	167.0	167.4	167.0	166.1	166.1
55°	174.9	166.5	161.3	156.9	156.5	154.7	152.5	151.6	151.2	150.3	151.6
57.5°	156.9	150.3	145.5	141.6	139.8	139.8	137.6	135.9	135.9	135.4	135.9
60°	138.9	132.4	129.3	125.3	124.0	123.6	122.3	121.4	120.1	120.1	120.1
62.5°	122.3	117.0	113.5	110.0	110.4	108.3	106.5	105.6	105.6	106.1	106.1
65°	106.5	103.0	98.6	95.5	94.7	94.2	93.4	92.9	91.6	92.5	92.5
67.5°	92.0	87.2	84.6	83.3	82.0	81.5	80.6	79.8	79.3	78.9	79.8
70°	77.6	73.6	71.4	70.6	69.2	68.8	68.4	67.1	67.5	67.9	68.4
72.5°	64.4	60.9	60.5	57.9	57.9	57.9	56.1	57.0	56.5	55.7	56.5
75°	50.8	49.1	48.2	46.9	47.3	46.9	46.5	45.1	45.1	45.6	46.0
77.5°	40.3	38.6	38.1	36.8	35.9	36.8	35.9	35.5	35.5	35.9	35.9
80°	29.8	28.9	27.6	27.6	27.6	27.2	27.2	27.2	26.7	26.3	26.7
82.5°	19.7	19.7	19.3	18.8	19.3	18.4	18.8	18.8	18.8	18.8	18.8
85°	12.7	12.3	12.3	11.8	11.8	11.8	12.3	11.4	11.4	11.8	11.8
87.5°	5.7	5.7	5.7	6.1	5.7	5.7	5.7	6.1	5.7	5.7	5.7
90°	6.8	7.2	7.5	7.9	8.1	8.2	8.3	8.4	8.6	8.7	8.6
92.5°	7.9	8.0	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°	16.6	16.8	17.1	17.3	17.4	17.4	17.5	17.6	17.6	17.7	17.6
100°	19.0	19.6	20.1	20.7	21.0	21.1	21.2	21.3	21.5	21.6	21.5
102.5°	19.8	20.6	21.4	22.2	22.6	22.7	22.9	23.1	23.3	23.5	23.3
105°	20.5	21.3	22.0	22.8	23.2	23.3	23.6	23.9	24.2	24.5	24.2
107.5°	21.1	21.9	22.7	23.5	23.9	24.0	24.3	24.6	24.8	25.1	24.8
110°	49.2	42.1	34.9	27.8	24.2	24.3	24.6	24.9	25.2	25.5	25.2

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	132.9	102.0	71.1	40.2	24.8	24.9	25.1	25.4	25.6	25.8	25.6
115°	165.7	132.5	99.4	66.2	49.6	47.0	41.9	36.7	31.6	26.4	31.6
117.5°	206.1	195.8	185.6	175.3	170.2	160.8	142.1	123.3	104.6	85.8	104.6
120°	237.2	238.0	238.9	239.8	240.2	235.4	225.7	216.0	206.4	196.7	206.4
122.5°	255.7	256.2	256.6	257.1	257.3	257.3	257.4	257.5	257.5	257.6	257.5
125°	272.9	273.4	273.9	274.4	274.7	274.8	275.0	275.3	275.5	275.7	275.5
127.5°	288.9	289.6	290.3	291.0	291.4	291.4	291.5	291.6	291.7	291.8	291.7
130°	304.2	305.0	305.7	306.5	306.9	306.9	306.8	306.7	306.7	306.6	306.7
132.5°	319.1	319.8	320.4	321.1	321.4	321.4	321.3	321.2	321.2	321.1	321.2
135°	333.1	333.8	334.5	335.2	335.6	335.5	335.4	335.3	335.1	335.0	335.1
137.5°	346.3	347.0	347.7	348.4	348.8	348.7	348.5	348.3	348.1	347.9	348.1
140°	359.1	359.8	360.4	361.1	361.4	361.2	360.9	360.5	360.2	359.8	360.2
142.5°	371.0	371.6	372.1	372.7	373.0	372.8	372.5	372.1	371.8	371.4	371.8
145°	381.9	382.4	382.9	383.4	383.7	383.5	383.1	382.8	382.4	382.0	382.4
147.5°	391.8	392.1	392.5	392.8	393.0	392.9	392.6	392.3	392.0	391.7	392.0
150°	400.5	400.9	401.4	401.8	402.0	401.8	401.5	401.1	400.8	400.4	400.8
152.5°	408.6	409.0	409.5	409.9	410.1	409.8	409.3	408.8	408.3	407.8	408.3
155°	415.7	416.1	416.6	417.0	417.2	416.9	416.3	415.8	415.2	414.6	415.2
157.5°	421.9	422.4	422.9	423.4	423.6	423.3	422.8	422.2	421.7	421.1	421.7
160°	427.3	427.7	428.2	428.6	428.8	428.5	428.0	427.5	427.0	426.5	427.0
162.5°	432.2	432.7	433.2	433.7	434.0	433.7	433.0	432.3	431.7	431.0	431.7
165°	436.1	436.6	437.1	437.6	437.8	437.6	437.1	436.6	436.1	435.6	436.1
167.5°	439.6	440.1	440.6	441.1	441.4	441.1	440.4	439.8	439.1	438.5	439.1
170°	442.2	442.7	443.2	443.7	443.9	443.6	442.9	442.3	441.6	441.0	441.6
172.5°	444.1	444.6	445.1	445.6	445.9	445.6	444.9	444.3	443.6	443.0	443.6
175°	445.4	445.9	446.4	446.9	447.2	446.8	446.1	445.4	444.6	443.9	444.6
177.5°	445.7	446.2	446.7	447.2	447.5	447.2	446.5	445.9	445.2	444.6	445.2
180°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	604.4	601.3	598.7	599.1	601.3	599.5	595.2	589.5	587.3	584.6	587.3
5°	640.7	638.1	632.9	633.3	632.0	630.2	623.2	614.4	614.4	607.4	606.6
7.5°	676.7	672.7	669.2	668.4	663.5	660.0	653.9	641.6	636.8	628.5	623.7
10°	717.0	713.9	710.0	705.2	702.5	696.4	686.3	668.4	659.6	648.2	639.9
12.5°	757.8	757.3	748.6	738.9	738.5	728.8	721.8	697.7	685.9	670.5	650.8
15°	783.6	781.4	776.6	771.8	773.1	762.6	746.8	718.3	710.4	692.0	671.0
17.5°	783.2	783.2	781.9	781.0	779.7	776.6	767.8	749.0	736.3	713.1	693.3
20°	758.2	763.9	765.2	764.8	769.2	771.3	770.9	759.1	749.0	728.4	708.2
22.5°	708.2	721.4	727.1	730.6	739.8	744.6	756.0	751.6	749.0	733.7	716.6
25°	661.8	666.2	683.3	684.1	696.8	708.7	720.1	727.5	737.2	731.5	717.0
27.5°	601.7	611.8	624.1	633.3	635.9	660.0	678.9	692.9	714.8	716.6	711.7
30°	533.8	538.6	558.8	571.1	585.1	602.6	629.8	653.9	673.6	691.6	697.7
32.5°	451.0	470.7	482.5	497.4	509.7	540.8	574.1	605.2	628.0	658.3	671.4
35°	375.2	390.5	410.7	416.8	439.1	465.4	508.8	548.7	583.3	614.0	640.7
37.5°	312.5	324.8	346.2	355.9	369.0	402.8	439.1	488.7	530.3	568.0	601.3
40°	269.5	278.7	295.0	298.0	309.0	339.7	369.0	415.5	470.7	521.5	557.9
42.5°	240.2	244.6	255.5	259.5	266.5	287.1	313.4	357.2	408.5	461.1	512.3
45°	219.1	222.2	228.8	232.3	241.0	250.2	271.7	306.8	347.1	400.1	455.4
47.5°	200.3	204.2	206.9	209.1	213.9	224.0	238.0	263.8	302.4	351.1	404.5
50°	184.5	185.8	190.6	191.1	194.2	200.7	213.9	229.7	260.3	299.8	351.5
52.5°	168.7	170.0	173.1	176.2	177.5	182.8	191.5	204.7	227.5	258.6	304.6
55°	153.0	154.7	157.8	160.0	161.3	165.7	170.9	183.6	201.6	223.5	261.2
57.5°	137.2	141.1	142.0	143.3	145.5	150.3	155.1	162.6	176.6	196.8	224.4
60°	122.3	123.6	126.7	128.0	130.2	132.8	138.9	144.6	154.7	170.5	195.5
62.5°	106.9	110.0	111.3	112.6	114.4	117.5	121.4	127.5	136.3	149.0	168.7
65°	93.8	94.2	96.9	98.6	100.4	102.6	106.5	112.2	117.5	129.3	143.8
67.5°	81.1	82.0	82.8	84.6	86.8	89.0	92.5	95.5	102.1	110.0	121.4
70°	68.8	68.8	71.0	72.3	71.9	74.5	77.1	80.6	85.5	92.9	102.1
72.5°	57.9	57.4	59.2	59.6	60.5	62.2	64.0	67.5	70.1	75.8	82.8
75°	46.0	46.9	47.8	47.8	49.1	50.4	52.2	53.9	57.0	60.5	65.7
77.5°	36.4	36.4	37.3	37.7	39.0	38.6	40.3	42.1	44.3	47.3	51.3
80°	26.7	27.6	27.6	27.6	28.0	28.5	30.2	31.6	32.9	35.1	36.8
82.5°	18.8	18.8	19.7	19.7	19.7	20.6	20.6	21.0	21.9	23.2	24.5
85°	11.8	11.8	11.8	12.3	11.8	12.3	13.1	12.7	13.1	14.0	14.0
87.5°	5.7	5.7	5.7	5.7	5.7	6.1	5.7	6.1	6.6	6.6	6.6
90°	8.4	8.3	8.2	8.1	7.9	7.5	7.2	6.8	6.4	5.8	5.3
92.5°	8.6	8.5	8.4	8.4	8.3	8.2	8.0	7.9	7.7	7.5	7.3
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°	17.6	17.5	17.4	17.4	17.3	17.1	16.8	16.6	16.4	15.3	14.1
100°	21.3	21.2	21.1	21.0	20.7	20.1	19.6	19.0	18.4	17.2	16.0
102.5°	23.1	22.9	22.7	22.6	22.2	21.4	20.6	19.8	19.0	32.0	45.1
105°	23.9	23.6	23.3	23.2	22.8	22.0	21.3	20.5	19.7	39.3	58.8
107.5°	24.6	24.3	24.0	23.9	23.5	22.7	21.9	21.1	20.3	44.5	68.6
110°	24.9	24.6	24.3	24.2	27.8	34.9	42.1	49.2	56.4	77.1	97.8

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	25.4	25.1	24.9	24.8	40.2	71.1	102.0	132.9	163.8	165.0	166.2
115°	36.7	41.9	47.0	49.6	66.2	99.4	132.5	165.7	198.9	197.1	195.3
117.5°	123.3	142.1	160.8	170.2	175.3	185.6	195.8	206.1	216.3	215.1	213.9
120°	216.0	225.7	235.4	240.2	239.8	238.9	238.0	237.2	236.3	235.0	233.7
122.5°	257.5	257.4	257.3	257.3	257.1	256.6	256.2	255.7	255.3	253.9	252.5
125°	275.3	275.0	274.8	274.7	274.4	273.9	273.4	272.9	272.4	271.0	269.7
127.5°	291.6	291.5	291.4	291.4	291.0	290.3	289.6	288.9	288.2	287.1	286.1
130°	306.7	306.8	306.9	306.9	306.5	305.7	305.0	304.2	303.4	302.6	301.8
132.5°	321.2	321.3	321.4	321.4	321.1	320.4	319.8	319.1	318.5	317.7	316.9
135°	335.3	335.4	335.5	335.6	335.2	334.5	333.8	333.1	332.4	331.8	331.1
137.5°	348.3	348.5	348.7	348.8	348.4	347.7	347.0	346.3	345.6	344.9	344.2
140°	360.5	360.9	361.2	361.4	361.1	360.4	359.8	359.1	358.5	357.7	356.9
142.5°	372.1	372.5	372.8	373.0	372.7	372.1	371.6	371.0	370.4	369.5	368.5
145°	382.8	383.1	383.5	383.7	383.4	382.9	382.4	381.9	381.4	380.2	379.0
147.5°	392.3	392.6	392.9	393.0	392.8	392.5	392.1	391.8	391.4	390.2	389.0
150°	401.1	401.5	401.8	402.0	401.8	401.4	400.9	400.5	400.1	398.9	397.8
152.5°	408.8	409.3	409.8	410.1	409.9	409.5	409.0	408.6	408.2	407.1	406.0
155°	415.8	416.3	416.9	417.2	417.0	416.6	416.1	415.7	415.3	414.4	413.6
157.5°	422.2	422.8	423.3	423.6	423.4	422.9	422.4	421.9	421.4	420.8	420.1
160°	427.5	428.0	428.5	428.8	428.6	428.2	427.7	427.3	426.9	426.5	426.0
162.5°	432.3	433.0	433.7	434.0	433.7	433.2	432.7	432.2	431.7	431.3	431.0
165°	436.6	437.1	437.6	437.8	437.6	437.1	436.6	436.1	435.6	435.4	435.2
167.5°	439.8	440.4	441.1	441.4	441.1	440.6	440.1	439.6	439.1	438.9	438.7
170°	442.3	442.9	443.6	443.9	443.7	443.2	442.7	442.2	441.7	441.5	441.4
172.5°	444.3	444.9	445.6	445.9	445.6	445.1	444.6	444.1	443.6	443.5	443.3
175°	445.4	446.1	446.8	447.2	446.9	446.4	445.9	445.4	444.9	444.8	444.6
177.5°	445.9	446.5	447.2	447.5	447.2	446.7	446.2	445.7	445.2	445.1	445.1
180°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	585.1	582.9	581.6	582.5	579.8	573.3	573.3	575.4	572.8	570.2	566.2
5°	601.3	596.9	594.3	593.9	587.7	577.2	575.0	572.8	567.1	561.0	554.4
7.5°	617.1	609.2	604.8	601.7	593.0	579.4	573.7	568.9	559.7	550.5	542.1
10°	630.2	618.8	613.6	608.8	597.4	580.3	571.1	562.3	550.5	538.6	528.1
12.5°	640.7	627.6	621.0	614.0	600.0	577.6	566.2	552.2	540.4	524.6	514.1
15°	658.3	631.1	625.0	618.4	603.9	573.3	559.2	543.4	527.2	506.2	494.8
17.5°	672.3	635.9	635.5	621.5	602.6	571.5	550.0	529.4	511.9	490.9	472.9
20°	680.6	643.4	636.4	621.9	598.2	559.7	537.3	514.5	495.7	470.3	452.3
22.5°	687.6	653.9	635.5	618.0	589.0	555.7	522.9	501.4	475.5	447.9	430.8
25°	690.3	656.1	636.8	616.6	582.5	544.3	507.1	483.8	454.9	429.9	406.7
27.5°	690.7	655.6	632.0	610.9	573.3	529.4	491.3	466.8	434.8	405.8	382.6
30°	686.3	650.8	629.4	606.6	564.5	515.8	472.0	444.8	410.7	381.7	357.6
32.5°	673.2	641.2	623.7	598.7	553.1	497.0	453.6	423.4	387.4	358.9	335.7
35°	651.3	629.4	610.1	586.8	538.2	479.5	435.2	399.7	363.3	336.2	314.2
37.5°	624.1	612.3	594.3	571.5	521.1	463.7	414.6	375.2	338.8	312.5	291.0
40°	587.3	590.3	572.8	552.2	500.9	442.2	387.9	350.2	316.0	291.4	270.4
42.5°	547.4	560.1	550.0	530.3	478.6	418.5	368.1	326.5	293.2	267.8	250.2
45°	504.4	526.4	520.2	505.8	455.4	393.6	340.1	299.8	270.4	245.9	230.5
47.5°	457.5	488.7	488.7	478.1	429.5	368.6	316.0	274.8	245.9	228.3	213.4
50°	409.8	444.8	450.5	443.5	400.6	340.1	286.6	249.4	224.4	207.3	196.3
52.5°	359.8	400.6	411.1	407.6	369.9	312.9	262.5	226.1	203.4	188.5	178.8
55°	312.0	359.4	370.8	372.1	337.0	283.1	235.8	203.8	181.9	171.8	163.5
57.5°	266.9	312.5	325.2	327.4	303.7	255.9	210.8	182.8	163.0	154.7	148.1
60°	228.3	266.5	283.1	287.9	267.3	224.4	187.6	160.4	145.5	137.6	131.5
62.5°	196.8	227.5	245.0	246.3	237.1	196.8	163.5	140.7	128.0	121.0	117.9
65°	166.1	193.7	204.2	209.5	202.0	170.5	141.1	122.3	112.2	106.1	103.0
67.5°	141.6	159.1	167.9	174.9	167.4	143.8	120.1	104.7	97.3	91.2	89.4
70°	116.1	130.6	137.2	144.2	137.6	119.6	102.6	88.5	82.0	77.1	74.9
72.5°	92.9	104.3	110.4	114.8	110.9	96.0	82.0	72.3	67.5	64.0	62.7
75°	73.6	81.5	85.0	88.1	86.3	74.9	66.2	58.3	53.9	50.8	50.0
77.5°	56.1	61.8	65.7	66.6	64.4	57.0	49.5	44.7	41.2	39.4	38.6
80°	39.9	43.4	45.6	46.9	44.7	41.6	36.4	32.9	29.8	27.6	27.2
82.5°	26.7	28.5	30.2	29.8	28.9	26.3	23.2	21.5	20.2	18.4	18.4
85°	15.3	15.8	16.7	17.1	16.7	14.9	13.1	12.3	11.4	10.1	10.1
87.5°	6.6	7.0	7.0	7.5	6.6	6.6	5.7	4.8	4.8	4.4	3.9
90°	4.7	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	31.8	37.7	31.8	26.0	20.1
100°	14.7	13.5	12.9	17.8	27.6	37.5	47.3	57.1	47.3	37.5	27.6
102.5°	58.1	71.2	77.7	77.8	77.9	78.0	78.2	78.3	78.2	78.0	77.9
105°	78.4	97.9	107.7	106.6	104.5	102.3	100.2	98.0	100.2	102.3	104.5
107.5°	92.8	116.9	129.0	128.1	126.3	124.5	122.7	120.9	122.7	124.5	126.3
110°	118.5	139.2	149.6	148.8	147.3	145.8	144.3	142.8	144.3	145.8	147.3

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
112.5°	167.5	168.7	169.3	168.7	167.4	166.1	164.8	163.5	164.8	166.1	167.4
115°	193.6	191.8	190.9	190.3	189.1	187.8	186.6	185.4	186.6	187.8	189.1
117.5°	212.6	211.4	210.8	210.1	208.7	207.2	205.8	204.4	205.8	207.2	208.7
120°	232.4	231.1	230.5	230.0	228.9	227.8	226.8	225.7	226.8	227.8	228.9
122.5°	251.0	249.6	248.9	248.3	247.2	246.0	244.9	243.7	244.9	246.0	247.2
125°	268.3	267.0	266.3	265.8	264.9	264.0	263.0	262.1	263.0	264.0	264.9
127.5°	285.0	283.9	283.4	282.9	281.9	280.9	279.9	278.9	279.9	280.9	281.9
130°	301.0	300.2	299.8	299.2	298.1	297.0	295.8	294.7	295.8	297.0	298.1
132.5°	316.2	315.4	315.0	314.5	313.6	312.7	311.7	310.8	311.7	312.7	313.6
135°	330.5	329.8	329.5	328.9	327.8	326.6	325.5	324.3	325.5	326.6	327.8
137.5°	343.5	342.8	342.4	342.0	341.1	340.2	339.4	338.5	339.4	340.2	341.1
140°	356.2	355.4	355.0	354.7	354.1	353.6	353.0	352.4	353.0	353.6	354.1
142.5°	367.6	366.7	366.2	366.0	365.5	365.0	364.5	364.0	364.5	365.0	365.5
145°	377.7	376.5	375.9	375.9	376.0	376.1	376.1	376.2	376.1	376.1	376.0
147.5°	387.7	386.5	385.9	386.0	386.2	386.5	386.7	386.9	386.7	386.5	386.2
150°	396.6	395.5	394.9	395.2	395.7	396.2	396.7	397.2	396.7	396.2	395.7
152.5°	404.9	403.8	403.3	403.6	404.2	404.7	405.3	405.9	405.3	404.7	404.2
155°	412.7	411.8	411.4	411.7	412.4	413.0	413.7	414.3	413.7	413.0	412.4
157.5°	419.5	418.8	418.5	418.8	419.4	419.9	420.5	421.1	420.5	419.9	419.4
160°	425.6	425.1	424.9	425.1	425.6	426.0	426.5	426.9	426.5	426.0	425.6
162.5°	430.6	430.3	430.1	430.3	430.7	431.2	431.6	432.0	431.6	431.2	430.7
165°	434.9	434.7	434.6	434.8	435.2	435.7	436.1	436.5	436.1	435.7	435.2
167.5°	438.4	438.2	438.1	438.3	438.8	439.2	439.7	440.1	439.7	439.2	438.8
170°	441.2	441.1	441.0	441.2	441.7	442.1	442.6	443.0	442.6	442.1	441.7
172.5°	443.2	443.1	443.0	443.2	443.6	444.1	444.5	444.9	444.5	444.1	443.6
175°	444.5	444.4	444.3	444.5	445.0	445.5	446.0	446.5	446.0	445.5	445.0
177.5°	445.0	444.9	444.9	445.2	445.7	446.2	446.7	447.2	446.7	446.2	445.7
180°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	564.0	566.2	565.8	561.4	556.6	552.7	545.2	546.1	543.4	543.9	546.5
5°	550.0	550.0	548.3	542.1	534.2	529.9	521.5	519.3	514.1	513.6	513.2
7.5°	535.1	532.9	530.7	522.0	512.3	505.3	493.9	491.3	486.0	482.5	480.8
10°	517.6	514.5	510.1	500.1	488.2	479.5	467.6	464.1	454.0	449.7	447.0
12.5°	498.3	496.6	489.5	481.2	461.9	452.3	435.2	438.7	428.6	419.9	418.5
15°	479.0	472.5	468.5	454.9	431.7	427.3	413.7	406.7	397.5	390.5	390.5
17.5°	460.2	450.1	441.3	426.9	409.8	397.5	387.4	383.9	372.5	365.5	364.2
20°	435.2	423.8	421.6	401.0	389.2	375.6	366.0	357.2	348.9	345.8	343.6
22.5°	411.5	398.4	394.9	377.3	365.5	351.9	342.3	336.2	330.0	327.8	323.9
25°	386.1	378.2	373.0	354.1	341.0	328.3	321.7	317.3	311.6	311.2	308.5
27.5°	361.6	354.1	348.9	330.9	321.2	309.4	304.2	299.3	296.3	295.0	293.6
30°	340.5	332.2	326.1	312.9	301.1	291.4	287.1	284.0	282.2	280.1	279.6
32.5°	317.3	312.5	304.2	294.1	284.9	275.7	273.0	270.8	268.2	267.3	266.9
35°	297.6	291.0	285.7	274.4	270.4	262.5	259.5	257.7	254.2	253.3	252.4
37.5°	278.3	272.2	266.5	259.5	252.0	247.6	245.9	243.2	241.5	241.9	241.0
40°	259.0	254.2	249.8	242.4	238.0	235.8	232.3	229.7	228.8	229.2	228.8
42.5°	240.2	235.8	233.2	227.5	223.1	220.9	218.7	216.1	217.4	217.4	218.7
45°	223.1	219.1	217.4	213.0	210.4	206.9	204.7	204.2	206.0	205.5	205.5
47.5°	205.5	204.2	202.0	198.1	194.6	192.4	192.0	192.0	193.7	194.6	194.2
50°	192.0	189.3	186.7	183.6	181.0	180.1	178.8	179.7	181.4	181.4	182.3
52.5°	174.9	173.1	172.2	169.6	167.9	167.9	167.9	168.3	169.6	170.9	170.5
55°	160.0	158.7	157.8	156.5	154.3	154.7	154.3	155.1	156.5	157.8	158.7
57.5°	144.2	143.8	142.9	140.7	140.7	140.2	141.6	142.0	144.2	145.1	146.4
60°	130.2	128.9	128.9	127.1	127.1	127.1	128.4	129.7	131.5	131.9	132.8
62.5°	115.3	115.3	114.8	113.5	113.5	114.8	115.3	117.0	117.9	117.9	119.2
65°	101.2	100.8	100.4	100.8	101.2	101.2	102.6	103.4	104.3	104.7	105.2
67.5°	87.2	86.8	87.7	87.2	88.1	89.8	89.4	90.7	92.0	92.0	92.5
70°	74.1	74.9	74.5	75.4	74.9	75.8	77.1	77.6	77.6	78.0	79.3
72.5°	61.8	61.8	61.8	61.4	61.8	62.7	63.5	64.0	64.9	65.3	66.6
75°	50.0	50.0	49.1	50.0	50.0	50.8	51.7	51.7	51.7	52.6	53.9
77.5°	37.7	38.1	37.7	38.6	38.6	39.0	39.9	39.4	40.3	40.8	41.2
80°	27.6	27.2	27.2	27.2	27.6	27.6	28.5	28.9	28.9	30.2	29.4
82.5°	17.5	18.0	17.5	18.0	18.0	18.4	18.0	18.4	18.8	19.7	19.3
85°	10.1	9.6	9.6	10.1	9.6	9.6	10.1	9.6	10.1	9.6	10.1
87.5°	3.9	3.5	3.5	3.5	3.5	3.1	3.1	2.6	2.6	2.6	2.2
90°	3.5	3.9	4.2	4.7	5.3	5.8	6.4	6.8	7.2	7.5	7.9
92.5°	6.9	6.8	6.9	7.1	7.3	7.5	7.7	7.9	8.0	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	14.1	15.3	16.4	16.6	16.8	17.1	17.3
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°	77.8	77.7	71.2	58.1	45.1	32.0	19.0	19.8	20.6	21.4	22.2
105°	106.6	107.7	97.9	78.4	58.8	39.3	19.7	20.5	21.3	22.0	22.8
107.5°	128.1	129.0	116.9	92.8	68.6	44.5	20.3	21.1	21.9	22.7	23.5
110°	148.8	149.6	139.2	118.5	97.8	77.1	56.4	49.2	42.1	34.9	27.8

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
112.5°	168.7	169.3	168.7	167.5	166.2	165.0	163.8	132.9	102.0	71.1	40.2
115°	190.3	190.9	191.8	193.6	195.3	197.1	198.9	165.7	132.5	99.4	66.2
117.5°	210.1	210.8	211.4	212.6	213.9	215.1	216.3	206.1	195.8	185.6	175.3
120°	230.0	230.5	231.1	232.4	233.7	235.0	236.3	237.2	238.0	238.9	239.8
122.5°	248.3	248.9	249.6	251.0	252.5	253.9	255.3	255.7	256.2	256.6	257.1
125°	265.8	266.3	267.0	268.3	269.7	271.0	272.4	272.9	273.4	273.9	274.4
127.5°	282.9	283.4	283.9	285.0	286.1	287.1	288.2	288.9	289.6	290.3	291.0
130°	299.2	299.8	300.2	301.0	301.8	302.6	303.4	304.2	305.0	305.7	306.5
132.5°	314.5	315.0	315.4	316.2	316.9	317.7	318.5	319.1	319.8	320.4	321.1
135°	328.9	329.5	329.8	330.5	331.1	331.8	332.4	333.1	333.8	334.5	335.2
137.5°	342.0	342.4	342.8	343.5	344.2	344.9	345.6	346.3	347.0	347.7	348.4
140°	354.7	355.0	355.4	356.2	356.9	357.7	358.5	359.1	359.8	360.4	361.1
142.5°	366.0	366.2	366.7	367.6	368.5	369.5	370.4	371.0	371.6	372.1	372.7
145°	375.9	375.9	376.5	377.7	379.0	380.2	381.4	381.9	382.4	382.9	383.4
147.5°	386.0	385.9	386.5	387.7	389.0	390.2	391.4	391.8	392.1	392.5	392.8
150°	395.2	394.9	395.5	396.6	397.8	398.9	400.1	400.5	400.9	401.4	401.8
152.5°	403.6	403.3	403.8	404.9	406.0	407.1	408.2	408.6	409.0	409.5	409.9
155°	411.7	411.4	411.8	412.7	413.6	414.4	415.3	415.7	416.1	416.6	417.0
157.5°	418.8	418.5	418.8	419.5	420.1	420.8	421.4	421.9	422.4	422.9	423.4
160°	425.1	424.9	425.1	425.6	426.0	426.5	426.9	427.3	427.7	428.2	428.6
162.5°	430.3	430.1	430.3	430.6	431.0	431.3	431.7	432.2	432.7	433.2	433.7
165°	434.8	434.6	434.7	434.9	435.2	435.4	435.6	436.1	436.6	437.1	437.6
167.5°	438.3	438.1	438.2	438.4	438.7	438.9	439.1	439.6	440.1	440.6	441.1
170°	441.2	441.0	441.1	441.2	441.4	441.5	441.7	442.2	442.7	443.2	443.7
172.5°	443.2	443.0	443.1	443.2	443.3	443.5	443.6	444.1	444.6	445.1	445.6
175°	444.5	444.3	444.4	444.5	444.6	444.8	444.9	445.4	445.9	446.4	446.9
177.5°	445.2	444.9	444.9	445.0	445.1	445.1	445.2	445.7	446.2	446.7	447.2
180°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	543.4	544.8	541.7	540.8	541.7	538.6	539.5	540.4	540.4	541.7	542.6
5°	511.9	510.1	507.1	506.2	505.3	506.6	505.8	507.1	507.5	510.6	511.0
7.5°	480.8	478.1	475.5	472.9	472.0	469.8	472.0	472.0	475.1	474.2	476.4
10°	444.0	443.5	440.0	438.7	437.0	433.4	438.3	437.0	439.1	443.1	444.0
12.5°	416.8	412.0	414.2	408.0	410.2	406.7	407.1	407.1	410.7	411.1	410.2
15°	390.9	387.0	381.3	378.7	377.3	375.6	381.3	381.7	379.1	385.2	383.0
17.5°	364.6	364.6	359.4	358.1	354.6	356.3	355.4	355.9	355.0	359.4	361.6
20°	341.8	339.7	337.9	338.3	334.0	333.1	332.2	333.1	336.2	339.2	340.1
22.5°	323.4	322.1	317.7	318.6	315.1	316.4	315.6	317.7	318.2	318.2	321.2
25°	305.9	304.2	304.6	302.8	301.5	301.5	300.2	301.5	303.3	304.2	304.6
27.5°	292.8	291.4	289.3	287.9	288.8	286.6	288.4	289.7	289.7	288.8	289.7
30°	277.0	277.9	277.9	273.5	275.2	274.4	275.7	276.5	276.5	277.0	276.1
32.5°	266.5	263.8	263.4	263.0	263.0	261.2	261.2	262.5	263.0	263.4	264.7
35°	252.4	252.4	250.2	251.6	249.8	250.2	249.8	250.2	251.1	249.8	251.1
37.5°	239.7	240.2	239.3	240.2	240.6	239.7	238.9	240.6	239.7	239.7	238.9
40°	228.8	228.3	228.8	228.8	228.8	229.2	228.3	228.3	228.3	227.5	226.6
42.5°	219.6	216.9	217.8	218.3	216.9	216.9	217.4	216.9	218.3	215.6	215.6
45°	206.4	205.5	206.0	206.0	206.9	205.5	206.4	206.9	205.5	205.1	204.2
47.5°	194.6	195.5	194.6	195.5	195.5	196.3	194.6	195.0	195.5	193.7	192.4
50°	182.8	182.8	184.1	183.6	184.1	183.2	183.2	182.8	183.2	182.3	181.0
52.5°	171.8	170.5	172.7	172.2	171.8	171.4	170.9	171.4	170.5	169.6	169.6
55°	158.2	158.2	159.5	160.0	160.0	159.1	158.2	158.7	158.2	157.8	157.3
57.5°	147.3	145.5	146.4	146.8	146.8	145.5	146.4	145.5	145.5	145.9	144.6
60°	133.2	133.2	132.4	133.7	133.7	132.8	132.8	133.2	132.4	131.9	131.5
62.5°	118.3	118.8	120.1	120.5	121.0	120.1	119.2	119.6	119.6	118.3	118.8
65°	105.6	106.5	108.3	107.8	106.9	107.4	106.5	106.9	105.6	106.1	104.7
67.5°	93.4	92.9	93.4	93.4	94.2	93.8	92.9	92.9	92.5	93.8	92.5
70°	80.2	80.2	80.2	80.2	80.6	81.1	80.2	79.3	79.8	78.9	78.4
72.5°	66.6	67.1	66.6	67.5	66.2	67.1	67.1	66.6	66.2	66.2	66.2
75°	53.9	54.8	53.5	53.9	53.5	54.3	53.9	53.9	53.0	52.6	53.0
77.5°	41.2	41.6	40.8	41.2	40.8	41.2	41.2	40.8	40.8	40.8	40.8
80°	29.4	29.8	29.4	28.9	28.5	29.4	28.5	28.9	29.4	28.9	29.8
82.5°	18.8	18.8	18.4	18.8	18.0	18.0	18.4	18.4	18.0	18.8	18.0
85°	9.2	9.2	10.1	9.2	8.8	8.8	8.8	9.2	8.8	9.6	9.2
87.5°	2.2	1.8	2.2	2.2	1.8	1.8	2.2	1.8	2.2	2.6	1.8
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°	17.4	17.4	17.5	17.6	17.6	17.7	17.6	17.6	17.5	17.4	17.4
100°	21.0	21.1	21.2	21.3	21.5	21.6	21.5	21.3	21.2	21.1	21.0
102.5°	22.6	22.7	22.9	23.1	23.3	23.5	23.3	23.1	22.9	22.7	22.6
105°	23.2	23.3	23.6	23.9	24.2	24.5	24.2	23.9	23.6	23.3	23.2
107.5°	23.9	24.0	24.3	24.6	24.8	25.1	24.8	24.6	24.3	24.0	23.9
110°	24.2	24.3	24.6	24.9	25.2	25.5	25.2	24.9	24.6	24.3	24.2

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
112.5°	24.8	24.9	25.1	25.4	25.6	25.8	25.6	25.4	25.1	24.9	24.8
115°	49.6	47.0	41.9	36.7	31.6	26.4	31.6	36.7	41.9	47.0	49.6
117.5°	170.2	160.8	142.1	123.3	104.6	85.8	104.6	123.3	142.1	160.8	170.2
120°	240.2	235.4	225.7	216.0	206.4	196.7	206.4	216.0	225.7	235.4	240.2
122.5°	257.3	257.3	257.4	257.5	257.5	257.6	257.5	257.5	257.4	257.3	257.3
125°	274.7	274.8	275.0	275.3	275.5	275.7	275.5	275.3	275.0	274.8	274.7
127.5°	291.4	291.4	291.5	291.6	291.7	291.8	291.7	291.6	291.5	291.4	291.4
130°	306.9	306.9	306.8	306.7	306.7	306.6	306.7	306.7	306.8	306.9	306.9
132.5°	321.4	321.4	321.3	321.2	321.2	321.1	321.2	321.2	321.3	321.4	321.4
135°	335.6	335.5	335.4	335.3	335.1	335.0	335.1	335.3	335.4	335.5	335.6
137.5°	348.8	348.7	348.5	348.3	348.1	347.9	348.1	348.3	348.5	348.7	348.8
140°	361.4	361.2	360.9	360.5	360.2	359.8	360.2	360.5	360.9	361.2	361.4
142.5°	373.0	372.8	372.5	372.1	371.8	371.4	371.8	372.1	372.5	372.8	373.0
145°	383.7	383.5	383.1	382.8	382.4	382.0	382.4	382.8	383.1	383.5	383.7
147.5°	393.0	392.9	392.6	392.3	392.0	391.7	392.0	392.3	392.6	392.9	393.0
150°	402.0	401.8	401.5	401.1	400.8	400.4	400.8	401.1	401.5	401.8	402.0
152.5°	410.1	409.8	409.3	408.8	408.3	407.8	408.3	408.8	409.3	409.8	410.1
155°	417.2	416.9	416.3	415.8	415.2	414.6	415.2	415.8	416.3	416.9	417.2
157.5°	423.6	423.3	422.8	422.2	421.7	421.1	421.7	422.2	422.8	423.3	423.6
160°	428.8	428.5	428.0	427.5	427.0	426.5	427.0	427.5	428.0	428.5	428.8
162.5°	434.0	433.7	433.0	432.3	431.7	431.0	431.7	432.3	433.0	433.7	434.0
165°	437.8	437.6	437.1	436.6	436.1	435.6	436.1	436.6	437.1	437.6	437.8
167.5°	441.4	441.1	440.4	439.8	439.1	438.5	439.1	439.8	440.4	441.1	441.4
170°	443.9	443.6	442.9	442.3	441.6	441.0	441.6	442.3	442.9	443.6	443.9
172.5°	445.9	445.6	444.9	444.3	443.6	443.0	443.6	444.3	444.9	445.6	445.9
175°	447.2	446.8	446.1	445.4	444.6	443.9	444.6	445.4	446.1	446.8	447.2
177.5°	447.5	447.2	446.5	445.9	445.2	444.6	445.2	445.9	446.5	447.2	447.5
180°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2	570.2
2.5°	541.3	544.8	543.4	538.6	544.3	544.3	548.3	548.3	553.1	554.8	557.5
5°	510.6	513.2	515.4	513.2	517.2	523.3	526.8	529.9	536.4	539.1	543.0
7.5°	477.7	482.5	484.7	484.7	491.3	498.3	505.3	509.7	518.9	522.4	526.4
10°	445.7	451.4	455.8	455.4	466.3	470.7	479.5	489.5	498.7	504.0	509.7
12.5°	412.0	415.0	421.2	429.9	432.6	440.5	450.5	463.2	479.9	484.7	493.0
15°	383.9	392.2	397.1	401.0	407.1	414.6	425.6	437.8	454.5	465.0	473.8
17.5°	360.3	371.2	374.3	373.4	381.3	392.7	405.4	414.6	429.5	442.2	450.5
20°	341.0	345.4	350.6	352.8	358.9	371.2	383.5	394.0	406.3	416.4	426.0
22.5°	321.7	325.2	329.6	333.5	338.3	345.4	357.2	370.3	382.2	391.8	402.8
25°	305.9	308.1	312.0	315.1	320.4	325.2	333.5	348.0	362.0	367.7	377.3
27.5°	290.6	292.3	295.0	298.5	301.1	305.9	313.4	325.2	339.7	345.4	358.5
30°	277.0	278.3	280.9	282.7	284.0	289.7	295.4	304.6	315.6	323.4	333.1
32.5°	264.3	265.6	268.2	268.7	270.4	273.5	278.7	287.1	296.7	303.3	311.6
35°	250.2	251.1	253.8	254.6	255.9	258.6	262.5	268.7	277.4	282.2	289.7
37.5°	239.3	238.9	240.6	241.9	243.7	245.0	246.3	252.4	259.0	263.4	269.1
40°	227.5	226.6	227.0	228.8	229.7	231.4	231.4	237.5	241.9	245.4	249.8
42.5°	215.6	215.2	214.3	215.2	216.1	216.5	216.9	221.3	225.7	228.8	233.6
45°	203.8	203.4	202.5	202.9	202.9	203.8	205.1	206.9	209.9	212.6	215.2
47.5°	192.8	192.0	190.6	190.2	191.1	191.1	191.1	192.8	195.9	196.8	199.4
50°	181.4	180.1	178.4	177.5	177.5	177.1	177.9	178.4	181.0	181.9	184.1
52.5°	169.2	168.3	166.5	164.8	165.2	164.3	164.8	165.2	166.1	167.4	168.7
55°	156.9	155.1	153.8	153.4	152.1	152.1	150.8	152.5	152.1	152.5	154.3
57.5°	145.1	143.3	141.1	140.2	138.9	138.5	137.6	137.2	137.6	138.9	140.2
60°	131.0	130.2	128.9	127.5	126.7	125.3	124.5	124.5	124.0	124.0	124.5
62.5°	117.5	117.0	115.3	114.8	113.9	113.1	111.8	110.9	110.9	111.8	112.2
65°	104.3	103.9	102.6	102.1	99.9	99.0	98.6	98.2	97.3	97.3	97.3
67.5°	92.0	90.7	90.7	88.5	86.8	85.9	85.0	84.6	84.6	84.6	85.0
70°	78.4	78.4	77.1	75.8	74.1	74.5	73.2	71.9	71.9	71.0	71.4
72.5°	65.3	64.9	63.5	63.1	61.8	60.5	59.6	60.5	59.2	58.7	59.2
75°	52.6	52.2	51.3	50.4	50.8	49.5	48.2	47.8	47.8	46.9	46.9
77.5°	40.3	41.2	39.4	39.0	38.1	37.3	36.8	36.4	36.4	36.4	37.3
80°	28.0	28.5	28.5	27.6	28.0	26.7	26.7	26.7	25.4	25.9	26.3
82.5°	18.0	18.0	17.5	18.0	17.5	17.5	17.1	17.1	16.7	16.7	17.1
85°	10.1	9.6	9.2	10.1	9.6	9.6	9.2	9.2	9.2	9.2	9.2
87.5°	2.2	2.6	2.6	2.6	2.6	3.1	3.1	3.1	3.5	3.5	3.5
90°	7.9	7.5	7.2	6.8	6.4	5.8	5.3	4.7	4.2	3.9	3.5
92.5°	8.3	8.2	8.0	7.9	7.7	7.5	7.3	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°	17.3	17.1	16.8	16.6	16.4	15.3	14.1	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	20.6	19.8	19.0	32.0	45.1	58.1	71.2	77.7	77.8
105°	22.8	22.0	21.3	20.5	19.7	39.3	58.8	78.4	97.9	107.7	106.6
107.5°	23.5	22.7	21.9	21.1	20.3	44.5	68.6	92.8	116.9	129.0	128.1
110°	27.8	34.9	42.1	49.2	56.4	77.1	97.8	118.5	139.2	149.6	148.8



TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
112.5°	40.2	71.1	102.0	132.9	163.8	165.0	166.2	167.5	168.7	169.3	168.7
115°	66.2	99.4	132.5	165.7	198.9	197.1	195.3	193.6	191.8	190.9	190.3
117.5°	175.3	185.6	195.8	206.1	216.3	215.1	213.9	212.6	211.4	210.8	210.1
120°	239.8	238.9	238.0	237.2	236.3	235.0	233.7	232.4	231.1	230.5	230.0
122.5°	257.1	256.6	256.2	255.7	255.3	253.9	252.5	251.0	249.6	248.9	248.3
125°	274.4	273.9	273.4	272.9	272.4	271.0	269.7	268.3	267.0	266.3	265.8
127.5°	291.0	290.3	289.6	288.9	288.2	287.1	286.1	285.0	283.9	283.4	282.9
130°	306.5	305.7	305.0	304.2	303.4	302.6	301.8	301.0	300.2	299.8	299.2
132.5°	321.1	320.4	319.8	319.1	318.5	317.7	316.9	316.2	315.4	315.0	314.5
135°	335.2	334.5	333.8	333.1	332.4	331.8	331.1	330.5	329.8	329.5	328.9
137.5°	348.4	347.7	347.0	346.3	345.6	344.9	344.2	343.5	342.8	342.4	342.0
140°	361.1	360.4	359.8	359.1	358.5	357.7	356.9	356.2	355.4	355.0	354.7
142.5°	372.7	372.1	371.6	371.0	370.4	369.5	368.5	367.6	366.7	366.2	366.0
145°	383.4	382.9	382.4	381.9	381.4	380.2	379.0	377.7	376.5	375.9	375.9
147.5°	392.8	392.5	392.1	391.8	391.4	390.2	389.0	387.7	386.5	385.9	386.0
150°	401.8	401.4	400.9	400.5	400.1	398.9	397.8	396.6	395.5	394.9	395.2
152.5°	409.9	409.5	409.0	408.6	408.2	407.1	406.0	404.9	403.8	403.3	403.6
155°	417.0	416.6	416.1	415.7	415.3	414.4	413.6	412.7	411.8	411.4	411.7
157.5°	423.4	422.9	422.4	421.9	421.4	420.8	420.1	419.5	418.8	418.5	418.8
160°	428.6	428.2	427.7	427.3	426.9	426.5	426.0	425.6	425.1	424.9	425.1
162.5°	433.7	433.2	432.7	432.2	431.7	431.3	431.0	430.6	430.3	430.1	430.3
165°	437.6	437.1	436.6	436.1	435.6	435.4	435.2	434.9	434.7	434.6	434.8
167.5°	441.1	440.6	440.1	439.6	439.1	438.9	438.7	438.4	438.2	438.1	438.3
170°	443.7	443.2	442.7	442.2	441.7	441.5	441.4	441.2	441.1	441.0	441.2
172.5°	445.6	445.1	444.6	444.1	443.6	443.5	443.3	443.2	443.1	443.0	443.2
175°	446.9	446.4	445.9	445.4	444.9	444.8	444.6	444.5	444.4	444.3	444.5
177.5°	447.2	446.7	446.2	445.7	445.2	445.1	445.1	445.0	444.9	444.9	445.2
180°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	570.2	570.2	570.2	570.2
2.5°	559.7	559.7	566.2	573.3
5°	547.4	550.5	561.0	570.6
7.5°	535.6	540.8	554.0	566.2
10°	521.1	528.1	544.3	558.8
12.5°	507.1	513.6	532.5	548.7
15°	487.4	495.7	515.8	536.0
17.5°	467.6	476.0	500.5	524.2
20°	444.4	455.4	483.0	514.5
22.5°	422.9	436.5	467.2	492.6
25°	399.3	420.3	448.8	481.7
27.5°	378.2	399.3	428.2	461.5
30°	354.6	376.0	405.8	436.5
32.5°	331.8	351.5	380.4	418.1
35°	308.1	326.9	355.0	393.1
37.5°	286.6	305.0	335.7	370.8
40°	265.6	284.9	311.2	346.2
42.5°	245.9	263.0	286.6	321.7
45°	227.9	240.2	262.1	295.0
47.5°	209.1	220.0	240.2	273.0
50°	191.5	200.7	218.3	248.9
52.5°	174.4	182.3	198.5	223.1
55°	159.1	166.5	178.4	202.5
57.5°	143.3	149.0	160.4	179.7
60°	128.0	133.2	142.4	158.2
62.5°	112.6	117.0	125.8	138.5
65°	99.0	102.6	109.1	120.1
67.5°	85.9	88.1	93.4	102.1
70°	73.2	74.9	79.3	86.3
72.5°	59.6	61.4	66.2	71.0
75°	48.2	48.6	52.2	56.1
77.5°	37.7	37.3	39.9	43.0
80°	25.9	27.2	29.4	30.7
82.5°	17.5	18.0	18.8	19.7
85°	9.6	10.1	10.1	11.4
87.5°	3.9	4.4	4.4	4.8
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	31.8	37.7
100°	27.6	37.5	47.3	57.1
102.5°	77.9	78.0	78.2	78.3
105°	104.5	102.3	100.2	98.0
107.5°	126.3	124.5	122.7	120.9
110°	147.3	145.8	144.3	142.8



TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
112.5°	167.4	166.1	164.8	163.5
115°	189.1	187.8	186.6	185.4
117.5°	208.7	207.2	205.8	204.4
120°	228.9	227.8	226.8	225.7
122.5°	247.2	246.0	244.9	243.7
125°	264.9	264.0	263.0	262.1
127.5°	281.9	280.9	279.9	278.9
130°	298.1	297.0	295.8	294.7
132.5°	313.6	312.7	311.7	310.8
135°	327.8	326.6	325.5	324.3
137.5°	341.1	340.2	339.4	338.5
140°	354.1	353.6	353.0	352.4
142.5°	365.5	365.0	364.5	364.0
145°	376.0	376.1	376.1	376.2
147.5°	386.2	386.5	386.7	386.9
150°	395.7	396.2	396.7	397.2
152.5°	404.2	404.7	405.3	405.9
155°	412.4	413.0	413.7	414.3
157.5°	419.4	419.9	420.5	421.1
160°	425.6	426.0	426.5	426.9
162.5°	430.7	431.2	431.6	432.0
165°	435.2	435.7	436.1	436.5
167.5°	438.8	439.2	439.7	440.1
170°	441.7	442.1	442.6	443.0
172.5°	443.6	444.1	444.5	444.9
175°	445.0	445.5	446.0	446.5
177.5°	445.7	446.2	446.7	447.2
180°	445.6	445.6	445.6	445.6

TEST NUMBER: P998147

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_2700K

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	13.40	14.22	14.37	15.20	16.49	10.89	11.71	11.87	12.70	13.98
	3H	14.21	14.94	15.19	15.93	17.24	12.24	12.97	13.22	13.96	15.27
	4H	14.38	15.07	15.37	16.06	17.38	12.70	13.39	13.69	14.38	15.70
	6H	14.42	15.06	15.43	16.06	17.39	13.00	13.64	14.01	14.64	15.97
	8H	14.40	15.01	15.41	16.02	17.35	13.08	13.69	14.10	14.71	16.03
	12H	14.36	14.94	15.38	15.95	17.30	13.12	13.70	14.14	14.71	16.06
4H	2H	13.44	14.13	14.44	15.12	16.44	11.33	12.03	12.34	13.02	14.34
	3H	14.41	14.99	15.43	16.01	17.35	12.79	13.37	13.80	14.39	15.72
	4H	14.69	15.22	15.71	16.23	17.59	13.33	13.85	14.34	14.87	16.22
	6H	14.82	15.27	15.85	16.31	17.66	13.70	14.16	14.73	15.19	16.55
	8H	14.82	15.24	15.85	16.27	17.64	13.81	14.23	14.84	15.27	16.63
	12H	14.78	15.16	15.83	16.21	17.58	13.87	14.25	14.91	15.29	16.66
8H	4H	14.70	15.12	15.73	16.15	17.52	13.46	13.89	14.50	14.92	16.28
	6H	14.87	15.22	15.93	16.30	17.66	13.90	14.25	14.95	15.32	16.68
	8H	14.90	15.21	15.96	16.27	17.65	14.05	14.35	15.11	15.41	16.79
	12H	14.89	15.16	15.95	16.21	17.63	14.14	14.41	15.20	15.46	16.88
12H	4H	14.65	15.03	15.70	16.08	17.45	13.44	13.82	14.49	14.87	16.24
	6H	14.85	15.16	15.91	16.22	17.60	13.90	14.20	14.96	15.26	16.65
	8H	14.88	15.15	15.95	16.20	17.63	14.05	14.32	15.12	15.38	16.80