

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: P998150

Luminaire Tested: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998150
REPORT IS A COMBINATION OF REPORTS P983890 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

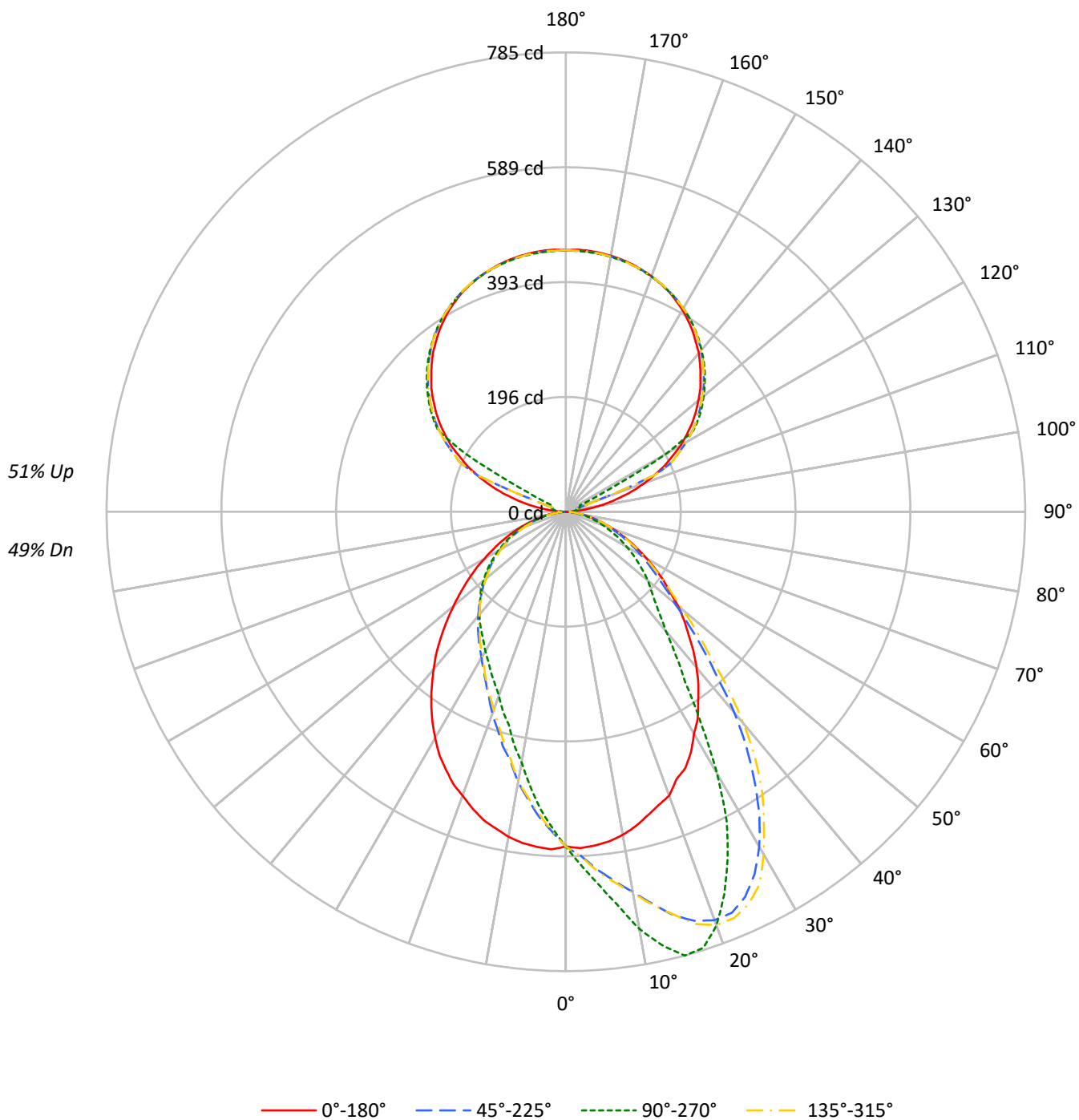
Lumens per Lamp: N/A
Luminaire Lumens: 2573.0 lumens
Efficiency: N/A
Efficacy: 115.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 22.3
Input Voltage (V):
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°	9054	9054	9054	9054
5°	9075	9654	9110	7680
10°	8971	10539	9027	6332
15°	8753	11116	8875	5334
20°	8617	10438	8617	4636
25°	8342	8967	8380	4146
30°	7890	7049	8041	3755
35°	7490	4874	7616	3435
40°	7029	3680	7110	3181
45°	6462	3025	6567	2906
50°	5971	2654	5983	2661
55°	5412	2262	5446	2394
60°	4816	1890	4882	2089
65°	4284	1537	4362	1784
70°	3750	1205	3846	1438
75°	3149	875	3273	1043
80°	2459	555	2635	620
85°	1610	280	1737	207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 9360 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	2.1
10°-20°	158.6	6.2
20°-30°	230.1	8.9
30°-40°	242.6	9.4
40°-50°	214.7	8.3
50°-60°	171.4	6.7
60°-70°	116.4	4.5
70°-80°	59.6	2.3
80°-90°	14.9	0.6
90°-100°	14.7	0.6
100°-110°	54.9	2.1
110°-120°	145.7	5.7
120°-130°	241.7	9.4
130°-140°	256.7	10.0
140°-150°	238.6	9.3
150°-160°	191.8	7.5
160°-170°	123.6	4.8
170°-180°	42.5	1.7
0°-30°	443.2	17.2
0°-40°	685.8	26.7
0°-60°	1071.9	41.7
0°-90°	1262.8	49.1
90°-120°	215.4	8.4
90°-150°	952.3	37.0
90°-180°	1310.0	50.9
0°-180°	2573.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	572	572	572	572	572	
5°	572	639	575	508	572	54
15°	538	785	545	377	538	152
25°	483	654	485	302	483	221
35°	394	356	401	251	394	247
45°	296	215	301	206	296	230
55°	203	151	204	160	203	181
65°	120	93	123	108	120	120
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	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°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	575.1	576.4	578.6	579.0	583.4	586.9	590.9	590.9	592.2	591.8	588.3
5°	572.4	576.4	582.1	586.9	594.9	598.4	603.7	607.6	611.1	613.8	613.3
7.5°	568.0	575.1	583.4	592.7	603.2	609.4	616.8	623.9	628.7	633.1	636.2
10°	560.6	572.4	583.9	596.2	609.8	618.2	627.0	636.2	643.7	652.0	659.9
12.5°	550.5	567.6	581.7	597.9	614.6	623.9	637.9	645.0	659.5	680.6	686.3
15°	537.7	561.0	574.2	594.9	616.8	624.3	643.7	655.1	685.0	698.2	714.0
17.5°	525.8	551.8	569.4	593.1	614.6	629.2	648.1	671.4	696.4	715.3	732.9
20°	516.2	541.2	562.3	588.7	616.0	634.4	654.2	682.4	709.6	729.0	742.6
22.5°	494.2	526.3	550.9	580.4	613.3	638.8	657.7	688.5	718.0	729.8	741.7
25°	483.2	510.9	539.5	572.9	611.6	641.9	658.2	692.5	718.4	722.8	725.4
27.5°	463.0	494.2	527.6	565.8	611.1	636.6	657.3	688.5	709.2	706.1	698.2
30°	437.9	476.2	513.1	554.4	605.0	632.7	652.0	680.6	691.1	675.3	661.2
32.5°	419.4	455.5	496.4	544.3	597.9	624.3	643.2	665.6	667.8	639.3	615.5
35°	394.4	434.4	480.5	531.1	586.1	609.8	627.4	641.0	630.5	590.5	562.3
37.5°	372.0	411.5	460.8	512.2	569.8	593.1	607.2	609.4	583.4	548.3	506.9
40°	347.3	388.2	439.7	493.7	551.8	572.0	580.8	574.2	536.8	495.9	448.0
42.5°	322.7	363.2	418.6	474.0	528.9	546.1	549.6	531.5	485.8	437.9	382.5
45°	295.9	338.1	393.5	449.3	502.5	512.2	512.6	486.7	432.6	382.5	331.1
47.5°	273.9	313.0	368.0	423.8	468.7	475.3	472.6	442.7	383.8	327.5	282.7
50°	249.7	287.1	341.6	396.6	434.8	436.6	430.0	387.3	329.7	278.3	242.7
52.5°	223.8	261.6	311.7	364.5	398.8	396.1	383.4	337.7	283.6	240.9	213.7
55°	203.1	236.5	283.6	335.0	359.2	351.7	337.7	291.1	248.4	212.4	188.6
57.5°	180.3	209.7	255.9	300.7	314.8	307.8	293.7	250.2	210.6	183.3	167.5
60°	158.7	185.5	226.0	263.4	274.3	266.9	250.6	211.5	182.9	160.0	148.2
62.5°	138.9	162.2	196.1	230.4	234.8	227.3	213.2	181.6	157.0	138.9	130.1
65°	120.5	142.4	169.7	195.6	199.6	191.7	177.2	154.3	133.7	122.2	113.9
67.5°	102.4	120.0	144.2	163.1	165.3	157.8	146.0	127.5	114.8	102.4	96.3
70°	86.6	99.8	118.7	134.1	135.0	127.9	121.8	105.1	95.4	86.6	81.8
72.5°	71.2	80.5	95.0	106.4	106.8	102.4	96.7	86.2	77.8	71.7	66.8
75°	56.3	64.2	73.0	83.1	82.7	79.1	74.7	68.1	61.1	57.2	55.0
77.5°	43.1	47.9	55.0	61.6	61.6	59.8	57.2	52.3	47.9	44.0	41.8
80°	30.8	33.9	39.6	41.8	42.6	42.2	40.0	36.5	34.7	31.7	30.8
82.5°	19.8	22.0	24.6	26.8	28.1	27.3	26.8	25.1	22.4	21.5	20.7
85°	11.4	12.3	13.6	14.9	15.4	14.9	15.8	14.5	13.2	13.2	12.8
87.5°	4.8	5.3	6.2	6.2	6.6	6.6	6.2	6.6	6.6	6.2	5.7
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°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	594.4	594.9	595.7	600.1	602.3	602.8	601.0	605.0	606.3	605.0	604.1
5°	622.6	625.2	630.5	636.2	635.7	636.2	638.8	641.5	642.3	638.8	640.1
7.5°	647.2	652.5	658.2	667.0	667.0	671.4	673.1	675.3	680.6	678.0	677.1
10°	675.3	682.4	692.9	707.0	707.4	711.8	716.2	723.2	725.4	723.7	724.6
12.5°	710.5	724.1	725.0	740.4	747.4	748.3	755.3	754.0	758.4	758.4	765.9
15°	725.9	747.0	758.9	773.8	778.2	772.9	778.6	784.8	785.2	785.2	784.8
17.5°	753.6	761.9	773.8	781.7	783.5	783.5	783.9	786.6	784.8	781.3	783.9
20°	759.3	762.8	767.2	766.3	767.2	762.8	758.4	754.0	754.5	752.3	758.9
22.5°	748.7	747.9	737.7	731.2	731.2	722.4	714.0	710.1	706.1	707.4	709.6
25°	722.4	708.7	696.4	686.7	684.6	670.5	659.0	655.5	648.9	654.2	655.1
27.5°	680.2	664.8	645.0	636.6	625.2	619.5	611.6	601.0	587.4	595.3	594.0
30°	634.9	612.0	595.7	575.5	557.5	556.2	541.2	523.6	516.6	516.6	520.6
32.5°	584.3	554.0	530.2	501.7	484.1	476.6	458.6	441.0	444.9	431.7	436.6
35°	525.4	485.4	455.5	427.8	414.6	405.8	382.5	372.8	362.3	356.1	367.6
37.5°	469.1	423.0	384.7	354.4	349.5	333.7	317.9	311.7	305.6	308.2	307.8
40°	400.5	359.6	325.3	301.6	293.3	285.8	275.2	267.8	263.8	266.0	266.4
42.5°	338.5	304.2	278.7	262.0	255.0	249.7	244.5	238.3	237.0	237.0	238.7
45°	290.6	262.5	245.3	231.7	227.7	223.8	219.8	217.2	216.3	214.6	215.9
47.5°	252.4	229.9	219.4	209.3	204.9	204.0	200.5	199.2	197.4	197.0	197.4
50°	220.3	206.2	196.5	190.8	187.7	186.4	184.7	182.0	181.1	183.3	182.5
52.5°	197.8	184.7	179.4	173.7	171.9	170.1	167.5	167.9	167.5	166.6	166.6
55°	175.4	167.1	161.8	157.4	157.0	155.2	153.0	152.1	151.7	150.8	152.1
57.5°	157.4	150.8	146.0	142.0	140.3	140.3	138.1	136.3	136.3	135.9	136.3
60°	139.4	132.8	129.7	125.7	124.4	124.0	122.7	121.8	120.5	120.5	120.5
62.5°	122.7	117.4	113.9	110.4	110.8	108.6	106.8	106.0	106.0	106.4	106.4
65°	106.8	103.3	98.9	95.8	95.0	94.5	93.6	93.2	91.9	92.8	92.8
67.5°	92.3	87.5	84.9	83.5	82.2	81.8	80.9	80.0	79.6	79.1	80.0
70°	77.8	73.9	71.7	70.8	69.5	69.0	68.6	67.3	67.7	68.1	68.6
72.5°	64.6	61.1	60.7	58.0	58.0	58.0	56.3	57.2	56.7	55.8	56.7
75°	51.0	49.2	48.4	47.0	47.5	47.0	46.6	45.3	45.3	45.7	46.2
77.5°	40.4	38.7	38.3	36.9	36.1	36.9	36.1	35.6	35.6	36.1	36.1
80°	29.9	29.0	27.7	27.7	27.7	27.3	27.3	27.3	26.8	26.4	26.8
82.5°	19.8	19.8	19.3	18.9	19.3	18.5	18.9	18.9	18.9	18.9	18.9
85°	12.8	12.3	12.3	11.9	11.9	11.9	12.3	11.4	11.4	11.9	11.9
87.5°	5.7	5.7	5.7	6.2	5.7	5.7	5.7	6.2	5.7	5.7	5.7
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: P998150

CATALOG NUMBER: SA2XXDIP-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: P998150

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	606.3	603.2	600.6	601.0	603.2	601.5	597.1	591.3	589.1	586.5	589.1
5°	642.8	640.1	634.9	635.3	634.0	632.2	625.2	616.4	616.4	609.4	608.5
7.5°	678.8	674.9	671.4	670.5	665.6	662.1	656.0	643.7	638.8	630.5	625.6
10°	719.3	716.2	712.2	707.4	704.8	698.6	688.5	670.5	661.7	650.3	641.9
12.5°	760.2	759.7	750.9	741.3	740.8	731.2	724.1	699.9	688.1	672.7	652.9
15°	786.1	783.9	779.1	774.2	775.6	765.0	749.2	720.6	712.7	694.2	673.1
17.5°	785.7	785.7	784.4	783.5	782.2	779.1	770.3	751.4	738.6	715.3	695.5
20°	760.6	766.3	767.6	767.2	771.6	773.8	773.4	761.5	751.4	730.7	710.5
22.5°	710.5	723.7	729.4	732.9	742.1	747.0	758.4	754.0	751.4	736.0	718.8
25°	663.9	668.3	685.4	686.3	699.1	710.9	722.4	729.8	739.5	733.8	719.3
27.5°	603.7	613.8	626.1	635.3	637.9	662.1	681.0	695.1	717.1	718.8	714.0
30°	535.5	540.3	560.6	572.9	586.9	604.5	631.8	656.0	675.8	693.8	699.9
32.5°	452.4	472.2	484.1	499.0	511.3	542.5	576.0	607.2	630.0	660.4	673.6
35°	376.3	391.7	412.0	418.1	440.5	466.9	510.4	550.5	585.2	616.0	642.8
37.5°	313.5	325.8	347.3	357.0	370.2	404.0	440.5	490.2	532.0	569.8	603.2
40°	270.4	279.6	295.9	299.0	310.0	340.7	370.2	416.8	472.2	523.2	559.7
42.5°	240.9	245.3	256.3	260.3	267.3	288.0	314.4	358.3	409.8	462.5	514.0
45°	219.8	222.9	229.5	233.0	241.8	251.0	272.6	307.8	348.2	401.4	456.8
47.5°	200.9	204.9	207.5	209.7	214.6	224.7	238.7	264.7	303.4	352.2	405.8
50°	185.1	186.4	191.3	191.7	194.8	201.4	214.6	230.4	261.2	300.7	352.6
52.5°	169.3	170.6	173.7	176.7	178.1	183.3	192.1	205.3	228.2	259.4	305.6
55°	153.4	155.2	158.3	160.5	161.8	166.2	171.5	184.2	202.2	224.2	262.0
57.5°	137.6	141.6	142.4	143.8	146.0	150.8	155.6	163.1	177.2	197.4	225.1
60°	122.7	124.0	127.1	128.4	130.6	133.2	139.4	145.1	155.2	171.0	196.1
62.5°	107.3	110.4	111.7	113.0	114.8	117.8	121.8	127.9	136.7	149.5	169.3
65°	94.1	94.5	97.2	98.9	100.7	102.9	106.8	112.6	117.8	129.7	144.2
67.5°	81.3	82.2	83.1	84.9	87.1	89.3	92.8	95.8	102.4	110.4	121.8
70°	69.0	69.0	71.2	72.5	72.1	74.7	77.4	80.9	85.7	93.2	102.4
72.5°	58.0	57.6	59.4	59.8	60.7	62.4	64.2	67.7	70.3	76.1	83.1
75°	46.2	47.0	47.9	47.9	49.2	50.6	52.3	54.1	57.2	60.7	65.9
77.5°	36.5	36.5	37.4	37.8	39.1	38.7	40.4	42.2	44.4	47.5	51.4
80°	26.8	27.7	27.7	27.7	28.1	28.6	30.3	31.7	33.0	35.2	36.9
82.5°	18.9	18.9	19.8	19.8	19.8	20.7	20.7	21.1	22.0	23.3	24.6
85°	11.9	11.9	11.9	12.3	11.9	12.3	13.2	12.8	13.2	14.1	14.1
87.5°	5.7	5.7	5.7	5.7	5.7	6.2	5.7	6.2	6.6	6.6	6.6
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: P998150

CATALOG NUMBER: SA2XXDIP-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: P998150

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	586.9	584.7	583.4	584.3	581.7	575.1	575.1	577.3	574.6	572.0	568.0
5°	603.2	598.8	596.2	595.7	589.6	579.0	576.8	574.6	568.9	562.8	556.2
7.5°	619.0	611.1	606.7	603.7	594.9	581.2	575.5	570.7	561.4	552.2	543.9
10°	632.2	620.8	615.5	610.7	599.3	582.1	572.9	564.1	552.2	540.3	529.8
12.5°	642.8	629.6	623.0	616.0	601.9	579.5	568.0	554.0	542.1	526.3	515.7
15°	660.4	633.1	627.0	620.4	605.9	575.1	561.0	545.2	528.9	507.8	496.4
17.5°	674.4	637.9	637.5	623.4	604.5	573.3	551.8	531.1	513.5	492.4	474.4
20°	682.8	645.4	638.4	623.9	600.1	561.4	539.0	516.2	497.3	471.8	453.7
22.5°	689.8	656.0	637.5	619.9	590.9	557.5	524.5	503.0	477.0	449.3	432.2
25°	692.5	658.2	638.8	618.6	584.3	546.1	508.7	485.4	456.4	431.3	408.0
27.5°	692.9	657.7	634.0	612.9	575.1	531.1	492.9	468.2	436.1	407.1	383.8
30°	688.5	652.9	631.4	608.5	566.3	517.5	473.5	446.3	412.0	382.9	358.8
32.5°	675.3	643.2	625.6	600.6	554.9	498.6	455.0	424.7	388.7	360.1	336.8
35°	653.3	631.4	612.0	588.7	539.9	481.0	436.6	401.0	364.5	337.2	315.2
37.5°	626.1	614.2	596.2	573.3	522.8	465.2	415.9	376.3	339.9	313.5	291.9
40°	589.1	592.2	574.6	554.0	502.5	443.6	389.1	351.3	317.0	292.4	271.3
42.5°	549.1	561.9	551.8	532.0	480.1	419.9	369.3	327.5	294.1	268.6	251.0
45°	506.0	528.0	521.9	507.4	456.8	394.8	341.2	300.7	271.3	246.6	231.3
47.5°	459.0	490.2	490.2	479.7	430.9	369.8	317.0	275.7	246.6	229.1	214.1
50°	411.1	446.3	452.0	444.9	401.8	341.2	287.5	250.2	225.1	208.0	197.0
52.5°	361.0	401.8	412.4	408.9	371.1	313.9	263.4	226.9	204.0	189.1	179.4
55°	313.0	360.5	372.0	373.3	338.1	284.0	236.5	204.4	182.5	172.3	164.0
57.5°	267.8	313.5	326.2	328.4	304.7	256.8	211.5	183.3	163.6	155.2	148.6
60°	229.1	267.3	284.0	288.9	268.2	225.1	188.2	160.9	146.0	138.1	131.9
62.5°	197.4	228.2	245.8	247.1	237.9	197.4	164.0	141.1	128.4	121.3	118.3
65°	166.6	194.3	204.9	210.2	202.7	171.0	141.6	122.7	112.6	106.4	103.3
67.5°	142.0	159.6	168.4	175.4	167.9	144.2	120.5	105.1	97.6	91.4	89.7
70°	116.5	131.0	137.6	144.6	138.1	120.0	102.9	88.8	82.2	77.4	75.2
72.5°	93.2	104.6	110.8	115.2	111.2	96.3	82.2	72.5	67.7	64.2	62.9
75°	73.9	81.8	85.3	88.4	86.6	75.2	66.4	58.5	54.1	51.0	50.1
77.5°	56.3	62.0	65.9	66.8	64.6	57.2	49.7	44.8	41.3	39.6	38.7
80°	40.0	43.5	45.7	47.0	44.8	41.8	36.5	33.0	29.9	27.7	27.3
82.5°	26.8	28.6	30.3	29.9	29.0	26.4	23.3	21.5	20.2	18.5	18.5
85°	15.4	15.8	16.7	17.1	16.7	14.9	13.2	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	4.0
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: P998150

CATALOG NUMBER: SA2XXDIP-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: P998150

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	565.8	568.0	567.6	563.2	558.4	554.4	546.9	547.8	545.2	545.6	548.3
5°	551.8	551.8	550.0	543.9	535.9	531.5	523.2	521.0	515.7	515.3	514.8
7.5°	536.8	534.6	532.4	523.6	514.0	506.9	495.5	492.9	487.6	484.1	482.3
10°	519.2	516.2	511.8	501.7	489.8	481.0	469.1	465.6	455.5	451.1	448.5
12.5°	499.9	498.1	491.1	482.7	463.4	453.7	436.6	440.1	430.0	421.2	419.9
15°	480.5	474.0	470.0	456.4	433.1	428.7	415.0	408.0	398.8	391.7	391.7
17.5°	461.6	451.5	442.7	428.2	411.1	398.8	388.7	385.1	373.7	366.7	365.4
20°	436.6	425.2	423.0	402.3	390.4	376.8	367.1	358.3	350.0	346.9	344.7
22.5°	412.8	399.7	396.1	378.5	366.7	353.0	343.4	337.2	331.1	328.9	324.9
25°	387.3	379.4	374.2	355.2	342.1	329.3	322.7	318.3	312.6	312.2	309.5
27.5°	362.7	355.2	350.0	331.9	322.3	310.4	305.1	300.3	297.2	295.9	294.6
30°	341.6	333.3	327.1	313.9	302.0	292.4	288.0	284.9	283.1	280.9	280.5
32.5°	318.3	313.5	305.1	295.0	285.8	276.5	273.9	271.7	269.1	268.2	267.8
35°	298.5	291.9	286.7	275.2	271.3	263.4	260.3	258.5	255.0	254.1	253.2
37.5°	279.2	273.0	267.3	260.3	252.8	248.4	246.6	244.0	242.3	242.7	241.8
40°	259.8	255.0	250.6	243.1	238.7	236.5	233.0	230.4	229.5	229.9	229.5
42.5°	240.9	236.5	233.9	228.2	223.8	221.6	219.4	216.8	218.1	218.1	219.4
45°	223.8	219.8	218.1	213.7	211.0	207.5	205.3	204.9	206.6	206.2	206.2
47.5°	206.2	204.9	202.7	198.7	195.2	193.0	192.6	192.6	194.3	195.2	194.8
50°	192.6	189.9	187.3	184.2	181.6	180.7	179.4	180.3	182.0	182.0	182.9
52.5°	175.4	173.7	172.8	170.1	168.4	168.4	168.4	168.8	170.1	171.5	171.0
55°	160.5	159.2	158.3	157.0	154.8	155.2	154.8	155.6	157.0	158.3	159.2
57.5°	144.6	144.2	143.3	141.1	141.1	140.7	142.0	142.4	144.6	145.5	146.8
60°	130.6	129.3	129.3	127.5	127.5	127.5	128.8	130.1	131.9	132.3	133.2
62.5°	115.6	115.6	115.2	113.9	113.9	115.2	115.6	117.4	118.3	118.3	119.6
65°	101.6	101.1	100.7	101.1	101.6	101.6	102.9	103.8	104.6	105.1	105.5
67.5°	87.5	87.1	87.9	87.5	88.4	90.1	89.7	91.0	92.3	92.3	92.8
70°	74.3	75.2	74.7	75.6	75.2	76.1	77.4	77.8	77.8	78.3	79.6
72.5°	62.0	62.0	62.0	61.6	62.0	62.9	63.8	64.2	65.1	65.5	66.8
75°	50.1	50.1	49.2	50.1	50.1	51.0	51.9	51.9	51.9	52.8	54.1
77.5°	37.8	38.3	37.8	38.7	38.7	39.1	40.0	39.6	40.4	40.9	41.3
80°	27.7	27.3	27.3	27.3	27.7	27.7	28.6	29.0	29.0	30.3	29.5
82.5°	17.6	18.0	17.6	18.0	18.0	18.5	18.0	18.5	18.9	19.8	19.3
85°	10.1	9.7	9.7	10.1	9.7	9.7	10.1	9.7	10.1	9.7	10.1
87.5°	4.0	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	4.8	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: P998150

CATALOG NUMBER: SA2XXDIP-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: P998150

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	545.2	546.5	543.4	542.5	543.4	540.3	541.2	542.1	542.1	543.4	544.3
5°	513.5	511.8	508.7	507.8	506.9	508.2	507.4	508.7	509.1	512.2	512.6
7.5°	482.3	479.7	477.0	474.4	473.5	471.3	473.5	473.5	476.6	475.7	477.9
10°	445.4	444.9	441.4	440.1	438.3	434.8	439.7	438.3	440.5	444.5	445.4
12.5°	418.1	413.3	415.5	409.3	411.5	408.0	408.4	408.4	412.0	412.4	411.5
15°	392.2	388.2	382.5	379.9	378.5	376.8	382.5	382.9	380.3	386.5	384.3
17.5°	365.8	365.8	360.5	359.2	355.7	357.4	356.6	357.0	356.1	360.5	362.7
20°	342.9	340.7	339.0	339.4	335.0	334.1	333.3	334.1	337.2	340.3	341.2
22.5°	324.5	323.1	318.8	319.6	316.1	317.4	316.6	318.8	319.2	319.2	322.3
25°	306.9	305.1	305.6	303.8	302.5	302.5	301.2	302.5	304.2	305.1	305.6
27.5°	293.7	292.4	290.2	288.9	289.7	287.5	289.3	290.6	290.6	289.7	290.6
30°	277.9	278.7	278.7	274.3	276.1	275.2	276.5	277.4	277.4	277.9	277.0
32.5°	267.3	264.7	264.2	263.8	263.8	262.0	262.0	263.4	263.8	264.2	265.6
35°	253.2	253.2	251.0	252.4	250.6	251.0	250.6	251.0	251.9	250.6	251.9
37.5°	240.5	240.9	240.1	240.9	241.4	240.5	239.6	241.4	240.5	240.5	239.6
40°	229.5	229.1	229.5	229.5	229.5	229.9	229.1	229.1	229.1	228.2	227.3
42.5°	220.3	217.6	218.5	219.0	217.6	217.6	218.1	217.6	219.0	216.3	216.3
45°	207.1	206.2	206.6	206.6	207.5	206.2	207.1	207.5	206.2	205.8	204.9
47.5°	195.2	196.1	195.2	196.1	196.1	197.0	195.2	195.6	196.1	194.3	193.0
50°	183.3	183.3	184.7	184.2	184.7	183.8	183.8	183.3	183.8	182.9	181.6
52.5°	172.3	171.0	173.2	172.8	172.3	171.9	171.5	171.9	171.0	170.1	170.1
55°	158.7	158.7	160.0	160.5	160.5	159.6	158.7	159.2	158.7	158.3	157.8
57.5°	147.7	146.0	146.8	147.3	147.3	146.0	146.8	146.0	146.0	146.4	145.1
60°	133.7	133.7	132.8	134.1	134.1	133.2	133.2	133.7	132.8	132.3	131.9
62.5°	118.7	119.1	120.5	120.9	121.3	120.5	119.6	120.0	120.0	118.7	119.1
65°	106.0	106.8	108.6	108.2	107.3	107.7	106.8	107.3	106.0	106.4	105.1
67.5°	93.6	93.2	93.6	93.6	94.5	94.1	93.2	93.2	92.8	94.1	92.8
70°	80.5	80.5	80.5	80.5	80.9	81.3	80.5	79.6	80.0	79.1	78.7
72.5°	66.8	67.3	66.8	67.7	66.4	67.3	67.3	66.8	66.4	66.4	66.4
75°	54.1	55.0	53.6	54.1	53.6	54.5	54.1	54.1	53.2	52.8	53.2
77.5°	41.3	41.8	40.9	41.3	40.9	41.3	41.3	40.9	40.9	40.9	40.9
80°	29.5	29.9	29.5	29.0	28.6	29.5	28.6	29.0	29.5	29.0	29.9
82.5°	18.9	18.9	18.5	18.9	18.0	18.0	18.5	18.5	18.0	18.9	18.0
85°	9.2	9.2	10.1	9.2	8.8	8.8	8.8	9.2	8.8	9.7	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°	17.5	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: P998150

CATALOG NUMBER: SA2XXDIP-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: P998150

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
2.5°	543.0	546.5	545.2	540.3	546.1	546.1	550.0	550.0	554.9	556.6	559.2
5°	512.2	514.8	517.0	514.8	518.8	525.0	528.5	531.5	538.1	540.8	544.7
7.5°	479.2	484.1	486.3	486.3	492.9	499.9	506.9	511.3	520.6	524.1	528.0
10°	447.1	452.8	457.2	456.8	467.8	472.2	481.0	491.1	500.3	505.6	511.3
12.5°	413.3	416.4	422.5	431.3	433.9	441.9	452.0	464.7	481.4	486.3	494.6
15°	385.1	393.5	398.3	402.3	408.4	415.9	426.9	439.2	455.9	466.5	475.3
17.5°	361.4	372.4	375.5	374.6	382.5	393.9	406.7	415.9	430.9	443.6	452.0
20°	342.1	346.5	351.7	353.9	360.1	372.4	384.7	395.3	407.6	417.7	427.3
22.5°	322.7	326.2	330.6	334.6	339.4	346.5	358.3	371.5	383.4	393.1	404.0
25°	306.9	309.1	313.0	316.1	321.4	326.2	334.6	349.1	363.2	368.9	378.5
27.5°	291.5	293.3	295.9	299.4	302.0	306.9	314.4	326.2	340.7	346.5	359.6
30°	277.9	279.2	281.8	283.6	284.9	290.6	296.3	305.6	316.6	324.5	334.1
32.5°	265.1	266.4	269.1	269.5	271.3	274.3	279.6	288.0	297.6	304.2	312.6
35°	251.0	251.9	254.6	255.4	256.8	259.4	263.4	269.5	278.3	283.1	290.6
37.5°	240.1	239.6	241.4	242.7	244.5	245.8	247.1	253.2	259.8	264.2	270.0
40°	228.2	227.3	227.7	229.5	230.4	232.1	232.1	238.3	242.7	246.2	250.6
42.5°	216.3	215.9	215.0	215.9	216.8	217.2	217.6	222.0	226.4	229.5	234.3
45°	204.4	204.0	203.1	203.6	203.6	204.4	205.8	207.5	210.6	213.2	215.9
47.5°	193.5	192.6	191.3	190.8	191.7	191.7	191.7	193.5	196.5	197.4	200.0
50°	182.0	180.7	178.9	178.1	178.1	177.6	178.5	178.9	181.6	182.5	184.7
52.5°	169.7	168.8	167.1	165.3	165.8	164.9	165.3	165.8	166.6	167.9	169.3
55°	157.4	155.6	154.3	153.9	152.6	152.6	151.2	153.0	152.6	153.0	154.8
57.5°	145.5	143.8	141.6	140.7	139.4	138.9	138.1	137.6	138.1	139.4	140.7
60°	131.5	130.6	129.3	127.9	127.1	125.7	124.9	124.9	124.4	124.4	124.9
62.5°	117.8	117.4	115.6	115.2	114.3	113.4	112.1	111.2	111.2	112.1	112.6
65°	104.6	104.2	102.9	102.4	100.2	99.4	98.9	98.5	97.6	97.6	97.6
67.5°	92.3	91.0	91.0	88.8	87.1	86.2	85.3	84.9	84.9	84.9	85.3
70°	78.7	78.7	77.4	76.1	74.3	74.7	73.4	72.1	72.1	71.2	71.7
72.5°	65.5	65.1	63.8	63.3	62.0	60.7	59.8	60.7	59.4	58.9	59.4
75°	52.8	52.3	51.4	50.6	51.0	49.7	48.4	47.9	47.9	47.0	47.0
77.5°	40.4	41.3	39.6	39.1	38.3	37.4	36.9	36.5	36.5	36.5	37.4
80°	28.1	28.6	28.6	27.7	28.1	26.8	26.8	26.8	25.5	25.9	26.4
82.5°	18.0	18.0	17.6	18.0	17.6	17.6	17.1	17.1	16.7	16.7	17.1
85°	10.1	9.7	9.2	10.1	9.7	9.7	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	7.6	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: P998150

CATALOG NUMBER: SA2XXDIP-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: P998150

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	572.0	572.0	572.0	572.0
2.5°	561.4	561.4	568.0	575.1
5°	549.1	552.2	562.8	572.4
7.5°	537.3	542.5	555.7	568.0
10°	522.8	529.8	546.1	560.6
12.5°	508.7	515.3	534.2	550.5
15°	488.9	497.3	517.5	537.7
17.5°	469.1	477.5	502.1	525.8
20°	445.8	456.8	484.5	516.2
22.5°	424.3	437.9	468.7	494.2
25°	400.5	421.6	450.2	483.2
27.5°	379.4	400.5	429.5	463.0
30°	355.7	377.2	407.1	437.9
32.5°	332.8	352.6	381.6	419.4
35°	309.1	328.0	356.1	394.4
37.5°	287.5	306.0	336.8	372.0
40°	266.4	285.8	312.2	347.3
42.5°	246.6	263.8	287.5	322.7
45°	228.6	240.9	262.9	295.9
47.5°	209.7	220.7	240.9	273.9
50°	192.1	201.4	219.0	249.7
52.5°	175.0	182.9	199.2	223.8
55°	159.6	167.1	178.9	203.1
57.5°	143.8	149.5	160.9	180.3
60°	128.4	133.7	142.9	158.7
62.5°	113.0	117.4	126.2	138.9
65°	99.4	102.9	109.5	120.5
67.5°	86.2	88.4	93.6	102.4
70°	73.4	75.2	79.6	86.6
72.5°	59.8	61.6	66.4	71.2
75°	48.4	48.8	52.3	56.3
77.5°	37.8	37.4	40.0	43.1
80°	25.9	27.3	29.5	30.8
82.5°	17.6	18.0	18.9	19.8
85°	9.7	10.1	10.1	11.4
87.5°	4.0	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	31.9	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: P998150

CATALOG NUMBER: SA2XXDIP-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

TEST NUMBER: P998150

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_4000K

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	13.41	14.23	14.38	15.21	16.50	10.91	11.73	11.88	12.71	13.99
	3H	14.22	14.95	15.20	15.95	17.25	12.25	12.98	13.23	13.97	15.28
	4H	14.39	15.08	15.38	16.08	17.39	12.71	13.40	13.70	14.40	15.71
	6H	14.43	15.07	15.44	16.07	17.40	13.01	13.65	14.02	14.65	15.98
	8H	14.41	15.02	15.42	16.03	17.36	13.10	13.70	14.11	14.72	16.04
	12H	14.37	14.95	15.39	15.96	17.31	13.14	13.71	14.15	14.72	16.07
4H	2H	13.45	14.14	14.45	15.14	16.45	11.35	12.04	12.35	13.03	14.35
	3H	14.43	15.00	15.44	16.03	17.36	12.80	13.38	13.81	14.40	15.73
	4H	14.70	15.23	15.72	16.24	17.60	13.34	13.86	14.36	14.88	16.23
	6H	14.83	15.28	15.86	16.32	17.67	13.71	14.17	14.74	15.21	16.56
	8H	14.83	15.25	15.86	16.28	17.65	13.82	14.25	14.85	15.28	16.64
	12H	14.79	15.17	15.84	16.22	17.59	13.88	14.26	14.93	15.31	16.68
8H	4H	14.71	15.13	15.74	16.16	17.53	13.48	13.90	14.51	14.93	16.30
	6H	14.88	15.23	15.94	16.31	17.67	13.91	14.26	14.96	15.33	16.69
	8H	14.91	15.22	15.98	16.28	17.66	14.06	14.37	15.12	15.42	16.81
	12H	14.90	15.17	15.96	16.22	17.64	14.15	14.42	15.22	15.47	16.90
12H	4H	14.66	15.04	15.71	16.09	17.46	13.45	13.83	14.50	14.88	16.25
	6H	14.86	15.17	15.92	16.23	17.61	13.91	14.22	14.97	15.27	16.66
	8H	14.89	15.16	15.96	16.22	17.64	14.06	14.33	15.13	15.39	16.81