

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: P998148

Luminaire Tested: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998148
REPORT IS A COMBINATION OF REPORTS P983888 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_3000K
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

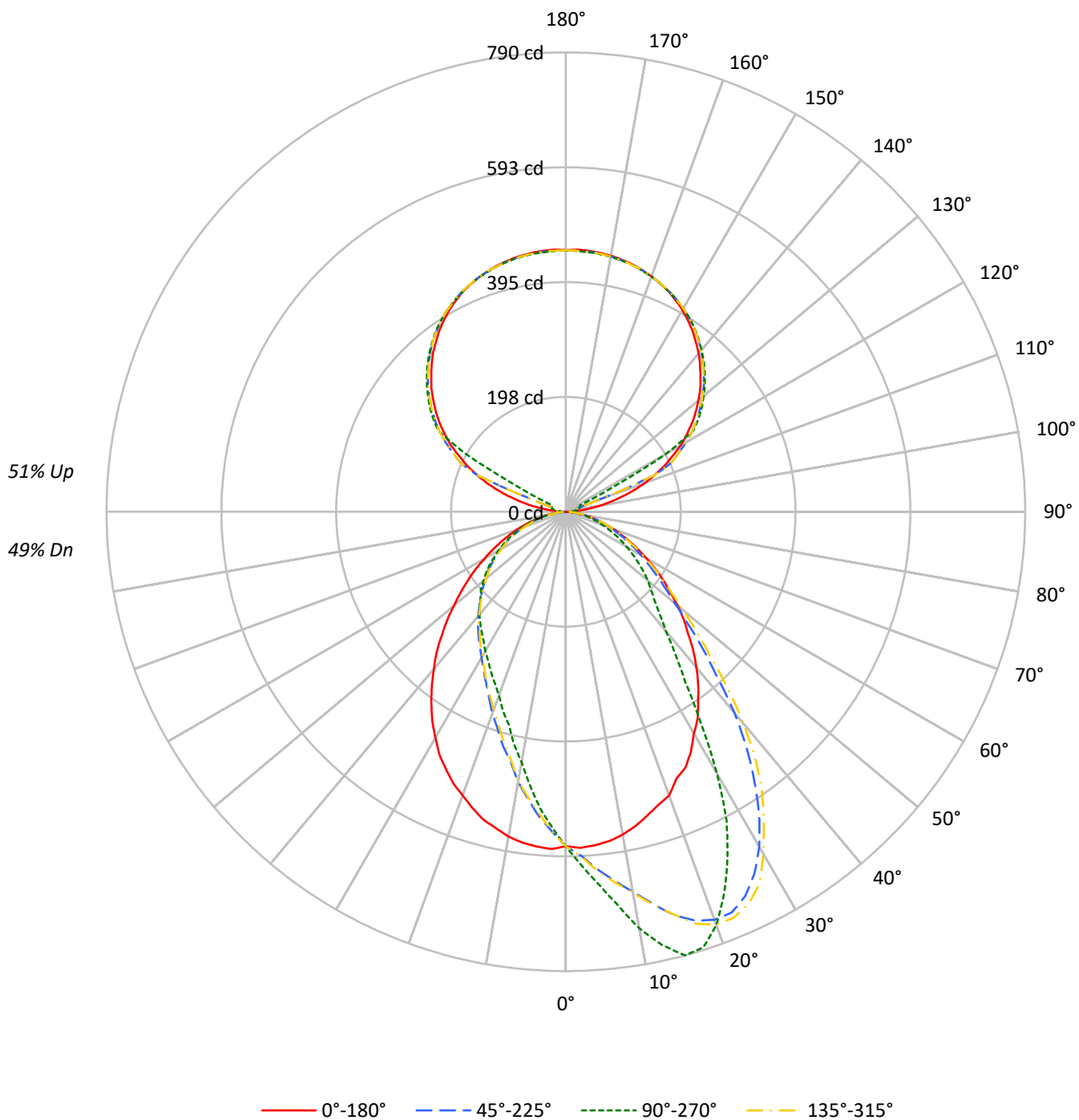
Lumens per Lamp: N/A
Luminaire Lumens: 2588.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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°	9105	9105	9105	9105
5°	9126	9708	9161	7724
10°	9021	10597	9077	6367
15°	8802	11178	8924	5364
20°	8664	10495	8664	4662
25°	8389	9016	8427	4169
30°	7933	7088	8085	3777
35°	7532	4901	7657	3455
40°	7070	3701	7148	3199
45°	6497	3040	6604	2922
50°	6005	2670	6017	2675
55°	5441	2274	5478	2407
60°	4843	1899	4910	2101
65°	4305	1545	4383	1794
70°	3772	1212	3867	1447
75°	3166	880	3289	1049
80°	2467	557	2651	622
85°	1624	280	1752	207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 9412 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	2.1
10°-20°	159.5	6.2
20°-30°	231.4	8.9
30°-40°	244.0	9.4
40°-50°	215.9	8.3
50°-60°	172.4	6.7
60°-70°	117.1	4.5
70°-80°	59.9	2.3
80°-90°	14.9	0.6
90°-100°	14.8	0.6
100°-110°	55.3	2.1
110°-120°	146.6	5.7
120°-130°	243.1	9.4
130°-140°	258.3	10.0
140°-150°	240.0	9.3
150°-160°	193.0	7.5
160°-170°	124.3	4.8
170°-180°	42.8	1.7
0°-30°	445.7	17.2
0°-40°	689.6	26.6
0°-60°	1077.9	41.6
0°-90°	1269.8	49.1
90°-120°	216.7	8.4
90°-150°	958.1	37.0
90°-180°	1318.0	50.9
0°-180°	2588.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	575	575	575	575	575	
5°	576	642	578	511	576	55
15°	541	790	548	379	541	153
25°	486	658	488	304	486	222
35°	397	358	403	252	397	248
45°	298	216	302	207	298	231
55°	204	152	206	160	204	182
65°	121	93	123	108	121	120
75°	57	46	59	55	57	61
85°	12	12	12	9	12	13
90°	0	9	0	9	0	2
95°	21	14	21	14	21	25
105°	99	25	99	25	99	106
115°	187	27	187	27	187	184
125°	264	278	264	278	264	236
135°	327	338	327	338	327	253
145°	380	386	380	386	380	237
155°	418	418	418	418	418	193
165°	440	440	440	440	440	124
175°	451	448	451	448	451	43
180°	450	450	450	450	450	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	578.3	579.6	581.8	582.2	586.7	590.2	594.2	594.2	595.5	595.1	591.5
5°	575.6	579.6	585.3	590.2	598.2	601.7	607.0	611.0	614.5	617.2	616.7
7.5°	571.2	578.3	586.7	595.9	606.6	612.7	620.3	627.3	632.2	636.6	639.7
10°	563.7	575.6	587.1	599.5	613.2	621.6	630.4	639.7	647.2	655.6	663.6
12.5°	553.5	570.7	584.9	601.3	618.1	627.3	641.5	648.6	663.1	684.4	690.1
15°	540.7	564.1	577.4	598.2	620.3	627.8	647.2	658.7	688.8	702.1	718.0
17.5°	528.7	554.8	572.5	596.4	618.1	632.6	651.7	675.1	700.3	719.3	737.0
20°	519.0	544.2	565.4	592.0	619.4	637.9	657.8	686.1	713.5	733.0	746.7
22.5°	496.9	529.2	553.9	583.6	616.7	642.4	661.4	692.3	721.9	733.9	745.8
25°	485.9	513.7	542.5	576.1	615.0	645.5	661.8	696.3	722.4	726.8	729.5
27.5°	465.5	496.9	530.5	569.0	614.5	640.2	660.9	692.3	713.1	710.0	702.1
30°	440.3	478.8	515.9	557.5	608.3	636.2	655.6	684.4	695.0	679.1	664.9
32.5°	421.8	458.0	499.1	547.3	601.3	627.8	646.8	669.3	671.5	642.8	618.9
35°	396.6	436.8	483.2	534.1	589.3	613.2	630.9	644.6	634.0	593.7	565.4
37.5°	374.0	413.8	463.3	515.0	573.0	596.4	610.5	612.7	586.7	551.3	509.7
40°	349.3	390.4	442.1	496.5	554.8	575.2	584.0	577.4	539.8	498.7	450.5
42.5°	324.5	365.2	420.9	476.6	531.8	549.1	552.6	534.5	488.5	440.3	384.6
45°	297.5	340.0	395.7	451.8	505.3	515.0	515.5	489.4	435.0	384.6	332.9
47.5°	275.4	314.8	370.0	426.2	471.3	477.9	475.3	445.2	386.0	329.4	284.3
50°	251.1	288.7	343.5	398.8	437.2	439.0	432.4	389.5	331.6	279.8	244.0
52.5°	225.0	263.0	313.4	366.5	401.0	398.3	385.5	339.5	285.2	242.3	214.9
55°	204.2	237.8	285.2	336.9	361.2	353.7	339.5	292.7	249.8	213.5	189.7
57.5°	181.3	210.9	257.3	302.4	316.5	309.5	295.3	251.6	211.8	184.4	168.4
60°	159.6	186.6	227.2	264.8	275.9	268.4	252.0	212.6	183.9	160.9	149.0
62.5°	139.7	163.1	197.2	231.7	236.1	228.6	214.4	182.6	157.8	139.7	130.9
65°	121.1	143.2	170.6	196.7	200.7	192.8	178.2	155.2	134.4	122.9	114.5
67.5°	103.0	120.7	145.0	164.0	166.2	158.7	146.8	128.2	115.4	103.0	96.8
70°	87.1	100.4	119.4	134.8	135.7	128.7	122.5	105.7	95.9	87.1	82.2
72.5°	71.6	80.9	95.5	107.0	107.4	103.0	97.3	86.7	78.3	72.1	67.2
75°	56.6	64.5	73.4	83.6	83.1	79.6	75.2	68.5	61.5	57.5	55.3
77.5°	43.3	48.2	55.3	61.9	61.9	60.1	57.5	52.6	48.2	44.2	42.0
80°	30.9	34.0	39.8	42.0	42.9	42.4	40.2	36.7	34.9	31.8	30.9
82.5°	19.9	22.1	24.8	27.0	28.3	27.4	27.0	25.2	22.5	21.7	20.8
85°	11.5	12.4	13.7	15.0	15.5	15.0	15.9	14.6	13.3	13.3	12.8
87.5°	4.9	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°	21.1	18.7	16.3	14.0	11.6	10.4	10.7	11.2	11.7	12.2	12.7
97.5°	38.1	32.2	26.2	20.3	14.4	11.4	12.0	13.1	14.3	15.4	16.6
100°	57.6	47.7	37.8	27.9	18.0	13.0	13.6	14.8	16.1	17.3	18.5
102.5°	79.1	78.9	78.8	78.6	78.5	78.4	71.8	58.7	45.5	32.4	19.2
105°	98.9	101.1	103.3	105.4	107.6	108.7	98.8	79.1	59.3	39.6	19.8
107.5°	122.0	123.8	125.6	127.4	129.2	130.1	117.9	93.6	69.2	44.9	20.5
110°	144.1	145.6	147.2	148.7	150.2	151.0	140.5	119.6	98.7	77.8	56.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	165.0	166.3	167.6	168.9	170.2	170.8	170.2	169.0	167.7	166.5	165.3
115°	187.1	188.3	189.5	190.8	192.0	192.6	193.5	195.3	197.1	198.9	200.7
117.5°	206.3	207.7	209.2	210.6	212.1	212.8	213.4	214.6	215.9	217.1	218.3
120°	227.8	228.9	229.9	231.0	232.1	232.6	233.3	234.6	235.9	237.2	238.5
122.5°	246.0	247.2	248.3	249.5	250.6	251.2	251.9	253.4	254.8	256.3	257.7
125°	264.5	265.4	266.4	267.3	268.2	268.7	269.4	270.8	272.1	273.5	274.9
127.5°	281.4	282.4	283.4	284.5	285.5	286.0	286.5	287.6	288.7	289.8	290.9
130°	297.4	298.6	299.7	300.9	302.0	302.6	303.0	303.8	304.6	305.4	306.2
132.5°	313.6	314.6	315.5	316.5	317.4	317.9	318.3	319.1	319.9	320.7	321.5
135°	327.3	328.5	329.6	330.8	331.9	332.5	332.8	333.5	334.1	334.8	335.4
137.5°	341.6	342.5	343.3	344.2	345.1	345.5	345.9	346.6	347.3	348.1	348.8
140°	355.6	356.2	356.8	357.3	357.9	358.2	358.6	359.4	360.2	361.0	361.8
142.5°	367.3	367.8	368.3	368.8	369.3	369.6	370.1	371.0	371.9	372.9	373.8
145°	379.7	379.6	379.6	379.5	379.4	379.4	380.0	381.2	382.5	383.7	384.9
147.5°	390.4	390.2	390.0	389.8	389.6	389.5	390.1	391.3	392.6	393.8	395.0
150°	400.8	400.3	399.8	399.3	398.8	398.6	399.2	400.3	401.5	402.6	403.8
152.5°	409.6	409.0	408.4	407.9	407.3	407.0	407.5	408.6	409.7	410.8	411.9
155°	418.1	417.5	416.8	416.2	415.5	415.2	415.6	416.5	417.4	418.2	419.1
157.5°	424.9	424.3	423.7	423.2	422.6	422.3	422.6	423.3	423.9	424.6	425.2
160°	430.8	430.4	429.9	429.5	429.0	428.8	429.0	429.5	429.9	430.4	430.8
162.5°	436.0	435.6	435.1	434.7	434.2	434.0	434.2	434.6	434.9	435.3	435.7
165°	440.5	440.1	439.7	439.2	438.8	438.6	438.7	438.9	439.2	439.4	439.6
167.5°	444.1	443.7	443.3	442.8	442.4	442.2	442.3	442.5	442.7	442.9	443.1
170°	447.0	446.6	446.2	445.7	445.3	445.1	445.2	445.3	445.4	445.6	445.7
172.5°	449.0	448.6	448.1	447.7	447.2	447.0	447.1	447.2	447.4	447.5	447.7
175°	450.6	450.1	449.6	449.1	448.6	448.3	448.4	448.5	448.7	448.8	449.0
177.5°	451.3	450.8	450.3	449.8	449.3	449.0	449.0	449.1	449.2	449.2	449.3
180°	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	597.7	598.2	599.0	603.5	605.7	606.1	604.3	608.3	609.7	608.3	607.4
5°	626.0	628.7	634.0	639.7	639.3	639.7	642.4	645.0	645.9	642.4	643.7
7.5°	650.8	656.1	661.8	670.7	670.7	675.1	676.9	679.1	684.4	681.7	680.8
10°	679.1	686.1	696.7	710.9	711.3	715.8	720.2	727.3	729.5	727.7	728.6
12.5°	714.4	728.1	729.0	744.5	751.6	752.5	759.5	758.2	762.6	762.6	770.1
15°	729.9	751.1	763.1	778.1	782.5	777.2	783.0	789.1	789.6	789.6	789.1
17.5°	757.8	766.2	778.1	786.1	787.8	787.8	788.3	790.9	789.1	785.6	788.3
20°	763.5	767.0	771.5	770.6	771.5	767.0	762.6	758.2	758.6	756.4	763.1
22.5°	752.9	752.0	741.8	735.2	735.2	726.4	718.0	714.0	710.0	711.3	713.5
25°	726.4	712.7	700.3	690.6	688.3	674.2	662.7	659.2	652.5	657.8	658.7
27.5°	683.9	668.5	648.6	640.2	628.7	622.9	615.0	604.3	590.6	598.6	597.3
30°	638.4	615.4	599.0	578.7	560.6	559.3	544.2	526.5	519.5	519.5	523.4
32.5°	587.5	557.0	533.2	504.4	486.8	479.2	461.1	443.4	447.4	434.1	439.0
35°	528.3	488.1	458.0	430.2	416.9	408.1	384.6	374.9	364.3	358.1	369.6
37.5°	471.7	425.3	386.8	356.3	351.5	335.6	319.6	313.4	307.3	309.9	309.5
40°	402.8	361.6	327.2	303.3	294.9	287.4	276.8	269.2	265.3	267.5	267.9
42.5°	340.4	305.9	280.3	263.5	256.4	251.1	245.8	239.6	238.3	238.3	240.1
45°	292.2	263.9	246.7	233.0	229.0	225.0	221.0	218.4	217.5	215.7	217.1
47.5°	253.8	231.2	220.6	210.4	206.0	205.1	201.6	200.3	198.5	198.1	198.5
50°	221.5	207.3	197.6	191.9	188.8	187.4	185.7	183.0	182.1	184.4	183.5
52.5°	198.9	185.7	180.4	174.6	172.9	171.1	168.4	168.9	168.4	167.6	167.6
55°	176.4	168.0	162.7	158.3	157.8	156.1	153.9	153.0	152.5	151.6	153.0
57.5°	158.3	151.6	146.8	142.8	141.0	141.0	138.8	137.1	137.1	136.6	137.1
60°	140.1	133.5	130.4	126.4	125.1	124.7	123.3	122.5	121.1	121.1	121.1
62.5°	123.3	118.0	114.5	111.0	111.4	109.2	107.4	106.5	106.5	107.0	107.0
65°	107.4	103.9	99.5	96.4	95.5	95.1	94.2	93.7	92.4	93.3	93.3
67.5°	92.8	88.0	85.3	84.0	82.7	82.2	81.3	80.5	80.0	79.6	80.5
70°	78.3	74.3	72.1	71.2	69.9	69.4	69.0	67.6	68.1	68.5	69.0
72.5°	65.0	61.5	61.0	58.4	58.4	58.4	56.6	57.5	57.0	56.1	57.0
75°	51.3	49.5	48.6	47.3	47.7	47.3	46.9	45.5	45.5	46.0	46.4
77.5°	40.7	38.9	38.5	37.1	36.3	37.1	36.3	35.8	35.8	36.3	36.3
80°	30.1	29.2	27.9	27.9	27.9	27.4	27.4	27.4	27.0	26.5	27.0
82.5°	19.9	19.9	19.5	19.0	19.5	18.6	19.0	19.0	19.0	19.0	19.0
85°	12.8	12.4	12.4	11.9	11.9	11.9	12.4	11.5	11.5	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	8.5	8.6	8.8	8.6
92.5°	8.0	8.1	8.3	8.4	8.5	8.5	8.6	8.7	8.7	8.8	8.7
95°	13.1	13.4	13.8	14.1	14.3	14.3	14.2	14.1	14.1	14.0	14.1
97.5°	16.8	17.0	17.3	17.5	17.6	17.6	17.7	17.8	17.8	17.9	17.8
100°	19.1	19.7	20.2	20.8	21.1	21.2	21.3	21.5	21.6	21.8	21.6
102.5°	20.0	20.8	21.6	22.4	22.8	22.9	23.1	23.4	23.6	23.8	23.6
105°	20.6	21.4	22.2	23.0	23.4	23.5	23.8	24.1	24.4	24.7	24.4
107.5°	21.3	22.1	22.9	23.7	24.1	24.2	24.5	24.8	25.1	25.4	25.1
110°	49.7	42.5	35.2	28.0	24.4	24.5	24.8	25.1	25.4	25.7	25.4

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	134.1	103.0	71.8	40.7	25.1	25.2	25.4	25.6	25.8	26.0	25.8
115°	167.2	133.8	100.3	66.8	50.1	47.5	42.3	37.1	31.9	26.7	31.9
117.5°	208.0	197.6	187.3	177.0	171.8	162.3	143.4	124.4	105.5	86.5	105.5
120°	239.4	240.2	241.1	242.0	242.4	237.5	227.8	218.0	208.3	198.5	208.3
122.5°	258.1	258.5	259.0	259.4	259.6	259.6	259.7	259.8	259.9	260.0	259.9
125°	275.4	275.9	276.4	276.9	277.2	277.3	277.5	277.8	278.0	278.2	278.0
127.5°	291.6	292.3	293.0	293.7	294.1	294.1	294.2	294.3	294.4	294.5	294.4
130°	307.0	307.8	308.5	309.3	309.7	309.7	309.6	309.5	309.5	309.4	309.5
132.5°	322.1	322.8	323.4	324.1	324.4	324.4	324.3	324.2	324.2	324.1	324.2
135°	336.1	336.9	337.6	338.3	338.7	338.6	338.5	338.3	338.2	338.0	338.2
137.5°	349.5	350.2	350.9	351.6	352.0	351.9	351.7	351.5	351.3	351.1	351.3
140°	362.4	363.1	363.7	364.4	364.7	364.5	364.2	363.8	363.5	363.1	363.5
142.5°	374.4	375.0	375.5	376.1	376.4	376.2	375.9	375.5	375.2	374.8	375.2
145°	385.4	385.9	386.4	386.9	387.2	387.0	386.7	386.3	386.0	385.6	386.0
147.5°	395.4	395.7	396.1	396.4	396.6	396.5	396.2	395.9	395.6	395.3	395.6
150°	404.2	404.6	405.1	405.5	405.7	405.5	405.2	404.8	404.5	404.1	404.5
152.5°	412.3	412.8	413.2	413.7	413.9	413.6	413.1	412.6	412.1	411.6	412.1
155°	419.5	419.9	420.4	420.8	421.0	420.7	420.1	419.6	419.0	418.4	419.0
157.5°	425.7	426.2	426.7	427.2	427.5	427.2	426.6	426.1	425.5	424.9	425.5
160°	431.2	431.6	432.1	432.5	432.7	432.5	432.0	431.5	431.0	430.5	431.0
162.5°	436.2	436.7	437.2	437.7	437.9	437.6	436.9	436.3	435.6	435.0	435.6
165°	440.1	440.6	441.1	441.6	441.8	441.6	441.1	440.6	440.1	439.6	440.1
167.5°	443.6	444.1	444.6	445.1	445.4	445.1	444.4	443.8	443.1	442.5	443.1
170°	446.2	446.7	447.2	447.7	448.0	447.7	447.0	446.4	445.7	445.1	445.7
172.5°	448.2	448.7	449.2	449.7	450.0	449.7	449.0	448.3	447.7	447.0	447.7
175°	449.5	450.0	450.5	451.0	451.3	450.9	450.2	449.5	448.7	448.0	448.7
177.5°	449.8	450.3	450.8	451.3	451.6	451.3	450.6	450.0	449.3	448.7	449.3
180°	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	609.7	606.6	603.9	604.3	606.6	604.8	600.4	594.6	592.4	589.8	592.4
5°	646.3	643.7	638.4	638.8	637.5	635.7	628.7	619.8	619.8	612.7	611.9
7.5°	682.6	678.6	675.1	674.2	669.3	665.8	659.6	647.2	642.4	634.0	629.1
10°	723.3	720.2	716.2	711.3	708.7	702.5	692.3	674.2	665.4	653.9	645.5
12.5°	764.4	763.9	755.1	745.4	744.9	735.2	728.1	703.8	691.9	676.4	656.5
15°	790.5	788.3	783.4	778.5	779.9	769.3	753.3	724.6	716.6	698.1	676.9
17.5°	790.0	790.0	788.7	787.8	786.5	783.4	774.6	755.5	742.7	719.3	699.4
20°	764.8	770.6	771.9	771.5	775.9	778.1	777.7	765.7	755.5	734.8	714.4
22.5°	714.4	727.7	733.4	737.0	746.3	751.1	762.6	758.2	755.5	740.1	722.8
25°	667.6	672.0	689.2	690.1	702.9	714.9	726.4	733.9	743.6	737.9	723.3
27.5°	607.0	617.2	629.5	638.8	641.5	665.8	684.8	699.0	721.1	722.8	718.0
30°	538.5	543.3	563.7	576.1	590.2	607.9	635.3	659.6	679.5	697.6	703.8
32.5°	454.9	474.8	486.8	501.8	514.2	545.5	579.1	610.5	633.5	664.0	677.3
35°	378.4	393.9	414.2	420.4	443.0	469.5	513.3	553.5	588.4	619.4	646.3
37.5°	315.2	327.6	349.3	359.0	372.2	406.3	443.0	492.9	534.9	573.0	606.6
40°	271.9	281.2	297.5	300.6	311.7	342.6	372.2	419.1	474.8	526.1	562.8
42.5°	242.3	246.7	257.7	261.7	268.8	289.6	316.1	360.3	412.0	465.1	516.8
45°	221.0	224.1	230.8	234.3	243.2	252.4	274.1	309.5	350.1	403.6	459.3
47.5°	202.0	206.0	208.7	210.9	215.7	225.9	240.1	266.1	305.0	354.1	408.1
50°	186.1	187.4	192.3	192.8	195.8	202.5	215.7	231.7	262.6	302.4	354.6
52.5°	170.2	171.5	174.6	177.7	179.0	184.4	193.2	206.5	229.4	260.8	307.3
55°	154.3	156.1	159.2	161.4	162.7	167.1	172.4	185.2	203.4	225.5	263.5
57.5°	138.4	142.4	143.2	144.6	146.8	151.6	156.5	164.0	178.2	198.5	226.4
60°	123.3	124.7	127.8	129.1	131.3	134.0	140.1	145.9	156.1	172.0	197.2
62.5°	107.9	111.0	112.3	113.6	115.4	118.5	122.5	128.7	137.5	150.3	170.2
65°	94.6	95.1	97.7	99.5	101.2	103.5	107.4	113.2	118.5	130.4	145.0
67.5°	81.8	82.7	83.6	85.3	87.5	89.7	93.3	96.4	103.0	111.0	122.5
70°	69.4	69.4	71.6	72.9	72.5	75.2	77.8	81.3	86.2	93.7	103.0
72.5°	58.4	57.9	59.7	60.1	61.0	62.8	64.5	68.1	70.7	76.5	83.6
75°	46.4	47.3	48.2	48.2	49.5	50.8	52.6	54.4	57.5	61.0	66.3
77.5°	36.7	36.7	37.6	38.0	39.3	38.9	40.7	42.4	44.7	47.7	51.7
80°	27.0	27.9	27.9	27.9	28.3	28.7	30.5	31.8	33.2	35.4	37.1
82.5°	19.0	19.0	19.9	19.9	19.9	20.8	20.8	21.2	22.1	23.4	24.8
85°	11.9	11.9	11.9	12.4	11.9	12.4	13.3	12.8	13.3	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°	8.5	8.3	8.2	8.1	7.9	7.6	7.2	6.9	6.5	5.9	5.3
92.5°	8.7	8.6	8.5	8.5	8.4	8.3	8.1	8.0	7.8	7.6	7.4
95°	14.1	14.2	14.3	14.3	14.1	13.8	13.4	13.1	12.7	12.2	11.7
97.5°	17.8	17.7	17.6	17.6	17.5	17.3	17.0	16.8	16.6	15.4	14.3
100°	21.5	21.3	21.2	21.1	20.8	20.2	19.7	19.1	18.5	17.3	16.1
102.5°	23.4	23.1	22.9	22.8	22.4	21.6	20.8	20.0	19.2	32.4	45.5
105°	24.1	23.8	23.5	23.4	23.0	22.2	21.4	20.6	19.8	39.6	59.3
107.5°	24.8	24.5	24.2	24.1	23.7	22.9	22.1	21.3	20.5	44.9	69.2
110°	25.1	24.8	24.5	24.4	28.0	35.2	42.5	49.7	56.9	77.8	98.7

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	25.6	25.4	25.2	25.1	40.7	71.8	103.0	134.1	165.3	166.5	167.7
115°	37.1	42.3	47.5	50.1	66.8	100.3	133.8	167.2	200.7	198.9	197.1
117.5°	124.4	143.4	162.3	171.8	177.0	187.3	197.6	208.0	218.3	217.1	215.9
120°	218.0	227.8	237.5	242.4	242.0	241.1	240.2	239.4	238.5	237.2	235.9
122.5°	259.8	259.7	259.6	259.6	259.4	259.0	258.5	258.1	257.7	256.3	254.8
125°	277.8	277.5	277.3	277.2	276.9	276.4	275.9	275.4	274.9	273.5	272.1
127.5°	294.3	294.2	294.1	294.1	293.7	293.0	292.3	291.6	290.9	289.8	288.7
130°	309.5	309.6	309.7	309.7	309.3	308.5	307.8	307.0	306.2	305.4	304.6
132.5°	324.2	324.3	324.4	324.4	324.1	323.4	322.8	322.1	321.5	320.7	319.9
135°	338.3	338.5	338.6	338.7	338.3	337.6	336.9	336.1	335.4	334.8	334.1
137.5°	351.5	351.7	351.9	352.0	351.6	350.9	350.2	349.5	348.8	348.1	347.3
140°	363.8	364.2	364.5	364.7	364.4	363.7	363.1	362.4	361.8	361.0	360.2
142.5°	375.5	375.9	376.2	376.4	376.1	375.5	375.0	374.4	373.8	372.9	371.9
145°	386.3	386.7	387.0	387.2	386.9	386.4	385.9	385.4	384.9	383.7	382.5
147.5°	395.9	396.2	396.5	396.6	396.4	396.1	395.7	395.4	395.0	393.8	392.6
150°	404.8	405.2	405.5	405.7	405.5	405.1	404.6	404.2	403.8	402.6	401.5
152.5°	412.6	413.1	413.6	413.9	413.7	413.2	412.8	412.3	411.9	410.8	409.7
155°	419.6	420.1	420.7	421.0	420.8	420.4	419.9	419.5	419.1	418.2	417.4
157.5°	426.1	426.6	427.2	427.5	427.2	426.7	426.2	425.7	425.2	424.6	423.9
160°	431.5	432.0	432.5	432.7	432.5	432.1	431.6	431.2	430.8	430.4	429.9
162.5°	436.3	436.9	437.6	437.9	437.7	437.2	436.7	436.2	435.7	435.3	434.9
165°	440.6	441.1	441.6	441.8	441.6	441.1	440.6	440.1	439.6	439.4	439.2
167.5°	443.8	444.4	445.1	445.4	445.1	444.6	444.1	443.6	443.1	442.9	442.7
170°	446.4	447.0	447.7	448.0	447.7	447.2	446.7	446.2	445.7	445.6	445.4
172.5°	448.3	449.0	449.7	450.0	449.7	449.2	448.7	448.2	447.7	447.5	447.4
175°	449.5	450.2	450.9	451.3	451.0	450.5	450.0	449.5	449.0	448.8	448.7
177.5°	450.0	450.6	451.3	451.6	451.3	450.8	450.3	449.8	449.3	449.2	449.2
180°	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	590.2	588.0	586.7	587.5	584.9	578.3	578.3	580.5	577.8	575.2	571.2
5°	606.6	602.1	599.5	599.0	592.9	582.2	580.0	577.8	572.1	565.9	559.3
7.5°	622.5	614.5	610.1	607.0	598.2	584.5	578.7	573.8	564.6	555.3	546.9
10°	635.7	624.2	618.9	614.1	602.6	585.3	576.1	567.2	555.3	543.3	532.7
12.5°	646.3	633.1	626.5	619.4	605.2	582.7	571.2	557.0	545.1	529.2	518.6
15°	664.0	636.6	630.4	623.8	609.2	578.3	564.1	548.2	531.8	510.6	499.1
17.5°	678.2	641.5	641.0	626.9	607.9	576.5	554.8	534.1	516.4	495.2	477.0
20°	686.6	649.0	641.9	627.3	603.5	564.6	542.0	519.0	500.0	474.4	456.2
22.5°	693.7	659.6	641.0	623.4	594.2	560.6	527.4	505.8	479.7	451.8	434.6
25°	696.3	661.8	642.4	622.0	587.5	549.1	511.5	488.1	458.9	433.7	410.3
27.5°	696.7	661.4	637.5	616.3	578.3	534.1	495.6	470.8	438.6	409.4	386.0
30°	692.3	656.5	634.9	611.9	569.4	520.3	476.1	448.7	414.2	385.1	360.8
32.5°	679.1	646.8	629.1	603.9	557.9	501.3	457.6	427.1	390.8	362.1	338.6
35°	657.0	634.9	615.4	592.0	542.9	483.7	439.0	403.2	366.5	339.1	317.0
37.5°	629.5	617.6	599.5	576.5	525.7	467.7	418.2	378.4	341.7	315.2	293.6
40°	592.4	595.5	577.8	557.0	505.3	446.1	391.3	353.2	318.8	294.0	272.8
42.5°	552.2	565.0	554.8	534.9	482.8	422.2	371.4	329.4	295.8	270.1	252.4
45°	508.9	531.0	524.8	510.2	459.3	397.0	343.1	302.4	272.8	248.0	232.5
47.5°	461.6	492.9	492.9	482.3	433.3	371.8	318.8	277.2	248.0	230.3	215.3
50°	413.4	448.7	454.5	447.4	404.1	343.1	289.1	251.6	226.4	209.1	198.1
52.5°	363.0	404.1	414.7	411.2	373.1	315.7	264.8	228.1	205.1	190.1	180.4
55°	314.8	362.5	374.0	375.3	340.0	285.6	237.8	205.6	183.5	173.3	164.9
57.5°	269.2	315.2	328.0	330.2	306.4	258.2	212.6	184.4	164.5	156.1	149.4
60°	230.3	268.8	285.6	290.5	269.7	226.4	189.2	161.8	146.8	138.8	132.6
62.5°	198.5	229.4	247.1	248.5	239.2	198.5	164.9	141.9	129.1	122.0	118.9
65°	167.6	195.4	206.0	211.3	203.8	172.0	142.4	123.3	113.2	107.0	103.9
67.5°	142.8	160.5	169.3	176.4	168.9	145.0	121.1	105.7	98.1	92.0	90.2
70°	117.2	131.7	138.4	145.5	138.8	120.7	103.5	89.3	82.7	77.8	75.6
72.5°	93.7	105.2	111.4	115.8	111.9	96.8	82.7	72.9	68.1	64.5	63.2
75°	74.3	82.2	85.8	88.9	87.1	75.6	66.8	58.8	54.4	51.3	50.4
77.5°	56.6	62.3	66.3	67.2	65.0	57.5	50.0	45.1	41.6	39.8	38.9
80°	40.2	43.8	46.0	47.3	45.1	42.0	36.7	33.2	30.1	27.9	27.4
82.5°	27.0	28.7	30.5	30.1	29.2	26.5	23.4	21.7	20.3	18.6	18.6
85°	15.5	15.9	16.8	17.2	16.8	15.0	13.3	12.4	11.5	10.2	10.2
87.5°	6.6	7.1	7.1	7.5	6.6	6.6	5.7	4.9	4.9	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°	11.2	10.7	10.4	11.6	14.0	16.3	18.7	21.1	18.7	16.3	14.0
97.5°	13.1	12.0	11.4	14.4	20.3	26.2	32.2	38.1	32.2	26.2	20.3
100°	14.8	13.6	13.0	18.0	27.9	37.8	47.7	57.6	47.7	37.8	27.9
102.5°	58.7	71.8	78.4	78.5	78.6	78.8	78.9	79.1	78.9	78.8	78.6
105°	79.1	98.8	108.7	107.6	105.4	103.3	101.1	98.9	101.1	103.3	105.4
107.5°	93.6	117.9	130.1	129.2	127.4	125.6	123.8	122.0	123.8	125.6	127.4
110°	119.6	140.5	151.0	150.2	148.7	147.2	145.6	144.1	145.6	147.2	148.7

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
112.5°	169.0	170.2	170.8	170.2	168.9	167.6	166.3	165.0	166.3	167.6	168.9
115°	195.3	193.5	192.6	192.0	190.8	189.5	188.3	187.1	188.3	189.5	190.8
117.5°	214.6	213.4	212.8	212.1	210.6	209.2	207.7	206.3	207.7	209.2	210.6
120°	234.6	233.3	232.6	232.1	231.0	229.9	228.9	227.8	228.9	229.9	231.0
122.5°	253.4	251.9	251.2	250.6	249.5	248.3	247.2	246.0	247.2	248.3	249.5
125°	270.8	269.4	268.7	268.2	267.3	266.4	265.4	264.5	265.4	266.4	267.3
127.5°	287.6	286.5	286.0	285.5	284.5	283.4	282.4	281.4	282.4	283.4	284.5
130°	303.8	303.0	302.6	302.0	300.9	299.7	298.6	297.4	298.6	299.7	300.9
132.5°	319.1	318.3	317.9	317.4	316.5	315.5	314.6	313.6	314.6	315.5	316.5
135°	333.5	332.8	332.5	331.9	330.8	329.6	328.5	327.3	328.5	329.6	330.8
137.5°	346.6	345.9	345.5	345.1	344.2	343.3	342.5	341.6	342.5	343.3	344.2
140°	359.4	358.6	358.2	357.9	357.3	356.8	356.2	355.6	356.2	356.8	357.3
142.5°	371.0	370.1	369.6	369.3	368.8	368.3	367.8	367.3	367.8	368.3	368.8
145°	381.2	380.0	379.4	379.4	379.5	379.6	379.6	379.7	379.6	379.6	379.5
147.5°	391.3	390.1	389.5	389.6	389.8	390.0	390.2	390.4	390.2	390.0	389.8
150°	400.3	399.2	398.6	398.8	399.3	399.8	400.3	400.8	400.3	399.8	399.3
152.5°	408.6	407.5	407.0	407.3	407.9	408.4	409.0	409.6	409.0	408.4	407.9
155°	416.5	415.6	415.2	415.5	416.2	416.8	417.5	418.1	417.5	416.8	416.2
157.5°	423.3	422.6	422.3	422.6	423.2	423.7	424.3	424.9	424.3	423.7	423.2
160°	429.5	429.0	428.8	429.0	429.5	429.9	430.4	430.8	430.4	429.9	429.5
162.5°	434.6	434.2	434.0	434.2	434.7	435.1	435.6	436.0	435.6	435.1	434.7
165°	438.9	438.7	438.6	438.8	439.2	439.7	440.1	440.5	440.1	439.7	439.2
167.5°	442.5	442.3	442.2	442.4	442.8	443.3	443.7	444.1	443.7	443.3	442.8
170°	445.3	445.2	445.1	445.3	445.7	446.2	446.6	447.0	446.6	446.2	445.7
172.5°	447.2	447.1	447.0	447.2	447.7	448.1	448.6	449.0	448.6	448.1	447.7
175°	448.5	448.4	448.3	448.6	449.1	449.6	450.1	450.6	450.1	449.6	449.1
177.5°	449.1	449.0	449.0	449.3	449.8	450.3	450.8	451.3	450.8	450.3	449.8
180°	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	569.0	571.2	570.7	566.3	561.5	557.5	550.0	550.9	548.2	548.6	551.3
5°	554.8	554.8	553.1	546.9	538.9	534.5	526.1	523.9	518.6	518.1	517.7
7.5°	539.8	537.6	535.4	526.5	516.8	509.7	498.2	495.6	490.3	486.8	485.0
10°	522.1	519.0	514.6	504.4	492.5	483.7	471.7	468.2	458.0	453.6	450.9
12.5°	502.7	500.9	493.8	485.4	466.0	456.2	439.0	442.5	432.4	423.5	422.2
15°	483.2	476.6	472.6	458.9	435.5	431.0	417.3	410.3	401.0	393.9	393.9
17.5°	464.2	454.0	445.2	430.6	413.4	401.0	390.8	387.3	375.8	368.7	367.4
20°	439.0	427.5	425.3	404.5	392.6	378.9	369.2	360.3	351.9	348.8	346.6
22.5°	415.1	401.9	398.3	380.6	368.7	355.0	345.3	339.1	332.9	330.7	326.7
25°	389.5	381.5	376.2	357.2	344.0	331.1	324.5	320.1	314.3	313.9	311.2
27.5°	364.7	357.2	351.9	333.8	324.1	312.1	306.8	302.0	298.9	297.5	296.2
30°	343.5	335.1	328.9	315.7	303.7	294.0	289.6	286.5	284.7	282.5	282.1
32.5°	320.1	315.2	306.8	296.6	287.4	278.1	275.4	273.2	270.6	269.7	269.2
35°	300.2	293.6	288.2	276.8	272.8	264.8	261.7	260.0	256.4	255.5	254.6
37.5°	280.7	274.5	268.8	261.7	254.2	249.8	248.0	245.4	243.6	244.0	243.2
40°	261.3	256.4	252.0	244.5	240.1	237.8	234.3	231.7	230.8	231.2	230.8
42.5°	242.3	237.8	235.2	229.4	225.0	222.8	220.6	218.0	219.3	219.3	220.6
45°	225.0	221.0	219.3	214.9	212.2	208.7	206.5	206.0	207.8	207.3	207.3
47.5°	207.3	206.0	203.8	199.8	196.3	194.1	193.6	193.6	195.4	196.3	195.8
50°	193.6	191.0	188.3	185.2	182.6	181.7	180.4	181.3	183.0	183.0	183.9
52.5°	176.4	174.6	173.7	171.1	169.3	169.3	169.3	169.8	171.1	172.4	172.0
55°	161.4	160.0	159.2	157.8	155.6	156.1	155.6	156.5	157.8	159.2	160.0
57.5°	145.5	145.0	144.1	141.9	141.9	141.5	142.8	143.2	145.5	146.3	147.7
60°	131.3	130.0	130.0	128.2	128.2	128.2	129.5	130.9	132.6	133.1	134.0
62.5°	116.3	116.3	115.8	114.5	114.5	115.8	116.3	118.0	118.9	118.9	120.3
65°	102.1	101.7	101.2	101.7	102.1	102.1	103.5	104.3	105.2	105.7	106.1
67.5°	88.0	87.5	88.4	88.0	88.9	90.6	90.2	91.5	92.8	92.8	93.3
70°	74.7	75.6	75.2	76.0	75.6	76.5	77.8	78.3	78.3	78.7	80.0
72.5°	62.3	62.3	62.3	61.9	62.3	63.2	64.1	64.5	65.4	65.9	67.2
75°	50.4	50.4	49.5	50.4	50.4	51.3	52.2	52.2	52.2	53.1	54.4
77.5°	38.0	38.5	38.0	38.9	38.9	39.3	40.2	39.8	40.7	41.1	41.6
80°	27.9	27.4	27.4	27.4	27.9	27.9	28.7	29.2	29.2	30.5	29.6
82.5°	17.7	18.1	17.7	18.1	18.1	18.6	18.1	18.6	19.0	19.9	19.5
85°	10.2	9.7	9.7	10.2	9.7	9.7	10.2	9.7	10.2	9.7	10.2
87.5°	4.0	3.5	3.5	3.5	3.5	3.1	3.1	2.7	2.7	2.7	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	8.0	8.1	8.3	8.4
95°	11.6	10.4	10.7	11.2	11.7	12.2	12.7	13.1	13.4	13.8	14.1
97.5°	14.4	11.4	12.0	13.1	14.3	15.4	16.6	16.8	17.0	17.3	17.5
100°	18.0	13.0	13.6	14.8	16.1	17.3	18.5	19.1	19.7	20.2	20.8
102.5°	78.5	78.4	71.8	58.7	45.5	32.4	19.2	20.0	20.8	21.6	22.4
105°	107.6	108.7	98.8	79.1	59.3	39.6	19.8	20.6	21.4	22.2	23.0
107.5°	129.2	130.1	117.9	93.6	69.2	44.9	20.5	21.3	22.1	22.9	23.7
110°	150.2	151.0	140.5	119.6	98.7	77.8	56.9	49.7	42.5	35.2	28.0

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
112.5°	170.2	170.8	170.2	169.0	167.7	166.5	165.3	134.1	103.0	71.8	40.7
115°	192.0	192.6	193.5	195.3	197.1	198.9	200.7	167.2	133.8	100.3	66.8
117.5°	212.1	212.8	213.4	214.6	215.9	217.1	218.3	208.0	197.6	187.3	177.0
120°	232.1	232.6	233.3	234.6	235.9	237.2	238.5	239.4	240.2	241.1	242.0
122.5°	250.6	251.2	251.9	253.4	254.8	256.3	257.7	258.1	258.5	259.0	259.4
125°	268.2	268.7	269.4	270.8	272.1	273.5	274.9	275.4	275.9	276.4	276.9
127.5°	285.5	286.0	286.5	287.6	288.7	289.8	290.9	291.6	292.3	293.0	293.7
130°	302.0	302.6	303.0	303.8	304.6	305.4	306.2	307.0	307.8	308.5	309.3
132.5°	317.4	317.9	318.3	319.1	319.9	320.7	321.5	322.1	322.8	323.4	324.1
135°	331.9	332.5	332.8	333.5	334.1	334.8	335.4	336.1	336.9	337.6	338.3
137.5°	345.1	345.5	345.9	346.6	347.3	348.1	348.8	349.5	350.2	350.9	351.6
140°	357.9	358.2	358.6	359.4	360.2	361.0	361.8	362.4	363.1	363.7	364.4
142.5°	369.3	369.6	370.1	371.0	371.9	372.9	373.8	374.4	375.0	375.5	376.1
145°	379.4	379.4	380.0	381.2	382.5	383.7	384.9	385.4	385.9	386.4	386.9
147.5°	389.6	389.5	390.1	391.3	392.6	393.8	395.0	395.4	395.7	396.1	396.4
150°	398.8	398.6	399.2	400.3	401.5	402.6	403.8	404.2	404.6	405.1	405.5
152.5°	407.3	407.0	407.5	408.6	409.7	410.8	411.9	412.3	412.8	413.2	413.7
155°	415.5	415.2	415.6	416.5	417.4	418.2	419.1	419.5	419.9	420.4	420.8
157.5°	422.6	422.3	422.6	423.3	423.9	424.6	425.2	425.7	426.2	426.7	427.2
160°	429.0	428.8	429.0	429.5	429.9	430.4	430.8	431.2	431.6	432.1	432.5
162.5°	434.2	434.0	434.2	434.6	434.9	435.3	435.7	436.2	436.7	437.2	437.7
165°	438.8	438.6	438.7	438.9	439.2	439.4	439.6	440.1	440.6	441.1	441.6
167.5°	442.4	442.2	442.3	442.5	442.7	442.9	443.1	443.6	444.1	444.6	445.1
170°	445.3	445.1	445.2	445.3	445.4	445.6	445.7	446.2	446.7	447.2	447.7
172.5°	447.2	447.0	447.1	447.2	447.4	447.5	447.7	448.2	448.7	449.2	449.7
175°	448.6	448.3	448.4	448.5	448.7	448.8	449.0	449.5	450.0	450.5	451.0
177.5°	449.3	449.0	449.0	449.1	449.2	449.2	449.3	449.8	450.3	450.8	451.3
180°	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	548.2	549.5	546.4	545.5	546.4	543.3	544.2	545.1	545.1	546.4	547.3
5°	516.4	514.6	511.5	510.6	509.7	511.1	510.2	511.5	511.9	515.0	515.5
7.5°	485.0	482.3	479.7	477.0	476.1	473.9	476.1	476.1	479.2	478.4	480.6
10°	447.8	447.4	443.9	442.5	440.8	437.2	442.1	440.8	443.0	447.0	447.8
12.5°	420.4	415.6	417.8	411.6	413.8	410.3	410.7	410.7	414.2	414.7	413.8
15°	394.4	390.4	384.6	382.0	380.6	378.9	384.6	385.1	382.4	388.6	386.4
17.5°	367.8	367.8	362.5	361.2	357.7	359.4	358.5	359.0	358.1	362.5	364.7
20°	344.8	342.6	340.9	341.3	336.9	336.0	335.1	336.0	339.1	342.2	343.1
22.5°	326.3	324.9	320.5	321.4	317.9	319.2	318.3	320.5	321.0	321.0	324.1
25°	308.6	306.8	307.3	305.5	304.2	304.2	302.8	304.2	305.9	306.8	307.3
27.5°	295.3	294.0	291.8	290.5	291.3	289.1	290.9	292.2	292.2	291.3	292.2
30°	279.4	280.3	280.3	275.9	277.6	276.8	278.1	279.0	279.0	279.4	278.5
32.5°	268.8	266.1	265.7	265.3	265.3	263.5	263.5	264.8	265.3	265.7	267.0
35°	254.6	254.6	252.4	253.8	252.0	252.4	252.0	252.4	253.3	252.0	253.3
37.5°	241.8	242.3	241.4	242.3	242.7	241.8	240.9	242.7	241.8	241.8	240.9
40°	230.8	230.3	230.8	230.8	230.8	231.2	230.3	230.3	230.3	229.4	228.6
42.5°	221.5	218.8	219.7	220.2	218.8	218.8	219.3	218.8	220.2	217.5	217.5
45°	208.2	207.3	207.8	207.8	208.7	207.3	208.2	208.7	207.3	206.9	206.0
47.5°	196.3	197.2	196.3	197.2	197.2	198.1	196.3	196.7	197.2	195.4	194.1
50°	184.4	184.4	185.7	185.2	185.7	184.8	184.8	184.4	184.8	183.9	182.6
52.5°	173.3	172.0	174.2	173.7	173.3	172.9	172.4	172.9	172.0	171.1	171.1
55°	159.6	159.6	160.9	161.4	161.4	160.5	159.6	160.0	159.6	159.2	158.7
57.5°	148.5	146.8	147.7	148.1	148.1	146.8	147.7	146.8	146.8	147.2	145.9
60°	134.4	134.4	133.5	134.8	134.8	134.0	134.0	134.4	133.5	133.1	132.6
62.5°	119.4	119.8	121.1	121.6	122.0	121.1	120.3	120.7	120.7	119.4	119.8
65°	106.5	107.4	109.2	108.8	107.9	108.3	107.4	107.9	106.5	107.0	105.7
67.5°	94.2	93.7	94.2	94.2	95.1	94.6	93.7	93.7	93.3	94.6	93.3
70°	80.9	80.9	80.9	80.9	81.3	81.8	80.9	80.0	80.5	79.6	79.1
72.5°	67.2	67.6	67.2	68.1	66.8	67.6	67.6	67.2	66.8	66.8	66.8
75°	54.4	55.3	53.9	54.4	53.9	54.8	54.4	54.4	53.5	53.1	53.5
77.5°	41.6	42.0	41.1	41.6	41.1	41.6	41.6	41.1	41.1	41.1	41.1
80°	29.6	30.1	29.6	29.2	28.7	29.6	28.7	29.2	29.6	29.2	30.1
82.5°	19.0	19.0	18.6	19.0	18.1	18.1	18.6	18.6	18.1	19.0	18.1
85°	9.3	9.3	10.2	9.3	8.8	8.8	8.8	9.3	8.8	9.7	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°	8.1	8.2	8.3	8.5	8.6	8.8	8.6	8.5	8.3	8.2	8.1
92.5°	8.5	8.5	8.6	8.7	8.7	8.8	8.7	8.7	8.6	8.5	8.5
95°	14.3	14.3	14.2	14.1	14.1	14.0	14.1	14.1	14.2	14.3	14.3
97.5°	17.6	17.6	17.7	17.8	17.8	17.9	17.8	17.8	17.7	17.6	17.6
100°	21.1	21.2	21.3	21.5	21.6	21.8	21.6	21.5	21.3	21.2	21.1
102.5°	22.8	22.9	23.1	23.4	23.6	23.8	23.6	23.4	23.1	22.9	22.8
105°	23.4	23.5	23.8	24.1	24.4	24.7	24.4	24.1	23.8	23.5	23.4
107.5°	24.1	24.2	24.5	24.8	25.1	25.4	25.1	24.8	24.5	24.2	24.1
110°	24.4	24.5	24.8	25.1	25.4	25.7	25.4	25.1	24.8	24.5	24.4

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
112.5°	25.1	25.2	25.4	25.6	25.8	26.0	25.8	25.6	25.4	25.2	25.1
115°	50.1	47.5	42.3	37.1	31.9	26.7	31.9	37.1	42.3	47.5	50.1
117.5°	171.8	162.3	143.4	124.4	105.5	86.5	105.5	124.4	143.4	162.3	171.8
120°	242.4	237.5	227.8	218.0	208.3	198.5	208.3	218.0	227.8	237.5	242.4
122.5°	259.6	259.6	259.7	259.8	259.9	260.0	259.9	259.8	259.7	259.6	259.6
125°	277.2	277.3	277.5	277.8	278.0	278.2	278.0	277.8	277.5	277.3	277.2
127.5°	294.1	294.1	294.2	294.3	294.4	294.5	294.4	294.3	294.2	294.1	294.1
130°	309.7	309.7	309.6	309.5	309.5	309.4	309.5	309.5	309.6	309.7	309.7
132.5°	324.4	324.4	324.3	324.2	324.2	324.1	324.2	324.2	324.3	324.4	324.4
135°	338.7	338.6	338.5	338.3	338.2	338.0	338.2	338.3	338.5	338.6	338.7
137.5°	352.0	351.9	351.7	351.5	351.3	351.1	351.3	351.5	351.7	351.9	352.0
140°	364.7	364.5	364.2	363.8	363.5	363.1	363.5	363.8	364.2	364.5	364.7
142.5°	376.4	376.2	375.9	375.5	375.2	374.8	375.2	375.5	375.9	376.2	376.4
145°	387.2	387.0	386.7	386.3	386.0	385.6	386.0	386.3	386.7	387.0	387.2
147.5°	396.6	396.5	396.2	395.9	395.6	395.3	395.6	395.9	396.2	396.5	396.6
150°	405.7	405.5	405.2	404.8	404.5	404.1	404.5	404.8	405.2	405.5	405.7
152.5°	413.9	413.6	413.1	412.6	412.1	411.6	412.1	412.6	413.1	413.6	413.9
155°	421.0	420.7	420.1	419.6	419.0	418.4	419.0	419.6	420.1	420.7	421.0
157.5°	427.5	427.2	426.6	426.1	425.5	424.9	425.5	426.1	426.6	427.2	427.5
160°	432.7	432.5	432.0	431.5	431.0	430.5	431.0	431.5	432.0	432.5	432.7
162.5°	437.9	437.6	436.9	436.3	435.6	435.0	435.6	436.3	436.9	437.6	437.9
165°	441.8	441.6	441.1	440.6	440.1	439.6	440.1	440.6	441.1	441.6	441.8
167.5°	445.4	445.1	444.4	443.8	443.1	442.5	443.1	443.8	444.4	445.1	445.4
170°	448.0	447.7	447.0	446.4	445.7	445.1	445.7	446.4	447.0	447.7	448.0
172.5°	450.0	449.7	449.0	448.3	447.7	447.0	447.7	448.3	449.0	449.7	450.0
175°	451.3	450.9	450.2	449.5	448.7	448.0	448.7	449.5	450.2	450.9	451.3
177.5°	451.6	451.3	450.6	450.0	449.3	448.7	449.3	450.0	450.6	451.3	451.6
180°	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
2.5°	546.0	549.5	548.2	543.3	549.1	549.1	553.1	553.1	557.9	559.7	562.3
5°	515.0	517.7	519.9	517.7	521.7	527.9	531.4	534.5	541.1	543.8	547.8
7.5°	481.9	486.8	489.0	489.0	495.6	502.7	509.7	514.2	523.4	527.0	531.0
10°	449.6	455.4	459.8	459.3	470.4	474.8	483.7	493.8	503.1	508.4	514.2
12.5°	415.6	418.7	424.9	433.7	436.4	444.3	454.5	467.3	484.1	489.0	497.4
15°	387.3	395.7	400.5	404.5	410.7	418.2	429.3	441.7	458.5	469.1	477.9
17.5°	363.4	374.5	377.6	376.7	384.6	396.1	408.9	418.2	433.3	446.1	454.5
20°	344.0	348.4	353.7	355.9	362.1	374.5	386.8	397.4	409.8	420.0	429.7
22.5°	324.5	328.0	332.5	336.4	341.3	348.4	360.3	373.6	385.5	395.2	406.3
25°	308.6	310.8	314.8	317.9	323.2	328.0	336.4	351.0	365.2	370.9	380.6
27.5°	293.1	294.9	297.5	301.1	303.7	308.6	316.1	328.0	342.6	348.4	361.6
30°	279.4	280.7	283.4	285.2	286.5	292.2	298.0	307.3	318.3	326.3	336.0
32.5°	266.6	267.9	270.6	271.0	272.8	275.9	281.2	289.6	299.3	305.9	314.3
35°	252.4	253.3	256.0	256.9	258.2	260.8	264.8	271.0	279.8	284.7	292.2
37.5°	241.4	240.9	242.7	244.0	245.8	247.1	248.5	254.6	261.3	265.7	271.4
40°	229.4	228.6	229.0	230.8	231.7	233.4	233.4	239.6	244.0	247.6	252.0
42.5°	217.5	217.1	216.2	217.1	218.0	218.4	218.8	223.3	227.7	230.8	235.6
45°	205.6	205.1	204.2	204.7	204.7	205.6	206.9	208.7	211.8	214.4	217.1
47.5°	194.5	193.6	192.3	191.9	192.8	192.8	192.8	194.5	197.6	198.5	201.2
50°	183.0	181.7	179.9	179.0	179.0	178.6	179.5	179.9	182.6	183.5	185.7
52.5°	170.6	169.8	168.0	166.2	166.7	165.8	166.2	166.7	167.6	168.9	170.2
55°	158.3	156.5	155.2	154.7	153.4	153.4	152.1	153.9	153.4	153.9	155.6
57.5°	146.3	144.6	142.4	141.5	140.1	139.7	138.8	138.4	138.8	140.1	141.5
60°	132.2	131.3	130.0	128.7	127.8	126.4	125.6	125.6	125.1	125.1	125.6
62.5°	118.5	118.0	116.3	115.8	114.9	114.1	112.7	111.9	111.9	112.7	113.2
65°	105.2	104.8	103.5	103.0	100.8	99.9	99.5	99.0	98.1	98.1	98.1
67.5°	92.8	91.5	91.5	89.3	87.5	86.7	85.8	85.3	85.3	85.3	85.8
70°	79.1	79.1	77.8	76.5	74.7	75.2	73.8	72.5	72.5	71.6	72.1
72.5°	65.9	65.4	64.1	63.7	62.3	61.0	60.1	61.0	59.7	59.2	59.7
75°	53.1	52.6	51.7	50.8	51.3	50.0	48.6	48.2	48.2	47.3	47.3
77.5°	40.7	41.6	39.8	39.3	38.5	37.6	37.1	36.7	36.7	36.7	37.6
80°	28.3	28.7	28.7	27.9	28.3	27.0	27.0	27.0	25.6	26.1	26.5
82.5°	18.1	18.1	17.7	18.1	17.7	17.7	17.2	17.2	16.8	16.8	17.2
85°	10.2	9.7	9.3	10.2	9.7	9.7	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	3.5	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°	8.4	8.3	8.1	8.0	7.8	7.6	7.4	7.1	6.9	6.8	6.9
95°	14.1	13.8	13.4	13.1	12.7	12.2	11.7	11.2	10.7	10.4	11.6
97.5°	17.5	17.3	17.0	16.8	16.6	15.4	14.3	13.1	12.0	11.4	14.4
100°	20.8	20.2	19.7	19.1	18.5	17.3	16.1	14.8	13.6	13.0	18.0
102.5°	22.4	21.6	20.8	20.0	19.2	32.4	45.5	58.7	71.8	78.4	78.5
105°	23.0	22.2	21.4	20.6	19.8	39.6	59.3	79.1	98.8	108.7	107.6
107.5°	23.7	22.9	22.1	21.3	20.5	44.9	69.2	93.6	117.9	130.1	129.2
110°	28.0	35.2	42.5	49.7	56.9	77.8	98.7	119.6	140.5	151.0	150.2

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
112.5°	40.7	71.8	103.0	134.1	165.3	166.5	167.7	169.0	170.2	170.8	170.2
115°	66.8	100.3	133.8	167.2	200.7	198.9	197.1	195.3	193.5	192.6	192.0
117.5°	177.0	187.3	197.6	208.0	218.3	217.1	215.9	214.6	213.4	212.8	212.1
120°	242.0	241.1	240.2	239.4	238.5	237.2	235.9	234.6	233.3	232.6	232.1
122.5°	259.4	259.0	258.5	258.1	257.7	256.3	254.8	253.4	251.9	251.2	250.6
125°	276.9	276.4	275.9	275.4	274.9	273.5	272.1	270.8	269.4	268.7	268.2
127.5°	293.7	293.0	292.3	291.6	290.9	289.8	288.7	287.6	286.5	286.0	285.5
130°	309.3	308.5	307.8	307.0	306.2	305.4	304.6	303.8	303.0	302.6	302.0
132.5°	324.1	323.4	322.8	322.1	321.5	320.7	319.9	319.1	318.3	317.9	317.4
135°	338.3	337.6	336.9	336.1	335.4	334.8	334.1	333.5	332.8	332.5	331.9
137.5°	351.6	350.9	350.2	349.5	348.8	348.1	347.3	346.6	345.9	345.5	345.1
140°	364.4	363.7	363.1	362.4	361.8	361.0	360.2	359.4	358.6	358.2	357.9
142.5°	376.1	375.5	375.0	374.4	373.8	372.9	371.9	371.0	370.1	369.6	369.3
145°	386.9	386.4	385.9	385.4	384.9	383.7	382.5	381.2	380.0	379.4	379.4
147.5°	396.4	396.1	395.7	395.4	395.0	393.8	392.6	391.3	390.1	389.5	389.6
150°	405.5	405.1	404.6	404.2	403.8	402.6	401.5	400.3	399.2	398.6	398.8
152.5°	413.7	413.2	412.8	412.3	411.9	410.8	409.7	408.6	407.5	407.0	407.3
155°	420.8	420.4	419.9	419.5	419.1	418.2	417.4	416.5	415.6	415.2	415.5
157.5°	427.2	426.7	426.2	425.7	425.2	424.6	423.9	423.3	422.6	422.3	422.6
160°	432.5	432.1	431.6	431.2	430.8	430.4	429.9	429.5	429.0	428.8	429.0
162.5°	437.7	437.2	436.7	436.2	435.7	435.3	434.9	434.6	434.2	434.0	434.2
165°	441.6	441.1	440.6	440.1	439.6	439.4	439.2	438.9	438.7	438.6	438.8
167.5°	445.1	444.6	444.1	443.6	443.1	442.9	442.7	442.5	442.3	442.2	442.4
170°	447.7	447.2	446.7	446.2	445.7	445.6	445.4	445.3	445.2	445.1	445.3
172.5°	449.7	449.2	448.7	448.2	447.7	447.5	447.4	447.2	447.1	447.0	447.2
175°	451.0	450.5	450.0	449.5	449.0	448.8	448.7	448.5	448.4	448.3	448.6
177.5°	451.3	450.8	450.3	449.8	449.3	449.2	449.2	449.1	449.0	449.0	449.3
180°	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6	449.6

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	575.2	575.2	575.2	575.2
2.5°	564.6	564.6	571.2	578.3
5°	552.2	555.3	565.9	575.6
7.5°	540.2	545.5	558.8	571.2
10°	525.7	532.7	549.1	563.7
12.5°	511.5	518.1	537.1	553.5
15°	491.6	500.0	520.3	540.7
17.5°	471.7	480.1	504.9	528.7
20°	448.3	459.3	487.2	519.0
22.5°	426.6	440.3	471.3	496.9
25°	402.8	424.0	452.7	485.9
27.5°	381.5	402.8	431.9	465.5
30°	357.7	379.3	409.4	440.3
32.5°	334.7	354.6	383.7	421.8
35°	310.8	329.8	358.1	396.6
37.5°	289.1	307.7	338.6	374.0
40°	267.9	287.4	313.9	349.3
42.5°	248.0	265.3	289.1	324.5
45°	229.9	242.3	264.4	297.5
47.5°	210.9	221.9	242.3	275.4
50°	193.2	202.5	220.2	251.1
52.5°	176.0	183.9	200.3	225.0
55°	160.5	168.0	179.9	204.2
57.5°	144.6	150.3	161.8	181.3
60°	129.1	134.4	143.7	159.6
62.5°	113.6	118.0	126.9	139.7
65°	99.9	103.5	110.1	121.1
67.5°	86.7	88.9	94.2	103.0
70°	73.8	75.6	80.0	87.1
72.5°	60.1	61.9	66.8	71.6
75°	48.6	49.1	52.6	56.6
77.5°	38.0	37.6	40.2	43.3
80°	26.1	27.4	29.6	30.9
82.5°	17.7	18.1	19.0	19.9
85°	9.7	10.2	10.2	11.5
87.5°	4.0	4.4	4.4	4.9
90°	2.7	1.9	1.1	0.3
92.5°	7.2	7.5	7.8	8.1
95°	14.0	16.3	18.7	21.1
97.5°	20.3	26.2	32.2	38.1
100°	27.9	37.8	47.7	57.6
102.5°	78.6	78.8	78.9	79.1
105°	105.4	103.3	101.1	98.9
107.5°	127.4	125.6	123.8	122.0
110°	148.7	147.2	145.6	144.1

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
112.5°	168.9	167.6	166.3	165.0
115°	190.8	189.5	188.3	187.1
117.5°	210.6	209.2	207.7	206.3
120°	231.0	229.9	228.9	227.8
122.5°	249.5	248.3	247.2	246.0
125°	267.3	266.4	265.4	264.5
127.5°	284.5	283.4	282.4	281.4
130°	300.9	299.7	298.6	297.4
132.5°	316.5	315.5	314.6	313.6
135°	330.8	329.6	328.5	327.3
137.5°	344.2	343.3	342.5	341.6
140°	357.3	356.8	356.2	355.6
142.5°	368.8	368.3	367.8	367.3
145°	379.5	379.6	379.6	379.7
147.5°	389.8	390.0	390.2	390.4
150°	399.3	399.8	400.3	400.8
152.5°	407.9	408.4	409.0	409.6
155°	416.2	416.8	417.5	418.1
157.5°	423.2	423.7	424.3	424.9
160°	429.5	429.9	430.4	430.8
162.5°	434.7	435.1	435.6	436.0
165°	439.2	439.7	440.1	440.5
167.5°	442.8	443.3	443.7	444.1
170°	445.7	446.2	446.6	447.0
172.5°	447.7	448.1	448.6	449.0
175°	449.1	449.6	450.1	450.6
177.5°	449.8	450.3	450.8	451.3
180°	449.6	449.6	449.6	449.6

TEST NUMBER: P998148

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_3000K

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	13.43	14.25	14.40	15.23	16.52	10.92	11.74	11.89	12.72	14.01
	3H	14.24	14.97	15.22	15.96	17.27	12.26	13.00	13.25	13.99	15.30
	4H	14.41	15.10	15.40	16.09	17.41	12.72	13.42	13.72	14.41	15.73
	6H	14.45	15.09	15.46	16.09	17.42	13.03	13.67	14.04	14.67	16.00
	8H	14.43	15.03	15.44	16.05	17.38	13.11	13.72	14.13	14.74	16.06
	12H	14.39	14.97	15.41	15.97	17.32	13.15	13.73	14.17	14.74	16.09
4H	2H	13.47	14.16	14.47	15.15	16.47	11.36	12.06	12.37	13.05	14.37
	3H	14.44	15.02	15.45	16.04	17.37	12.82	13.40	13.83	14.42	15.75
	4H	14.72	15.25	15.74	16.26	17.62	13.35	13.88	14.37	14.90	16.25
	6H	14.85	15.30	15.88	16.34	17.69	13.73	14.18	14.76	15.22	16.58
	8H	14.84	15.27	15.87	16.30	17.66	13.84	14.26	14.87	15.30	16.66
	12H	14.81	15.19	15.86	16.24	17.61	13.90	14.28	14.94	15.32	16.70
8H	4H	14.72	15.15	15.76	16.18	17.55	13.49	13.92	14.52	14.95	16.31
	6H	14.90	15.25	15.96	16.32	17.69	13.93	14.28	14.98	15.35	16.71
	8H	14.93	15.24	15.99	16.30	17.68	14.08	14.38	15.14	15.44	16.83
	12H	14.92	15.18	15.98	16.24	17.66	14.17	14.44	15.23	15.49	16.92
12H	4H	14.68	15.06	15.73	16.11	17.48	13.47	13.85	14.51	14.89	16.26
	6H	14.88	15.19	15.94	16.25	17.63	13.93	14.23	14.99	15.29	16.68
	8H	14.91	15.18	15.98	16.23	17.66	14.08	14.35	15.15	15.41	16.83