

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: P998151

Luminaire Tested: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998151
REPORT IS A COMBINATION OF REPORTS P983891 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_5000K
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

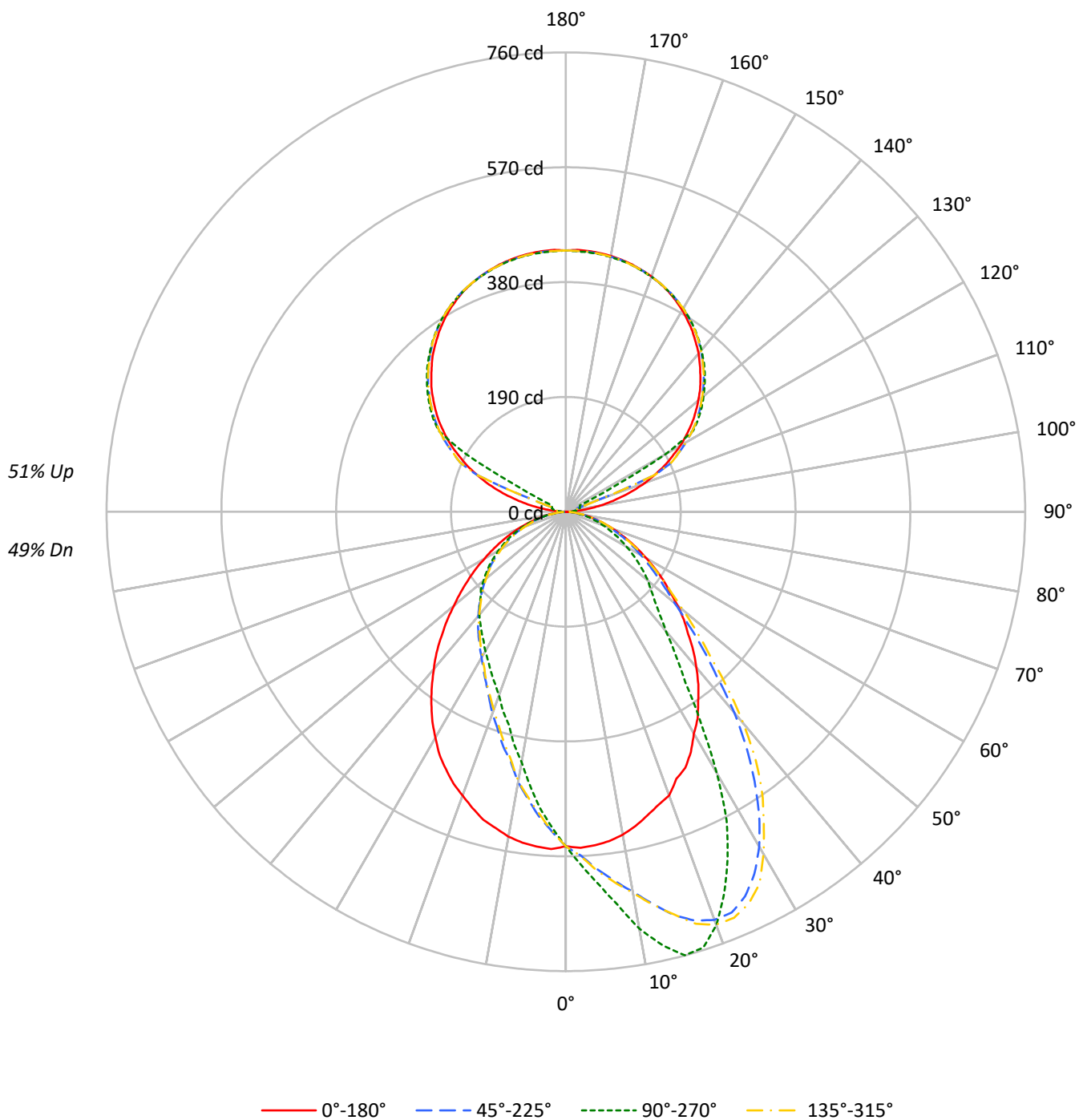
Lumens per Lamp: N/A
Luminaire Lumens: 2489.0 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

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	37	36	33	31
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	32	30	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°	8760	8760	8760	8760
5°	8781	9341	8815	7431
10°	8680	10197	8734	6127
15°	8468	10755	8587	5160
20°	8337	10098	8337	4486
25°	8071	8676	8107	4012
30°	7634	6819	7780	3633
35°	7247	4716	7367	3324
40°	6800	3561	6879	3078
45°	6253	2926	6355	2812
50°	5778	2568	5787	2574
55°	5236	2188	5271	2316
60°	4661	1828	4725	2021
65°	4145	1487	4220	1726
70°	3629	1166	3720	1392
75°	3043	846	3166	1009
80°	2379	536	2547	599
85°	1568	270	1681	200

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 9055 cd/sqm

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	2.1
10°-20°	153.4	6.2
20°-30°	222.7	8.9
30°-40°	234.7	9.4
40°-50°	207.7	8.3
50°-60°	165.9	6.7
60°-70°	112.7	4.5
70°-80°	57.6	2.3
80°-90°	14.4	0.6
90°-100°	14.3	0.6
100°-110°	53.1	2.1
110°-120°	140.9	5.7
120°-130°	233.7	9.4
130°-140°	248.3	10.0
140°-150°	230.7	9.3
150°-160°	185.5	7.5
160°-170°	119.5	4.8
170°-180°	41.1	1.7
0°-30°	428.8	17.2
0°-40°	663.5	26.7
0°-60°	1037.1	41.7
0°-90°	1221.8	49.1
90°-120°	208.3	8.4
90°-150°	921.1	37.0
90°-180°	1267.0	50.9
0°-180°	2489.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	553	553	553	553	553	
5°	554	618	556	492	554	53
15°	520	760	528	364	520	147
25°	468	633	470	293	468	214
35°	382	345	388	243	382	239
45°	286	208	291	200	286	222
55°	196	146	198	154	196	175
65°	117	90	119	104	117	116
75°	54	44	57	53	54	58
85°	11	12	12	8	11	13
90°	0	8	0	8	0	2
95°	20	13	20	13	20	24
105°	95	24	95	24	95	102
115°	180	26	180	26	180	177
125°	254	267	254	267	254	227
135°	315	325	315	325	315	243
145°	365	371	365	371	365	228
155°	402	402	402	402	402	185
165°	424	423	424	423	424	120
175°	433	431	433	431	433	41
180°	432	432	432	432	432	

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	556.4	557.7	559.8	560.2	564.5	567.9	571.7	571.7	573.0	572.6	569.2
5°	553.8	557.7	563.2	567.9	575.5	578.9	584.0	587.9	591.3	593.8	593.4
7.5°	549.6	556.4	564.5	573.4	583.6	589.6	596.8	603.6	608.3	612.5	615.5
10°	542.4	553.8	564.9	576.8	590.0	598.1	606.6	615.5	622.8	630.8	638.5
12.5°	532.6	549.2	562.8	578.5	594.7	603.6	617.2	624.0	638.1	658.5	664.0
15°	520.2	542.8	555.5	575.5	596.8	604.0	622.8	633.8	662.7	675.5	690.8
17.5°	508.7	533.8	550.9	573.8	594.7	608.7	627.0	649.5	673.8	692.1	709.1
20°	499.4	523.6	544.1	569.6	596.0	613.8	633.0	660.2	686.6	705.3	718.5
22.5°	478.1	509.2	533.0	561.5	593.4	618.1	636.4	666.1	694.6	706.1	717.6
25°	467.5	494.3	521.9	554.3	591.7	621.0	636.8	670.0	695.1	699.3	701.9
27.5°	447.9	478.1	510.5	547.5	591.3	615.9	635.9	666.1	686.1	683.2	675.5
30°	423.7	460.7	496.4	536.4	585.3	612.1	630.8	658.5	668.7	653.4	639.8
32.5°	405.8	440.7	480.2	526.6	578.5	604.0	622.3	644.0	646.1	618.5	595.5
35°	381.6	420.3	464.9	513.9	567.0	590.0	607.0	620.2	610.0	571.3	544.1
37.5°	359.9	398.2	445.8	495.6	551.3	573.8	587.4	589.6	564.5	530.4	490.5
40°	336.0	375.6	425.4	477.7	533.8	553.4	561.9	555.5	519.4	479.8	433.5
42.5°	312.2	351.4	405.0	458.6	511.7	528.3	531.7	514.3	470.0	423.7	370.1
45°	286.3	327.1	380.7	434.7	486.2	495.6	496.0	470.9	418.6	370.1	320.3
47.5°	265.0	302.9	356.0	410.1	453.5	459.8	457.3	428.4	371.4	316.9	273.5
50°	241.6	277.8	330.5	383.7	420.7	422.4	416.0	374.8	319.0	269.3	234.8
52.5°	216.5	253.1	301.6	352.6	385.8	383.3	370.9	326.7	274.4	233.1	206.7
55°	196.5	228.9	274.4	324.1	347.5	340.3	326.7	281.6	240.3	205.5	182.5
57.5°	174.4	202.9	247.6	291.0	304.6	297.8	284.2	242.0	203.8	177.4	162.1
60°	153.6	179.5	218.6	254.8	265.4	258.2	242.5	204.6	177.0	154.8	143.4
62.5°	134.4	157.0	189.7	222.9	227.2	219.9	206.3	175.7	151.9	134.4	125.9
65°	116.6	137.8	164.2	189.3	193.1	185.5	171.4	149.3	129.3	118.3	110.2
67.5°	99.1	116.1	139.5	157.8	159.9	152.7	141.2	123.4	111.0	99.1	93.2
70°	83.8	96.6	114.9	129.7	130.6	123.8	117.8	101.7	92.3	83.8	79.1
72.5°	68.9	77.8	91.9	102.9	103.4	99.1	93.6	83.4	75.3	69.3	64.7
75°	54.4	62.1	70.6	80.4	80.0	76.6	72.3	65.9	59.1	55.3	53.2
77.5°	41.7	46.4	53.2	59.6	59.6	57.9	55.3	50.6	46.4	42.5	40.4
80°	29.8	32.8	38.3	40.4	41.3	40.8	38.7	35.3	33.6	30.6	29.8
82.5°	19.1	21.3	23.8	25.9	27.2	26.4	25.9	24.2	21.7	20.8	20.0
85°	11.1	11.9	13.2	14.5	14.9	14.5	15.3	14.0	12.8	12.8	12.3
87.5°	4.7	5.1	6.0	6.0	6.4	6.4	6.0	6.4	6.4	6.0	5.5
90°	0.3	1.1	1.9	2.6	3.4	3.8	4.1	4.6	5.2	5.7	6.3
92.5°	7.8	7.5	7.3	7.0	6.7	6.6	6.7	6.9	7.1	7.3	7.5
95°	20.3	18.0	15.7	13.4	11.1	10.0	10.2	10.7	11.2	11.7	12.2
97.5°	36.6	30.9	25.2	19.5	13.8	10.9	11.5	12.6	13.7	14.9	16.0
100°	55.4	45.9	36.3	26.8	17.3	12.5	13.1	14.3	15.4	16.6	17.8
102.5°	76.0	75.9	75.7	75.6	75.5	75.4	69.1	56.4	43.8	31.1	18.5
105°	95.1	97.2	99.3	101.4	103.5	104.5	95.0	76.0	57.1	38.1	19.1
107.5°	117.3	119.0	120.8	122.5	124.2	125.1	113.4	90.0	66.5	43.1	19.7
110°	138.6	140.0	141.5	142.9	144.4	145.1	135.1	115.0	94.9	74.8	54.7

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	158.6	159.8	161.1	162.3	163.6	164.2	163.6	162.4	161.3	160.1	158.9
115°	179.8	181.0	182.2	183.4	184.6	185.2	186.1	187.8	189.5	191.3	193.0
117.5°	198.3	199.7	201.1	202.5	203.9	204.6	205.2	206.4	207.5	208.7	209.9
120°	218.9	219.9	221.0	222.0	223.1	223.6	224.2	225.5	226.8	228.0	229.3
122.5°	236.5	237.6	238.7	239.8	240.9	241.5	242.2	243.6	244.9	246.3	247.7
125°	254.3	255.2	256.1	257.0	257.9	258.4	259.1	260.4	261.7	263.0	264.3
127.5°	270.6	271.6	272.5	273.5	274.4	274.9	275.4	276.5	277.5	278.6	279.6
130°	285.9	287.0	288.1	289.2	290.3	290.9	291.3	292.0	292.8	293.5	294.3
132.5°	301.5	302.4	303.3	304.2	305.1	305.6	306.0	306.7	307.5	308.2	309.0
135°	314.7	315.8	316.9	318.0	319.1	319.7	320.0	320.6	321.3	321.9	322.5
137.5°	328.4	329.2	330.1	330.9	331.8	332.2	332.5	333.2	333.9	334.6	335.3
140°	341.9	342.5	343.0	343.6	344.1	344.4	344.8	345.5	346.3	347.0	347.8
142.5°	353.1	353.6	354.1	354.6	355.1	355.3	355.8	356.7	357.6	358.5	359.4
145°	365.0	364.9	364.9	364.8	364.7	364.7	365.3	366.5	367.6	368.8	370.0
147.5°	375.3	375.1	374.9	374.7	374.5	374.4	375.0	376.2	377.3	378.5	379.7
150°	385.3	384.8	384.4	383.9	383.4	383.2	383.8	384.9	386.0	387.1	388.2
152.5°	393.8	393.2	392.7	392.1	391.6	391.3	391.8	392.9	393.9	395.0	396.0
155°	401.9	401.3	400.7	400.0	399.4	399.1	399.5	400.4	401.2	402.1	402.9
157.5°	408.5	407.9	407.4	406.8	406.3	406.0	406.3	406.9	407.6	408.2	408.8
160°	414.1	413.7	413.3	412.8	412.4	412.2	412.4	412.8	413.3	413.7	414.1
162.5°	419.1	418.7	418.3	417.8	417.4	417.2	417.4	417.7	418.1	418.4	418.8
165°	423.5	423.1	422.7	422.2	421.8	421.6	421.7	421.9	422.2	422.4	422.6
167.5°	426.9	426.5	426.1	425.7	425.3	425.1	425.2	425.4	425.6	425.8	426.0
170°	429.8	429.4	429.0	428.5	428.1	427.9	428.0	428.1	428.2	428.4	428.5
172.5°	431.6	431.2	430.8	430.4	430.0	429.8	429.9	430.0	430.1	430.3	430.4
175°	433.2	432.7	432.2	431.7	431.2	431.0	431.1	431.2	431.3	431.5	431.6
177.5°	433.8	433.3	432.8	432.3	431.8	431.6	431.6	431.7	431.8	431.8	431.9
180°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	575.1	575.5	576.4	580.6	582.8	583.2	581.5	585.3	586.6	585.3	584.5
5°	602.3	604.9	610.0	615.5	615.1	615.5	618.1	620.6	621.5	618.1	619.3
7.5°	626.2	631.3	636.8	645.3	645.3	649.5	651.3	653.4	658.5	655.9	655.1
10°	653.4	660.2	670.4	684.0	684.4	688.7	692.9	699.7	701.9	700.2	701.0
12.5°	687.4	700.6	701.4	716.3	723.1	724.0	730.8	729.5	733.8	733.8	741.0
15°	702.3	722.7	734.2	748.7	752.9	747.8	753.3	759.3	759.7	759.7	759.3
17.5°	729.1	737.2	748.7	756.3	758.0	758.0	758.4	761.0	759.3	755.9	758.4
20°	734.6	738.0	742.3	741.4	742.3	738.0	733.8	729.5	729.9	727.8	734.2
22.5°	724.4	723.6	713.8	707.4	707.4	698.9	690.8	687.0	683.2	684.4	686.6
25°	698.9	685.7	673.8	664.4	662.3	648.7	637.6	634.2	627.9	633.0	633.8
27.5°	658.1	643.2	624.0	615.9	604.9	599.4	591.7	581.5	568.3	576.0	574.7
30°	614.2	592.1	576.4	556.8	539.4	538.1	523.6	506.6	499.8	499.8	503.6
32.5°	565.3	536.0	513.0	485.4	468.3	461.1	443.7	426.7	430.5	417.7	422.4
35°	508.3	469.6	440.7	413.9	401.1	392.6	370.1	360.7	350.5	344.6	355.6
37.5°	453.9	409.2	372.2	342.9	338.2	322.9	307.5	301.6	295.6	298.2	297.8
40°	387.5	348.0	314.8	291.8	283.7	276.5	266.3	259.1	255.2	257.4	257.8
42.5°	327.5	294.4	269.7	253.5	246.7	241.6	236.5	230.6	229.3	229.3	231.0
45°	281.2	253.9	237.4	224.2	220.3	216.5	212.7	210.1	209.3	207.6	208.9
47.5°	244.2	222.5	212.3	202.5	198.2	197.4	194.0	192.7	191.0	190.6	191.0
50°	213.1	199.5	190.1	184.6	181.6	180.4	178.7	176.1	175.3	177.4	176.5
52.5°	191.4	178.7	173.6	168.0	166.3	164.6	162.1	162.5	162.1	161.2	161.2
55°	169.7	161.6	156.5	152.3	151.9	150.2	148.0	147.2	146.8	145.9	147.2
57.5°	152.3	145.9	141.2	137.4	135.7	135.7	133.6	131.9	131.9	131.4	131.9
60°	134.8	128.5	125.5	121.7	120.4	120.0	118.7	117.8	116.6	116.6	116.6
62.5°	118.7	113.6	110.2	106.8	107.2	105.1	103.4	102.5	102.5	102.9	102.9
65°	103.4	100.0	95.7	92.7	91.9	91.5	90.6	90.2	88.9	89.8	89.8
67.5°	89.3	84.6	82.1	80.8	79.5	79.1	78.3	77.4	77.0	76.6	77.4
70°	75.3	71.5	69.3	68.5	67.2	66.8	66.4	65.1	65.5	65.9	66.4
72.5°	62.5	59.1	58.7	56.1	56.1	56.1	54.4	55.3	54.9	54.0	54.9
75°	49.3	47.6	46.8	45.5	45.9	45.5	45.1	43.8	43.8	44.2	44.7
77.5°	39.1	37.4	37.0	35.7	34.9	35.7	34.9	34.5	34.5	34.9	34.9
80°	28.9	28.1	26.8	26.8	26.8	26.4	26.4	26.4	25.9	25.5	25.9
82.5°	19.1	19.1	18.7	18.3	18.7	17.9	18.3	18.3	18.3	18.3	18.3
85°	12.3	11.9	11.9	11.5	11.5	11.5	11.9	11.1	11.1	11.5	11.5
87.5°	5.5	5.5	5.5	6.0	5.5	5.5	5.5	6.0	5.5	5.5	5.5
90°	6.6	7.0	7.3	7.6	7.8	7.9	8.0	8.1	8.3	8.4	8.3
92.5°	7.6	7.8	7.9	8.0	8.1	8.1	8.2	8.3	8.3	8.4	8.3
95°	12.6	12.9	13.3	13.6	13.8	13.8	13.7	13.6	13.5	13.4	13.5
97.5°	16.2	16.4	16.6	16.8	16.9	16.9	17.0	17.1	17.1	17.2	17.1
100°	18.4	18.9	19.5	20.0	20.3	20.4	20.5	20.7	20.8	21.0	20.8
102.5°	19.3	20.0	20.8	21.5	21.9	22.0	22.2	22.4	22.6	22.8	22.6
105°	19.9	20.6	21.4	22.1	22.5	22.6	22.9	23.2	23.5	23.8	23.5
107.5°	20.5	21.2	22.0	22.7	23.1	23.2	23.5	23.8	24.1	24.4	24.1
110°	47.8	40.8	33.9	27.0	23.5	23.6	23.9	24.2	24.4	24.7	24.4

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	128.9	99.0	69.0	39.1	24.1	24.2	24.4	24.6	24.8	25.0	24.8
115°	160.8	128.6	96.5	64.3	48.2	45.7	40.7	35.6	30.6	25.6	30.6
117.5°	199.9	190.0	180.0	170.1	165.1	156.0	137.8	119.6	101.4	83.2	101.4
120°	230.1	230.9	231.8	232.6	233.0	228.3	218.9	209.6	200.2	190.8	200.2
122.5°	248.1	248.5	249.0	249.4	249.6	249.6	249.7	249.8	249.8	249.9	249.8
125°	264.8	265.3	265.8	266.3	266.5	266.6	266.8	267.0	267.2	267.4	267.2
127.5°	280.3	281.0	281.7	282.4	282.8	282.8	282.9	283.0	283.0	283.1	283.0
130°	295.1	295.9	296.6	297.4	297.8	297.8	297.7	297.6	297.6	297.5	297.6
132.5°	309.6	310.2	310.9	311.5	311.8	311.8	311.7	311.6	311.6	311.5	311.6
135°	323.2	323.9	324.6	325.3	325.6	325.5	325.4	325.3	325.1	325.0	325.1
137.5°	336.0	336.7	337.4	338.1	338.4	338.3	338.1	337.9	337.7	337.5	337.7
140°	348.4	349.0	349.7	350.3	350.6	350.4	350.1	349.8	349.4	349.1	349.4
142.5°	360.0	360.5	361.1	361.6	361.9	361.7	361.4	361.0	360.7	360.3	360.7
145°	370.5	371.0	371.5	372.0	372.2	372.0	371.7	371.3	371.0	370.6	371.0
147.5°	380.1	380.4	380.8	381.1	381.3	381.2	380.9	380.6	380.3	380.0	380.3
150°	388.6	389.0	389.4	389.8	390.0	389.8	389.5	389.2	388.8	388.5	388.8
152.5°	396.4	396.8	397.3	397.7	397.9	397.7	397.2	396.7	396.2	395.7	396.2
155°	403.3	403.7	404.1	404.5	404.7	404.4	403.9	403.3	402.8	402.2	402.8
157.5°	409.3	409.8	410.3	410.8	411.0	410.7	410.2	409.6	409.1	408.5	409.1
160°	414.5	414.9	415.4	415.8	416.0	415.8	415.3	414.8	414.3	413.8	414.3
162.5°	419.3	419.8	420.3	420.8	421.0	420.7	420.1	419.4	418.8	418.2	418.8
165°	423.1	423.6	424.1	424.6	424.8	424.6	424.1	423.6	423.1	422.6	423.1
167.5°	426.5	427.0	427.5	428.0	428.2	427.9	427.3	426.6	426.0	425.4	426.0
170°	429.0	429.5	430.0	430.5	430.7	430.4	429.8	429.1	428.5	427.9	428.5
172.5°	430.9	431.4	431.9	432.4	432.6	432.3	431.7	431.0	430.4	429.8	430.4
175°	432.1	432.6	433.1	433.6	433.8	433.5	432.8	432.1	431.4	430.7	431.4
177.5°	432.4	432.9	433.4	433.9	434.1	433.8	433.2	432.5	431.9	431.3	431.9
180°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	586.6	583.6	581.1	581.5	583.6	581.9	577.7	572.1	570.0	567.5	570.0
5°	621.9	619.3	614.2	614.7	613.4	611.7	604.9	596.4	596.4	589.6	588.7
7.5°	656.8	653.0	649.5	648.7	644.0	640.6	634.7	622.8	618.1	610.0	605.3
10°	695.9	692.9	689.1	684.4	681.9	675.9	666.1	648.7	640.2	629.1	621.0
12.5°	735.5	735.0	726.5	717.2	716.8	707.4	700.6	677.2	665.7	650.8	631.7
15°	760.6	758.4	753.8	749.1	750.4	740.2	724.8	697.2	689.5	671.7	651.3
17.5°	760.1	760.1	758.9	758.0	756.7	753.8	745.3	727.0	714.6	692.1	672.9
20°	735.9	741.4	742.7	742.3	746.5	748.7	748.2	736.8	727.0	707.0	687.4
22.5°	687.4	700.2	705.7	709.1	718.0	722.7	733.8	729.5	727.0	712.1	695.5
25°	642.3	646.6	663.2	664.0	676.3	687.8	698.9	706.1	715.5	710.0	695.9
27.5°	584.0	593.8	605.7	614.7	617.2	640.6	658.9	672.5	693.8	695.5	690.8
30°	518.1	522.8	542.4	554.3	567.9	584.9	611.3	634.7	653.8	671.2	677.2
32.5°	437.7	456.9	468.3	482.8	494.7	524.9	557.2	587.4	609.6	638.9	651.7
35°	364.1	379.0	398.6	404.5	426.2	451.7	493.9	532.6	566.2	596.0	621.9
37.5°	303.3	315.2	336.0	345.4	358.2	390.9	426.2	474.3	514.7	551.3	583.6
40°	261.6	270.5	286.3	289.3	299.9	329.7	358.2	403.3	456.9	506.2	541.5
42.5°	233.1	237.4	248.0	251.8	258.6	278.6	304.1	346.7	396.5	447.5	497.3
45°	212.7	215.7	222.0	225.4	234.0	242.9	263.7	297.8	336.9	388.4	442.0
47.5°	194.4	198.2	200.8	202.9	207.6	217.4	231.0	256.1	293.5	340.7	392.6
50°	179.1	180.4	185.0	185.5	188.4	194.8	207.6	222.9	252.7	291.0	341.2
52.5°	163.8	165.0	168.0	171.0	172.3	177.4	185.9	198.7	220.8	251.0	295.6
55°	148.5	150.2	153.1	155.3	156.5	160.8	165.9	178.2	195.7	216.9	253.5
57.5°	133.1	137.0	137.8	139.1	141.2	145.9	150.6	157.8	171.4	191.0	217.8
60°	118.7	120.0	122.9	124.2	126.3	128.9	134.8	140.4	150.2	165.5	189.7
62.5°	103.8	106.8	108.0	109.3	111.0	114.0	117.8	123.8	132.3	144.6	163.8
65°	91.0	91.5	94.0	95.7	97.4	99.5	103.4	108.9	114.0	125.5	139.5
67.5°	78.7	79.5	80.4	82.1	84.2	86.4	89.8	92.7	99.1	106.8	117.8
70°	66.8	66.8	68.9	70.2	69.8	72.3	74.9	78.3	82.9	90.2	99.1
72.5°	56.1	55.7	57.4	57.9	58.7	60.4	62.1	65.5	68.1	73.6	80.4
75°	44.7	45.5	46.4	46.4	47.6	48.9	50.6	52.3	55.3	58.7	63.8
77.5°	35.3	35.3	36.2	36.6	37.9	37.4	39.1	40.8	43.0	45.9	49.8
80°	25.9	26.8	26.8	26.8	27.2	27.6	29.4	30.6	31.9	34.0	35.7
82.5°	18.3	18.3	19.1	19.1	19.1	20.0	20.0	20.4	21.3	22.5	23.8
85°	11.5	11.5	11.5	11.9	11.5	11.9	12.8	12.3	12.8	13.6	13.6
87.5°	5.5	5.5	5.5	5.5	5.5	6.0	5.5	6.0	6.4	6.4	6.4
90°	8.1	8.0	7.9	7.8	7.6	7.3	7.0	6.6	6.3	5.7	5.2
92.5°	8.3	8.2	8.1	8.1	8.0	7.9	7.8	7.6	7.5	7.3	7.1
95°	13.6	13.7	13.8	13.8	13.6	13.3	12.9	12.6	12.2	11.7	11.2
97.5°	17.1	17.0	16.9	16.9	16.8	16.6	16.4	16.2	16.0	14.9	13.7
100°	20.7	20.5	20.4	20.3	20.0	19.5	18.9	18.4	17.8	16.6	15.4
102.5°	22.4	22.2	22.0	21.9	21.5	20.8	20.0	19.3	18.5	31.1	43.8
105°	23.2	22.9	22.6	22.5	22.1	21.4	20.6	19.9	19.1	38.1	57.1
107.5°	23.8	23.5	23.2	23.1	22.7	22.0	21.2	20.5	19.7	43.1	66.5
110°	24.2	23.9	23.6	23.5	27.0	33.9	40.8	47.8	54.7	74.8	94.9

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	24.6	24.4	24.2	24.1	39.1	69.0	99.0	128.9	158.9	160.1	161.3
115°	35.6	40.7	45.7	48.2	64.3	96.5	128.6	160.8	193.0	191.3	189.5
117.5°	119.6	137.8	156.0	165.1	170.1	180.0	190.0	199.9	209.9	208.7	207.5
120°	209.6	218.9	228.3	233.0	232.6	231.8	230.9	230.1	229.3	228.0	226.8
122.5°	249.8	249.7	249.6	249.6	249.4	249.0	248.5	248.1	247.7	246.3	244.9
125°	267.0	266.8	266.6	266.5	266.3	265.8	265.3	264.8	264.3	263.0	261.7
127.5°	283.0	282.9	282.8	282.8	282.4	281.7	281.0	280.3	279.6	278.6	277.5
130°	297.6	297.7	297.8	297.8	297.4	296.6	295.9	295.1	294.3	293.5	292.8
132.5°	311.6	311.7	311.8	311.8	311.5	310.9	310.2	309.6	309.0	308.2	307.5
135°	325.3	325.4	325.5	325.6	325.3	324.6	323.9	323.2	322.5	321.9	321.3
137.5°	337.9	338.1	338.3	338.4	338.1	337.4	336.7	336.0	335.3	334.6	333.9
140°	349.8	350.1	350.4	350.6	350.3	349.7	349.0	348.4	347.8	347.0	346.3
142.5°	361.0	361.4	361.7	361.9	361.6	361.1	360.5	360.0	359.4	358.5	357.6
145°	371.3	371.7	372.0	372.2	372.0	371.5	371.0	370.5	370.0	368.8	367.6
147.5°	380.6	380.9	381.2	381.3	381.1	380.8	380.4	380.1	379.7	378.5	377.3
150°	389.2	389.5	389.8	390.0	389.8	389.4	389.0	388.6	388.2	387.1	386.0
152.5°	396.7	397.2	397.7	397.9	397.7	397.3	396.8	396.4	396.0	395.0	393.9
155°	403.3	403.9	404.4	404.7	404.5	404.1	403.7	403.3	402.9	402.1	401.2
157.5°	409.6	410.2	410.7	411.0	410.8	410.3	409.8	409.3	408.8	408.2	407.6
160°	414.8	415.3	415.8	416.0	415.8	415.4	414.9	414.5	414.1	413.7	413.3
162.5°	419.4	420.1	420.7	421.0	420.8	420.3	419.8	419.3	418.8	418.4	418.1
165°	423.6	424.1	424.6	424.8	424.6	424.1	423.6	423.1	422.6	422.4	422.2
167.5°	426.6	427.3	427.9	428.2	428.0	427.5	427.0	426.5	426.0	425.8	425.6
170°	429.1	429.8	430.4	430.7	430.5	430.0	429.5	429.0	428.5	428.4	428.2
172.5°	431.0	431.7	432.3	432.6	432.4	431.9	431.4	430.9	430.4	430.3	430.1
175°	432.1	432.8	433.5	433.8	433.6	433.1	432.6	432.1	431.6	431.5	431.3
177.5°	432.5	433.2	433.8	434.1	433.9	433.4	432.9	432.4	431.9	431.8	431.8
180°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	567.9	565.7	564.5	565.3	562.8	556.4	556.4	558.5	556.0	553.4	549.6
5°	583.6	579.4	576.8	576.4	570.4	560.2	558.1	556.0	550.4	544.5	538.1
7.5°	598.9	591.3	587.0	584.0	575.5	562.3	556.8	552.1	543.2	534.3	526.2
10°	611.7	600.6	595.5	590.8	579.8	563.2	554.3	545.8	534.3	522.8	512.6
12.5°	621.9	609.1	602.8	596.0	582.3	560.6	549.6	536.0	524.5	509.2	499.0
15°	638.9	612.5	606.6	600.2	586.2	556.4	542.8	527.5	511.7	491.3	480.2
17.5°	652.5	617.2	616.8	603.2	584.9	554.7	533.8	513.9	496.8	476.4	459.0
20°	660.6	624.5	617.6	603.6	580.6	543.2	521.5	499.4	481.1	456.4	439.0
22.5°	667.4	634.7	616.8	599.8	571.7	539.4	507.5	486.6	461.5	434.7	418.1
25°	670.0	636.8	618.1	598.5	565.3	528.3	492.2	469.6	441.5	417.3	394.7
27.5°	670.4	636.4	613.4	593.0	556.4	513.9	476.8	453.0	422.0	393.9	371.4
30°	666.1	631.7	610.8	588.7	547.9	500.7	458.1	431.8	398.6	370.5	347.1
32.5°	653.4	622.3	605.3	581.1	536.8	482.4	440.3	410.9	376.0	348.4	325.8
35°	632.1	610.8	592.1	569.6	522.4	465.4	422.4	387.9	352.6	326.3	305.0
37.5°	605.7	594.3	576.8	554.7	505.8	450.0	402.4	364.1	328.8	303.3	282.4
40°	570.0	573.0	556.0	536.0	486.2	429.2	376.5	339.9	306.7	282.9	262.5
42.5°	531.3	543.6	533.8	514.7	464.5	406.2	357.3	316.9	284.6	259.9	242.9
45°	489.6	510.9	504.9	490.9	442.0	382.0	330.1	291.0	262.5	238.6	223.7
47.5°	444.1	474.3	474.3	464.1	416.9	357.7	306.7	266.7	238.6	221.6	207.2
50°	397.7	431.8	437.3	430.5	388.8	330.1	278.2	242.0	217.8	201.2	190.6
52.5°	349.2	388.8	399.0	395.6	359.0	303.7	254.8	219.5	197.4	182.9	173.6
55°	302.9	348.8	359.9	361.1	327.1	274.8	228.9	197.8	176.5	166.7	158.7
57.5°	259.1	303.3	315.6	317.8	294.8	248.4	204.6	177.4	158.2	150.2	143.8
60°	221.6	258.6	274.8	279.5	259.5	217.8	182.1	155.7	141.2	133.6	127.6
62.5°	191.0	220.8	237.8	239.1	230.1	191.0	158.7	136.5	124.2	117.4	114.4
65°	161.2	188.0	198.2	203.3	196.1	165.5	137.0	118.7	108.9	102.9	100.0
67.5°	137.4	154.4	162.9	169.7	162.5	139.5	116.6	101.7	94.4	88.5	86.8
70°	112.7	126.8	133.1	139.9	133.6	116.1	99.5	85.9	79.5	74.9	72.7
72.5°	90.2	101.2	107.2	111.4	107.6	93.2	79.5	70.2	65.5	62.1	60.8
75°	71.5	79.1	82.5	85.5	83.8	72.7	64.2	56.6	52.3	49.3	48.5
77.5°	54.4	60.0	63.8	64.7	62.5	55.3	48.1	43.4	40.0	38.3	37.4
80°	38.7	42.1	44.2	45.5	43.4	40.4	35.3	31.9	28.9	26.8	26.4
82.5°	25.9	27.6	29.4	28.9	28.1	25.5	22.5	20.8	19.6	17.9	17.9
85°	14.9	15.3	16.2	16.6	16.2	14.5	12.8	11.9	11.1	9.8	9.8
87.5°	6.4	6.8	6.8	7.2	6.4	6.4	5.5	4.7	4.7	4.3	3.8
90°	4.6	4.1	3.8	3.4	2.6	1.9	1.1	0.3	1.1	1.9	2.6
92.5°	6.9	6.7	6.6	6.7	7.0	7.3	7.5	7.8	7.5	7.3	7.0
95°	10.7	10.2	10.0	11.1	13.4	15.7	18.0	20.3	18.0	15.7	13.4
97.5°	12.6	11.5	10.9	13.8	19.5	25.2	30.9	36.6	30.9	25.2	19.5
100°	14.3	13.1	12.5	17.3	26.8	36.3	45.9	55.4	45.9	36.3	26.8
102.5°	56.4	69.1	75.4	75.5	75.6	75.7	75.9	76.0	75.9	75.7	75.6
105°	76.0	95.0	104.5	103.5	101.4	99.3	97.2	95.1	97.2	99.3	101.4
107.5°	90.0	113.4	125.1	124.2	122.5	120.8	119.0	117.3	119.0	120.8	122.5
110°	115.0	135.1	145.1	144.4	142.9	141.5	140.0	138.6	140.0	141.5	142.9

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
112.5°	162.4	163.6	164.2	163.6	162.3	161.1	159.8	158.6	159.8	161.1	162.3
115°	187.8	186.1	185.2	184.6	183.4	182.2	181.0	179.8	181.0	182.2	183.4
117.5°	206.4	205.2	204.6	203.9	202.5	201.1	199.7	198.3	199.7	201.1	202.5
120°	225.5	224.2	223.6	223.1	222.0	221.0	219.9	218.9	219.9	221.0	222.0
122.5°	243.6	242.2	241.5	240.9	239.8	238.7	237.6	236.5	237.6	238.7	239.8
125°	260.4	259.1	258.4	257.9	257.0	256.1	255.2	254.3	255.2	256.1	257.0
127.5°	276.5	275.4	274.9	274.4	273.5	272.5	271.6	270.6	271.6	272.5	273.5
130°	292.0	291.3	290.9	290.3	289.2	288.1	287.0	285.9	287.0	288.1	289.2
132.5°	306.7	306.0	305.6	305.1	304.2	303.3	302.4	301.5	302.4	303.3	304.2
135°	320.6	320.0	319.7	319.1	318.0	316.9	315.8	314.7	315.8	316.9	318.0
137.5°	333.2	332.5	332.2	331.8	330.9	330.1	329.2	328.4	329.2	330.1	330.9
140°	345.5	344.8	344.4	344.1	343.6	343.0	342.5	341.9	342.5	343.0	343.6
142.5°	356.7	355.8	355.3	355.1	354.6	354.1	353.6	353.1	353.6	354.1	354.6
145°	366.5	365.3	364.7	364.7	364.8	364.9	364.9	365.0	364.9	364.9	364.8
147.5°	376.2	375.0	374.4	374.5	374.7	374.9	375.1	375.3	375.1	374.9	374.7
150°	384.9	383.8	383.2	383.4	383.9	384.4	384.8	385.3	384.8	384.4	383.9
152.5°	392.9	391.8	391.3	391.6	392.1	392.7	393.2	393.8	393.2	392.7	392.1
155°	400.4	399.5	399.1	399.4	400.0	400.7	401.3	401.9	401.3	400.7	400.0
157.5°	406.9	406.3	406.0	406.3	406.8	407.4	407.9	408.5	407.9	407.4	406.8
160°	412.8	412.4	412.2	412.4	412.8	413.3	413.7	414.1	413.7	413.3	412.8
162.5°	417.7	417.4	417.2	417.4	417.8	418.3	418.7	419.1	418.7	418.3	417.8
165°	421.9	421.7	421.6	421.8	422.2	422.7	423.1	423.5	423.1	422.7	422.2
167.5°	425.4	425.2	425.1	425.3	425.7	426.1	426.5	426.9	426.5	426.1	425.7
170°	428.1	428.0	427.9	428.1	428.5	429.0	429.4	429.8	429.4	429.0	428.5
172.5°	430.0	429.9	429.8	430.0	430.4	430.8	431.2	431.6	431.2	430.8	430.4
175°	431.2	431.1	431.0	431.2	431.7	432.2	432.7	433.2	432.7	432.2	431.7
177.5°	431.7	431.6	431.6	431.8	432.3	432.8	433.3	433.8	433.3	432.8	432.3
180°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	547.5	549.6	549.2	544.9	540.2	536.4	529.2	530.0	527.5	527.9	530.4
5°	533.8	533.8	532.1	526.2	518.5	514.3	506.2	504.1	499.0	498.5	498.1
7.5°	519.4	517.3	515.1	506.6	497.3	490.5	479.4	476.8	471.7	468.3	466.6
10°	502.4	499.4	495.1	485.4	473.9	465.4	453.9	450.5	440.7	436.4	433.9
12.5°	483.7	482.0	475.1	467.1	448.3	439.0	422.4	425.8	416.0	407.5	406.2
15°	464.9	458.6	454.7	441.5	419.0	414.7	401.6	394.7	385.8	379.0	379.0
17.5°	446.6	436.9	428.4	414.3	397.7	385.8	376.0	372.6	361.6	354.8	353.5
20°	422.4	411.3	409.2	389.2	377.7	364.5	355.2	346.7	338.6	335.6	333.5
22.5°	399.4	386.7	383.3	366.2	354.8	341.6	332.2	326.3	320.3	318.2	314.4
25°	374.8	367.1	362.0	343.7	330.9	318.6	312.2	308.0	302.4	302.0	299.5
27.5°	350.9	343.7	338.6	321.2	311.8	300.3	295.2	290.5	287.6	286.3	285.0
30°	330.5	322.4	316.5	303.7	292.2	282.9	278.6	275.6	273.9	271.8	271.4
32.5°	308.0	303.3	295.2	285.4	276.5	267.6	265.0	262.9	260.3	259.5	259.1
35°	288.8	282.4	277.3	266.3	262.5	254.8	251.8	250.1	246.7	245.9	245.0
37.5°	270.1	264.2	258.6	251.8	244.6	240.3	238.6	236.1	234.4	234.8	234.0
40°	251.4	246.7	242.5	235.2	231.0	228.9	225.4	222.9	222.0	222.5	222.0
42.5°	233.1	228.9	226.3	220.8	216.5	214.4	212.3	209.7	211.0	211.0	212.3
45°	216.5	212.7	211.0	206.7	204.2	200.8	198.7	198.2	199.9	199.5	199.5
47.5°	199.5	198.2	196.1	192.3	188.9	186.7	186.3	186.3	188.0	188.9	188.4
50°	186.3	183.8	181.2	178.2	175.7	174.8	173.6	174.4	176.1	176.1	177.0
52.5°	169.7	168.0	167.2	164.6	162.9	162.9	162.9	163.3	164.6	165.9	165.5
55°	155.3	154.0	153.1	151.9	149.7	150.2	149.7	150.6	151.9	153.1	154.0
57.5°	139.9	139.5	138.7	136.5	136.5	136.1	137.4	137.8	139.9	140.8	142.1
60°	126.3	125.1	125.1	123.4	123.4	123.4	124.6	125.9	127.6	128.0	128.9
62.5°	111.9	111.9	111.4	110.2	110.2	111.4	111.9	113.6	114.4	114.4	115.7
65°	98.3	97.8	97.4	97.8	98.3	98.3	99.5	100.4	101.2	101.7	102.1
67.5°	84.6	84.2	85.1	84.6	85.5	87.2	86.8	88.1	89.3	89.3	89.8
70°	71.9	72.7	72.3	73.2	72.7	73.6	74.9	75.3	75.3	75.7	77.0
72.5°	60.0	60.0	60.0	59.6	60.0	60.8	61.7	62.1	63.0	63.4	64.7
75°	48.5	48.5	47.6	48.5	48.5	49.3	50.2	50.2	50.2	51.0	52.3
77.5°	36.6	37.0	36.6	37.4	37.4	37.9	38.7	38.3	39.1	39.6	40.0
80°	26.8	26.4	26.4	26.4	26.8	26.8	27.6	28.1	28.1	29.4	28.5
82.5°	17.0	17.4	17.0	17.4	17.4	17.9	17.4	17.9	18.3	19.1	18.7
85°	9.8	9.4	9.4	9.8	9.4	9.4	9.8	9.4	9.8	9.4	9.8
87.5°	3.8	3.4	3.4	3.4	3.4	3.0	3.0	2.6	2.6	2.6	2.1
90°	3.4	3.8	4.1	4.6	5.2	5.7	6.3	6.6	7.0	7.3	7.6
92.5°	6.7	6.6	6.7	6.9	7.1	7.3	7.5	7.6	7.8	7.9	8.0
95°	11.1	10.0	10.2	10.7	11.2	11.7	12.2	12.6	12.9	13.3	13.6
97.5°	13.8	10.9	11.5	12.6	13.7	14.9	16.0	16.2	16.4	16.6	16.8
100°	17.3	12.5	13.1	14.3	15.4	16.6	17.8	18.4	18.9	19.5	20.0
102.5°	75.5	75.4	69.1	56.4	43.8	31.1	18.5	19.3	20.0	20.8	21.5
105°	103.5	104.5	95.0	76.0	57.1	38.1	19.1	19.9	20.6	21.4	22.1
107.5°	124.2	125.1	113.4	90.0	66.5	43.1	19.7	20.5	21.2	22.0	22.7
110°	144.4	145.1	135.1	115.0	94.9	74.8	54.7	47.8	40.8	33.9	27.0

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
112.5°	163.6	164.2	163.6	162.4	161.3	160.1	158.9	128.9	99.0	69.0	39.1
115°	184.6	185.2	186.1	187.8	189.5	191.3	193.0	160.8	128.6	96.5	64.3
117.5°	203.9	204.6	205.2	206.4	207.5	208.7	209.9	199.9	190.0	180.0	170.1
120°	223.1	223.6	224.2	225.5	226.8	228.0	229.3	230.1	230.9	231.8	232.6
122.5°	240.9	241.5	242.2	243.6	244.9	246.3	247.7	248.1	248.5	249.0	249.4
125°	257.9	258.4	259.1	260.4	261.7	263.0	264.3	264.8	265.3	265.8	266.3
127.5°	274.4	274.9	275.4	276.5	277.5	278.6	279.6	280.3	281.0	281.7	282.4
130°	290.3	290.9	291.3	292.0	292.8	293.5	294.3	295.1	295.9	296.6	297.4
132.5°	305.1	305.6	306.0	306.7	307.5	308.2	309.0	309.6	310.2	310.9	311.5
135°	319.1	319.7	320.0	320.6	321.3	321.9	322.5	323.2	323.9	324.6	325.3
137.5°	331.8	332.2	332.5	333.2	333.9	334.6	335.3	336.0	336.7	337.4	338.1
140°	344.1	344.4	344.8	345.5	346.3	347.0	347.8	348.4	349.0	349.7	350.3
142.5°	355.1	355.3	355.8	356.7	357.6	358.5	359.4	360.0	360.5	361.1	361.6
145°	364.7	364.7	365.3	366.5	367.6	368.8	370.0	370.5	371.0	371.5	372.0
147.5°	374.5	374.4	375.0	376.2	377.3	378.5	379.7	380.1	380.4	380.8	381.1
150°	383.4	383.2	383.8	384.9	386.0	387.1	388.2	388.6	389.0	389.4	389.8
152.5°	391.6	391.3	391.8	392.9	393.9	395.0	396.0	396.4	396.8	397.3	397.7
155°	399.4	399.1	399.5	400.4	401.2	402.1	402.9	403.3	403.7	404.1	404.5
157.5°	406.3	406.0	406.3	406.9	407.6	408.2	408.8	409.3	409.8	410.3	410.8
160°	412.4	412.2	412.4	412.8	413.3	413.7	414.1	414.5	414.9	415.4	415.8
162.5°	417.4	417.2	417.4	417.7	418.1	418.4	418.8	419.3	419.8	420.3	420.8
165°	421.8	421.6	421.7	421.9	422.2	422.4	422.6	423.1	423.6	424.1	424.6
167.5°	425.3	425.1	425.2	425.4	425.6	425.8	426.0	426.5	427.0	427.5	428.0
170°	428.1	427.9	428.0	428.1	428.2	428.4	428.5	429.0	429.5	430.0	430.5
172.5°	430.0	429.8	429.9	430.0	430.1	430.3	430.4	430.9	431.4	431.9	432.4
175°	431.2	431.0	431.1	431.2	431.3	431.5	431.6	432.1	432.6	433.1	433.6
177.5°	431.8	431.6	431.6	431.7	431.8	431.8	431.9	432.4	432.9	433.4	433.9
180°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	527.5	528.7	525.8	524.9	525.8	522.8	523.6	524.5	524.5	525.8	526.6
5°	496.8	495.1	492.2	491.3	490.5	491.7	490.9	492.2	492.6	495.6	496.0
7.5°	466.6	464.1	461.5	459.0	458.1	456.0	458.1	458.1	461.1	460.3	462.4
10°	430.9	430.5	427.1	425.8	424.1	420.7	425.4	424.1	426.2	430.1	430.9
12.5°	404.5	399.9	402.0	396.0	398.2	394.7	395.2	395.2	398.6	399.0	398.2
15°	379.4	375.6	370.1	367.5	366.2	364.5	370.1	370.5	368.0	373.9	371.8
17.5°	353.9	353.9	348.8	347.5	344.1	345.8	345.0	345.4	344.6	348.8	350.9
20°	331.8	329.7	328.0	328.4	324.1	323.3	322.4	323.3	326.3	329.2	330.1
22.5°	313.9	312.7	308.4	309.2	305.8	307.1	306.3	308.4	308.8	308.8	311.8
25°	296.9	295.2	295.6	293.9	292.7	292.7	291.4	292.7	294.4	295.2	295.6
27.5°	284.2	282.9	280.7	279.5	280.3	278.2	279.9	281.2	281.2	280.3	281.2
30°	268.8	269.7	269.7	265.4	267.1	266.3	267.6	268.4	268.4	268.8	268.0
32.5°	258.6	256.1	255.7	255.2	255.2	253.5	253.5	254.8	255.2	255.7	256.9
35°	245.0	245.0	242.9	244.2	242.5	242.9	242.5	242.9	243.7	242.5	243.7
37.5°	232.7	233.1	232.3	233.1	233.5	232.7	231.8	233.5	232.7	232.7	231.8
40°	222.0	221.6	222.0	222.0	222.0	222.5	221.6	221.6	221.6	220.8	219.9
42.5°	213.1	210.6	211.4	211.8	210.6	210.6	211.0	210.6	211.8	209.3	209.3
45°	200.4	199.5	199.9	199.9	200.8	199.5	200.4	200.8	199.5	199.1	198.2
47.5°	188.9	189.7	188.9	189.7	189.7	190.6	188.9	189.3	189.7	188.0	186.7
50°	177.4	177.4	178.7	178.2	178.7	177.8	177.8	177.4	177.8	177.0	175.7
52.5°	166.7	165.5	167.6	167.2	166.7	166.3	165.9	166.3	165.5	164.6	164.6
55°	153.6	153.6	154.8	155.3	155.3	154.4	153.6	154.0	153.6	153.1	152.7
57.5°	142.9	141.2	142.1	142.5	142.5	141.2	142.1	141.2	141.2	141.7	140.4
60°	129.3	129.3	128.5	129.7	129.7	128.9	128.9	129.3	128.5	128.0	127.6
62.5°	114.9	115.3	116.6	117.0	117.4	116.6	115.7	116.1	116.1	114.9	115.3
65°	102.5	103.4	105.1	104.6	103.8	104.2	103.4	103.8	102.5	102.9	101.7
67.5°	90.6	90.2	90.6	90.6	91.5	91.0	90.2	90.2	89.8	91.0	89.8
70°	77.8	77.8	77.8	77.8	78.3	78.7	77.8	77.0	77.4	76.6	76.1
72.5°	64.7	65.1	64.7	65.5	64.2	65.1	65.1	64.7	64.2	64.2	64.2
75°	52.3	53.2	51.9	52.3	51.9	52.7	52.3	52.3	51.5	51.0	51.5
77.5°	40.0	40.4	39.6	40.0	39.6	40.0	40.0	39.6	39.6	39.6	39.6
80°	28.5	28.9	28.5	28.1	27.6	28.5	27.6	28.1	28.5	28.1	28.9
82.5°	18.3	18.3	17.9	18.3	17.4	17.4	17.9	17.9	17.4	18.3	17.4
85°	8.9	8.9	9.8	8.9	8.5	8.5	8.5	8.9	8.5	9.4	8.9
87.5°	2.1	1.7	2.1	2.1	1.7	1.7	2.1	1.7	2.1	2.6	1.7
90°	7.8	7.9	8.0	8.1	8.3	8.4	8.3	8.1	8.0	7.9	7.8
92.5°	8.1	8.1	8.2	8.3	8.3	8.4	8.3	8.3	8.2	8.1	8.1
95°	13.8	13.8	13.7	13.6	13.5	13.4	13.5	13.6	13.7	13.8	13.8
97.5°	16.9	16.9	17.0	17.1	17.1	17.2	17.1	17.1	17.0	16.9	16.9
100°	20.3	20.4	20.5	20.7	20.8	21.0	20.8	20.7	20.5	20.4	20.3
102.5°	21.9	22.0	22.2	22.4	22.6	22.8	22.6	22.4	22.2	22.0	21.9
105°	22.5	22.6	22.9	23.2	23.5	23.8	23.5	23.2	22.9	22.6	22.5
107.5°	23.1	23.2	23.5	23.8	24.1	24.4	24.1	23.8	23.5	23.2	23.1
110°	23.5	23.6	23.9	24.2	24.4	24.7	24.4	24.2	23.9	23.6	23.5

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
112.5°	24.1	24.2	24.4	24.6	24.8	25.0	24.8	24.6	24.4	24.2	24.1
115°	48.2	45.7	40.7	35.6	30.6	25.6	30.6	35.6	40.7	45.7	48.2
117.5°	165.1	156.0	137.8	119.6	101.4	83.2	101.4	119.6	137.8	156.0	165.1
120°	233.0	228.3	218.9	209.6	200.2	190.8	200.2	209.6	218.9	228.3	233.0
122.5°	249.6	249.6	249.7	249.8	249.8	249.9	249.8	249.8	249.7	249.6	249.6
125°	266.5	266.6	266.8	267.0	267.2	267.4	267.2	267.0	266.8	266.6	266.5
127.5°	282.8	282.8	282.9	283.0	283.0	283.1	283.0	283.0	282.9	282.8	282.8
130°	297.8	297.8	297.7	297.6	297.6	297.5	297.6	297.6	297.7	297.8	297.8
132.5°	311.8	311.8	311.7	311.6	311.6	311.5	311.6	311.6	311.7	311.8	311.8
135°	325.6	325.5	325.4	325.3	325.1	325.0	325.1	325.3	325.4	325.5	325.6
137.5°	338.4	338.3	338.1	337.9	337.7	337.5	337.7	337.9	338.1	338.3	338.4
140°	350.6	350.4	350.1	349.8	349.4	349.1	349.4	349.8	350.1	350.4	350.6
142.5°	361.9	361.7	361.4	361.0	360.7	360.3	360.7	361.0	361.4	361.7	361.9
145°	372.2	372.0	371.7	371.3	371.0	370.6	371.0	371.3	371.7	372.0	372.2
147.5°	381.3	381.2	380.9	380.6	380.3	380.0	380.3	380.6	380.9	381.2	381.3
150°	390.0	389.8	389.5	389.2	388.8	388.5	388.8	389.2	389.5	389.8	390.0
152.5°	397.9	397.7	397.2	396.7	396.2	395.7	396.2	396.7	397.2	397.7	397.9
155°	404.7	404.4	403.9	403.3	402.8	402.2	402.8	403.3	403.9	404.4	404.7
157.5°	411.0	410.7	410.2	409.6	409.1	408.5	409.1	409.6	410.2	410.7	411.0
160°	416.0	415.8	415.3	414.8	414.3	413.8	414.3	414.8	415.3	415.8	416.0
162.5°	421.0	420.7	420.1	419.4	418.8	418.2	418.8	419.4	420.1	420.7	421.0
165°	424.8	424.6	424.1	423.6	423.1	422.6	423.1	423.6	424.1	424.6	424.8
167.5°	428.2	427.9	427.3	426.6	426.0	425.4	426.0	426.6	427.3	427.9	428.2
170°	430.7	430.4	429.8	429.1	428.5	427.9	428.5	429.1	429.8	430.4	430.7
172.5°	432.6	432.3	431.7	431.0	430.4	429.8	430.4	431.0	431.7	432.3	432.6
175°	433.8	433.5	432.8	432.1	431.4	430.7	431.4	432.1	432.8	433.5	433.8
177.5°	434.1	433.8	433.2	432.5	431.9	431.3	431.9	432.5	433.2	433.8	434.1
180°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4	553.4
2.5°	525.3	528.7	527.5	522.8	528.3	528.3	532.1	532.1	536.8	538.5	541.1
5°	495.6	498.1	500.2	498.1	501.9	507.9	511.3	514.3	520.7	523.2	527.0
7.5°	463.7	468.3	470.5	470.5	476.8	483.7	490.5	494.7	503.6	507.0	510.9
10°	432.6	438.1	442.4	442.0	452.6	456.9	465.4	475.1	484.1	489.2	494.7
12.5°	399.9	402.8	408.8	417.3	419.8	427.5	437.3	449.6	465.8	470.5	478.5
15°	372.6	380.7	385.4	389.2	395.2	402.4	413.0	425.0	441.1	451.3	459.8
17.5°	349.7	360.3	363.3	362.4	370.1	381.1	393.5	402.4	416.9	429.2	437.3
20°	330.9	335.2	340.3	342.4	348.4	360.3	372.2	382.4	394.3	404.1	413.5
22.5°	312.2	315.6	319.9	323.7	328.4	335.2	346.7	359.4	370.9	380.3	390.9
25°	296.9	299.0	302.9	305.8	310.9	315.6	323.7	337.7	351.4	356.9	366.2
27.5°	282.0	283.7	286.3	289.7	292.2	296.9	304.1	315.6	329.7	335.2	348.0
30°	268.8	270.1	272.7	274.4	275.6	281.2	286.7	295.6	306.3	313.9	323.3
32.5°	256.5	257.8	260.3	260.8	262.5	265.4	270.5	278.6	288.0	294.4	302.4
35°	242.9	243.7	246.3	247.1	248.4	251.0	254.8	260.8	269.3	273.9	281.2
37.5°	232.3	231.8	233.5	234.8	236.5	237.8	239.1	245.0	251.4	255.7	261.2
40°	220.8	219.9	220.3	222.0	222.9	224.6	224.6	230.6	234.8	238.2	242.5
42.5°	209.3	208.9	208.0	208.9	209.7	210.1	210.6	214.8	219.1	222.0	226.7
45°	197.8	197.4	196.5	196.9	196.9	197.8	199.1	200.8	203.8	206.3	208.9
47.5°	187.2	186.3	185.0	184.6	185.5	185.5	185.5	187.2	190.1	191.0	193.5
50°	176.1	174.8	173.1	172.3	172.3	171.9	172.7	173.1	175.7	176.5	178.7
52.5°	164.2	163.3	161.6	159.9	160.4	159.5	159.9	160.4	161.2	162.5	163.8
55°	152.3	150.6	149.3	148.9	147.6	147.6	146.3	148.0	147.6	148.0	149.7
57.5°	140.8	139.1	137.0	136.1	134.8	134.4	133.6	133.1	133.6	134.8	136.1
60°	127.2	126.3	125.1	123.8	122.9	121.7	120.8	120.8	120.4	120.4	120.8
62.5°	114.0	113.6	111.9	111.4	110.6	109.7	108.5	107.6	107.6	108.5	108.9
65°	101.2	100.8	99.5	99.1	97.0	96.1	95.7	95.3	94.4	94.4	94.4
67.5°	89.3	88.1	88.1	85.9	84.2	83.4	82.5	82.1	82.1	82.1	82.5
70°	76.1	76.1	74.9	73.6	71.9	72.3	71.0	69.8	69.8	68.9	69.3
72.5°	63.4	63.0	61.7	61.3	60.0	58.7	57.9	58.7	57.4	57.0	57.4
75°	51.0	50.6	49.8	48.9	49.3	48.1	46.8	46.4	46.4	45.5	45.5
77.5°	39.1	40.0	38.3	37.9	37.0	36.2	35.7	35.3	35.3	35.3	36.2
80°	27.2	27.6	27.6	26.8	27.2	25.9	25.9	25.9	24.7	25.1	25.5
82.5°	17.4	17.4	17.0	17.4	17.0	17.0	16.6	16.6	16.2	16.2	16.6
85°	9.8	9.4	8.9	9.8	9.4	9.4	8.9	8.9	8.9	8.9	8.9
87.5°	2.1	2.6	2.6	2.6	2.6	3.0	3.0	3.0	3.4	3.4	3.4
90°	7.6	7.3	7.0	6.6	6.3	5.7	5.2	4.6	4.1	3.8	3.4
92.5°	8.0	7.9	7.8	7.6	7.5	7.3	7.1	6.9	6.7	6.6	6.7
95°	13.6	13.3	12.9	12.6	12.2	11.7	11.2	10.7	10.2	10.0	11.1
97.5°	16.8	16.6	16.4	16.2	16.0	14.9	13.7	12.6	11.5	10.9	13.8
100°	20.0	19.5	18.9	18.4	17.8	16.6	15.4	14.3	13.1	12.5	17.3
102.5°	21.5	20.8	20.0	19.3	18.5	31.1	43.8	56.4	69.1	75.4	75.5
105°	22.1	21.4	20.6	19.9	19.1	38.1	57.1	76.0	95.0	104.5	103.5
107.5°	22.7	22.0	21.2	20.5	19.7	43.1	66.5	90.0	113.4	125.1	124.2
110°	27.0	33.9	40.8	47.8	54.7	74.8	94.9	115.0	135.1	145.1	144.4

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
112.5°	39.1	69.0	99.0	128.9	158.9	160.1	161.3	162.4	163.6	164.2	163.6
115°	64.3	96.5	128.6	160.8	193.0	191.3	189.5	187.8	186.1	185.2	184.6
117.5°	170.1	180.0	190.0	199.9	209.9	208.7	207.5	206.4	205.2	204.6	203.9
120°	232.6	231.8	230.9	230.1	229.3	228.0	226.8	225.5	224.2	223.6	223.1
122.5°	249.4	249.0	248.5	248.1	247.7	246.3	244.9	243.6	242.2	241.5	240.9
125°	266.3	265.8	265.3	264.8	264.3	263.0	261.7	260.4	259.1	258.4	257.9
127.5°	282.4	281.7	281.0	280.3	279.6	278.6	277.5	276.5	275.4	274.9	274.4
130°	297.4	296.6	295.9	295.1	294.3	293.5	292.8	292.0	291.3	290.9	290.3
132.5°	311.5	310.9	310.2	309.6	309.0	308.2	307.5	306.7	306.0	305.6	305.1
135°	325.3	324.6	323.9	323.2	322.5	321.9	321.3	320.6	320.0	319.7	319.1
137.5°	338.1	337.4	336.7	336.0	335.3	334.6	333.9	333.2	332.5	332.2	331.8
140°	350.3	349.7	349.0	348.4	347.8	347.0	346.3	345.5	344.8	344.4	344.1
142.5°	361.6	361.1	360.5	360.0	359.4	358.5	357.6	356.7	355.8	355.3	355.1
145°	372.0	371.5	371.0	370.5	370.0	368.8	367.6	366.5	365.3	364.7	364.7
147.5°	381.1	380.8	380.4	380.1	379.7	378.5	377.3	376.2	375.0	374.4	374.5
150°	389.8	389.4	389.0	388.6	388.2	387.1	386.0	384.9	383.8	383.2	383.4
152.5°	397.7	397.3	396.8	396.4	396.0	395.0	393.9	392.9	391.8	391.3	391.6
155°	404.5	404.1	403.7	403.3	402.9	402.1	401.2	400.4	399.5	399.1	399.4
157.5°	410.8	410.3	409.8	409.3	408.8	408.2	407.6	406.9	406.3	406.0	406.3
160°	415.8	415.4	414.9	414.5	414.1	413.7	413.3	412.8	412.4	412.2	412.4
162.5°	420.8	420.3	419.8	419.3	418.8	418.4	418.1	417.7	417.4	417.2	417.4
165°	424.6	424.1	423.6	423.1	422.6	422.4	422.2	421.9	421.7	421.6	421.8
167.5°	428.0	427.5	427.0	426.5	426.0	425.8	425.6	425.4	425.2	425.1	425.3
170°	430.5	430.0	429.5	429.0	428.5	428.4	428.2	428.1	428.0	427.9	428.1
172.5°	432.4	431.9	431.4	430.9	430.4	430.3	430.1	430.0	429.9	429.8	430.0
175°	433.6	433.1	432.6	432.1	431.6	431.5	431.3	431.2	431.1	431.0	431.2
177.5°	433.9	433.4	432.9	432.4	431.9	431.8	431.8	431.7	431.6	431.6	431.8
180°	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	553.4	553.4	553.4	553.4
2.5°	543.2	543.2	549.6	556.4
5°	531.3	534.3	544.5	553.8
7.5°	519.8	524.9	537.7	549.6
10°	505.8	512.6	528.3	542.4
12.5°	492.2	498.5	516.8	532.6
15°	473.0	481.1	500.7	520.2
17.5°	453.9	462.0	485.8	508.7
20°	431.3	442.0	468.8	499.4
22.5°	410.5	423.7	453.5	478.1
25°	387.5	407.9	435.6	467.5
27.5°	367.1	387.5	415.6	447.9
30°	344.1	365.0	393.9	423.7
32.5°	322.0	341.2	369.2	405.8
35°	299.0	317.3	344.6	381.6
37.5°	278.2	296.1	325.8	359.9
40°	257.8	276.5	302.0	336.0
42.5°	238.6	255.2	278.2	312.2
45°	221.2	233.1	254.4	286.3
47.5°	202.9	213.5	233.1	265.0
50°	185.9	194.8	211.8	241.6
52.5°	169.3	177.0	192.7	216.5
55°	154.4	161.6	173.1	196.5
57.5°	139.1	144.6	155.7	174.4
60°	124.2	129.3	138.2	153.6
62.5°	109.3	113.6	122.1	134.4
65°	96.1	99.5	105.9	116.6
67.5°	83.4	85.5	90.6	99.1
70°	71.0	72.7	77.0	83.8
72.5°	57.9	59.6	64.2	68.9
75°	46.8	47.2	50.6	54.4
77.5°	36.6	36.2	38.7	41.7
80°	25.1	26.4	28.5	29.8
82.5°	17.0	17.4	18.3	19.1
85°	9.4	9.8	9.8	11.1
87.5°	3.8	4.3	4.3	4.7
90°	2.6	1.9	1.1	0.3
92.5°	7.0	7.3	7.5	7.8
95°	13.4	15.7	18.0	20.3
97.5°	19.5	25.2	30.9	36.6
100°	26.8	36.3	45.9	55.4
102.5°	75.6	75.7	75.9	76.0
105°	101.4	99.3	97.2	95.1
107.5°	122.5	120.8	119.0	117.3
110°	142.9	141.5	140.0	138.6



TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
112.5°	162.3	161.1	159.8	158.6
115°	183.4	182.2	181.0	179.8
117.5°	202.5	201.1	199.7	198.3
120°	222.0	221.0	219.9	218.9
122.5°	239.8	238.7	237.6	236.5
125°	257.0	256.1	255.2	254.3
127.5°	273.5	272.5	271.6	270.6
130°	289.2	288.1	287.0	285.9
132.5°	304.2	303.3	302.4	301.5
135°	318.0	316.9	315.8	314.7
137.5°	330.9	330.1	329.2	328.4
140°	343.6	343.0	342.5	341.9
142.5°	354.6	354.1	353.6	353.1
145°	364.8	364.9	364.9	365.0
147.5°	374.7	374.9	375.1	375.3
150°	383.9	384.4	384.8	385.3
152.5°	392.1	392.7	393.2	393.8
155°	400.0	400.7	401.3	401.9
157.5°	406.8	407.4	407.9	408.5
160°	412.8	413.3	413.7	414.1
162.5°	417.8	418.3	418.7	419.1
165°	422.2	422.7	423.1	423.5
167.5°	425.7	426.1	426.5	426.9
170°	428.5	429.0	429.4	429.8
172.5°	430.4	430.8	431.2	431.6
175°	431.7	432.2	432.7	433.2
177.5°	432.3	432.8	433.3	433.8
180°	432.3	432.3	432.3	432.3

TEST NUMBER: P998151

CATALOG NUMBER: SA2XXDIP-B290D330UB2750-4F0-XX-W2A-A_5000K

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	13.30	14.12	14.27	15.10	16.39	10.79	11.61	11.76	12.59	13.88
	3H	14.11	14.84	15.09	15.83	17.14	12.13	12.87	13.12	13.86	15.17
	4H	14.27	14.97	15.27	15.96	17.28	12.59	13.29	13.59	14.28	15.60
	6H	14.32	14.96	15.32	15.95	17.28	12.90	13.54	13.91	14.54	15.87
	8H	14.30	14.90	15.31	15.92	17.24	12.98	13.59	13.99	14.60	15.93
	12H	14.26	14.83	15.27	15.84	17.19	13.02	13.60	14.04	14.61	15.96
4H	2H	13.33	14.03	14.34	15.02	16.34	11.23	11.93	12.23	12.92	14.24
	3H	14.31	14.89	15.32	15.91	17.24	12.69	13.27	13.70	14.29	15.62
	4H	14.59	15.11	15.61	16.13	17.48	13.22	13.75	14.24	14.77	16.12
	6H	14.72	15.17	15.75	16.21	17.56	13.60	14.05	14.63	15.09	16.44
	8H	14.71	15.14	15.74	16.17	17.53	13.71	14.13	14.74	15.16	16.53
	12H	14.68	15.06	15.72	16.10	17.47	13.76	14.15	14.81	15.19	16.56
8H	4H	14.59	15.02	15.62	16.05	17.41	13.36	13.79	14.39	14.82	16.18
	6H	14.77	15.12	15.82	16.19	17.56	13.80	14.14	14.85	15.22	16.58
	8H	14.80	15.11	15.86	16.17	17.55	13.95	14.25	15.01	15.31	16.69
	12H	14.78	15.05	15.85	16.11	17.53	14.04	14.31	15.10	15.36	16.78
12H	4H	14.55	14.93	15.60	15.98	17.35	13.33	13.72	14.38	14.76	16.13
	6H	14.75	15.06	15.81	16.11	17.50	13.80	14.10	14.86	15.16	16.54
	8H	14.78	15.05	15.84	16.10	17.53	13.95	14.22	15.02	15.27	16.70