

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: P998211

Luminaire Tested: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998211
REPORT IS A COMBINATION OF REPORTS P983951 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

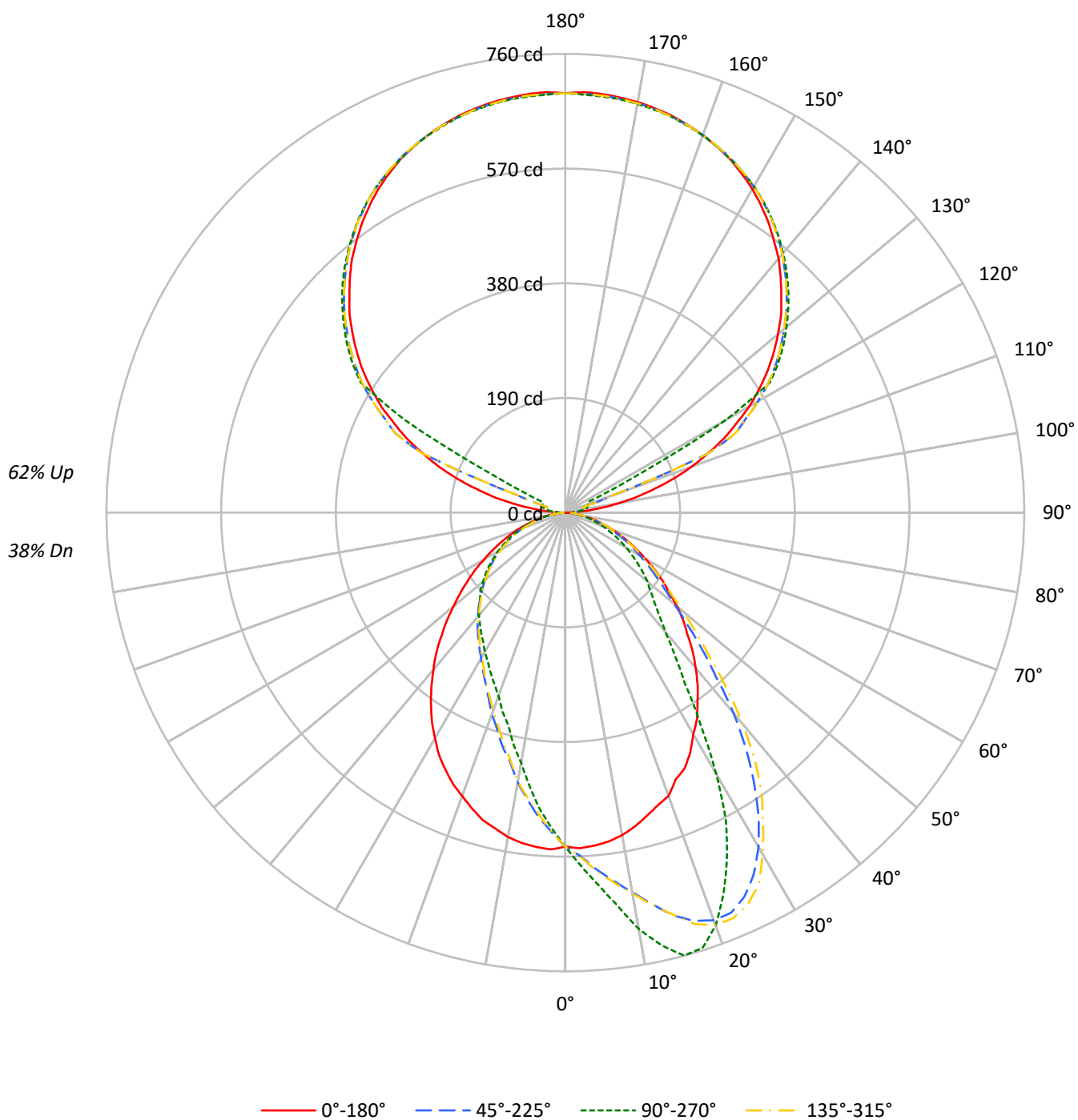
Lumens per Lamp: N/A
Luminaire Lumens: 3259.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.23
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 28.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	1.6
10°-20°	153.4	4.7
20°-30°	222.7	6.8
30°-40°	234.7	7.2
40°-50°	207.7	6.4
50°-60°	165.9	5.1
60°-70°	112.7	3.5
70°-80°	57.6	1.8
80°-90°	14.8	0.5
90°-100°	22.9	0.7
100°-110°	85.4	2.6
110°-120°	226.5	6.9
120°-130°	375.7	11.5
130°-140°	399.0	12.2
140°-150°	370.9	11.4
150°-160°	298.2	9.1
160°-170°	192.1	5.9
170°-180°	66.1	2.0
0°-30°	428.8	13.2
0°-40°	663.5	20.4
0°-60°	1037.1	31.8
0°-90°	1222.2	37.5
90°-120°	334.8	10.3
90°-150°	1480.4	45.4
90°-180°	2037.0	62.5
0°-180°	3259.0	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	14	0	14	0	3
95°	33	22	33	22	33	39
105°	153	38	153	38	153	163
115°	289	41	289	41	289	285
125°	409	430	409	430	409	365
135°	506	522	506	522	506	391
145°	587	596	587	596	587	367
155°	646	646	646	646	646	298
165°	681	679	681	679	681	192
175°	696	692	696	692	696	66
180°	695	695	695	695	695	

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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°	0.5	1.7	2.9	4.2	5.4	6.0	6.5	7.4	8.3	9.2	10.1
92.5°	12.6	12.2	11.7	11.3	10.8	10.6	10.8	11.1	11.4	11.8	12.1
95°	32.7	29.0	25.3	21.6	17.9	16.1	16.5	17.3	18.0	18.8	19.6
97.5°	58.8	49.6	40.5	31.3	22.2	17.6	18.5	20.3	22.0	23.8	25.6
100°	89.0	73.7	58.4	43.1	27.8	20.1	21.1	23.0	24.9	26.8	28.7
102.5°	122.2	122.0	121.8	121.5	121.3	121.2	111.0	90.7	70.4	50.0	29.7
105°	152.8	156.2	159.5	162.9	166.2	167.9	152.7	122.2	91.7	61.2	30.7
107.5°	188.5	191.3	194.1	196.9	199.7	201.1	182.3	144.6	107.0	69.3	31.7
110°	222.7	225.1	227.4	229.8	232.1	233.3	217.2	184.9	152.6	120.3	88.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	254.9	256.9	258.9	260.9	262.9	263.9	263.0	261.1	259.2	257.3	255.4
115°	289.1	291.0	292.9	294.8	296.7	297.6	299.0	301.8	304.6	307.4	310.2
117.5°	318.7	320.9	323.2	325.4	327.7	328.8	329.7	331.6	333.5	335.4	337.3
120°	351.9	353.6	355.2	356.9	358.6	359.4	360.4	362.4	364.5	366.5	368.5
122.5°	380.1	381.9	383.7	385.4	387.2	388.1	389.2	391.5	393.7	396.0	398.2
125°	408.7	410.1	411.6	413.0	414.5	415.2	416.3	418.4	420.5	422.7	424.8
127.5°	434.9	436.5	438.0	439.6	441.1	441.9	442.7	444.4	446.1	447.7	449.4
130°	459.5	461.3	463.1	464.8	466.6	467.5	468.1	469.4	470.6	471.9	473.1
132.5°	484.6	486.1	487.5	489.0	490.5	491.2	491.8	493.0	494.3	495.5	496.7
135°	505.7	507.5	509.3	511.1	512.9	513.8	514.3	515.3	516.3	517.3	518.3
137.5°	527.9	529.2	530.6	531.9	533.2	533.9	534.5	535.6	536.7	537.8	538.9
140°	549.5	550.4	551.3	552.2	553.1	553.5	554.1	555.3	556.6	557.8	559.0
142.5°	567.6	568.4	569.2	569.9	570.7	571.1	571.8	573.3	574.7	576.2	577.6
145°	586.7	586.6	586.5	586.4	586.3	586.2	587.1	589.0	590.9	592.8	594.7
147.5°	603.3	603.0	602.6	602.3	602.0	601.8	602.7	604.6	606.5	608.4	610.3
150°	619.3	618.5	617.7	617.0	616.2	615.8	616.7	618.5	620.3	622.1	623.9
152.5°	632.9	632.0	631.1	630.2	629.3	628.9	629.7	631.4	633.1	634.7	636.4
155°	646.0	645.0	644.0	643.0	642.0	641.5	642.2	643.5	644.8	646.2	647.5
157.5°	656.5	655.6	654.7	653.8	652.9	652.5	653.0	654.0	655.1	656.1	657.1
160°	665.6	664.9	664.3	663.6	662.9	662.6	662.9	663.6	664.3	664.9	665.6
162.5°	673.6	672.9	672.3	671.6	670.9	670.6	670.9	671.4	672.0	672.5	673.1
165°	680.7	680.0	679.4	678.7	678.0	677.7	677.9	678.2	678.5	678.9	679.2
167.5°	686.2	685.5	684.9	684.2	683.5	683.2	683.4	683.7	684.0	684.4	684.7
170°	690.7	690.0	689.4	688.7	688.0	687.7	687.8	688.0	688.3	688.5	688.7
172.5°	693.7	693.0	692.4	691.7	691.0	690.7	690.8	691.0	691.3	691.5	691.7
175°	696.3	695.5	694.7	693.9	693.1	692.7	692.8	693.0	693.3	693.5	693.7
177.5°	697.3	696.5	695.7	694.9	694.1	693.7	693.8	693.9	694.0	694.2	694.3
180°	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8

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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°	10.7	11.2	11.8	12.3	12.6	12.7	12.9	13.2	13.4	13.6	13.4
92.5°	12.3	12.5	12.8	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.5
95°	20.2	20.7	21.3	21.8	22.1	22.0	21.9	21.8	21.7	21.6	21.7
97.5°	25.9	26.3	26.6	26.9	27.1	27.2	27.3	27.4	27.5	27.6	27.5
100°	29.6	30.5	31.4	32.3	32.7	32.8	33.0	33.3	33.5	33.7	33.5
102.5°	30.9	32.1	33.4	34.6	35.2	35.4	35.7	36.0	36.4	36.7	36.4
105°	31.9	33.1	34.4	35.6	36.2	36.4	36.9	37.3	37.8	38.2	37.8
107.5°	32.9	34.1	35.4	36.6	37.2	37.4	37.9	38.3	38.8	39.2	38.8
110°	76.8	65.6	54.5	43.3	37.7	37.9	38.4	38.8	39.3	39.7	39.3

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	207.2	159.1	110.9	62.8	38.7	38.9	39.2	39.5	39.9	40.2	39.9
115°	258.5	206.7	155.0	103.3	77.4	73.4	65.3	57.3	49.2	41.2	49.2
117.5°	321.3	305.3	289.4	273.4	265.4	250.8	221.5	192.2	163.0	133.7	163.0
120°	369.8	371.2	372.5	373.8	374.5	367.0	351.9	336.8	321.8	306.7	321.8
122.5°	398.9	399.5	400.2	400.9	401.2	401.3	401.4	401.5	401.6	401.7	401.6
125°	425.6	426.4	427.1	427.9	428.3	428.5	428.8	429.1	429.5	429.8	429.5
127.5°	450.5	451.7	452.8	453.9	454.5	454.6	454.7	454.8	454.9	455.0	454.9
130°	474.3	475.5	476.8	478.0	478.6	478.5	478.4	478.3	478.2	478.1	478.2
132.5°	497.7	498.7	499.7	500.7	501.2	501.1	501.0	500.9	500.8	500.7	500.8
135°	519.4	520.5	521.6	522.7	523.3	523.2	523.0	522.7	522.5	522.3	522.5
137.5°	540.0	541.1	542.2	543.3	543.9	543.7	543.4	543.1	542.7	542.4	542.7
140°	560.0	561.0	562.0	563.0	563.5	563.2	562.7	562.1	561.6	561.0	561.6
142.5°	578.5	579.4	580.3	581.2	581.6	581.3	580.8	580.2	579.7	579.1	579.7
145°	595.5	596.3	597.0	597.8	598.2	597.9	597.4	596.8	596.3	595.7	596.3
147.5°	610.9	611.4	612.0	612.5	612.8	612.6	612.1	611.7	611.2	610.8	611.2
150°	624.6	625.2	625.9	626.6	626.9	626.6	626.1	625.5	625.0	624.4	625.0
152.5°	637.1	637.8	638.5	639.2	639.5	639.1	638.3	637.5	636.7	635.9	636.7
155°	648.2	648.8	649.5	650.2	650.5	650.1	649.2	648.3	647.4	646.5	647.4
157.5°	657.9	658.7	659.4	660.2	660.6	660.1	659.2	658.3	657.4	656.5	657.4
160°	666.3	666.9	667.6	668.3	668.6	668.2	667.4	666.7	665.9	665.1	665.9
162.5°	673.9	674.7	675.5	676.3	676.7	676.2	675.2	674.1	673.1	672.1	673.1
165°	680.0	680.8	681.5	682.3	682.7	682.3	681.5	680.8	680.0	679.2	680.0
167.5°	685.5	686.3	687.0	687.8	688.2	687.7	686.7	685.7	684.7	683.7	684.7
170°	689.5	690.3	691.0	691.8	692.2	691.7	690.7	689.7	688.7	687.7	688.7
172.5°	692.5	693.3	694.1	694.9	695.3	694.8	693.8	692.7	691.7	690.7	691.7
175°	694.5	695.3	696.1	696.9	697.3	696.7	695.6	694.5	693.3	692.2	693.3
177.5°	695.1	695.9	696.6	697.4	697.8	697.3	696.3	695.2	694.2	693.2	694.2
180°	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-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°	13.2	12.9	12.7	12.6	12.3	11.8	11.2	10.7	10.1	9.2	8.3
92.5°	13.4	13.3	13.2	13.1	13.0	12.8	12.5	12.3	12.1	11.8	11.4
95°	21.8	21.9	22.0	22.1	21.8	21.3	20.7	20.2	19.6	18.8	18.0
97.5°	27.4	27.3	27.2	27.1	26.9	26.6	26.3	25.9	25.6	23.8	22.0
100°	33.3	33.0	32.8	32.7	32.3	31.4	30.5	29.6	28.7	26.8	24.9
102.5°	36.0	35.7	35.4	35.2	34.6	33.4	32.1	30.9	29.7	50.0	70.4
105°	37.3	36.9	36.4	36.2	35.6	34.4	33.1	31.9	30.7	61.2	91.7
107.5°	38.3	37.9	37.4	37.2	36.6	35.4	34.1	32.9	31.7	69.3	107.0
110°	38.8	38.4	37.9	37.7	43.3	54.5	65.6	76.8	88.0	120.3	152.6

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	39.5	39.2	38.9	38.7	62.8	110.9	159.1	207.2	255.4	257.3	259.2
115°	57.3	65.3	73.4	77.4	103.3	155.0	206.7	258.5	310.2	307.4	304.6
117.5°	192.2	221.5	250.8	265.4	273.4	289.4	305.3	321.3	337.3	335.4	333.5
120°	336.8	351.9	367.0	374.5	373.8	372.5	371.2	369.8	368.5	366.5	364.5
122.5°	401.5	401.4	401.3	401.2	400.9	400.2	399.5	398.9	398.2	396.0	393.7
125°	429.1	428.8	428.5	428.3	427.9	427.1	426.4	425.6	424.8	422.7	420.5
127.5°	454.8	454.7	454.6	454.5	453.9	452.8	451.7	450.5	449.4	447.7	446.1
130°	478.3	478.4	478.5	478.6	478.0	476.8	475.5	474.3	473.1	471.9	470.6
132.5°	500.9	501.0	501.1	501.2	500.7	499.7	498.7	497.7	496.7	495.5	494.3
135°	522.7	523.0	523.2	523.3	522.7	521.6	520.5	519.4	518.3	517.3	516.3
137.5°	543.1	543.4	543.7	543.9	543.3	542.2	541.1	540.0	538.9	537.8	536.7
140°	562.1	562.7	563.2	563.5	563.0	562.0	561.0	560.0	559.0	557.8	556.6
142.5°	580.2	580.8	581.3	581.6	581.2	580.3	579.4	578.5	577.6	576.2	574.7
145°	596.8	597.4	597.9	598.2	597.8	597.0	596.3	595.5	594.7	592.8	590.9
147.5°	611.7	612.1	612.6	612.8	612.5	612.0	611.4	610.9	610.3	608.4	606.5
150°	625.5	626.1	626.6	626.9	626.6	625.9	625.2	624.6	623.9	622.1	620.3
152.5°	637.5	638.3	639.1	639.5	639.2	638.5	637.8	637.1	636.4	634.7	633.1
155°	648.3	649.2	650.1	650.5	650.2	649.5	648.8	648.2	647.5	646.2	644.8
157.5°	658.3	659.2	660.1	660.6	660.2	659.4	658.7	657.9	657.1	656.1	655.1
160°	666.7	667.4	668.2	668.6	668.3	667.6	666.9	666.3	665.6	664.9	664.3
162.5°	674.1	675.2	676.2	676.7	676.3	675.5	674.7	673.9	673.1	672.5	672.0
165°	680.8	681.5	682.3	682.7	682.3	681.5	680.8	680.0	679.2	678.9	678.5
167.5°	685.7	686.7	687.7	688.2	687.8	687.0	686.3	685.5	684.7	684.4	684.0
170°	689.7	690.7	691.7	692.2	691.8	691.0	690.3	689.5	688.7	688.5	688.3
172.5°	692.7	693.8	694.8	695.3	694.9	694.1	693.3	692.5	691.7	691.5	691.3
175°	694.5	695.6	696.7	697.3	696.9	696.1	695.3	694.5	693.7	693.5	693.3
177.5°	695.2	696.3	697.3	697.8	697.4	696.6	695.9	695.1	694.3	694.2	694.0
180°	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-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°	7.4	6.5	6.0	5.4	4.2	2.9	1.7	0.5	1.7	2.9	4.2
92.5°	11.1	10.8	10.6	10.8	11.3	11.7	12.2	12.6	12.2	11.7	11.3
95°	17.3	16.5	16.1	17.9	21.6	25.3	29.0	32.7	29.0	25.3	21.6
97.5°	20.3	18.5	17.6	22.2	31.3	40.5	49.6	58.8	49.6	40.5	31.3
100°	23.0	21.1	20.1	27.8	43.1	58.4	73.7	89.0	73.7	58.4	43.1
102.5°	90.7	111.0	121.2	121.3	121.5	121.8	122.0	122.2	122.0	121.8	121.5
105°	122.2	152.7	167.9	166.2	162.9	159.5	156.2	152.8	156.2	159.5	162.9
107.5°	144.6	182.3	201.1	199.7	196.9	194.1	191.3	188.5	191.3	194.1	196.9
110°	184.9	217.2	233.3	232.1	229.8	227.4	225.1	222.7	225.1	227.4	229.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
112.5°	261.1	263.0	263.9	262.9	260.9	258.9	256.9	254.9	256.9	258.9	260.9
115°	301.8	299.0	297.6	296.7	294.8	292.9	291.0	289.1	291.0	292.9	294.8
117.5°	331.6	329.7	328.8	327.7	325.4	323.2	320.9	318.7	320.9	323.2	325.4
120°	362.4	360.4	359.4	358.6	356.9	355.2	353.6	351.9	353.6	355.2	356.9
122.5°	391.5	389.2	388.1	387.2	385.4	383.7	381.9	380.1	381.9	383.7	385.4
125°	418.4	416.3	415.2	414.5	413.0	411.6	410.1	408.7	410.1	411.6	413.0
127.5°	444.4	442.7	441.9	441.1	439.6	438.0	436.5	434.9	436.5	438.0	439.6
130°	469.4	468.1	467.5	466.6	464.8	463.1	461.3	459.5	461.3	463.1	464.8
132.5°	493.0	491.8	491.2	490.5	489.0	487.5	486.1	484.6	486.1	487.5	489.0
135°	515.3	514.3	513.8	512.9	511.1	509.3	507.5	505.7	507.5	509.3	511.1
137.5°	535.6	534.5	533.9	533.2	531.9	530.6	529.2	527.9	529.2	530.6	531.9
140°	555.3	554.1	553.5	553.1	552.2	551.3	550.4	549.5	550.4	551.3	552.2
142.5°	573.3	571.8	571.1	570.7	569.9	569.2	568.4	567.6	568.4	569.2	569.9
145°	589.0	587.1	586.2	586.3	586.4	586.5	586.6	586.7	586.6	586.5	586.4
147.5°	604.6	602.7	601.8	602.0	602.3	602.6	603.0	603.3	603.0	602.6	602.3
150°	618.5	616.7	615.8	616.2	617.0	617.7	618.5	619.3	618.5	617.7	617.0
152.5°	631.4	629.7	628.9	629.3	630.2	631.1	632.0	632.9	632.0	631.1	630.2
155°	643.5	642.2	641.5	642.0	643.0	644.0	645.0	646.0	645.0	644.0	643.0
157.5°	654.0	653.0	652.5	652.9	653.8	654.7	655.6	656.5	655.6	654.7	653.8
160°	663.6	662.9	662.6	662.9	663.6	664.3	664.9	665.6	664.9	664.3	663.6
162.5°	671.4	670.9	670.6	670.9	671.6	672.3	672.9	673.6	672.9	672.3	671.6
165°	678.2	677.9	677.7	678.0	678.7	679.4	680.0	680.7	680.0	679.4	678.7
167.5°	683.7	683.4	683.2	683.5	684.2	684.9	685.5	686.2	685.5	684.9	684.2
170°	688.0	687.8	687.7	688.0	688.7	689.4	690.0	690.7	690.0	689.4	688.7
172.5°	691.0	690.8	690.7	691.0	691.7	692.4	693.0	693.7	693.0	692.4	691.7
175°	693.0	692.8	692.7	693.1	693.9	694.7	695.5	696.3	695.5	694.7	693.9
177.5°	693.9	693.8	693.7	694.1	694.9	695.7	696.5	697.3	696.5	695.7	694.9
180°	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-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°	5.4	6.0	6.5	7.4	8.3	9.2	10.1	10.7	11.2	11.8	12.3
92.5°	10.8	10.6	10.8	11.1	11.4	11.8	12.1	12.3	12.5	12.8	13.0
95°	17.9	16.1	16.5	17.3	18.0	18.8	19.6	20.2	20.7	21.3	21.8
97.5°	22.2	17.6	18.5	20.3	22.0	23.8	25.6	25.9	26.3	26.6	26.9
100°	27.8	20.1	21.1	23.0	24.9	26.8	28.7	29.6	30.5	31.4	32.3
102.5°	121.3	121.2	111.0	90.7	70.4	50.0	29.7	30.9	32.1	33.4	34.6
105°	166.2	167.9	152.7	122.2	91.7	61.2	30.7	31.9	33.1	34.4	35.6
107.5°	199.7	201.1	182.3	144.6	107.0	69.3	31.7	32.9	34.1	35.4	36.6
110°	232.1	233.3	217.2	184.9	152.6	120.3	88.0	76.8	65.6	54.5	43.3

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
112.5°	262.9	263.9	263.0	261.1	259.2	257.3	255.4	207.2	159.1	110.9	62.8
115°	296.7	297.6	299.0	301.8	304.6	307.4	310.2	258.5	206.7	155.0	103.3
117.5°	327.7	328.8	329.7	331.6	333.5	335.4	337.3	321.3	305.3	289.4	273.4
120°	358.6	359.4	360.4	362.4	364.5	366.5	368.5	369.8	371.2	372.5	373.8
122.5°	387.2	388.1	389.2	391.5	393.7	396.0	398.2	398.9	399.5	400.2	400.9
125°	414.5	415.2	416.3	418.4	420.5	422.7	424.8	425.6	426.4	427.1	427.9
127.5°	441.1	441.9	442.7	444.4	446.1	447.7	449.4	450.5	451.7	452.8	453.9
130°	466.6	467.5	468.1	469.4	470.6	471.9	473.1	474.3	475.5	476.8	478.0
132.5°	490.5	491.2	491.8	493.0	494.3	495.5	496.7	497.7	498.7	499.7	500.7
135°	512.9	513.8	514.3	515.3	516.3	517.3	518.3	519.4	520.5	521.6	522.7
137.5°	533.2	533.9	534.5	535.6	536.7	537.8	538.9	540.0	541.1	542.2	543.3
140°	553.1	553.5	554.1	555.3	556.6	557.8	559.0	560.0	561.0	562.0	563.0
142.5°	570.7	571.1	571.8	573.3	574.7	576.2	577.6	578.5	579.4	580.3	581.2
145°	586.3	586.2	587.1	589.0	590.9	592.8	594.7	595.5	596.3	597.0	597.8
147.5°	602.0	601.8	602.7	604.6	606.5	608.4	610.3	610.9	611.4	612.0	612.5
150°	616.2	615.8	616.7	618.5	620.3	622.1	623.9	624.6	625.2	625.9	626.6
152.5°	629.3	628.9	629.7	631.4	633.1	634.7	636.4	637.1	637.8	638.5	639.2
155°	642.0	641.5	642.2	643.5	644.8	646.2	647.5	648.2	648.8	649.5	650.2
157.5°	652.9	652.5	653.0	654.0	655.1	656.1	657.1	657.9	658.7	659.4	660.2
160°	662.9	662.6	662.9	663.6	664.3	664.9	665.6	666.3	666.9	667.6	668.3
162.5°	670.9	670.6	670.9	671.4	672.0	672.5	673.1	673.9	674.7	675.5	676.3
165°	678.0	677.7	677.9	678.2	678.5	678.9	679.2	680.0	680.8	681.5	682.3
167.5°	683.5	683.2	683.4	683.7	684.0	684.4	684.7	685.5	686.3	687.0	687.8
170°	688.0	687.7	687.8	688.0	688.3	688.5	688.7	689.5	690.3	691.0	691.8
172.5°	691.0	690.7	690.8	691.0	691.3	691.5	691.7	692.5	693.3	694.1	694.9
175°	693.1	692.7	692.8	693.0	693.3	693.5	693.7	694.5	695.3	696.1	696.9
177.5°	694.1	693.7	693.8	693.9	694.0	694.2	694.3	695.1	695.9	696.6	697.4
180°	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-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°	12.6	12.7	12.9	13.2	13.4	13.6	13.4	13.2	12.9	12.7	12.6
92.5°	13.1	13.2	13.3	13.4	13.5	13.6	13.5	13.4	13.3	13.2	13.1
95°	22.1	22.0	21.9	21.8	21.7	21.6	21.7	21.8	21.9	22.0	22.1
97.5°	27.1	27.2	27.3	27.4	27.5	27.6	27.5	27.4	27.3	27.2	27.1
100°	32.7	32.8	33.0	33.3	33.5	33.7	33.5	33.3	33.0	32.8	32.7
102.5°	35.2	35.4	35.7	36.0	36.4	36.7	36.4	36.0	35.7	35.4	35.2
105°	36.2	36.4	36.9	37.3	37.8	38.2	37.8	37.3	36.9	36.4	36.2
107.5°	37.2	37.4	37.9	38.3	38.8	39.2	38.8	38.3	37.9	37.4	37.2
110°	37.7	37.9	38.4	38.8	39.3	39.7	39.3	38.8	38.4	37.9	37.7

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
112.5°	38.7	38.9	39.2	39.5	39.9	40.2	39.9	39.5	39.2	38.9	38.7
115°	77.4	73.4	65.3	57.3	49.2	41.2	49.2	57.3	65.3	73.4	77.4
117.5°	265.4	250.8	221.5	192.2	163.0	133.7	163.0	192.2	221.5	250.8	265.4
120°	374.5	367.0	351.9	336.8	321.8	306.7	321.8	336.8	351.9	367.0	374.5
122.5°	401.2	401.3	401.4	401.5	401.6	401.7	401.6	401.5	401.4	401.3	401.2
125°	428.3	428.5	428.8	429.1	429.5	429.8	429.5	429.1	428.8	428.5	428.3
127.5°	454.5	454.6	454.7	454.8	454.9	455.0	454.9	454.8	454.7	454.6	454.5
130°	478.6	478.5	478.4	478.3	478.2	478.1	478.2	478.3	478.4	478.5	478.6
132.5°	501.2	501.1	501.0	500.9	500.8	500.7	500.8	500.9	501.0	501.1	501.2
135°	523.3	523.2	523.0	522.7	522.5	522.3	522.5	522.7	523.0	523.2	523.3
137.5°	543.9	543.7	543.4	543.1	542.7	542.4	542.7	543.1	543.4	543.7	543.9
140°	563.5	563.2	562.7	562.1	561.6	561.0	561.6	562.1	562.7	563.2	563.5
142.5°	581.6	581.3	580.8	580.2	579.7	579.1	579.7	580.2	580.8	581.3	581.6
145°	598.2	597.9	597.4	596.8	596.3	595.7	596.3	596.8	597.4	597.9	598.2
147.5°	612.8	612.6	612.1	611.7	611.2	610.8	611.2	611.7	612.1	612.6	612.8
150°	626.9	626.6	626.1	625.5	625.0	624.4	625.0	625.5	626.1	626.6	626.9
152.5°	639.5	639.1	638.3	637.5	636.7	635.9	636.7	637.5	638.3	639.1	639.5
155°	650.5	650.1	649.2	648.3	647.4	646.5	647.4	648.3	649.2	650.1	650.5
157.5°	660.6	660.1	659.2	658.3	657.4	656.5	657.4	658.3	659.2	660.1	660.6
160°	668.6	668.2	667.4	666.7	665.9	665.1	665.9	666.7	667.4	668.2	668.6
162.5°	676.7	676.2	675.2	674.1	673.1	672.1	673.1	674.1	675.2	676.2	676.7
165°	682.7	682.3	681.5	680.8	680.0	679.2	680.0	680.8	681.5	682.3	682.7
167.5°	688.2	687.7	686.7	685.7	684.7	683.7	684.7	685.7	686.7	687.7	688.2
170°	692.2	691.7	690.7	689.7	688.7	687.7	688.7	689.7	690.7	691.7	692.2
172.5°	695.3	694.8	693.8	692.7	691.7	690.7	691.7	692.7	693.8	694.8	695.3
175°	697.3	696.7	695.6	694.5	693.3	692.2	693.3	694.5	695.6	696.7	697.3
177.5°	697.8	697.3	696.3	695.2	694.2	693.2	694.2	695.2	696.3	697.3	697.8
180°	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-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°	12.3	11.8	11.2	10.7	10.1	9.2	8.3	7.4	6.5	6.0	5.4
92.5°	13.0	12.8	12.5	12.3	12.1	11.8	11.4	11.1	10.8	10.6	10.8
95°	21.8	21.3	20.7	20.2	19.6	18.8	18.0	17.3	16.5	16.1	17.9
97.5°	26.9	26.6	26.3	25.9	25.6	23.8	22.0	20.3	18.5	17.6	22.2
100°	32.3	31.4	30.5	29.6	28.7	26.8	24.9	23.0	21.1	20.1	27.8
102.5°	34.6	33.4	32.1	30.9	29.7	50.0	70.4	90.7	111.0	121.2	121.3
105°	35.6	34.4	33.1	31.9	30.7	61.2	91.7	122.2	152.7	167.9	166.2
107.5°	36.6	35.4	34.1	32.9	31.7	69.3	107.0	144.6	182.3	201.1	199.7
110°	43.3	54.5	65.6	76.8	88.0	120.3	152.6	184.9	217.2	233.3	232.1

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
112.5°	62.8	110.9	159.1	207.2	255.4	257.3	259.2	261.1	263.0	263.9	262.9
115°	103.3	155.0	206.7	258.5	310.2	307.4	304.6	301.8	299.0	297.6	296.7
117.5°	273.4	289.4	305.3	321.3	337.3	335.4	333.5	331.6	329.7	328.8	327.7
120°	373.8	372.5	371.2	369.8	368.5	366.5	364.5	362.4	360.4	359.4	358.6
122.5°	400.9	400.2	399.5	398.9	398.2	396.0	393.7	391.5	389.2	388.1	387.2
125°	427.9	427.1	426.4	425.6	424.8	422.7	420.5	418.4	416.3	415.2	414.5
127.5°	453.9	452.8	451.7	450.5	449.4	447.7	446.1	444.4	442.7	441.9	441.1
130°	478.0	476.8	475.5	474.3	473.1	471.9	470.6	469.4	468.1	467.5	466.6
132.5°	500.7	499.7	498.7	497.7	496.7	495.5	494.3	493.0	491.8	491.2	490.5
135°	522.7	521.6	520.5	519.4	518.3	517.3	516.3	515.3	514.3	513.8	512.9
137.5°	543.3	542.2	541.1	540.0	538.9	537.8	536.7	535.6	534.5	533.9	533.2
140°	563.0	562.0	561.0	560.0	559.0	557.8	556.6	555.3	554.1	553.5	553.1
142.5°	581.2	580.3	579.4	578.5	577.6	576.2	574.7	573.3	571.8	571.1	570.7
145°	597.8	597.0	596.3	595.5	594.7	592.8	590.9	589.0	587.1	586.2	586.3
147.5°	612.5	612.0	611.4	610.9	610.3	608.4	606.5	604.6	602.7	601.8	602.0
150°	626.6	625.9	625.2	624.6	623.9	622.1	620.3	618.5	616.7	615.8	616.2
152.5°	639.2	638.5	637.8	637.1	636.4	634.7	633.1	631.4	629.7	628.9	629.3
155°	650.2	649.5	648.8	648.2	647.5	646.2	644.8	643.5	642.2	641.5	642.0
157.5°	660.2	659.4	658.7	657.9	657.1	656.1	655.1	654.0	653.0	652.5	652.9
160°	668.3	667.6	666.9	666.3	665.6	664.9	664.3	663.6	662.9	662.6	662.9
162.5°	676.3	675.5	674.7	673.9	673.1	672.5	672.0	671.4	670.9	670.6	670.9
165°	682.3	681.5	680.8	680.0	679.2	678.9	678.5	678.2	677.9	677.7	678.0
167.5°	687.8	687.0	686.3	685.5	684.7	684.4	684.0	683.7	683.4	683.2	683.5
170°	691.8	691.0	690.3	689.5	688.7	688.5	688.3	688.0	687.8	687.7	688.0
172.5°	694.9	694.1	693.3	692.5	691.7	691.5	691.3	691.0	690.8	690.7	691.0
175°	696.9	696.1	695.3	694.5	693.7	693.5	693.3	693.0	692.8	692.7	693.1
177.5°	697.4	696.6	695.9	695.1	694.3	694.2	694.0	693.9	693.8	693.7	694.1
180°	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8	694.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-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°	4.2	2.9	1.7	0.5
92.5°	11.3	11.7	12.2	12.6
95°	21.6	25.3	29.0	32.7
97.5°	31.3	40.5	49.6	58.8
100°	43.1	58.4	73.7	89.0
102.5°	121.5	121.8	122.0	122.2
105°	162.9	159.5	156.2	152.8
107.5°	196.9	194.1	191.3	188.5
110°	229.8	227.4	225.1	222.7



TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
112.5°	260.9	258.9	256.9	254.9
115°	294.8	292.9	291.0	289.1
117.5°	325.4	323.2	320.9	318.7
120°	356.9	355.2	353.6	351.9
122.5°	385.4	383.7	381.9	380.1
125°	413.0	411.6	410.1	408.7
127.5°	439.6	438.0	436.5	434.9
130°	464.8	463.1	461.3	459.5
132.5°	489.0	487.5	486.1	484.6
135°	511.1	509.3	507.5	505.7
137.5°	531.9	530.6	529.2	527.9
140°	552.2	551.3	550.4	549.5
142.5°	569.9	569.2	568.4	567.6
145°	586.4	586.5	586.6	586.7
147.5°	602.3	602.6	603.0	603.3
150°	617.0	617.7	618.5	619.3
152.5°	630.2	631.1	632.0	632.9
155°	643.0	644.0	645.0	646.0
157.5°	653.8	654.7	655.6	656.5
160°	663.6	664.3	664.9	665.6
162.5°	671.6	672.3	672.9	673.6
165°	678.7	679.4	680.0	680.7
167.5°	684.2	684.9	685.5	686.2
170°	688.7	689.4	690.0	690.7
172.5°	691.7	692.4	693.0	693.7
175°	693.9	694.7	695.5	696.3
177.5°	694.9	695.7	696.5	697.3
180°	694.8	694.8	694.8	694.8

TEST NUMBER: P998211

CATALOG NUMBER: SA2XXDIP-B290D530UB2750-4F0-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	12.09	12.83	13.16	13.89	15.33	9.58	10.32	10.65	11.38	12.83
	3H	12.89	13.55	13.97	14.62	16.08	10.92	11.58	11.99	12.65	14.11
	4H	13.06	13.68	14.14	14.75	16.22	11.38	12.00	12.46	13.07	14.54
	6H	13.10	13.67	14.19	14.75	16.22	11.68	12.25	12.77	13.33	14.81
	8H	13.07	13.62	14.17	14.71	16.18	11.76	12.30	12.86	13.40	14.87
	12H	13.03	13.55	14.13	14.63	16.13	11.80	12.31	12.90	13.40	14.90
4H	2H	12.12	12.74	13.21	13.82	15.28	10.02	10.64	11.11	11.71	13.18
	3H	13.09	13.61	14.19	14.71	16.19	11.47	11.98	12.56	13.08	14.56
	4H	13.36	13.84	14.46	14.93	16.43	12.00	12.47	13.10	13.56	15.06
	6H	13.48	13.89	14.59	15.00	16.50	12.37	12.78	13.48	13.89	15.38
	8H	13.48	13.86	14.59	14.96	16.47	12.48	12.86	13.59	13.96	15.47
	12H	13.44	13.78	14.56	14.90	16.41	12.53	12.87	13.65	13.99	15.50
8H	4H	13.36	13.74	14.47	14.85	16.35	12.13	12.51	13.24	13.61	15.12
	6H	13.53	13.85	14.67	14.99	16.50	12.56	12.87	13.69	14.02	15.53
	8H	13.56	13.84	14.70	14.97	16.49	12.71	12.98	13.85	14.11	15.64
	12H	13.54	13.78	14.68	14.91	16.47	12.80	13.04	13.94	14.16	15.72
12H	4H	13.31	13.66	14.44	14.77	16.29	12.10	12.44	13.22	13.56	15.07
	6H	13.51	13.79	14.65	14.91	16.44	12.56	12.83	13.70	13.96	15.49
	8H	13.54	13.78	14.68	14.90	16.47	12.71	12.95	13.85	14.08	15.64