

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: CORELITE

Report Number: P934210

Luminaire Tested: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P934210
REPORT IS A COMBINATION OF REPORTS P933690 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

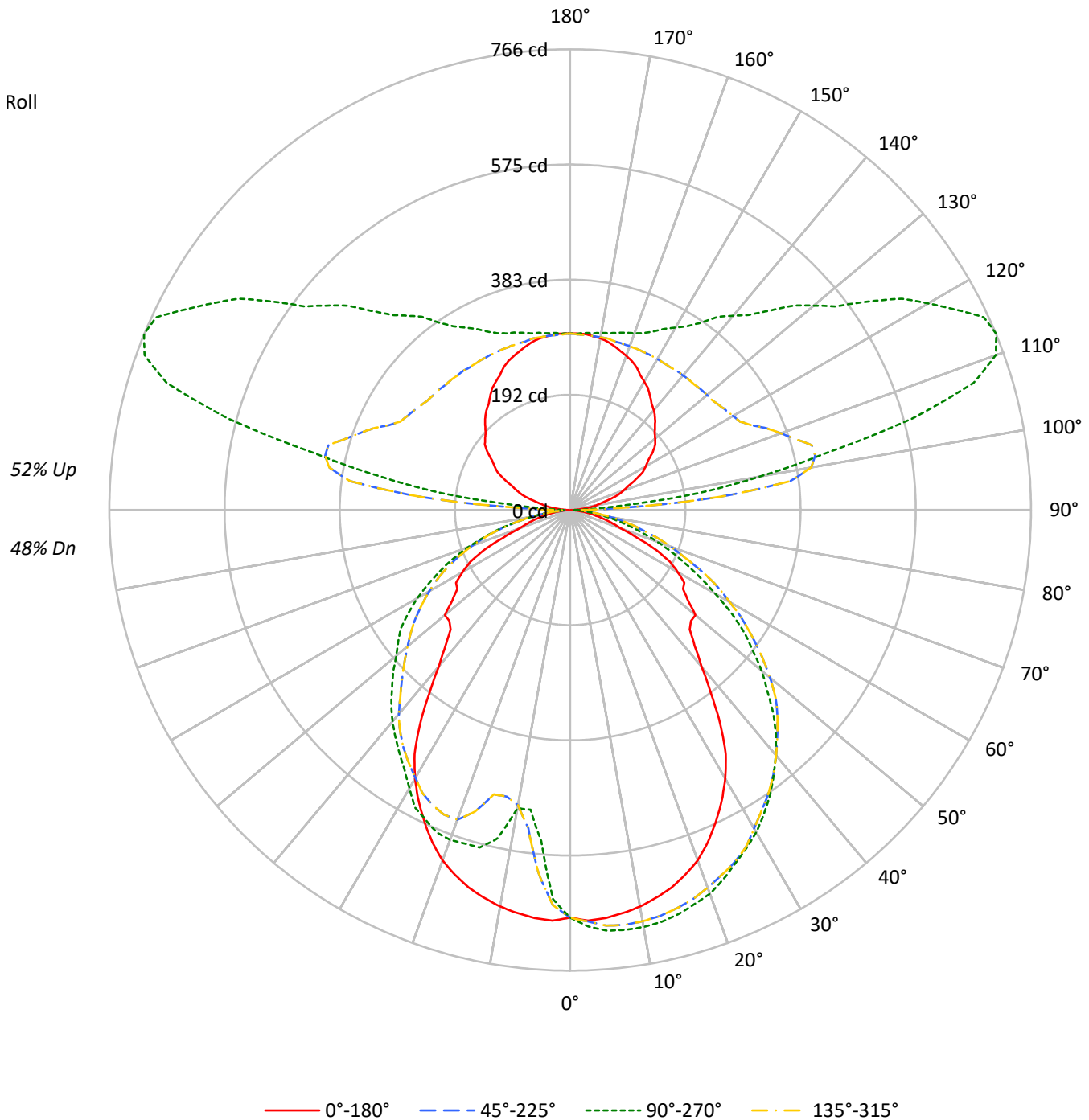
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3661.5 lumens
Efficiency: N/A
Efficacy: 128.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 28.4
Input Voltage (V): NR
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			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48	48	48	48
1	97	93	89	86	89	86	83	80	72	70	68	60	58	56	48	47	46	41	41	41	41
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39	34	34	34	34
3	81	71	64	58	74	66	60	55	56	51	47	46	43	40	38	35	33	29	29	29	29
4	74	63	55	49	68	58	52	46	50	44	40	41	37	34	33	31	28	25	25	25	25
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	30	27	25	21	21	21	21
6	62	50	42	37	57	47	40	34	40	34	30	33	29	26	27	24	22	19	19	19	19
7	58	45	38	32	53	42	35	30	36	30	26	30	26	23	25	22	19	17	17	17	17
8	54	41	34	28	49	38	31	27	33	27	23	28	23	20	23	20	17	15	15	15	15
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	16	13	13	13	13
10	47	34	27	22	43	32	26	21	28	22	19	23	19	16	20	16	14	12	12	12	12

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6289	6289	6289	6289
5°	6329	6348	6329	4991
10°	6280	6253	6280	4470
15°	6204	6118	6204	5108
20°	6067	5957	6067	5119
25°	5794	5723	5794	5011
30°	5445	5529	5445	4773
35°	4847	5283	4847	4510
40°	4031	4993	4031	4313
45°	3595	4655	3595	4085
50°	3812	4251	3812	3857
55°	3575	3816	3575	3726
60°	3673	3241	3673	3412
65°	3313	2678	3313	2994
70°	2280	2134	2280	2510
75°	1974	1579	1974	1891
80°	1563	1043	1563	1135
85°	845	552	845	470

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 5521 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	1.7
10°-20°	173.7	4.7
20°-30°	268.5	7.3
30°-40°	320.5	8.8
40°-50°	322.4	8.8
50°-60°	280.5	7.7
60°-70°	198.9	5.4
70°-80°	105.2	2.9
80°-90°	27.3	0.7
90°-100°	143.1	3.9
100°-110°	376.3	10.3
110°-120°	390.1	10.7
120°-130°	312.9	8.5
130°-140°	245.5	6.7
140°-150°	188.5	5.1
150°-160°	135.7	3.7
160°-170°	83.0	2.3
170°-180°	28.1	0.8
0°-30°	503.4	13.7
0°-40°	823.9	22.5
0°-60°	1426.8	39.0
0°-90°	1758.3	48.0
90°-120°	909.5	24.8
90°-150°	1656.4	45.2
90°-180°	1903.0	52.0
0°-180°	3661.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	678	678	678	678	678	
5°	681	702	681	552	681	65
15°	650	696	650	581	650	183
25°	572	649	572	568	572	263
35°	435	579	435	494	435	269
45°	281	477	281	419	281	225
55°	229	352	229	344	229	210
65°	159	212	159	237	159	152
75°	60	101	60	121	60	63
85°	10	26	10	22	10	14
90°	2	8	2	8	2	2
95°	19	86	19	86	19	21
105°	68	589	68	589	68	72
115°	120	759	120	759	120	119
125°	168	604	168	604	168	149
135°	200	469	200	469	200	154
145°	232	380	232	380	232	145
155°	262	328	262	328	262	120
165°	282	305	282	305	282	80
175°	294	296	294	296	294	28
180°	294	294	294	294	294	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	683.4	683.4	687.3	688.6	688.6	686.7	684.8	686.7	692.4	694.3	693.7
5°	680.9	686.0	693.1	694.3	695.7	695.0	693.7	695.0	701.4	702.7	703.3
7.5°	675.8	685.4	694.3	696.3	698.2	696.3	695.7	696.9	703.3	704.6	704.6
10°	669.4	682.8	693.1	694.3	696.3	694.3	694.3	696.9	703.3	704.6	705.2
12.5°	660.4	679.0	688.6	689.8	692.4	691.8	691.2	693.7	700.2	701.4	701.4
15°	650.1	671.9	680.9	682.2	686.7	685.4	685.4	687.9	695.0	696.9	696.3
17.5°	636.0	663.0	673.2	675.1	678.4	677.7	678.4	680.9	687.3	688.6	689.3
20°	620.0	650.7	663.0	664.9	668.1	668.1	668.1	671.3	677.7	680.3	680.3
22.5°	598.2	637.9	650.7	652.1	655.9	655.9	657.2	661.6	667.4	668.1	668.1
25°	572.5	623.8	634.7	638.6	642.4	644.3	646.3	648.8	650.7	650.1	650.7
27.5°	545.6	605.9	620.0	622.5	627.7	629.6	632.2	632.8	633.4	635.4	634.1
30°	515.5	580.9	602.0	604.6	612.9	614.2	611.6	612.9	616.1	617.4	618.7
32.5°	481.5	543.7	583.4	589.2	596.9	593.1	592.4	594.3	599.5	599.5	600.8
35°	435.4	514.8	566.1	571.3	577.0	572.5	575.1	575.7	579.0	580.9	580.2
37.5°	384.7	489.9	548.2	552.0	556.5	550.8	554.6	556.5	559.1	557.8	557.8
40°	339.8	450.8	527.0	529.6	533.4	529.0	532.8	534.1	535.4	534.1	533.4
42.5°	306.5	407.7	504.6	507.8	505.2	508.4	509.7	512.3	510.3	507.8	507.8
45°	280.8	396.3	480.2	484.0	480.2	485.4	487.3	487.3	481.5	480.2	479.5
47.5°	272.5	373.1	455.8	455.8	453.9	460.3	463.6	459.1	453.3	451.3	451.3
50°	271.9	347.5	422.6	420.0	429.0	436.6	433.5	429.0	424.5	417.4	417.4
52.5°	246.8	316.1	379.5	389.2	403.2	407.7	402.7	398.2	390.4	387.3	384.7
55°	228.9	283.4	340.4	359.6	374.5	380.2	370.5	366.1	354.6	352.7	351.3
57.5°	225.0	235.9	304.6	328.9	346.8	346.3	340.4	332.1	322.5	320.5	320.0
60°	206.5	170.6	266.1	294.9	313.5	311.6	306.5	298.8	289.8	288.5	287.3
62.5°	187.2	123.7	222.5	255.2	281.4	280.8	276.4	264.8	258.4	255.2	252.6
65°	159.0	103.8	158.4	212.2	250.1	251.3	241.7	233.4	226.3	222.5	221.8
67.5°	121.2	84.6	107.1	177.0	219.9	218.6	206.5	202.6	193.6	191.7	187.9
70°	89.8	56.4	74.4	143.6	190.4	187.2	177.6	173.1	164.8	160.3	157.7
72.5°	74.4	45.5	54.5	111.6	160.3	156.4	148.1	143.0	135.9	132.1	129.5
75°	60.2	48.1	41.7	82.7	130.1	127.6	119.9	114.7	109.0	103.8	104.5
77.5°	44.3	44.8	33.4	60.9	103.2	99.4	94.9	88.5	85.9	80.8	80.8
80°	33.4	35.3	25.0	41.7	74.4	74.4	70.6	66.1	61.6	59.0	59.0
82.5°	22.5	22.5	18.5	26.3	50.7	48.8	46.2	44.8	42.4	41.0	41.0
85°	10.2	12.8	11.6	16.1	27.5	28.9	28.9	27.5	27.0	25.6	26.3
87.5°	3.3	5.7	7.1	9.0	14.1	14.7	15.4	15.4	15.4	16.1	16.1
90°	2.0	3.5	5.2	5.5	8.7	12.9	15.0	13.3	9.9	7.5	7.5
92.5°	7.8	21.2	34.7	38.0	53.4	74.0	84.3	73.9	53.1	37.5	35.9
95°	18.9	43.4	68.0	74.1	131.5	208.1	246.5	219.9	166.8	127.1	122.6
97.5°	32.7	54.3	75.9	81.4	177.1	305.0	368.8	352.1	318.5	293.4	284.8
100°	43.3	62.9	82.6	87.5	193.8	335.6	406.5	407.7	410.2	412.0	401.8
102.5°	52.4	70.7	89.0	93.6	201.4	345.2	417.1	438.5	481.3	513.3	504.5
105°	67.8	83.3	98.8	102.7	207.1	346.4	416.0	463.9	559.6	631.5	626.8
107.5°	83.6	98.0	112.4	116.1	208.1	331.0	392.3	459.2	592.8	693.0	694.2
110°	94.2	107.2	120.3	123.5	206.6	317.3	372.6	447.3	596.7	708.8	713.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	104.6	117.0	129.4	132.6	206.6	305.3	354.7	431.2	584.0	698.7	706.3
115°	120.4	131.8	143.3	146.2	208.5	291.6	333.2	406.8	554.1	664.6	675.0
117.5°	135.9	146.4	156.8	159.4	212.4	283.1	318.4	384.9	517.8	617.5	629.0
120°	145.0	154.9	164.6	167.1	215.6	280.2	312.5	373.2	494.7	585.8	597.1
122.5°	153.9	163.9	173.7	176.2	220.1	278.7	307.9	362.6	472.1	554.1	565.2
125°	167.5	176.5	185.5	187.8	226.2	277.4	303.1	349.5	442.4	512.1	522.4
127.5°	178.5	187.7	196.7	199.0	232.3	276.8	298.9	338.8	418.5	478.4	487.0
130°	184.4	194.3	204.0	206.5	236.8	277.1	297.3	332.9	403.9	457.2	465.1
132.5°	190.5	200.4	210.1	212.6	240.4	277.4	296.0	327.7	391.3	439.0	446.2
135°	199.6	208.5	217.5	219.7	244.4	277.1	293.6	320.2	373.4	413.4	419.5
137.5°	208.9	217.7	226.6	228.8	250.3	278.9	293.2	315.7	360.7	394.4	399.5
140°	216.5	224.7	232.9	234.9	253.8	279.2	291.8	311.3	350.2	379.3	384.0
142.5°	222.5	230.0	237.5	239.4	256.9	280.1	291.8	308.9	343.0	368.6	372.6
145°	231.5	238.0	244.6	246.3	260.8	280.2	289.9	303.8	331.7	352.7	355.7
147.5°	240.6	247.0	253.3	255.0	266.6	282.1	289.9	300.9	322.8	339.3	341.9
150°	246.5	252.2	258.0	259.5	269.6	283.1	289.9	299.1	317.7	331.6	333.7
152.5°	252.6	257.0	261.4	262.4	271.6	283.7	289.9	297.8	313.7	325.5	327.0
155°	261.7	264.9	268.2	268.9	275.9	285.2	289.9	296.2	308.8	318.3	319.3
157.5°	268.3	271.5	274.7	275.4	280.2	286.6	289.9	294.7	304.6	311.9	312.7
160°	272.9	275.3	277.8	278.4	282.2	287.3	289.9	294.1	302.5	308.8	309.2
162.5°	277.4	279.2	281.1	281.5	284.3	288.0	289.9	293.4	300.5	305.8	306.2
165°	282.4	284.0	285.7	286.1	287.4	289.0	289.9	292.3	297.4	301.2	301.6
167.5°	286.9	287.7	288.4	288.6	289.7	291.1	291.8	293.5	296.8	299.3	299.5
170°	289.9	290.6	291.4	291.6	291.7	291.8	291.8	293.5	296.8	299.3	299.3
172.5°	291.4	291.6	291.8	291.8	291.8	291.8	291.8	293.1	295.7	297.7	297.5
175°	293.6	293.6	293.6	293.6	293.0	292.2	291.8	292.6	294.4	295.6	295.6
177.5°	293.6	293.6	293.6	293.6	293.1	292.5	292.2	292.9	294.3	295.2	295.0
180°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	695.0	693.1	695.0	693.7	694.3	692.4	686.7	684.8	686.7	688.6	688.6
5°	703.3	702.1	703.3	703.3	702.7	701.4	695.0	693.7	695.0	695.7	694.3
7.5°	705.9	704.0	705.9	704.6	704.6	703.3	696.9	695.7	696.3	698.2	696.3
10°	705.9	704.0	705.9	705.2	704.6	703.3	696.9	694.3	694.3	696.3	694.3
12.5°	702.7	701.4	702.7	701.4	701.4	700.2	693.7	691.2	691.8	692.4	689.8
15°	697.6	695.7	697.6	696.3	696.9	695.0	687.9	685.4	685.4	686.7	682.2
17.5°	689.8	687.3	689.8	689.3	688.6	687.3	680.9	678.4	677.7	678.4	675.1
20°	680.9	679.0	680.9	680.3	680.3	677.7	671.3	668.1	668.1	668.1	664.9
22.5°	666.8	664.9	666.8	668.1	668.1	667.4	661.6	657.2	655.9	655.9	652.1
25°	650.7	648.8	650.7	650.7	650.1	650.7	648.8	646.3	644.3	642.4	638.6
27.5°	635.4	634.1	635.4	634.1	635.4	633.4	632.8	632.2	629.6	627.7	622.5
30°	620.0	618.7	620.0	618.7	617.4	616.1	612.9	611.6	614.2	612.9	604.6
32.5°	600.8	599.5	600.8	600.8	599.5	599.5	594.3	592.4	593.1	596.9	589.2
35°	580.9	579.0	580.9	580.2	580.9	579.0	575.7	575.1	572.5	577.0	571.3
37.5°	557.8	555.9	557.8	557.8	557.8	559.1	556.5	554.6	550.8	556.5	552.0
40°	534.1	531.5	534.1	533.4	534.1	535.4	534.1	532.8	529.0	533.4	529.6
42.5°	507.2	506.5	507.2	507.8	507.8	510.3	512.3	509.7	508.4	505.2	507.8
45°	478.3	477.0	478.3	479.5	480.2	481.5	487.3	487.3	485.4	480.2	484.0
47.5°	447.5	444.3	447.5	451.3	451.3	453.3	459.1	463.6	460.3	453.9	455.8
50°	414.8	415.5	414.8	417.4	417.4	424.5	429.0	433.5	436.6	429.0	420.0
52.5°	382.8	382.1	382.8	384.7	387.3	390.4	398.2	402.7	407.7	403.2	389.2
55°	350.7	352.0	350.7	351.3	352.7	354.6	366.1	370.5	380.2	374.5	359.6
57.5°	318.6	316.7	318.6	320.0	320.5	322.5	332.1	340.4	346.3	346.8	328.9
60°	281.4	278.9	281.4	287.3	288.5	289.8	298.8	306.5	311.6	313.5	294.9
62.5°	248.8	244.3	248.8	252.6	255.2	258.4	264.8	276.4	280.8	281.4	255.2
65°	214.1	212.2	214.1	221.8	222.5	226.3	233.4	241.7	251.3	250.1	212.2
67.5°	182.7	182.7	182.7	187.9	191.7	193.6	202.6	206.5	218.6	219.9	177.0
70°	153.9	153.2	153.9	157.7	160.3	164.8	173.1	177.6	187.2	190.4	143.6
72.5°	126.3	125.6	126.3	129.5	132.1	135.9	143.0	148.1	156.4	160.3	111.6
75°	101.9	100.7	101.9	104.5	103.8	109.0	114.7	119.9	127.6	130.1	82.7
77.5°	78.2	78.2	78.2	80.8	80.8	85.9	88.5	94.9	99.4	103.2	60.9
80°	58.3	57.7	58.3	59.0	59.0	61.6	66.1	70.6	74.4	74.4	41.7
82.5°	41.0	39.8	41.0	41.0	41.0	42.4	44.8	46.2	48.8	50.7	26.3
85°	25.6	25.6	25.6	26.3	25.6	27.0	27.5	28.9	28.9	27.5	16.1
87.5°	16.6	16.1	16.6	16.1	16.1	15.4	15.4	15.4	14.7	14.1	9.0
90°	7.5	7.5	7.5	7.5	7.5	9.9	13.3	15.0	12.9	8.7	5.5
92.5°	30.0	24.0	30.0	35.9	37.5	53.1	73.9	84.3	74.0	53.4	38.0
95°	104.5	86.5	104.5	122.6	127.1	166.8	219.9	246.5	208.1	131.5	74.1
97.5°	250.5	216.2	250.5	284.8	293.4	318.5	352.1	368.8	305.0	177.1	81.4
100°	360.9	320.0	360.9	401.8	412.0	410.2	407.7	406.5	335.6	193.8	87.5
102.5°	469.5	434.5	469.5	504.5	513.3	481.3	438.5	417.1	345.2	201.4	93.6
105°	608.0	589.2	608.0	626.8	631.5	559.6	463.9	416.0	346.4	207.1	102.7
107.5°	698.6	703.2	698.6	694.2	693.0	592.8	459.2	392.3	331.0	208.1	116.1
110°	733.3	752.8	733.3	713.7	708.8	596.7	447.3	372.6	317.3	206.6	123.5



TEST NUMBER: P934210

CATALOG NUMBER: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	736.4	766.5	736.4	706.3	698.7	584.0	431.2	354.7	305.3	206.6	132.6
115°	716.8	758.6	716.8	675.0	664.6	554.1	406.8	333.2	291.6	208.5	146.2
117.5°	675.4	721.8	675.4	629.0	617.5	517.8	384.9	318.4	283.1	212.4	159.4
120°	642.0	687.1	642.0	597.1	585.8	494.7	373.2	312.5	280.2	215.6	167.1
122.5°	609.6	654.0	609.6	565.2	554.1	472.1	362.6	307.9	278.7	220.1	176.2
125°	563.2	604.1	563.2	522.4	512.1	442.4	349.5	303.1	277.4	226.2	187.8
127.5°	521.5	556.0	521.5	487.0	478.4	418.5	338.8	298.9	276.8	232.3	199.0
130°	497.0	528.9	497.0	465.1	457.2	403.9	332.9	297.3	277.1	236.8	206.5
132.5°	474.7	503.2	474.7	446.2	439.0	391.3	327.7	296.0	277.4	240.4	212.6
135°	444.2	468.7	444.2	419.5	413.4	373.4	320.2	293.6	277.1	244.4	219.7
137.5°	419.6	439.8	419.6	399.5	394.4	360.7	315.7	293.2	278.9	250.3	228.8
140°	402.9	421.7	402.9	384.0	379.3	350.2	311.3	291.8	279.2	253.8	234.9
142.5°	388.9	405.2	388.9	372.6	368.6	343.0	308.9	291.8	280.1	256.9	239.4
145°	368.1	380.3	368.1	355.7	352.7	331.7	303.8	289.9	280.2	260.8	246.3
147.5°	352.0	362.1	352.0	341.9	339.3	322.8	300.9	289.9	282.1	266.6	255.0
150°	342.0	350.2	342.0	333.7	331.6	317.7	299.1	289.9	283.1	269.6	259.5
152.5°	333.3	339.5	333.3	327.0	325.5	313.7	297.8	289.9	283.7	271.6	262.4
155°	323.4	327.5	323.4	319.3	318.3	308.8	296.2	289.9	285.2	275.9	268.9
157.5°	315.6	318.4	315.6	312.7	311.9	304.6	294.7	289.9	286.6	280.2	275.4
160°	310.9	312.5	310.9	309.2	308.8	302.5	294.1	289.9	287.3	282.2	278.4
162.5°	307.8	309.4	307.8	306.2	305.8	300.5	293.4	289.9	288.0	284.3	281.5
165°	303.3	305.1	303.3	301.6	301.2	297.4	292.3	289.9	289.0	287.4	286.1
167.5°	300.2	300.9	300.2	299.5	299.3	296.8	293.5	291.8	291.1	289.7	288.6
170°	299.3	299.3	299.3	299.3	299.3	296.8	293.5	291.8	291.8	291.7	291.6
172.5°	296.9	296.4	296.9	297.5	297.7	295.7	293.1	291.8	291.8	291.8	291.8
175°	295.6	295.6	295.6	295.6	295.6	294.4	292.6	291.8	292.2	293.0	293.6
177.5°	294.4	293.6	294.4	295.0	295.2	294.3	292.9	292.2	292.5	293.1	293.6
180°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6



TEST NUMBER: P934210

CATALOG NUMBER: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	687.3	683.4	683.4	677.0	674.5	672.5	669.4	659.7	657.2	654.6	658.5
5°	693.1	686.0	680.9	669.4	659.7	655.9	643.7	620.6	605.2	593.7	587.3
7.5°	694.3	685.4	675.8	657.8	634.7	624.5	587.3	545.0	533.4	523.2	516.7
10°	693.1	682.8	669.4	642.4	587.9	570.0	532.8	505.2	498.2	496.3	498.2
12.5°	688.6	679.0	660.4	615.5	539.2	527.0	505.2	489.2	487.9	491.1	508.4
15°	680.9	671.9	650.1	579.6	512.3	503.3	487.9	482.1	489.2	511.7	563.6
17.5°	673.2	663.0	636.0	544.3	491.8	485.4	474.5	486.0	525.7	555.9	573.2
20°	663.0	650.7	620.0	518.7	477.0	471.2	466.1	518.1	548.2	559.1	568.7
22.5°	650.7	637.9	598.2	500.8	461.7	457.2	460.3	536.0	548.2	555.9	564.2
25°	634.7	623.8	572.5	486.6	449.4	444.3	456.5	534.1	541.1	543.0	559.7
27.5°	620.0	605.9	545.6	473.8	434.7	432.8	459.7	525.7	530.9	532.8	550.8
30°	602.0	580.9	515.5	460.3	419.3	418.6	460.3	515.5	514.2	519.3	537.3
32.5°	583.4	543.7	481.5	443.7	404.6	403.9	455.8	500.1	498.8	505.8	519.3
35°	566.1	514.8	435.4	424.5	385.9	386.6	444.9	482.1	482.8	489.2	497.5
37.5°	548.2	489.9	384.7	403.2	368.1	368.1	430.2	465.5	464.2	466.1	477.6
40°	527.0	450.8	339.8	375.7	351.3	349.4	412.2	447.5	443.0	442.4	458.4
42.5°	504.6	407.7	306.5	339.2	332.1	329.5	390.4	425.7	417.4	419.3	439.9
45°	480.2	396.3	280.8	286.6	312.2	310.3	366.7	400.8	394.9	400.1	421.2
47.5°	455.8	373.1	272.5	237.9	291.1	290.4	340.4	376.4	373.1	378.3	400.8
50°	422.6	347.5	271.9	203.9	267.4	269.9	309.1	352.7	352.7	357.2	380.9
52.5°	379.5	316.1	246.8	184.6	239.8	247.5	281.4	332.1	333.4	337.9	359.1
55°	340.4	283.4	228.9	169.9	207.1	223.8	254.5	311.0	313.5	318.0	337.3
57.5°	304.6	235.9	225.0	152.6	177.0	193.0	230.8	290.4	291.7	295.6	314.1
60°	266.1	170.6	206.5	134.0	150.7	162.8	209.0	266.1	270.5	273.1	289.2
62.5°	222.5	123.7	187.2	121.2	137.9	140.4	191.1	243.0	248.8	250.7	260.3
65°	158.4	103.8	159.0	110.3	124.4	125.0	171.8	219.3	224.4	227.6	234.7
67.5°	107.1	84.6	121.2	100.0	114.1	114.7	153.2	191.7	198.8	201.3	205.8
70°	74.4	56.4	89.8	89.1	102.6	103.8	133.4	166.7	173.1	175.0	177.6
72.5°	54.5	45.5	74.4	80.1	90.4	91.7	112.8	138.5	144.9	146.8	148.1
75°	41.7	48.1	60.2	69.9	77.0	77.5	92.3	112.8	117.3	118.6	119.2
77.5°	33.4	44.8	44.3	56.4	62.8	61.6	72.5	87.2	91.0	91.0	91.0
80°	25.0	35.3	33.4	40.4	46.2	44.8	51.9	62.2	63.5	64.7	64.1
82.5°	18.5	22.5	22.5	25.6	30.8	29.5	34.6	40.4	40.4	40.4	41.7
85°	11.6	12.8	10.2	13.5	17.3	16.6	19.2	21.8	22.5	22.5	21.1
87.5°	7.1	5.7	3.3	5.2	7.6	7.6	9.0	9.7	9.0	9.0	9.0
90°	5.2	3.5	2.0	3.5	5.2	5.5	8.7	12.9	15.0	13.3	9.9
92.5°	34.7	21.2	7.8	21.2	34.7	38.0	53.4	74.0	84.3	73.9	53.1
95°	68.0	43.4	18.9	43.4	68.0	74.1	131.5	208.1	246.5	219.9	166.8
97.5°	75.9	54.3	32.7	54.3	75.9	81.4	177.1	305.0	368.8	352.1	318.5
100°	82.6	62.9	43.3	62.9	82.6	87.5	193.8	335.6	406.5	407.7	410.2
102.5°	89.0	70.7	52.4	70.7	89.0	93.6	201.4	345.2	417.1	438.5	481.3
105°	98.8	83.3	67.8	83.3	98.8	102.7	207.1	346.4	416.0	463.9	559.6
107.5°	112.4	98.0	83.6	98.0	112.4	116.1	208.1	331.0	392.3	459.2	592.8
110°	120.3	107.2	94.2	107.2	120.3	123.5	206.6	317.3	372.6	447.3	596.7



TEST NUMBER: P934210

CATALOG NUMBER: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	129.4	117.0	104.6	117.0	129.4	132.6	206.6	305.3	354.7	431.2	584.0
115°	143.3	131.8	120.4	131.8	143.3	146.2	208.5	291.6	333.2	406.8	554.1
117.5°	156.8	146.4	135.9	146.4	156.8	159.4	212.4	283.1	318.4	384.9	517.8
120°	164.6	154.9	145.0	154.9	164.6	167.1	215.6	280.2	312.5	373.2	494.7
122.5°	173.7	163.9	153.9	163.9	173.7	176.2	220.1	278.7	307.9	362.6	472.1
125°	185.5	176.5	167.5	176.5	185.5	187.8	226.2	277.4	303.1	349.5	442.4
127.5°	196.7	187.7	178.5	187.7	196.7	199.0	232.3	276.8	298.9	338.8	418.5
130°	204.0	194.3	184.4	194.3	204.0	206.5	236.8	277.1	297.3	332.9	403.9
132.5°	210.1	200.4	190.5	200.4	210.1	212.6	240.4	277.4	296.0	327.7	391.3
135°	217.5	208.5	199.6	208.5	217.5	219.7	244.4	277.1	293.6	320.2	373.4
137.5°	226.6	217.7	208.9	217.7	226.6	228.8	250.3	278.9	293.2	315.7	360.7
140°	232.9	224.7	216.5	224.7	232.9	234.9	253.8	279.2	291.8	311.3	350.2
142.5°	237.5	230.0	222.5	230.0	237.5	239.4	256.9	280.1	291.8	308.9	343.0
145°	244.6	238.0	231.5	238.0	244.6	246.3	260.8	280.2	289.9	303.8	331.7
147.5°	253.3	247.0	240.6	247.0	253.3	255.0	266.6	282.1	289.9	300.9	322.8
150°	258.0	252.2	246.5	252.2	258.0	259.5	269.6	283.1	289.9	299.1	317.7
152.5°	261.4	257.0	252.6	257.0	261.4	262.4	271.6	283.7	289.9	297.8	313.7
155°	268.2	264.9	261.7	264.9	268.2	268.9	275.9	285.2	289.9	296.2	308.8
157.5°	274.7	271.5	268.3	271.5	274.7	275.4	280.2	286.6	289.9	294.7	304.6
160°	277.8	275.3	272.9	275.3	277.8	278.4	282.2	287.3	289.9	294.1	302.5
162.5°	281.1	279.2	277.4	279.2	281.1	281.5	284.3	288.0	289.9	293.4	300.5
165°	285.7	284.0	282.4	284.0	285.7	286.1	287.4	289.0	289.9	292.3	297.4
167.5°	288.4	287.7	286.9	287.7	288.4	288.6	289.7	291.1	291.8	293.5	296.8
170°	291.4	290.6	289.9	290.6	291.4	291.6	291.7	291.8	291.8	293.5	296.8
172.5°	291.8	291.6	291.4	291.6	291.8	291.8	291.8	291.8	291.8	293.1	295.7
175°	293.6	293.6	293.6	293.6	293.6	293.6	293.0	292.2	291.8	292.6	294.4
177.5°	293.6	293.6	293.6	293.6	293.6	293.6	293.1	292.5	292.2	292.9	294.3
180°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6



TEST NUMBER: P934210
 CATALOG NUMBER: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	654.0	652.1	654.6	647.6	654.6	652.1	654.0	658.5	654.6	657.2	659.7
5°	573.8	570.6	560.4	552.0	560.4	570.6	573.8	587.3	593.7	605.2	620.6
7.5°	512.9	510.3	507.8	502.7	507.8	510.3	512.9	516.7	523.2	533.4	545.0
10°	499.4	500.1	503.9	503.3	503.9	500.1	499.4	498.2	496.3	498.2	505.2
12.5°	534.1	539.9	561.0	559.7	561.0	539.9	534.1	508.4	491.1	487.9	489.2
15°	573.8	575.7	580.2	580.9	580.2	575.7	573.8	563.6	511.7	489.2	482.1
17.5°	577.7	578.3	581.5	581.5	581.5	578.3	577.7	573.2	555.9	525.7	486.0
20°	574.5	575.7	582.2	583.4	582.2	575.7	574.5	568.7	559.1	548.2	518.1
22.5°	573.2	575.7	580.9	580.2	580.9	575.7	573.2	564.2	555.9	548.2	536.0
25°	566.8	566.8	567.4	568.1	567.4	566.8	566.8	559.7	543.0	541.1	534.1
27.5°	553.3	554.6	558.4	557.8	558.4	554.6	553.3	550.8	532.8	530.9	525.7
30°	541.1	539.9	536.6	534.1	536.6	539.9	541.1	537.3	519.3	514.2	515.5
32.5°	520.6	517.4	514.2	512.3	514.2	517.4	520.6	519.3	505.8	498.8	500.1
35°	496.3	496.9	496.3	494.3	496.3	496.9	496.3	497.5	489.2	482.8	482.1
37.5°	479.0	480.2	479.5	477.0	479.5	480.2	479.0	477.6	466.1	464.2	465.5
40°	461.0	461.7	461.0	459.1	461.0	461.7	461.0	458.4	442.4	443.0	447.5
42.5°	443.7	443.0	441.1	439.9	441.1	443.0	443.7	439.9	419.3	417.4	425.7
45°	423.8	424.5	420.5	418.6	420.5	424.5	423.8	421.2	400.1	394.9	400.8
47.5°	403.9	403.9	400.8	398.7	400.8	403.9	403.9	400.8	378.3	373.1	376.4
50°	382.8	382.1	377.6	377.0	377.6	382.1	382.8	380.9	357.2	352.7	352.7
52.5°	358.4	358.4	359.1	360.3	359.1	358.4	358.4	359.1	337.9	333.4	332.1
55°	337.3	337.9	342.3	343.7	342.3	337.9	337.3	337.3	318.0	313.5	311.0
57.5°	315.5	315.5	318.6	318.6	318.6	315.5	315.5	314.1	295.6	291.7	290.4
60°	290.4	291.7	294.3	293.7	294.3	291.7	290.4	289.2	273.1	270.5	266.1
62.5°	264.1	265.5	266.1	264.8	266.1	265.5	264.1	260.3	250.7	248.8	243.0
65°	236.6	237.9	238.5	237.2	238.5	237.9	236.6	234.7	227.6	224.4	219.3
67.5°	208.4	207.7	207.1	209.7	207.1	207.7	208.4	205.8	201.3	198.8	191.7
70°	179.5	179.5	178.9	180.2	178.9	179.5	179.5	177.6	175.0	173.1	166.7
72.5°	148.8	148.1	150.7	148.8	150.7	148.1	148.8	148.1	146.8	144.9	138.5
75°	118.6	119.9	118.6	120.6	118.6	119.9	118.6	119.2	118.6	117.3	112.8
77.5°	90.4	91.7	90.4	90.4	90.4	91.7	90.4	91.0	91.0	91.0	87.2
80°	64.1	63.5	63.5	62.8	63.5	63.5	64.1	64.1	64.7	63.5	62.2
82.5°	41.0	40.4	40.4	41.7	40.4	40.4	41.0	41.7	40.4	40.4	40.4
85°	22.5	23.0	21.8	21.8	21.8	23.0	22.5	21.1	22.5	22.5	21.8
87.5°	8.3	7.6	7.6	7.6	7.6	7.6	8.3	9.0	9.0	9.0	9.7
90°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	9.9	13.3	15.0	12.9
92.5°	37.5	35.9	30.0	24.0	30.0	35.9	37.5	53.1	73.9	84.3	74.0
95°	127.1	122.6	104.5	86.5	104.5	122.6	127.1	166.8	219.9	246.5	208.1
97.5°	293.4	284.8	250.5	216.2	250.5	284.8	293.4	318.5	352.1	368.8	305.0
100°	412.0	401.8	360.9	320.0	360.9	401.8	412.0	410.2	407.7	406.5	335.6
102.5°	513.3	504.5	469.5	434.5	469.5	504.5	513.3	481.3	438.5	417.1	345.2
105°	631.5	626.8	608.0	589.2	608.0	626.8	631.5	559.6	463.9	416.0	346.4
107.5°	693.0	694.2	698.6	703.2	698.6	694.2	693.0	592.8	459.2	392.3	331.0
110°	708.8	713.7	733.3	752.8	733.3	713.7	708.8	596.7	447.3	372.6	317.3



TEST NUMBER: P934210

CATALOG NUMBER: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	698.7	706.3	736.4	766.5	736.4	706.3	698.7	584.0	431.2	354.7	305.3
115°	664.6	675.0	716.8	758.6	716.8	675.0	664.6	554.1	406.8	333.2	291.6
117.5°	617.5	629.0	675.4	721.8	675.4	629.0	617.5	517.8	384.9	318.4	283.1
120°	585.8	597.1	642.0	687.1	642.0	597.1	585.8	494.7	373.2	312.5	280.2
122.5°	554.1	565.2	609.6	654.0	609.6	565.2	554.1	472.1	362.6	307.9	278.7
125°	512.1	522.4	563.2	604.1	563.2	522.4	512.1	442.4	349.5	303.1	277.4
127.5°	478.4	487.0	521.5	556.0	521.5	487.0	478.4	418.5	338.8	298.9	276.8
130°	457.2	465.1	497.0	528.9	497.0	465.1	457.2	403.9	332.9	297.3	277.1
132.5°	439.0	446.2	474.7	503.2	474.7	446.2	439.0	391.3	327.7	296.0	277.4
135°	413.4	419.5	444.2	468.7	444.2	419.5	413.4	373.4	320.2	293.6	277.1
137.5°	394.4	399.5	419.6	439.8	419.6	399.5	394.4	360.7	315.7	293.2	278.9
140°	379.3	384.0	402.9	421.7	402.9	384.0	379.3	350.2	311.3	291.8	279.2
142.5°	368.6	372.6	388.9	405.2	388.9	372.6	368.6	343.0	308.9	291.8	280.1
145°	352.7	355.7	368.1	380.3	368.1	355.7	352.7	331.7	303.8	289.9	280.2
147.5°	339.3	341.9	352.0	362.1	352.0	341.9	339.3	322.8	300.9	289.9	282.1
150°	331.6	333.7	342.0	350.2	342.0	333.7	331.6	317.7	299.1	289.9	283.1
152.5°	325.5	327.0	333.3	339.5	333.3	327.0	325.5	313.7	297.8	289.9	283.7
155°	318.3	319.3	323.4	327.5	323.4	319.3	318.3	308.8	296.2	289.9	285.2
157.5°	311.9	312.7	315.6	318.4	315.6	312.7	311.9	304.6	294.7	289.9	286.6
160°	308.8	309.2	310.9	312.5	310.9	309.2	308.8	302.5	294.1	289.9	287.3
162.5°	305.8	306.2	307.8	309.4	307.8	306.2	305.8	300.5	293.4	289.9	288.0
165°	301.2	301.6	303.3	305.1	303.3	301.6	301.2	297.4	292.3	289.9	289.0
167.5°	299.3	299.5	300.2	300.9	300.2	299.5	299.3	296.8	293.5	291.8	291.1
170°	299.3	299.3	299.3	299.3	299.3	299.3	299.3	296.8	293.5	291.8	291.8
172.5°	297.7	297.5	296.9	296.4	296.9	297.5	297.7	295.7	293.1	291.8	291.8
175°	295.6	295.6	295.6	295.6	295.6	295.6	295.6	294.4	292.6	291.8	292.2
177.5°	295.2	295.0	294.4	293.6	294.4	295.0	295.2	294.3	292.9	292.2	292.5
180°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6



TEST NUMBER: P934210
 CATALOG NUMBER: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	677.7	677.7	677.7	677.7	677.7
2.5°	669.4	672.5	674.5	677.0	683.4
5°	643.7	655.9	659.7	669.4	680.9
7.5°	587.3	624.5	634.7	657.8	675.8
10°	532.8	570.0	587.9	642.4	669.4
12.5°	505.2	527.0	539.2	615.5	660.4
15°	487.9	503.3	512.3	579.6	650.1
17.5°	474.5	485.4	491.8	544.3	636.0
20°	466.1	471.2	477.0	518.7	620.0
22.5°	460.3	457.2	461.7	500.8	598.2
25°	456.5	444.3	449.4	486.6	572.5
27.5°	459.7	432.8	434.7	473.8	545.6
30°	460.3	418.6	419.3	460.3	515.5
32.5°	455.8	403.9	404.6	443.7	481.5
35°	444.9	386.6	385.9	424.5	435.4
37.5°	430.2	368.1	368.1	403.2	384.7
40°	412.2	349.4	351.3	375.7	339.8
42.5°	390.4	329.5	332.1	339.2	306.5
45°	366.7	310.3	312.2	286.6	280.8
47.5°	340.4	290.4	291.1	237.9	272.5
50°	309.1	269.9	267.4	203.9	271.9
52.5°	281.4	247.5	239.8	184.6	246.8
55°	254.5	223.8	207.1	169.9	228.9
57.5°	230.8	193.0	177.0	152.6	225.0
60°	209.0	162.8	150.7	134.0	206.5
62.5°	191.1	140.4	137.9	121.2	187.2
65°	171.8	125.0	124.4	110.3	159.0
67.5°	153.2	114.7	114.1	100.0	121.2
70°	133.4	103.8	102.6	89.1	89.8
72.5°	112.8	91.7	90.4	80.1	74.4
75°	92.3	77.5	77.0	69.9	60.2
77.5°	72.5	61.6	62.8	56.4	44.3
80°	51.9	44.8	46.2	40.4	33.4
82.5°	34.6	29.5	30.8	25.6	22.5
85°	19.2	16.6	17.3	13.5	10.2
87.5°	9.0	7.6	7.6	5.2	3.3
90°	8.7	5.5	5.2	3.5	2.0
92.5°	53.4	38.0	34.7	21.2	7.8
95°	131.5	74.1	68.0	43.4	18.9
97.5°	177.1	81.4	75.9	54.3	32.7
100°	193.8	87.5	82.6	62.9	43.3
102.5°	201.4	93.6	89.0	70.7	52.4
105°	207.1	102.7	98.8	83.3	67.8
107.5°	208.1	116.1	112.4	98.0	83.6
110°	206.6	123.5	120.3	107.2	94.2



TEST NUMBER: P934210

CATALOG NUMBER: SQ4-FA-050U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	206.6	132.6	129.4	117.0	104.6
115°	208.5	146.2	143.3	131.8	120.4
117.5°	212.4	159.4	156.8	146.4	135.9
120°	215.6	167.1	164.6	154.9	145.0
122.5°	220.1	176.2	173.7	163.9	153.9
125°	226.2	187.8	185.5	176.5	167.5
127.5°	232.3	199.0	196.7	187.7	178.5
130°	236.8	206.5	204.0	194.3	184.4
132.5°	240.4	212.6	210.1	200.4	190.5
135°	244.4	219.7	217.5	208.5	199.6
137.5°	250.3	228.8	226.6	217.7	208.9
140°	253.8	234.9	232.9	224.7	216.5
142.5°	256.9	239.4	237.5	230.0	222.5
145°	260.8	246.3	244.6	238.0	231.5
147.5°	266.6	255.0	253.3	247.0	240.6
150°	269.6	259.5	258.0	252.2	246.5
152.5°	271.6	262.4	261.4	257.0	252.6
155°	275.9	268.9	268.2	264.9	261.7
157.5°	280.2	275.4	274.7	271.5	268.3
160°	282.2	278.4	277.8	275.3	272.9
162.5°	284.3	281.5	281.1	279.2	277.4
165°	287.4	286.1	285.7	284.0	282.4
167.5°	289.7	288.6	288.4	287.7	286.9
170°	291.7	291.6	291.4	290.6	289.9
172.5°	291.8	291.8	291.8	291.6	291.4
175°	293.0	293.6	293.6	293.6	293.6
177.5°	293.1	293.6	293.6	293.6	293.6
180°	293.6	293.6	293.6	293.6	293.6



TEST NUMBER: P934210
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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	11.00	11.84	11.97	12.83	14.13	13.79	14.64	14.77	15.63	16.92
	3H	11.47	12.23	12.46	13.22	14.55	15.13	15.88	16.11	16.88	18.20
	4H	11.66	12.38	12.66	13.38	14.71	15.56	16.28	16.56	17.28	18.61
	6H	11.78	12.44	12.79	13.45	14.79	15.84	16.50	16.85	17.50	18.85
	8H	11.78	12.41	12.80	13.43	14.77	15.91	16.54	16.93	17.56	18.90
	12H	11.75	12.35	12.77	13.36	14.73	15.94	16.54	16.96	17.56	18.92
4H	2H	12.02	12.74	13.02	13.74	15.06	14.20	14.92	15.21	15.92	17.25
	3H	13.04	13.64	14.06	14.67	16.01	15.70	16.29	16.71	17.32	18.67
	4H	13.32	13.86	14.34	14.89	16.25	16.22	16.76	17.24	17.78	19.15
	6H	13.44	13.91	14.48	14.96	16.32	16.57	17.04	17.61	18.09	19.45
	8H	13.45	13.89	14.48	14.93	16.30	16.67	17.11	17.71	18.15	19.53
	12H	13.42	13.81	14.47	14.86	16.25	16.73	17.12	17.78	18.17	19.56
8H	4H	13.77	14.20	14.80	15.24	16.62	16.34	16.78	17.37	17.82	19.19
	6H	14.03	14.39	15.08	15.47	16.84	16.77	17.13	17.83	18.21	19.59
	8H	14.07	14.39	15.13	15.45	16.85	16.92	17.23	17.98	18.30	19.69
	12H	14.05	14.33	15.12	15.39	16.83	17.01	17.29	18.08	18.35	19.78
12H	4H	13.77	14.17	14.82	15.22	16.60	16.30	16.70	17.36	17.75	19.14
	6H	14.09	14.41	15.15	15.47	16.86	16.77	17.08	17.83	18.15	19.54
	8H	14.15	14.43	15.22	15.49	16.93	16.92	17.20	17.99	18.26	19.70