

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: P934214

Luminaire Tested: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

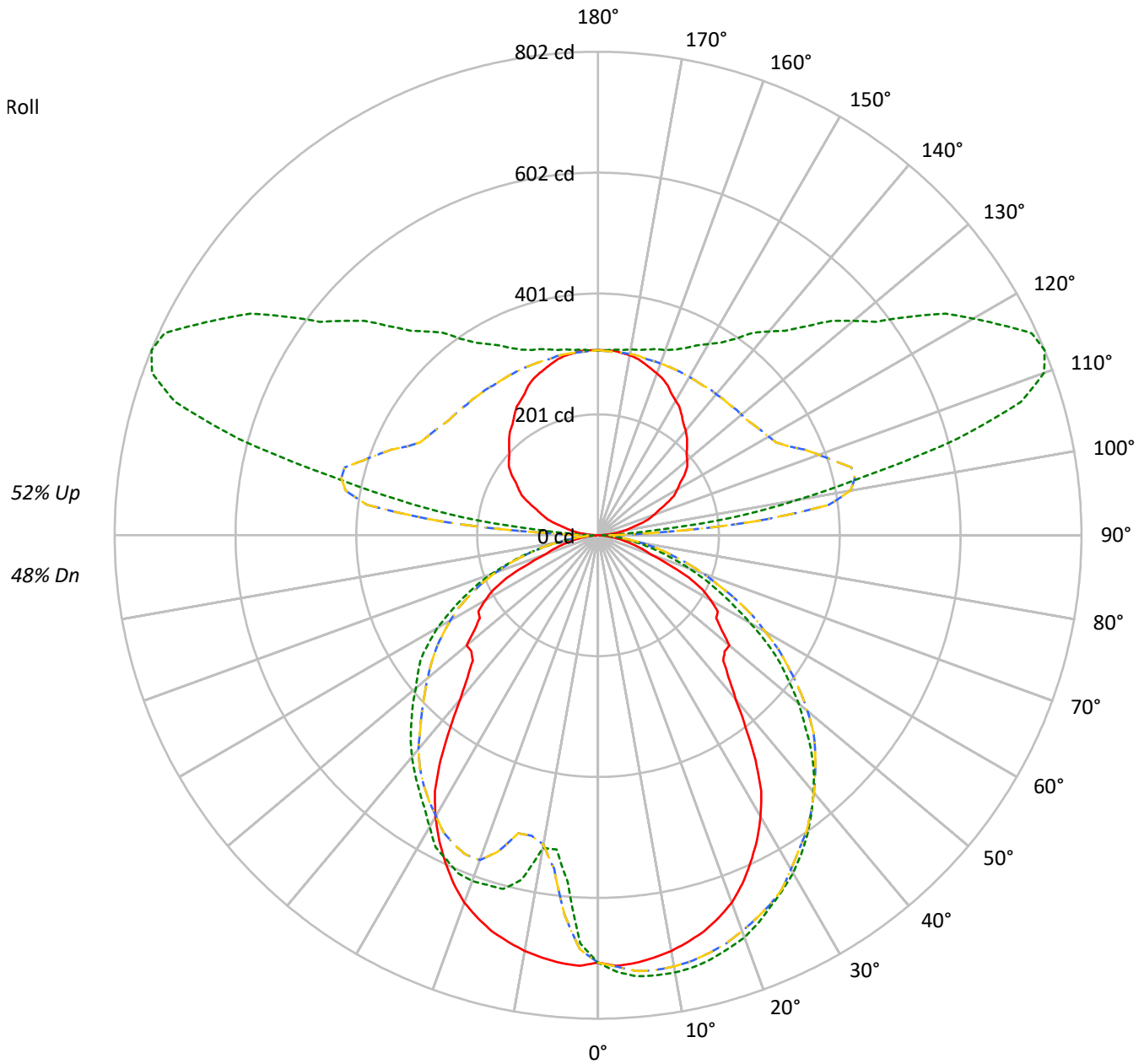
Test Method: LM-79-2019  
Report Number: P934214  
REPORT IS A COMBINATION OF REPORTS P933690 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I  
Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3830.0 lumens  
Efficiency: N/A  
Efficacy: 134.9 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



— 0°-180°    - - 45°-225°    - - - 90°-270°    - - - 135°-315°



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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°	6578	6578	6578	6578
5°	6619	6640	6619	5221
10°	6569	6541	6569	4677
15°	6489	6399	6489	5343
20°	6346	6231	6346	5355
25°	6061	5986	6061	5241
30°	5695	5783	5695	4992
35°	5070	5526	5070	4718
40°	4217	5224	4217	4511
45°	3760	4869	3760	4273
50°	3987	4447	3987	4034
55°	3739	3991	3739	3897
60°	3842	3389	3842	3569
65°	3466	2802	3466	3132
70°	2384	2233	2384	2626
75°	2066	1651	2066	1977
80°	1633	1092	1633	1188
85°	886	577	886	491

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 20°  
 Vertical Angle: 45°  
 Luminance: 5775 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	1.7
10°-20°	181.7	4.7
20°-30°	280.8	7.3
30°-40°	335.3	8.8
40°-50°	337.2	8.8
50°-60°	293.4	7.7
60°-70°	208.1	5.4
70°-80°	110.1	2.9
80°-90°	28.6	0.7
90°-100°	149.7	3.9
100°-110°	393.6	10.3
110°-120°	408.1	10.7
120°-130°	327.3	8.5
130°-140°	256.8	6.7
140°-150°	197.1	5.1
150°-160°	142.0	3.7
160°-170°	86.9	2.3
170°-180°	29.3	0.8
0°-30°	526.5	13.7
0°-40°	861.8	22.5
0°-60°	1492.5	39.0
0°-90°	1839.2	48.0
90°-120°	951.3	24.8
90°-150°	1732.6	45.2
90°-180°	1991.0	52.0
0°-180°	3830.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	709	709	709	709	709	
5°	712	734	712	577	712	68
15°	680	728	680	608	680	191
25°	599	679	599	594	599	275
35°	455	606	455	517	455	282
45°	294	499	294	438	294	235
55°	239	368	239	360	239	220
65°	166	222	166	248	166	159
75°	63	105	63	126	63	66
85°	11	27	11	23	11	14
90°	2	8	2	8	2	2
95°	20	90	20	90	20	22
105°	71	616	71	616	71	75
115°	126	794	126	794	126	124
125°	175	632	175	632	175	156
135°	209	490	209	490	209	162
145°	242	398	242	398	242	152
155°	274	343	274	343	274	126
165°	295	319	295	319	295	83
175°	307	309	307	309	307	29
180°	307	307	307	307	307	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9
2.5°	714.9	714.9	718.9	720.3	720.3	718.3	716.3	718.3	724.3	726.3	725.6
5°	712.2	717.6	725.0	726.3	727.7	727.0	725.6	727.0	733.7	735.0	735.7
7.5°	706.9	716.9	726.3	728.3	730.3	728.3	727.7	729.0	735.7	737.0	737.0
10°	700.2	714.2	725.0	726.3	728.3	726.3	726.3	729.0	735.7	737.0	737.7
12.5°	690.8	710.2	720.3	721.6	724.3	723.6	723.0	725.6	732.4	733.7	733.7
15°	680.0	702.8	712.2	713.6	718.3	716.9	716.9	719.6	727.0	729.0	728.3
17.5°	665.3	693.5	704.2	706.2	709.6	708.9	709.6	712.2	718.9	720.3	721.0
20°	648.5	680.7	693.5	695.5	698.8	698.8	698.8	702.2	708.9	711.6	711.6
22.5°	625.7	667.3	680.7	682.1	686.1	686.1	687.4	692.1	698.1	698.8	698.8
25°	598.9	652.5	663.9	668.0	672.0	674.0	676.0	678.7	680.7	680.0	680.7
27.5°	570.7	633.8	648.5	651.2	656.6	658.6	661.3	661.9	662.6	664.6	663.3
30°	539.2	607.6	629.7	632.4	641.1	642.5	639.8	641.1	644.5	645.8	647.2
32.5°	503.7	568.7	610.3	616.3	624.4	620.4	619.7	621.7	627.1	627.1	628.4
35°	455.4	538.5	592.2	597.6	603.6	598.9	601.6	602.2	605.6	607.6	606.9
37.5°	402.4	512.4	573.4	577.4	582.1	576.1	580.1	582.1	584.8	583.5	583.5
40°	355.4	471.5	551.3	554.0	558.0	553.3	557.3	558.7	560.0	558.7	558.0
42.5°	320.6	426.5	527.8	531.2	528.5	531.8	533.2	535.9	533.8	531.2	531.2
45°	293.7	414.5	502.3	506.3	502.3	507.7	509.7	509.7	503.7	502.3	501.6
47.5°	285.0	390.3	476.8	476.8	474.8	481.5	484.9	480.2	474.2	472.1	472.1
50°	284.4	363.5	442.0	439.3	448.7	456.7	453.4	448.7	444.0	436.6	436.6
52.5°	258.2	330.6	397.0	407.1	421.8	426.5	421.2	416.5	408.4	405.1	402.4
55°	239.4	296.4	356.1	376.2	391.7	397.7	387.6	382.9	370.9	368.9	367.5
57.5°	235.4	246.8	318.6	344.0	362.8	362.2	356.1	347.4	337.3	335.3	334.7
60°	216.0	178.4	278.3	308.5	327.9	325.9	320.6	312.5	303.1	301.8	300.5
62.5°	195.8	129.4	232.7	266.9	294.4	293.7	289.1	277.0	270.3	266.9	264.2
65°	166.3	108.6	165.7	222.0	261.6	262.9	252.8	244.1	236.7	232.7	232.0
67.5°	126.8	88.5	112.0	185.1	230.0	228.7	216.0	211.9	202.5	200.5	196.5
70°	93.9	59.0	77.8	150.2	199.2	195.8	185.8	181.1	172.4	167.7	165.0
72.5°	77.8	47.6	57.0	116.7	167.7	163.6	154.9	149.6	142.2	138.2	135.5
75°	63.0	50.3	43.6	86.5	136.1	133.5	125.4	120.0	114.0	108.6	109.3
77.5°	46.3	46.9	34.9	63.7	108.0	104.0	99.3	92.6	89.9	84.5	84.5
80°	34.9	36.9	26.2	43.6	77.8	77.8	73.8	69.1	64.4	61.7	61.7
82.5°	23.5	23.5	19.4	27.5	53.0	51.0	48.3	46.9	44.3	42.9	42.9
85°	10.7	13.4	12.1	16.8	28.8	30.2	30.2	28.8	28.2	26.8	27.5
87.5°	3.4	6.0	7.4	9.4	14.8	15.4	16.1	16.1	16.1	16.8	16.8
90°	2.1	3.7	5.4	5.8	9.1	13.5	15.7	13.9	10.4	7.8	7.8
92.5°	8.2	22.2	36.3	39.8	55.9	77.4	88.2	77.3	55.5	39.2	37.6
95°	19.8	45.4	71.1	77.5	137.6	217.7	257.8	230.0	174.5	132.9	128.2
97.5°	34.2	56.8	79.4	85.1	185.3	319.0	385.8	368.3	333.2	306.9	297.9
100°	45.3	65.8	86.4	91.5	202.7	351.0	425.2	426.5	429.1	431.0	420.3
102.5°	54.8	74.0	93.1	97.9	210.7	361.1	436.3	458.7	503.4	536.9	527.7
105°	70.9	87.1	103.3	107.4	216.6	362.3	435.1	485.2	585.4	660.6	655.7
107.5°	87.4	102.5	117.6	121.4	217.7	346.2	410.4	480.3	620.1	724.9	726.1
110°	98.5	112.1	125.8	129.2	216.1	331.9	389.8	467.9	624.2	741.4	746.5



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CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	109.4	122.4	135.4	138.7	216.1	319.4	371.0	451.0	610.9	730.9	738.8
115°	125.9	137.9	149.9	152.9	218.1	305.0	348.5	425.5	579.6	695.2	706.1
117.5°	142.2	153.1	164.0	166.7	222.2	296.1	333.1	402.6	541.6	645.9	658.0
120°	151.7	162.0	172.2	174.8	225.5	293.1	326.9	390.4	517.5	612.8	624.6
122.5°	161.0	171.4	181.7	184.3	230.2	291.5	322.1	379.3	493.8	579.6	591.2
125°	175.2	184.6	194.0	196.4	236.6	290.2	317.0	365.6	462.8	535.7	546.4
127.5°	186.7	196.3	205.8	208.2	243.0	289.5	312.7	354.4	437.8	500.4	509.4
130°	192.9	203.2	213.4	216.0	247.7	289.9	311.0	348.2	422.5	478.2	486.5
132.5°	199.3	209.6	219.8	222.4	251.5	290.2	309.6	342.8	409.3	459.2	466.7
135°	208.8	218.1	227.5	229.8	255.6	289.9	307.1	334.9	390.6	432.4	438.8
137.5°	218.5	227.7	237.0	239.3	261.8	291.7	306.7	330.2	377.3	412.6	417.9
140°	226.5	235.0	243.6	245.7	265.5	292.0	305.2	325.6	366.3	396.8	401.7
142.5°	232.7	240.6	248.4	250.4	268.7	293.0	305.2	323.1	358.8	385.6	389.8
145°	242.2	249.0	255.9	257.6	272.8	293.1	303.2	317.8	347.0	368.9	372.1
147.5°	251.7	258.4	265.0	266.7	278.9	295.1	303.2	314.7	337.7	354.9	357.6
150°	257.8	263.8	269.9	271.4	282.0	296.1	303.2	312.9	332.3	346.9	349.1
152.5°	264.2	268.8	273.4	274.5	284.1	296.8	303.2	311.5	328.1	340.5	342.1
155°	273.7	277.1	280.5	281.3	288.6	298.3	303.2	309.8	323.0	332.9	334.0
157.5°	280.7	284.0	287.3	288.1	293.1	299.8	303.2	308.3	318.6	326.3	327.1
160°	285.5	288.0	290.6	291.2	295.2	300.5	303.2	307.6	316.4	323.0	323.4
162.5°	290.2	292.1	294.0	294.5	297.4	301.3	303.2	306.9	314.3	319.9	320.3
165°	295.4	297.1	298.9	299.3	300.6	302.3	303.2	305.8	311.1	315.1	315.5
167.5°	300.1	300.9	301.7	301.9	303.0	304.5	305.2	307.0	310.5	313.1	313.3
170°	303.2	304.0	304.8	305.0	305.1	305.2	305.2	307.0	310.5	313.1	313.1
172.5°	304.8	305.0	305.2	305.2	305.2	305.2	305.2	306.6	309.3	311.4	311.2
175°	307.1	307.1	307.1	307.1	306.5	305.6	305.2	306.1	307.9	309.2	309.2
177.5°	307.1	307.1	307.1	307.1	306.6	306.0	305.7	306.4	307.8	308.8	308.6
180°	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9
2.5°	727.0	725.0	727.0	725.6	726.3	724.3	718.3	716.3	718.3	720.3	720.3
5°	735.7	734.4	735.7	735.7	735.0	733.7	727.0	725.6	727.0	727.7	726.3
7.5°	738.4	736.4	738.4	737.0	737.0	735.7	729.0	727.7	728.3	730.3	728.3
10°	738.4	736.4	738.4	737.7	737.0	735.7	729.0	726.3	726.3	728.3	726.3
12.5°	735.0	733.7	735.0	733.7	733.7	732.4	725.6	723.0	723.6	724.3	721.6
15°	729.7	727.7	729.7	728.3	729.0	727.0	719.6	716.9	716.9	718.3	713.6
17.5°	721.6	718.9	721.6	721.0	720.3	718.9	712.2	709.6	708.9	709.6	706.2
20°	712.2	710.2	712.2	711.6	711.6	708.9	702.2	698.8	698.8	698.8	695.5
22.5°	697.5	695.5	697.5	698.8	698.8	698.1	692.1	687.4	686.1	686.1	682.1
25°	680.7	678.7	680.7	680.7	680.0	680.7	678.7	676.0	674.0	672.0	668.0
27.5°	664.6	663.3	664.6	663.3	664.6	662.6	661.9	661.3	658.6	656.6	651.2
30°	648.5	647.2	648.5	647.2	645.8	644.5	641.1	639.8	642.5	641.1	632.4
32.5°	628.4	627.1	628.4	628.4	627.1	627.1	621.7	619.7	620.4	624.4	616.3
35°	607.6	605.6	607.6	606.9	607.6	605.6	602.2	601.6	598.9	603.6	597.6
37.5°	583.5	581.5	583.5	583.5	583.5	584.8	582.1	580.1	576.1	582.1	577.4
40°	558.7	556.0	558.7	558.0	558.7	560.0	558.7	557.3	553.3	558.0	554.0
42.5°	530.5	529.8	530.5	531.2	531.2	533.8	535.9	533.2	531.8	528.5	531.2
45°	500.3	499.0	500.3	501.6	502.3	503.7	509.7	509.7	507.7	502.3	506.3
47.5°	468.1	464.8	468.1	472.1	472.1	474.2	480.2	484.9	481.5	474.8	476.8
50°	433.9	434.6	433.9	436.6	436.6	444.0	448.7	453.4	456.7	448.7	439.3
52.5°	400.4	399.7	400.4	402.4	405.1	408.4	416.5	421.2	426.5	421.8	407.1
55°	366.8	368.2	366.8	367.5	368.9	370.9	382.9	387.6	397.7	391.7	376.2
57.5°	333.3	331.3	333.3	334.7	335.3	337.3	347.4	356.1	362.2	362.8	344.0
60°	294.4	291.7	294.4	300.5	301.8	303.1	312.5	320.6	325.9	327.9	308.5
62.5°	260.2	255.5	260.2	264.2	266.9	270.3	277.0	289.1	293.7	294.4	266.9
65°	224.0	222.0	224.0	232.0	232.7	236.7	244.1	252.8	262.9	261.6	222.0
67.5°	191.1	191.1	191.1	196.5	200.5	202.5	211.9	216.0	228.7	230.0	185.1
70°	161.0	160.3	161.0	165.0	167.7	172.4	181.1	185.8	195.8	199.2	150.2
72.5°	132.1	131.4	132.1	135.5	138.2	142.2	149.6	154.9	163.6	167.7	116.7
75°	106.6	105.3	106.6	109.3	108.6	114.0	120.0	125.4	133.5	136.1	86.5
77.5°	81.8	81.8	81.8	84.5	84.5	89.9	92.6	99.3	104.0	108.0	63.7
80°	61.0	60.4	61.0	61.7	61.7	64.4	69.1	73.8	77.8	77.8	43.6
82.5°	42.9	41.6	42.9	42.9	42.9	44.3	46.9	48.3	51.0	53.0	27.5
85°	26.8	26.8	26.8	27.5	26.8	28.2	28.8	30.2	30.2	28.8	16.8
87.5°	17.4	16.8	17.4	16.8	16.8	16.1	16.1	16.1	15.4	14.8	9.4
90°	7.8	7.8	7.8	7.8	7.8	10.4	13.9	15.7	13.5	9.1	5.8
92.5°	31.4	25.1	31.4	37.6	39.2	55.5	77.3	88.2	77.4	55.9	39.8
95°	109.3	90.5	109.3	128.2	132.9	174.5	230.0	257.8	217.7	137.6	77.5
97.5°	262.0	226.1	262.0	297.9	306.9	333.2	368.3	385.8	319.0	185.3	85.1
100°	377.5	334.7	377.5	420.3	431.0	429.1	426.5	425.2	351.0	202.7	91.5
102.5°	491.1	454.5	491.1	527.7	536.9	503.4	458.7	436.3	361.1	210.7	97.9
105°	636.0	616.3	636.0	655.7	660.6	585.4	485.2	435.1	362.3	216.6	107.4
107.5°	730.8	735.6	730.8	726.1	724.9	620.1	480.3	410.4	346.2	217.7	121.4
110°	767.0	787.5	767.0	746.5	741.4	624.2	467.9	389.8	331.9	216.1	129.2





TEST NUMBER: P934214

CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	770.3	801.8	770.3	738.8	730.9	610.9	451.0	371.0	319.4	216.1	138.7
115°	749.8	793.5	749.8	706.1	695.2	579.6	425.5	348.5	305.0	218.1	152.9
117.5°	706.5	755.0	706.5	658.0	645.9	541.6	402.6	333.1	296.1	222.2	166.7
120°	671.6	718.7	671.6	624.6	612.8	517.5	390.4	326.9	293.1	225.5	174.8
122.5°	637.7	684.1	637.7	591.2	579.6	493.8	379.3	322.1	291.5	230.2	184.3
125°	589.1	631.9	589.1	546.4	535.7	462.8	365.6	317.0	290.2	236.6	196.4
127.5°	545.5	581.6	545.5	509.4	500.4	437.8	354.4	312.7	289.5	243.0	208.2
130°	519.9	553.2	519.9	486.5	478.2	422.5	348.2	311.0	289.9	247.7	216.0
132.5°	496.5	526.4	496.5	466.7	459.2	409.3	342.8	309.6	290.2	251.5	222.4
135°	464.6	490.3	464.6	438.8	432.4	390.6	334.9	307.1	289.9	255.6	229.8
137.5°	438.9	460.0	438.9	417.9	412.6	377.3	330.2	306.7	291.7	261.8	239.3
140°	421.4	441.1	421.4	401.7	396.8	366.3	325.6	305.2	292.0	265.5	245.7
142.5°	406.8	423.8	406.8	389.8	385.6	358.8	323.1	305.2	293.0	268.7	250.4
145°	385.0	397.8	385.0	372.1	368.9	347.0	317.8	303.2	293.1	272.8	257.6
147.5°	368.2	378.8	368.2	357.6	354.9	337.7	314.7	303.2	295.1	278.9	266.7
150°	357.7	366.3	357.7	349.1	346.9	332.3	312.9	303.2	296.1	282.0	271.4
152.5°	348.6	355.1	348.6	342.1	340.5	328.1	311.5	303.2	296.8	284.1	274.5
155°	338.3	342.6	338.3	334.0	332.9	323.0	309.8	303.2	298.3	288.6	281.3
157.5°	330.1	333.1	330.1	327.1	326.3	318.6	308.3	303.2	299.8	293.1	288.1
160°	325.2	326.9	325.2	323.4	323.0	316.4	307.6	303.2	300.5	295.2	291.2
162.5°	322.0	323.6	322.0	320.3	319.9	314.3	306.9	303.2	301.3	297.4	294.5
165°	317.3	319.1	317.3	315.5	315.1	311.1	305.8	303.2	302.3	300.6	299.3
167.5°	314.0	314.7	314.0	313.3	313.1	310.5	307.0	305.2	304.5	303.0	301.9
170°	313.1	313.1	313.1	313.1	313.1	310.5	307.0	305.2	305.2	305.1	305.0
172.5°	310.6	310.0	310.6	311.2	311.4	309.3	306.6	305.2	305.2	305.2	305.2
175°	309.2	309.2	309.2	309.2	309.2	307.9	306.1	305.2	305.6	306.5	307.1
177.5°	307.9	307.1	307.9	308.6	308.8	307.8	306.4	305.7	306.0	306.6	307.1
180°	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1



TEST NUMBER: P934214

CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9
2.5°	718.9	714.9	714.9	708.2	705.5	703.5	700.2	690.1	687.4	684.7	688.8
5°	725.0	717.6	712.2	700.2	690.1	686.1	673.3	649.2	633.1	621.0	614.3
7.5°	726.3	716.9	706.9	688.1	663.9	653.2	614.3	570.1	558.0	547.3	540.5
10°	725.0	714.2	700.2	672.0	615.0	596.2	557.3	528.5	521.1	519.1	521.1
12.5°	720.3	710.2	690.8	643.8	564.0	551.3	528.5	511.7	510.4	513.7	531.8
15°	712.2	702.8	680.0	606.3	535.9	526.5	510.4	504.3	511.7	535.2	589.5
17.5°	704.2	693.5	665.3	569.4	514.4	507.7	496.3	508.4	549.9	581.5	599.6
20°	693.5	680.7	648.5	542.6	499.0	492.9	487.6	541.9	573.4	584.8	594.9
22.5°	680.7	667.3	625.7	523.8	482.9	478.2	481.5	560.7	573.4	581.5	590.2
25°	663.9	652.5	598.9	509.0	470.1	464.8	477.5	558.7	566.0	568.0	585.5
27.5°	648.5	633.8	570.7	495.6	454.7	452.7	480.9	549.9	555.3	557.3	576.1
30°	629.7	607.6	539.2	481.5	438.6	437.9	481.5	539.2	537.9	543.2	562.0
32.5°	610.3	568.7	503.7	464.1	423.2	422.5	476.8	523.1	521.8	529.1	543.2
35°	592.2	538.5	455.4	444.0	403.7	404.4	465.4	504.3	505.0	511.7	520.4
37.5°	573.4	512.4	402.4	421.8	385.0	385.0	450.0	486.9	485.6	487.6	499.6
40°	551.3	471.5	355.4	393.0	367.5	365.5	431.2	468.1	463.4	462.8	479.5
42.5°	527.8	426.5	320.6	354.8	347.4	344.7	408.4	445.3	436.6	438.6	460.1
45°	502.3	414.5	293.7	299.8	326.6	324.6	383.6	419.2	413.1	418.5	440.6
47.5°	476.8	390.3	285.0	248.8	304.5	303.8	356.1	393.7	390.3	395.7	419.2
50°	442.0	363.5	284.4	213.3	279.7	282.3	323.3	368.9	368.9	373.6	398.4
52.5°	397.0	330.6	258.2	193.1	250.8	258.9	294.4	347.4	348.7	353.4	375.6
55°	356.1	296.4	239.4	177.7	216.6	234.1	266.2	325.3	327.9	332.6	352.8
57.5°	318.6	246.8	235.4	159.6	185.1	201.9	241.4	303.8	305.1	309.2	328.6
60°	278.3	178.4	216.0	140.2	157.6	170.3	218.6	278.3	283.0	285.7	302.5
62.5°	232.7	129.4	195.8	126.8	144.2	146.9	199.9	254.2	260.2	262.2	272.3
65°	165.7	108.6	166.3	115.4	130.1	130.8	179.7	229.4	234.7	238.1	245.5
67.5°	112.0	88.5	126.8	104.6	119.4	120.0	160.3	200.5	207.9	210.6	215.3
70°	77.8	59.0	93.9	93.2	107.3	108.6	139.5	174.4	181.1	183.1	185.8
72.5°	57.0	47.6	77.8	83.8	94.6	95.9	118.0	144.9	151.6	153.6	154.9
75°	43.6	50.3	63.0	73.1	80.5	81.1	96.6	118.0	122.7	124.1	124.7
77.5°	34.9	46.9	46.3	59.0	65.7	64.4	75.8	91.2	95.2	95.2	95.2
80°	26.2	36.9	34.9	42.3	48.3	46.9	54.3	65.1	66.4	67.7	67.1
82.5°	19.4	23.5	23.5	26.8	32.2	30.9	36.2	42.3	42.3	42.3	43.6
85°	12.1	13.4	10.7	14.1	18.1	17.4	20.1	22.8	23.5	23.5	22.1
87.5°	7.4	6.0	3.4	5.4	8.0	8.0	9.4	10.1	9.4	9.4	9.4
90°	5.4	3.7	2.1	3.7	5.4	5.8	9.1	13.5	15.7	13.9	10.4
92.5°	36.3	22.2	8.2	22.2	36.3	39.8	55.9	77.4	88.2	77.3	55.5
95°	71.1	45.4	19.8	45.4	71.1	77.5	137.6	217.7	257.8	230.0	174.5
97.5°	79.4	56.8	34.2	56.8	79.4	85.1	185.3	319.0	385.8	368.3	333.2
100°	86.4	65.8	45.3	65.8	86.4	91.5	202.7	351.0	425.2	426.5	429.1
102.5°	93.1	74.0	54.8	74.0	93.1	97.9	210.7	361.1	436.3	458.7	503.4
105°	103.3	87.1	70.9	87.1	103.3	107.4	216.6	362.3	435.1	485.2	585.4
107.5°	117.6	102.5	87.4	102.5	117.6	121.4	217.7	346.2	410.4	480.3	620.1
110°	125.8	112.1	98.5	112.1	125.8	129.2	216.1	331.9	389.8	467.9	624.2



TEST NUMBER: P934214

CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	135.4	122.4	109.4	122.4	135.4	138.7	216.1	319.4	371.0	451.0	610.9
115°	149.9	137.9	125.9	137.9	149.9	152.9	218.1	305.0	348.5	425.5	579.6
117.5°	164.0	153.1	142.2	153.1	164.0	166.7	222.2	296.1	333.1	402.6	541.6
120°	172.2	162.0	151.7	162.0	172.2	174.8	225.5	293.1	326.9	390.4	517.5
122.5°	181.7	171.4	161.0	171.4	181.7	184.3	230.2	291.5	322.1	379.3	493.8
125°	194.0	184.6	175.2	184.6	194.0	196.4	236.6	290.2	317.0	365.6	462.8
127.5°	205.8	196.3	186.7	196.3	205.8	208.2	243.0	289.5	312.7	354.4	437.8
130°	213.4	203.2	192.9	203.2	213.4	216.0	247.7	289.9	311.0	348.2	422.5
132.5°	219.8	209.6	199.3	209.6	219.8	222.4	251.5	290.2	309.6	342.8	409.3
135°	227.5	218.1	208.8	218.1	227.5	229.8	255.6	289.9	307.1	334.9	390.6
137.5°	237.0	227.7	218.5	227.7	237.0	239.3	261.8	291.7	306.7	330.2	377.3
140°	243.6	235.0	226.5	235.0	243.6	245.7	265.5	292.0	305.2	325.6	366.3
142.5°	248.4	240.6	232.7	240.6	248.4	250.4	268.7	293.0	305.2	323.1	358.8
145°	255.9	249.0	242.2	249.0	255.9	257.6	272.8	293.1	303.2	317.8	347.0
147.5°	265.0	258.4	251.7	258.4	265.0	266.7	278.9	295.1	303.2	314.7	337.7
150°	269.9	263.8	257.8	263.8	269.9	271.4	282.0	296.1	303.2	312.9	332.3
152.5°	273.4	268.8	264.2	268.8	273.4	274.5	284.1	296.8	303.2	311.5	328.1
155°	280.5	277.1	273.7	277.1	280.5	281.3	288.6	298.3	303.2	309.8	323.0
157.5°	287.3	284.0	280.7	284.0	287.3	288.1	293.1	299.8	303.2	308.3	318.6
160°	290.6	288.0	285.5	288.0	290.6	291.2	295.2	300.5	303.2	307.6	316.4
162.5°	294.0	292.1	290.2	292.1	294.0	294.5	297.4	301.3	303.2	306.9	314.3
165°	298.9	297.1	295.4	297.1	298.9	299.3	300.6	302.3	303.2	305.8	311.1
167.5°	301.7	300.9	300.1	300.9	301.7	301.9	303.0	304.5	305.2	307.0	310.5
170°	304.8	304.0	303.2	304.0	304.8	305.0	305.1	305.2	305.2	307.0	310.5
172.5°	305.2	305.0	304.8	305.0	305.2	305.2	305.2	305.2	305.2	306.6	309.3
175°	307.1	307.1	307.1	307.1	307.1	307.1	306.5	305.6	305.2	306.1	307.9
177.5°	307.1	307.1	307.1	307.1	307.1	307.1	306.6	306.0	305.7	306.4	307.8
180°	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1



TEST NUMBER: P934214  
 CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9	708.9
2.5°	684.1	682.1	684.7	677.4	684.7	682.1	684.1	688.8	684.7	687.4	690.1
5°	600.2	596.9	586.2	577.4	586.2	596.9	600.2	614.3	621.0	633.1	649.2
7.5°	536.5	533.8	531.2	525.8	531.2	533.8	536.5	540.5	547.3	558.0	570.1
10°	522.4	523.1	527.1	526.5	527.1	523.1	522.4	521.1	519.1	521.1	528.5
12.5°	558.7	564.7	586.8	585.5	586.8	564.7	558.7	531.8	513.7	510.4	511.7
15°	600.2	602.2	606.9	607.6	606.9	602.2	600.2	589.5	535.2	511.7	504.3
17.5°	604.3	604.9	608.3	608.3	608.3	604.9	604.3	599.6	581.5	549.9	508.4
20°	600.9	602.2	609.0	610.3	609.0	602.2	600.9	594.9	584.8	573.4	541.9
22.5°	599.6	602.2	607.6	606.9	607.6	602.2	599.6	590.2	581.5	573.4	560.7
25°	592.9	592.9	593.5	594.2	593.5	592.9	592.9	585.5	568.0	566.0	558.7
27.5°	578.8	580.1	584.1	583.5	584.1	580.1	578.8	576.1	557.3	555.3	549.9
30°	566.0	564.7	561.3	558.7	561.3	564.7	566.0	562.0	543.2	537.9	539.2
32.5°	544.6	541.2	537.9	535.9	537.9	541.2	544.6	543.2	529.1	521.8	523.1
35°	519.1	519.8	519.1	517.1	519.1	519.8	519.1	520.4	511.7	505.0	504.3
37.5°	501.0	502.3	501.6	499.0	501.6	502.3	501.0	499.6	487.6	485.6	486.9
40°	482.2	482.9	482.2	480.2	482.2	482.9	482.2	479.5	462.8	463.4	468.1
42.5°	464.1	463.4	461.4	460.1	461.4	463.4	464.1	460.1	438.6	436.6	445.3
45°	443.3	444.0	439.9	437.9	439.9	444.0	443.3	440.6	418.5	413.1	419.2
47.5°	422.5	422.5	419.2	417.1	419.2	422.5	422.5	419.2	395.7	390.3	393.7
50°	400.4	399.7	395.0	394.3	395.0	399.7	400.4	398.4	373.6	368.9	368.9
52.5°	374.9	374.9	375.6	376.9	375.6	374.9	374.9	375.6	353.4	348.7	347.4
55°	352.8	353.4	358.1	359.5	358.1	353.4	352.8	352.8	332.6	327.9	325.3
57.5°	330.0	330.0	333.3	333.3	333.3	330.0	330.0	328.6	309.2	305.1	303.8
60°	303.8	305.1	307.8	307.2	307.8	305.1	303.8	302.5	285.7	283.0	278.3
62.5°	276.3	277.7	278.3	277.0	278.3	277.7	276.3	272.3	262.2	260.2	254.2
65°	247.5	248.8	249.5	248.1	249.5	248.8	247.5	245.5	238.1	234.7	229.4
67.5°	218.0	217.3	216.6	219.3	216.6	217.3	218.0	215.3	210.6	207.9	200.5
70°	187.8	187.8	187.1	188.5	187.1	187.8	187.8	185.8	183.1	181.1	174.4
72.5°	155.6	154.9	157.6	155.6	157.6	154.9	155.6	154.9	153.6	151.6	144.9
75°	124.1	125.4	124.1	126.1	124.1	125.4	124.1	124.7	124.1	122.7	118.0
77.5°	94.6	95.9	94.6	94.6	94.6	95.9	94.6	95.2	95.2	95.2	91.2
80°	67.1	66.4	66.4	65.7	66.4	66.4	67.1	67.1	67.7	66.4	65.1
82.5°	42.9	42.3	42.3	43.6	42.3	42.3	42.9	43.6	42.3	42.3	42.3
85°	23.5	24.1	22.8	22.8	22.8	24.1	23.5	22.1	23.5	23.5	22.8
87.5°	8.7	8.0	8.0	8.0	8.0	8.0	8.7	9.4	9.4	9.4	10.1
90°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	10.4	13.9	15.7	13.5
92.5°	39.2	37.6	31.4	25.1	31.4	37.6	39.2	55.5	77.3	88.2	77.4
95°	132.9	128.2	109.3	90.5	109.3	128.2	132.9	174.5	230.0	257.8	217.7
97.5°	306.9	297.9	262.0	226.1	262.0	297.9	306.9	333.2	368.3	385.8	319.0
100°	431.0	420.3	377.5	334.7	377.5	420.3	431.0	429.1	426.5	425.2	351.0
102.5°	536.9	527.7	491.1	454.5	491.1	527.7	536.9	503.4	458.7	436.3	361.1
105°	660.6	655.7	636.0	616.3	636.0	655.7	660.6	585.4	485.2	435.1	362.3
107.5°	724.9	726.1	730.8	735.6	730.8	726.1	724.9	620.1	480.3	410.4	346.2
110°	741.4	746.5	767.0	787.5	767.0	746.5	741.4	624.2	467.9	389.8	331.9



TEST NUMBER: P934214

CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	730.9	738.8	770.3	801.8	770.3	738.8	730.9	610.9	451.0	371.0	319.4
115°	695.2	706.1	749.8	793.5	749.8	706.1	695.2	579.6	425.5	348.5	305.0
117.5°	645.9	658.0	706.5	755.0	706.5	658.0	645.9	541.6	402.6	333.1	296.1
120°	612.8	624.6	671.6	718.7	671.6	624.6	612.8	517.5	390.4	326.9	293.1
122.5°	579.6	591.2	637.7	684.1	637.7	591.2	579.6	493.8	379.3	322.1	291.5
125°	535.7	546.4	589.1	631.9	589.1	546.4	535.7	462.8	365.6	317.0	290.2
127.5°	500.4	509.4	545.5	581.6	545.5	509.4	500.4	437.8	354.4	312.7	289.5
130°	478.2	486.5	519.9	553.2	519.9	486.5	478.2	422.5	348.2	311.0	289.9
132.5°	459.2	466.7	496.5	526.4	496.5	466.7	459.2	409.3	342.8	309.6	290.2
135°	432.4	438.8	464.6	490.3	464.6	438.8	432.4	390.6	334.9	307.1	289.9
137.5°	412.6	417.9	438.9	460.0	438.9	417.9	412.6	377.3	330.2	306.7	291.7
140°	396.8	401.7	421.4	441.1	421.4	401.7	396.8	366.3	325.6	305.2	292.0
142.5°	385.6	389.8	406.8	423.8	406.8	389.8	385.6	358.8	323.1	305.2	293.0
145°	368.9	372.1	385.0	397.8	385.0	372.1	368.9	347.0	317.8	303.2	293.1
147.5°	354.9	357.6	368.2	378.8	368.2	357.6	354.9	337.7	314.7	303.2	295.1
150°	346.9	349.1	357.7	366.3	357.7	349.1	346.9	332.3	312.9	303.2	296.1
152.5°	340.5	342.1	348.6	355.1	348.6	342.1	340.5	328.1	311.5	303.2	296.8
155°	332.9	334.0	338.3	342.6	338.3	334.0	332.9	323.0	309.8	303.2	298.3
157.5°	326.3	327.1	330.1	333.1	330.1	327.1	326.3	318.6	308.3	303.2	299.8
160°	323.0	323.4	325.2	326.9	325.2	323.4	323.0	316.4	307.6	303.2	300.5
162.5°	319.9	320.3	322.0	323.6	322.0	320.3	319.9	314.3	306.9	303.2	301.3
165°	315.1	315.5	317.3	319.1	317.3	315.5	315.1	311.1	305.8	303.2	302.3
167.5°	313.1	313.3	314.0	314.7	314.0	313.3	313.1	310.5	307.0	305.2	304.5
170°	313.1	313.1	313.1	313.1	313.1	313.1	313.1	310.5	307.0	305.2	305.2
172.5°	311.4	311.2	310.6	310.0	310.6	311.2	311.4	309.3	306.6	305.2	305.2
175°	309.2	309.2	309.2	309.2	309.2	309.2	309.2	307.9	306.1	305.2	305.6
177.5°	308.8	308.6	307.9	307.1	307.9	308.6	308.8	307.8	306.4	305.7	306.0
180°	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1



TEST NUMBER: P934214

CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
0°	708.9	708.9	708.9	708.9	708.9
2.5°	700.2	703.5	705.5	708.2	714.9
5°	673.3	686.1	690.1	700.2	712.2
7.5°	614.3	653.2	663.9	688.1	706.9
10°	557.3	596.2	615.0	672.0	700.2
12.5°	528.5	551.3	564.0	643.8	690.8
15°	510.4	526.5	535.9	606.3	680.0
17.5°	496.3	507.7	514.4	569.4	665.3
20°	487.6	492.9	499.0	542.6	648.5
22.5°	481.5	478.2	482.9	523.8	625.7
25°	477.5	464.8	470.1	509.0	598.9
27.5°	480.9	452.7	454.7	495.6	570.7
30°	481.5	437.9	438.6	481.5	539.2
32.5°	476.8	422.5	423.2	464.1	503.7
35°	465.4	404.4	403.7	444.0	455.4
37.5°	450.0	385.0	385.0	421.8	402.4
40°	431.2	365.5	367.5	393.0	355.4
42.5°	408.4	344.7	347.4	354.8	320.6
45°	383.6	324.6	326.6	299.8	293.7
47.5°	356.1	303.8	304.5	248.8	285.0
50°	323.3	282.3	279.7	213.3	284.4
52.5°	294.4	258.9	250.8	193.1	258.2
55°	266.2	234.1	216.6	177.7	239.4
57.5°	241.4	201.9	185.1	159.6	235.4
60°	218.6	170.3	157.6	140.2	216.0
62.5°	199.9	146.9	144.2	126.8	195.8
65°	179.7	130.8	130.1	115.4	166.3
67.5°	160.3	120.0	119.4	104.6	126.8
70°	139.5	108.6	107.3	93.2	93.9
72.5°	118.0	95.9	94.6	83.8	77.8
75°	96.6	81.1	80.5	73.1	63.0
77.5°	75.8	64.4	65.7	59.0	46.3
80°	54.3	46.9	48.3	42.3	34.9
82.5°	36.2	30.9	32.2	26.8	23.5
85°	20.1	17.4	18.1	14.1	10.7
87.5°	9.4	8.0	8.0	5.4	3.4
90°	9.1	5.8	5.4	3.7	2.1
92.5°	55.9	39.8	36.3	22.2	8.2
95°	137.6	77.5	71.1	45.4	19.8
97.5°	185.3	85.1	79.4	56.8	34.2
100°	202.7	91.5	86.4	65.8	45.3
102.5°	210.7	97.9	93.1	74.0	54.8
105°	216.6	107.4	103.3	87.1	70.9
107.5°	217.7	121.4	117.6	102.5	87.4
110°	216.1	129.2	125.8	112.1	98.5



TEST NUMBER: P934214

CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
112.5°	216.1	138.7	135.4	122.4	109.4
115°	218.1	152.9	149.9	137.9	125.9
117.5°	222.2	166.7	164.0	153.1	142.2
120°	225.5	174.8	172.2	162.0	151.7
122.5°	230.2	184.3	181.7	171.4	161.0
125°	236.6	196.4	194.0	184.6	175.2
127.5°	243.0	208.2	205.8	196.3	186.7
130°	247.7	216.0	213.4	203.2	192.9
132.5°	251.5	222.4	219.8	209.6	199.3
135°	255.6	229.8	227.5	218.1	208.8
137.5°	261.8	239.3	237.0	227.7	218.5
140°	265.5	245.7	243.6	235.0	226.5
142.5°	268.7	250.4	248.4	240.6	232.7
145°	272.8	257.6	255.9	249.0	242.2
147.5°	278.9	266.7	265.0	258.4	251.7
150°	282.0	271.4	269.9	263.8	257.8
152.5°	284.1	274.5	273.4	268.8	264.2
155°	288.6	281.3	280.5	277.1	273.7
157.5°	293.1	288.1	287.3	284.0	280.7
160°	295.2	291.2	290.6	288.0	285.5
162.5°	297.4	294.5	294.0	292.1	290.2
165°	300.6	299.3	298.9	297.1	295.4
167.5°	303.0	301.9	301.7	300.9	300.1
170°	305.1	305.0	304.8	304.0	303.2
172.5°	305.2	305.2	305.2	305.0	304.8
175°	306.5	307.1	307.1	307.1	307.1
177.5°	306.6	307.1	307.1	307.1	307.1
180°	307.1	307.1	307.1	307.1	307.1



TEST NUMBER: P934214  
 CATALOG NUMBER: SQ4-FA-050U-050D-835-1D-UNV-STD-W-4

**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	11.15	12.00	12.13	12.98	14.28	13.95	14.79	14.92	15.78	17.08
	3H	11.63	12.38	12.61	13.38	14.70	15.28	16.04	16.27	17.04	18.36
	4H	11.82	12.53	12.82	13.53	14.86	15.72	16.44	16.72	17.44	18.77
	6H	11.94	12.60	12.95	13.60	14.94	16.00	16.66	17.01	17.66	19.00
	8H	11.94	12.57	12.95	13.59	14.92	16.07	16.69	17.08	17.72	19.05
	12H	11.91	12.50	12.93	13.52	14.88	16.10	16.70	17.12	17.71	19.08
4H	2H	12.18	12.89	13.18	13.89	15.22	14.36	15.07	15.36	16.07	17.40
	3H	13.20	13.80	14.21	14.83	16.17	15.85	16.45	16.87	17.48	18.82
	4H	13.48	14.02	14.50	15.04	16.41	16.37	16.92	17.39	17.94	19.31
	6H	13.60	14.07	14.63	15.11	16.48	16.73	17.20	17.76	18.24	19.61
	8H	13.61	14.04	14.64	15.08	16.46	16.83	17.27	17.86	18.31	19.68
	12H	13.57	13.97	14.62	15.02	16.40	16.88	17.28	17.93	18.33	19.71
8H	4H	13.92	14.36	14.96	15.40	16.78	16.50	16.94	17.53	17.97	19.35
	6H	14.18	14.55	15.24	15.63	17.00	16.93	17.29	17.98	18.37	19.74
	8H	14.23	14.54	15.29	15.61	17.00	17.07	17.39	18.14	18.45	19.85
	12H	14.21	14.49	15.28	15.55	16.98	17.16	17.44	18.23	18.50	19.94
12H	4H	13.93	14.32	14.98	15.38	16.76	16.46	16.86	17.51	17.91	19.29
	6H	14.24	14.56	15.31	15.63	17.02	16.92	17.24	17.99	18.31	19.70
	8H	14.31	14.59	15.38	15.65	17.08	17.08	17.36	18.15	18.42	19.85