

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: P933850

Luminaire Tested: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P933850
REPORT IS A COMBINATION OF REPORTS P933674 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

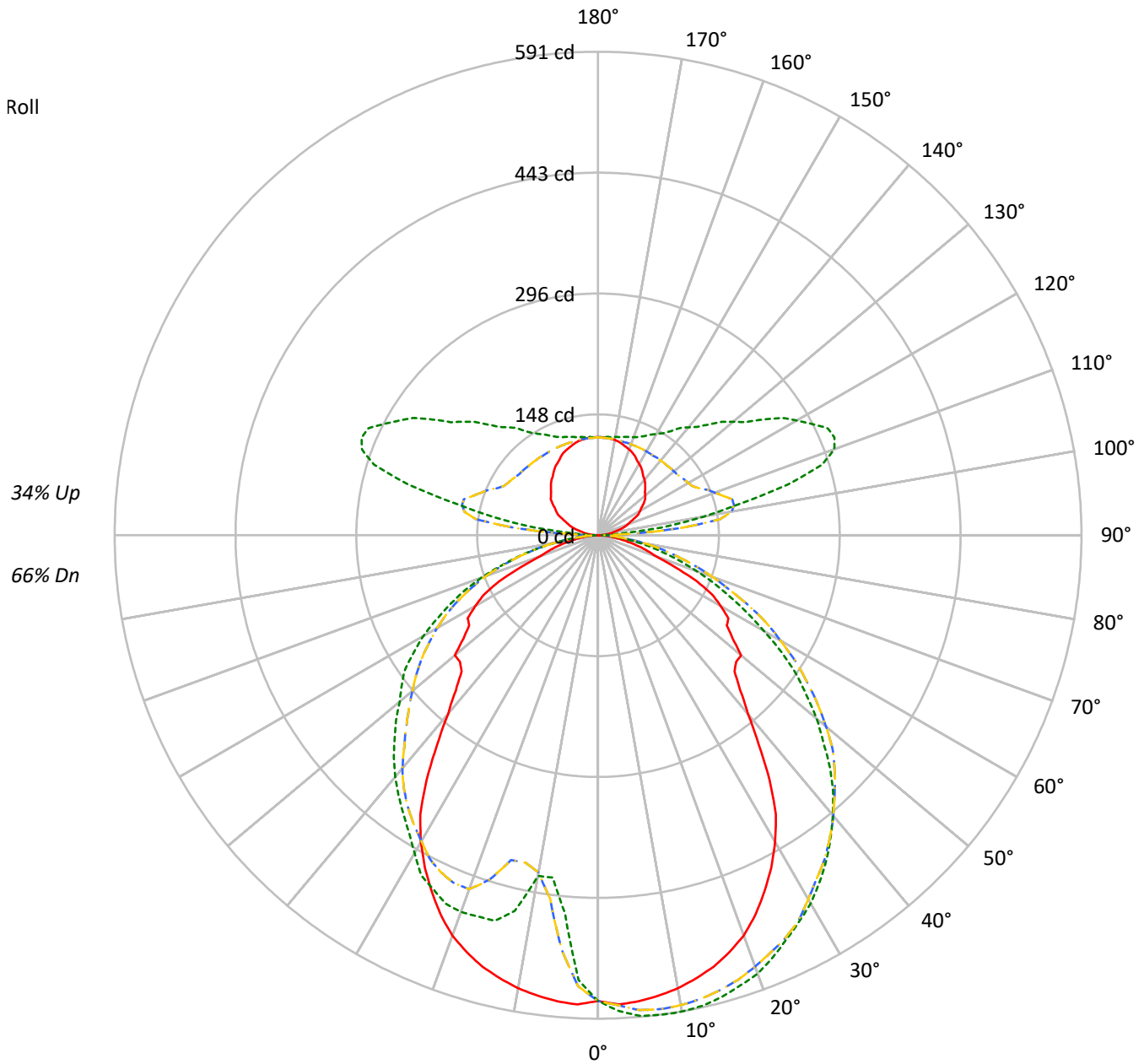
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2253.2 lumens
Efficiency: N/A
Efficacy: 102.4 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: Semi-Direct

Input Watts (W): 22
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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66			
1	101	97	93	89	95	91	88	85	81	78	76	71	69	68	62	61	60	55			
2	92	85	78	73	87	80	74	70	71	67	63	63	59	56	55	52	50	46			
3	84	75	67	61	79	70	64	58	63	57	53	55	51	48	49	46	43	39			
4	77	66	58	52	72	62	55	49	56	50	45	49	45	41	43	40	37	34			
5	71	59	50	44	66	56	48	43	50	44	39	44	39	35	39	35	32	29			
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	26			
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23			
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	22	20			
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18			
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	16			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	5282	5282	5282	5282
5°	5315	5332	5315	4193
10°	5275	5252	5275	3755
15°	5210	5138	5210	4291
20°	5095	5004	5095	4300
25°	4867	4807	4867	4208
30°	4573	4644	4573	4009
35°	4071	4437	4071	3789
40°	3386	4195	3386	3623
45°	3019	3910	3019	3431
50°	3202	3571	3202	3239
55°	3002	3205	3002	3129
60°	3084	2721	3084	2866
65°	2782	2251	2782	2514
70°	1914	1793	1914	2109
75°	1659	1326	1659	1588
80°	1310	877	1310	955
85°	712	463	712	394

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 4637 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.4	2.3
10°-20°	145.9	6.5
20°-30°	225.5	10.0
30°-40°	269.2	11.9
40°-50°	270.8	12.0
50°-60°	235.6	10.5
60°-70°	167.1	7.4
70°-80°	88.4	3.9
80°-90°	22.5	1.0
90°-100°	58.4	2.6
100°-110°	153.6	6.8
110°-120°	159.2	7.1
120°-130°	127.7	5.7
130°-140°	100.2	4.4
140°-150°	76.9	3.4
150°-160°	55.4	2.5
160°-170°	33.9	1.5
170°-180°	11.4	0.5
0°-30°	422.8	18.8
0°-40°	692.0	30.7
0°-60°	1198.4	53.2
0°-90°	1476.4	65.5
90°-120°	371.2	16.5
90°-150°	676.1	30.0
90°-180°	777.0	34.5
0°-180°	2253.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	569	569	569	569	569	
5°	572	590	572	464	572	54
15°	546	584	546	488	546	154
25°	481	545	481	477	481	221
35°	366	486	366	415	366	226
45°	236	401	236	352	236	189
55°	192	296	192	289	192	177
65°	134	178	134	199	134	128
75°	51	85	51	101	51	53
85°	9	22	9	18	9	12
90°	1	3	1	3	1	1
95°	8	35	8	35	8	9
105°	28	240	28	240	28	29
115°	49	310	49	310	49	49
125°	68	247	68	247	68	61
135°	82	191	82	191	82	63
145°	94	155	94	155	94	59
155°	107	134	107	134	107	49
165°	115	124	115	124	115	33
175°	120	121	120	121	120	11
180°	120	120	120	120	120	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2
2.5°	574.1	574.1	577.3	578.4	578.4	576.8	575.2	576.8	581.6	583.2	582.7
5°	571.9	576.2	582.2	583.2	584.3	583.8	582.7	583.8	589.2	590.2	590.8
7.5°	567.6	575.7	583.2	584.8	586.4	584.8	584.3	585.4	590.8	591.8	591.8
10°	562.3	573.5	582.2	583.2	584.8	583.2	583.2	585.4	590.8	591.8	592.4
12.5°	554.7	570.3	578.4	579.4	581.6	581.1	580.6	582.7	588.1	589.2	589.2
15°	546.0	564.3	571.9	573.0	576.8	575.7	575.7	577.8	583.8	585.4	584.8
17.5°	534.2	556.9	565.5	567.1	569.8	569.2	569.8	571.9	577.3	578.4	579.0
20°	520.7	546.6	556.9	558.5	561.1	561.1	561.1	563.9	569.2	571.4	571.4
22.5°	502.4	535.8	546.6	547.7	550.9	550.9	552.0	555.8	560.6	561.1	561.1
25°	480.9	524.0	533.1	536.4	539.6	541.2	542.8	545.0	546.6	546.0	546.6
27.5°	458.3	508.9	520.7	522.9	527.2	528.9	531.0	531.5	532.1	533.7	532.6
30°	433.0	487.9	505.6	507.8	514.8	515.9	513.8	514.8	517.5	518.6	519.7
32.5°	404.5	456.7	490.1	494.9	501.4	498.2	497.6	499.2	503.6	503.6	504.6
35°	365.7	432.4	475.5	479.9	484.7	480.9	483.1	483.6	486.3	487.9	487.3
37.5°	323.1	411.5	460.4	463.7	467.4	462.6	465.8	467.4	469.6	468.6	468.6
40°	285.4	378.6	442.7	444.9	448.1	444.3	447.5	448.6	449.7	448.6	448.1
42.5°	257.4	342.5	423.8	426.6	424.4	427.0	428.2	430.3	428.6	426.6	426.6
45°	235.8	332.8	403.3	406.6	403.3	407.7	409.3	409.3	404.5	403.3	402.8
47.5°	228.9	313.4	382.9	382.9	381.3	386.6	389.4	385.6	380.8	379.1	379.1
50°	228.4	291.9	354.9	352.8	360.3	366.7	364.1	360.3	356.5	350.6	350.6
52.5°	207.3	265.5	318.8	326.9	338.7	342.5	338.2	334.4	327.9	325.3	323.1
55°	192.2	238.0	285.9	302.1	314.5	319.4	311.2	307.5	297.8	296.2	295.1
57.5°	189.0	198.2	255.8	276.2	291.3	290.8	285.9	279.0	270.9	269.2	268.8
60°	173.4	143.3	223.5	247.7	263.3	261.7	257.4	250.9	243.4	242.3	241.3
62.5°	157.2	103.9	186.9	214.3	236.4	235.8	232.1	222.4	217.1	214.3	212.2
65°	133.5	87.2	133.1	178.3	210.1	211.1	203.0	196.0	190.1	186.9	186.3
67.5°	101.8	71.1	89.9	148.6	184.7	183.6	173.4	170.2	162.6	161.0	157.8
70°	75.4	47.4	62.5	120.6	160.0	157.2	149.2	145.4	138.4	134.7	132.5
72.5°	62.5	38.2	45.8	93.7	134.7	131.4	124.4	120.1	114.2	111.0	108.8
75°	50.6	40.4	35.0	69.5	109.3	107.2	100.7	96.4	91.5	87.2	87.8
77.5°	37.2	37.7	28.0	51.2	86.7	83.5	79.7	74.4	72.2	67.9	67.9
80°	28.0	29.6	21.0	35.0	62.5	62.5	59.3	55.5	51.7	49.5	49.5
82.5°	18.9	18.9	15.6	22.1	42.6	41.0	38.8	37.7	35.6	34.4	34.4
85°	8.6	10.8	9.7	13.5	23.1	24.3	24.3	23.1	22.6	21.5	22.1
87.5°	2.7	4.8	5.9	7.5	11.9	12.4	12.9	12.9	12.9	13.5	13.5
90°	0.8	1.4	2.1	2.2	3.5	5.2	6.1	5.5	4.1	3.1	3.1
92.5°	3.2	8.7	14.1	15.5	21.8	30.3	34.4	30.2	21.7	15.3	14.6
95°	7.7	17.7	27.8	30.3	53.7	85.0	100.6	89.8	68.1	51.9	50.0
97.5°	13.3	22.2	31.0	33.2	72.4	124.5	150.6	143.7	130.0	119.7	116.2
100°	17.7	25.7	33.7	35.7	79.1	137.0	165.9	166.4	167.4	168.1	164.0
102.5°	21.4	28.8	36.4	38.2	82.2	140.9	170.2	179.0	196.4	209.5	205.9
105°	27.7	34.0	40.3	41.9	84.6	141.3	169.8	189.3	228.5	257.8	255.8
107.5°	34.1	40.0	45.9	47.4	85.0	135.1	160.1	187.4	241.9	282.9	283.4
110°	38.5	43.8	49.1	50.4	84.3	129.5	152.1	182.6	243.5	289.3	291.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	42.7	47.8	52.8	54.1	84.3	124.6	144.8	176.0	238.4	285.2	288.3
115°	49.1	53.8	58.5	59.7	85.1	119.1	136.0	166.1	226.2	271.3	275.5
117.5°	55.5	59.7	64.0	65.0	86.7	115.6	130.0	157.1	211.3	252.1	256.8
120°	59.2	63.2	67.2	68.2	87.9	114.3	127.5	152.3	202.0	239.1	243.7
122.5°	62.8	66.8	70.8	71.9	89.8	113.7	125.7	148.0	192.6	226.1	230.6
125°	68.3	72.0	75.7	76.7	92.3	113.2	123.7	142.6	180.6	209.0	213.2
127.5°	72.8	76.6	80.3	81.3	94.8	112.9	122.0	138.3	170.9	195.3	198.8
130°	75.2	79.3	83.3	84.3	96.7	113.1	121.3	135.9	164.9	186.6	189.8
132.5°	77.8	81.8	85.8	86.8	98.1	113.2	120.8	133.8	159.7	179.2	182.1
135°	81.5	85.1	88.8	89.7	99.7	113.1	119.8	130.6	152.4	168.7	171.2
137.5°	85.3	88.9	92.5	93.4	102.1	113.8	119.6	128.8	147.2	161.0	163.1
140°	88.4	91.7	95.1	95.9	103.6	113.9	119.1	127.0	142.9	154.8	156.7
142.5°	90.8	93.9	96.9	97.7	104.9	114.3	119.1	126.1	140.0	150.5	152.2
145°	94.5	97.2	99.9	100.5	106.5	114.3	118.3	124.0	135.4	144.0	145.3
147.5°	98.2	100.8	103.4	104.1	108.8	115.2	118.3	122.8	131.8	138.5	139.6
150°	100.6	102.9	105.4	105.9	110.0	115.6	118.3	122.1	129.7	135.4	136.2
152.5°	103.1	104.9	106.6	107.1	110.8	115.8	118.3	121.5	128.0	132.9	133.5
155°	106.8	108.1	109.4	109.8	112.6	116.4	118.3	120.9	126.1	129.9	130.3
157.5°	109.5	110.8	112.1	112.4	114.3	117.0	118.3	120.3	124.3	127.3	127.6
160°	111.4	112.3	113.4	113.6	115.2	117.2	118.3	120.0	123.4	126.0	126.2
162.5°	113.2	113.9	114.7	114.9	116.0	117.6	118.3	119.7	122.6	124.8	124.9
165°	115.2	115.9	116.6	116.8	117.2	118.0	118.3	119.3	121.4	122.9	123.1
167.5°	117.1	117.4	117.7	117.8	118.2	118.8	119.1	119.7	121.1	122.1	122.2
170°	118.3	118.6	118.9	119.0	119.0	119.1	119.1	119.7	121.1	122.1	122.1
172.5°	118.9	119.0	119.1	119.1	119.1	119.1	119.1	119.6	120.7	121.5	121.4
175°	119.8	119.8	119.8	119.8	119.6	119.2	119.1	119.4	120.1	120.6	120.6
177.5°	119.8	119.8	119.8	119.8	119.6	119.4	119.2	119.5	120.0	120.4	120.4
180°	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2
2.5°	583.8	582.2	583.8	582.7	583.2	581.6	576.8	575.2	576.8	578.4	578.4
5°	590.8	589.7	590.8	590.8	590.2	589.2	583.8	582.7	583.8	584.3	583.2
7.5°	592.9	591.3	592.9	591.8	591.8	590.8	585.4	584.3	584.8	586.4	584.8
10°	592.9	591.3	592.9	592.4	591.8	590.8	585.4	583.2	583.2	584.8	583.2
12.5°	590.2	589.2	590.2	589.2	589.2	588.1	582.7	580.6	581.1	581.6	579.4
15°	585.9	584.3	585.9	584.8	585.4	583.8	577.8	575.7	575.7	576.8	573.0
17.5°	579.4	577.3	579.4	579.0	578.4	577.3	571.9	569.8	569.2	569.8	567.1
20°	571.9	570.3	571.9	571.4	571.4	569.2	563.9	561.1	561.1	561.1	558.5
22.5°	560.1	558.5	560.1	561.1	561.1	560.6	555.8	552.0	550.9	550.9	547.7
25°	546.6	545.0	546.6	546.6	546.0	546.6	545.0	542.8	541.2	539.6	536.4
27.5°	533.7	532.6	533.7	532.6	533.7	532.1	531.5	531.0	528.9	527.2	522.9
30°	520.7	519.7	520.7	519.7	518.6	517.5	514.8	513.8	515.9	514.8	507.8
32.5°	504.6	503.6	504.6	504.6	503.6	503.6	499.2	497.6	498.2	501.4	494.9
35°	487.9	486.3	487.9	487.3	487.9	486.3	483.6	483.1	480.9	484.7	479.9
37.5°	468.6	466.9	468.6	468.6	468.6	469.6	467.4	465.8	462.6	467.4	463.7
40°	448.6	446.5	448.6	448.1	448.6	449.7	448.6	447.5	444.3	448.1	444.9
42.5°	426.0	425.4	426.0	426.6	426.6	428.6	430.3	428.2	427.0	424.4	426.6
45°	401.7	400.7	401.7	402.8	403.3	404.5	409.3	409.3	407.7	403.3	406.6
47.5°	375.9	373.2	375.9	379.1	379.1	380.8	385.6	389.4	386.6	381.3	382.9
50°	348.4	349.0	348.4	350.6	350.6	356.5	360.3	364.1	366.7	360.3	352.8
52.5°	321.5	321.0	321.5	323.1	325.3	327.9	334.4	338.2	342.5	338.7	326.9
55°	294.5	295.7	294.5	295.1	296.2	297.8	307.5	311.2	319.4	314.5	302.1
57.5°	267.6	266.0	267.6	268.8	269.2	270.9	279.0	285.9	290.8	291.3	276.2
60°	236.4	234.2	236.4	241.3	242.3	243.4	250.9	257.4	261.7	263.3	247.7
62.5°	208.9	205.2	208.9	212.2	214.3	217.1	222.4	232.1	235.8	236.4	214.3
65°	179.9	178.3	179.9	186.3	186.9	190.1	196.0	203.0	211.1	210.1	178.3
67.5°	153.5	153.5	153.5	157.8	161.0	162.6	170.2	173.4	183.6	184.7	148.6
70°	129.3	128.7	129.3	132.5	134.7	138.4	145.4	149.2	157.2	160.0	120.6
72.5°	106.1	105.5	106.1	108.8	111.0	114.2	120.1	124.4	131.4	134.7	93.7
75°	85.6	84.6	85.6	87.8	87.2	91.5	96.4	100.7	107.2	109.3	69.5
77.5°	65.7	65.7	65.7	67.9	67.9	72.2	74.4	79.7	83.5	86.7	51.2
80°	49.0	48.5	49.0	49.5	49.5	51.7	55.5	59.3	62.5	62.5	35.0
82.5°	34.4	33.4	34.4	34.4	34.4	35.6	37.7	38.8	41.0	42.6	22.1
85°	21.5	21.5	21.5	22.1	21.5	22.6	23.1	24.3	24.3	23.1	13.5
87.5°	14.0	13.5	14.0	13.5	13.5	12.9	12.9	12.9	12.4	11.9	7.5
90°	3.1	3.1	3.1	3.1	3.1	4.1	5.5	6.1	5.2	3.5	2.2
92.5°	12.2	9.8	12.2	14.6	15.3	21.7	30.2	34.4	30.3	21.8	15.5
95°	42.7	35.3	42.7	50.0	51.9	68.1	89.8	100.6	85.0	53.7	30.3
97.5°	102.2	88.2	102.2	116.2	119.7	130.0	143.7	150.6	124.5	72.4	33.2
100°	147.4	130.6	147.4	164.0	168.1	167.4	166.4	165.9	137.0	79.1	35.7
102.5°	191.6	177.3	191.6	205.9	209.5	196.4	179.0	170.2	140.9	82.2	38.2
105°	248.2	240.5	248.2	255.8	257.8	228.5	189.3	169.8	141.3	84.6	41.9
107.5°	285.2	287.1	285.2	283.4	282.9	241.9	187.4	160.1	135.1	85.0	47.4
110°	299.3	307.3	299.3	291.3	289.3	243.5	182.6	152.1	129.5	84.3	50.4



TEST NUMBER: P933850

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	300.6	312.8	300.6	288.3	285.2	238.4	176.0	144.8	124.6	84.3	54.1
115°	292.6	309.6	292.6	275.5	271.3	226.2	166.1	136.0	119.1	85.1	59.7
117.5°	275.7	294.6	275.7	256.8	252.1	211.3	157.1	130.0	115.6	86.7	65.0
120°	262.1	280.4	262.1	243.7	239.1	202.0	152.3	127.5	114.3	87.9	68.2
122.5°	248.8	266.9	248.8	230.6	226.1	192.6	148.0	125.7	113.7	89.8	71.9
125°	229.9	246.6	229.9	213.2	209.0	180.6	142.6	123.7	113.2	92.3	76.7
127.5°	212.9	226.9	212.9	198.8	195.3	170.9	138.3	122.0	112.9	94.8	81.3
130°	202.8	215.8	202.8	189.8	186.6	164.9	135.9	121.3	113.1	96.7	84.3
132.5°	193.8	205.4	193.8	182.1	179.2	159.7	133.8	120.8	113.2	98.1	86.8
135°	181.3	191.4	181.3	171.2	168.7	152.4	130.6	119.8	113.1	99.7	89.7
137.5°	171.3	179.6	171.3	163.1	161.0	147.2	128.8	119.6	113.8	102.1	93.4
140°	164.4	172.1	164.4	156.7	154.8	142.9	127.0	119.1	113.9	103.6	95.9
142.5°	158.8	165.3	158.8	152.2	150.5	140.0	126.1	119.1	114.3	104.9	97.7
145°	150.2	155.2	150.2	145.3	144.0	135.4	124.0	118.3	114.3	106.5	100.5
147.5°	143.7	147.8	143.7	139.6	138.5	131.8	122.8	118.3	115.2	108.8	104.1
150°	139.6	142.9	139.6	136.2	135.4	129.7	122.1	118.3	115.6	110.0	105.9
152.5°	136.0	138.6	136.0	133.5	132.9	128.0	121.5	118.3	115.8	110.8	107.1
155°	132.0	133.7	132.0	130.3	129.9	126.1	120.9	118.3	116.4	112.6	109.8
157.5°	128.8	130.0	128.8	127.6	127.3	124.3	120.3	118.3	117.0	114.3	112.4
160°	126.9	127.5	126.9	126.2	126.0	123.4	120.0	118.3	117.2	115.2	113.6
162.5°	125.6	126.2	125.6	124.9	124.8	122.6	119.7	118.3	117.6	116.0	114.9
165°	123.8	124.5	123.8	123.1	122.9	121.4	119.3	118.3	118.0	117.2	116.8
167.5°	122.5	122.8	122.5	122.2	122.1	121.1	119.7	119.1	118.8	118.2	117.8
170°	122.1	122.1	122.1	122.1	122.1	121.1	119.7	119.1	119.1	119.0	119.0
172.5°	121.2	120.9	121.2	121.4	121.5	120.7	119.6	119.1	119.1	119.1	119.1
175°	120.6	120.6	120.6	120.6	120.6	120.1	119.4	119.1	119.2	119.6	119.8
177.5°	120.1	119.8	120.1	120.4	120.4	120.0	119.5	119.2	119.4	119.6	119.8
180°	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8



TEST NUMBER: P933850

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2
2.5°	577.3	574.1	574.1	568.7	566.5	564.9	562.3	554.2	552.0	549.8	553.1
5°	582.2	576.2	571.9	562.3	554.2	550.9	540.7	521.3	508.4	498.7	493.3
7.5°	583.2	575.7	567.6	552.5	533.1	524.5	493.3	457.8	448.1	439.5	434.0
10°	582.2	573.5	562.3	539.6	493.8	478.7	447.5	424.4	418.4	416.8	418.4
12.5°	578.4	570.3	554.7	517.0	452.9	442.7	424.4	410.9	409.9	412.5	427.0
15°	571.9	564.3	546.0	486.9	430.3	422.8	409.9	405.0	410.9	429.8	473.4
17.5°	565.5	556.9	534.2	457.2	413.1	407.7	398.5	408.2	441.6	466.9	481.5
20°	556.9	546.6	520.7	435.7	400.7	395.8	391.5	435.1	460.4	469.6	477.7
22.5°	546.6	535.8	502.4	420.6	387.8	384.0	386.6	450.2	460.4	466.9	473.9
25°	533.1	524.0	480.9	408.7	377.5	373.2	383.4	448.6	454.5	456.1	470.2
27.5°	520.7	508.9	458.3	398.0	365.1	363.5	386.2	441.6	445.9	447.5	462.6
30°	505.6	487.9	433.0	386.6	352.2	351.6	386.6	433.0	431.9	436.2	451.3
32.5°	490.1	456.7	404.5	372.7	339.8	339.3	382.9	420.0	419.0	424.9	436.2
35°	475.5	432.4	365.7	356.5	324.2	324.7	373.7	405.0	405.5	410.9	417.9
37.5°	460.4	411.5	323.1	338.7	309.2	309.2	361.4	391.0	389.9	391.5	401.2
40°	442.7	378.6	285.4	315.6	295.1	293.5	346.3	375.9	372.1	371.6	385.0
42.5°	423.8	342.5	257.4	284.9	279.0	276.8	327.9	357.6	350.6	352.2	369.5
45°	403.3	332.8	235.8	240.7	262.3	260.7	308.0	336.6	331.7	336.1	353.8
47.5°	382.9	313.4	228.9	199.8	244.5	244.0	285.9	316.1	313.4	317.7	336.6
50°	354.9	291.9	228.4	171.3	224.6	226.7	259.6	296.2	296.2	300.0	319.9
52.5°	318.8	265.5	207.3	155.1	201.4	207.9	236.4	279.0	280.0	283.8	301.6
55°	285.9	238.0	192.2	142.7	173.9	188.0	213.8	261.2	263.3	267.1	283.3
57.5°	255.8	198.2	189.0	128.2	148.6	162.1	193.8	244.0	245.0	248.3	263.9
60°	223.5	143.3	173.4	112.6	126.6	136.8	175.5	223.5	227.2	229.4	242.9
62.5°	186.9	103.9	157.2	101.8	115.8	118.0	160.5	204.1	208.9	210.5	218.7
65°	133.1	87.2	133.5	92.7	104.5	105.0	144.3	184.2	188.5	191.2	197.1
67.5°	89.9	71.1	101.8	84.0	95.9	96.4	128.7	161.0	166.9	169.1	172.9
70°	62.5	47.4	75.4	74.8	86.2	87.2	112.0	140.0	145.4	147.0	149.2
72.5°	45.8	38.2	62.5	67.3	76.0	77.0	94.8	116.4	121.7	123.3	124.4
75°	35.0	40.4	50.6	58.7	64.6	65.1	77.6	94.8	98.5	99.7	100.1
77.5°	28.0	37.7	37.2	47.4	52.8	51.7	60.9	73.2	76.4	76.4	76.4
80°	21.0	29.6	28.0	34.0	38.8	37.7	43.6	52.3	53.3	54.4	53.9
82.5°	15.6	18.9	18.9	21.5	25.9	24.8	29.1	34.0	34.0	34.0	35.0
85°	9.7	10.8	8.6	11.3	14.5	14.0	16.1	18.3	18.9	18.9	17.7
87.5°	5.9	4.8	2.7	4.3	6.4	6.4	7.5	8.1	7.5	7.5	7.5
90°	2.1	1.4	0.8	1.4	2.1	2.2	3.5	5.2	6.1	5.5	4.1
92.5°	14.1	8.7	3.2	8.7	14.1	15.5	21.8	30.3	34.4	30.2	21.7
95°	27.8	17.7	7.7	17.7	27.8	30.3	53.7	85.0	100.6	89.8	68.1
97.5°	31.0	22.2	13.3	22.2	31.0	33.2	72.4	124.5	150.6	143.7	130.0
100°	33.7	25.7	17.7	25.7	33.7	35.7	79.1	137.0	165.9	166.4	167.4
102.5°	36.4	28.8	21.4	28.8	36.4	38.2	82.2	140.9	170.2	179.0	196.4
105°	40.3	34.0	27.7	34.0	40.3	41.9	84.6	141.3	169.8	189.3	228.5
107.5°	45.9	40.0	34.1	40.0	45.9	47.4	85.0	135.1	160.1	187.4	241.9
110°	49.1	43.8	38.5	43.8	49.1	50.4	84.3	129.5	152.1	182.6	243.5



TEST NUMBER: P933850

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	52.8	47.8	42.7	47.8	52.8	54.1	84.3	124.6	144.8	176.0	238.4
115°	58.5	53.8	49.1	53.8	58.5	59.7	85.1	119.1	136.0	166.1	226.2
117.5°	64.0	59.7	55.5	59.7	64.0	65.0	86.7	115.6	130.0	157.1	211.3
120°	67.2	63.2	59.2	63.2	67.2	68.2	87.9	114.3	127.5	152.3	202.0
122.5°	70.8	66.8	62.8	66.8	70.8	71.9	89.8	113.7	125.7	148.0	192.6
125°	75.7	72.0	68.3	72.0	75.7	76.7	92.3	113.2	123.7	142.6	180.6
127.5°	80.3	76.6	72.8	76.6	80.3	81.3	94.8	112.9	122.0	138.3	170.9
130°	83.3	79.3	75.2	79.3	83.3	84.3	96.7	113.1	121.3	135.9	164.9
132.5°	85.8	81.8	77.8	81.8	85.8	86.8	98.1	113.2	120.8	133.8	159.7
135°	88.8	85.1	81.5	85.1	88.8	89.7	99.7	113.1	119.8	130.6	152.4
137.5°	92.5	88.9	85.3	88.9	92.5	93.4	102.1	113.8	119.6	128.8	147.2
140°	95.1	91.7	88.4	91.7	95.1	95.9	103.6	113.9	119.1	127.0	142.9
142.5°	96.9	93.9	90.8	93.9	96.9	97.7	104.9	114.3	119.1	126.1	140.0
145°	99.9	97.2	94.5	97.2	99.9	100.5	106.5	114.3	118.3	124.0	135.4
147.5°	103.4	100.8	98.2	100.8	103.4	104.1	108.8	115.2	118.3	122.8	131.8
150°	105.4	102.9	100.6	102.9	105.4	105.9	110.0	115.6	118.3	122.1	129.7
152.5°	106.6	104.9	103.1	104.9	106.6	107.1	110.8	115.8	118.3	121.5	128.0
155°	109.4	108.1	106.8	108.1	109.4	109.8	112.6	116.4	118.3	120.9	126.1
157.5°	112.1	110.8	109.5	110.8	112.1	112.4	114.3	117.0	118.3	120.3	124.3
160°	113.4	112.3	111.4	112.3	113.4	113.6	115.2	117.2	118.3	120.0	123.4
162.5°	114.7	113.9	113.2	113.9	114.7	114.9	116.0	117.6	118.3	119.7	122.6
165°	116.6	115.9	115.2	115.9	116.6	116.8	117.2	118.0	118.3	119.3	121.4
167.5°	117.7	117.4	117.1	117.4	117.7	117.8	118.2	118.8	119.1	119.7	121.1
170°	118.9	118.6	118.3	118.6	118.9	119.0	119.0	119.1	119.1	119.7	121.1
172.5°	119.1	119.0	118.9	119.0	119.1	119.1	119.1	119.1	119.1	119.6	120.7
175°	119.8	119.8	119.8	119.8	119.8	119.8	119.6	119.2	119.1	119.4	120.1
177.5°	119.8	119.8	119.8	119.8	119.8	119.8	119.6	119.4	119.2	119.5	120.0
180°	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8



TEST NUMBER: P933850
 CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2	569.2
2.5°	549.3	547.7	549.8	544.0	549.8	547.7	549.3	553.1	549.8	552.0	554.2
5°	482.0	479.3	470.7	463.7	470.7	479.3	482.0	493.3	498.7	508.4	521.3
7.5°	430.8	428.6	426.6	422.2	426.6	428.6	430.8	434.0	439.5	448.1	457.8
10°	419.5	420.0	423.3	422.8	423.3	420.0	419.5	418.4	416.8	418.4	424.4
12.5°	448.6	453.5	471.2	470.2	471.2	453.5	448.6	427.0	412.5	409.9	410.9
15°	482.0	483.6	487.3	487.9	487.3	483.6	482.0	473.4	429.8	410.9	405.0
17.5°	485.3	485.7	488.5	488.5	488.5	485.7	485.3	481.5	466.9	441.6	408.2
20°	482.5	483.6	489.0	490.1	489.0	483.6	482.5	477.7	469.6	460.4	435.1
22.5°	481.5	483.6	487.9	487.3	487.9	483.6	481.5	473.9	466.9	460.4	450.2
25°	476.1	476.1	476.6	477.1	476.6	476.1	476.1	470.2	456.1	454.5	448.6
27.5°	464.8	465.8	469.0	468.6	469.0	465.8	464.8	462.6	447.5	445.9	441.6
30°	454.5	453.5	450.7	448.6	450.7	453.5	454.5	451.3	436.2	431.9	433.0
32.5°	437.3	434.6	431.9	430.3	431.9	434.6	437.3	436.2	424.9	419.0	420.0
35°	416.8	417.4	416.8	415.2	416.8	417.4	416.8	417.9	410.9	405.5	405.0
37.5°	402.3	403.3	402.8	400.7	402.8	403.3	402.3	401.2	391.5	389.9	391.0
40°	387.2	387.8	387.2	385.6	387.2	387.8	387.2	385.0	371.6	372.1	375.9
42.5°	372.7	372.1	370.5	369.5	370.5	372.1	372.7	369.5	352.2	350.6	357.6
45°	356.0	356.5	353.2	351.6	353.2	356.5	356.0	353.8	336.1	331.7	336.6
47.5°	339.3	339.3	336.6	334.9	336.6	339.3	339.3	336.6	317.7	313.4	316.1
50°	321.5	321.0	317.2	316.6	317.2	321.0	321.5	319.9	300.0	296.2	296.2
52.5°	301.0	301.0	301.6	302.7	301.6	301.0	301.0	301.6	283.8	280.0	279.0
55°	283.3	283.8	287.6	288.7	287.6	283.8	283.3	283.3	267.1	263.3	261.2
57.5°	265.0	265.0	267.6	267.6	267.6	265.0	265.0	263.9	248.3	245.0	244.0
60°	244.0	245.0	247.2	246.7	247.2	245.0	244.0	242.9	229.4	227.2	223.5
62.5°	221.9	223.0	223.5	222.4	223.5	223.0	221.9	218.7	210.5	208.9	204.1
65°	198.7	199.8	200.3	199.2	200.3	199.8	198.7	197.1	191.2	188.5	184.2
67.5°	175.1	174.5	173.9	176.1	173.9	174.5	175.1	172.9	169.1	166.9	161.0
70°	150.8	150.8	150.2	151.4	150.2	150.8	150.8	149.2	147.0	145.4	140.0
72.5°	124.9	124.4	126.6	124.9	126.6	124.4	124.9	124.4	123.3	121.7	116.4
75°	99.7	100.7	99.7	101.3	99.7	100.7	99.7	100.1	99.7	98.5	94.8
77.5°	76.0	77.0	76.0	76.0	76.0	77.0	76.0	76.4	76.4	76.4	73.2
80°	53.9	53.3	53.3	52.8	53.3	53.3	53.9	53.9	54.4	53.3	52.3
82.5°	34.4	34.0	34.0	35.0	34.0	34.0	34.4	35.0	34.0	34.0	34.0
85°	18.9	19.4	18.3	18.3	18.3	19.4	18.9	17.7	18.9	18.9	18.3
87.5°	7.0	6.4	6.4	6.4	6.4	6.4	7.0	7.5	7.5	7.5	8.1
90°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.1	5.5	6.1	5.2
92.5°	15.3	14.6	12.2	9.8	12.2	14.6	15.3	21.7	30.2	34.4	30.3
95°	51.9	50.0	42.7	35.3	42.7	50.0	51.9	68.1	89.8	100.6	85.0
97.5°	119.7	116.2	102.2	88.2	102.2	116.2	119.7	130.0	143.7	150.6	124.5
100°	168.1	164.0	147.4	130.6	147.4	164.0	168.1	167.4	166.4	165.9	137.0
102.5°	209.5	205.9	191.6	177.3	191.6	205.9	209.5	196.4	179.0	170.2	140.9
105°	257.8	255.8	248.2	240.5	248.2	255.8	257.8	228.5	189.3	169.8	141.3
107.5°	282.9	283.4	285.2	287.1	285.2	283.4	282.9	241.9	187.4	160.1	135.1
110°	289.3	291.3	299.3	307.3	299.3	291.3	289.3	243.5	182.6	152.1	129.5



TEST NUMBER: P933850

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	285.2	288.3	300.6	312.8	300.6	288.3	285.2	238.4	176.0	144.8	124.6
115°	271.3	275.5	292.6	309.6	292.6	275.5	271.3	226.2	166.1	136.0	119.1
117.5°	252.1	256.8	275.7	294.6	275.7	256.8	252.1	211.3	157.1	130.0	115.6
120°	239.1	243.7	262.1	280.4	262.1	243.7	239.1	202.0	152.3	127.5	114.3
122.5°	226.1	230.6	248.8	266.9	248.8	230.6	226.1	192.6	148.0	125.7	113.7
125°	209.0	213.2	229.9	246.6	229.9	213.2	209.0	180.6	142.6	123.7	113.2
127.5°	195.3	198.8	212.9	226.9	212.9	198.8	195.3	170.9	138.3	122.0	112.9
130°	186.6	189.8	202.8	215.8	202.8	189.8	186.6	164.9	135.9	121.3	113.1
132.5°	179.2	182.1	193.8	205.4	193.8	182.1	179.2	159.7	133.8	120.8	113.2
135°	168.7	171.2	181.3	191.4	181.3	171.2	168.7	152.4	130.6	119.8	113.1
137.5°	161.0	163.1	171.3	179.6	171.3	163.1	161.0	147.2	128.8	119.6	113.8
140°	154.8	156.7	164.4	172.1	164.4	156.7	154.8	142.9	127.0	119.1	113.9
142.5°	150.5	152.2	158.8	165.3	158.8	152.2	150.5	140.0	126.1	119.1	114.3
145°	144.0	145.3	150.2	155.2	150.2	145.3	144.0	135.4	124.0	118.3	114.3
147.5°	138.5	139.6	143.7	147.8	143.7	139.6	138.5	131.8	122.8	118.3	115.2
150°	135.4	136.2	139.6	142.9	139.6	136.2	135.4	129.7	122.1	118.3	115.6
152.5°	132.9	133.5	136.0	138.6	136.0	133.5	132.9	128.0	121.5	118.3	115.8
155°	129.9	130.3	132.0	133.7	132.0	130.3	129.9	126.1	120.9	118.3	116.4
157.5°	127.3	127.6	128.8	130.0	128.8	127.6	127.3	124.3	120.3	118.3	117.0
160°	126.0	126.2	126.9	127.5	126.9	126.2	126.0	123.4	120.0	118.3	117.2
162.5°	124.8	124.9	125.6	126.2	125.6	124.9	124.8	122.6	119.7	118.3	117.6
165°	122.9	123.1	123.8	124.5	123.8	123.1	122.9	121.4	119.3	118.3	118.0
167.5°	122.1	122.2	122.5	122.8	122.5	122.2	122.1	121.1	119.7	119.1	118.8
170°	122.1	122.1	122.1	122.1	122.1	122.1	122.1	121.1	119.7	119.1	119.1
172.5°	121.5	121.4	121.2	120.9	121.2	121.4	121.5	120.7	119.6	119.1	119.1
175°	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.1	119.4	119.1	119.2
177.5°	120.4	120.4	120.1	119.8	120.1	120.4	120.4	120.0	119.5	119.2	119.4
180°	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8	119.8



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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	569.2	569.2	569.2	569.2	569.2
2.5°	562.3	564.9	566.5	568.7	574.1
5°	540.7	550.9	554.2	562.3	571.9
7.5°	493.3	524.5	533.1	552.5	567.6
10°	447.5	478.7	493.8	539.6	562.3
12.5°	424.4	442.7	452.9	517.0	554.7
15°	409.9	422.8	430.3	486.9	546.0
17.5°	398.5	407.7	413.1	457.2	534.2
20°	391.5	395.8	400.7	435.7	520.7
22.5°	386.6	384.0	387.8	420.6	502.4
25°	383.4	373.2	377.5	408.7	480.9
27.5°	386.2	363.5	365.1	398.0	458.3
30°	386.6	351.6	352.2	386.6	433.0
32.5°	382.9	339.3	339.8	372.7	404.5
35°	373.7	324.7	324.2	356.5	365.7
37.5°	361.4	309.2	309.2	338.7	323.1
40°	346.3	293.5	295.1	315.6	285.4
42.5°	327.9	276.8	279.0	284.9	257.4
45°	308.0	260.7	262.3	240.7	235.8
47.5°	285.9	244.0	244.5	199.8	228.9
50°	259.6	226.7	224.6	171.3	228.4
52.5°	236.4	207.9	201.4	155.1	207.3
55°	213.8	188.0	173.9	142.7	192.2
57.5°	193.8	162.1	148.6	128.2	189.0
60°	175.5	136.8	126.6	112.6	173.4
62.5°	160.5	118.0	115.8	101.8	157.2
65°	144.3	105.0	104.5	92.7	133.5
67.5°	128.7	96.4	95.9	84.0	101.8
70°	112.0	87.2	86.2	74.8	75.4
72.5°	94.8	77.0	76.0	67.3	62.5
75°	77.6	65.1	64.6	58.7	50.6
77.5°	60.9	51.7	52.8	47.4	37.2
80°	43.6	37.7	38.8	34.0	28.0
82.5°	29.1	24.8	25.9	21.5	18.9
85°	16.1	14.0	14.5	11.3	8.6
87.5°	7.5	6.4	6.4	4.3	2.7
90°	3.5	2.2	2.1	1.4	0.8
92.5°	21.8	15.5	14.1	8.7	3.2
95°	53.7	30.3	27.8	17.7	7.7
97.5°	72.4	33.2	31.0	22.2	13.3
100°	79.1	35.7	33.7	25.7	17.7
102.5°	82.2	38.2	36.4	28.8	21.4
105°	84.6	41.9	40.3	34.0	27.7
107.5°	85.0	47.4	45.9	40.0	34.1
110°	84.3	50.4	49.1	43.8	38.5



TEST NUMBER: P933850

CATALOG NUMBER: SQ4-FA-025U-050D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	84.3	54.1	52.8	47.8	42.7
115°	85.1	59.7	58.5	53.8	49.1
117.5°	86.7	65.0	64.0	59.7	55.5
120°	87.9	68.2	67.2	63.2	59.2
122.5°	89.8	71.9	70.8	66.8	62.8
125°	92.3	76.7	75.7	72.0	68.3
127.5°	94.8	81.3	80.3	76.6	72.8
130°	96.7	84.3	83.3	79.3	75.2
132.5°	98.1	86.8	85.8	81.8	77.8
135°	99.7	89.7	88.8	85.1	81.5
137.5°	102.1	93.4	92.5	88.9	85.3
140°	103.6	95.9	95.1	91.7	88.4
142.5°	104.9	97.7	96.9	93.9	90.8
145°	106.5	100.5	99.9	97.2	94.5
147.5°	108.8	104.1	103.4	100.8	98.2
150°	110.0	105.9	105.4	102.9	100.6
152.5°	110.8	107.1	106.6	104.9	103.1
155°	112.6	109.8	109.4	108.1	106.8
157.5°	114.3	112.4	112.1	110.8	109.5
160°	115.2	113.6	113.4	112.3	111.4
162.5°	116.0	114.9	114.7	113.9	113.2
165°	117.2	116.8	116.6	115.9	115.2
167.5°	118.2	117.8	117.7	117.4	117.1
170°	119.0	119.0	118.9	118.6	118.3
172.5°	119.1	119.1	119.1	119.0	118.9
175°	119.6	119.8	119.8	119.8	119.8
177.5°	119.6	119.8	119.8	119.8	119.8
180°	119.8	119.8	119.8	119.8	119.8



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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	11.90	12.92	12.71	13.75	14.78	14.70	15.72	15.51	16.55	17.58
	3H	12.39	13.30	13.21	14.15	15.20	16.04	16.96	16.87	17.80	18.86
	4H	12.58	13.45	13.43	14.30	15.37	16.49	17.35	17.33	18.20	19.27
	6H	12.71	13.51	13.57	14.37	15.45	16.77	17.57	17.63	18.43	19.51
	8H	12.72	13.48	13.58	14.35	15.44	16.85	17.61	17.71	18.49	19.57
	12H	12.70	13.42	13.56	14.29	15.40	16.89	17.61	17.76	18.48	19.59
4H	2H	12.94	13.81	13.79	14.66	15.73	15.13	15.99	15.97	16.84	17.91
	3H	13.98	14.70	14.84	15.59	16.67	16.64	17.36	17.49	18.24	19.33
	4H	14.27	14.92	15.14	15.80	16.92	17.16	17.82	18.03	18.70	19.81
	6H	14.40	14.97	15.29	15.87	16.99	17.53	18.10	18.42	19.00	20.12
	8H	14.41	14.94	15.30	15.84	16.97	17.64	18.17	18.53	19.07	20.19
	12H	14.39	14.86	15.29	15.78	16.92	17.70	18.17	18.60	19.09	20.23
8H	4H	14.73	15.26	15.62	16.16	17.29	17.30	17.83	18.19	18.73	19.86
	6H	15.00	15.43	15.91	16.38	17.50	17.74	18.18	18.65	19.12	20.25
	8H	15.04	15.43	15.97	16.36	17.51	17.89	18.27	18.81	19.21	20.35
	12H	15.03	15.37	15.96	16.30	17.50	17.99	18.33	18.91	19.25	20.45
12H	4H	14.74	15.22	15.65	16.14	17.27	17.28	17.75	18.18	18.67	19.81
	6H	15.06	15.45	15.98	16.38	17.52	17.74	18.13	18.66	19.06	20.20
	8H	15.13	15.47	16.06	16.40	17.60	17.90	18.24	18.83	19.17	20.36