

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: P935822

Luminaire Tested: SQ4-FA-150U-050D-927-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

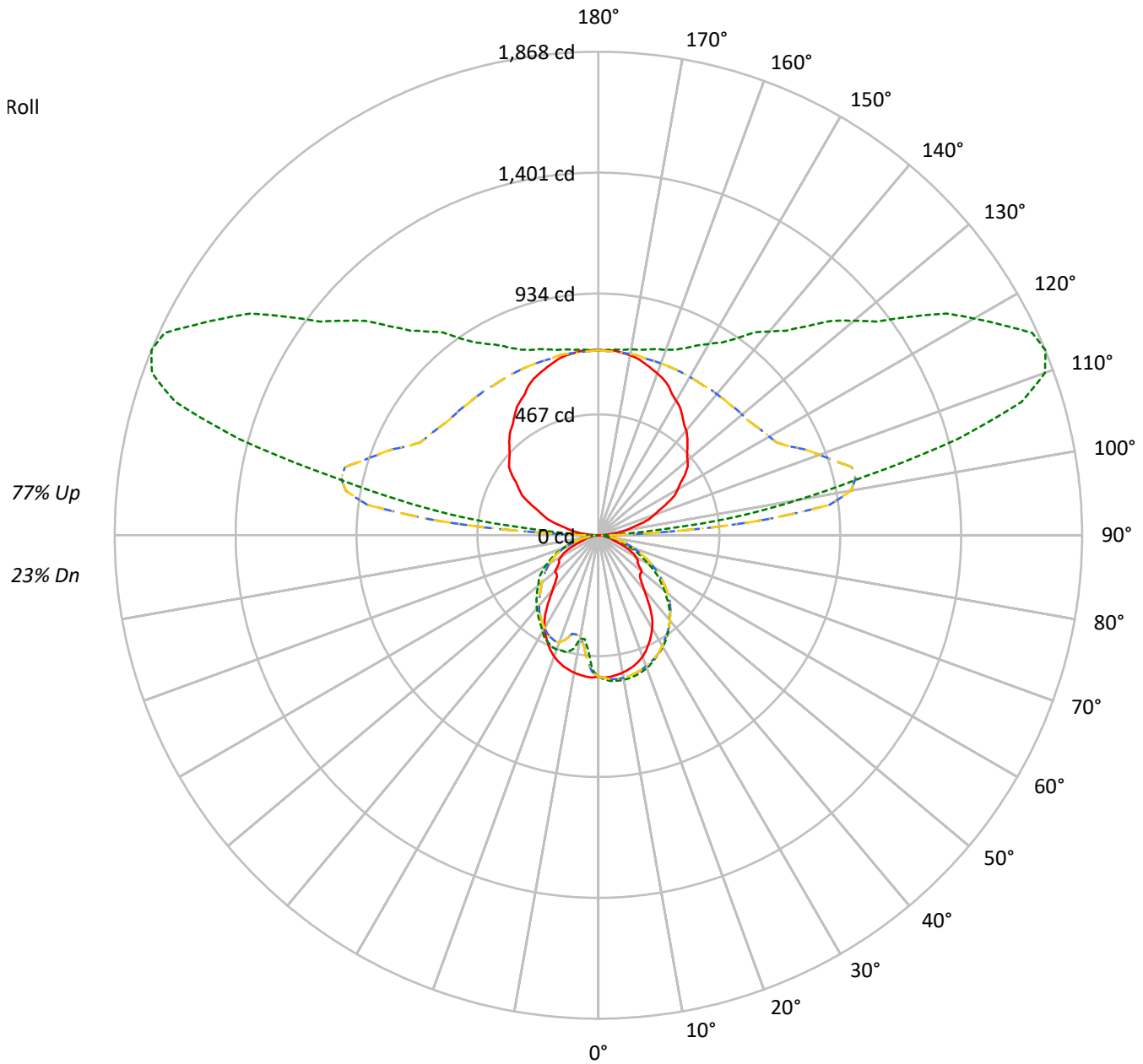
Test Method: LM-79-2019  
Report Number: P935822  
REPORT IS A COMBINATION OF REPORTS P933770 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FA-150U-050D-927-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I  
Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6056.8 lumens  
Efficiency: N/A  
Efficacy: 108.9 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: Semi-Indirect  
  
Input Watts (W): 55.6  
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				
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	101	101	101	101	90	90	90	90	69	69	69	49	49	49	32	32	32	32	32	32	23
1	92	88	84	81	81	78	75	72	60	58	56	43	42	41	28	27	27	27	27	27	20
2	84	77	71	66	74	68	63	59	52	49	46	38	36	34	25	24	23	23	23	23	17
3	76	67	60	55	67	60	54	49	46	42	39	34	31	29	22	20	19	19	19	19	14
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	19	18	16	16	16	16	12
5	64	53	45	39	56	47	40	36	36	32	28	27	24	21	17	16	14	14	14	14	10
6	59	47	39	34	52	42	35	31	33	28	24	24	21	18	16	14	12	12	12	12	9
7	54	42	35	29	48	38	31	27	30	25	21	22	19	16	14	12	11	11	11	11	8
8	50	38	31	26	44	34	28	23	27	22	19	20	17	14	13	11	10	10	10	10	7
9	46	35	28	23	41	31	25	21	24	20	17	18	15	13	12	10	9	9	9	9	6
10	43	32	25	20	38	28	22	18	22	18	15	17	14	11	11	9	8	8	8	8	6

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	5066	5066	5066	5066
5°	5097	5113	5097	4020
10°	5058	5036	5058	3601
15°	4997	4927	4997	4115
20°	4886	4798	4886	4123
25°	4668	4609	4668	4035
30°	4385	4453	4385	3844
35°	3904	4255	3904	3633
40°	3247	4022	3247	3474
45°	2895	3749	2895	3290
50°	3070	3423	3070	3106
55°	2879	3073	2879	3000
60°	2958	2610	2958	2748
65°	2670	2157	2670	2411
70°	1835	1719	1835	2021
75°	1590	1271	1590	1522
80°	1259	841	1259	915
85°	679	444	679	379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 20°  
 Vertical Angle: 45°  
 Luminance: 4447 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.3	0.8
10°-20°	139.9	2.3
20°-30°	216.3	3.6
30°-40°	258.2	4.3
40°-50°	259.7	4.3
50°-60°	225.9	3.7
60°-70°	160.2	2.6
70°-80°	84.8	1.4
80°-90°	23.8	0.4
90°-100°	348.8	5.8
100°-110°	917.1	15.1
110°-120°	950.9	15.7
120°-130°	762.7	12.6
130°-140°	598.5	9.9
140°-150°	459.3	7.6
150°-160°	330.8	5.5
160°-170°	202.4	3.3
170°-180°	68.4	1.1
0°-30°	405.4	6.7
0°-40°	663.6	11.0
0°-60°	1149.2	19.0
0°-90°	1418.0	23.4
90°-120°	2216.7	36.6
90°-150°	4037.3	66.7
90°-180°	4639.0	76.6
0°-180°	6056.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	546	546	546	546	546	
5°	548	566	548	445	548	52
15°	524	560	524	468	524	147
25°	461	523	461	458	461	212
35°	351	466	351	398	351	217
45°	226	384	226	337	226	181
55°	184	284	184	277	184	169
65°	128	171	128	191	128	122
75°	48	81	48	97	48	51
85°	8	21	8	18	8	11
90°	5	18	5	18	5	4
95°	46	211	46	211	46	51
105°	165	1436	165	1436	165	175
115°	293	1849	293	1849	293	290
125°	408	1472	408	1472	408	362
135°	486	1142	486	1142	486	376
145°	564	927	564	927	564	354
155°	638	798	638	798	638	293
165°	688	743	688	743	688	194
175°	716	720	716	720	716	68
180°	716	716	716	716	716	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9
2.5°	550.5	550.5	553.6	554.6	554.6	553.1	551.6	553.1	557.7	559.3	558.7
5°	548.4	552.6	558.2	559.3	560.3	559.8	558.7	559.8	564.9	566.0	566.5
7.5°	544.3	552.0	559.3	560.8	562.3	560.8	560.3	561.3	566.5	567.5	567.5
10°	539.2	549.9	558.2	559.3	560.8	559.3	559.3	561.3	566.5	567.5	568.0
12.5°	531.9	546.9	554.6	555.6	557.7	557.2	556.7	558.7	563.9	564.9	564.9
15°	523.6	541.2	548.4	549.5	553.1	552.0	552.0	554.1	559.8	561.3	560.8
17.5°	512.3	534.0	542.2	543.8	546.4	545.9	546.4	548.4	553.6	554.6	555.2
20°	499.3	524.1	534.0	535.5	538.1	538.1	538.1	540.7	545.9	547.9	547.9
22.5°	481.8	513.8	524.1	525.2	528.3	528.3	529.3	532.9	537.5	538.1	538.1
25°	461.2	502.4	511.2	514.4	517.4	519.0	520.5	522.6	524.1	523.6	524.1
27.5°	439.4	488.0	499.3	501.4	505.6	507.1	509.2	509.7	510.2	511.7	510.7
30°	415.2	467.9	484.9	486.9	493.6	494.7	492.6	493.6	496.3	497.3	498.3
32.5°	387.8	437.9	469.9	474.6	480.8	477.7	477.2	478.7	482.9	482.9	483.9
35°	350.7	414.6	456.0	460.2	464.8	461.2	463.2	463.7	466.3	467.9	467.3
37.5°	309.8	394.5	441.5	444.6	448.2	443.6	446.7	448.2	450.3	449.3	449.3
40°	273.7	363.1	424.5	426.6	429.7	426.0	429.1	430.2	431.2	430.2	429.7
42.5°	246.9	328.4	406.4	409.0	406.9	409.5	410.6	412.6	411.0	409.0	409.0
45°	226.1	319.2	386.8	389.9	386.8	390.9	392.5	392.5	387.8	386.8	386.2
47.5°	219.4	300.5	367.1	367.1	365.6	370.8	373.4	369.8	365.1	363.5	363.5
50°	219.0	279.9	340.3	338.3	345.5	351.7	349.1	345.5	341.9	336.2	336.2
52.5°	198.8	254.6	305.7	313.5	324.8	328.4	324.3	320.7	314.5	311.9	309.8
55°	184.3	228.2	274.2	289.7	301.6	306.2	298.5	294.8	285.6	284.1	283.0
57.5°	181.3	190.0	245.3	264.9	279.4	278.9	274.2	267.5	259.7	258.2	257.7
60°	166.3	137.4	214.3	237.5	252.5	250.9	246.9	240.6	233.4	232.4	231.4
62.5°	150.8	99.6	179.2	205.5	226.7	226.1	222.6	213.3	208.1	205.5	203.4
65°	128.1	83.6	127.6	170.9	201.4	202.4	194.7	188.0	182.3	179.2	178.6
67.5°	97.6	68.1	86.2	142.5	177.1	176.1	166.3	163.2	155.9	154.4	151.3
70°	72.3	45.4	59.9	115.7	153.4	150.8	143.1	139.4	132.7	129.1	127.0
72.5°	59.9	36.7	43.9	89.9	129.1	126.0	119.3	115.2	109.5	106.4	104.3
75°	48.5	38.7	33.6	66.6	104.8	102.8	96.6	92.4	87.8	83.6	84.2
77.5°	35.7	36.1	26.9	49.0	83.2	80.1	76.5	71.3	69.2	65.1	65.1
80°	26.9	28.4	20.2	33.6	59.9	59.9	56.8	53.2	49.6	47.5	47.5
82.5°	18.1	18.1	14.9	21.2	40.8	39.3	37.2	36.1	34.1	33.0	33.0
85°	8.2	10.3	9.3	12.9	22.2	23.3	23.3	22.2	21.7	20.6	21.2
87.5°	2.6	4.6	5.7	7.2	11.4	11.9	12.4	12.4	12.4	12.9	12.9
90°	4.8	8.6	12.5	13.5	21.2	31.4	36.5	32.4	24.3	18.2	18.2
92.5°	19.2	51.8	84.5	92.7	130.3	180.4	205.5	180.1	129.4	91.2	87.6
95°	46.1	105.9	165.6	180.6	320.6	507.4	600.8	536.2	406.8	309.8	298.8
97.5°	79.7	132.4	185.2	198.4	431.9	743.4	899.1	858.2	776.4	715.1	694.2
100°	105.6	153.5	201.3	213.2	472.4	818.0	990.8	993.8	999.8	1004.2	979.3
102.5°	127.7	172.4	217.0	228.2	491.0	841.5	1016.7	1068.8	1172.9	1251.1	1229.8
105°	165.2	203.0	240.8	250.2	504.7	844.1	1013.8	1130.5	1364.1	1539.2	1527.8
107.5°	203.7	238.9	274.1	282.9	507.4	806.6	956.2	1119.0	1444.8	1689.1	1691.8
110°	229.5	261.3	293.2	301.1	503.5	773.2	908.1	1090.2	1454.4	1727.5	1739.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	255.0	285.4	315.7	323.2	503.7	744.2	864.5	1050.8	1423.5	1703.0	1721.3
115°	293.4	321.4	349.3	356.4	508.3	710.9	812.1	991.6	1350.7	1619.9	1645.4
117.5°	331.4	356.8	382.2	388.5	517.7	690.0	776.1	938.1	1262.1	1505.1	1533.4
120°	353.4	377.4	401.2	407.3	525.4	682.9	761.7	909.7	1205.7	1427.8	1455.2
122.5°	375.1	399.2	423.3	429.4	536.5	679.3	750.7	884.0	1150.5	1350.5	1377.5
125°	408.3	430.2	452.2	457.7	551.3	676.2	738.7	851.9	1078.3	1248.2	1273.1
127.5°	435.1	457.3	479.5	485.0	566.2	674.4	728.6	825.8	1020.2	1166.1	1187.1
130°	449.5	473.4	497.3	503.3	577.1	675.5	724.7	811.3	984.4	1114.2	1133.6
132.5°	464.4	488.3	512.2	518.2	585.9	676.2	721.3	798.8	953.8	1070.0	1087.4
135°	486.5	508.3	530.0	535.5	595.5	675.5	715.6	780.5	910.2	1007.5	1022.6
137.5°	509.0	530.6	552.2	557.6	609.9	679.8	714.6	769.5	879.2	961.5	973.7
140°	527.8	547.7	567.6	572.5	618.8	680.4	711.2	758.6	853.4	924.5	935.9
142.5°	542.2	560.6	578.9	583.5	626.1	682.8	711.2	752.9	836.1	898.6	908.4
145°	564.3	580.3	596.3	600.3	635.7	682.9	706.5	740.5	808.6	859.6	867.1
147.5°	586.4	602.0	617.5	621.5	649.8	687.6	706.5	733.3	786.8	827.0	833.1
150°	600.8	614.9	628.9	632.5	657.1	690.0	706.5	729.1	774.3	808.3	813.3
152.5°	615.7	626.4	637.0	639.7	662.0	691.6	706.5	725.8	764.5	793.4	797.2
155°	637.8	645.7	653.6	655.6	672.5	695.2	706.5	721.9	752.6	775.6	778.2
157.5°	654.1	661.8	669.4	671.4	683.1	698.7	706.5	718.4	742.3	760.2	762.0
160°	665.1	671.1	677.1	678.6	687.9	700.3	706.5	716.7	737.2	752.5	753.5
162.5°	676.2	680.7	685.1	686.3	693.0	702.0	706.5	715.1	732.4	745.4	746.3
165°	688.2	692.2	696.3	697.3	700.4	704.5	706.5	712.6	725.0	734.3	735.3
167.5°	699.2	701.2	703.1	703.5	706.1	709.6	711.2	715.3	723.4	729.5	730.0
170°	706.5	708.4	710.3	710.8	710.9	711.2	711.2	715.3	723.4	729.5	729.5
172.5°	710.3	710.7	711.2	711.2	711.2	711.2	711.2	714.5	720.9	725.6	725.3
175°	715.6	715.6	715.6	715.6	714.1	712.2	711.2	713.3	717.3	720.4	720.4
177.5°	715.6	715.6	715.6	715.6	714.5	713.0	712.2	713.9	717.0	719.4	718.9
180°	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9
2.5°	559.8	558.2	559.8	558.7	559.3	557.7	553.1	551.6	553.1	554.6	554.6
5°	566.5	565.5	566.5	566.5	566.0	564.9	559.8	558.7	559.8	560.3	559.3
7.5°	568.6	567.0	568.6	567.5	567.5	566.5	561.3	560.3	560.8	562.3	560.8
10°	568.6	567.0	568.6	568.0	567.5	566.5	561.3	559.3	559.3	560.8	559.3
12.5°	566.0	564.9	566.0	564.9	564.9	563.9	558.7	556.7	557.2	557.7	555.6
15°	561.9	560.3	561.9	560.8	561.3	559.8	554.1	552.0	552.0	553.1	549.5
17.5°	555.6	553.6	555.6	555.2	554.6	553.6	548.4	546.4	545.9	546.4	543.8
20°	548.4	546.9	548.4	547.9	547.9	545.9	540.7	538.1	538.1	538.1	535.5
22.5°	537.1	535.5	537.1	538.1	538.1	537.5	532.9	529.3	528.3	528.3	525.2
25°	524.1	522.6	524.1	524.1	523.6	524.1	522.6	520.5	519.0	517.4	514.4
27.5°	511.7	510.7	511.7	510.7	511.7	510.2	509.7	509.2	507.1	505.6	501.4
30°	499.3	498.3	499.3	498.3	497.3	496.3	493.6	492.6	494.7	493.6	486.9
32.5°	483.9	482.9	483.9	483.9	482.9	482.9	478.7	477.2	477.7	480.8	474.6
35°	467.9	466.3	467.9	467.3	467.9	466.3	463.7	463.2	461.2	464.8	460.2
37.5°	449.3	447.8	449.3	449.3	449.3	450.3	448.2	446.7	443.6	448.2	444.6
40°	430.2	428.1	430.2	429.7	430.2	431.2	430.2	429.1	426.0	429.7	426.6
42.5°	408.5	407.9	408.5	409.0	409.0	411.0	412.6	410.6	409.5	406.9	409.0
45°	385.2	384.2	385.2	386.2	386.8	387.8	392.5	392.5	390.9	386.8	389.9
47.5°	360.4	357.9	360.4	363.5	363.5	365.1	369.8	373.4	370.8	365.6	367.1
50°	334.1	334.6	334.1	336.2	336.2	341.9	345.5	349.1	351.7	345.5	338.3
52.5°	308.3	307.8	308.3	309.8	311.9	314.5	320.7	324.3	328.4	324.8	313.5
55°	282.4	283.5	282.4	283.0	284.1	285.6	294.8	298.5	306.2	301.6	289.7
57.5°	256.6	255.1	256.6	257.7	258.2	259.7	267.5	274.2	278.9	279.4	264.9
60°	226.7	224.6	226.7	231.4	232.4	233.4	240.6	246.9	250.9	252.5	237.5
62.5°	200.4	196.7	200.4	203.4	205.5	208.1	213.3	222.6	226.1	226.7	205.5
65°	172.5	170.9	172.5	178.6	179.2	182.3	188.0	194.7	202.4	201.4	170.9
67.5°	147.1	147.1	147.1	151.3	154.4	155.9	163.2	166.3	176.1	177.1	142.5
70°	124.0	123.4	124.0	127.0	129.1	132.7	139.4	143.1	150.8	153.4	115.7
72.5°	101.7	101.2	101.7	104.3	106.4	109.5	115.2	119.3	126.0	129.1	89.9
75°	82.1	81.1	82.1	84.2	83.6	87.8	92.4	96.6	102.8	104.8	66.6
77.5°	63.0	63.0	63.0	65.1	65.1	69.2	71.3	76.5	80.1	83.2	49.0
80°	47.0	46.5	47.0	47.5	47.5	49.6	53.2	56.8	59.9	59.9	33.6
82.5°	33.0	32.0	33.0	33.0	33.0	34.1	36.1	37.2	39.3	40.8	21.2
85°	20.6	20.6	20.6	21.2	20.6	21.7	22.2	23.3	23.3	22.2	12.9
87.5°	13.4	12.9	13.4	12.9	12.9	12.4	12.4	12.4	11.9	11.4	7.2
90°	18.2	18.2	18.2	18.2	18.2	24.3	32.4	36.5	31.4	21.2	13.5
92.5°	73.1	58.6	73.1	87.6	91.2	129.4	180.1	205.5	180.4	130.3	92.7
95°	254.8	210.8	254.8	298.8	309.8	406.8	536.2	600.8	507.4	320.6	180.6
97.5°	610.5	526.8	610.5	694.2	715.1	776.4	858.2	899.1	743.4	431.9	198.4
100°	879.6	779.9	879.6	979.3	1004.2	999.8	993.8	990.8	818.0	472.4	213.2
102.5°	1144.4	1059.0	1144.4	1229.8	1251.1	1172.9	1068.8	1016.7	841.5	491.0	228.2
105°	1481.9	1436.0	1481.9	1527.8	1539.2	1364.1	1130.5	1013.8	844.1	504.7	250.2
107.5°	1702.9	1714.0	1702.9	1691.8	1689.1	1444.8	1119.0	956.2	806.6	507.4	282.9
110°	1787.2	1835.1	1787.2	1739.4	1727.5	1454.4	1090.2	908.1	773.2	503.5	301.1





TEST NUMBER: P935822

CATALOG NUMBER: SQ4-FA-150U-050D-927-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	1794.8	1868.2	1794.8	1721.3	1703.0	1423.5	1050.8	864.5	744.2	503.7	323.2
115°	1747.2	1849.0	1747.2	1645.4	1619.9	1350.7	991.6	812.1	710.9	508.3	356.4
117.5°	1646.3	1759.1	1646.3	1533.4	1505.1	1262.1	938.1	776.1	690.0	517.7	388.5
120°	1564.9	1674.7	1564.9	1455.2	1427.8	1205.7	909.7	761.7	682.9	525.4	407.3
122.5°	1485.8	1594.0	1485.8	1377.5	1350.5	1150.5	884.0	750.7	679.3	536.5	429.4
125°	1372.8	1472.5	1372.8	1273.1	1248.2	1078.3	851.9	738.7	676.2	551.3	457.7
127.5°	1271.2	1355.3	1271.2	1187.1	1166.1	1020.2	825.8	728.6	674.4	566.2	485.0
130°	1211.3	1289.0	1211.3	1133.6	1114.2	984.4	811.3	724.7	675.5	577.1	503.3
132.5°	1156.9	1226.5	1156.9	1087.4	1070.0	953.8	798.8	721.3	676.2	585.9	518.2
135°	1082.5	1142.5	1082.5	1022.6	1007.5	910.2	780.5	715.6	675.5	595.5	535.5
137.5°	1022.9	1071.9	1022.9	973.7	961.5	879.2	769.5	714.6	679.8	609.9	557.6
140°	981.8	1027.7	981.8	935.9	924.5	853.4	758.6	711.2	680.4	618.8	572.5
142.5°	947.9	987.4	947.9	908.4	898.6	836.1	752.9	711.2	682.8	626.1	583.5
145°	897.0	926.9	897.0	867.1	859.6	808.6	740.5	706.5	682.9	635.7	600.3
147.5°	857.9	882.7	857.9	833.1	827.0	786.8	733.3	706.5	687.6	649.8	621.5
150°	833.4	853.4	833.4	813.3	808.3	774.3	729.1	706.5	690.0	657.1	632.5
152.5°	812.4	827.4	812.4	797.2	793.4	764.5	725.8	706.5	691.6	662.0	639.7
155°	788.2	798.2	788.2	778.2	775.6	752.6	721.9	706.5	695.2	672.5	655.6
157.5°	769.0	776.1	769.0	762.0	760.2	742.3	718.4	706.5	698.7	683.1	671.4
160°	757.6	761.7	757.6	753.5	752.5	737.2	716.7	706.5	700.3	687.9	678.6
162.5°	750.1	754.0	750.1	746.3	745.4	732.4	715.1	706.5	702.0	693.0	686.3
165°	739.4	743.4	739.4	735.3	734.3	725.0	712.6	706.5	704.5	700.4	697.3
167.5°	731.7	733.3	731.7	730.0	729.5	723.4	715.3	711.2	709.6	706.1	703.5
170°	729.5	729.5	729.5	729.5	729.5	723.4	715.3	711.2	711.2	710.9	710.8
172.5°	723.8	722.3	723.8	725.3	725.6	720.9	714.5	711.2	711.2	711.2	711.2
175°	720.4	720.4	720.4	720.4	720.4	717.3	713.3	711.2	712.2	714.1	715.6
177.5°	717.3	715.6	717.3	718.9	719.4	717.0	713.9	712.2	713.0	714.5	715.6
180°	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6



TEST NUMBER: P935822

CATALOG NUMBER: SQ4-FA-150U-050D-927-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9
2.5°	553.6	550.5	550.5	545.3	543.2	541.7	539.2	531.4	529.3	527.2	530.4
5°	558.2	552.6	548.4	539.2	531.4	528.3	518.4	499.9	487.5	478.2	473.0
7.5°	559.3	552.0	544.3	529.8	511.2	503.0	473.0	439.0	429.7	421.4	416.2
10°	558.2	549.9	539.2	517.4	473.6	459.1	429.1	406.9	401.2	399.7	401.2
12.5°	554.6	546.9	531.9	495.7	434.3	424.5	406.9	394.0	393.0	395.5	409.5
15°	548.4	541.2	523.6	466.9	412.6	405.4	393.0	388.3	394.0	412.1	453.9
17.5°	542.2	534.0	512.3	438.4	396.1	390.9	382.2	391.5	423.4	447.8	461.7
20°	534.0	524.1	499.3	417.8	384.2	379.5	375.5	417.3	441.5	450.3	458.1
22.5°	524.1	513.8	481.8	403.3	371.8	368.2	370.8	431.7	441.5	447.8	454.5
25°	511.2	502.4	461.2	391.9	362.0	357.9	367.7	430.2	435.8	437.4	450.8
27.5°	499.3	488.0	439.4	381.6	350.1	348.6	370.3	423.4	427.6	429.1	443.6
30°	484.9	467.9	415.2	370.8	337.7	337.2	370.8	415.2	414.2	418.3	432.7
32.5°	469.9	437.9	387.8	357.4	325.9	325.3	367.1	402.8	401.8	407.4	418.3
35°	456.0	414.6	350.7	341.9	310.8	311.4	358.4	388.3	388.8	394.0	400.7
37.5°	441.5	394.5	309.8	324.8	296.4	296.4	346.5	374.9	373.9	375.5	384.7
40°	424.5	363.1	273.7	302.6	283.0	281.4	332.0	360.4	356.8	356.4	369.2
42.5°	406.4	328.4	246.9	273.2	267.5	265.4	314.5	342.9	336.2	337.7	354.3
45°	386.8	319.2	226.1	230.8	251.5	249.9	295.4	322.8	318.1	322.2	339.3
47.5°	367.1	300.5	219.4	191.6	234.5	233.9	274.2	303.1	300.5	304.7	322.8
50°	340.3	279.9	219.0	164.2	215.4	217.4	248.9	284.1	284.1	287.7	306.8
52.5°	305.7	254.6	198.8	148.7	193.1	199.4	226.7	267.5	268.5	272.1	289.2
55°	274.2	228.2	184.3	136.8	166.8	180.3	205.0	250.5	252.5	256.1	271.7
57.5°	245.3	190.0	181.3	122.9	142.5	155.5	185.9	233.9	234.9	238.1	253.0
60°	214.3	137.4	166.3	108.0	121.4	131.1	168.3	214.3	217.9	220.0	232.9
62.5°	179.2	99.6	150.8	97.6	111.0	113.1	153.9	195.7	200.4	201.9	209.7
65°	127.6	83.6	128.1	88.9	100.2	100.7	138.4	176.6	180.7	183.3	189.0
67.5°	86.2	68.1	97.6	80.5	91.9	92.4	123.4	154.4	160.1	162.2	165.8
70°	59.9	45.4	72.3	71.8	82.6	83.6	107.4	134.3	139.4	141.0	143.1
72.5°	43.9	36.7	59.9	64.5	72.8	73.8	90.9	111.6	116.7	118.3	119.3
75°	33.6	38.7	48.5	56.3	62.0	62.4	74.4	90.9	94.5	95.6	96.0
77.5°	26.9	36.1	35.7	45.4	50.6	49.6	58.4	70.2	73.3	73.3	73.3
80°	20.2	28.4	26.9	32.6	37.2	36.1	41.8	50.1	51.1	52.1	51.7
82.5°	14.9	18.1	18.1	20.6	24.8	23.8	27.9	32.6	32.6	32.6	33.6
85°	9.3	10.3	8.2	10.9	13.9	13.4	15.5	17.6	18.1	18.1	17.0
87.5°	5.7	4.6	2.6	4.2	6.2	6.2	7.2	7.8	7.2	7.2	7.2
90°	12.5	8.6	4.8	8.6	12.5	13.5	21.2	31.4	36.5	32.4	24.3
92.5°	84.5	51.8	19.2	51.8	84.5	92.7	130.3	180.4	205.5	180.1	129.4
95°	165.6	105.9	46.1	105.9	165.6	180.6	320.6	507.4	600.8	536.2	406.8
97.5°	185.2	132.4	79.7	132.4	185.2	198.4	431.9	743.4	899.1	858.2	776.4
100°	201.3	153.5	105.6	153.5	201.3	213.2	472.4	818.0	990.8	993.8	999.8
102.5°	217.0	172.4	127.7	172.4	217.0	228.2	491.0	841.5	1016.7	1068.8	1172.9
105°	240.8	203.0	165.2	203.0	240.8	250.2	504.7	844.1	1013.8	1130.5	1364.1
107.5°	274.1	238.9	203.7	238.9	274.1	282.9	507.4	806.6	956.2	1119.0	1444.8
110°	293.2	261.3	229.5	261.3	293.2	301.1	503.5	773.2	908.1	1090.2	1454.4



TEST NUMBER: P935822

CATALOG NUMBER: SQ4-FA-150U-050D-927-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	315.7	285.4	255.0	285.4	315.7	323.2	503.7	744.2	864.5	1050.8	1423.5
115°	349.3	321.4	293.4	321.4	349.3	356.4	508.3	710.9	812.1	991.6	1350.7
117.5°	382.2	356.8	331.4	356.8	382.2	388.5	517.7	690.0	776.1	938.1	1262.1
120°	401.2	377.4	353.4	377.4	401.2	407.3	525.4	682.9	761.7	909.7	1205.7
122.5°	423.3	399.2	375.1	399.2	423.3	429.4	536.5	679.3	750.7	884.0	1150.5
125°	452.2	430.2	408.3	430.2	452.2	457.7	551.3	676.2	738.7	851.9	1078.3
127.5°	479.5	457.3	435.1	457.3	479.5	485.0	566.2	674.4	728.6	825.8	1020.2
130°	497.3	473.4	449.5	473.4	497.3	503.3	577.1	675.5	724.7	811.3	984.4
132.5°	512.2	488.3	464.4	488.3	512.2	518.2	585.9	676.2	721.3	798.8	953.8
135°	530.0	508.3	486.5	508.3	530.0	535.5	595.5	675.5	715.6	780.5	910.2
137.5°	552.2	530.6	509.0	530.6	552.2	557.6	609.9	679.8	714.6	769.5	879.2
140°	567.6	547.7	527.8	547.7	567.6	572.5	618.8	680.4	711.2	758.6	853.4
142.5°	578.9	560.6	542.2	560.6	578.9	583.5	626.1	682.8	711.2	752.9	836.1
145°	596.3	580.3	564.3	580.3	596.3	600.3	635.7	682.9	706.5	740.5	808.6
147.5°	617.5	602.0	586.4	602.0	617.5	621.5	649.8	687.6	706.5	733.3	786.8
150°	628.9	614.9	600.8	614.9	628.9	632.5	657.1	690.0	706.5	729.1	774.3
152.5°	637.0	626.4	615.7	626.4	637.0	639.7	662.0	691.6	706.5	725.8	764.5
155°	653.6	645.7	637.8	645.7	653.6	655.6	672.5	695.2	706.5	721.9	752.6
157.5°	669.4	661.8	654.1	661.8	669.4	671.4	683.1	698.7	706.5	718.4	742.3
160°	677.1	671.1	665.1	671.1	677.1	678.6	687.9	700.3	706.5	716.7	737.2
162.5°	685.1	680.7	676.2	680.7	685.1	686.3	693.0	702.0	706.5	715.1	732.4
165°	696.3	692.2	688.2	692.2	696.3	697.3	700.4	704.5	706.5	712.6	725.0
167.5°	703.1	701.2	699.2	701.2	703.1	703.5	706.1	709.6	711.2	715.3	723.4
170°	710.3	708.4	706.5	708.4	710.3	710.8	710.9	711.2	711.2	715.3	723.4
172.5°	711.2	710.7	710.3	710.7	711.2	711.2	711.2	711.2	711.2	714.5	720.9
175°	715.6	715.6	715.6	715.6	715.6	715.6	714.1	712.2	711.2	713.3	717.3
177.5°	715.6	715.6	715.6	715.6	715.6	715.6	714.5	713.0	712.2	713.9	717.0
180°	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6



TEST NUMBER: P935822

CATALOG NUMBER: SQ4-FA-150U-050D-927-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9	545.9
2.5°	526.8	525.2	527.2	521.6	527.2	525.2	526.8	530.4	527.2	529.3	531.4
5°	462.2	459.6	451.4	444.6	451.4	459.6	462.2	473.0	478.2	487.5	499.9
7.5°	413.1	411.0	409.0	404.9	409.0	411.0	413.1	416.2	421.4	429.7	439.0
10°	402.2	402.8	405.9	405.4	405.9	402.8	402.2	401.2	399.7	401.2	406.9
12.5°	430.2	434.8	451.8	450.8	451.8	434.8	430.2	409.5	395.5	393.0	394.0
15°	462.2	463.7	467.3	467.9	467.3	463.7	462.2	453.9	412.1	394.0	388.3
17.5°	465.3	465.8	468.4	468.4	468.4	465.8	465.3	461.7	447.8	423.4	391.5
20°	462.7	463.7	468.9	469.9	468.9	463.7	462.7	458.1	450.3	441.5	417.3
22.5°	461.7	463.7	467.9	467.3	467.9	463.7	461.7	454.5	447.8	441.5	431.7
25°	456.5	456.5	457.0	457.5	457.0	456.5	456.5	450.8	437.4	435.8	430.2
27.5°	445.7	446.7	449.8	449.3	449.8	446.7	445.7	443.6	429.1	427.6	423.4
30°	435.8	434.8	432.2	430.2	432.2	434.8	435.8	432.7	418.3	414.2	415.2
32.5°	419.3	416.7	414.2	412.6	414.2	416.7	419.3	418.3	407.4	401.8	402.8
35°	399.7	400.2	399.7	398.2	399.7	400.2	399.7	400.7	394.0	388.8	388.3
37.5°	385.8	386.8	386.2	384.2	386.2	386.8	385.8	384.7	375.5	373.9	374.9
40°	371.3	371.8	371.3	369.8	371.3	371.8	371.3	369.2	356.4	356.8	360.4
42.5°	357.4	356.8	355.3	354.3	355.3	356.8	357.4	354.3	337.7	336.2	342.9
45°	341.3	341.9	338.7	337.2	338.7	341.9	341.3	339.3	322.2	318.1	322.8
47.5°	325.3	325.3	322.8	321.2	322.8	325.3	325.3	322.8	304.7	300.5	303.1
50°	308.3	307.8	304.2	303.6	304.2	307.8	308.3	306.8	287.7	284.1	284.1
52.5°	288.7	288.7	289.2	290.2	289.2	288.7	288.7	289.2	272.1	268.5	267.5
55°	271.7	272.1	275.7	276.8	275.7	272.1	271.7	271.7	256.1	252.5	250.5
57.5°	254.1	254.1	256.6	256.6	256.6	254.1	254.1	253.0	238.1	234.9	233.9
60°	233.9	234.9	237.0	236.5	237.0	234.9	233.9	232.9	220.0	217.9	214.3
62.5°	212.8	213.8	214.3	213.3	214.3	213.8	212.8	209.7	201.9	200.4	195.7
65°	190.6	191.6	192.1	191.0	192.1	191.6	190.6	189.0	183.3	180.7	176.6
67.5°	167.9	167.3	166.8	168.9	166.8	167.3	167.9	165.8	162.2	160.1	154.4
70°	144.6	144.6	144.1	145.1	144.1	144.6	144.6	143.1	141.0	139.4	134.3
72.5°	119.8	119.3	121.4	119.8	121.4	119.3	119.8	119.3	118.3	116.7	111.6
75°	95.6	96.6	95.6	97.1	95.6	96.6	95.6	96.0	95.6	94.5	90.9
77.5°	72.8	73.8	72.8	72.8	72.8	73.8	72.8	73.3	73.3	73.3	70.2
80°	51.7	51.1	51.1	50.6	51.1	51.1	51.7	51.7	52.1	51.1	50.1
82.5°	33.0	32.6	32.6	33.6	32.6	32.6	33.0	33.6	32.6	32.6	32.6
85°	18.1	18.6	17.6	17.6	17.6	18.6	18.1	17.0	18.1	18.1	17.6
87.5°	6.7	6.2	6.2	6.2	6.2	6.2	6.7	7.2	7.2	7.2	7.8
90°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	24.3	32.4	36.5	31.4
92.5°	91.2	87.6	73.1	58.6	73.1	87.6	91.2	129.4	180.1	205.5	180.4
95°	309.8	298.8	254.8	210.8	254.8	298.8	309.8	406.8	536.2	600.8	507.4
97.5°	715.1	694.2	610.5	526.8	610.5	694.2	715.1	776.4	858.2	899.1	743.4
100°	1004.2	979.3	879.6	779.9	879.6	979.3	1004.2	999.8	993.8	990.8	818.0
102.5°	1251.1	1229.8	1144.4	1059.0	1144.4	1229.8	1251.1	1172.9	1068.8	1016.7	841.5
105°	1539.2	1527.8	1481.9	1436.0	1481.9	1527.8	1539.2	1364.1	1130.5	1013.8	844.1
107.5°	1689.1	1691.8	1702.9	1714.0	1702.9	1691.8	1689.1	1444.8	1119.0	956.2	806.6
110°	1727.5	1739.4	1787.2	1835.1	1787.2	1739.4	1727.5	1454.4	1090.2	908.1	773.2



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**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	1703.0	1721.3	1794.8	1868.2	1794.8	1721.3	1703.0	1423.5	1050.8	864.5	744.2
115°	1619.9	1645.4	1747.2	1849.0	1747.2	1645.4	1619.9	1350.7	991.6	812.1	710.9
117.5°	1505.1	1533.4	1646.3	1759.1	1646.3	1533.4	1505.1	1262.1	938.1	776.1	690.0
120°	1427.8	1455.2	1564.9	1674.7	1564.9	1455.2	1427.8	1205.7	909.7	761.7	682.9
122.5°	1350.5	1377.5	1485.8	1594.0	1485.8	1377.5	1350.5	1150.5	884.0	750.7	679.3
125°	1248.2	1273.1	1372.8	1472.5	1372.8	1273.1	1248.2	1078.3	851.9	738.7	676.2
127.5°	1166.1	1187.1	1271.2	1355.3	1271.2	1187.1	1166.1	1020.2	825.8	728.6	674.4
130°	1114.2	1133.6	1211.3	1289.0	1211.3	1133.6	1114.2	984.4	811.3	724.7	675.5
132.5°	1070.0	1087.4	1156.9	1226.5	1156.9	1087.4	1070.0	953.8	798.8	721.3	676.2
135°	1007.5	1022.6	1082.5	1142.5	1082.5	1022.6	1007.5	910.2	780.5	715.6	675.5
137.5°	961.5	973.7	1022.9	1071.9	1022.9	973.7	961.5	879.2	769.5	714.6	679.8
140°	924.5	935.9	981.8	1027.7	981.8	935.9	924.5	853.4	758.6	711.2	680.4
142.5°	898.6	908.4	947.9	987.4	947.9	908.4	898.6	836.1	752.9	711.2	682.8
145°	859.6	867.1	897.0	926.9	897.0	867.1	859.6	808.6	740.5	706.5	682.9
147.5°	827.0	833.1	857.9	882.7	857.9	833.1	827.0	786.8	733.3	706.5	687.6
150°	808.3	813.3	833.4	853.4	833.4	813.3	808.3	774.3	729.1	706.5	690.0
152.5°	793.4	797.2	812.4	827.4	812.4	797.2	793.4	764.5	725.8	706.5	691.6
155°	775.6	778.2	788.2	798.2	788.2	778.2	775.6	752.6	721.9	706.5	695.2
157.5°	760.2	762.0	769.0	776.1	769.0	762.0	760.2	742.3	718.4	706.5	698.7
160°	752.5	753.5	757.6	761.7	757.6	753.5	752.5	737.2	716.7	706.5	700.3
162.5°	745.4	746.3	750.1	754.0	750.1	746.3	745.4	732.4	715.1	706.5	702.0
165°	734.3	735.3	739.4	743.4	739.4	735.3	734.3	725.0	712.6	706.5	704.5
167.5°	729.5	730.0	731.7	733.3	731.7	730.0	729.5	723.4	715.3	711.2	709.6
170°	729.5	729.5	729.5	729.5	729.5	729.5	729.5	723.4	715.3	711.2	711.2
172.5°	725.6	725.3	723.8	722.3	723.8	725.3	725.6	720.9	714.5	711.2	711.2
175°	720.4	720.4	720.4	720.4	720.4	720.4	720.4	717.3	713.3	711.2	712.2
177.5°	719.4	718.9	717.3	715.6	717.3	718.9	719.4	717.0	713.9	712.2	713.0
180°	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6	715.6



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**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
0°	545.9	545.9	545.9	545.9	545.9
2.5°	539.2	541.7	543.2	545.3	550.5
5°	518.4	528.3	531.4	539.2	548.4
7.5°	473.0	503.0	511.2	529.8	544.3
10°	429.1	459.1	473.6	517.4	539.2
12.5°	406.9	424.5	434.3	495.7	531.9
15°	393.0	405.4	412.6	466.9	523.6
17.5°	382.2	390.9	396.1	438.4	512.3
20°	375.5	379.5	384.2	417.8	499.3
22.5°	370.8	368.2	371.8	403.3	481.8
25°	367.7	357.9	362.0	391.9	461.2
27.5°	370.3	348.6	350.1	381.6	439.4
30°	370.8	337.2	337.7	370.8	415.2
32.5°	367.1	325.3	325.9	357.4	387.8
35°	358.4	311.4	310.8	341.9	350.7
37.5°	346.5	296.4	296.4	324.8	309.8
40°	332.0	281.4	283.0	302.6	273.7
42.5°	314.5	265.4	267.5	273.2	246.9
45°	295.4	249.9	251.5	230.8	226.1
47.5°	274.2	233.9	234.5	191.6	219.4
50°	248.9	217.4	215.4	164.2	219.0
52.5°	226.7	199.4	193.1	148.7	198.8
55°	205.0	180.3	166.8	136.8	184.3
57.5°	185.9	155.5	142.5	122.9	181.3
60°	168.3	131.1	121.4	108.0	166.3
62.5°	153.9	113.1	111.0	97.6	150.8
65°	138.4	100.7	100.2	88.9	128.1
67.5°	123.4	92.4	91.9	80.5	97.6
70°	107.4	83.6	82.6	71.8	72.3
72.5°	90.9	73.8	72.8	64.5	59.9
75°	74.4	62.4	62.0	56.3	48.5
77.5°	58.4	49.6	50.6	45.4	35.7
80°	41.8	36.1	37.2	32.6	26.9
82.5°	27.9	23.8	24.8	20.6	18.1
85°	15.5	13.4	13.9	10.9	8.2
87.5°	7.2	6.2	6.2	4.2	2.6
90°	21.2	13.5	12.5	8.6	4.8
92.5°	130.3	92.7	84.5	51.8	19.2
95°	320.6	180.6	165.6	105.9	46.1
97.5°	431.9	198.4	185.2	132.4	79.7
100°	472.4	213.2	201.3	153.5	105.6
102.5°	491.0	228.2	217.0	172.4	127.7
105°	504.7	250.2	240.8	203.0	165.2
107.5°	507.4	282.9	274.1	238.9	203.7
110°	503.5	301.1	293.2	261.3	229.5



TEST NUMBER: P935822

CATALOG NUMBER: SQ4-FA-150U-050D-927-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
112.5°	503.7	323.2	315.7	285.4	255.0
115°	508.3	356.4	349.3	321.4	293.4
117.5°	517.7	388.5	382.2	356.8	331.4
120°	525.4	407.3	401.2	377.4	353.4
122.5°	536.5	429.4	423.3	399.2	375.1
125°	551.3	457.7	452.2	430.2	408.3
127.5°	566.2	485.0	479.5	457.3	435.1
130°	577.1	503.3	497.3	473.4	449.5
132.5°	585.9	518.2	512.2	488.3	464.4
135°	595.5	535.5	530.0	508.3	486.5
137.5°	609.9	557.6	552.2	530.6	509.0
140°	618.8	572.5	567.6	547.7	527.8
142.5°	626.1	583.5	578.9	560.6	542.2
145°	635.7	600.3	596.3	580.3	564.3
147.5°	649.8	621.5	617.5	602.0	586.4
150°	657.1	632.5	628.9	614.9	600.8
152.5°	662.0	639.7	637.0	626.4	615.7
155°	672.5	655.6	653.6	645.7	637.8
157.5°	683.1	671.4	669.4	661.8	654.1
160°	687.9	678.6	677.1	671.1	665.1
162.5°	693.0	686.3	685.1	680.7	676.2
165°	700.4	697.3	696.3	692.2	688.2
167.5°	706.1	703.5	703.1	701.2	699.2
170°	710.9	710.8	710.3	708.4	706.5
172.5°	711.2	711.2	711.2	710.7	710.3
175°	714.1	715.6	715.6	715.6	715.6
177.5°	714.5	715.6	715.6	715.6	715.6
180°	715.6	715.6	715.6	715.6	715.6



TEST NUMBER: P935822  
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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	7.22	7.88	8.38	9.03	10.63	10.02	10.68	11.17	11.82	13.43
	3H	7.68	8.28	8.85	9.43	11.05	11.34	11.93	12.50	13.08	14.70
	4H	7.86	8.43	9.04	9.58	11.21	11.77	12.33	12.94	13.48	15.11
	6H	7.97	8.49	9.15	9.64	11.28	12.03	12.55	13.21	13.71	15.34
	8H	7.97	8.46	9.15	9.63	11.26	12.10	12.59	13.28	13.76	15.39
	12H	7.93	8.40	9.12	9.56	11.21	12.12	12.59	13.31	13.76	15.41
4H	2H	8.22	8.79	9.40	9.94	11.56	10.40	10.97	11.58	12.12	13.75
	3H	9.23	9.70	10.41	10.88	12.51	11.88	12.35	13.07	13.53	15.17
	4H	9.50	9.93	10.68	11.09	12.75	12.39	12.83	13.58	13.99	15.65
	6H	9.61	9.98	10.80	11.17	12.81	12.74	13.11	13.93	14.30	15.94
	8H	9.61	9.96	10.80	11.14	12.80	12.84	13.18	14.03	14.36	16.02
	12H	9.57	9.88	10.77	11.07	12.74	12.88	13.19	14.08	14.38	16.05
8H	4H	9.93	10.27	11.12	11.45	13.12	12.50	12.85	13.69	14.03	15.69
	6H	10.18	10.47	11.39	11.69	13.35	12.92	13.21	14.13	14.43	16.09
	8H	10.22	10.47	11.44	11.67	13.35	13.07	13.32	14.28	14.51	16.19
	12H	10.20	10.42	11.41	11.61	13.32	13.15	13.37	14.37	14.57	16.28
12H	4H	9.92	10.24	11.13	11.43	13.09	12.46	12.77	13.66	13.96	15.63
	6H	10.24	10.49	11.45	11.69	13.37	12.92	13.17	14.13	14.37	16.05
	8H	10.30	10.51	11.51	11.71	13.42	13.07	13.28	14.28	14.48	16.19