

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: P934219

Luminaire Tested: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P934219
REPORT IS A COMBINATION OF REPORTS P933691 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

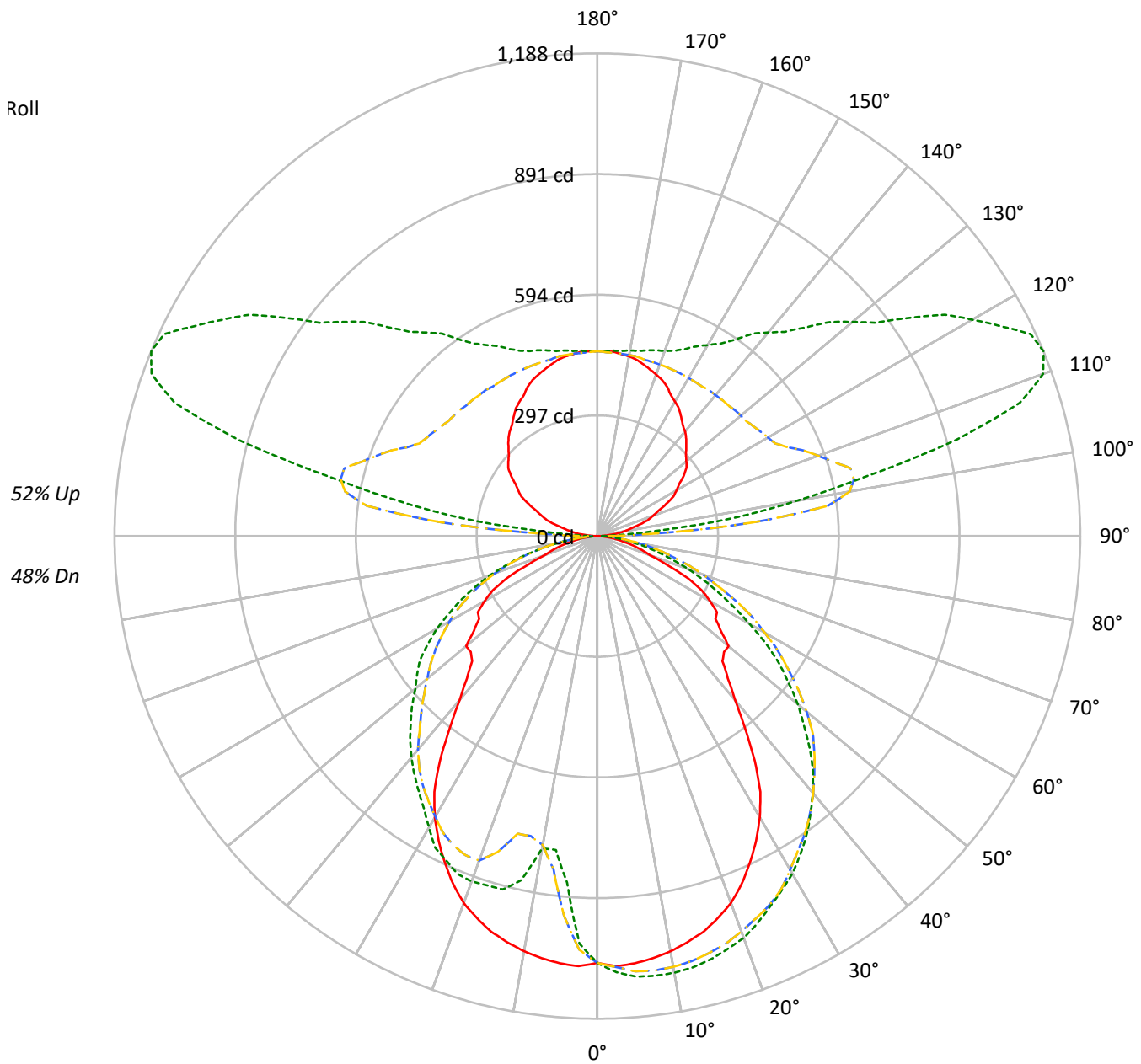
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5676.1 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 42.6
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

TEST NUMBER: P934219
CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

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	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°	6499	6499	6499	6499
5°	6545	6560	6545	5158
10°	6499	6462	6499	4620
15°	6426	6322	6426	5279
20°	6289	6156	6289	5290
25°	6011	5915	6011	5178
30°	5654	5714	5654	4932
35°	5038	5460	5038	4662
40°	4195	5161	4195	4458
45°	3746	4810	3746	4222
50°	3977	4393	3977	3986
55°	3738	3943	3738	3850
60°	3848	3349	3848	3526
65°	3484	2769	3484	3094
70°	2406	2206	2406	2594
75°	2104	1630	2104	1952
80°	1683	1078	1683	1174
85°	948	570	948	486

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 5746 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	1.7
10°-20°	269.3	4.7
20°-30°	416.2	7.3
30°-40°	496.9	8.8
40°-50°	499.8	8.8
50°-60°	434.9	7.7
60°-70°	308.3	5.4
70°-80°	163.1	2.9
80°-90°	42.4	0.7
90°-100°	221.9	3.9
100°-110°	583.3	10.3
110°-120°	604.8	10.7
120°-130°	485.1	8.5
130°-140°	380.6	6.7
140°-150°	292.2	5.1
150°-160°	210.4	3.7
160°-170°	128.7	2.3
170°-180°	43.5	0.8
0°-30°	780.3	13.7
0°-40°	1277.2	22.5
0°-60°	2211.8	39.0
0°-90°	2725.6	48.0
90°-120°	1409.9	24.8
90°-150°	2567.8	45.2
90°-180°	2950.0	52.0
0°-180°	5676.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1050	1050	1050	1050	1050	
5°	1056	1088	1056	856	1056	100
15°	1008	1078	1008	900	1008	284
25°	888	1006	888	881	888	408
35°	675	898	675	766	675	418
45°	435	739	435	649	435	349
55°	355	546	355	533	355	326
65°	246	329	246	368	246	236
75°	94	156	94	187	94	98
85°	16	40	16	34	16	21
90°	3	12	3	12	3	3
95°	29	134	29	134	29	33
105°	105	913	105	913	105	111
115°	187	1176	187	1176	187	184
125°	260	936	260	936	260	231
135°	309	727	309	727	309	239
145°	359	590	359	590	359	225
155°	406	508	406	508	406	186
165°	438	473	438	473	438	124
175°	455	458	455	458	455	43
180°	455	455	455	455	455	



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5
2.5°	1059.5	1059.5	1065.5	1067.4	1067.4	1064.5	1061.5	1064.5	1073.5	1076.4	1075.4
5°	1055.5	1063.5	1074.4	1076.4	1078.4	1077.4	1075.4	1077.4	1087.3	1089.4	1090.4
7.5°	1047.6	1062.5	1076.4	1079.4	1082.4	1079.4	1078.4	1080.4	1090.4	1092.3	1092.3
10°	1037.6	1058.5	1074.4	1076.4	1079.4	1076.4	1076.4	1080.4	1090.4	1092.3	1093.3
12.5°	1023.8	1052.5	1067.4	1069.4	1073.5	1072.5	1071.4	1075.4	1085.3	1087.3	1087.3
15°	1007.9	1041.6	1055.5	1057.6	1064.5	1062.5	1062.5	1066.4	1077.4	1080.4	1079.4
17.5°	985.9	1027.7	1043.6	1046.6	1051.5	1050.5	1051.5	1055.5	1065.5	1067.4	1068.4
20°	961.1	1008.8	1027.7	1030.7	1035.6	1035.6	1035.6	1040.7	1050.5	1054.5	1054.5
22.5°	927.3	988.9	1008.8	1010.8	1016.8	1016.8	1018.7	1025.7	1034.6	1035.6	1035.6
25°	887.5	967.1	983.9	990.0	995.9	998.9	1001.8	1005.9	1008.8	1007.9	1008.8
27.5°	845.8	939.2	961.1	965.1	973.1	976.0	980.0	981.0	982.0	984.9	983.0
30°	799.1	900.5	933.3	937.2	950.2	952.1	948.2	950.2	955.1	957.2	959.2
32.5°	746.4	842.9	904.4	913.4	925.4	919.3	918.3	921.3	929.3	929.3	931.3
35°	674.9	798.1	877.6	885.5	894.5	887.5	891.6	892.6	897.5	900.5	899.5
37.5°	596.4	759.4	849.8	855.7	862.7	853.7	859.8	862.7	866.7	864.7	864.7
40°	526.8	698.7	817.0	820.9	827.0	819.9	826.0	827.9	829.9	827.9	827.0
42.5°	475.1	632.1	782.2	787.1	783.2	788.1	790.2	794.2	791.2	787.1	787.1
45°	435.3	614.2	744.5	750.4	744.5	752.4	755.3	755.3	746.4	744.5	743.5
47.5°	422.4	578.5	706.7	706.7	703.7	713.6	718.6	711.7	702.7	699.7	699.7
50°	421.4	538.7	654.9	651.0	664.9	676.9	671.8	664.9	658.0	647.0	647.0
52.5°	382.7	489.9	588.4	603.3	625.2	632.1	624.2	617.2	605.2	600.3	596.4
55°	354.8	439.3	527.8	557.6	580.4	589.3	574.5	567.5	549.6	546.7	544.7
57.5°	348.9	365.8	472.1	509.9	537.7	536.7	527.8	514.8	499.9	497.0	496.0
60°	320.0	264.4	412.5	457.2	486.0	483.0	475.1	463.2	449.2	447.3	445.3
62.5°	290.2	191.9	344.9	395.6	436.3	435.3	428.4	410.5	400.5	395.6	391.6
65°	246.5	161.0	245.5	329.0	387.6	389.6	374.7	361.8	350.8	344.9	343.9
67.5°	187.8	131.2	166.0	274.4	341.0	338.9	320.0	314.1	300.2	297.2	291.3
70°	139.1	87.4	115.3	222.6	295.2	290.2	275.4	268.3	255.4	248.5	244.5
72.5°	115.3	70.5	84.5	172.9	248.5	242.6	229.6	221.6	210.7	204.7	200.8
75°	93.5	74.5	64.6	128.2	201.7	197.8	185.8	177.9	168.9	161.0	162.0
77.5°	68.6	69.6	51.7	94.5	160.1	154.0	147.1	137.1	133.2	125.3	125.3
80°	51.7	54.6	38.7	64.6	115.3	115.3	109.4	102.4	95.4	91.5	91.5
82.5°	34.8	34.8	28.8	40.7	78.5	75.6	71.5	69.6	65.6	63.6	63.6
85°	15.9	19.9	17.9	24.8	42.8	44.8	44.8	42.8	41.8	39.7	40.7
87.5°	4.9	9.0	11.0	13.9	21.8	22.8	23.8	23.8	23.8	24.8	24.8
90°	3.1	5.5	8.0	8.6	13.4	20.0	23.2	20.6	15.4	11.6	11.6
92.5°	12.3	33.0	53.7	59.0	82.9	114.8	130.7	114.5	82.2	58.0	55.7
95°	29.3	67.3	105.3	114.8	203.9	322.8	382.2	341.1	258.8	197.0	190.0
97.5°	50.7	84.3	117.8	126.2	274.8	472.9	571.9	545.9	493.8	454.8	441.4
100°	67.2	97.6	128.0	135.7	300.5	520.3	630.1	632.0	635.9	638.7	622.9
102.5°	81.2	109.7	138.0	145.1	312.3	535.2	646.6	679.7	746.0	795.7	782.2
105°	105.1	129.1	153.1	159.2	321.0	536.9	644.8	719.1	867.6	979.0	971.7
107.5°	129.5	152.0	174.3	179.9	322.7	513.0	608.1	711.7	918.8	1074.3	1076.0
110°	146.0	166.2	186.4	191.5	320.2	491.8	577.6	693.4	925.1	1098.8	1106.4



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	162.2	181.5	200.8	205.6	320.3	473.4	549.8	668.4	905.4	1083.1	1094.8
115°	186.6	204.4	222.2	226.6	323.3	452.1	516.5	630.7	859.1	1030.3	1046.5
117.5°	210.7	226.9	243.0	247.1	329.3	438.9	493.6	596.7	802.8	957.3	975.3
120°	224.8	240.0	255.2	259.1	334.1	434.3	484.4	578.6	766.9	908.1	925.6
122.5°	238.6	253.9	269.2	273.1	341.2	432.0	477.4	562.2	731.8	859.0	876.2
125°	259.6	273.6	287.6	291.1	350.6	430.1	469.8	541.8	685.9	793.9	809.7
127.5°	276.7	290.9	305.0	308.6	360.1	429.0	463.4	525.2	648.8	741.6	754.9
130°	285.9	301.1	316.4	320.1	367.0	429.6	460.9	515.9	626.1	708.7	721.0
132.5°	295.4	310.6	325.8	329.6	372.7	430.1	458.8	508.1	606.6	680.5	691.6
135°	309.4	323.3	337.1	340.6	378.8	429.7	455.2	496.5	579.0	640.8	650.4
137.5°	323.8	337.5	351.1	354.6	387.9	432.2	454.5	489.4	559.1	611.5	619.3
140°	335.7	348.4	360.9	364.1	393.5	432.7	452.4	482.5	542.8	588.0	595.3
142.5°	344.8	356.5	368.1	371.1	398.2	434.3	452.4	478.9	531.7	571.5	577.8
145°	358.9	369.1	379.3	381.9	404.4	434.3	449.3	471.0	514.3	546.8	551.5
147.5°	373.0	382.8	392.8	395.3	413.3	437.3	449.3	466.3	500.4	526.0	530.0
150°	382.2	391.1	400.0	402.3	418.0	438.9	449.3	463.8	492.5	514.1	517.2
152.5°	391.5	398.4	405.2	406.9	421.0	439.9	449.3	461.6	486.2	504.6	506.9
155°	405.7	410.7	415.7	416.9	427.7	442.1	449.3	459.1	478.7	493.3	494.9
157.5°	416.0	420.9	425.8	427.0	434.4	444.4	449.3	457.0	472.2	483.5	484.6
160°	423.1	426.8	430.6	431.6	437.5	445.4	449.3	455.9	468.9	478.7	479.3
162.5°	430.1	432.9	435.8	436.5	440.7	446.5	449.3	454.9	465.8	474.0	474.6
165°	437.7	440.3	442.8	443.5	445.5	448.1	449.3	453.3	461.1	467.0	467.7
167.5°	444.7	445.9	447.2	447.5	449.1	451.3	452.4	455.0	460.1	464.0	464.3
170°	449.3	450.5	451.8	452.1	452.2	452.3	452.4	455.0	460.1	464.0	464.0
172.5°	451.8	452.1	452.3	452.4	452.4	452.4	452.4	454.4	458.4	461.5	461.3
175°	455.2	455.2	455.2	455.2	454.3	453.0	452.4	453.7	456.3	458.1	458.1
177.5°	455.2	455.2	455.2	455.2	454.5	453.5	453.0	454.0	456.1	457.5	457.2
180°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5
2.5°	1077.4	1074.4	1077.4	1075.4	1076.4	1073.5	1064.5	1061.5	1064.5	1067.4	1067.4
5°	1090.4	1088.3	1090.4	1090.4	1089.4	1087.3	1077.4	1075.4	1077.4	1078.4	1076.4
7.5°	1094.3	1091.3	1094.3	1092.3	1092.3	1090.4	1080.4	1078.4	1079.4	1082.4	1079.4
10°	1094.3	1091.3	1094.3	1093.3	1092.3	1090.4	1080.4	1076.4	1076.4	1079.4	1076.4
12.5°	1089.4	1087.3	1089.4	1087.3	1087.3	1085.3	1075.4	1071.4	1072.5	1073.5	1069.4
15°	1081.4	1078.4	1081.4	1079.4	1080.4	1077.4	1066.4	1062.5	1062.5	1064.5	1057.6
17.5°	1069.4	1065.5	1069.4	1068.4	1067.4	1065.5	1055.5	1051.5	1050.5	1051.5	1046.6
20°	1055.5	1052.5	1055.5	1054.5	1054.5	1050.5	1040.7	1035.6	1035.6	1035.6	1030.7
22.5°	1033.6	1030.7	1033.6	1035.6	1035.6	1034.6	1025.7	1018.7	1016.8	1016.8	1010.8
25°	1008.8	1005.9	1008.8	1008.8	1007.9	1008.8	1005.9	1001.8	998.9	995.9	990.0
27.5°	984.9	983.0	984.9	983.0	984.9	982.0	981.0	980.0	976.0	973.1	965.1
30°	961.1	959.2	961.1	959.2	957.2	955.1	950.2	948.2	952.1	950.2	937.2
32.5°	931.3	929.3	931.3	931.3	929.3	929.3	921.3	918.3	919.3	925.4	913.4
35°	900.5	897.5	900.5	899.5	900.5	897.5	892.6	891.6	887.5	894.5	885.5
37.5°	864.7	861.7	864.7	864.7	864.7	866.7	862.7	859.8	853.7	862.7	855.7
40°	827.9	824.0	827.9	827.0	827.9	829.9	827.9	826.0	819.9	827.0	820.9
42.5°	786.2	785.2	786.2	787.1	787.1	791.2	794.2	790.2	788.1	783.2	787.1
45°	741.5	739.4	741.5	743.5	744.5	746.4	755.3	755.3	752.4	744.5	750.4
47.5°	693.8	688.7	693.8	699.7	699.7	702.7	711.7	718.6	713.6	703.7	706.7
50°	643.1	644.1	643.1	647.0	647.0	658.0	664.9	671.8	676.9	664.9	651.0
52.5°	593.4	592.4	593.4	596.4	600.3	605.2	617.2	624.2	632.1	625.2	603.3
55°	543.7	545.7	543.7	544.7	546.7	549.6	567.5	574.5	589.3	580.4	557.6
57.5°	494.0	491.0	494.0	496.0	497.0	499.9	514.8	527.8	536.7	537.7	509.9
60°	436.3	432.3	436.3	445.3	447.3	449.2	463.2	475.1	483.0	486.0	457.2
62.5°	385.6	378.7	385.6	391.6	395.6	400.5	410.5	428.4	435.3	436.3	395.6
65°	332.0	329.0	332.0	343.9	344.9	350.8	361.8	374.7	389.6	387.6	329.0
67.5°	283.3	283.3	283.3	291.3	297.2	300.2	314.1	320.0	338.9	341.0	274.4
70°	238.5	237.5	238.5	244.5	248.5	255.4	268.3	275.4	290.2	295.2	222.6
72.5°	195.8	194.8	195.8	200.8	204.7	210.7	221.6	229.6	242.6	248.5	172.9
75°	158.1	156.0	158.1	162.0	161.0	168.9	177.9	185.8	197.8	201.7	128.2
77.5°	121.2	121.2	121.2	125.3	125.3	133.2	137.1	147.1	154.0	160.1	94.5
80°	90.4	89.4	90.4	91.5	91.5	95.4	102.4	109.4	115.3	115.3	64.6
82.5°	63.6	61.7	63.6	63.6	63.6	65.6	69.6	71.5	75.6	78.5	40.7
85°	39.7	39.7	39.7	40.7	39.7	41.8	42.8	44.8	44.8	42.8	24.8
87.5°	25.9	24.8	25.9	24.8	24.8	23.8	23.8	23.8	22.8	21.8	13.9
90°	11.6	11.6	11.6	11.6	11.6	15.4	20.6	23.2	20.0	13.4	8.6
92.5°	46.4	37.2	46.4	55.7	58.0	82.2	114.5	130.7	114.8	82.9	59.0
95°	162.0	134.1	162.0	190.0	197.0	258.8	341.1	382.2	322.8	203.9	114.8
97.5°	388.3	335.1	388.3	441.4	454.8	493.8	545.9	571.9	472.9	274.8	126.2
100°	559.5	496.1	559.5	622.9	638.7	635.9	632.0	630.1	520.3	300.5	135.7
102.5°	727.9	673.5	727.9	782.2	795.7	746.0	679.7	646.6	535.2	312.3	145.1
105°	942.6	913.3	942.6	971.7	979.0	867.6	719.1	644.8	536.9	321.0	159.2
107.5°	1083.0	1090.2	1083.0	1076.0	1074.3	918.8	711.7	608.1	513.0	322.7	179.9
110°	1136.7	1167.1	1136.7	1106.4	1098.8	925.1	693.4	577.6	491.8	320.2	191.5



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	1141.5	1188.2	1141.5	1094.8	1083.1	905.4	668.4	549.8	473.4	320.3	205.6
115°	1111.2	1176.0	1111.2	1046.5	1030.3	859.1	630.7	516.5	452.1	323.3	226.6
117.5°	1047.1	1118.9	1047.1	975.3	957.3	802.8	596.7	493.6	438.9	329.3	247.1
120°	995.3	1065.2	995.3	925.6	908.1	766.9	578.6	484.4	434.3	334.1	259.1
122.5°	945.0	1013.8	945.0	876.2	859.0	731.8	562.2	477.4	432.0	341.2	273.1
125°	873.1	936.5	873.1	809.7	793.9	685.9	541.8	469.8	430.1	350.6	291.1
127.5°	808.5	862.0	808.5	754.9	741.6	648.8	525.2	463.4	429.0	360.1	308.6
130°	770.4	819.8	770.4	721.0	708.7	626.1	515.9	460.9	429.6	367.0	320.1
132.5°	735.9	780.1	735.9	691.6	680.5	606.6	508.1	458.8	430.1	372.7	329.6
135°	688.5	726.7	688.5	650.4	640.8	579.0	496.5	455.2	429.7	378.8	340.6
137.5°	650.6	681.8	650.6	619.3	611.5	559.1	489.4	454.5	432.2	387.9	354.6
140°	624.4	653.7	624.4	595.3	588.0	542.8	482.5	452.4	432.7	393.5	364.1
142.5°	602.9	628.0	602.9	577.8	571.5	531.7	478.9	452.4	434.3	398.2	371.1
145°	570.6	589.5	570.6	551.5	546.8	514.3	471.0	449.3	434.3	404.4	381.9
147.5°	545.7	561.4	545.7	530.0	526.0	500.4	466.3	449.3	437.3	413.3	395.3
150°	530.1	542.8	530.1	517.2	514.1	492.5	463.8	449.3	438.9	418.0	402.3
152.5°	516.6	526.3	516.6	506.9	504.6	486.2	461.6	449.3	439.9	421.0	406.9
155°	501.3	507.6	501.3	494.9	493.3	478.7	459.1	449.3	442.1	427.7	416.9
157.5°	489.2	493.6	489.2	484.6	483.5	472.2	457.0	449.3	444.4	434.4	427.0
160°	481.8	484.4	481.8	479.3	478.7	468.9	455.9	449.3	445.4	437.5	431.6
162.5°	477.1	479.6	477.1	474.6	474.0	465.8	454.9	449.3	446.5	440.7	436.5
165°	470.3	472.9	470.3	467.7	467.0	461.1	453.3	449.3	448.1	445.5	443.5
167.5°	465.3	466.4	465.3	464.3	464.0	460.1	455.0	452.4	451.3	449.1	447.5
170°	464.0	464.0	464.0	464.0	464.0	460.1	455.0	452.4	452.3	452.2	452.1
172.5°	460.3	459.4	460.3	461.3	461.5	458.4	454.4	452.4	452.4	452.4	452.4
175°	458.1	458.1	458.1	458.1	458.1	456.3	453.7	452.4	453.0	454.3	455.2
177.5°	456.3	455.2	456.3	457.2	457.5	456.1	454.0	453.0	453.5	454.5	455.2
180°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5
2.5°	1065.5	1059.5	1059.5	1049.6	1045.6	1042.6	1037.6	1022.8	1018.7	1014.8	1020.7
5°	1074.4	1063.5	1055.5	1037.6	1022.8	1016.8	997.9	962.1	938.2	920.3	910.4
7.5°	1076.4	1062.5	1047.6	1019.7	983.9	968.0	910.4	844.8	827.0	811.0	801.1
10°	1074.4	1058.5	1037.6	995.9	911.4	883.6	826.0	783.2	772.2	769.3	772.2
12.5°	1067.4	1052.5	1023.8	954.1	835.8	817.0	783.2	758.4	756.3	761.4	788.1
15°	1055.5	1041.6	1007.9	898.5	794.2	780.2	756.3	747.4	758.4	793.2	873.7
17.5°	1043.6	1027.7	985.9	843.9	762.3	752.4	735.5	753.4	815.0	861.7	888.5
20°	1027.7	1008.8	961.1	804.0	739.4	730.5	722.5	803.0	849.8	866.7	881.6
22.5°	1008.8	988.9	927.3	776.3	715.6	708.7	713.6	830.9	849.8	861.7	874.7
25°	983.9	967.1	887.5	754.3	696.7	688.7	707.7	827.9	838.8	841.9	867.7
27.5°	961.1	939.2	845.8	734.5	673.9	670.9	712.6	815.0	823.0	826.0	853.7
30°	933.3	900.5	799.1	713.6	650.0	649.0	713.6	799.1	797.1	805.0	832.9
32.5°	904.4	842.9	746.4	687.7	627.2	626.2	706.7	775.3	773.3	784.2	805.0
35°	877.6	798.1	674.9	658.0	598.3	599.3	689.7	747.4	748.4	758.4	771.2
37.5°	849.8	759.4	596.4	625.2	570.5	570.5	666.9	721.5	719.6	722.5	740.5
40°	817.0	698.7	526.8	582.4	544.7	541.7	639.0	693.8	686.8	685.8	710.7
42.5°	782.2	632.1	475.1	525.8	514.8	510.9	605.2	660.0	647.0	650.0	681.8
45°	744.5	614.2	435.3	444.3	484.0	481.1	568.5	621.2	612.3	620.2	653.0
47.5°	706.7	578.5	422.4	368.7	451.2	450.2	527.8	583.4	578.5	586.4	621.2
50°	654.9	538.7	421.4	316.1	414.5	418.4	479.1	546.7	546.7	553.6	590.4
52.5°	588.4	489.9	382.7	286.2	371.7	383.6	436.3	514.8	516.8	523.8	556.5
55°	527.8	439.3	354.8	263.4	321.0	346.9	394.6	482.0	486.0	493.0	522.8
57.5°	472.1	365.8	348.9	236.5	274.4	299.2	357.9	450.2	452.2	458.2	487.0
60°	412.5	264.4	320.0	207.7	233.6	252.4	324.0	412.5	419.4	423.4	448.3
62.5°	344.9	191.9	290.2	187.8	213.7	217.7	296.2	376.7	385.6	388.6	403.5
65°	245.5	161.0	246.5	170.9	192.9	193.8	266.4	339.9	347.9	352.8	363.8
67.5°	166.0	131.2	187.8	155.0	177.0	177.9	237.5	297.2	308.2	312.1	319.0
70°	115.3	87.4	139.1	138.1	159.1	161.0	206.7	258.5	268.3	271.3	275.4
72.5°	84.5	70.5	115.3	124.2	140.1	142.2	175.0	214.7	224.7	227.6	229.6
75°	64.6	74.5	93.5	108.4	119.3	120.2	143.2	175.0	181.9	183.9	184.9
77.5°	51.7	69.6	68.6	87.4	97.4	95.4	112.3	135.2	141.1	141.1	141.1
80°	38.7	54.6	51.7	62.6	71.5	69.6	80.5	96.4	98.4	100.4	99.4
82.5°	28.8	34.8	34.8	39.7	47.7	45.7	53.6	62.6	62.6	62.6	64.6
85°	17.9	19.9	15.9	20.8	26.9	25.9	29.8	33.8	34.8	34.8	32.8
87.5°	11.0	9.0	4.9	7.9	12.0	12.0	13.9	14.9	13.9	13.9	13.9
90°	8.0	5.5	3.1	5.5	8.0	8.6	13.4	20.0	23.2	20.6	15.4
92.5°	53.7	33.0	12.3	33.0	53.7	59.0	82.9	114.8	130.7	114.5	82.2
95°	105.3	67.3	29.3	67.3	105.3	114.8	203.9	322.8	382.2	341.1	258.8
97.5°	117.8	84.3	50.7	84.3	117.8	126.2	274.8	472.9	571.9	545.9	493.8
100°	128.0	97.6	67.2	97.6	128.0	135.7	300.5	520.3	630.1	632.0	635.9
102.5°	138.0	109.7	81.2	109.7	138.0	145.1	312.3	535.2	646.6	679.7	746.0
105°	153.1	129.1	105.1	129.1	153.1	159.2	321.0	536.9	644.8	719.1	867.6
107.5°	174.3	152.0	129.5	152.0	174.3	179.9	322.7	513.0	608.1	711.7	918.8
110°	186.4	166.2	146.0	166.2	186.4	191.5	320.2	491.8	577.6	693.4	925.1



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	200.8	181.5	162.2	181.5	200.8	205.6	320.3	473.4	549.8	668.4	905.4
115°	222.2	204.4	186.6	204.4	222.2	226.6	323.3	452.1	516.5	630.7	859.1
117.5°	243.0	226.9	210.7	226.9	243.0	247.1	329.3	438.9	493.6	596.7	802.8
120°	255.2	240.0	224.8	240.0	255.2	259.1	334.1	434.3	484.4	578.6	766.9
122.5°	269.2	253.9	238.6	253.9	269.2	273.1	341.2	432.0	477.4	562.2	731.8
125°	287.6	273.6	259.6	273.6	287.6	291.1	350.6	430.1	469.8	541.8	685.9
127.5°	305.0	290.9	276.7	290.9	305.0	308.6	360.1	429.0	463.4	525.2	648.8
130°	316.4	301.1	285.9	301.1	316.4	320.1	367.0	429.6	460.9	515.9	626.1
132.5°	325.8	310.6	295.4	310.6	325.8	329.6	372.7	430.1	458.8	508.1	606.6
135°	337.1	323.3	309.4	323.3	337.1	340.6	378.8	429.7	455.2	496.5	579.0
137.5°	351.1	337.5	323.8	337.5	351.1	354.6	387.9	432.2	454.5	489.4	559.1
140°	360.9	348.4	335.7	348.4	360.9	364.1	393.5	432.7	452.4	482.5	542.8
142.5°	368.1	356.5	344.8	356.5	368.1	371.1	398.2	434.3	452.4	478.9	531.7
145°	379.3	369.1	358.9	369.1	379.3	381.9	404.4	434.3	449.3	471.0	514.3
147.5°	392.8	382.8	373.0	382.8	392.8	395.3	413.3	437.3	449.3	466.3	500.4
150°	400.0	391.1	382.2	391.1	400.0	402.3	418.0	438.9	449.3	463.8	492.5
152.5°	405.2	398.4	391.5	398.4	405.2	406.9	421.0	439.9	449.3	461.6	486.2
155°	415.7	410.7	405.7	410.7	415.7	416.9	427.7	442.1	449.3	459.1	478.7
157.5°	425.8	420.9	416.0	420.9	425.8	427.0	434.4	444.4	449.3	457.0	472.2
160°	430.6	426.8	423.1	426.8	430.6	431.6	437.5	445.4	449.3	455.9	468.9
162.5°	435.8	432.9	430.1	432.9	435.8	436.5	440.7	446.5	449.3	454.9	465.8
165°	442.8	440.3	437.7	440.3	442.8	443.5	445.5	448.1	449.3	453.3	461.1
167.5°	447.2	445.9	444.7	445.9	447.2	447.5	449.1	451.3	452.4	455.0	460.1
170°	451.8	450.5	449.3	450.5	451.8	452.1	452.2	452.3	452.4	455.0	460.1
172.5°	452.3	452.1	451.8	452.1	452.3	452.4	452.4	452.4	452.4	454.4	458.4
175°	455.2	455.2	455.2	455.2	455.2	455.2	454.3	453.0	452.4	453.7	456.3
177.5°	455.2	455.2	455.2	455.2	455.2	455.2	454.5	453.5	453.0	454.0	456.1
180°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2



TEST NUMBER: P934219
 CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5	1050.5
2.5°	1013.8	1010.8	1014.8	1003.8	1014.8	1010.8	1013.8	1020.7	1014.8	1018.7	1022.8
5°	889.6	884.6	868.6	855.7	868.6	884.6	889.6	910.4	920.3	938.2	962.1
7.5°	795.1	791.2	787.1	779.2	787.1	791.2	795.1	801.1	811.0	827.0	844.8
10°	774.3	775.3	781.2	780.2	781.2	775.3	774.3	772.2	769.3	772.2	783.2
12.5°	827.9	836.8	869.6	867.7	869.6	836.8	827.9	788.1	761.4	756.3	758.4
15°	889.6	892.6	899.5	900.5	899.5	892.6	889.6	873.7	793.2	758.4	747.4
17.5°	895.5	896.5	901.5	901.5	901.5	896.5	895.5	888.5	861.7	815.0	753.4
20°	890.6	892.6	902.4	904.4	902.4	892.6	890.6	881.6	866.7	849.8	803.0
22.5°	888.5	892.6	900.5	899.5	900.5	892.6	888.5	874.7	861.7	849.8	830.9
25°	878.6	878.6	879.6	880.6	879.6	878.6	878.6	867.7	841.9	838.8	827.9
27.5°	857.8	859.8	865.7	864.7	865.7	859.8	857.8	853.7	826.0	823.0	815.0
30°	838.8	836.8	831.9	827.9	831.9	836.8	838.8	832.9	805.0	797.1	799.1
32.5°	807.1	802.1	797.1	794.2	797.1	802.1	807.1	805.0	784.2	773.3	775.3
35°	769.3	770.2	769.3	766.3	769.3	770.2	769.3	771.2	758.4	748.4	747.4
37.5°	742.5	744.5	743.5	739.4	743.5	744.5	742.5	740.5	722.5	719.6	721.5
40°	714.6	715.6	714.6	711.7	714.6	715.6	714.6	710.7	685.8	686.8	693.8
42.5°	687.7	686.8	683.8	681.8	683.8	686.8	687.7	681.8	650.0	647.0	660.0
45°	657.0	658.0	652.0	649.0	652.0	658.0	657.0	653.0	620.2	612.3	621.2
47.5°	626.2	626.2	621.2	618.2	621.2	626.2	626.2	621.2	586.4	578.5	583.4
50°	593.4	592.4	585.4	584.4	585.4	592.4	593.4	590.4	553.6	546.7	546.7
52.5°	555.6	555.6	556.5	558.6	556.5	555.6	555.6	556.5	523.8	516.8	514.8
55°	522.8	523.8	530.8	532.7	530.8	523.8	522.8	522.8	493.0	486.0	482.0
57.5°	489.0	489.0	494.0	494.0	494.0	489.0	489.0	487.0	458.2	452.2	450.2
60°	450.2	452.2	456.2	455.2	456.2	452.2	450.2	448.3	423.4	419.4	412.5
62.5°	409.5	411.5	412.5	410.5	412.5	411.5	409.5	403.5	388.6	385.6	376.7
65°	366.7	368.7	369.7	367.7	369.7	368.7	366.7	363.8	352.8	347.9	339.9
67.5°	323.0	322.0	321.0	325.1	321.0	322.0	323.0	319.0	312.1	308.2	297.2
70°	278.3	278.3	277.3	279.3	277.3	278.3	278.3	275.4	271.3	268.3	258.5
72.5°	230.6	229.6	233.6	230.6	233.6	229.6	230.6	229.6	227.6	224.7	214.7
75°	183.9	185.8	183.9	186.8	183.9	185.8	183.9	184.9	183.9	181.9	175.0
77.5°	140.1	142.2	140.1	140.1	140.1	142.2	140.1	141.1	141.1	141.1	135.2
80°	99.4	98.4	98.4	97.4	98.4	98.4	99.4	99.4	100.4	98.4	96.4
82.5°	63.6	62.6	62.6	64.6	62.6	62.6	63.6	64.6	62.6	62.6	62.6
85°	34.8	35.8	33.8	33.8	33.8	35.8	34.8	32.8	34.8	34.8	33.8
87.5°	12.9	12.0	12.0	12.0	12.0	12.0	12.9	13.9	13.9	13.9	14.9
90°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	15.4	20.6	23.2	20.0
92.5°	58.0	55.7	46.4	37.2	46.4	55.7	58.0	82.2	114.5	130.7	114.8
95°	197.0	190.0	162.0	134.1	162.0	190.0	197.0	258.8	341.1	382.2	322.8
97.5°	454.8	441.4	388.3	335.1	388.3	441.4	454.8	493.8	545.9	571.9	472.9
100°	638.7	622.9	559.5	496.1	559.5	622.9	638.7	635.9	632.0	630.1	520.3
102.5°	795.7	782.2	727.9	673.5	727.9	782.2	795.7	746.0	679.7	646.6	535.2
105°	979.0	971.7	942.6	913.3	942.6	971.7	979.0	867.6	719.1	644.8	536.9
107.5°	1074.3	1076.0	1083.0	1090.2	1083.0	1076.0	1074.3	918.8	711.7	608.1	513.0
110°	1098.8	1106.4	1136.7	1167.1	1136.7	1106.4	1098.8	925.1	693.4	577.6	491.8



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	1083.1	1094.8	1141.5	1188.2	1141.5	1094.8	1083.1	905.4	668.4	549.8	473.4
115°	1030.3	1046.5	1111.2	1176.0	1111.2	1046.5	1030.3	859.1	630.7	516.5	452.1
117.5°	957.3	975.3	1047.1	1118.9	1047.1	975.3	957.3	802.8	596.7	493.6	438.9
120°	908.1	925.6	995.3	1065.2	995.3	925.6	908.1	766.9	578.6	484.4	434.3
122.5°	859.0	876.2	945.0	1013.8	945.0	876.2	859.0	731.8	562.2	477.4	432.0
125°	793.9	809.7	873.1	936.5	873.1	809.7	793.9	685.9	541.8	469.8	430.1
127.5°	741.6	754.9	808.5	862.0	808.5	754.9	741.6	648.8	525.2	463.4	429.0
130°	708.7	721.0	770.4	819.8	770.4	721.0	708.7	626.1	515.9	460.9	429.6
132.5°	680.5	691.6	735.9	780.1	735.9	691.6	680.5	606.6	508.1	458.8	430.1
135°	640.8	650.4	688.5	726.7	688.5	650.4	640.8	579.0	496.5	455.2	429.7
137.5°	611.5	619.3	650.6	681.8	650.6	619.3	611.5	559.1	489.4	454.5	432.2
140°	588.0	595.3	624.4	653.7	624.4	595.3	588.0	542.8	482.5	452.4	432.7
142.5°	571.5	577.8	602.9	628.0	602.9	577.8	571.5	531.7	478.9	452.4	434.3
145°	546.8	551.5	570.6	589.5	570.6	551.5	546.8	514.3	471.0	449.3	434.3
147.5°	526.0	530.0	545.7	561.4	545.7	530.0	526.0	500.4	466.3	449.3	437.3
150°	514.1	517.2	530.1	542.8	530.1	517.2	514.1	492.5	463.8	449.3	438.9
152.5°	504.6	506.9	516.6	526.3	516.6	506.9	504.6	486.2	461.6	449.3	439.9
155°	493.3	494.9	501.3	507.6	501.3	494.9	493.3	478.7	459.1	449.3	442.1
157.5°	483.5	484.6	489.2	493.6	489.2	484.6	483.5	472.2	457.0	449.3	444.4
160°	478.7	479.3	481.8	484.4	481.8	479.3	478.7	468.9	455.9	449.3	445.4
162.5°	474.0	474.6	477.1	479.6	477.1	474.6	474.0	465.8	454.9	449.3	446.5
165°	467.0	467.7	470.3	472.9	470.3	467.7	467.0	461.1	453.3	449.3	448.1
167.5°	464.0	464.3	465.3	466.4	465.3	464.3	464.0	460.1	455.0	452.4	451.3
170°	464.0	464.0	464.0	464.0	464.0	464.0	464.0	460.1	455.0	452.4	452.3
172.5°	461.5	461.3	460.3	459.4	460.3	461.3	461.5	458.4	454.4	452.4	452.4
175°	458.1	458.1	458.1	458.1	458.1	458.1	458.1	456.3	453.7	452.4	453.0
177.5°	457.5	457.2	456.3	455.2	456.3	457.2	457.5	456.1	454.0	453.0	453.5
180°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	1050.5	1050.5	1050.5	1050.5	1050.5
2.5°	1037.6	1042.6	1045.6	1049.6	1059.5
5°	997.9	1016.8	1022.8	1037.6	1055.5
7.5°	910.4	968.0	983.9	1019.7	1047.6
10°	826.0	883.6	911.4	995.9	1037.6
12.5°	783.2	817.0	835.8	954.1	1023.8
15°	756.3	780.2	794.2	898.5	1007.9
17.5°	735.5	752.4	762.3	843.9	985.9
20°	722.5	730.5	739.4	804.0	961.1
22.5°	713.6	708.7	715.6	776.3	927.3
25°	707.7	688.7	696.7	754.3	887.5
27.5°	712.6	670.9	673.9	734.5	845.8
30°	713.6	649.0	650.0	713.6	799.1
32.5°	706.7	626.2	627.2	687.7	746.4
35°	689.7	599.3	598.3	658.0	674.9
37.5°	666.9	570.5	570.5	625.2	596.4
40°	639.0	541.7	544.7	582.4	526.8
42.5°	605.2	510.9	514.8	525.8	475.1
45°	568.5	481.1	484.0	444.3	435.3
47.5°	527.8	450.2	451.2	368.7	422.4
50°	479.1	418.4	414.5	316.1	421.4
52.5°	436.3	383.6	371.7	286.2	382.7
55°	394.6	346.9	321.0	263.4	354.8
57.5°	357.9	299.2	274.4	236.5	348.9
60°	324.0	252.4	233.6	207.7	320.0
62.5°	296.2	217.7	213.7	187.8	290.2
65°	266.4	193.8	192.9	170.9	246.5
67.5°	237.5	177.9	177.0	155.0	187.8
70°	206.7	161.0	159.1	138.1	139.1
72.5°	175.0	142.2	140.1	124.2	115.3
75°	143.2	120.2	119.3	108.4	93.5
77.5°	112.3	95.4	97.4	87.4	68.6
80°	80.5	69.6	71.5	62.6	51.7
82.5°	53.6	45.7	47.7	39.7	34.8
85°	29.8	25.9	26.9	20.8	15.9
87.5°	13.9	12.0	12.0	7.9	4.9
90°	13.4	8.6	8.0	5.5	3.1
92.5°	82.9	59.0	53.7	33.0	12.3
95°	203.9	114.8	105.3	67.3	29.3
97.5°	274.8	126.2	117.8	84.3	50.7
100°	300.5	135.7	128.0	97.6	67.2
102.5°	312.3	145.1	138.0	109.7	81.2
105°	321.0	159.2	153.1	129.1	105.1
107.5°	322.7	179.9	174.3	152.0	129.5
110°	320.2	191.5	186.4	166.2	146.0



TEST NUMBER: P934219

CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	320.3	205.6	200.8	181.5	162.2
115°	323.3	226.6	222.2	204.4	186.6
117.5°	329.3	247.1	243.0	226.9	210.7
120°	334.1	259.1	255.2	240.0	224.8
122.5°	341.2	273.1	269.2	253.9	238.6
125°	350.6	291.1	287.6	273.6	259.6
127.5°	360.1	308.6	305.0	290.9	276.7
130°	367.0	320.1	316.4	301.1	285.9
132.5°	372.7	329.6	325.8	310.6	295.4
135°	378.8	340.6	337.1	323.3	309.4
137.5°	387.9	354.6	351.1	337.5	323.8
140°	393.5	364.1	360.9	348.4	335.7
142.5°	398.2	371.1	368.1	356.5	344.8
145°	404.4	381.9	379.3	369.1	358.9
147.5°	413.3	395.3	392.8	382.8	373.0
150°	418.0	402.3	400.0	391.1	382.2
152.5°	421.0	406.9	405.2	398.4	391.5
155°	427.7	416.9	415.7	410.7	405.7
157.5°	434.4	427.0	425.8	420.9	416.0
160°	437.5	431.6	430.6	426.8	423.1
162.5°	440.7	436.5	435.8	432.9	430.1
165°	445.5	443.5	442.8	440.3	437.7
167.5°	449.1	447.5	447.2	445.9	444.7
170°	452.2	452.1	451.8	450.5	449.3
172.5°	452.4	452.4	452.3	452.1	451.8
175°	454.3	455.2	455.2	455.2	455.2
177.5°	454.5	455.2	455.2	455.2	455.2
180°	455.2	455.2	455.2	455.2	455.2



TEST NUMBER: P934219
 CATALOG NUMBER: SQ4-FA-050U-050D-840-1D-UNV-STD-W-6

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	11.12	11.96	12.09	12.95	14.25	13.94	14.79	14.92	15.78	17.07
	3H	11.60	12.35	12.58	13.35	14.67	15.29	16.04	16.27	17.04	18.36
	4H	11.79	12.50	12.78	13.50	14.83	15.73	16.44	16.73	17.44	18.77
	6H	11.90	12.56	12.91	13.57	14.91	16.01	16.67	17.02	17.68	19.02
	8H	11.90	12.53	12.92	13.55	14.89	16.08	16.71	17.10	17.73	19.07
	12H	11.87	12.47	12.89	13.49	14.85	16.12	16.72	17.14	17.73	19.10
4H	2H	12.15	12.86	13.15	13.86	15.19	14.35	15.07	15.36	16.07	17.40
	3H	13.17	13.77	14.19	14.80	16.14	15.85	16.45	16.87	17.48	18.82
	4H	13.45	13.99	14.47	15.02	16.38	16.38	16.93	17.40	17.95	19.31
	6H	13.57	14.04	14.61	15.09	16.45	16.74	17.21	17.77	18.26	19.62
	8H	13.58	14.02	14.61	15.05	16.43	16.85	17.29	17.88	18.32	19.70
	12H	13.54	13.94	14.60	14.99	16.38	16.90	17.30	17.95	18.35	19.73
8H	4H	13.90	14.34	14.93	15.38	16.75	16.50	16.94	17.54	17.98	19.36
	6H	14.16	14.52	15.22	15.60	16.98	16.94	17.30	17.99	18.38	19.75
	8H	14.20	14.52	15.27	15.59	16.98	17.09	17.41	18.15	18.47	19.86
	12H	14.19	14.47	15.26	15.53	16.96	17.18	17.46	18.25	18.52	19.96
12H	4H	13.91	14.30	14.96	15.35	16.74	16.47	16.86	17.52	17.92	19.30
	6H	14.22	14.54	15.29	15.60	17.00	16.93	17.25	18.00	18.32	19.71
	8H	14.29	14.57	15.36	15.63	17.06	17.09	17.37	18.16	18.43	19.87