

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: P934470

Luminaire Tested: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P934470
REPORT IS A COMBINATION OF REPORTS P933698 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

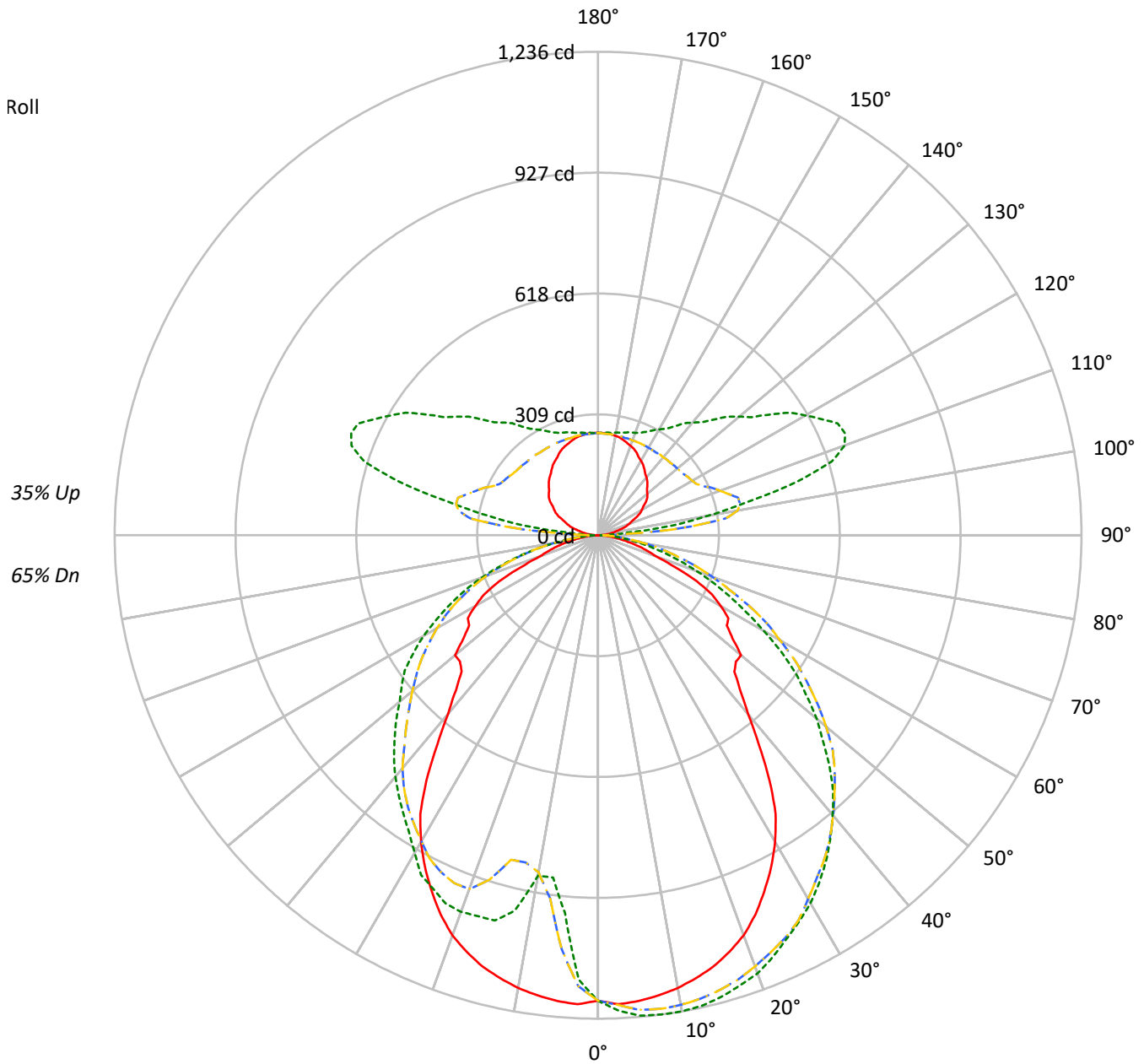
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4782.2 lumens
Efficiency: N/A
Efficacy: 105.8 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): 45.2
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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	69	69	69	65
1	101	97	93	89	95	91	88	84	80	78	75	71	69	67	62	60	59	62	60	59	55
2	92	85	78	73	86	80	74	69	70	66	63	62	59	56	54	52	50	54	52	50	46
3	84	74	67	61	79	70	63	58	62	57	53	55	51	47	48	45	42	48	45	42	39
4	77	66	58	52	72	62	55	49	55	49	45	49	44	41	43	39	36	43	39	36	33
5	71	59	50	44	66	56	48	42	49	43	39	44	39	35	39	35	32	39	35	32	29
6	65	53	44	38	61	50	42	37	45	38	34	40	35	31	35	31	28	35	31	28	25
7	60	48	39	34	56	45	38	32	40	34	30	36	31	27	32	28	25	32	28	25	22
8	56	43	35	30	52	41	34	29	37	31	27	33	28	24	29	25	22	29	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	27	23	20	27	23	20	18
10	49	36	29	24	46	35	28	23	31	25	21	28	23	20	25	21	18	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11040	11040	11040	11040
5°	11111	11146	11111	8763
10°	11025	10979	11025	7849
15°	10892	10740	10892	8968
20°	10652	10459	10652	8988
25°	10174	10048	10174	8797
30°	9560	9707	9560	8379
35°	8509	9275	8509	7919
40°	7079	8767	7079	7572
45°	6313	8172	6313	7173
50°	6691	7464	6691	6772
55°	6278	6699	6278	6541
60°	6446	5689	6446	5990
65°	5818	4703	5818	5257
70°	4001	3749	4001	4407
75°	3469	2770	3469	3317
80°	2738	1831	2738	1994
85°	1490	970	1490	825

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 9693 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.4	2.2
10°-20°	305.0	6.4
20°-30°	471.4	9.9
30°-40°	562.8	11.8
40°-50°	566.1	11.8
50°-60°	492.5	10.3
60°-70°	349.2	7.3
70°-80°	184.7	3.9
80°-90°	47.0	1.0
90°-100°	127.5	2.7
100°-110°	335.3	7.0
110°-120°	347.7	7.3
120°-130°	278.9	5.8
130°-140°	218.8	4.6
140°-150°	168.0	3.5
150°-160°	121.0	2.5
160°-170°	74.0	1.5
170°-180°	25.0	0.5
0°-30°	883.8	18.5
0°-40°	1446.5	30.2
0°-60°	2505.1	52.4
0°-90°	3086.1	64.5
90°-120°	810.5	16.9
90°-150°	1476.2	30.9
90°-180°	1696.0	35.5
0°-180°	4782.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1190	1190	1190	1190	1190	
5°	1196	1233	1196	969	1196	113
15°	1141	1221	1141	1020	1141	321
25°	1005	1139	1005	997	1005	462
35°	764	1016	764	868	764	473
45°	493	838	493	735	493	395
55°	402	618	402	603	402	369
65°	279	373	279	416	279	267
75°	106	177	106	212	106	111
85°	18	45	18	38	18	24
90°	2	7	2	7	2	2
95°	17	77	17	77	17	19
105°	60	525	60	525	60	64
115°	107	676	107	676	107	106
125°	149	538	149	538	149	133
135°	178	418	178	418	178	138
145°	206	339	206	339	206	129
155°	233	292	233	292	233	107
165°	252	272	252	272	252	71
175°	262	263	262	263	262	25
180°	262	262	262	262	262	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8
2.5°	1200.0	1200.0	1206.8	1209.0	1209.0	1205.6	1202.3	1205.6	1215.7	1219.1	1218.0
5°	1195.5	1204.5	1216.9	1219.1	1221.3	1220.2	1218.0	1220.2	1231.5	1233.8	1234.9
7.5°	1186.5	1203.4	1219.1	1222.5	1225.9	1222.5	1221.3	1223.6	1234.9	1237.1	1237.1
10°	1175.2	1198.8	1216.9	1219.1	1222.5	1219.1	1219.1	1223.6	1234.9	1237.1	1238.3
12.5°	1159.5	1192.1	1209.0	1211.3	1215.7	1214.6	1213.5	1218.0	1229.3	1231.5	1231.5
15°	1141.4	1179.8	1195.5	1197.7	1205.6	1203.4	1203.4	1207.9	1220.2	1223.6	1222.5
17.5°	1116.7	1164.0	1182.0	1185.4	1191.0	1189.8	1191.0	1195.5	1206.8	1209.0	1210.1
20°	1088.5	1142.6	1164.0	1167.3	1172.9	1172.9	1172.9	1178.6	1189.8	1194.3	1194.3
22.5°	1050.3	1120.0	1142.6	1144.8	1151.6	1151.6	1153.9	1161.7	1171.8	1172.9	1172.9
25°	1005.3	1095.3	1114.4	1121.2	1128.0	1131.3	1134.7	1139.2	1142.6	1141.4	1142.6
27.5°	958.0	1063.8	1088.5	1093.0	1102.1	1105.5	1109.9	1111.1	1112.2	1115.5	1113.3
30°	905.1	1019.8	1057.0	1061.5	1076.2	1078.4	1073.9	1076.2	1081.8	1084.1	1086.3
32.5°	845.4	954.6	1024.4	1034.5	1048.0	1041.2	1040.1	1043.5	1052.6	1052.6	1054.8
35°	764.3	904.0	994.0	1003.0	1013.1	1005.3	1009.7	1010.9	1016.5	1019.8	1018.7
37.5°	675.4	860.0	962.5	969.2	977.1	966.9	973.8	977.1	981.6	979.4	979.4
40°	596.7	791.3	925.4	929.8	936.6	928.7	935.4	937.7	939.9	937.7	936.6
42.5°	538.1	715.9	885.9	891.5	887.0	892.6	894.9	899.5	896.0	891.5	891.5
45°	493.1	695.7	843.1	849.9	843.1	852.2	855.5	855.5	845.4	843.1	842.0
47.5°	478.4	655.2	800.4	800.4	797.0	808.2	813.9	806.0	795.9	792.5	792.5
50°	477.3	610.1	741.8	737.3	753.1	766.6	761.0	753.1	745.2	732.8	732.8
52.5°	433.4	555.0	666.4	683.3	708.1	715.9	706.9	699.1	685.5	679.9	675.4
55°	401.9	497.6	597.8	631.5	657.4	667.5	650.7	642.7	622.5	619.1	616.8
57.5°	395.2	414.2	534.7	577.5	609.0	607.9	597.8	583.1	566.2	562.8	561.7
60°	362.4	299.4	467.2	517.8	550.5	547.1	538.1	524.6	508.8	506.6	504.3
62.5°	328.7	217.3	390.6	448.1	494.2	493.1	485.2	464.9	453.7	448.1	443.6
65°	279.2	182.3	278.0	372.6	439.0	441.3	424.4	409.7	397.4	390.6	389.4
67.5°	212.7	148.6	188.0	310.7	386.1	383.8	362.4	355.7	339.9	336.5	329.8
70°	157.6	99.1	130.6	252.2	334.3	328.7	311.8	303.9	289.3	281.4	276.9
72.5°	130.6	79.9	95.7	195.9	281.4	274.7	260.0	251.0	238.6	231.9	227.4
75°	105.8	84.4	73.2	145.2	228.5	224.0	210.5	201.5	191.4	182.3	183.5
77.5°	77.7	78.8	58.5	106.9	181.2	174.5	166.6	155.3	150.8	141.9	141.9
80°	58.5	61.9	43.9	73.2	130.6	130.6	123.8	116.0	108.0	103.6	103.6
82.5°	39.4	39.4	32.6	46.2	88.9	85.5	81.0	78.8	74.3	72.1	72.1
85°	18.0	22.5	20.3	28.1	48.4	50.7	50.7	48.4	47.3	45.0	46.2
87.5°	5.6	10.1	12.4	15.8	24.8	25.9	27.0	27.0	27.0	28.1	28.1
90°	1.8	3.2	4.6	4.9	7.8	11.5	13.4	11.8	8.9	6.6	6.6
92.5°	7.0	18.9	30.9	33.9	47.6	65.9	75.1	65.9	47.3	33.4	32.0
95°	16.9	38.7	60.6	66.0	117.2	185.5	219.6	196.0	148.7	113.2	109.2
97.5°	29.1	48.4	67.6	72.5	157.9	271.8	328.7	313.8	283.9	261.5	253.8
100°	38.6	56.1	73.6	78.0	172.7	299.1	362.3	363.4	365.6	367.2	358.1
102.5°	46.7	63.0	79.3	83.4	179.5	307.7	371.7	390.8	428.9	457.4	449.6
105°	60.4	74.2	88.0	91.5	184.5	308.7	370.7	413.4	498.8	562.8	558.7
107.5°	74.5	87.3	100.2	103.4	185.5	295.0	349.7	409.2	528.3	617.6	618.6
110°	83.9	95.5	107.2	110.1	184.1	282.8	332.1	398.7	531.8	631.7	636.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	93.2	104.3	115.4	118.2	184.1	272.1	316.1	384.3	520.5	622.7	629.5
115°	107.3	117.5	127.7	130.3	185.8	259.9	296.9	362.5	493.8	592.3	601.6
117.5°	121.2	130.4	139.7	142.0	189.3	252.3	283.8	343.0	461.4	550.3	560.6
120°	129.2	138.0	146.7	148.9	192.1	249.7	278.5	332.6	440.9	522.1	532.2
122.5°	137.2	146.0	154.8	157.0	196.1	248.4	274.4	323.2	420.7	493.8	503.7
125°	149.3	157.3	165.3	167.3	201.6	247.3	270.1	311.5	394.3	456.4	465.5
127.5°	159.1	167.2	175.3	177.4	207.0	246.7	266.4	301.9	373.0	426.3	434.0
130°	164.4	173.1	181.8	184.0	211.0	247.0	265.0	296.7	360.0	407.4	414.5
132.5°	169.8	178.6	187.3	189.5	214.3	247.3	263.8	292.1	348.7	391.2	397.6
135°	177.9	185.8	193.8	195.8	217.8	247.0	261.6	285.3	332.8	368.4	373.9
137.5°	186.2	194.0	201.9	203.9	223.1	248.5	261.3	281.3	321.5	351.5	356.1
140°	193.0	200.2	207.5	209.3	226.2	248.8	260.0	277.4	312.1	338.1	342.2
142.5°	198.3	205.0	211.6	213.3	228.9	249.6	260.0	275.3	305.7	328.5	332.1
145°	206.4	212.1	218.0	219.5	232.4	249.7	258.3	270.8	295.6	314.3	317.0
147.5°	214.4	220.2	225.8	227.2	237.6	251.4	258.3	268.1	287.7	302.4	304.7
150°	219.6	224.8	230.0	231.2	240.3	252.3	258.3	266.6	283.1	295.6	297.4
152.5°	225.1	229.0	232.9	233.9	242.1	252.9	258.3	265.4	279.5	290.1	291.5
155°	233.2	236.1	239.0	239.7	245.9	254.2	258.3	263.9	275.2	283.6	284.6
157.5°	239.2	242.0	244.8	245.5	249.7	255.4	258.3	262.7	271.4	278.0	278.7
160°	243.2	245.4	247.6	248.1	251.5	256.0	258.3	262.1	269.6	275.2	275.5
162.5°	247.3	248.9	250.5	250.9	253.4	256.7	258.3	261.5	267.8	272.6	272.9
165°	251.7	253.1	254.7	255.0	256.1	257.6	258.3	260.5	265.1	268.5	268.8
167.5°	255.7	256.4	257.0	257.2	258.2	259.4	260.0	261.6	264.5	266.8	266.9
170°	258.3	259.0	259.7	259.9	259.9	260.0	260.0	261.6	264.5	266.8	266.8
172.5°	259.7	259.9	260.0	260.0	260.0	260.0	260.0	261.2	263.5	265.3	265.1
175°	261.6	261.6	261.6	261.6	261.1	260.4	260.0	260.8	262.3	263.4	263.4
177.5°	261.6	261.6	261.6	261.6	261.2	260.7	260.5	261.1	262.2	263.1	262.9
180°	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8
2.5°	1220.2	1216.9	1220.2	1218.0	1219.1	1215.7	1205.6	1202.3	1205.6	1209.0	1209.0
5°	1234.9	1232.7	1234.9	1234.9	1233.8	1231.5	1220.2	1218.0	1220.2	1221.3	1219.1
7.5°	1239.4	1236.0	1239.4	1237.1	1237.1	1234.9	1223.6	1221.3	1222.5	1225.9	1222.5
10°	1239.4	1236.0	1239.4	1238.3	1237.1	1234.9	1223.6	1219.1	1219.1	1222.5	1219.1
12.5°	1233.8	1231.5	1233.8	1231.5	1231.5	1229.3	1218.0	1213.5	1214.6	1215.7	1211.3
15°	1224.8	1221.3	1224.8	1222.5	1223.6	1220.2	1207.9	1203.4	1203.4	1205.6	1197.7
17.5°	1211.3	1206.8	1211.3	1210.1	1209.0	1206.8	1195.5	1191.0	1189.8	1191.0	1185.4
20°	1195.5	1192.1	1195.5	1194.3	1194.3	1189.8	1178.6	1172.9	1172.9	1172.9	1167.3
22.5°	1170.7	1167.3	1170.7	1172.9	1172.9	1171.8	1161.7	1153.9	1151.6	1151.6	1144.8
25°	1142.6	1139.2	1142.6	1142.6	1141.4	1142.6	1139.2	1134.7	1131.3	1128.0	1121.2
27.5°	1115.5	1113.3	1115.5	1113.3	1115.5	1112.2	1111.1	1109.9	1105.5	1102.1	1093.0
30°	1088.5	1086.3	1088.5	1086.3	1084.1	1081.8	1076.2	1073.9	1078.4	1076.2	1061.5
32.5°	1054.8	1052.6	1054.8	1054.8	1052.6	1052.6	1043.5	1040.1	1041.2	1048.0	1034.5
35°	1019.8	1016.5	1019.8	1018.7	1019.8	1016.5	1010.9	1009.7	1005.3	1013.1	1003.0
37.5°	979.4	976.0	979.4	979.4	979.4	981.6	977.1	973.8	966.9	977.1	969.2
40°	937.7	933.2	937.7	936.6	937.7	939.9	937.7	935.4	928.7	936.6	929.8
42.5°	890.4	889.3	890.4	891.5	891.5	896.0	899.5	894.9	892.6	887.0	891.5
45°	839.7	837.5	839.7	842.0	843.1	845.4	855.5	855.5	852.2	843.1	849.9
47.5°	785.7	780.1	785.7	792.5	792.5	795.9	806.0	813.9	808.2	797.0	800.4
50°	728.3	729.5	728.3	732.8	732.8	745.2	753.1	761.0	766.6	753.1	737.3
52.5°	672.1	670.9	672.1	675.4	679.9	685.5	699.1	706.9	715.9	708.1	683.3
55°	615.7	618.0	615.7	616.8	619.1	622.5	642.7	650.7	667.5	657.4	631.5
57.5°	559.5	556.1	559.5	561.7	562.8	566.2	583.1	597.8	607.9	609.0	577.5
60°	494.2	489.6	494.2	504.3	506.6	508.8	524.6	538.1	547.1	550.5	517.8
62.5°	436.7	428.9	436.7	443.6	448.1	453.7	464.9	485.2	493.1	494.2	448.1
65°	376.0	372.6	376.0	389.4	390.6	397.4	409.7	424.4	441.3	439.0	372.6
67.5°	320.9	320.9	320.9	329.8	336.5	339.9	355.7	362.4	383.8	386.1	310.7
70°	270.2	269.1	270.2	276.9	281.4	289.3	303.9	311.8	328.7	334.3	252.2
72.5°	221.8	220.7	221.8	227.4	231.9	238.6	251.0	260.0	274.7	281.4	195.9
75°	179.0	176.7	179.0	183.5	182.3	191.4	201.5	210.5	224.0	228.5	145.2
77.5°	137.3	137.3	137.3	141.9	141.9	150.8	155.3	166.6	174.5	181.2	106.9
80°	102.4	101.3	102.4	103.6	103.6	108.0	116.0	123.8	130.6	130.6	73.2
82.5°	72.1	69.8	72.1	72.1	72.1	74.3	78.8	81.0	85.5	88.9	46.2
85°	45.0	45.0	45.0	46.2	45.0	47.3	48.4	50.7	50.7	48.4	28.1
87.5°	29.3	28.1	29.3	28.1	28.1	27.0	27.0	27.0	25.9	24.8	15.8
90°	6.6	6.6	6.6	6.6	6.6	8.9	11.8	13.4	11.5	7.8	4.9
92.5°	26.8	21.4	26.8	32.0	33.4	47.3	65.9	75.1	65.9	47.6	33.9
95°	93.1	77.1	93.1	109.2	113.2	148.7	196.0	219.6	185.5	117.2	66.0
97.5°	223.2	192.6	223.2	253.8	261.5	283.9	313.8	328.7	271.8	157.9	72.5
100°	321.6	285.2	321.6	358.1	367.2	365.6	363.4	362.3	299.1	172.7	78.0
102.5°	418.4	387.2	418.4	449.6	457.4	428.9	390.8	371.7	307.7	179.5	83.4
105°	541.9	525.1	541.9	558.7	562.8	498.8	413.4	370.7	308.7	184.5	91.5
107.5°	622.6	626.7	622.6	618.6	617.6	528.3	409.2	349.7	295.0	185.5	103.4
110°	653.5	670.9	653.5	636.0	631.7	531.8	398.7	332.1	282.8	184.1	110.1



TEST NUMBER: P934470

CATALOG NUMBER: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	656.3	683.1	656.3	629.5	622.7	520.5	384.3	316.1	272.1	184.1	118.2
115°	638.8	676.1	638.8	601.6	592.3	493.8	362.5	296.9	259.9	185.8	130.3
117.5°	601.9	643.3	601.9	560.6	550.3	461.4	343.0	283.8	252.3	189.3	142.0
120°	572.2	612.3	572.2	532.2	522.1	440.9	332.6	278.5	249.7	192.1	148.9
122.5°	543.3	582.9	543.3	503.7	493.8	420.7	323.2	274.4	248.4	196.1	157.0
125°	501.9	538.4	501.9	465.5	456.4	394.3	311.5	270.1	247.3	201.6	167.3
127.5°	464.8	495.5	464.8	434.0	426.3	373.0	301.9	266.4	246.7	207.0	177.4
130°	443.0	471.3	443.0	414.5	407.4	360.0	296.7	265.0	247.0	211.0	184.0
132.5°	423.0	448.5	423.0	397.6	391.2	348.7	292.1	263.8	247.3	214.3	189.5
135°	395.8	417.7	395.8	373.9	368.4	332.8	285.3	261.6	247.0	217.8	195.8
137.5°	373.9	391.9	373.9	356.1	351.5	321.5	281.3	261.3	248.5	223.1	203.9
140°	359.0	375.8	359.0	342.2	338.1	312.1	277.4	260.0	248.8	226.2	209.3
142.5°	346.6	361.1	346.6	332.1	328.5	305.7	275.3	260.0	249.6	228.9	213.3
145°	328.0	338.9	328.0	317.0	314.3	295.6	270.8	258.3	249.7	232.4	219.5
147.5°	313.7	322.7	313.7	304.7	302.4	287.7	268.1	258.3	251.4	237.6	227.2
150°	304.8	312.1	304.8	297.4	295.6	283.1	266.6	258.3	252.3	240.3	231.2
152.5°	297.0	302.5	297.0	291.5	290.1	279.5	265.4	258.3	252.9	242.1	233.9
155°	288.2	291.9	288.2	284.6	283.6	275.2	263.9	258.3	254.2	245.9	239.7
157.5°	281.2	283.8	281.2	278.7	278.0	271.4	262.7	258.3	255.4	249.7	245.5
160°	277.1	278.5	277.1	275.5	275.2	269.6	262.1	258.3	256.0	251.5	248.1
162.5°	274.3	275.7	274.3	272.9	272.6	267.8	261.5	258.3	256.7	253.4	250.9
165°	270.3	271.9	270.3	268.8	268.5	265.1	260.5	258.3	257.6	256.1	255.0
167.5°	267.5	268.1	267.5	266.9	266.8	264.5	261.6	260.0	259.4	258.2	257.2
170°	266.8	266.8	266.8	266.8	266.8	264.5	261.6	260.0	260.0	259.9	259.9
172.5°	264.6	264.1	264.6	265.1	265.3	263.5	261.2	260.0	260.0	260.0	260.0
175°	263.4	263.4	263.4	263.4	263.4	262.3	260.8	260.0	260.4	261.1	261.6
177.5°	262.3	261.6	262.3	262.9	263.1	262.2	261.1	260.5	260.7	261.2	261.6
180°	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6



TEST NUMBER: P934470

CATALOG NUMBER: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8
2.5°	1206.8	1200.0	1200.0	1188.7	1184.2	1180.9	1175.2	1158.4	1153.9	1149.3	1156.1
5°	1216.9	1204.5	1195.5	1175.2	1158.4	1151.6	1130.2	1089.7	1062.6	1042.4	1031.2
7.5°	1219.1	1203.4	1186.5	1155.0	1114.4	1096.4	1031.2	956.9	936.6	918.5	907.3
10°	1216.9	1198.8	1175.2	1128.0	1032.3	1000.8	935.4	887.0	874.7	871.3	874.7
12.5°	1209.0	1192.1	1159.5	1080.7	946.7	925.4	887.0	858.9	856.7	862.3	892.6
15°	1195.5	1179.8	1141.4	1017.6	899.5	883.7	856.7	846.5	858.9	898.3	989.5
17.5°	1182.0	1164.0	1116.7	955.7	863.4	852.2	833.0	853.3	923.1	976.0	1006.4
20°	1164.0	1142.6	1088.5	910.7	837.5	827.4	818.3	909.6	962.5	981.6	998.5
22.5°	1142.6	1120.0	1050.3	879.2	810.5	802.6	808.2	941.1	962.5	976.0	990.6
25°	1114.4	1095.3	1005.3	854.4	789.1	780.1	801.5	937.7	950.1	953.5	982.7
27.5°	1088.5	1063.8	958.0	831.9	763.2	759.8	807.1	923.1	932.1	935.4	966.9
30°	1057.0	1019.8	905.1	808.2	736.2	735.1	808.2	905.1	902.8	911.8	943.3
32.5°	1024.4	954.6	845.4	779.0	710.3	709.2	800.4	878.1	875.8	888.2	911.8
35°	994.0	904.0	764.3	745.2	677.7	678.8	781.2	846.5	847.7	858.9	873.6
37.5°	962.5	860.0	675.4	708.1	646.2	646.2	755.3	817.2	815.0	818.3	838.6
40°	925.4	791.3	596.7	659.6	616.8	613.5	723.9	785.7	777.9	776.8	804.9
42.5°	885.9	715.9	538.1	595.5	583.1	578.6	685.5	747.5	732.8	736.2	772.3
45°	843.1	695.7	493.1	503.2	548.2	544.9	643.9	703.6	693.4	702.5	739.6
47.5°	800.4	655.2	478.4	417.7	511.0	509.9	597.8	660.8	655.2	664.1	703.6
50°	741.8	610.1	477.3	358.0	469.5	473.9	542.6	619.1	619.1	627.0	668.6
52.5°	666.4	555.0	433.4	324.2	421.0	434.5	494.2	583.1	585.3	593.2	630.4
55°	597.8	497.6	401.9	298.3	363.6	392.9	446.9	546.0	550.5	558.3	592.1
57.5°	534.7	414.2	395.2	268.0	310.7	338.8	405.2	509.9	512.2	519.0	551.6
60°	467.2	299.4	362.4	235.2	264.5	285.9	367.0	467.2	475.1	479.5	507.7
62.5°	390.6	217.3	328.7	212.7	242.1	246.6	335.4	426.6	436.7	440.1	457.0
65°	278.0	182.3	279.2	193.7	218.4	219.5	301.7	385.0	394.0	399.6	412.0
67.5°	188.0	148.6	212.7	175.6	200.4	201.5	269.1	336.5	349.0	353.5	361.3
70°	130.6	99.1	157.6	156.5	180.1	182.3	234.1	292.7	303.9	307.3	311.8
72.5°	95.7	79.9	130.6	140.8	158.7	160.9	198.1	243.2	254.4	257.8	260.0
75°	73.2	84.4	105.8	122.7	135.0	136.2	162.1	198.1	206.0	208.2	209.3
77.5°	58.5	78.8	77.7	99.1	110.3	108.0	127.2	153.1	159.8	159.8	159.8
80°	43.9	61.9	58.5	70.9	81.0	78.8	91.2	109.2	111.4	113.7	112.5
82.5°	32.6	39.4	39.4	45.0	54.0	51.8	60.7	70.9	70.9	70.9	73.2
85°	20.3	22.5	18.0	23.6	30.4	29.3	33.7	38.3	39.4	39.4	37.1
87.5°	12.4	10.1	5.6	9.0	13.5	13.5	15.8	16.9	15.8	15.8	15.8
90°	4.6	3.2	1.8	3.2	4.6	4.9	7.8	11.5	13.4	11.8	8.9
92.5°	30.9	18.9	7.0	18.9	30.9	33.9	47.6	65.9	75.1	65.9	47.3
95°	60.6	38.7	16.9	38.7	60.6	66.0	117.2	185.5	219.6	196.0	148.7
97.5°	67.6	48.4	29.1	48.4	67.6	72.5	157.9	271.8	328.7	313.8	283.9
100°	73.6	56.1	38.6	56.1	73.6	78.0	172.7	299.1	362.3	363.4	365.6
102.5°	79.3	63.0	46.7	63.0	79.3	83.4	179.5	307.7	371.7	390.8	428.9
105°	88.0	74.2	60.4	74.2	88.0	91.5	184.5	308.7	370.7	413.4	498.8
107.5°	100.2	87.3	74.5	87.3	100.2	103.4	185.5	295.0	349.7	409.2	528.3
110°	107.2	95.5	83.9	95.5	107.2	110.1	184.1	282.8	332.1	398.7	531.8



TEST NUMBER: P934470

CATALOG NUMBER: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	115.4	104.3	93.2	104.3	115.4	118.2	184.1	272.1	316.1	384.3	520.5
115°	127.7	117.5	107.3	117.5	127.7	130.3	185.8	259.9	296.9	362.5	493.8
117.5°	139.7	130.4	121.2	130.4	139.7	142.0	189.3	252.3	283.8	343.0	461.4
120°	146.7	138.0	129.2	138.0	146.7	148.9	192.1	249.7	278.5	332.6	440.9
122.5°	154.8	146.0	137.2	146.0	154.8	157.0	196.1	248.4	274.4	323.2	420.7
125°	165.3	157.3	149.3	157.3	165.3	167.3	201.6	247.3	270.1	311.5	394.3
127.5°	175.3	167.2	159.1	167.2	175.3	177.4	207.0	246.7	266.4	301.9	373.0
130°	181.8	173.1	164.4	173.1	181.8	184.0	211.0	247.0	265.0	296.7	360.0
132.5°	187.3	178.6	169.8	178.6	187.3	189.5	214.3	247.3	263.8	292.1	348.7
135°	193.8	185.8	177.9	185.8	193.8	195.8	217.8	247.0	261.6	285.3	332.8
137.5°	201.9	194.0	186.2	194.0	201.9	203.9	223.1	248.5	261.3	281.3	321.5
140°	207.5	200.2	193.0	200.2	207.5	209.3	226.2	248.8	260.0	277.4	312.1
142.5°	211.6	205.0	198.3	205.0	211.6	213.3	228.9	249.6	260.0	275.3	305.7
145°	218.0	212.1	206.4	212.1	218.0	219.5	232.4	249.7	258.3	270.8	295.6
147.5°	225.8	220.2	214.4	220.2	225.8	227.2	237.6	251.4	258.3	268.1	287.7
150°	230.0	224.8	219.6	224.8	230.0	231.2	240.3	252.3	258.3	266.6	283.1
152.5°	232.9	229.0	225.1	229.0	232.9	233.9	242.1	252.9	258.3	265.4	279.5
155°	239.0	236.1	233.2	236.1	239.0	239.7	245.9	254.2	258.3	263.9	275.2
157.5°	244.8	242.0	239.2	242.0	244.8	245.5	249.7	255.4	258.3	262.7	271.4
160°	247.6	245.4	243.2	245.4	247.6	248.1	251.5	256.0	258.3	262.1	269.6
162.5°	250.5	248.9	247.3	248.9	250.5	250.9	253.4	256.7	258.3	261.5	267.8
165°	254.7	253.1	251.7	253.1	254.7	255.0	256.1	257.6	258.3	260.5	265.1
167.5°	257.0	256.4	255.7	256.4	257.0	257.2	258.2	259.4	260.0	261.6	264.5
170°	259.7	259.0	258.3	259.0	259.7	259.9	259.9	260.0	260.0	261.6	264.5
172.5°	260.0	259.9	259.7	259.9	260.0	260.0	260.0	260.0	260.0	261.2	263.5
175°	261.6	261.6	261.6	261.6	261.6	261.6	261.1	260.4	260.0	260.8	262.3
177.5°	261.6	261.6	261.6	261.6	261.6	261.6	261.2	260.7	260.5	261.1	262.2
180°	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6



TEST NUMBER: P934470
 CATALOG NUMBER: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8	1189.8
2.5°	1148.2	1144.8	1149.3	1136.9	1149.3	1144.8	1148.2	1156.1	1149.3	1153.9	1158.4
5°	1007.5	1001.9	983.9	969.2	983.9	1001.9	1007.5	1031.2	1042.4	1062.6	1089.7
7.5°	900.6	896.0	891.5	882.5	891.5	896.0	900.6	907.3	918.5	936.6	956.9
10°	876.9	878.1	884.8	883.7	884.8	878.1	876.9	874.7	871.3	874.7	887.0
12.5°	937.7	947.8	985.0	982.7	985.0	947.8	937.7	892.6	862.3	856.7	858.9
15°	1007.5	1010.9	1018.7	1019.8	1018.7	1010.9	1007.5	989.5	898.3	858.9	846.5
17.5°	1014.2	1015.4	1021.0	1021.0	1021.0	1015.4	1014.2	1006.4	976.0	923.1	853.3
20°	1008.6	1010.9	1022.1	1024.4	1022.1	1010.9	1008.6	998.5	981.6	962.5	909.6
22.5°	1006.4	1010.9	1019.8	1018.7	1019.8	1010.9	1006.4	990.6	976.0	962.5	941.1
25°	995.1	995.1	996.2	997.4	996.2	995.1	995.1	982.7	953.5	950.1	937.7
27.5°	971.5	973.8	980.5	979.4	980.5	973.8	971.5	966.9	935.4	932.1	923.1
30°	950.1	947.8	942.2	937.7	942.2	947.8	950.1	943.3	911.8	902.8	905.1
32.5°	914.0	908.4	902.8	899.5	902.8	908.4	914.0	911.8	888.2	875.8	878.1
35°	871.3	872.4	871.3	867.9	871.3	872.4	871.3	873.6	858.9	847.7	846.5
37.5°	840.9	843.1	842.0	837.5	842.0	843.1	840.9	838.6	818.3	815.0	817.2
40°	809.4	810.5	809.4	806.0	809.4	810.5	809.4	804.9	776.8	777.9	785.7
42.5°	779.0	777.9	774.5	772.3	774.5	777.9	779.0	772.3	736.2	732.8	747.5
45°	744.1	745.2	738.4	735.1	738.4	745.2	744.1	739.6	702.5	693.4	703.6
47.5°	709.2	709.2	703.6	700.2	703.6	709.2	709.2	703.6	664.1	655.2	660.8
50°	672.1	670.9	663.0	661.9	663.0	670.9	672.1	668.6	627.0	619.1	619.1
52.5°	629.3	629.3	630.4	632.6	630.4	629.3	629.3	630.4	593.2	585.3	583.1
55°	592.1	593.2	601.1	603.4	601.1	593.2	592.1	592.1	558.3	550.5	546.0
57.5°	553.8	553.8	559.5	559.5	559.5	553.8	553.8	551.6	519.0	512.2	509.9
60°	509.9	512.2	516.7	515.5	516.7	512.2	509.9	507.7	479.5	475.1	467.2
62.5°	463.7	466.0	467.2	464.9	467.2	466.0	463.7	457.0	440.1	436.7	426.6
65°	415.4	417.7	418.8	416.5	418.8	417.7	415.4	412.0	399.6	394.0	385.0
67.5°	365.8	364.7	363.6	368.1	363.6	364.7	365.8	361.3	353.5	349.0	336.5
70°	315.2	315.2	314.0	316.3	314.0	315.2	315.2	311.8	307.3	303.9	292.7
72.5°	261.1	260.0	264.5	261.1	264.5	260.0	261.1	260.0	257.8	254.4	243.2
75°	208.2	210.5	208.2	211.6	208.2	210.5	208.2	209.3	208.2	206.0	198.1
77.5°	158.7	160.9	158.7	158.7	158.7	160.9	158.7	159.8	159.8	159.8	153.1
80°	112.5	111.4	111.4	110.3	111.4	111.4	112.5	112.5	113.7	111.4	109.2
82.5°	72.1	70.9	70.9	73.2	70.9	70.9	72.1	73.2	70.9	70.9	70.9
85°	39.4	40.6	38.3	38.3	38.3	40.6	39.4	37.1	39.4	39.4	38.3
87.5°	14.7	13.5	13.5	13.5	13.5	13.5	14.7	15.8	15.8	15.8	16.9
90°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	8.9	11.8	13.4	11.5
92.5°	33.4	32.0	26.8	21.4	26.8	32.0	33.4	47.3	65.9	75.1	65.9
95°	113.2	109.2	93.1	77.1	93.1	109.2	113.2	148.7	196.0	219.6	185.5
97.5°	261.5	253.8	223.2	192.6	223.2	253.8	261.5	283.9	313.8	328.7	271.8
100°	367.2	358.1	321.6	285.2	321.6	358.1	367.2	365.6	363.4	362.3	299.1
102.5°	457.4	449.6	418.4	387.2	418.4	449.6	457.4	428.9	390.8	371.7	307.7
105°	562.8	558.7	541.9	525.1	541.9	558.7	562.8	498.8	413.4	370.7	308.7
107.5°	617.6	618.6	622.6	626.7	622.6	618.6	617.6	528.3	409.2	349.7	295.0
110°	631.7	636.0	653.5	670.9	653.5	636.0	631.7	531.8	398.7	332.1	282.8



TEST NUMBER: P934470

CATALOG NUMBER: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	622.7	629.5	656.3	683.1	656.3	629.5	622.7	520.5	384.3	316.1	272.1
115°	592.3	601.6	638.8	676.1	638.8	601.6	592.3	493.8	362.5	296.9	259.9
117.5°	550.3	560.6	601.9	643.3	601.9	560.6	550.3	461.4	343.0	283.8	252.3
120°	522.1	532.2	572.2	612.3	572.2	532.2	522.1	440.9	332.6	278.5	249.7
122.5°	493.8	503.7	543.3	582.9	543.3	503.7	493.8	420.7	323.2	274.4	248.4
125°	456.4	465.5	501.9	538.4	501.9	465.5	456.4	394.3	311.5	270.1	247.3
127.5°	426.3	434.0	464.8	495.5	464.8	434.0	426.3	373.0	301.9	266.4	246.7
130°	407.4	414.5	443.0	471.3	443.0	414.5	407.4	360.0	296.7	265.0	247.0
132.5°	391.2	397.6	423.0	448.5	423.0	397.6	391.2	348.7	292.1	263.8	247.3
135°	368.4	373.9	395.8	417.7	395.8	373.9	368.4	332.8	285.3	261.6	247.0
137.5°	351.5	356.1	373.9	391.9	373.9	356.1	351.5	321.5	281.3	261.3	248.5
140°	338.1	342.2	359.0	375.8	359.0	342.2	338.1	312.1	277.4	260.0	248.8
142.5°	328.5	332.1	346.6	361.1	346.6	332.1	328.5	305.7	275.3	260.0	249.6
145°	314.3	317.0	328.0	338.9	328.0	317.0	314.3	295.6	270.8	258.3	249.7
147.5°	302.4	304.7	313.7	322.7	313.7	304.7	302.4	287.7	268.1	258.3	251.4
150°	295.6	297.4	304.8	312.1	304.8	297.4	295.6	283.1	266.6	258.3	252.3
152.5°	290.1	291.5	297.0	302.5	297.0	291.5	290.1	279.5	265.4	258.3	252.9
155°	283.6	284.6	288.2	291.9	288.2	284.6	283.6	275.2	263.9	258.3	254.2
157.5°	278.0	278.7	281.2	283.8	281.2	278.7	278.0	271.4	262.7	258.3	255.4
160°	275.2	275.5	277.1	278.5	277.1	275.5	275.2	269.6	262.1	258.3	256.0
162.5°	272.6	272.9	274.3	275.7	274.3	272.9	272.6	267.8	261.5	258.3	256.7
165°	268.5	268.8	270.3	271.9	270.3	268.8	268.5	265.1	260.5	258.3	257.6
167.5°	266.8	266.9	267.5	268.1	267.5	266.9	266.8	264.5	261.6	260.0	259.4
170°	266.8	266.8	266.8	266.8	266.8	266.8	266.8	264.5	261.6	260.0	260.0
172.5°	265.3	265.1	264.6	264.1	264.6	265.1	265.3	263.5	261.2	260.0	260.0
175°	263.4	263.4	263.4	263.4	263.4	263.4	263.4	262.3	260.8	260.0	260.4
177.5°	263.1	262.9	262.3	261.6	262.3	262.9	263.1	262.2	261.1	260.5	260.7
180°	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6	261.6



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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	1189.8	1189.8	1189.8	1189.8	1189.8
2.5°	1175.2	1180.9	1184.2	1188.7	1200.0
5°	1130.2	1151.6	1158.4	1175.2	1195.5
7.5°	1031.2	1096.4	1114.4	1155.0	1186.5
10°	935.4	1000.8	1032.3	1128.0	1175.2
12.5°	887.0	925.4	946.7	1080.7	1159.5
15°	856.7	883.7	899.5	1017.6	1141.4
17.5°	833.0	852.2	863.4	955.7	1116.7
20°	818.3	827.4	837.5	910.7	1088.5
22.5°	808.2	802.6	810.5	879.2	1050.3
25°	801.5	780.1	789.1	854.4	1005.3
27.5°	807.1	759.8	763.2	831.9	958.0
30°	808.2	735.1	736.2	808.2	905.1
32.5°	800.4	709.2	710.3	779.0	845.4
35°	781.2	678.8	677.7	745.2	764.3
37.5°	755.3	646.2	646.2	708.1	675.4
40°	723.9	613.5	616.8	659.6	596.7
42.5°	685.5	578.6	583.1	595.5	538.1
45°	643.9	544.9	548.2	503.2	493.1
47.5°	597.8	509.9	511.0	417.7	478.4
50°	542.6	473.9	469.5	358.0	477.3
52.5°	494.2	434.5	421.0	324.2	433.4
55°	446.9	392.9	363.6	298.3	401.9
57.5°	405.2	338.8	310.7	268.0	395.2
60°	367.0	285.9	264.5	235.2	362.4
62.5°	335.4	246.6	242.1	212.7	328.7
65°	301.7	219.5	218.4	193.7	279.2
67.5°	269.1	201.5	200.4	175.6	212.7
70°	234.1	182.3	180.1	156.5	157.6
72.5°	198.1	160.9	158.7	140.8	130.6
75°	162.1	136.2	135.0	122.7	105.8
77.5°	127.2	108.0	110.3	99.1	77.7
80°	91.2	78.8	81.0	70.9	58.5
82.5°	60.7	51.8	54.0	45.0	39.4
85°	33.7	29.3	30.4	23.6	18.0
87.5°	15.8	13.5	13.5	9.0	5.6
90°	7.8	4.9	4.6	3.2	1.8
92.5°	47.6	33.9	30.9	18.9	7.0
95°	117.2	66.0	60.6	38.7	16.9
97.5°	157.9	72.5	67.6	48.4	29.1
100°	172.7	78.0	73.6	56.1	38.6
102.5°	179.5	83.4	79.3	63.0	46.7
105°	184.5	91.5	88.0	74.2	60.4
107.5°	185.5	103.4	100.2	87.3	74.5
110°	184.1	110.1	107.2	95.5	83.9



TEST NUMBER: P934470

CATALOG NUMBER: SQ4-FA-050U-100D-935-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	184.1	118.2	115.4	104.3	93.2
115°	185.8	130.3	127.7	117.5	107.3
117.5°	189.3	142.0	139.7	130.4	121.2
120°	192.1	148.9	146.7	138.0	129.2
122.5°	196.1	157.0	154.8	146.0	137.2
125°	201.6	167.3	165.3	157.3	149.3
127.5°	207.0	177.4	175.3	167.2	159.1
130°	211.0	184.0	181.8	173.1	164.4
132.5°	214.3	189.5	187.3	178.6	169.8
135°	217.8	195.8	193.8	185.8	177.9
137.5°	223.1	203.9	201.9	194.0	186.2
140°	226.2	209.3	207.5	200.2	193.0
142.5°	228.9	213.3	211.6	205.0	198.3
145°	232.4	219.5	218.0	212.1	206.4
147.5°	237.6	227.2	225.8	220.2	214.4
150°	240.3	231.2	230.0	224.8	219.6
152.5°	242.1	233.9	232.9	229.0	225.1
155°	245.9	239.7	239.0	236.1	233.2
157.5°	249.7	245.5	244.8	242.0	239.2
160°	251.5	248.1	247.6	245.4	243.2
162.5°	253.4	250.9	250.5	248.9	247.3
165°	256.1	255.0	254.7	253.1	251.7
167.5°	258.2	257.2	257.0	256.4	255.7
170°	259.9	259.9	259.7	259.0	258.3
172.5°	260.0	260.0	260.0	259.9	259.7
175°	261.1	261.6	261.6	261.6	261.6
177.5°	261.2	261.6	261.6	261.6	261.6
180°	261.6	261.6	261.6	261.6	261.6



TEST NUMBER: P934470
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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	14.38	15.39	15.20	16.23	17.28	17.18	18.19	18.00	19.03	20.08
	3H	14.87	15.77	15.70	16.63	17.70	18.52	19.43	19.36	20.28	21.36
	4H	15.07	15.92	15.92	16.78	17.87	18.97	19.82	19.82	20.68	21.77
	6H	15.19	15.98	16.06	16.85	17.95	19.25	20.04	20.12	20.91	22.01
	8H	15.20	15.95	16.07	16.84	17.94	19.33	20.08	20.20	20.97	22.06
	12H	15.18	15.89	16.05	16.77	17.90	19.37	20.08	20.25	20.96	22.09
4H	2H	15.42	16.28	16.28	17.14	18.23	17.61	18.46	18.46	19.32	20.41
	3H	16.46	17.18	17.33	18.07	19.17	19.12	19.83	19.98	20.72	21.82
	4H	16.75	17.39	17.63	18.28	19.41	19.64	20.29	20.52	21.18	22.31
	6H	16.88	17.44	17.78	18.35	19.49	20.01	20.57	20.90	21.48	22.61
	8H	16.89	17.41	17.79	18.32	19.47	20.12	20.64	21.01	21.55	22.69
	12H	16.86	17.33	17.78	18.26	19.41	20.17	20.65	21.09	21.57	22.72
8H	4H	17.21	17.73	18.10	18.64	19.78	19.78	20.30	20.68	21.21	22.36
	6H	17.47	17.91	18.40	18.86	20.00	20.22	20.65	21.14	21.60	22.74
	8H	17.52	17.90	18.45	18.84	20.01	20.36	20.75	21.30	21.69	22.85
	12H	17.51	17.85	18.45	18.78	19.99	20.46	20.80	21.40	21.74	22.95
12H	4H	17.22	17.69	18.14	18.62	19.77	19.75	20.22	20.67	21.15	22.30
	6H	17.53	17.92	18.47	18.86	20.02	20.21	20.60	21.15	21.54	22.70
	8H	17.61	17.95	18.55	18.88	20.09	20.38	20.72	21.32	21.65	22.86