

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: P933865

Luminaire Tested: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P933865
REPORT IS A COMBINATION OF REPORTS P933676 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

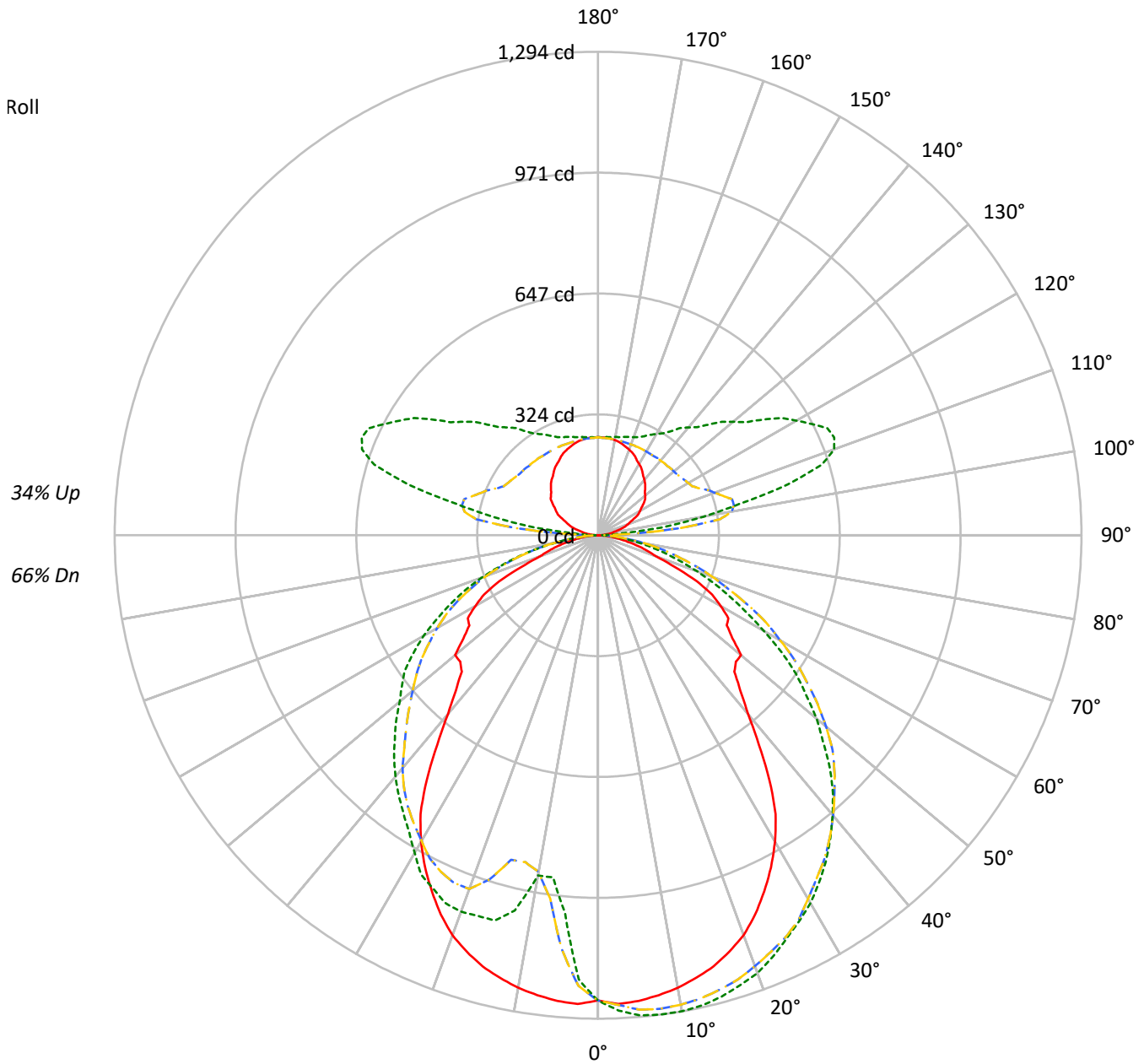
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4929.1 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 44
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: P933865
CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

Luminous Intensity Polar Plot



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



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

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
RCR																				
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66		
1	101	97	93	89	95	91	88	85	81	78	76	71	69	68	62	61	60	55		
2	92	85	78	73	87	80	74	70	71	67	63	63	59	56	55	52	50	46		
3	84	75	67	61	79	70	64	58	63	57	53	55	51	48	49	46	43	39		
4	77	66	58	52	72	62	55	49	56	50	45	49	45	41	43	40	37	34		
5	71	59	50	44	66	56	48	43	50	44	39	44	39	35	39	35	32	29		
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	26		
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23		
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	22	20		
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18		
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	5778	5778	5778	5778
5°	5820	5832	5820	4586
10°	5782	5745	5782	4107
15°	5719	5620	5719	4693
20°	5599	5473	5599	4703
25°	5354	5258	5354	4603
30°	5038	5080	5038	4384
35°	4491	4853	4491	4144
40°	3742	4587	3742	3962
45°	3344	4276	3344	3753
50°	3552	3905	3552	3544
55°	3342	3506	3342	3422
60°	3445	2977	3445	3134
65°	3123	2461	3123	2751
70°	2163	1962	2163	2306
75°	1898	1450	1898	1736
80°	1527	958	1527	1043
85°	880	508	880	432

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 5125 cd/sqm



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.4	2.3
10°-20°	319.1	6.5
20°-30°	493.3	10.0
30°-40°	588.9	11.9
40°-50°	592.4	12.0
50°-60°	515.4	10.5
60°-70°	365.5	7.4
70°-80°	193.3	3.9
80°-90°	49.2	1.0
90°-100°	127.8	2.6
100°-110°	336.0	6.8
110°-120°	348.3	7.1
120°-130°	279.4	5.7
130°-140°	219.2	4.4
140°-150°	168.3	3.4
150°-160°	121.2	2.5
160°-170°	74.2	1.5
170°-180°	25.1	0.5
0°-30°	924.9	18.8
0°-40°	1513.8	30.7
0°-60°	2621.7	53.2
0°-90°	3229.6	65.5
90°-120°	812.1	16.5
90°-150°	1479.0	30.0
90°-180°	1699.0	34.5
0°-180°	4929.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1245	1245	1245	1245	1245	
5°	1251	1290	1251	1014	1251	119
15°	1195	1278	1195	1067	1195	336
25°	1052	1192	1052	1044	1052	483
35°	800	1064	800	908	800	495
45°	516	876	516	769	516	413
55°	420	647	420	631	420	386
65°	292	390	292	436	292	279
75°	111	185	111	222	111	116
85°	19	47	19	40	19	25
90°	2	7	2	7	2	2
95°	17	77	17	77	17	19
105°	60	526	60	526	60	64
115°	108	677	108	677	108	106
125°	150	540	150	540	150	133
135°	178	418	178	418	178	138
145°	207	340	207	340	207	130
155°	234	292	234	292	234	107
165°	252	272	252	272	252	71
175°	262	264	262	264	262	25
180°	262	262	262	262	262	



TEST NUMBER: P933865
 CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3
2.5°	1255.8	1255.8	1262.9	1265.3	1265.3	1261.7	1258.2	1261.7	1272.3	1275.8	1274.7
5°	1251.1	1260.5	1273.5	1275.8	1278.2	1277.0	1274.7	1277.0	1288.8	1291.2	1292.3
7.5°	1241.7	1259.4	1275.8	1279.4	1282.9	1279.4	1278.2	1280.6	1292.3	1294.7	1294.7
10°	1229.9	1254.7	1273.5	1275.8	1279.4	1275.8	1275.8	1280.6	1292.3	1294.7	1295.8
12.5°	1213.4	1247.5	1265.3	1267.6	1272.3	1271.2	1269.9	1274.7	1286.4	1288.8	1288.8
15°	1194.6	1234.6	1251.1	1253.4	1261.7	1259.4	1259.4	1264.1	1277.0	1280.6	1279.4
17.5°	1168.7	1218.1	1237.0	1240.5	1246.4	1245.3	1246.4	1251.1	1262.9	1265.3	1266.4
20°	1139.2	1195.7	1218.1	1221.6	1227.5	1227.5	1227.5	1233.4	1245.3	1249.9	1249.9
22.5°	1099.1	1172.2	1195.7	1198.1	1205.2	1205.2	1207.5	1215.7	1226.4	1227.5	1227.5
25°	1052.0	1146.3	1166.3	1173.3	1180.4	1183.9	1187.5	1192.2	1195.7	1194.6	1195.7
27.5°	1002.6	1113.2	1139.2	1143.9	1153.3	1156.9	1161.6	1162.8	1163.9	1167.4	1165.2
30°	947.2	1067.3	1106.2	1111.0	1126.2	1128.6	1123.9	1126.2	1132.1	1134.5	1136.9
32.5°	884.7	999.0	1072.1	1082.7	1096.8	1089.7	1088.6	1092.1	1101.5	1101.5	1103.8
35°	799.9	946.0	1040.3	1049.7	1060.3	1052.0	1056.8	1057.9	1063.8	1067.3	1066.2
37.5°	706.9	900.1	1007.2	1014.3	1022.6	1012.0	1019.0	1022.6	1027.3	1024.9	1024.9
40°	624.4	828.2	968.4	973.1	980.2	971.9	979.0	981.3	983.7	981.3	980.2
42.5°	563.1	749.3	927.1	933.0	928.3	934.2	936.5	941.3	937.8	933.0	933.0
45°	516.0	728.0	882.3	889.5	882.3	891.8	895.3	895.3	884.7	882.3	881.2
47.5°	500.7	685.6	837.6	837.6	834.0	845.9	851.8	843.5	832.9	829.4	829.4
50°	499.5	638.5	776.3	771.7	788.1	802.2	796.4	788.1	779.8	766.9	766.9
52.5°	453.6	580.8	697.5	715.1	741.0	749.3	739.8	731.6	717.5	711.5	706.9
55°	420.5	520.7	625.5	660.9	688.0	698.6	680.9	672.7	651.4	647.9	645.6
57.5°	413.5	433.5	559.6	604.4	637.3	636.2	625.5	610.2	592.6	589.1	587.8
60°	379.3	313.4	488.9	541.9	576.1	572.6	563.1	548.9	532.5	530.1	527.8
62.5°	344.0	227.4	408.8	468.8	517.1	516.0	507.7	486.6	474.7	468.8	464.2
65°	292.1	190.9	291.0	390.0	459.4	461.8	444.2	428.8	415.9	408.8	407.6
67.5°	222.6	155.5	196.7	325.1	404.1	401.7	379.3	372.3	355.8	352.3	345.2
70°	164.9	103.6	136.7	263.9	349.9	344.0	326.3	318.1	302.8	294.5	289.8
72.5°	136.7	83.6	100.1	205.0	294.5	287.5	272.1	262.7	249.8	242.7	237.9
75°	110.8	88.4	76.6	151.9	239.2	234.4	220.3	210.9	200.3	190.9	192.0
77.5°	81.3	82.5	61.2	111.9	189.7	182.6	174.3	162.6	157.8	148.4	148.4
80°	61.2	64.8	45.9	76.6	136.7	136.7	129.5	121.4	113.1	108.4	108.4
82.5°	41.2	41.2	34.2	48.3	93.1	89.5	84.8	82.5	77.7	75.4	75.4
85°	18.9	23.5	21.2	29.4	50.7	53.0	53.0	50.7	49.4	47.2	48.3
87.5°	5.9	10.6	13.0	16.5	25.9	27.1	28.3	28.3	28.3	29.4	29.4
90°	1.8	3.2	4.6	4.9	7.7	11.5	13.4	11.9	8.9	6.7	6.7
92.5°	7.0	19.0	31.0	34.0	47.8	66.1	75.3	66.0	47.4	33.5	32.1
95°	16.9	38.7	60.7	66.1	117.4	185.8	220.1	196.4	149.0	113.5	109.4
97.5°	29.2	48.6	67.8	72.6	158.2	272.3	329.4	314.4	284.5	262.0	254.4
100°	38.7	56.2	73.7	78.1	173.0	299.6	362.9	364.1	366.3	367.9	358.8
102.5°	46.8	63.1	79.5	83.5	179.9	308.3	372.5	391.5	429.7	458.3	450.5
105°	60.5	74.4	88.3	91.7	185.0	309.2	371.4	414.2	499.8	563.9	559.7
107.5°	74.6	87.5	100.4	103.6	185.8	295.5	350.3	409.9	529.3	618.8	619.8
110°	84.1	95.7	107.4	110.3	184.4	283.3	332.7	399.4	532.8	632.8	637.2



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	93.5	104.5	115.6	118.4	184.5	272.6	316.7	385.0	521.4	623.9	630.6
115°	107.5	117.7	128.0	130.5	186.2	260.4	297.5	363.3	494.8	593.5	602.8
117.5°	121.4	130.7	140.0	142.4	189.7	252.8	284.3	343.7	462.3	551.4	561.8
120°	129.5	138.2	147.0	149.2	192.5	250.2	279.0	333.2	441.7	523.0	533.0
122.5°	137.4	146.2	155.1	157.3	196.6	248.8	275.0	323.8	421.5	494.7	504.7
125°	149.6	157.7	165.6	167.7	202.0	247.8	270.6	312.1	395.1	457.2	466.4
127.5°	159.4	167.5	175.7	177.7	207.5	247.1	266.9	302.6	373.8	427.2	434.9
130°	164.7	173.5	182.2	184.4	211.4	247.5	265.5	297.2	360.6	408.1	415.3
132.5°	170.1	178.9	187.6	189.8	214.7	247.8	264.3	292.6	349.4	392.0	398.4
135°	178.2	186.2	194.2	196.2	218.2	247.5	262.2	286.0	333.5	369.1	374.6
137.5°	186.5	194.4	202.3	204.3	223.4	249.0	261.8	281.9	322.1	352.2	356.7
140°	193.3	200.6	207.9	209.7	226.7	249.3	260.6	278.0	312.7	338.7	342.9
142.5°	198.7	205.3	212.1	213.8	229.4	250.2	260.6	275.9	306.4	329.2	332.8
145°	206.8	212.6	218.4	219.9	232.9	250.2	258.8	271.3	296.3	315.0	317.7
147.5°	214.8	220.5	226.3	227.7	238.0	251.9	258.8	268.7	288.3	302.9	305.2
150°	220.1	225.3	230.4	231.7	240.7	252.8	258.8	267.1	283.7	296.1	297.9
152.5°	225.5	229.4	233.4	234.3	242.5	253.4	258.8	265.9	280.0	290.6	292.0
155°	233.6	236.5	239.4	240.1	246.4	254.7	258.8	264.5	275.7	284.1	285.0
157.5°	239.6	242.4	245.2	245.9	250.2	255.9	258.8	263.2	271.9	278.5	279.1
160°	243.6	245.8	248.0	248.6	252.0	256.6	258.8	262.6	270.1	275.7	276.1
162.5°	247.7	249.3	250.9	251.4	253.8	257.2	258.8	262.0	268.3	273.1	273.4
165°	252.2	253.7	255.1	255.5	256.6	258.1	258.8	261.1	265.6	269.0	269.4
167.5°	256.2	256.9	257.6	257.8	258.7	260.0	260.6	262.1	265.1	267.3	267.4
170°	258.8	259.5	260.2	260.4	260.5	260.6	260.6	262.1	265.1	267.3	267.3
172.5°	260.2	260.4	260.6	260.6	260.6	260.6	260.6	261.7	264.1	265.9	265.7
175°	262.2	262.2	262.2	262.2	261.6	260.9	260.6	261.3	262.8	263.9	263.9
177.5°	262.2	262.2	262.2	262.2	261.7	261.2	260.9	261.6	262.7	263.6	263.4
180°	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3
2.5°	1277.0	1273.5	1277.0	1274.7	1275.8	1272.3	1261.7	1258.2	1261.7	1265.3	1265.3
5°	1292.3	1290.0	1292.3	1292.3	1291.2	1288.8	1277.0	1274.7	1277.0	1278.2	1275.8
7.5°	1297.1	1293.6	1297.1	1294.7	1294.7	1292.3	1280.6	1278.2	1279.4	1282.9	1279.4
10°	1297.1	1293.6	1297.1	1295.8	1294.7	1292.3	1280.6	1275.8	1275.8	1279.4	1275.8
12.5°	1291.2	1288.8	1291.2	1288.8	1288.8	1286.4	1274.7	1269.9	1271.2	1272.3	1267.6
15°	1281.7	1278.2	1281.7	1279.4	1280.6	1277.0	1264.1	1259.4	1259.4	1261.7	1253.4
17.5°	1267.6	1262.9	1267.6	1266.4	1265.3	1262.9	1251.1	1246.4	1245.3	1246.4	1240.5
20°	1251.1	1247.5	1251.1	1249.9	1249.9	1245.3	1233.4	1227.5	1227.5	1227.5	1221.6
22.5°	1225.2	1221.6	1225.2	1227.5	1227.5	1226.4	1215.7	1207.5	1205.2	1205.2	1198.1
25°	1195.7	1192.2	1195.7	1195.7	1194.6	1195.7	1192.2	1187.5	1183.9	1180.4	1173.3
27.5°	1167.4	1165.2	1167.4	1165.2	1167.4	1163.9	1162.8	1161.6	1156.9	1153.3	1143.9
30°	1139.2	1136.9	1139.2	1136.9	1134.5	1132.1	1126.2	1123.9	1128.6	1126.2	1111.0
32.5°	1103.8	1101.5	1103.8	1103.8	1101.5	1101.5	1092.1	1088.6	1089.7	1096.8	1082.7
35°	1067.3	1063.8	1067.3	1066.2	1067.3	1063.8	1057.9	1056.8	1052.0	1060.3	1049.7
37.5°	1024.9	1021.4	1024.9	1024.9	1024.9	1027.3	1022.6	1019.0	1012.0	1022.6	1014.3
40°	981.3	976.6	981.3	980.2	981.3	983.7	981.3	979.0	971.9	980.2	973.1
42.5°	931.9	930.6	931.9	933.0	933.0	937.8	941.3	936.5	934.2	928.3	933.0
45°	878.8	876.5	878.8	881.2	882.3	884.7	895.3	895.3	891.8	882.3	889.5
47.5°	822.3	816.4	822.3	829.4	829.4	832.9	843.5	851.8	845.9	834.0	837.6
50°	762.2	763.4	762.2	766.9	766.9	779.8	788.1	796.4	802.2	788.1	771.7
52.5°	703.3	702.1	703.3	706.9	711.5	717.5	731.6	739.8	749.3	741.0	715.1
55°	644.4	646.8	644.4	645.6	647.9	651.4	672.7	680.9	698.6	688.0	660.9
57.5°	585.5	582.0	585.5	587.8	589.1	592.6	610.2	625.5	636.2	637.3	604.4
60°	517.1	512.5	517.1	527.8	530.1	532.5	548.9	563.1	572.6	576.1	541.9
62.5°	457.1	448.8	457.1	464.2	468.8	474.7	486.6	507.7	516.0	517.1	468.8
65°	393.5	390.0	393.5	407.6	408.8	415.9	428.8	444.2	461.8	459.4	390.0
67.5°	335.8	335.8	335.8	345.2	352.3	355.8	372.3	379.3	401.7	404.1	325.1
70°	282.7	281.6	282.7	289.8	294.5	302.8	318.1	326.3	344.0	349.9	263.9
72.5°	232.0	230.9	232.0	237.9	242.7	249.8	262.7	272.1	287.5	294.5	205.0
75°	187.3	185.0	187.3	192.0	190.9	200.3	210.9	220.3	234.4	239.2	151.9
77.5°	143.7	143.7	143.7	148.4	148.4	157.8	162.6	174.3	182.6	189.7	111.9
80°	107.2	106.0	107.2	108.4	108.4	113.1	121.4	129.5	136.7	136.7	76.6
82.5°	75.4	73.1	75.4	75.4	75.4	77.7	82.5	84.8	89.5	93.1	48.3
85°	47.2	47.2	47.2	48.3	47.2	49.4	50.7	53.0	53.0	50.7	29.4
87.5°	30.7	29.4	30.7	29.4	29.4	28.3	28.3	28.3	27.1	25.9	16.5
90°	6.7	6.7	6.7	6.7	6.7	8.9	11.9	13.4	11.5	7.7	4.9
92.5°	26.8	21.4	26.8	32.1	33.5	47.4	66.0	75.3	66.1	47.8	34.0
95°	93.4	77.2	93.4	109.4	113.5	149.0	196.4	220.1	185.8	117.4	66.1
97.5°	223.6	193.0	223.6	254.4	262.0	284.5	314.4	329.4	272.3	158.2	72.6
100°	322.2	285.7	322.2	358.8	367.9	366.3	364.1	362.9	299.6	173.0	78.1
102.5°	419.2	387.9	419.2	450.5	458.3	429.7	391.5	372.5	308.3	179.9	83.5
105°	542.9	526.0	542.9	559.7	563.9	499.8	414.2	371.4	309.2	185.0	91.7
107.5°	623.9	627.9	623.9	619.8	618.8	529.3	409.9	350.3	295.5	185.8	103.6
110°	654.7	672.3	654.7	637.2	632.8	532.8	399.4	332.7	283.3	184.4	110.3



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	657.5	684.4	657.5	630.6	623.9	521.4	385.0	316.7	272.6	184.5	118.4
115°	640.1	677.3	640.1	602.8	593.5	494.8	363.3	297.5	260.4	186.2	130.5
117.5°	603.1	644.5	603.1	561.8	551.4	462.3	343.7	284.3	252.8	189.7	142.4
120°	573.3	613.5	573.3	533.0	523.0	441.7	333.2	279.0	250.2	192.5	149.2
122.5°	544.3	583.9	544.3	504.7	494.7	421.5	323.8	275.0	248.8	196.6	157.3
125°	502.9	539.5	502.9	466.4	457.2	395.1	312.1	270.6	247.8	202.0	167.7
127.5°	465.7	496.5	465.7	434.9	427.2	373.8	302.6	266.9	247.1	207.5	177.7
130°	443.7	472.2	443.7	415.3	408.1	360.6	297.2	265.5	247.5	211.4	184.4
132.5°	423.9	449.3	423.9	398.4	392.0	349.4	292.6	264.3	247.8	214.7	189.8
135°	396.6	418.5	396.6	374.6	369.1	333.5	286.0	262.2	247.5	218.2	196.2
137.5°	374.7	392.7	374.7	356.7	352.2	322.1	281.9	261.8	249.0	223.4	204.3
140°	359.7	376.5	359.7	342.9	338.7	312.7	278.0	260.6	249.3	226.7	209.7
142.5°	347.3	361.7	347.3	332.8	329.2	306.4	275.9	260.6	250.2	229.4	213.8
145°	328.7	339.6	328.7	317.7	315.0	296.3	271.3	258.8	250.2	232.9	219.9
147.5°	314.3	323.4	314.3	305.2	302.9	288.3	268.7	258.8	251.9	238.0	227.7
150°	305.3	312.7	305.3	297.9	296.1	283.7	267.1	258.8	252.8	240.7	231.7
152.5°	297.6	303.1	297.6	292.0	290.6	280.0	265.9	258.8	253.4	242.5	234.3
155°	288.7	292.4	288.7	285.0	284.1	275.7	264.5	258.8	254.7	246.4	240.1
157.5°	281.8	284.3	281.8	279.1	278.5	271.9	263.2	258.8	255.9	250.2	245.9
160°	277.5	279.0	277.5	276.1	275.7	270.1	262.6	258.8	256.6	252.0	248.6
162.5°	274.8	276.2	274.8	273.4	273.1	268.3	262.0	258.8	257.2	253.8	251.4
165°	270.9	272.4	270.9	269.4	269.0	265.6	261.1	258.8	258.1	256.6	255.5
167.5°	268.1	268.7	268.1	267.4	267.3	265.1	262.1	260.6	260.0	258.7	257.8
170°	267.3	267.3	267.3	267.3	267.3	265.1	262.1	260.6	260.6	260.5	260.4
172.5°	265.2	264.6	265.2	265.7	265.9	264.1	261.7	260.6	260.6	260.6	260.6
175°	263.9	263.9	263.9	263.9	263.9	262.8	261.3	260.6	260.9	261.6	262.2
177.5°	262.8	262.2	262.8	263.4	263.6	262.7	261.6	260.9	261.2	261.7	262.2
180°	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3
2.5°	1262.9	1255.8	1255.8	1244.0	1239.4	1235.8	1229.9	1212.2	1207.5	1202.8	1209.9
5°	1273.5	1260.5	1251.1	1229.9	1212.2	1205.2	1182.8	1140.4	1112.1	1090.8	1079.1
7.5°	1275.8	1259.4	1241.7	1208.7	1166.3	1147.4	1079.1	1001.4	980.2	961.3	949.5
10°	1273.5	1254.7	1229.9	1180.4	1080.3	1047.3	979.0	928.3	915.4	911.9	915.4
12.5°	1265.3	1247.5	1213.4	1131.0	990.7	968.4	928.3	898.9	896.5	902.4	934.2
15°	1251.1	1234.6	1194.6	1064.9	941.3	924.8	896.5	885.9	898.9	940.1	1035.5
17.5°	1237.0	1218.1	1168.7	1000.2	903.6	891.8	871.8	893.0	966.0	1021.4	1053.2
20°	1218.1	1195.7	1139.2	953.0	876.5	865.9	856.4	951.9	1007.2	1027.3	1044.9
22.5°	1195.7	1172.2	1099.1	920.1	848.2	840.0	845.9	984.8	1007.2	1021.4	1036.7
25°	1166.3	1146.3	1052.0	894.2	825.9	816.4	838.8	981.3	994.3	997.8	1028.5
27.5°	1139.2	1113.2	1002.6	870.6	798.7	795.2	844.7	966.0	975.4	979.0	1012.0
30°	1106.2	1067.3	947.2	845.9	770.4	769.3	845.9	947.2	944.8	954.3	987.2
32.5°	1072.1	999.0	884.7	815.2	743.4	742.2	837.6	918.9	916.5	929.5	954.3
35°	1040.3	946.0	799.9	779.8	709.2	710.4	817.6	885.9	887.1	898.9	914.2
37.5°	1007.2	900.1	706.9	741.0	676.2	676.2	790.5	855.3	852.9	856.4	877.7
40°	968.4	828.2	624.4	690.3	645.6	642.0	757.5	822.3	814.0	812.9	842.3
42.5°	927.1	749.3	563.1	623.2	610.2	605.5	717.5	782.2	766.9	770.4	808.1
45°	882.3	728.0	516.0	526.6	573.7	570.2	673.8	736.3	725.7	735.1	774.0
47.5°	837.6	685.6	500.7	437.0	534.9	533.7	625.5	691.5	685.6	695.1	736.3
50°	776.3	638.5	499.5	374.6	491.2	496.0	567.8	647.9	647.9	656.2	699.7
52.5°	697.5	580.8	453.6	339.3	440.6	454.7	517.1	610.2	612.6	620.9	659.7
55°	625.5	520.7	420.5	312.1	380.5	411.1	467.7	571.3	576.1	584.3	619.6
57.5°	559.6	433.5	413.5	280.4	325.1	354.6	424.1	533.7	536.0	543.1	577.2
60°	488.9	313.4	379.3	246.2	276.8	299.2	384.1	488.9	497.1	501.9	531.3
62.5°	408.8	227.4	344.0	222.6	253.3	258.0	351.1	446.5	457.1	460.7	478.3
65°	291.0	190.9	292.1	202.6	228.5	229.8	315.7	402.9	412.4	418.2	431.2
67.5°	196.7	155.5	222.6	183.7	209.7	210.9	281.6	352.3	365.2	369.9	378.2
70°	136.7	103.6	164.9	163.7	188.5	190.9	245.0	306.3	318.1	321.6	326.3
72.5°	100.1	83.6	136.7	147.3	166.1	168.5	207.4	254.4	266.2	269.8	272.1
75°	76.6	88.4	110.8	128.4	141.4	142.5	169.6	207.4	215.6	217.9	219.1
77.5°	61.2	82.5	81.3	103.6	115.4	113.1	133.2	160.2	167.3	167.3	167.3
80°	45.9	64.8	61.2	74.2	84.8	82.5	95.4	114.3	116.6	119.0	117.8
82.5°	34.2	41.2	41.2	47.2	56.6	54.2	63.6	74.2	74.2	74.2	76.6
85°	21.2	23.5	18.9	24.8	31.8	30.7	35.3	40.1	41.2	41.2	38.9
87.5°	13.0	10.6	5.9	9.4	14.1	14.1	16.5	17.7	16.5	16.5	16.5
90°	4.6	3.2	1.8	3.2	4.6	4.9	7.7	11.5	13.4	11.9	8.9
92.5°	31.0	19.0	7.0	19.0	31.0	34.0	47.8	66.1	75.3	66.0	47.4
95°	60.7	38.7	16.9	38.7	60.7	66.1	117.4	185.8	220.1	196.4	149.0
97.5°	67.8	48.6	29.2	48.6	67.8	72.6	158.2	272.3	329.4	314.4	284.5
100°	73.7	56.2	38.7	56.2	73.7	78.1	173.0	299.6	362.9	364.1	366.3
102.5°	79.5	63.1	46.8	63.1	79.5	83.5	179.9	308.3	372.5	391.5	429.7
105°	88.3	74.4	60.5	74.4	88.3	91.7	185.0	309.2	371.4	414.2	499.8
107.5°	100.4	87.5	74.6	87.5	100.4	103.6	185.8	295.5	350.3	409.9	529.3
110°	107.4	95.7	84.1	95.7	107.4	110.3	184.4	283.3	332.7	399.4	532.8



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	115.6	104.5	93.5	104.5	115.6	118.4	184.5	272.6	316.7	385.0	521.4
115°	128.0	117.7	107.5	117.7	128.0	130.5	186.2	260.4	297.5	363.3	494.8
117.5°	140.0	130.7	121.4	130.7	140.0	142.4	189.7	252.8	284.3	343.7	462.3
120°	147.0	138.2	129.5	138.2	147.0	149.2	192.5	250.2	279.0	333.2	441.7
122.5°	155.1	146.2	137.4	146.2	155.1	157.3	196.6	248.8	275.0	323.8	421.5
125°	165.6	157.7	149.6	157.7	165.6	167.7	202.0	247.8	270.6	312.1	395.1
127.5°	175.7	167.5	159.4	167.5	175.7	177.7	207.5	247.1	266.9	302.6	373.8
130°	182.2	173.5	164.7	173.5	182.2	184.4	211.4	247.5	265.5	297.2	360.6
132.5°	187.6	178.9	170.1	178.9	187.6	189.8	214.7	247.8	264.3	292.6	349.4
135°	194.2	186.2	178.2	186.2	194.2	196.2	218.2	247.5	262.2	286.0	333.5
137.5°	202.3	194.4	186.5	194.4	202.3	204.3	223.4	249.0	261.8	281.9	322.1
140°	207.9	200.6	193.3	200.6	207.9	209.7	226.7	249.3	260.6	278.0	312.7
142.5°	212.1	205.3	198.7	205.3	212.1	213.8	229.4	250.2	260.6	275.9	306.4
145°	218.4	212.6	206.8	212.6	218.4	219.9	232.9	250.2	258.8	271.3	296.3
147.5°	226.3	220.5	214.8	220.5	226.3	227.7	238.0	251.9	258.8	268.7	288.3
150°	230.4	225.3	220.1	225.3	230.4	231.7	240.7	252.8	258.8	267.1	283.7
152.5°	233.4	229.4	225.5	229.4	233.4	234.3	242.5	253.4	258.8	265.9	280.0
155°	239.4	236.5	233.6	236.5	239.4	240.1	246.4	254.7	258.8	264.5	275.7
157.5°	245.2	242.4	239.6	242.4	245.2	245.9	250.2	255.9	258.8	263.2	271.9
160°	248.0	245.8	243.6	245.8	248.0	248.6	252.0	256.6	258.8	262.6	270.1
162.5°	250.9	249.3	247.7	249.3	250.9	251.4	253.8	257.2	258.8	262.0	268.3
165°	255.1	253.7	252.2	253.7	255.1	255.5	256.6	258.1	258.8	261.1	265.6
167.5°	257.6	256.9	256.2	256.9	257.6	257.8	258.7	260.0	260.6	262.1	265.1
170°	260.2	259.5	258.8	259.5	260.2	260.4	260.5	260.6	260.6	262.1	265.1
172.5°	260.6	260.4	260.2	260.4	260.6	260.6	260.6	260.6	260.6	261.7	264.1
175°	262.2	262.2	262.2	262.2	262.2	262.2	261.6	260.9	260.6	261.3	262.8
177.5°	262.2	262.2	262.2	262.2	262.2	262.2	261.7	261.2	260.9	261.6	262.7
180°	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3	1245.3
2.5°	1201.6	1198.1	1202.8	1189.8	1202.8	1198.1	1201.6	1209.9	1202.8	1207.5	1212.2
5°	1054.4	1048.5	1029.6	1014.3	1029.6	1048.5	1054.4	1079.1	1090.8	1112.1	1140.4
7.5°	942.4	937.8	933.0	923.6	933.0	937.8	942.4	949.5	961.3	980.2	1001.4
10°	917.7	918.9	926.0	924.8	926.0	918.9	917.7	915.4	911.9	915.4	928.3
12.5°	981.3	992.0	1030.8	1028.5	1030.8	992.0	981.3	934.2	902.4	896.5	898.9
15°	1054.4	1057.9	1066.2	1067.3	1066.2	1057.9	1054.4	1035.5	940.1	898.9	885.9
17.5°	1061.4	1062.7	1068.5	1068.5	1068.5	1062.7	1061.4	1053.2	1021.4	966.0	893.0
20°	1055.5	1057.9	1069.7	1072.1	1069.7	1057.9	1055.5	1044.9	1027.3	1007.2	951.9
22.5°	1053.2	1057.9	1067.3	1066.2	1067.3	1057.9	1053.2	1036.7	1021.4	1007.2	984.8
25°	1041.4	1041.4	1042.6	1043.8	1042.6	1041.4	1041.4	1028.5	997.8	994.3	981.3
27.5°	1016.6	1019.0	1026.1	1024.9	1026.1	1019.0	1016.6	1012.0	979.0	975.4	966.0
30°	994.3	992.0	986.1	981.3	986.1	992.0	994.3	987.2	954.3	944.8	947.2
32.5°	956.6	950.7	944.8	941.3	944.8	950.7	956.6	954.3	929.5	916.5	918.9
35°	911.9	913.0	911.9	908.3	911.9	913.0	911.9	914.2	898.9	887.1	885.9
37.5°	880.1	882.3	881.2	876.5	881.2	882.3	880.1	877.7	856.4	852.9	855.3
40°	847.0	848.2	847.0	843.5	847.0	848.2	847.0	842.3	812.9	814.0	822.3
42.5°	815.2	814.0	810.5	808.1	810.5	814.0	815.2	808.1	770.4	766.9	782.2
45°	778.7	779.8	772.8	769.3	772.8	779.8	778.7	774.0	735.1	725.7	736.3
47.5°	742.2	742.2	736.3	732.8	736.3	742.2	742.2	736.3	695.1	685.6	691.5
50°	703.3	702.1	693.9	692.7	693.9	702.1	703.3	699.7	656.2	647.9	647.9
52.5°	658.6	658.6	659.7	662.1	659.7	658.6	658.6	659.7	620.9	612.6	610.2
55°	619.6	620.9	629.1	631.4	629.1	620.9	619.6	619.6	584.3	576.1	571.3
57.5°	579.6	579.6	585.5	585.5	585.5	579.6	579.6	577.2	543.1	536.0	533.7
60°	533.7	536.0	540.8	539.5	540.8	536.0	533.7	531.3	501.9	497.1	488.9
62.5°	485.3	487.7	488.9	486.6	488.9	487.7	485.3	478.3	460.7	457.1	446.5
65°	434.7	437.0	438.3	435.9	438.3	437.0	434.7	431.2	418.2	412.4	402.9
67.5°	382.9	381.7	380.5	385.2	380.5	381.7	382.9	378.2	369.9	365.2	352.3
70°	329.9	329.9	328.7	331.0	328.7	329.9	329.9	326.3	321.6	318.1	306.3
72.5°	273.3	272.1	276.8	273.3	276.8	272.1	273.3	272.1	269.8	266.2	254.4
75°	217.9	220.3	217.9	221.5	217.9	220.3	217.9	219.1	217.9	215.6	207.4
77.5°	166.1	168.5	166.1	166.1	166.1	168.5	166.1	167.3	167.3	167.3	160.2
80°	117.8	116.6	116.6	115.4	116.6	116.6	117.8	117.8	119.0	116.6	114.3
82.5°	75.4	74.2	74.2	76.6	74.2	74.2	75.4	76.6	74.2	74.2	74.2
85°	41.2	42.4	40.1	40.1	40.1	42.4	41.2	38.9	41.2	41.2	40.1
87.5°	15.3	14.1	14.1	14.1	14.1	14.1	15.3	16.5	16.5	16.5	17.7
90°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	8.9	11.9	13.4	11.5
92.5°	33.5	32.1	26.8	21.4	26.8	32.1	33.5	47.4	66.0	75.3	66.1
95°	113.5	109.4	93.4	77.2	93.4	109.4	113.5	149.0	196.4	220.1	185.8
97.5°	262.0	254.4	223.6	193.0	223.6	254.4	262.0	284.5	314.4	329.4	272.3
100°	367.9	358.8	322.2	285.7	322.2	358.8	367.9	366.3	364.1	362.9	299.6
102.5°	458.3	450.5	419.2	387.9	419.2	450.5	458.3	429.7	391.5	372.5	308.3
105°	563.9	559.7	542.9	526.0	542.9	559.7	563.9	499.8	414.2	371.4	309.2
107.5°	618.8	619.8	623.9	627.9	623.9	619.8	618.8	529.3	409.9	350.3	295.5
110°	632.8	637.2	654.7	672.3	654.7	637.2	632.8	532.8	399.4	332.7	283.3



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	623.9	630.6	657.5	684.4	657.5	630.6	623.9	521.4	385.0	316.7	272.6
115°	593.5	602.8	640.1	677.3	640.1	602.8	593.5	494.8	363.3	297.5	260.4
117.5°	551.4	561.8	603.1	644.5	603.1	561.8	551.4	462.3	343.7	284.3	252.8
120°	523.0	533.0	573.3	613.5	573.3	533.0	523.0	441.7	333.2	279.0	250.2
122.5°	494.7	504.7	544.3	583.9	544.3	504.7	494.7	421.5	323.8	275.0	248.8
125°	457.2	466.4	502.9	539.5	502.9	466.4	457.2	395.1	312.1	270.6	247.8
127.5°	427.2	434.9	465.7	496.5	465.7	434.9	427.2	373.8	302.6	266.9	247.1
130°	408.1	415.3	443.7	472.2	443.7	415.3	408.1	360.6	297.2	265.5	247.5
132.5°	392.0	398.4	423.9	449.3	423.9	398.4	392.0	349.4	292.6	264.3	247.8
135°	369.1	374.6	396.6	418.5	396.6	374.6	369.1	333.5	286.0	262.2	247.5
137.5°	352.2	356.7	374.7	392.7	374.7	356.7	352.2	322.1	281.9	261.8	249.0
140°	338.7	342.9	359.7	376.5	359.7	342.9	338.7	312.7	278.0	260.6	249.3
142.5°	329.2	332.8	347.3	361.7	347.3	332.8	329.2	306.4	275.9	260.6	250.2
145°	315.0	317.7	328.7	339.6	328.7	317.7	315.0	296.3	271.3	258.8	250.2
147.5°	302.9	305.2	314.3	323.4	314.3	305.2	302.9	288.3	268.7	258.8	251.9
150°	296.1	297.9	305.3	312.7	305.3	297.9	296.1	283.7	267.1	258.8	252.8
152.5°	290.6	292.0	297.6	303.1	297.6	292.0	290.6	280.0	265.9	258.8	253.4
155°	284.1	285.0	288.7	292.4	288.7	285.0	284.1	275.7	264.5	258.8	254.7
157.5°	278.5	279.1	281.8	284.3	281.8	279.1	278.5	271.9	263.2	258.8	255.9
160°	275.7	276.1	277.5	279.0	277.5	276.1	275.7	270.1	262.6	258.8	256.6
162.5°	273.1	273.4	274.8	276.2	274.8	273.4	273.1	268.3	262.0	258.8	257.2
165°	269.0	269.4	270.9	272.4	270.9	269.4	269.0	265.6	261.1	258.8	258.1
167.5°	267.3	267.4	268.1	268.7	268.1	267.4	267.3	265.1	262.1	260.6	260.0
170°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	265.1	262.1	260.6	260.6
172.5°	265.9	265.7	265.2	264.6	265.2	265.7	265.9	264.1	261.7	260.6	260.6
175°	263.9	263.9	263.9	263.9	263.9	263.9	263.9	262.8	261.3	260.6	260.9
177.5°	263.6	263.4	262.8	262.2	262.8	263.4	263.6	262.7	261.6	260.9	261.2
180°	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2	262.2



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	1245.3	1245.3	1245.3	1245.3	1245.3
2.5°	1229.9	1235.8	1239.4	1244.0	1255.8
5°	1182.8	1205.2	1212.2	1229.9	1251.1
7.5°	1079.1	1147.4	1166.3	1208.7	1241.7
10°	979.0	1047.3	1080.3	1180.4	1229.9
12.5°	928.3	968.4	990.7	1131.0	1213.4
15°	896.5	924.8	941.3	1064.9	1194.6
17.5°	871.8	891.8	903.6	1000.2	1168.7
20°	856.4	865.9	876.5	953.0	1139.2
22.5°	845.9	840.0	848.2	920.1	1099.1
25°	838.8	816.4	825.9	894.2	1052.0
27.5°	844.7	795.2	798.7	870.6	1002.6
30°	845.9	769.3	770.4	845.9	947.2
32.5°	837.6	742.2	743.4	815.2	884.7
35°	817.6	710.4	709.2	779.8	799.9
37.5°	790.5	676.2	676.2	741.0	706.9
40°	757.5	642.0	645.6	690.3	624.4
42.5°	717.5	605.5	610.2	623.2	563.1
45°	673.8	570.2	573.7	526.6	516.0
47.5°	625.5	533.7	534.9	437.0	500.7
50°	567.8	496.0	491.2	374.6	499.5
52.5°	517.1	454.7	440.6	339.3	453.6
55°	467.7	411.1	380.5	312.1	420.5
57.5°	424.1	354.6	325.1	280.4	413.5
60°	384.1	299.2	276.8	246.2	379.3
62.5°	351.1	258.0	253.3	222.6	344.0
65°	315.7	229.8	228.5	202.6	292.1
67.5°	281.6	210.9	209.7	183.7	222.6
70°	245.0	190.9	188.5	163.7	164.9
72.5°	207.4	168.5	166.1	147.3	136.7
75°	169.6	142.5	141.4	128.4	110.8
77.5°	133.2	113.1	115.4	103.6	81.3
80°	95.4	82.5	84.8	74.2	61.2
82.5°	63.6	54.2	56.6	47.2	41.2
85°	35.3	30.7	31.8	24.8	18.9
87.5°	16.5	14.1	14.1	9.4	5.9
90°	7.7	4.9	4.6	3.2	1.8
92.5°	47.8	34.0	31.0	19.0	7.0
95°	117.4	66.1	60.7	38.7	16.9
97.5°	158.2	72.6	67.8	48.6	29.2
100°	173.0	78.1	73.7	56.2	38.7
102.5°	179.9	83.5	79.5	63.1	46.8
105°	185.0	91.7	88.3	74.4	60.5
107.5°	185.8	103.6	100.4	87.5	74.6
110°	184.4	110.3	107.4	95.7	84.1



TEST NUMBER: P933865

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	184.5	118.4	115.6	104.5	93.5
115°	186.2	130.5	128.0	117.7	107.5
117.5°	189.7	142.4	140.0	130.7	121.4
120°	192.5	149.2	147.0	138.2	129.5
122.5°	196.6	157.3	155.1	146.2	137.4
125°	202.0	167.7	165.6	157.7	149.6
127.5°	207.5	177.7	175.7	167.5	159.4
130°	211.4	184.4	182.2	173.5	164.7
132.5°	214.7	189.8	187.6	178.9	170.1
135°	218.2	196.2	194.2	186.2	178.2
137.5°	223.4	204.3	202.3	194.4	186.5
140°	226.7	209.7	207.9	200.6	193.3
142.5°	229.4	213.8	212.1	205.3	198.7
145°	232.9	219.9	218.4	212.6	206.8
147.5°	238.0	227.7	226.3	220.5	214.8
150°	240.7	231.7	230.4	225.3	220.1
152.5°	242.5	234.3	233.4	229.4	225.5
155°	246.4	240.1	239.4	236.5	233.6
157.5°	250.2	245.9	245.2	242.4	239.6
160°	252.0	248.6	248.0	245.8	243.6
162.5°	253.8	251.4	250.9	249.3	247.7
165°	256.6	255.5	255.1	253.7	252.2
167.5°	258.7	257.8	257.6	256.9	256.2
170°	260.5	260.4	260.2	259.5	258.8
172.5°	260.6	260.6	260.6	260.4	260.2
175°	261.6	262.2	262.2	262.2	262.2
177.5°	261.7	262.2	262.2	262.2	262.2
180°	262.2	262.2	262.2	262.2	262.2



TEST NUMBER: P933865
 CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3000K

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	12.22	13.24	13.03	14.08	15.11	15.06	16.08	15.87	16.91	17.95
	3H	12.71	13.63	13.54	14.47	15.53	16.42	17.34	17.24	18.18	19.24
	4H	12.91	13.77	13.75	14.63	15.70	16.87	17.74	17.71	18.59	19.66
	6H	13.04	13.83	13.89	14.69	15.78	17.17	17.97	18.02	18.82	19.91
	8H	13.04	13.80	13.91	14.68	15.76	17.25	18.01	18.11	18.88	19.97
	12H	13.02	13.74	13.89	14.61	15.72	17.29	18.02	18.16	18.89	20.00
4H	2H	13.28	14.14	14.12	14.99	16.06	15.49	16.35	16.33	17.20	18.27
	3H	14.32	15.04	15.18	15.92	17.01	17.01	17.73	17.87	18.62	19.70
	4H	14.60	15.26	15.47	16.14	17.25	17.55	18.20	18.42	19.08	20.20
	6H	14.73	15.30	15.62	16.21	17.32	17.92	18.49	18.81	19.40	20.51
	8H	14.74	15.27	15.63	16.17	17.30	18.04	18.56	18.92	19.46	20.59
	12H	14.72	15.20	15.63	16.11	17.25	18.10	18.58	19.01	19.50	20.63
8H	4H	15.07	15.60	15.96	16.50	17.63	17.68	18.21	18.57	19.11	20.24
	6H	15.34	15.77	16.25	16.72	17.84	18.13	18.57	19.05	19.51	20.64
	8H	15.38	15.77	16.31	16.70	17.85	18.28	18.67	19.21	19.61	20.75
	12H	15.37	15.71	16.30	16.64	17.84	18.39	18.73	19.32	19.66	20.86
12H	4H	15.08	15.56	15.99	16.48	17.61	17.66	18.13	18.57	19.05	20.19
	6H	15.40	15.79	16.33	16.72	17.87	18.13	18.52	19.05	19.45	20.60
	8H	15.47	15.82	16.40	16.74	17.94	18.30	18.64	19.23	19.57	20.76