

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: P933866

Luminaire Tested: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P933866
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-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

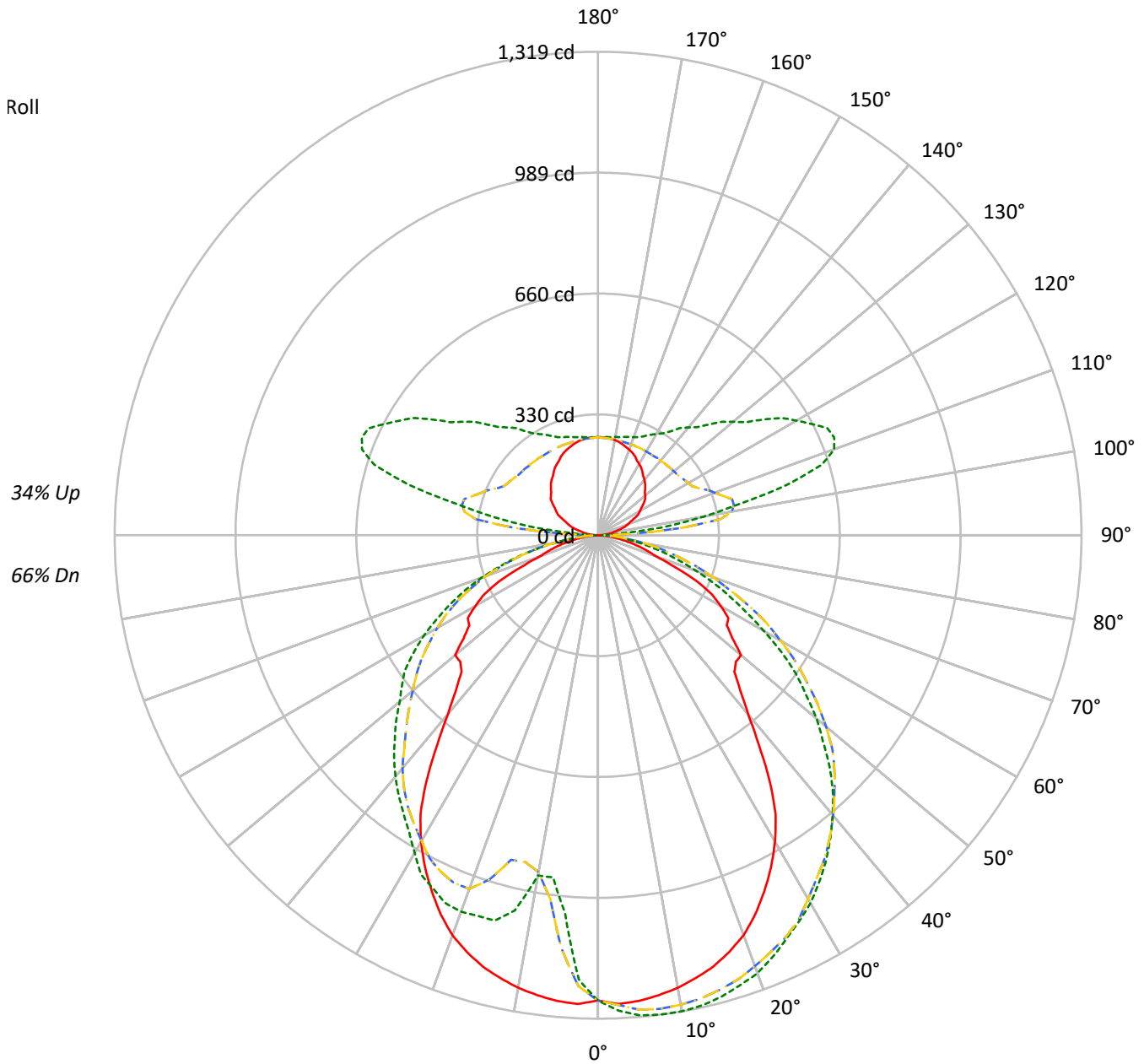
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5024.5 lumens
Efficiency: N/A
Efficacy: 114.2 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: P933866
CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

Luminous Intensity Polar Plot



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



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	5890	5890	5890	5890
5°	5933	5945	5933	4675
10°	5893	5856	5893	4187
15°	5829	5729	5829	4784
20°	5707	5579	5707	4794
25°	5458	5360	5458	4692
30°	5135	5178	5135	4469
35°	4578	4947	4578	4224
40°	3815	4676	3815	4039
45°	3409	4359	3409	3826
50°	3621	3981	3621	3612
55°	3407	3573	3407	3488
60°	3512	3035	3512	3195
65°	3184	2509	3184	2804
70°	2205	1999	2205	2350
75°	1934	1478	1934	1770
80°	1557	977	1557	1063
85°	894	518	894	440

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 5224 cd/sqm



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.6	2.3
10°-20°	325.3	6.5
20°-30°	502.9	10.0
30°-40°	600.3	11.9
40°-50°	603.9	12.0
50°-60°	525.4	10.5
60°-70°	372.5	7.4
70°-80°	197.1	3.9
80°-90°	50.1	1.0
90°-100°	130.2	2.6
100°-110°	342.5	6.8
110°-120°	355.1	7.1
120°-130°	284.8	5.7
130°-140°	223.5	4.4
140°-150°	171.5	3.4
150°-160°	123.5	2.5
160°-170°	75.6	1.5
170°-180°	25.5	0.5
0°-30°	942.8	18.8
0°-40°	1543.1	30.7
0°-60°	2672.4	53.2
0°-90°	3292.2	65.5
90°-120°	827.8	16.5
90°-150°	1507.7	30.0
90°-180°	1732.0	34.5
0°-180°	5024.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1269	1269	1269	1269	1269	
5°	1275	1315	1275	1034	1275	121
15°	1218	1303	1218	1088	1218	343
25°	1072	1215	1072	1064	1072	492
35°	815	1084	815	926	815	504
45°	526	893	526	784	526	421
55°	429	659	429	644	429	394
65°	298	398	298	444	298	285
75°	113	189	113	226	113	119
85°	19	48	19	41	19	26
90°	2	7	2	7	2	2
95°	17	79	17	79	17	19
105°	62	536	62	536	62	65
115°	110	690	110	690	110	108
125°	152	550	152	550	152	135
135°	182	427	182	427	182	141
145°	211	346	211	346	211	132
155°	238	298	238	298	238	109
165°	257	278	257	278	257	73
175°	267	269	267	269	267	25
180°	267	267	267	267	267	



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4
2.5°	1280.1	1280.1	1287.4	1289.8	1289.8	1286.1	1282.5	1286.1	1296.9	1300.5	1299.4
5°	1275.4	1285.0	1298.2	1300.5	1302.9	1301.8	1299.4	1301.8	1313.8	1316.2	1317.4
7.5°	1265.7	1283.8	1300.5	1304.2	1307.8	1304.2	1302.9	1305.4	1317.4	1319.8	1319.8
10°	1253.7	1279.0	1298.2	1300.5	1304.2	1300.5	1300.5	1305.4	1317.4	1319.8	1320.9
12.5°	1236.9	1271.7	1289.8	1292.1	1296.9	1295.8	1294.5	1299.4	1311.4	1313.8	1313.8
15°	1217.7	1258.5	1275.4	1277.7	1286.1	1283.8	1283.8	1288.5	1301.8	1305.4	1304.2
17.5°	1191.3	1241.7	1261.0	1264.5	1270.5	1269.4	1270.5	1275.4	1287.4	1289.8	1291.0
20°	1161.2	1218.9	1241.7	1245.3	1251.3	1251.3	1251.3	1257.3	1269.4	1274.1	1274.1
22.5°	1120.4	1194.9	1218.9	1221.3	1228.5	1228.5	1230.9	1239.3	1250.1	1251.3	1251.3
25°	1072.4	1168.5	1188.9	1196.0	1203.3	1206.9	1210.5	1215.3	1218.9	1217.7	1218.9
27.5°	1022.0	1134.8	1161.2	1166.1	1175.6	1179.3	1184.1	1185.3	1186.5	1190.0	1187.7
30°	965.5	1088.0	1127.6	1132.5	1148.1	1150.5	1145.6	1148.1	1154.1	1156.5	1158.9
32.5°	901.8	1018.3	1092.8	1103.7	1118.1	1110.8	1109.6	1113.2	1122.8	1122.8	1125.2
35°	815.4	964.3	1060.4	1070.0	1080.8	1072.4	1077.2	1078.4	1084.4	1088.0	1086.8
37.5°	720.5	917.5	1026.7	1034.0	1042.4	1031.6	1038.7	1042.4	1047.2	1044.7	1044.7
40°	636.5	844.2	987.2	991.9	999.2	990.8	997.9	1000.3	1002.7	1000.3	999.2
42.5°	574.0	763.8	945.1	951.1	946.3	952.3	954.7	959.5	955.9	951.1	951.1
45°	526.0	742.1	899.4	906.7	899.4	909.1	912.7	912.7	901.8	899.4	898.3
47.5°	510.4	698.9	853.9	853.9	850.2	862.3	868.3	859.9	849.0	845.4	845.4
50°	509.2	650.9	791.4	786.6	803.4	817.8	811.8	803.4	794.9	781.8	781.8
52.5°	462.3	592.1	711.0	729.0	755.4	763.8	754.1	745.8	731.4	725.3	720.5
55°	428.7	530.8	637.6	673.7	701.3	712.1	694.1	685.7	664.1	660.5	658.1
57.5°	421.5	441.9	570.4	616.1	649.6	648.5	637.6	622.1	604.1	600.5	599.2
60°	386.7	319.4	498.3	552.4	587.2	583.7	574.0	559.6	542.8	540.4	538.0
62.5°	350.7	231.8	416.7	477.9	527.2	526.0	517.6	496.0	483.9	477.9	473.2
65°	297.8	194.6	296.6	397.5	468.3	470.8	452.8	437.1	423.9	416.7	415.5
67.5°	227.0	158.6	200.5	331.4	411.9	409.5	386.7	379.5	362.7	359.1	351.9
70°	168.1	105.6	139.3	269.0	356.7	350.7	332.6	324.3	308.6	300.2	295.5
72.5°	139.3	85.2	102.1	209.0	300.2	293.0	277.4	267.8	254.6	247.4	242.5
75°	112.9	90.1	78.1	154.9	243.8	239.0	224.5	215.0	204.1	194.6	195.7
77.5°	82.9	84.1	62.4	114.1	193.4	186.1	177.7	165.7	160.9	151.3	151.3
80°	62.4	66.1	46.8	78.1	139.3	139.3	132.1	123.7	115.3	110.5	110.5
82.5°	42.0	42.0	34.8	49.2	94.9	91.2	86.5	84.1	79.2	76.8	76.8
85°	19.2	24.0	21.6	30.0	51.7	54.1	54.1	51.7	50.4	48.1	49.2
87.5°	6.0	10.8	13.3	16.8	26.4	27.7	28.8	28.8	28.8	30.0	30.0
90°	1.8	3.2	4.7	5.0	7.9	11.7	13.6	12.1	9.0	6.8	6.8
92.5°	7.2	19.3	31.6	34.6	48.7	67.4	76.7	67.2	48.3	34.1	32.8
95°	17.2	39.5	61.9	67.4	119.7	189.4	224.4	200.2	151.9	115.7	111.6
97.5°	29.8	49.5	69.1	74.0	161.2	277.5	335.7	320.5	290.0	267.1	259.3
100°	39.5	57.3	75.1	79.6	176.4	305.4	369.9	371.1	373.3	375.0	365.7
102.5°	47.7	64.4	81.0	85.1	183.4	314.3	379.7	399.1	438.0	467.2	459.2
105°	61.7	75.8	90.0	93.5	188.6	315.2	378.6	422.2	509.4	574.8	570.5
107.5°	76.0	89.2	102.3	105.6	189.4	301.2	357.1	417.8	539.5	630.7	631.8
110°	85.8	97.6	109.5	112.5	188.0	288.7	339.1	407.1	543.1	645.1	649.5



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	95.3	106.5	117.8	120.7	188.1	277.9	322.8	392.4	531.5	635.9	642.8
115°	109.6	120.0	130.4	133.0	189.8	265.5	303.2	370.3	504.4	605.0	614.5
117.5°	123.7	133.2	142.7	145.1	193.4	257.7	289.8	350.3	471.3	562.1	572.6
120°	132.0	140.9	149.9	152.1	196.3	255.1	284.4	339.7	450.3	533.2	543.4
122.5°	140.0	149.1	158.1	160.4	200.4	253.6	280.3	330.1	429.7	504.3	514.4
125°	152.5	160.7	168.9	170.9	205.9	252.6	275.8	318.1	402.7	466.1	475.4
127.5°	162.5	170.7	179.1	181.1	211.5	251.9	272.1	308.4	381.0	435.5	443.4
130°	167.9	176.8	185.7	187.9	215.5	252.3	270.7	303.0	367.6	416.1	423.3
132.5°	173.4	182.4	191.2	193.5	218.8	252.6	269.4	298.3	356.2	399.6	406.1
135°	181.7	189.8	198.0	200.0	222.4	252.3	267.3	291.5	339.9	376.3	381.9
137.5°	190.1	198.1	206.2	208.2	227.8	253.8	266.9	287.4	328.3	359.0	363.6
140°	197.1	204.5	211.9	213.8	231.1	254.1	265.6	283.4	318.7	345.2	349.5
142.5°	202.5	209.3	216.2	217.9	233.9	255.1	265.6	281.2	312.3	335.6	339.2
145°	210.8	216.8	222.7	224.2	237.4	255.1	263.8	276.6	302.0	321.1	323.8
147.5°	219.0	224.8	230.6	232.1	242.6	256.8	263.8	273.9	293.8	308.8	311.1
150°	224.4	229.6	234.8	236.2	245.4	257.7	263.8	272.3	289.2	301.8	303.7
152.5°	229.9	233.9	237.9	238.9	247.2	258.3	263.8	271.0	285.4	296.3	297.7
155°	238.2	241.1	244.1	244.8	251.1	259.6	263.8	269.6	281.0	289.6	290.5
157.5°	244.2	247.1	250.0	250.7	255.1	260.9	263.8	268.3	277.2	283.9	284.5
160°	248.4	250.6	252.8	253.4	256.9	261.5	263.8	267.7	275.3	281.0	281.4
162.5°	252.5	254.2	255.8	256.2	258.7	262.1	263.8	267.1	273.5	278.4	278.7
165°	257.0	258.6	260.1	260.4	261.6	263.1	263.8	266.2	270.7	274.2	274.6
167.5°	261.2	261.9	262.6	262.8	263.8	265.0	265.6	267.2	270.2	272.4	272.6
170°	263.8	264.6	265.3	265.5	265.5	265.6	265.6	267.2	270.2	272.4	272.4
172.5°	265.3	265.5	265.6	265.6	265.6	265.6	265.6	266.8	269.2	271.0	270.8
175°	267.3	267.3	267.3	267.3	266.7	266.0	265.6	266.4	267.9	269.0	269.0
177.5°	267.3	267.3	267.3	267.3	266.8	266.3	266.0	266.6	267.8	268.7	268.5
180°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4
2.5°	1301.8	1298.2	1301.8	1299.4	1300.5	1296.9	1286.1	1282.5	1286.1	1289.8	1289.8
5°	1317.4	1314.9	1317.4	1317.4	1316.2	1313.8	1301.8	1299.4	1301.8	1302.9	1300.5
7.5°	1322.2	1318.6	1322.2	1319.8	1319.8	1317.4	1305.4	1302.9	1304.2	1307.8	1304.2
10°	1322.2	1318.6	1322.2	1320.9	1319.8	1317.4	1305.4	1300.5	1300.5	1304.2	1300.5
12.5°	1316.2	1313.8	1316.2	1313.8	1313.8	1311.4	1299.4	1294.5	1295.8	1296.9	1292.1
15°	1306.5	1302.9	1306.5	1304.2	1305.4	1301.8	1288.5	1283.8	1283.8	1286.1	1277.7
17.5°	1292.1	1287.4	1292.1	1291.0	1289.8	1287.4	1275.4	1270.5	1269.4	1270.5	1264.5
20°	1275.4	1271.7	1275.4	1274.1	1274.1	1269.4	1257.3	1251.3	1251.3	1251.3	1245.3
22.5°	1249.0	1245.3	1249.0	1251.3	1251.3	1250.1	1239.3	1230.9	1228.5	1228.5	1221.3
25°	1218.9	1215.3	1218.9	1218.9	1217.7	1218.9	1215.3	1210.5	1206.9	1203.3	1196.0
27.5°	1190.0	1187.7	1190.0	1187.7	1190.0	1186.5	1185.3	1184.1	1179.3	1175.6	1166.1
30°	1161.2	1158.9	1161.2	1158.9	1156.5	1154.1	1148.1	1145.6	1150.5	1148.1	1132.5
32.5°	1125.2	1122.8	1125.2	1125.2	1122.8	1122.8	1113.2	1109.6	1110.8	1118.1	1103.7
35°	1088.0	1084.4	1088.0	1086.8	1088.0	1084.4	1078.4	1077.2	1072.4	1080.8	1070.0
37.5°	1044.7	1041.2	1044.7	1044.7	1044.7	1047.2	1042.4	1038.7	1031.6	1042.4	1034.0
40°	1000.3	995.5	1000.3	999.2	1000.3	1002.7	1000.3	997.9	990.8	999.2	991.9
42.5°	949.9	948.7	949.9	951.1	951.1	955.9	959.5	954.7	952.3	946.3	951.1
45°	895.8	893.4	895.8	898.3	899.4	901.8	912.7	912.7	909.1	899.4	906.7
47.5°	838.2	832.2	838.2	845.4	845.4	849.0	859.9	868.3	862.3	850.2	853.9
50°	777.0	778.2	777.0	781.8	781.8	794.9	803.4	811.8	817.8	803.4	786.6
52.5°	717.0	715.7	717.0	720.5	725.3	731.4	745.8	754.1	763.8	755.4	729.0
55°	656.9	659.3	656.9	658.1	660.5	664.1	685.7	694.1	712.1	701.3	673.7
57.5°	596.8	593.2	596.8	599.2	600.5	604.1	622.1	637.6	648.5	649.6	616.1
60°	527.2	522.4	527.2	538.0	540.4	542.8	559.6	574.0	583.7	587.2	552.4
62.5°	465.9	457.5	465.9	473.2	477.9	483.9	496.0	517.6	526.0	527.2	477.9
65°	401.1	397.5	401.1	415.5	416.7	423.9	437.1	452.8	470.8	468.3	397.5
67.5°	342.3	342.3	342.3	351.9	359.1	362.7	379.5	386.7	409.5	411.9	331.4
70°	288.2	287.0	288.2	295.5	300.2	308.6	324.3	332.6	350.7	356.7	269.0
72.5°	236.5	235.4	236.5	242.5	247.4	254.6	267.8	277.4	293.0	300.2	209.0
75°	191.0	188.6	191.0	195.7	194.6	204.1	215.0	224.5	239.0	243.8	154.9
77.5°	146.5	146.5	146.5	151.3	151.3	160.9	165.7	177.7	186.1	193.4	114.1
80°	109.3	108.1	109.3	110.5	110.5	115.3	123.7	132.1	139.3	139.3	78.1
82.5°	76.8	74.5	76.8	76.8	76.8	79.2	84.1	86.5	91.2	94.9	49.2
85°	48.1	48.1	48.1	49.2	48.1	50.4	51.7	54.1	54.1	51.7	30.0
87.5°	31.2	30.0	31.2	30.0	30.0	28.8	28.8	28.8	27.7	26.4	16.8
90°	6.8	6.8	6.8	6.8	6.8	9.0	12.1	13.6	11.7	7.9	5.0
92.5°	27.3	21.8	27.3	32.8	34.1	48.3	67.2	76.7	67.4	48.7	34.6
95°	95.2	78.7	95.2	111.6	115.7	151.9	200.2	224.4	189.4	119.7	67.4
97.5°	227.9	196.7	227.9	259.3	267.1	290.0	320.5	335.7	277.5	161.2	74.0
100°	328.5	291.2	328.5	365.7	375.0	373.3	371.1	369.9	305.4	176.4	79.6
102.5°	427.3	395.5	427.3	459.2	467.2	438.0	399.1	379.7	314.3	183.4	85.1
105°	553.4	536.2	553.4	570.5	574.8	509.4	422.2	378.6	315.2	188.6	93.5
107.5°	635.9	640.1	635.9	631.8	630.7	539.5	417.8	357.1	301.2	189.4	105.6
110°	667.4	685.3	667.4	649.5	645.1	543.1	407.1	339.1	288.7	188.0	112.5



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	670.2	697.6	670.2	642.8	635.9	531.5	392.4	322.8	277.9	188.1	120.7
115°	652.5	690.5	652.5	614.5	605.0	504.4	370.3	303.2	265.5	189.8	133.0
117.5°	614.8	657.0	614.8	572.6	562.1	471.3	350.3	289.8	257.7	193.4	145.1
120°	584.4	625.4	584.4	543.4	533.2	450.3	339.7	284.4	255.1	196.3	152.1
122.5°	554.8	595.2	554.8	514.4	504.3	429.7	330.1	280.3	253.6	200.4	160.4
125°	512.7	549.9	512.7	475.4	466.1	402.7	318.1	275.8	252.6	205.9	170.9
127.5°	474.7	506.1	474.7	443.4	435.5	381.0	308.4	272.1	251.9	211.5	181.1
130°	452.3	481.3	452.3	423.3	416.1	367.6	303.0	270.7	252.3	215.5	187.9
132.5°	432.1	458.0	432.1	406.1	399.6	356.2	298.3	269.4	252.6	218.8	193.5
135°	404.2	426.6	404.2	381.9	376.3	339.9	291.5	267.3	252.3	222.4	200.0
137.5°	381.9	400.3	381.9	363.6	359.0	328.3	287.4	266.9	253.8	227.8	208.2
140°	366.6	383.8	366.6	349.5	345.2	318.7	283.4	265.6	254.1	231.1	213.8
142.5°	354.0	368.7	354.0	339.2	335.6	312.3	281.2	265.6	255.1	233.9	217.9
145°	335.0	346.1	335.0	323.8	321.1	302.0	276.6	263.8	255.1	237.4	224.2
147.5°	320.3	329.7	320.3	311.1	308.8	293.8	273.9	263.8	256.8	242.6	232.1
150°	311.2	318.7	311.2	303.7	301.8	289.2	272.3	263.8	257.7	245.4	236.2
152.5°	303.3	309.0	303.3	297.7	296.3	285.4	271.0	263.8	258.3	247.2	238.9
155°	294.3	298.0	294.3	290.5	289.6	281.0	269.6	263.8	259.6	251.1	244.8
157.5°	287.2	289.8	287.2	284.5	283.9	277.2	268.3	263.8	260.9	255.1	250.7
160°	282.9	284.4	282.9	281.4	281.0	275.3	267.7	263.8	261.5	256.9	253.4
162.5°	280.1	281.6	280.1	278.7	278.4	273.5	267.1	263.8	262.1	258.7	256.2
165°	276.1	277.6	276.1	274.6	274.2	270.7	266.2	263.8	263.1	261.6	260.4
167.5°	273.2	273.9	273.2	272.6	272.4	270.2	267.2	265.6	265.0	263.8	262.8
170°	272.4	272.4	272.4	272.4	272.4	270.2	267.2	265.6	265.6	265.5	265.5
172.5°	270.3	269.8	270.3	270.8	271.0	269.2	266.8	265.6	265.6	265.6	265.6
175°	269.0	269.0	269.0	269.0	269.0	267.9	266.4	265.6	266.0	266.7	267.3
177.5°	267.9	267.3	267.9	268.5	268.7	267.8	266.6	266.0	266.3	266.8	267.3
180°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4
2.5°	1287.4	1280.1	1280.1	1268.1	1263.4	1259.7	1253.7	1235.7	1230.9	1226.1	1233.3
5°	1298.2	1285.0	1275.4	1253.7	1235.7	1228.5	1205.7	1162.5	1133.6	1112.0	1100.0
7.5°	1300.5	1283.8	1265.7	1232.1	1188.9	1169.6	1100.0	1020.7	999.2	979.9	967.9
10°	1298.2	1279.0	1253.7	1203.3	1101.2	1067.6	997.9	946.3	933.1	929.5	933.1
12.5°	1289.8	1271.7	1236.9	1152.9	1009.9	987.2	946.3	916.3	913.8	919.8	952.3
15°	1275.4	1258.5	1217.7	1085.6	959.5	942.7	913.8	903.1	916.3	958.3	1055.6
17.5°	1261.0	1241.7	1191.3	1019.6	921.1	909.1	888.7	910.3	984.8	1041.2	1073.6
20°	1241.7	1218.9	1161.2	971.5	893.4	882.7	873.0	970.3	1026.7	1047.2	1065.2
22.5°	1218.9	1194.9	1120.4	937.9	864.6	856.3	862.3	1003.9	1026.7	1041.2	1056.7
25°	1188.9	1168.5	1072.4	911.5	841.9	832.2	855.0	1000.3	1013.6	1017.2	1048.4
27.5°	1161.2	1134.8	1022.0	887.4	814.2	810.6	861.0	984.8	994.3	997.9	1031.6
30°	1127.6	1088.0	965.5	862.3	785.4	784.2	862.3	965.5	963.1	972.8	1006.3
32.5°	1092.8	1018.3	901.8	831.0	757.8	756.5	853.9	936.7	934.3	947.5	972.8
35°	1060.4	964.3	815.4	794.9	723.0	724.1	833.4	903.1	904.3	916.3	931.9
37.5°	1026.7	917.5	720.5	755.4	689.3	689.3	805.8	871.9	869.4	873.0	894.7
40°	987.2	844.2	636.5	703.7	658.1	654.5	772.2	838.2	829.8	828.6	858.6
42.5°	945.1	763.8	574.0	635.3	622.1	617.2	731.4	797.4	781.8	785.4	823.8
45°	899.4	742.1	526.0	536.8	584.8	581.2	686.9	750.5	739.7	749.4	788.9
47.5°	853.9	698.9	510.4	445.5	545.2	544.0	637.6	704.9	698.9	708.5	750.5
50°	791.4	650.9	509.2	381.9	500.7	505.6	578.8	660.5	660.5	668.9	713.3
52.5°	711.0	592.1	462.3	345.9	449.1	463.5	527.2	622.1	624.5	632.9	672.5
55°	637.6	530.8	428.7	318.2	387.8	419.1	476.8	582.4	587.2	595.7	631.6
57.5°	570.4	441.9	421.5	285.8	331.4	361.4	432.3	544.0	546.4	553.6	588.4
60°	498.3	319.4	386.7	251.0	282.2	305.0	391.5	498.3	506.7	511.6	541.6
62.5°	416.7	231.8	350.7	227.0	258.2	263.0	357.9	455.2	465.9	469.6	487.6
65°	296.6	194.6	297.8	206.5	233.0	234.2	321.9	410.7	420.3	426.3	439.5
67.5°	200.5	158.6	227.0	187.3	213.8	215.0	287.0	359.1	372.3	377.1	385.5
70°	139.3	105.6	168.1	166.9	192.1	194.6	249.8	312.2	324.3	327.9	332.6
72.5°	102.1	85.2	139.3	150.1	169.3	171.7	211.4	259.4	271.4	275.0	277.4
75°	78.1	90.1	112.9	130.9	144.1	145.3	172.9	211.4	219.8	222.1	223.4
77.5°	62.4	84.1	82.9	105.6	117.6	115.3	135.7	163.3	170.6	170.6	170.6
80°	46.8	66.1	62.4	75.7	86.5	84.1	97.2	116.5	118.9	121.3	120.1
82.5°	34.8	42.0	42.0	48.1	57.7	55.2	64.8	75.7	75.7	75.7	78.1
85°	21.6	24.0	19.2	25.2	32.4	31.2	36.0	40.8	42.0	42.0	39.7
87.5°	13.3	10.8	6.0	9.6	14.4	14.4	16.8	18.0	16.8	16.8	16.8
90°	4.7	3.2	1.8	3.2	4.7	5.0	7.9	11.7	13.6	12.1	9.0
92.5°	31.6	19.3	7.2	19.3	31.6	34.6	48.7	67.4	76.7	67.2	48.3
95°	61.9	39.5	17.2	39.5	61.9	67.4	119.7	189.4	224.4	200.2	151.9
97.5°	69.1	49.5	29.8	49.5	69.1	74.0	161.2	277.5	335.7	320.5	290.0
100°	75.1	57.3	39.5	57.3	75.1	79.6	176.4	305.4	369.9	371.1	373.3
102.5°	81.0	64.4	47.7	64.4	81.0	85.1	183.4	314.3	379.7	399.1	438.0
105°	90.0	75.8	61.7	75.8	90.0	93.5	188.6	315.2	378.6	422.2	509.4
107.5°	102.3	89.2	76.0	89.2	102.3	105.6	189.4	301.2	357.1	417.8	539.5
110°	109.5	97.6	85.8	97.6	109.5	112.5	188.0	288.7	339.1	407.1	543.1



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	117.8	106.5	95.3	106.5	117.8	120.7	188.1	277.9	322.8	392.4	531.5
115°	130.4	120.0	109.6	120.0	130.4	133.0	189.8	265.5	303.2	370.3	504.4
117.5°	142.7	133.2	123.7	133.2	142.7	145.1	193.4	257.7	289.8	350.3	471.3
120°	149.9	140.9	132.0	140.9	149.9	152.1	196.3	255.1	284.4	339.7	450.3
122.5°	158.1	149.1	140.0	149.1	158.1	160.4	200.4	253.6	280.3	330.1	429.7
125°	168.9	160.7	152.5	160.7	168.9	170.9	205.9	252.6	275.8	318.1	402.7
127.5°	179.1	170.7	162.5	170.7	179.1	181.1	211.5	251.9	272.1	308.4	381.0
130°	185.7	176.8	167.9	176.8	185.7	187.9	215.5	252.3	270.7	303.0	367.6
132.5°	191.2	182.4	173.4	182.4	191.2	193.5	218.8	252.6	269.4	298.3	356.2
135°	198.0	189.8	181.7	189.8	198.0	200.0	222.4	252.3	267.3	291.5	339.9
137.5°	206.2	198.1	190.1	198.1	206.2	208.2	227.8	253.8	266.9	287.4	328.3
140°	211.9	204.5	197.1	204.5	211.9	213.8	231.1	254.1	265.6	283.4	318.7
142.5°	216.2	209.3	202.5	209.3	216.2	217.9	233.9	255.1	265.6	281.2	312.3
145°	222.7	216.8	210.8	216.8	222.7	224.2	237.4	255.1	263.8	276.6	302.0
147.5°	230.6	224.8	219.0	224.8	230.6	232.1	242.6	256.8	263.8	273.9	293.8
150°	234.8	229.6	224.4	229.6	234.8	236.2	245.4	257.7	263.8	272.3	289.2
152.5°	237.9	233.9	229.9	233.9	237.9	238.9	247.2	258.3	263.8	271.0	285.4
155°	244.1	241.1	238.2	241.1	244.1	244.8	251.1	259.6	263.8	269.6	281.0
157.5°	250.0	247.1	244.2	247.1	250.0	250.7	255.1	260.9	263.8	268.3	277.2
160°	252.8	250.6	248.4	250.6	252.8	253.4	256.9	261.5	263.8	267.7	275.3
162.5°	255.8	254.2	252.5	254.2	255.8	256.2	258.7	262.1	263.8	267.1	273.5
165°	260.1	258.6	257.0	258.6	260.1	260.4	261.6	263.1	263.8	266.2	270.7
167.5°	262.6	261.9	261.2	261.9	262.6	262.8	263.8	265.0	265.6	267.2	270.2
170°	265.3	264.6	263.8	264.6	265.3	265.5	265.5	265.6	265.6	267.2	270.2
172.5°	265.6	265.5	265.3	265.5	265.6	265.6	265.6	265.6	265.6	266.8	269.2
175°	267.3	267.3	267.3	267.3	267.3	267.3	266.7	266.0	265.6	266.4	267.9
177.5°	267.3	267.3	267.3	267.3	267.3	267.3	266.8	266.3	266.0	266.6	267.8
180°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4	1269.4
2.5°	1224.9	1221.3	1226.1	1212.9	1226.1	1221.3	1224.9	1233.3	1226.1	1230.9	1235.7
5°	1074.8	1068.8	1049.6	1034.0	1049.6	1068.8	1074.8	1100.0	1112.0	1133.6	1162.5
7.5°	960.7	955.9	951.1	941.5	951.1	955.9	960.7	967.9	979.9	999.2	1020.7
10°	935.5	936.7	943.9	942.7	943.9	936.7	935.5	933.1	929.5	933.1	946.3
12.5°	1000.3	1011.2	1050.7	1048.4	1050.7	1011.2	1000.3	952.3	919.8	913.8	916.3
15°	1074.8	1078.4	1086.8	1088.0	1086.8	1078.4	1074.8	1055.6	958.3	916.3	903.1
17.5°	1082.0	1083.2	1089.2	1089.2	1089.2	1083.2	1082.0	1073.6	1041.2	984.8	910.3
20°	1076.0	1078.4	1090.4	1092.8	1090.4	1078.4	1076.0	1065.2	1047.2	1026.7	970.3
22.5°	1073.6	1078.4	1088.0	1086.8	1088.0	1078.4	1073.6	1056.7	1041.2	1026.7	1003.9
25°	1061.6	1061.6	1062.8	1064.0	1062.8	1061.6	1061.6	1048.4	1017.2	1013.6	1000.3
27.5°	1036.3	1038.7	1046.0	1044.7	1046.0	1038.7	1036.3	1031.6	997.9	994.3	984.8
30°	1013.6	1011.2	1005.2	1000.3	1005.2	1011.2	1013.6	1006.3	972.8	963.1	965.5
32.5°	975.1	969.1	963.1	959.5	963.1	969.1	975.1	972.8	947.5	934.3	936.7
35°	929.5	930.7	929.5	925.8	929.5	930.7	929.5	931.9	916.3	904.3	903.1
37.5°	897.1	899.4	898.3	893.4	898.3	899.4	897.1	894.7	873.0	869.4	871.9
40°	863.4	864.6	863.4	859.9	863.4	864.6	863.4	858.6	828.6	829.8	838.2
42.5°	831.0	829.8	826.2	823.8	826.2	829.8	831.0	823.8	785.4	781.8	797.4
45°	793.8	794.9	787.8	784.2	787.8	794.9	793.8	788.9	749.4	739.7	750.5
47.5°	756.5	756.5	750.5	747.0	750.5	756.5	756.5	750.5	708.5	698.9	704.9
50°	717.0	715.7	707.3	706.1	707.3	715.7	717.0	713.3	668.9	660.5	660.5
52.5°	671.3	671.3	672.5	674.9	672.5	671.3	671.3	672.5	632.9	624.5	622.1
55°	631.6	632.9	641.3	643.6	641.3	632.9	631.6	631.6	595.7	587.2	582.4
57.5°	590.8	590.8	596.8	596.8	596.8	590.8	590.8	588.4	553.6	546.4	544.0
60°	544.0	546.4	551.2	550.0	551.2	546.4	544.0	541.6	511.6	506.7	498.3
62.5°	494.7	497.2	498.3	496.0	498.3	497.2	494.7	487.6	469.6	465.9	455.2
65°	443.1	445.5	446.8	444.3	446.8	445.5	443.1	439.5	426.3	420.3	410.7
67.5°	390.3	389.1	387.8	392.7	387.8	389.1	390.3	385.5	377.1	372.3	359.1
70°	336.3	336.3	335.0	337.4	335.0	336.3	336.3	332.6	327.9	324.3	312.2
72.5°	278.6	277.4	282.2	278.6	282.2	277.4	278.6	277.4	275.0	271.4	259.4
75°	222.1	224.5	222.1	225.8	222.1	224.5	222.1	223.4	222.1	219.8	211.4
77.5°	169.3	171.7	169.3	169.3	169.3	171.7	169.3	170.6	170.6	170.6	163.3
80°	120.1	118.9	118.9	117.6	118.9	118.9	120.1	120.1	121.3	118.9	116.5
82.5°	76.8	75.7	75.7	78.1	75.7	75.7	76.8	78.1	75.7	75.7	75.7
85°	42.0	43.2	40.8	40.8	40.8	43.2	42.0	39.7	42.0	42.0	40.8
87.5°	15.6	14.4	14.4	14.4	14.4	14.4	15.6	16.8	16.8	16.8	18.0
90°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	9.0	12.1	13.6	11.7
92.5°	34.1	32.8	27.3	21.8	27.3	32.8	34.1	48.3	67.2	76.7	67.4
95°	115.7	111.6	95.2	78.7	95.2	111.6	115.7	151.9	200.2	224.4	189.4
97.5°	267.1	259.3	227.9	196.7	227.9	259.3	267.1	290.0	320.5	335.7	277.5
100°	375.0	365.7	328.5	291.2	328.5	365.7	375.0	373.3	371.1	369.9	305.4
102.5°	467.2	459.2	427.3	395.5	427.3	459.2	467.2	438.0	399.1	379.7	314.3
105°	574.8	570.5	553.4	536.2	553.4	570.5	574.8	509.4	422.2	378.6	315.2
107.5°	630.7	631.8	635.9	640.1	635.9	631.8	630.7	539.5	417.8	357.1	301.2
110°	645.1	649.5	667.4	685.3	667.4	649.5	645.1	543.1	407.1	339.1	288.7



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	635.9	642.8	670.2	697.6	670.2	642.8	635.9	531.5	392.4	322.8	277.9
115°	605.0	614.5	652.5	690.5	652.5	614.5	605.0	504.4	370.3	303.2	265.5
117.5°	562.1	572.6	614.8	657.0	614.8	572.6	562.1	471.3	350.3	289.8	257.7
120°	533.2	543.4	584.4	625.4	584.4	543.4	533.2	450.3	339.7	284.4	255.1
122.5°	504.3	514.4	554.8	595.2	554.8	514.4	504.3	429.7	330.1	280.3	253.6
125°	466.1	475.4	512.7	549.9	512.7	475.4	466.1	402.7	318.1	275.8	252.6
127.5°	435.5	443.4	474.7	506.1	474.7	443.4	435.5	381.0	308.4	272.1	251.9
130°	416.1	423.3	452.3	481.3	452.3	423.3	416.1	367.6	303.0	270.7	252.3
132.5°	399.6	406.1	432.1	458.0	432.1	406.1	399.6	356.2	298.3	269.4	252.6
135°	376.3	381.9	404.2	426.6	404.2	381.9	376.3	339.9	291.5	267.3	252.3
137.5°	359.0	363.6	381.9	400.3	381.9	363.6	359.0	328.3	287.4	266.9	253.8
140°	345.2	349.5	366.6	383.8	366.6	349.5	345.2	318.7	283.4	265.6	254.1
142.5°	335.6	339.2	354.0	368.7	354.0	339.2	335.6	312.3	281.2	265.6	255.1
145°	321.1	323.8	335.0	346.1	335.0	323.8	321.1	302.0	276.6	263.8	255.1
147.5°	308.8	311.1	320.3	329.7	320.3	311.1	308.8	293.8	273.9	263.8	256.8
150°	301.8	303.7	311.2	318.7	311.2	303.7	301.8	289.2	272.3	263.8	257.7
152.5°	296.3	297.7	303.3	309.0	303.3	297.7	296.3	285.4	271.0	263.8	258.3
155°	289.6	290.5	294.3	298.0	294.3	290.5	289.6	281.0	269.6	263.8	259.6
157.5°	283.9	284.5	287.2	289.8	287.2	284.5	283.9	277.2	268.3	263.8	260.9
160°	281.0	281.4	282.9	284.4	282.9	281.4	281.0	275.3	267.7	263.8	261.5
162.5°	278.4	278.7	280.1	281.6	280.1	278.7	278.4	273.5	267.1	263.8	262.1
165°	274.2	274.6	276.1	277.6	276.1	274.6	274.2	270.7	266.2	263.8	263.1
167.5°	272.4	272.6	273.2	273.9	273.2	272.6	272.4	270.2	267.2	265.6	265.0
170°	272.4	272.4	272.4	272.4	272.4	272.4	272.4	270.2	267.2	265.6	265.6
172.5°	271.0	270.8	270.3	269.8	270.3	270.8	271.0	269.2	266.8	265.6	265.6
175°	269.0	269.0	269.0	269.0	269.0	269.0	269.0	267.9	266.4	265.6	266.0
177.5°	268.7	268.5	267.9	267.3	267.9	268.5	268.7	267.8	266.6	266.0	266.3
180°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	1269.4	1269.4	1269.4	1269.4	1269.4
2.5°	1253.7	1259.7	1263.4	1268.1	1280.1
5°	1205.7	1228.5	1235.7	1253.7	1275.4
7.5°	1100.0	1169.6	1188.9	1232.1	1265.7
10°	997.9	1067.6	1101.2	1203.3	1253.7
12.5°	946.3	987.2	1009.9	1152.9	1236.9
15°	913.8	942.7	959.5	1085.6	1217.7
17.5°	888.7	909.1	921.1	1019.6	1191.3
20°	873.0	882.7	893.4	971.5	1161.2
22.5°	862.3	856.3	864.6	937.9	1120.4
25°	855.0	832.2	841.9	911.5	1072.4
27.5°	861.0	810.6	814.2	887.4	1022.0
30°	862.3	784.2	785.4	862.3	965.5
32.5°	853.9	756.5	757.8	831.0	901.8
35°	833.4	724.1	723.0	794.9	815.4
37.5°	805.8	689.3	689.3	755.4	720.5
40°	772.2	654.5	658.1	703.7	636.5
42.5°	731.4	617.2	622.1	635.3	574.0
45°	686.9	581.2	584.8	536.8	526.0
47.5°	637.6	544.0	545.2	445.5	510.4
50°	578.8	505.6	500.7	381.9	509.2
52.5°	527.2	463.5	449.1	345.9	462.3
55°	476.8	419.1	387.8	318.2	428.7
57.5°	432.3	361.4	331.4	285.8	421.5
60°	391.5	305.0	282.2	251.0	386.7
62.5°	357.9	263.0	258.2	227.0	350.7
65°	321.9	234.2	233.0	206.5	297.8
67.5°	287.0	215.0	213.8	187.3	227.0
70°	249.8	194.6	192.1	166.9	168.1
72.5°	211.4	171.7	169.3	150.1	139.3
75°	172.9	145.3	144.1	130.9	112.9
77.5°	135.7	115.3	117.6	105.6	82.9
80°	97.2	84.1	86.5	75.7	62.4
82.5°	64.8	55.2	57.7	48.1	42.0
85°	36.0	31.2	32.4	25.2	19.2
87.5°	16.8	14.4	14.4	9.6	6.0
90°	7.9	5.0	4.7	3.2	1.8
92.5°	48.7	34.6	31.6	19.3	7.2
95°	119.7	67.4	61.9	39.5	17.2
97.5°	161.2	74.0	69.1	49.5	29.8
100°	176.4	79.6	75.1	57.3	39.5
102.5°	183.4	85.1	81.0	64.4	47.7
105°	188.6	93.5	90.0	75.8	61.7
107.5°	189.4	105.6	102.3	89.2	76.0
110°	188.0	112.5	109.5	97.6	85.8



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	188.1	120.7	117.8	106.5	95.3
115°	189.8	133.0	130.4	120.0	109.6
117.5°	193.4	145.1	142.7	133.2	123.7
120°	196.3	152.1	149.9	140.9	132.0
122.5°	200.4	160.4	158.1	149.1	140.0
125°	205.9	170.9	168.9	160.7	152.5
127.5°	211.5	181.1	179.1	170.7	162.5
130°	215.5	187.9	185.7	176.8	167.9
132.5°	218.8	193.5	191.2	182.4	173.4
135°	222.4	200.0	198.0	189.8	181.7
137.5°	227.8	208.2	206.2	198.1	190.1
140°	231.1	213.8	211.9	204.5	197.1
142.5°	233.9	217.9	216.2	209.3	202.5
145°	237.4	224.2	222.7	216.8	210.8
147.5°	242.6	232.1	230.6	224.8	219.0
150°	245.4	236.2	234.8	229.6	224.4
152.5°	247.2	238.9	237.9	233.9	229.9
155°	251.1	244.8	244.1	241.1	238.2
157.5°	255.1	250.7	250.0	247.1	244.2
160°	256.9	253.4	252.8	250.6	248.4
162.5°	258.7	256.2	255.8	254.2	252.5
165°	261.6	260.4	260.1	258.6	257.0
167.5°	263.8	262.8	262.6	261.9	261.2
170°	265.5	265.5	265.3	264.6	263.8
172.5°	265.6	265.6	265.6	265.5	265.3
175°	266.7	267.3	267.3	267.3	267.3
177.5°	266.8	267.3	267.3	267.3	267.3
180°	267.3	267.3	267.3	267.3	267.3



TEST NUMBER: P933866

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-8-3500K

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	12.29	13.31	13.10	14.14	15.17	15.13	16.15	15.94	16.98	18.01
	3H	12.78	13.69	13.60	14.54	15.60	16.49	17.40	17.31	18.25	19.31
	4H	12.98	13.84	13.82	14.69	15.76	16.94	17.80	17.78	18.66	19.73
	6H	13.10	13.90	13.96	14.76	15.84	17.24	18.03	18.09	18.89	19.97
	8H	13.11	13.87	13.97	14.75	15.83	17.32	18.07	18.18	18.95	20.04
	12H	13.09	13.81	13.95	14.68	15.79	17.36	18.08	18.23	18.95	20.06
4H	2H	13.34	14.21	14.19	15.06	16.13	15.56	16.42	16.40	17.27	18.34
	3H	14.38	15.11	15.24	15.99	17.07	17.08	17.80	17.94	18.68	19.77
	4H	14.67	15.32	15.54	16.20	17.32	17.61	18.27	18.48	19.15	20.26
	6H	14.80	15.37	15.69	16.27	17.39	17.99	18.56	18.88	19.46	20.58
	8H	14.81	15.34	15.70	16.24	17.37	18.10	18.63	18.99	19.53	20.66
	12H	14.79	15.26	15.69	16.18	17.32	18.17	18.64	19.08	19.56	20.70
8H	4H	15.14	15.66	16.02	16.56	17.69	17.75	18.28	18.64	19.18	20.31
	6H	15.40	15.84	16.32	16.78	17.91	18.20	18.63	19.11	19.58	20.70
	8H	15.45	15.84	16.37	16.77	17.92	18.35	18.74	19.28	19.67	20.82
	12H	15.44	15.78	16.37	16.71	17.90	18.46	18.80	19.39	19.73	20.92
12H	4H	15.15	15.63	16.06	16.55	17.68	17.72	18.20	18.63	19.12	20.25
	6H	15.47	15.85	16.39	16.79	17.93	18.19	18.58	19.12	19.52	20.66
	8H	15.54	15.88	16.47	16.81	18.01	18.37	18.71	19.29	19.63	20.83