

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: P934459

Luminaire Tested: SQ4-FA-050U-100D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P934459
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-93050-1D-UNV-STD-W-4-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

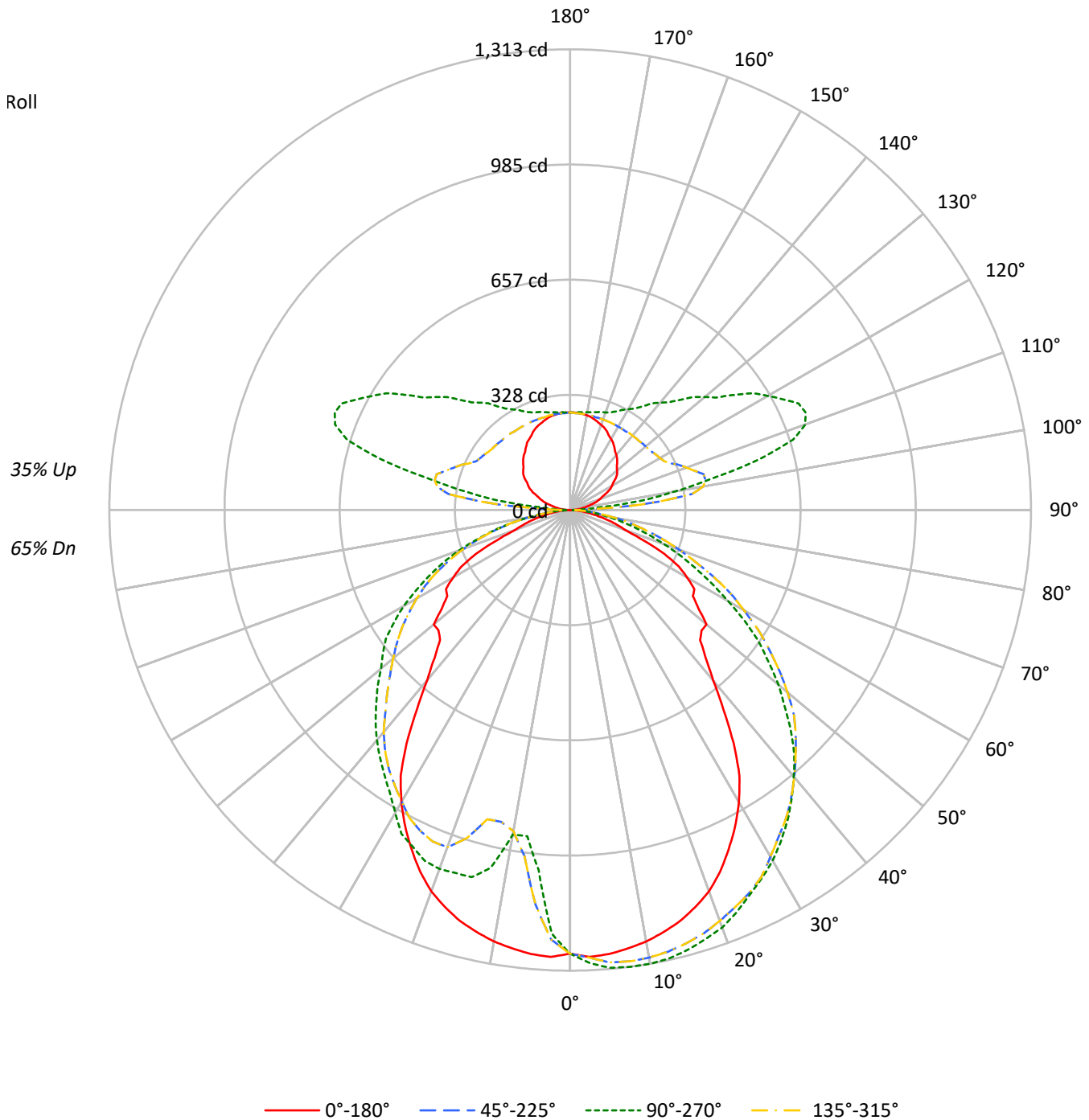
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5080.6 lumens
Efficiency: N/A
Efficacy: 112.4 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





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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11730	11730	11730	11730
5°	11805	11841	11805	9310
10°	11713	11663	11713	8339
15°	11571	11410	11571	9528
20°	11316	11112	11316	9548
25°	10809	10675	10809	9346
30°	10157	10313	10157	8902
35°	9040	9854	9040	8414
40°	7521	9314	7521	8045
45°	6706	8683	6706	7621
50°	7109	7929	7109	7195
55°	6670	7117	6670	6948
60°	6850	6044	6850	6364
65°	6181	4996	6181	5585
70°	4252	3982	4252	4682
75°	3686	2943	3686	3524
80°	2911	1945	2911	2119
85°	1582	1030	1582	875

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 10298 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.1	2.2
10°-20°	324.0	6.4
20°-30°	500.8	9.9
30°-40°	597.9	11.8
40°-50°	601.4	11.8
50°-60°	523.3	10.3
60°-70°	371.0	7.3
70°-80°	196.3	3.9
80°-90°	49.9	1.0
90°-100°	135.5	2.7
100°-110°	356.2	7.0
110°-120°	369.4	7.3
120°-130°	296.3	5.8
130°-140°	232.5	4.6
140°-150°	178.4	3.5
150°-160°	128.5	2.5
160°-170°	78.6	1.5
170°-180°	26.6	0.5
0°-30°	938.9	18.5
0°-40°	1536.8	30.2
0°-60°	2661.4	52.4
0°-90°	3278.6	64.5
90°-120°	861.1	16.9
90°-150°	1568.3	30.9
90°-180°	1802.0	35.5
0°-180°	5080.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1264	1264	1264	1264	1264	
5°	1270	1310	1270	1030	1270	120
15°	1213	1298	1213	1084	1213	341
25°	1068	1210	1068	1060	1068	490
35°	812	1080	812	922	812	502
45°	524	890	524	781	524	420
55°	427	657	427	641	427	392
65°	297	396	297	442	297	283
75°	112	188	112	225	112	118
85°	19	48	19	41	19	26
90°	2	7	2	7	2	2
95°	18	82	18	82	18	20
105°	64	558	64	558	64	68
115°	114	718	114	718	114	113
125°	159	572	159	572	159	141
135°	189	444	189	444	189	146
145°	219	360	219	360	219	137
155°	248	310	248	310	248	114
165°	267	289	267	289	267	75
175°	278	280	278	280	278	26
180°	278	278	278	278	278	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1
2.5°	1274.8	1274.8	1282.1	1284.4	1284.4	1280.8	1277.3	1280.8	1291.6	1295.2	1294.0
5°	1270.1	1279.6	1292.8	1295.2	1297.5	1296.4	1294.0	1296.4	1308.3	1310.8	1311.9
7.5°	1260.5	1278.4	1295.2	1298.8	1302.3	1298.8	1297.5	1300.0	1311.9	1314.3	1314.3
10°	1248.6	1273.7	1292.8	1295.2	1298.8	1295.2	1295.2	1300.0	1311.9	1314.3	1315.6
12.5°	1231.8	1266.5	1284.4	1286.9	1291.6	1290.4	1289.2	1294.0	1306.0	1308.3	1308.3
15°	1212.6	1253.4	1270.1	1272.5	1280.8	1278.4	1278.4	1283.2	1296.4	1300.0	1298.8
17.5°	1186.4	1236.6	1255.7	1259.4	1265.3	1264.1	1265.3	1270.1	1282.1	1284.4	1285.6
20°	1156.4	1213.9	1236.6	1240.2	1246.1	1246.1	1246.1	1252.1	1264.1	1268.9	1268.9
22.5°	1115.8	1189.9	1213.9	1216.3	1223.4	1223.4	1225.9	1234.2	1245.0	1246.1	1246.1
25°	1068.0	1163.7	1184.0	1191.2	1198.3	1201.9	1205.5	1210.3	1213.9	1212.6	1213.9
27.5°	1017.8	1130.2	1156.4	1161.2	1170.8	1174.4	1179.2	1180.4	1181.6	1185.1	1182.8
30°	961.6	1083.5	1122.9	1127.7	1143.3	1145.7	1141.0	1143.3	1149.3	1151.7	1154.1
32.5°	898.1	1014.1	1088.3	1099.0	1113.4	1106.2	1105.0	1108.6	1118.2	1118.2	1120.6
35°	812.0	960.4	1056.1	1065.6	1076.3	1068.0	1072.7	1074.0	1079.9	1083.5	1082.3
37.5°	717.5	913.7	1022.6	1029.7	1038.0	1027.3	1034.5	1038.0	1042.8	1040.5	1040.5
40°	633.9	840.7	983.1	987.8	995.0	986.6	993.8	996.2	998.6	996.2	995.0
42.5°	571.7	760.6	941.2	947.2	942.4	948.3	950.8	955.6	952.0	947.2	947.2
45°	523.8	739.1	895.7	902.9	895.7	905.3	908.9	908.9	898.1	895.7	894.6
47.5°	508.2	696.1	850.3	850.3	846.7	858.6	864.7	856.3	845.5	842.0	842.0
50°	507.1	648.2	788.1	783.3	800.1	814.5	808.5	800.1	791.7	778.5	778.5
52.5°	460.5	589.6	708.0	725.9	752.3	760.6	751.0	742.7	728.3	722.3	717.5
55°	427.0	528.6	635.1	670.9	698.4	709.2	691.3	682.9	661.3	657.8	655.3
57.5°	419.8	440.1	568.1	613.5	647.0	645.8	635.1	619.5	601.6	597.9	596.8
60°	385.1	318.1	496.3	550.2	584.8	581.2	571.7	557.3	540.6	538.2	535.8
62.5°	349.2	230.8	415.0	476.0	525.0	523.8	515.5	493.9	482.0	476.0	471.2
65°	296.6	193.7	295.4	395.8	466.4	468.8	450.9	435.3	422.2	415.0	413.7
67.5°	226.0	157.9	199.7	330.1	410.2	407.8	385.1	377.9	361.2	357.5	350.4
70°	167.5	105.3	138.8	267.9	355.2	349.2	331.3	322.9	307.4	299.0	294.2
72.5°	138.8	84.9	101.6	208.1	299.0	291.8	276.3	266.7	253.5	246.4	241.6
75°	112.4	89.7	77.8	154.2	242.8	238.0	223.7	214.1	203.3	193.7	195.0
77.5°	82.6	83.7	62.2	113.6	192.5	185.4	177.0	165.0	160.2	150.7	150.7
80°	62.2	65.8	46.6	77.8	138.8	138.8	131.5	123.2	114.8	110.1	110.1
82.5°	41.8	41.8	34.7	49.1	94.5	90.9	86.1	83.7	78.9	76.6	76.6
85°	19.1	23.9	21.5	29.9	51.4	53.9	53.9	51.4	50.2	47.8	49.1
87.5°	6.0	10.8	13.1	16.7	26.3	27.5	28.7	28.7	28.7	29.9	29.9
90°	1.9	3.3	4.9	5.2	8.2	12.2	14.2	12.6	9.4	7.1	7.1
92.5°	7.4	20.1	32.9	36.0	50.6	70.1	79.8	70.0	50.2	35.5	34.0
95°	17.9	41.1	64.4	70.1	124.6	197.1	233.4	208.2	158.0	120.3	116.0
97.5°	31.0	51.4	71.9	77.0	167.7	288.7	349.2	333.4	301.6	277.8	269.6
100°	41.0	59.6	78.2	82.8	183.5	317.7	384.9	386.1	388.4	390.1	380.4
102.5°	49.6	67.0	84.3	88.6	190.7	326.9	394.9	415.2	455.7	486.0	477.7
105°	64.2	78.8	93.5	97.2	196.1	327.9	393.8	439.2	529.9	597.9	593.5
107.5°	79.1	92.8	106.4	109.9	197.1	313.4	371.5	434.7	561.3	656.2	657.2
110°	89.2	101.5	113.9	116.9	195.6	300.4	352.8	423.5	565.0	671.1	675.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	99.0	110.8	122.6	125.5	195.6	289.1	335.8	408.2	553.0	661.6	668.7
115°	114.0	124.8	135.7	138.4	197.4	276.1	315.4	385.1	524.6	629.3	639.1
117.5°	128.7	138.6	148.4	150.9	201.1	268.0	301.5	364.4	490.2	584.6	595.6
120°	137.3	146.6	155.9	158.2	204.1	265.3	295.9	353.4	468.4	554.7	565.4
122.5°	145.7	155.1	164.5	166.8	208.4	263.9	291.6	343.3	447.0	524.6	535.1
125°	158.6	167.1	175.6	177.8	214.2	262.7	286.9	330.9	418.9	484.9	494.6
127.5°	169.0	177.7	186.3	188.5	220.0	262.0	283.0	320.8	396.3	452.9	461.1
130°	174.6	183.9	193.2	195.5	224.2	262.4	281.5	315.2	382.4	432.8	440.4
132.5°	180.4	189.7	199.0	201.3	227.6	262.7	280.2	310.3	370.5	415.6	422.4
135°	189.0	197.4	205.9	208.0	231.4	262.4	278.0	303.1	353.6	391.4	397.2
137.5°	197.8	206.1	214.5	216.6	237.0	264.0	277.6	298.9	341.5	373.5	378.3
140°	205.0	212.7	220.5	222.4	240.3	264.3	276.3	294.7	331.6	359.2	363.6
142.5°	210.6	217.8	224.8	226.7	243.2	265.2	276.3	292.5	324.8	349.0	352.8
145°	219.2	225.4	231.6	233.2	246.9	265.3	274.4	287.7	314.1	333.9	336.8
147.5°	227.8	233.9	239.9	241.4	252.4	267.1	274.4	284.9	305.7	321.2	323.7
150°	233.4	238.8	244.3	245.7	255.3	268.0	274.4	283.2	300.8	314.0	316.0
152.5°	239.1	243.3	247.5	248.5	257.2	268.7	274.4	282.0	297.0	308.2	309.7
155°	247.7	250.8	253.9	254.6	261.2	270.0	274.4	280.4	292.4	301.3	302.3
157.5°	254.1	257.1	260.1	260.8	265.3	271.4	274.4	279.1	288.4	295.4	296.1
160°	258.4	260.7	263.0	263.6	267.2	272.0	274.4	278.4	286.4	292.4	292.7
162.5°	262.7	264.4	266.1	266.6	269.2	272.7	274.4	277.8	284.5	289.6	289.9
165°	267.4	268.9	270.6	270.9	272.1	273.6	274.4	276.8	281.6	285.2	285.6
167.5°	271.6	272.4	273.1	273.3	274.3	275.6	276.3	277.9	281.1	283.4	283.6
170°	274.4	275.2	275.9	276.1	276.2	276.3	276.3	277.9	281.1	283.4	283.4
172.5°	275.9	276.1	276.3	276.3	276.3	276.3	276.3	277.5	280.0	281.9	281.7
175°	278.0	278.0	278.0	278.0	277.4	276.6	276.3	277.1	278.7	279.9	279.9
177.5°	278.0	278.0	278.0	278.0	277.5	277.0	276.7	277.3	278.6	279.5	279.3
180°	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1
2.5°	1296.4	1292.8	1296.4	1294.0	1295.2	1291.6	1280.8	1277.3	1280.8	1284.4	1284.4
5°	1311.9	1309.6	1311.9	1311.9	1310.8	1308.3	1296.4	1294.0	1296.4	1297.5	1295.2
7.5°	1316.7	1313.1	1316.7	1314.3	1314.3	1311.9	1300.0	1297.5	1298.8	1302.3	1298.8
10°	1316.7	1313.1	1316.7	1315.6	1314.3	1311.9	1300.0	1295.2	1295.2	1298.8	1295.2
12.5°	1310.8	1308.3	1310.8	1308.3	1308.3	1306.0	1294.0	1289.2	1290.4	1291.6	1286.9
15°	1301.2	1297.5	1301.2	1298.8	1300.0	1296.4	1283.2	1278.4	1278.4	1280.8	1272.5
17.5°	1286.9	1282.1	1286.9	1285.6	1284.4	1282.1	1270.1	1265.3	1264.1	1265.3	1259.4
20°	1270.1	1266.5	1270.1	1268.9	1268.9	1264.1	1252.1	1246.1	1246.1	1246.1	1240.2
22.5°	1243.8	1240.2	1243.8	1246.1	1246.1	1245.0	1234.2	1225.9	1223.4	1223.4	1216.3
25°	1213.9	1210.3	1213.9	1213.9	1212.6	1213.9	1210.3	1205.5	1201.9	1198.3	1191.2
27.5°	1185.1	1182.8	1185.1	1182.8	1185.1	1181.6	1180.4	1179.2	1174.4	1170.8	1161.2
30°	1156.4	1154.1	1156.4	1154.1	1151.7	1149.3	1143.3	1141.0	1145.7	1143.3	1127.7
32.5°	1120.6	1118.2	1120.6	1120.6	1118.2	1118.2	1108.6	1105.0	1106.2	1113.4	1099.0
35°	1083.5	1079.9	1083.5	1082.3	1083.5	1079.9	1074.0	1072.7	1068.0	1076.3	1065.6
37.5°	1040.5	1036.9	1040.5	1040.5	1040.5	1042.8	1038.0	1034.5	1027.3	1038.0	1029.7
40°	996.2	991.4	996.2	995.0	996.2	998.6	996.2	993.8	986.6	995.0	987.8
42.5°	946.0	944.8	946.0	947.2	947.2	952.0	955.6	950.8	948.3	942.4	947.2
45°	892.1	889.8	892.1	894.6	895.7	898.1	908.9	908.9	905.3	895.7	902.9
47.5°	834.7	828.8	834.7	842.0	842.0	845.5	856.3	864.7	858.6	846.7	850.3
50°	773.7	775.0	773.7	778.5	778.5	791.7	800.1	808.5	814.5	800.1	783.3
52.5°	714.0	712.8	714.0	717.5	722.3	728.3	742.7	751.0	760.6	752.3	725.9
55°	654.2	656.6	654.2	655.3	657.8	661.3	682.9	691.3	709.2	698.4	670.9
57.5°	594.4	590.8	594.4	596.8	597.9	601.6	619.5	635.1	645.8	647.0	613.5
60°	525.0	520.2	525.0	535.8	538.2	540.6	557.3	571.7	581.2	584.8	550.2
62.5°	464.0	455.7	464.0	471.2	476.0	482.0	493.9	515.5	523.8	525.0	476.0
65°	399.4	395.8	399.4	413.7	415.0	422.2	435.3	450.9	468.8	466.4	395.8
67.5°	340.9	340.9	340.9	350.4	357.5	361.2	377.9	385.1	407.8	410.2	330.1
70°	287.0	285.8	287.0	294.2	299.0	307.4	322.9	331.3	349.2	355.2	267.9
72.5°	235.6	234.4	235.6	241.6	246.4	253.5	266.7	276.3	291.8	299.0	208.1
75°	190.2	187.7	190.2	195.0	193.7	203.3	214.1	223.7	238.0	242.8	154.2
77.5°	145.9	145.9	145.9	150.7	150.7	160.2	165.0	177.0	185.4	192.5	113.6
80°	108.8	107.6	108.8	110.1	110.1	114.8	123.2	131.5	138.8	138.8	77.8
82.5°	76.6	74.1	76.6	76.6	76.6	78.9	83.7	86.1	90.9	94.5	49.1
85°	47.8	47.8	47.8	49.1	47.8	50.2	51.4	53.9	53.9	51.4	29.9
87.5°	31.1	29.9	31.1	29.9	29.9	28.7	28.7	28.7	27.5	26.3	16.7
90°	7.1	7.1	7.1	7.1	7.1	9.4	12.6	14.2	12.2	8.2	5.2
92.5°	28.4	22.7	28.4	34.0	35.5	50.2	70.0	79.8	70.1	50.6	36.0
95°	98.9	81.9	98.9	116.0	120.3	158.0	208.2	233.4	197.1	124.6	70.1
97.5°	237.2	204.7	237.2	269.6	277.8	301.6	333.4	349.2	288.7	167.7	77.0
100°	341.7	303.0	341.7	380.4	390.1	388.4	386.1	384.9	317.7	183.5	82.8
102.5°	444.5	411.4	444.5	477.7	486.0	455.7	415.2	394.9	326.9	190.7	88.6
105°	575.7	557.9	575.7	593.5	597.9	529.9	439.2	393.8	327.9	196.1	97.2
107.5°	661.5	665.8	661.5	657.2	656.2	561.3	434.7	371.5	313.4	197.1	109.9
110°	694.3	712.8	694.3	675.7	671.1	565.0	423.5	352.8	300.4	195.6	116.9



TEST NUMBER: P934459

CATALOG NUMBER: SQ4-FA-050U-100D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	697.2	725.8	697.2	668.7	661.6	553.0	408.2	335.8	289.1	195.6	125.5
115°	678.7	718.2	678.7	639.1	629.3	524.6	385.1	315.4	276.1	197.4	138.4
117.5°	639.5	683.4	639.5	595.6	584.6	490.2	364.4	301.5	268.0	201.1	150.9
120°	607.9	650.5	607.9	565.4	554.7	468.4	353.4	295.9	265.3	204.1	158.2
122.5°	577.2	619.2	577.2	535.1	524.6	447.0	343.3	291.6	263.9	208.4	166.8
125°	533.2	572.0	533.2	494.6	484.9	418.9	330.9	286.9	262.7	214.2	177.8
127.5°	493.8	526.4	493.8	461.1	452.9	396.3	320.8	283.0	262.0	220.0	188.5
130°	470.6	500.7	470.6	440.4	432.8	382.4	315.2	281.5	262.4	224.2	195.5
132.5°	449.4	476.5	449.4	422.4	415.6	370.5	310.3	280.2	262.7	227.6	201.3
135°	420.5	443.8	420.5	397.2	391.4	353.6	303.1	278.0	262.4	231.4	208.0
137.5°	397.3	416.4	397.3	378.3	373.5	341.5	298.9	277.6	264.0	237.0	216.6
140°	381.4	399.3	381.4	363.6	359.2	331.6	294.7	276.3	264.3	240.3	222.4
142.5°	368.2	383.6	368.2	352.8	349.0	324.8	292.5	276.3	265.2	243.2	226.7
145°	348.5	360.1	348.5	336.8	333.9	314.1	287.7	274.4	265.3	246.9	233.2
147.5°	333.3	342.9	333.3	323.7	321.2	305.7	284.9	274.4	267.1	252.4	241.4
150°	323.8	331.6	323.8	316.0	314.0	300.8	283.2	274.4	268.0	255.3	245.7
152.5°	315.5	321.4	315.5	309.7	308.2	297.0	282.0	274.4	268.7	257.2	248.5
155°	306.2	310.1	306.2	302.3	301.3	292.4	280.4	274.4	270.0	261.2	254.6
157.5°	298.8	301.5	298.8	296.1	295.4	288.4	279.1	274.4	271.4	265.3	260.8
160°	294.4	295.9	294.4	292.7	292.4	286.4	278.4	274.4	272.0	267.2	263.6
162.5°	291.5	292.9	291.5	289.9	289.6	284.5	277.8	274.4	272.7	269.2	266.6
165°	287.2	288.8	287.2	285.6	285.2	281.6	276.8	274.4	273.6	272.1	270.9
167.5°	284.2	284.9	284.2	283.6	283.4	281.1	277.9	276.3	275.6	274.3	273.3
170°	283.4	283.4	283.4	283.4	283.4	281.1	277.9	276.3	276.3	276.2	276.1
172.5°	281.1	280.6	281.1	281.7	281.9	280.0	277.5	276.3	276.3	276.3	276.3
175°	279.9	279.9	279.9	279.9	279.9	278.7	277.1	276.3	276.6	277.4	278.0
177.5°	278.7	278.0	278.7	279.3	279.5	278.6	277.3	276.7	277.0	277.5	278.0
180°	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0



TEST NUMBER: P934459

CATALOG NUMBER: SQ4-FA-050U-100D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1
2.5°	1282.1	1274.8	1274.8	1262.9	1258.1	1254.6	1248.6	1230.7	1225.9	1221.1	1228.2
5°	1292.8	1279.6	1270.1	1248.6	1230.7	1223.4	1200.7	1157.7	1128.9	1107.5	1095.5
7.5°	1295.2	1278.4	1260.5	1227.0	1184.0	1164.9	1095.5	1016.6	995.0	975.9	963.9
10°	1292.8	1273.7	1248.6	1198.3	1096.7	1063.2	993.8	942.4	929.2	925.6	929.2
12.5°	1284.4	1266.5	1231.8	1148.1	1005.8	983.1	942.4	912.5	910.1	916.1	948.3
15°	1270.1	1253.4	1212.6	1081.1	955.6	938.8	910.1	899.4	912.5	954.3	1051.3
17.5°	1255.7	1236.6	1186.4	1015.3	917.3	905.3	885.0	906.5	980.7	1036.9	1069.2
20°	1236.6	1213.9	1156.4	967.5	889.8	879.0	869.4	966.3	1022.6	1042.8	1060.8
22.5°	1213.9	1189.9	1115.8	934.0	861.1	852.7	858.6	999.8	1022.6	1036.9	1052.4
25°	1184.0	1163.7	1068.0	907.7	838.4	828.8	851.5	996.2	1009.3	1013.0	1044.0
27.5°	1156.4	1130.2	1017.8	883.8	810.8	807.2	857.5	980.7	990.2	993.8	1027.3
30°	1122.9	1083.5	961.6	858.6	782.1	781.0	858.6	961.6	959.1	968.7	1002.2
32.5°	1088.3	1014.1	898.1	827.6	754.6	753.5	850.3	932.9	930.4	943.6	968.7
35°	1056.1	960.4	812.0	791.7	720.0	721.1	829.9	899.4	900.5	912.5	928.1
37.5°	1022.6	913.7	717.5	752.3	686.5	686.5	802.4	868.2	865.9	869.4	890.9
40°	983.1	840.7	633.9	700.8	655.3	651.8	769.0	834.7	826.4	825.2	855.1
42.5°	941.2	760.6	571.7	632.6	619.5	614.7	728.3	794.1	778.5	782.1	820.4
45°	895.7	739.1	523.8	534.6	582.4	578.9	684.0	747.5	736.7	746.3	785.8
47.5°	850.3	696.1	508.2	443.7	542.9	541.7	635.1	702.0	696.1	705.6	747.5
50°	788.1	648.2	507.1	380.3	498.7	503.5	576.4	657.8	657.8	666.1	710.4
52.5°	708.0	589.6	460.5	344.4	447.2	461.6	525.0	619.5	621.8	630.3	669.7
55°	635.1	528.6	427.0	316.9	386.3	417.4	474.8	580.0	584.8	593.2	629.1
57.5°	568.1	440.1	419.8	284.7	330.1	360.0	430.5	541.7	544.2	551.3	586.0
60°	496.3	318.1	385.1	249.9	281.1	303.8	389.9	496.3	504.7	509.4	539.4
62.5°	415.0	230.8	349.2	226.0	257.2	262.0	356.4	453.2	464.0	467.6	485.5
65°	295.4	193.7	296.6	205.7	232.0	233.2	320.5	409.0	418.5	424.5	437.7
67.5°	199.7	157.9	226.0	186.6	212.9	214.1	285.8	357.5	370.8	375.6	383.9
70°	138.8	105.3	167.5	166.3	191.4	193.7	248.7	310.9	322.9	326.5	331.3
72.5°	101.6	84.9	138.8	149.5	168.6	171.0	210.4	258.3	270.3	273.9	276.3
75°	77.8	89.7	112.4	130.3	143.5	144.7	172.3	210.4	218.9	221.2	222.4
77.5°	62.2	83.7	82.6	105.3	117.2	114.8	135.1	162.7	169.8	169.8	169.8
80°	46.6	65.8	62.2	75.3	86.1	83.7	96.9	116.0	118.4	120.7	119.6
82.5°	34.7	41.8	41.8	47.8	57.4	55.0	64.5	75.3	75.3	75.3	77.8
85°	21.5	23.9	19.1	25.1	32.3	31.1	35.8	40.6	41.8	41.8	39.5
87.5°	13.1	10.8	6.0	9.6	14.4	14.4	16.7	17.9	16.7	16.7	16.7
90°	4.9	3.3	1.9	3.3	4.9	5.2	8.2	12.2	14.2	12.6	9.4
92.5°	32.9	20.1	7.4	20.1	32.9	36.0	50.6	70.1	79.8	70.0	50.2
95°	64.4	41.1	17.9	41.1	64.4	70.1	124.6	197.1	233.4	208.2	158.0
97.5°	71.9	51.4	31.0	51.4	71.9	77.0	167.7	288.7	349.2	333.4	301.6
100°	78.2	59.6	41.0	59.6	78.2	82.8	183.5	317.7	384.9	386.1	388.4
102.5°	84.3	67.0	49.6	67.0	84.3	88.6	190.7	326.9	394.9	415.2	455.7
105°	93.5	78.8	64.2	78.8	93.5	97.2	196.1	327.9	393.8	439.2	529.9
107.5°	106.4	92.8	79.1	92.8	106.4	109.9	197.1	313.4	371.5	434.7	561.3
110°	113.9	101.5	89.2	101.5	113.9	116.9	195.6	300.4	352.8	423.5	565.0



TEST NUMBER: P934459

CATALOG NUMBER: SQ4-FA-050U-100D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	122.6	110.8	99.0	110.8	122.6	125.5	195.6	289.1	335.8	408.2	553.0
115°	135.7	124.8	114.0	124.8	135.7	138.4	197.4	276.1	315.4	385.1	524.6
117.5°	148.4	138.6	128.7	138.6	148.4	150.9	201.1	268.0	301.5	364.4	490.2
120°	155.9	146.6	137.3	146.6	155.9	158.2	204.1	265.3	295.9	353.4	468.4
122.5°	164.5	155.1	145.7	155.1	164.5	166.8	208.4	263.9	291.6	343.3	447.0
125°	175.6	167.1	158.6	167.1	175.6	177.8	214.2	262.7	286.9	330.9	418.9
127.5°	186.3	177.7	169.0	177.7	186.3	188.5	220.0	262.0	283.0	320.8	396.3
130°	193.2	183.9	174.6	183.9	193.2	195.5	224.2	262.4	281.5	315.2	382.4
132.5°	199.0	189.7	180.4	189.7	199.0	201.3	227.6	262.7	280.2	310.3	370.5
135°	205.9	197.4	189.0	197.4	205.9	208.0	231.4	262.4	278.0	303.1	353.6
137.5°	214.5	206.1	197.8	206.1	214.5	216.6	237.0	264.0	277.6	298.9	341.5
140°	220.5	212.7	205.0	212.7	220.5	222.4	240.3	264.3	276.3	294.7	331.6
142.5°	224.8	217.8	210.6	217.8	224.8	226.7	243.2	265.2	276.3	292.5	324.8
145°	231.6	225.4	219.2	225.4	231.6	233.2	246.9	265.3	274.4	287.7	314.1
147.5°	239.9	233.9	227.8	233.9	239.9	241.4	252.4	267.1	274.4	284.9	305.7
150°	244.3	238.8	233.4	238.8	244.3	245.7	255.3	268.0	274.4	283.2	300.8
152.5°	247.5	243.3	239.1	243.3	247.5	248.5	257.2	268.7	274.4	282.0	297.0
155°	253.9	250.8	247.7	250.8	253.9	254.6	261.2	270.0	274.4	280.4	292.4
157.5°	260.1	257.1	254.1	257.1	260.1	260.8	265.3	271.4	274.4	279.1	288.4
160°	263.0	260.7	258.4	260.7	263.0	263.6	267.2	272.0	274.4	278.4	286.4
162.5°	266.1	264.4	262.7	264.4	266.1	266.6	269.2	272.7	274.4	277.8	284.5
165°	270.6	268.9	267.4	268.9	270.6	270.9	272.1	273.6	274.4	276.8	281.6
167.5°	273.1	272.4	271.6	272.4	273.1	273.3	274.3	275.6	276.3	277.9	281.1
170°	275.9	275.2	274.4	275.2	275.9	276.1	276.2	276.3	276.3	277.9	281.1
172.5°	276.3	276.1	275.9	276.1	276.3	276.3	276.3	276.3	276.3	277.5	280.0
175°	278.0	278.0	278.0	278.0	278.0	278.0	277.4	276.6	276.3	277.1	278.7
177.5°	278.0	278.0	278.0	278.0	278.0	278.0	277.5	277.0	276.7	277.3	278.6
180°	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0



TEST NUMBER: P934459

CATALOG NUMBER: SQ4-FA-050U-100D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1	1264.1
2.5°	1219.9	1216.3	1221.1	1207.8	1221.1	1216.3	1219.9	1228.2	1221.1	1225.9	1230.7
5°	1070.4	1064.4	1045.3	1029.7	1045.3	1064.4	1070.4	1095.5	1107.5	1128.9	1157.7
7.5°	956.8	952.0	947.2	937.6	947.2	952.0	956.8	963.9	975.9	995.0	1016.6
10°	931.6	932.9	940.0	938.8	940.0	932.9	931.6	929.2	925.6	929.2	942.4
12.5°	996.2	1007.0	1046.5	1044.0	1046.5	1007.0	996.2	948.3	916.1	910.1	912.5
15°	1070.4	1074.0	1082.3	1083.5	1082.3	1074.0	1070.4	1051.3	954.3	912.5	899.4
17.5°	1077.5	1078.8	1084.7	1084.7	1084.7	1078.8	1077.5	1069.2	1036.9	980.7	906.5
20°	1071.5	1074.0	1085.9	1088.3	1085.9	1074.0	1071.5	1060.8	1042.8	1022.6	966.3
22.5°	1069.2	1074.0	1083.5	1082.3	1083.5	1074.0	1069.2	1052.4	1036.9	1022.6	999.8
25°	1057.2	1057.2	1058.4	1059.6	1058.4	1057.2	1057.2	1044.0	1013.0	1009.3	996.2
27.5°	1032.1	1034.5	1041.7	1040.5	1041.7	1034.5	1032.1	1027.3	993.8	990.2	980.7
30°	1009.3	1007.0	1001.0	996.2	1001.0	1007.0	1009.3	1002.2	968.7	959.1	961.6
32.5°	971.1	965.1	959.1	955.6	959.1	965.1	971.1	968.7	943.6	930.4	932.9
35°	925.6	926.9	925.6	922.1	925.6	926.9	925.6	928.1	912.5	900.5	899.4
37.5°	893.4	895.7	894.6	889.8	894.6	895.7	893.4	890.9	869.4	865.9	868.2
40°	859.9	861.1	859.9	856.3	859.9	861.1	859.9	855.1	825.2	826.4	834.7
42.5°	827.6	826.4	822.8	820.4	822.8	826.4	827.6	820.4	782.1	778.5	794.1
45°	790.5	791.7	784.5	781.0	784.5	791.7	790.5	785.8	746.3	736.7	747.5
47.5°	753.5	753.5	747.5	743.9	747.5	753.5	753.5	747.5	705.6	696.1	702.0
50°	714.0	712.8	704.4	703.2	704.4	712.8	714.0	710.4	666.1	657.8	657.8
52.5°	668.6	668.6	669.7	672.1	669.7	668.6	668.6	669.7	630.3	621.8	619.5
55°	629.1	630.3	638.6	641.0	638.6	630.3	629.1	629.1	593.2	584.8	580.0
57.5°	588.4	588.4	594.4	594.4	594.4	588.4	588.4	586.0	551.3	544.2	541.7
60°	541.7	544.2	548.9	547.7	548.9	544.2	541.7	539.4	509.4	504.7	496.3
62.5°	492.7	495.1	496.3	493.9	496.3	495.1	492.7	485.5	467.6	464.0	453.2
65°	441.3	443.7	444.9	442.5	444.9	443.7	441.3	437.7	424.5	418.5	409.0
67.5°	388.7	387.5	386.3	391.0	386.3	387.5	388.7	383.9	375.6	370.8	357.5
70°	334.8	334.8	333.6	336.1	333.6	334.8	334.8	331.3	326.5	322.9	310.9
72.5°	277.4	276.3	281.1	277.4	281.1	276.3	277.4	276.3	273.9	270.3	258.3
75°	221.2	223.7	221.2	224.8	221.2	223.7	221.2	222.4	221.2	218.9	210.4
77.5°	168.6	171.0	168.6	168.6	168.6	171.0	168.6	169.8	169.8	169.8	162.7
80°	119.6	118.4	118.4	117.2	118.4	118.4	119.6	119.6	120.7	118.4	116.0
82.5°	76.6	75.3	75.3	77.8	75.3	75.3	76.6	77.8	75.3	75.3	75.3
85°	41.8	43.1	40.6	40.6	40.6	43.1	41.8	39.5	41.8	41.8	40.6
87.5°	15.6	14.4	14.4	14.4	14.4	14.4	15.6	16.7	16.7	16.7	17.9
90°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	9.4	12.6	14.2	12.2
92.5°	35.5	34.0	28.4	22.7	28.4	34.0	35.5	50.2	70.0	79.8	70.1
95°	120.3	116.0	98.9	81.9	98.9	116.0	120.3	158.0	208.2	233.4	197.1
97.5°	277.8	269.6	237.2	204.7	237.2	269.6	277.8	301.6	333.4	349.2	288.7
100°	390.1	380.4	341.7	303.0	341.7	380.4	390.1	388.4	386.1	384.9	317.7
102.5°	486.0	477.7	444.5	411.4	444.5	477.7	486.0	455.7	415.2	394.9	326.9
105°	597.9	593.5	575.7	557.9	575.7	593.5	597.9	529.9	439.2	393.8	327.9
107.5°	656.2	657.2	661.5	665.8	661.5	657.2	656.2	561.3	434.7	371.5	313.4
110°	671.1	675.7	694.3	712.8	694.3	675.7	671.1	565.0	423.5	352.8	300.4



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CATALOG NUMBER: SQ4-FA-050U-100D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	661.6	668.7	697.2	725.8	697.2	668.7	661.6	553.0	408.2	335.8	289.1
115°	629.3	639.1	678.7	718.2	678.7	639.1	629.3	524.6	385.1	315.4	276.1
117.5°	584.6	595.6	639.5	683.4	639.5	595.6	584.6	490.2	364.4	301.5	268.0
120°	554.7	565.4	607.9	650.5	607.9	565.4	554.7	468.4	353.4	295.9	265.3
122.5°	524.6	535.1	577.2	619.2	577.2	535.1	524.6	447.0	343.3	291.6	263.9
125°	484.9	494.6	533.2	572.0	533.2	494.6	484.9	418.9	330.9	286.9	262.7
127.5°	452.9	461.1	493.8	526.4	493.8	461.1	452.9	396.3	320.8	283.0	262.0
130°	432.8	440.4	470.6	500.7	470.6	440.4	432.8	382.4	315.2	281.5	262.4
132.5°	415.6	422.4	449.4	476.5	449.4	422.4	415.6	370.5	310.3	280.2	262.7
135°	391.4	397.2	420.5	443.8	420.5	397.2	391.4	353.6	303.1	278.0	262.4
137.5°	373.5	378.3	397.3	416.4	397.3	378.3	373.5	341.5	298.9	277.6	264.0
140°	359.2	363.6	381.4	399.3	381.4	363.6	359.2	331.6	294.7	276.3	264.3
142.5°	349.0	352.8	368.2	383.6	368.2	352.8	349.0	324.8	292.5	276.3	265.2
145°	333.9	336.8	348.5	360.1	348.5	336.8	333.9	314.1	287.7	274.4	265.3
147.5°	321.2	323.7	333.3	342.9	333.3	323.7	321.2	305.7	284.9	274.4	267.1
150°	314.0	316.0	323.8	331.6	323.8	316.0	314.0	300.8	283.2	274.4	268.0
152.5°	308.2	309.7	315.5	321.4	315.5	309.7	308.2	297.0	282.0	274.4	268.7
155°	301.3	302.3	306.2	310.1	306.2	302.3	301.3	292.4	280.4	274.4	270.0
157.5°	295.4	296.1	298.8	301.5	298.8	296.1	295.4	288.4	279.1	274.4	271.4
160°	292.4	292.7	294.4	295.9	294.4	292.7	292.4	286.4	278.4	274.4	272.0
162.5°	289.6	289.9	291.5	292.9	291.5	289.9	289.6	284.5	277.8	274.4	272.7
165°	285.2	285.6	287.2	288.8	287.2	285.6	285.2	281.6	276.8	274.4	273.6
167.5°	283.4	283.6	284.2	284.9	284.2	283.6	283.4	281.1	277.9	276.3	275.6
170°	283.4	283.4	283.4	283.4	283.4	283.4	283.4	281.1	277.9	276.3	276.3
172.5°	281.9	281.7	281.1	280.6	281.1	281.7	281.9	280.0	277.5	276.3	276.3
175°	279.9	279.9	279.9	279.9	279.9	279.9	279.9	278.7	277.1	276.3	276.6
177.5°	279.5	279.3	278.7	278.0	278.7	279.3	279.5	278.6	277.3	276.7	277.0
180°	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0	278.0



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CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	1264.1	1264.1	1264.1	1264.1	1264.1
2.5°	1248.6	1254.6	1258.1	1262.9	1274.8
5°	1200.7	1223.4	1230.7	1248.6	1270.1
7.5°	1095.5	1164.9	1184.0	1227.0	1260.5
10°	993.8	1063.2	1096.7	1198.3	1248.6
12.5°	942.4	983.1	1005.8	1148.1	1231.8
15°	910.1	938.8	955.6	1081.1	1212.6
17.5°	885.0	905.3	917.3	1015.3	1186.4
20°	869.4	879.0	889.8	967.5	1156.4
22.5°	858.6	852.7	861.1	934.0	1115.8
25°	851.5	828.8	838.4	907.7	1068.0
27.5°	857.5	807.2	810.8	883.8	1017.8
30°	858.6	781.0	782.1	858.6	961.6
32.5°	850.3	753.5	754.6	827.6	898.1
35°	829.9	721.1	720.0	791.7	812.0
37.5°	802.4	686.5	686.5	752.3	717.5
40°	769.0	651.8	655.3	700.8	633.9
42.5°	728.3	614.7	619.5	632.6	571.7
45°	684.0	578.9	582.4	534.6	523.8
47.5°	635.1	541.7	542.9	443.7	508.2
50°	576.4	503.5	498.7	380.3	507.1
52.5°	525.0	461.6	447.2	344.4	460.5
55°	474.8	417.4	386.3	316.9	427.0
57.5°	430.5	360.0	330.1	284.7	419.8
60°	389.9	303.8	281.1	249.9	385.1
62.5°	356.4	262.0	257.2	226.0	349.2
65°	320.5	233.2	232.0	205.7	296.6
67.5°	285.8	214.1	212.9	186.6	226.0
70°	248.7	193.7	191.4	166.3	167.5
72.5°	210.4	171.0	168.6	149.5	138.8
75°	172.3	144.7	143.5	130.3	112.4
77.5°	135.1	114.8	117.2	105.3	82.6
80°	96.9	83.7	86.1	75.3	62.2
82.5°	64.5	55.0	57.4	47.8	41.8
85°	35.8	31.1	32.3	25.1	19.1
87.5°	16.7	14.4	14.4	9.6	6.0
90°	8.2	5.2	4.9	3.3	1.9
92.5°	50.6	36.0	32.9	20.1	7.4
95°	124.6	70.1	64.4	41.1	17.9
97.5°	167.7	77.0	71.9	51.4	31.0
100°	183.5	82.8	78.2	59.6	41.0
102.5°	190.7	88.6	84.3	67.0	49.6
105°	196.1	97.2	93.5	78.8	64.2
107.5°	197.1	109.9	106.4	92.8	79.1
110°	195.6	116.9	113.9	101.5	89.2



TEST NUMBER: P934459

CATALOG NUMBER: SQ4-FA-050U-100D-93050-1D-UNV-STD-W-4-4000K

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	195.6	125.5	122.6	110.8	99.0
115°	197.4	138.4	135.7	124.8	114.0
117.5°	201.1	150.9	148.4	138.6	128.7
120°	204.1	158.2	155.9	146.6	137.3
122.5°	208.4	166.8	164.5	155.1	145.7
125°	214.2	177.8	175.6	167.1	158.6
127.5°	220.0	188.5	186.3	177.7	169.0
130°	224.2	195.5	193.2	183.9	174.6
132.5°	227.6	201.3	199.0	189.7	180.4
135°	231.4	208.0	205.9	197.4	189.0
137.5°	237.0	216.6	214.5	206.1	197.8
140°	240.3	222.4	220.5	212.7	205.0
142.5°	243.2	226.7	224.8	217.8	210.6
145°	246.9	233.2	231.6	225.4	219.2
147.5°	252.4	241.4	239.9	233.9	227.8
150°	255.3	245.7	244.3	238.8	233.4
152.5°	257.2	248.5	247.5	243.3	239.1
155°	261.2	254.6	253.9	250.8	247.7
157.5°	265.3	260.8	260.1	257.1	254.1
160°	267.2	263.6	263.0	260.7	258.4
162.5°	269.2	266.6	266.1	264.4	262.7
165°	272.1	270.9	270.6	268.9	267.4
167.5°	274.3	273.3	273.1	272.4	271.6
170°	276.2	276.1	275.9	275.2	274.4
172.5°	276.3	276.3	276.3	276.1	275.9
175°	277.4	278.0	278.0	278.0	278.0
177.5°	277.5	278.0	278.0	278.0	278.0
180°	278.0	278.0	278.0	278.0	278.0



TEST NUMBER: P934459
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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	14.59	15.60	15.41	16.44	17.49	17.39	18.40	18.21	19.24	20.29
	3H	15.08	15.98	15.91	16.84	17.91	18.74	19.64	19.57	20.49	21.57
	4H	15.28	16.13	16.13	16.99	18.08	19.18	20.03	20.03	20.90	21.98
	6H	15.40	16.19	16.27	17.06	18.16	19.46	20.25	20.33	21.12	22.22
	8H	15.41	16.16	16.28	17.05	18.15	19.54	20.29	20.41	21.18	22.28
	12H	15.39	16.10	16.26	16.98	18.11	19.58	20.29	20.46	21.17	22.30
4H	2H	15.63	16.49	16.49	17.35	18.44	17.82	18.67	18.67	19.53	20.62
	3H	16.67	17.39	17.54	18.28	19.38	19.33	20.04	20.19	20.93	22.03
	4H	16.96	17.61	17.84	18.50	19.62	19.85	20.50	20.73	21.39	22.52
	6H	17.09	17.65	17.99	18.56	19.70	20.22	20.78	21.12	21.69	22.83
	8H	17.10	17.62	18.00	18.53	19.68	20.33	20.85	21.22	21.76	22.90
	12H	17.07	17.55	17.99	18.47	19.62	20.38	20.86	21.30	21.78	22.93
8H	4H	17.42	17.94	18.31	18.85	19.99	19.99	20.52	20.89	21.42	22.57
	6H	17.68	18.12	18.61	19.07	20.21	20.43	20.86	21.35	21.81	22.95
	8H	17.73	18.11	18.66	19.05	20.22	20.57	20.96	21.51	21.90	23.06
	12H	17.72	18.06	18.66	18.99	20.20	20.67	21.01	21.61	21.95	23.16
12H	4H	17.43	17.90	18.35	18.83	19.98	19.96	20.44	20.88	21.36	22.51
	6H	17.75	18.13	18.68	19.07	20.23	20.42	20.81	21.36	21.75	22.91
	8H	17.82	18.16	18.76	19.09	20.30	20.59	20.93	21.53	21.86	23.07