

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:

Luminaire Tested: SQ4-FA-0U-100D-830-1D-UNV-STD-W-4

Issue Date: 8/1/2024

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-892-4)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-0U-100D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

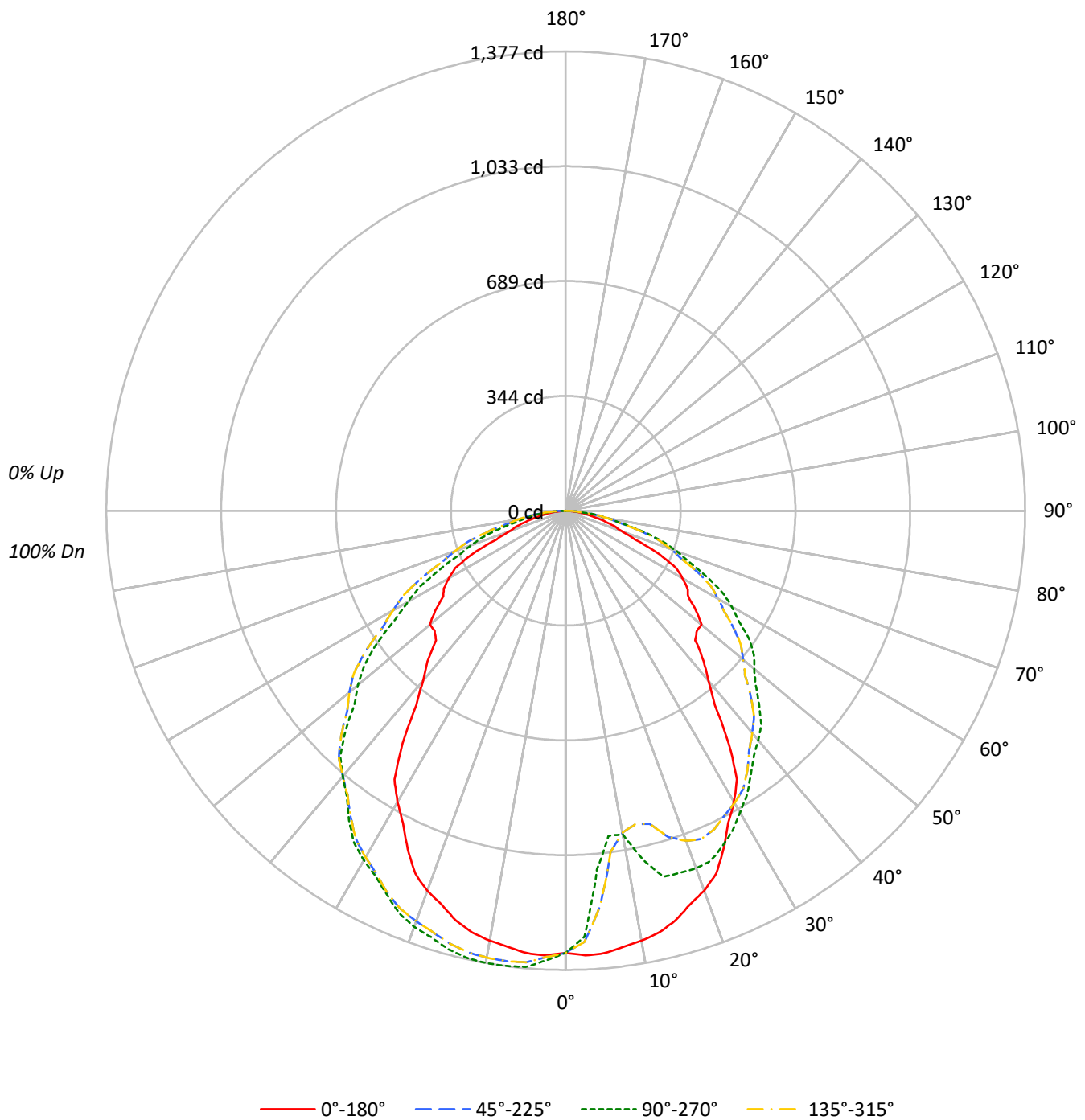
Lumens per Lamp: N/A
Luminaire Lumens: 3434.8 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 32.8
Input Voltage (V): 120
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				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	105	100	97	106	102	98	95	98	95	92		94	92	89		85
2	99	91	85	79	97	90	83	78	86	81	76		83	78	75		71
3	91	81	73	66	88	79	72	66	76	70	64		73	68	63		60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		51
5	77	64	55	49	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	42	69	57	48	42	55	47	42		53	47	41		39
7	66	52	44	38	64	51	43	37	50	43	37		48	42	37		35
8	61	48	39	33	60	47	39	33	46	38	33		44	38	33		31
9	57	44	36	30	56	43	35	30	42	35	30		41	34	30		28
10	54	40	33	27	52	40	32	27	39	32	27		38	32	27		25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12229	12229	12229	12229
5°	12333	10000	12333	12717
10°	12265	9222	12265	12900
15°	12146	10852	12146	12996
20°	11906	11204	11906	13039
25°	11400	11310	11400	12918
30°	10741	11129	10741	12892
35°	9591	10889	9591	12754
40°	8004	10814	8004	12521
45°	7167	10685	7167	12174
50°	7632	10584	7632	11664
55°	7201	10811	7201	11073
60°	7451	10597	7451	10066
65°	6789	10130	6789	9062
70°	4737	9506	4737	8085
75°	4203	8406	4203	7019
80°	3464	6530	3464	5999
85°	2128	4510	2128	5314

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 12435 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.5	3.5
10°-20°	339.6	9.9
20°-30°	524.8	15.3
30°-40°	627.0	18.3
40°-50°	631.0	18.4
50°-60°	547.9	16.0
60°-70°	387.8	11.3
70°-80°	205.1	6.0
80°-90°	52.2	1.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	983.8	28.6
0°-40°	1610.8	46.9
0°-60°	2789.7	81.2
0°-90°	3434.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3434.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1326	1326	1326	1326	1326	
5°	1332	1080	1332	1373	1332	126
15°	1272	1136	1272	1361	1272	357
25°	1120	1111	1120	1269	1120	514
35°	852	967	852	1132	852	526
45°	549	819	549	933	549	442
55°	448	672	448	688	448	412
65°	311	464	311	415	311	296
75°	118	236	118	197	118	124
85°	20	43	20	50	20	29
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5
2.5°	1334.5	1324.5	1320.5	1312.4	1297.4	1289.4	1295.4	1285.4	1289.4	1278.3	1289.4
5°	1331.7	1309.2	1290.4	1259.0	1213.9	1161.2	1148.7	1116.1	1096.0	1079.7	1096.0
7.5°	1319.2	1280.6	1223.2	1127.3	1050.4	1012.7	1003.5	994.2	991.7	983.4	991.7
10°	1309.2	1256.5	1149.9	1042.1	988.2	970.6	974.4	978.1	985.6	984.4	985.6
12.5°	1295.1	1214.4	1073.7	998.9	963.1	962.6	990.4	1040.3	1074.9	1072.7	1074.9
15°	1271.6	1133.6	1001.9	954.3	943.0	1000.7	1102.3	1126.1	1134.9	1136.1	1134.9
17.5°	1237.7	1054.6	956.0	924.7	963.1	1088.5	1119.3	1130.1	1137.6	1138.1	1137.6
20°	1212.6	1014.5	933.0	911.7	1013.2	1093.5	1112.3	1126.1	1138.6	1141.1	1138.6
22.5°	1178.5	986.4	908.9	902.6	1041.3	1088.5	1105.3	1126.1	1136.6	1136.1	1136.6
25°	1119.8	951.8	879.1	892.8	1044.6	1062.1	1094.7	1108.5	1109.8	1111.0	1109.8
27.5°	1055.4	921.4	844.2	899.4	1024.3	1036.8	1071.9	1078.9	1083.7	1081.7	1083.7
30°	1008.2	900.4	820.1	900.4	1008.2	1015.7	1050.9	1055.9	1049.6	1044.6	1049.6
32.5°	955.0	874.3	797.0	893.3	984.1	994.7	1022.8	1020.8	1014.5	1010.5	1014.5
35°	851.5	830.1	754.9	870.3	943.0	956.8	973.1	971.9	970.6	966.8	970.6
37.5°	734.8	778.0	713.3	834.4	903.4	902.4	926.7	932.0	930.7	926.0	930.7
40°	664.6	734.8	687.2	806.3	875.3	865.3	896.6	902.9	901.6	897.9	901.6
42.5°	612.5	677.7	657.1	772.2	841.2	829.1	867.5	873.8	870.5	867.8	870.5
45°	549.3	560.5	610.7	717.3	783.8	782.5	823.9	830.1	822.6	818.9	822.6
47.5°	532.7	451.9	560.0	653.6	726.8	731.6	776.0	781.5	774.7	771.5	774.7
50°	531.7	398.8	522.9	604.4	689.7	698.5	744.9	747.4	738.6	737.4	738.6
52.5°	492.6	368.7	479.8	561.3	657.6	668.4	710.8	710.3	709.5	711.3	709.5
55°	447.7	332.3	405.0	497.8	608.2	622.0	659.6	660.9	669.6	672.1	669.6
57.5°	432.9	291.2	335.8	442.9	558.5	569.3	604.7	607.7	613.7	613.5	613.7
60°	403.8	262.1	294.7	408.8	520.4	534.2	565.6	570.6	575.6	574.3	575.6
62.5°	373.7	242.0	274.6	380.7	484.3	499.1	520.4	529.4	531.4	529.2	531.4
65°	311.0	215.7	243.3	336.1	428.9	445.2	459.0	465.2	466.5	464.0	466.5
67.5°	224.7	191.4	218.7	291.9	365.2	383.5	391.5	395.3	394.0	398.5	394.0
70°	175.6	174.3	200.6	260.8	326.0	342.3	347.4	351.1	349.9	352.4	349.9
72.5°	151.5	160.3	181.6	228.7	281.9	298.2	301.2	302.0	305.7	303.2	305.7
75°	117.9	136.7	150.5	180.6	220.7	232.0	233.2	234.5	232.0	235.8	232.0
77.5°	82.3	104.1	116.4	133.7	160.8	167.8	167.5	168.3	166.3	166.0	166.3
80°	65.2	79.0	90.3	101.6	121.6	126.7	125.4	124.1	124.1	122.9	124.1
82.5°	48.2	55.9	66.2	74.5	87.5	88.5	90.3	88.0	88.0	89.8	88.0
85°	20.1	26.3	33.9	37.6	42.6	43.9	41.4	45.1	42.6	42.6	42.6
87.5°	5.0	8.0	12.0	14.0	15.0	14.0	14.0	12.0	12.0	12.0	12.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5
2.5°	1285.4	1295.4	1289.4	1297.4	1312.4	1320.5	1324.5	1334.5	1334.5	1340.5	1342.5
5°	1116.1	1148.7	1161.2	1213.9	1259.0	1290.4	1309.2	1331.7	1341.8	1355.6	1360.6
7.5°	994.2	1003.5	1012.7	1050.4	1127.3	1223.2	1280.6	1319.2	1339.5	1357.6	1364.9
10°	978.1	974.4	970.6	988.2	1042.1	1149.9	1256.5	1309.2	1335.5	1355.6	1361.8
12.5°	1040.3	990.4	962.6	963.1	998.9	1073.7	1214.4	1295.1	1329.5	1348.6	1355.8
15°	1126.1	1102.3	1000.7	943.0	954.3	1001.9	1133.6	1271.6	1314.2	1331.7	1343.0
17.5°	1130.1	1119.3	1088.5	963.1	924.7	956.0	1054.6	1237.7	1291.9	1312.7	1322.7
20°	1126.1	1112.3	1093.5	1013.2	911.7	933.0	1014.5	1212.6	1272.8	1296.6	1306.7
22.5°	1126.1	1105.3	1088.5	1041.3	902.6	908.9	986.4	1178.5	1252.7	1277.6	1287.6
25°	1108.5	1094.7	1062.1	1044.6	892.8	879.1	951.8	1119.8	1220.1	1241.5	1256.5
27.5°	1078.9	1071.9	1036.8	1024.3	899.4	844.2	921.4	1055.4	1175.2	1205.6	1221.9
30°	1055.9	1050.9	1015.7	1008.2	900.4	820.1	900.4	1008.2	1136.1	1177.5	1198.8
32.5°	1020.8	1022.8	994.7	984.1	893.3	797.0	874.3	955.0	1077.9	1148.4	1173.7
35°	971.9	973.1	956.8	943.0	870.3	754.9	830.1	851.5	1007.0	1107.3	1128.6
37.5°	932.0	926.7	902.4	903.4	834.4	713.3	778.0	734.8	942.8	1063.9	1079.4
40°	902.9	896.6	865.3	875.3	806.3	687.2	734.8	664.6	881.6	1030.8	1043.3
42.5°	873.8	867.5	829.1	841.2	772.2	657.1	677.7	612.5	814.3	995.7	999.2
45°	830.1	823.9	782.5	783.8	717.3	610.7	560.5	549.3	775.0	939.2	939.2
47.5°	781.5	776.0	731.6	726.8	653.6	560.0	451.9	532.7	719.8	878.6	878.1
50°	747.4	744.9	698.5	689.7	604.4	522.9	398.8	531.7	679.7	826.4	838.9
52.5°	710.3	710.8	668.4	657.6	561.3	479.8	368.7	492.6	630.5	759.2	798.8
55°	660.9	659.6	622.0	608.2	497.8	405.0	332.3	447.7	554.3	665.9	732.3
57.5°	607.7	604.7	569.3	558.5	442.9	335.8	291.2	432.9	435.9	580.6	665.4
60°	570.6	565.6	534.2	520.4	408.8	294.7	262.1	403.8	333.6	520.4	613.2
62.5°	529.4	520.4	499.1	484.3	380.7	274.6	242.0	373.7	260.3	452.2	563.0
65°	465.2	459.0	445.2	428.9	336.1	243.3	215.7	311.0	203.1	309.7	489.1
67.5°	395.3	391.5	383.5	365.2	291.9	218.7	191.4	224.7	154.5	196.6	418.6
70°	351.1	347.4	342.3	326.0	260.8	200.6	174.3	175.6	110.4	145.5	372.4
72.5°	302.0	301.2	298.2	281.9	228.7	181.6	160.3	151.5	93.3	114.4	325.3
75°	234.5	233.2	232.0	220.7	180.6	150.5	136.7	117.9	94.1	81.5	254.6
77.5°	168.3	167.5	167.8	160.8	133.7	116.4	104.1	82.3	84.0	61.9	190.6
80°	124.1	125.4	126.7	121.6	101.6	90.3	79.0	65.2	69.0	48.9	145.5
82.5°	88.0	90.3	88.5	87.5	74.5	66.2	55.9	48.2	48.9	38.9	108.3
85°	45.1	41.4	43.9	42.6	37.6	33.9	26.3	20.1	25.1	22.6	53.9
87.5°	12.0	14.0	14.0	15.0	14.0	12.0	8.0	5.0	9.0	11.0	22.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5	1325.5
2.5°	1339.5	1339.5	1348.6	1350.6	1352.6	1349.6	1352.6	1350.6	1348.6	1339.5	1339.5
5°	1359.3	1359.3	1371.9	1375.6	1375.6	1373.1	1375.6	1375.6	1371.9	1359.3	1359.3
7.5°	1361.1	1363.1	1375.6	1378.4	1380.7	1376.9	1380.7	1378.4	1375.6	1363.1	1361.1
10°	1358.1	1363.1	1375.6	1379.4	1380.7	1376.9	1380.7	1379.4	1375.6	1363.1	1358.1
12.5°	1354.1	1358.1	1370.6	1373.4	1375.6	1372.9	1375.6	1373.4	1370.6	1358.1	1354.1
15°	1340.5	1345.5	1359.3	1361.8	1364.4	1360.6	1364.4	1361.8	1359.3	1345.5	1340.5
17.5°	1321.7	1328.0	1340.5	1344.5	1345.8	1341.0	1345.8	1344.5	1340.5	1328.0	1321.7
20°	1306.7	1312.9	1325.5	1330.5	1331.7	1328.0	1331.7	1330.5	1325.5	1312.9	1306.7
22.5°	1287.6	1297.9	1309.4	1311.4	1309.7	1305.9	1309.7	1311.4	1309.4	1297.9	1287.6
25°	1260.3	1269.0	1272.8	1272.8	1272.8	1269.0	1272.8	1272.8	1272.8	1269.0	1260.3
27.5°	1225.4	1229.9	1232.2	1234.2	1236.7	1234.2	1236.7	1234.2	1232.2	1229.9	1225.4
30°	1201.3	1198.8	1205.1	1210.1	1212.6	1210.1	1212.6	1210.1	1205.1	1198.8	1201.3
32.5°	1168.2	1169.7	1179.0	1182.0	1182.5	1180.0	1182.5	1182.0	1179.0	1169.7	1168.2
35°	1119.8	1126.1	1132.4	1134.9	1136.1	1132.4	1136.1	1134.9	1132.4	1126.1	1119.8
37.5°	1068.7	1079.7	1084.2	1081.4	1081.7	1077.7	1081.7	1081.4	1084.2	1079.7	1068.7
40°	1034.6	1044.6	1047.1	1043.3	1044.6	1039.6	1044.6	1043.3	1047.1	1044.6	1034.6
42.5°	1002.4	1010.5	1008.0	1003.2	1002.4	1000.4	1002.4	1003.2	1008.0	1010.5	1002.4
45°	949.3	953.0	941.8	938.0	935.5	933.0	935.5	938.0	941.8	953.0	949.3
47.5°	891.1	886.1	875.3	869.5	862.5	857.7	862.5	869.5	875.3	886.1	891.1
50°	854.0	838.9	830.1	816.4	811.3	812.6	811.3	816.4	830.1	838.9	854.0
52.5°	808.8	790.8	777.0	765.2	761.2	760.4	761.2	765.2	777.0	790.8	808.8
55°	743.6	716.0	693.5	687.2	685.9	688.4	685.9	687.2	693.5	716.0	743.6
57.5°	663.6	636.5	618.0	613.0	608.7	604.7	608.7	613.0	618.0	636.5	663.6
60°	609.4	584.4	566.8	561.8	550.5	545.5	550.5	561.8	566.8	584.4	609.4
62.5°	561.3	531.2	517.7	507.6	499.3	491.3	499.3	507.6	517.7	531.2	561.3
65°	491.6	456.5	442.7	433.9	418.8	415.1	418.8	433.9	442.7	456.5	491.6
67.5°	415.3	384.7	367.4	355.6	346.1	345.9	346.1	355.6	367.4	384.7	415.3
70°	366.2	338.6	322.3	308.5	301.0	299.7	301.0	308.5	322.3	338.6	366.2
72.5°	318.0	291.4	277.1	264.3	257.8	256.6	257.8	264.3	277.1	291.4	318.0
75°	249.5	224.5	213.2	204.4	199.4	196.9	199.4	204.4	213.2	224.5	249.5
77.5°	184.6	164.3	158.5	149.5	145.2	145.0	145.2	149.5	158.5	164.3	184.6
80°	145.5	129.2	120.4	115.4	114.1	112.9	114.1	115.4	120.4	129.2	145.5
82.5°	105.3	96.1	90.3	87.3	87.0	84.8	87.0	87.3	90.3	96.1	105.3
85°	56.4	53.9	52.7	51.4	50.2	50.2	50.2	51.4	52.7	53.9	56.4
87.5°	23.1	24.1	24.1	25.1	26.1	25.1	26.1	25.1	24.1	24.1	23.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-100D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1325.5	1325.5	1325.5	1325.5
2.5°	1342.5	1340.5	1334.5	1334.5
5°	1360.6	1355.6	1341.8	1331.7
7.5°	1364.9	1357.6	1339.5	1319.2
10°	1361.8	1355.6	1335.5	1309.2
12.5°	1355.8	1348.6	1329.5	1295.1
15°	1343.0	1331.7	1314.2	1271.6
17.5°	1322.7	1312.7	1291.9	1237.7
20°	1306.7	1296.6	1272.8	1212.6
22.5°	1287.6	1277.6	1252.7	1178.5
25°	1256.5	1241.5	1220.1	1119.8
27.5°	1221.9	1205.6	1175.2	1055.4
30°	1198.8	1177.5	1136.1	1008.2
32.5°	1173.7	1148.4	1077.9	955.0
35°	1128.6	1107.3	1007.0	851.5
37.5°	1079.4	1063.9	942.8	734.8
40°	1043.3	1030.8	881.6	664.6
42.5°	999.2	995.7	814.3	612.5
45°	939.2	939.2	775.0	549.3
47.5°	878.1	878.6	719.8	532.7
50°	838.9	826.4	679.7	531.7
52.5°	798.8	759.2	630.5	492.6
55°	732.3	665.9	554.3	447.7
57.5°	665.4	580.6	435.9	432.9
60°	613.2	520.4	333.6	403.8
62.5°	563.0	452.2	260.3	373.7
65°	489.1	309.7	203.1	311.0
67.5°	418.6	196.6	154.5	224.7
70°	372.4	145.5	110.4	175.6
72.5°	325.3	114.4	93.3	151.5
75°	254.6	81.5	94.1	117.9
77.5°	190.6	61.9	84.0	82.3
80°	145.5	48.9	69.0	65.2
82.5°	108.3	38.9	48.9	48.2
85°	53.9	22.6	25.1	20.1
87.5°	22.1	11.0	9.0	5.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)