

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-050D-940-1D-UNV-STD-W-8

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-050D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

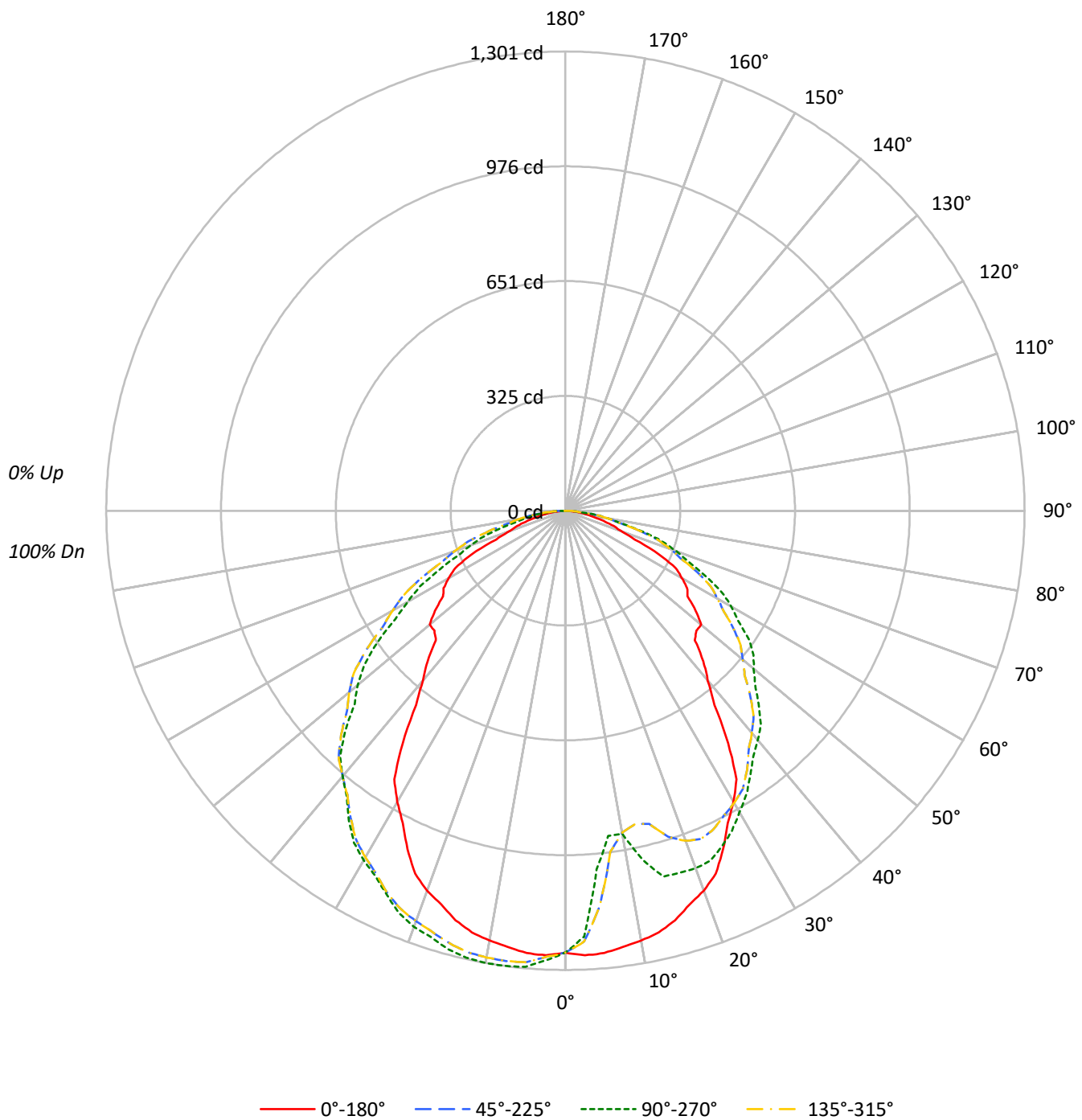
Lumens per Lamp: N/A
Luminaire Lumens: 3244.7 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 35.2
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				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	5776	5776	5776	5776
5°	5825	4723	5825	6007
10°	5793	4356	5793	6093
15°	5737	5125	5737	6138
20°	5623	5292	5623	6159
25°	5384	5342	5384	6102
30°	5073	5256	5073	6089
35°	4529	5143	4529	6024
40°	3781	5108	3781	5914
45°	3385	5046	3385	5750
50°	3605	4999	3605	5509
55°	3401	5106	3401	5230
60°	3519	5005	3519	4754
65°	3207	4784	3207	4280
70°	2236	4490	2236	3818
75°	1986	3969	1986	3315
80°	1636	3084	1636	2832
85°	1006	2133	1006	2509

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 5873 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	3.5
10°-20°	320.8	9.9
20°-30°	495.7	15.3
30°-40°	592.3	18.3
40°-50°	596.1	18.4
50°-60°	517.5	16.0
60°-70°	366.3	11.3
70°-80°	193.8	6.0
80°-90°	49.3	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°	929.4	28.6
0°-40°	1521.6	46.9
0°-60°	2635.3	81.2
0°-90°	3244.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3244.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1252	1252	1252	1252	1252	
5°	1258	1020	1258	1297	1258	119
15°	1201	1073	1201	1285	1201	338
25°	1058	1050	1058	1199	1058	485
35°	804	913	804	1070	804	497
45°	519	774	519	881	519	418
55°	423	635	423	650	423	389
65°	294	438	294	392	294	280
75°	111	223	111	186	111	117
85°	19	40	19	47	19	27
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°	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1260.6	1251.2	1247.4	1239.8	1225.6	1218.0	1223.7	1214.2	1218.0	1207.6	1218.0
5°	1258.0	1236.7	1218.9	1189.3	1146.7	1096.9	1085.1	1054.3	1035.3	1019.9	1035.3
7.5°	1246.2	1209.7	1155.4	1064.9	992.2	956.7	947.9	939.1	936.8	929.0	936.8
10°	1236.7	1187.0	1086.3	984.4	933.5	916.9	920.4	924.0	931.1	929.9	931.1
12.5°	1223.4	1147.2	1014.2	943.6	909.8	909.3	935.6	982.7	1015.4	1013.3	1015.4
15°	1201.2	1070.9	946.5	901.5	890.8	945.3	1041.3	1063.8	1072.1	1073.2	1072.1
17.5°	1169.2	996.2	903.1	873.5	909.8	1028.2	1057.4	1067.6	1074.7	1075.1	1074.7
20°	1145.5	958.3	881.3	861.2	957.1	1033.0	1050.7	1063.8	1075.6	1078.0	1075.6
22.5°	1113.3	931.8	858.6	852.7	983.7	1028.2	1044.1	1063.8	1073.7	1073.2	1073.7
25°	1057.8	899.1	830.4	843.4	986.8	1003.3	1034.1	1047.2	1048.4	1049.5	1048.4
27.5°	997.0	870.4	797.5	849.6	967.6	979.4	1012.6	1019.2	1023.7	1021.8	1023.7
30°	952.4	850.5	774.7	850.5	952.4	959.5	992.7	997.4	991.5	986.8	991.5
32.5°	902.2	825.9	752.9	843.9	929.7	939.6	966.2	964.3	958.3	954.5	958.3
35°	804.3	784.2	713.1	822.1	890.8	903.8	919.2	918.1	916.9	913.3	916.9
37.5°	694.2	734.9	673.8	788.2	853.4	852.4	875.4	880.4	879.2	874.7	879.2
40°	627.8	694.2	649.2	761.7	826.8	817.4	847.0	852.9	851.7	848.2	851.7
42.5°	578.6	640.2	620.7	729.5	794.6	783.3	819.5	825.4	822.3	819.7	822.3
45°	518.8	529.5	576.9	677.6	740.4	739.2	778.3	784.2	777.1	773.5	777.1
47.5°	503.2	426.9	529.0	617.4	686.6	691.1	733.0	738.2	731.8	728.8	731.8
50°	502.3	376.7	494.0	571.0	651.5	659.8	703.6	706.0	697.7	696.5	697.7
52.5°	465.3	348.3	453.2	530.2	621.2	631.4	671.4	671.0	670.2	671.9	670.2
55°	422.9	313.9	382.6	470.3	574.5	587.6	623.1	624.3	632.6	634.9	632.6
57.5°	408.9	275.1	317.2	418.4	527.6	537.8	571.2	574.1	579.7	579.5	579.7
60°	381.4	247.6	278.4	386.2	491.6	504.6	534.2	539.0	543.7	542.5	543.7
62.5°	353.0	228.6	259.4	359.6	457.5	471.5	491.6	500.1	502.0	499.9	502.0
65°	293.8	203.7	229.8	317.5	405.1	420.5	433.6	439.5	440.7	438.3	440.7
67.5°	212.3	180.8	206.6	275.8	345.0	362.2	369.8	373.4	372.2	376.5	372.2
70°	165.8	164.7	189.5	246.4	308.0	323.4	328.1	331.7	330.5	332.9	330.5
72.5°	143.1	151.4	171.5	216.1	266.3	281.7	284.5	285.2	288.8	286.4	288.8
75°	111.4	129.1	142.2	170.6	208.5	219.1	220.3	221.5	219.1	222.7	219.1
77.5°	77.7	98.3	109.9	126.3	151.9	158.5	158.3	159.0	157.1	156.8	157.1
80°	61.6	74.6	85.3	96.0	114.9	119.6	118.5	117.3	117.3	116.1	117.3
82.5°	45.5	52.8	62.5	70.4	82.7	83.6	85.3	83.2	83.2	84.8	83.2
85°	19.0	24.9	32.0	35.5	40.3	41.5	39.1	42.6	40.3	40.3	40.3
87.5°	4.7	7.6	11.4	13.3	14.2	13.3	13.3	11.4	11.4	11.4	11.4
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°	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1214.2	1223.7	1218.0	1225.6	1239.8	1247.4	1251.2	1260.6	1260.6	1266.3	1268.2
5°	1054.3	1085.1	1096.9	1146.7	1189.3	1218.9	1236.7	1258.0	1267.5	1280.5	1285.3
7.5°	939.1	947.9	956.7	992.2	1064.9	1155.4	1209.7	1246.2	1265.4	1282.4	1289.3
10°	924.0	920.4	916.9	933.5	984.4	1086.3	1187.0	1236.7	1261.6	1280.5	1286.5
12.5°	982.7	935.6	909.3	909.8	943.6	1014.2	1147.2	1223.4	1255.9	1273.9	1280.8
15°	1063.8	1041.3	945.3	890.8	901.5	946.5	1070.9	1201.2	1241.4	1258.0	1268.7
17.5°	1067.6	1057.4	1028.2	909.8	873.5	903.1	996.2	1169.2	1220.4	1240.0	1249.5
20°	1063.8	1050.7	1033.0	957.1	861.2	881.3	958.3	1145.5	1202.4	1224.9	1234.3
22.5°	1063.8	1044.1	1028.2	983.7	852.7	858.6	931.8	1113.3	1183.4	1206.9	1216.3
25°	1047.2	1034.1	1003.3	986.8	843.4	830.4	899.1	1057.8	1152.6	1172.7	1187.0
27.5°	1019.2	1012.6	979.4	967.6	849.6	797.5	870.4	997.0	1110.2	1138.9	1154.3
30°	997.4	992.7	959.5	952.4	850.5	774.7	850.5	952.4	1073.2	1112.3	1132.5
32.5°	964.3	966.2	939.6	929.7	843.9	752.9	825.9	902.2	1018.3	1084.8	1108.8
35°	918.1	919.2	903.8	890.8	822.1	713.1	784.2	804.3	951.2	1046.0	1066.1
37.5°	880.4	875.4	852.4	853.4	788.2	673.8	734.9	694.2	890.6	1005.0	1019.7
40°	852.9	847.0	817.4	826.8	761.7	649.2	694.2	627.8	832.8	973.7	985.6
42.5°	825.4	819.5	783.3	794.6	729.5	620.7	640.2	578.6	769.3	940.6	943.9
45°	784.2	778.3	739.2	740.4	677.6	576.9	529.5	518.8	732.1	887.3	887.3
47.5°	738.2	733.0	691.1	686.6	617.4	529.0	426.9	503.2	680.0	829.9	829.4
50°	706.0	703.6	659.8	651.5	571.0	494.0	376.7	502.3	642.0	780.6	792.5
52.5°	671.0	671.4	631.4	621.2	530.2	453.2	348.3	465.3	595.6	717.2	754.6
55°	624.3	623.1	587.6	574.5	470.3	382.6	313.9	422.9	523.6	629.0	691.8
57.5°	574.1	571.2	537.8	527.6	418.4	317.2	275.1	408.9	411.8	548.5	628.5
60°	539.0	534.2	504.6	491.6	386.2	278.4	247.6	381.4	315.1	491.6	579.3
62.5°	500.1	491.6	471.5	457.5	359.6	259.4	228.6	353.0	245.9	427.2	531.9
65°	439.5	433.6	420.5	405.1	317.5	229.8	203.7	293.8	191.9	292.6	462.0
67.5°	373.4	369.8	362.2	345.0	275.8	206.6	180.8	212.3	145.9	185.7	395.4
70°	331.7	328.1	323.4	308.0	246.4	189.5	164.7	165.8	104.2	137.4	351.8
72.5°	285.2	284.5	281.7	266.3	216.1	171.5	151.4	143.1	88.1	108.0	307.3
75°	221.5	220.3	219.1	208.5	170.6	142.2	129.1	111.4	88.8	77.0	240.5
77.5°	159.0	158.3	158.5	151.9	126.3	109.9	98.3	77.7	79.4	58.5	180.1
80°	117.3	118.5	119.6	114.9	96.0	85.3	74.6	61.6	65.2	46.2	137.4
82.5°	83.2	85.3	83.6	82.7	70.4	62.5	52.8	45.5	46.2	36.7	102.3
85°	42.6	39.1	41.5	40.3	35.5	32.0	24.9	19.0	23.7	21.3	50.9
87.5°	11.4	13.3	13.3	14.2	13.3	11.4	7.6	4.7	8.5	10.4	20.8
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°	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1265.4	1265.4	1273.9	1275.8	1277.7	1274.9	1277.7	1275.8	1273.9	1265.4	1265.4
5°	1284.1	1284.1	1295.9	1299.5	1299.5	1297.1	1299.5	1299.5	1295.9	1284.1	1284.1
7.5°	1285.8	1287.6	1299.5	1302.1	1304.2	1300.7	1304.2	1302.1	1299.5	1287.6	1285.8
10°	1282.9	1287.6	1299.5	1303.0	1304.2	1300.7	1304.2	1303.0	1299.5	1287.6	1282.9
12.5°	1279.1	1282.9	1294.8	1297.4	1299.5	1296.9	1299.5	1297.4	1294.8	1282.9	1279.1
15°	1266.3	1271.1	1284.1	1286.5	1288.8	1285.3	1288.8	1286.5	1284.1	1271.1	1266.3
17.5°	1248.6	1254.5	1266.3	1270.1	1271.3	1266.8	1271.3	1270.1	1266.3	1254.5	1248.6
20°	1234.3	1240.3	1252.1	1256.8	1258.0	1254.5	1258.0	1256.8	1252.1	1240.3	1234.3
22.5°	1216.3	1226.0	1236.9	1238.8	1237.2	1233.6	1237.2	1238.8	1236.9	1226.0	1216.3
25°	1190.5	1198.8	1202.4	1202.4	1202.4	1198.8	1202.4	1202.4	1202.4	1198.8	1190.5
27.5°	1157.6	1161.8	1164.0	1165.9	1168.2	1165.9	1168.2	1165.9	1164.0	1161.8	1157.6
30°	1134.8	1132.5	1138.4	1143.1	1145.5	1143.1	1145.5	1143.1	1138.4	1132.5	1134.8
32.5°	1103.6	1105.0	1113.8	1116.6	1117.1	1114.7	1117.1	1116.6	1113.8	1105.0	1103.6
35°	1057.8	1063.8	1069.7	1072.1	1073.2	1069.7	1073.2	1072.1	1069.7	1063.8	1057.8
37.5°	1009.5	1019.9	1024.2	1021.6	1021.8	1018.0	1021.8	1021.6	1024.2	1019.9	1009.5
40°	977.3	986.8	989.1	985.6	986.8	982.0	986.8	985.6	989.1	986.8	977.3
42.5°	947.0	954.5	952.2	947.7	947.0	945.1	947.0	947.7	952.2	954.5	947.0
45°	896.7	900.3	889.6	886.1	883.7	881.3	883.7	886.1	889.6	900.3	896.7
47.5°	841.8	837.0	826.8	821.4	814.8	810.3	814.8	821.4	826.8	837.0	841.8
50°	806.7	792.5	784.2	771.2	766.4	767.6	766.4	771.2	784.2	792.5	806.7
52.5°	764.1	747.0	734.0	722.8	719.0	718.3	719.0	722.8	734.0	747.0	764.1
55°	702.5	676.4	655.1	649.2	648.0	650.3	648.0	649.2	655.1	676.4	702.5
57.5°	626.9	601.3	583.8	579.0	575.0	571.2	575.0	579.0	583.8	601.3	626.9
60°	575.7	552.0	535.4	530.7	520.0	515.3	520.0	530.7	535.4	552.0	575.7
62.5°	530.2	501.8	489.0	479.5	471.7	464.1	471.7	479.5	489.0	501.8	530.2
65°	464.4	431.2	418.2	409.9	395.7	392.1	395.7	409.9	418.2	431.2	464.4
67.5°	392.3	363.4	347.1	335.9	326.9	326.7	326.9	335.9	347.1	363.4	392.3
70°	345.9	319.8	304.4	291.4	284.3	283.1	284.3	291.4	304.4	319.8	345.9
72.5°	300.4	275.3	261.8	249.7	243.6	242.4	243.6	249.7	261.8	275.3	300.4
75°	235.7	212.0	201.4	193.1	188.3	186.0	188.3	193.1	201.4	212.0	235.7
77.5°	174.4	155.2	149.7	141.2	137.2	136.9	137.2	141.2	149.7	155.2	174.4
80°	137.4	122.0	113.7	109.0	107.8	106.6	107.8	109.0	113.7	122.0	137.4
82.5°	99.5	90.7	85.3	82.4	82.2	80.1	82.2	82.4	85.3	90.7	99.5
85°	53.3	50.9	49.8	48.6	47.4	47.4	47.4	48.6	49.8	50.9	53.3
87.5°	21.8	22.7	22.7	23.7	24.6	23.7	24.6	23.7	22.7	22.7	21.8
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-050D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1252.1	1252.1	1252.1	1252.1
2.5°	1268.2	1266.3	1260.6	1260.6
5°	1285.3	1280.5	1267.5	1258.0
7.5°	1289.3	1282.4	1265.4	1246.2
10°	1286.5	1280.5	1261.6	1236.7
12.5°	1280.8	1273.9	1255.9	1223.4
15°	1268.7	1258.0	1241.4	1201.2
17.5°	1249.5	1240.0	1220.4	1169.2
20°	1234.3	1224.9	1202.4	1145.5
22.5°	1216.3	1206.9	1183.4	1113.3
25°	1187.0	1172.7	1152.6	1057.8
27.5°	1154.3	1138.9	1110.2	997.0
30°	1132.5	1112.3	1073.2	952.4
32.5°	1108.8	1084.8	1018.3	902.2
35°	1066.1	1046.0	951.2	804.3
37.5°	1019.7	1005.0	890.6	694.2
40°	985.6	973.7	832.8	627.8
42.5°	943.9	940.6	769.3	578.6
45°	887.3	887.3	732.1	518.8
47.5°	829.4	829.9	680.0	503.2
50°	792.5	780.6	642.0	502.3
52.5°	754.6	717.2	595.6	465.3
55°	691.8	629.0	523.6	422.9
57.5°	628.5	548.5	411.8	408.9
60°	579.3	491.6	315.1	381.4
62.5°	531.9	427.2	245.9	353.0
65°	462.0	292.6	191.9	293.8
67.5°	395.4	185.7	145.9	212.3
70°	351.8	137.4	104.2	165.8
72.5°	307.3	108.0	88.1	143.1
75°	240.5	77.0	88.8	111.4
77.5°	180.1	58.5	79.4	77.7
80°	137.4	46.2	65.2	61.6
82.5°	102.3	36.7	46.2	45.5
85°	50.9	21.3	23.7	19.0
87.5°	20.8	10.4	8.5	4.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)