

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-840-1D-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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

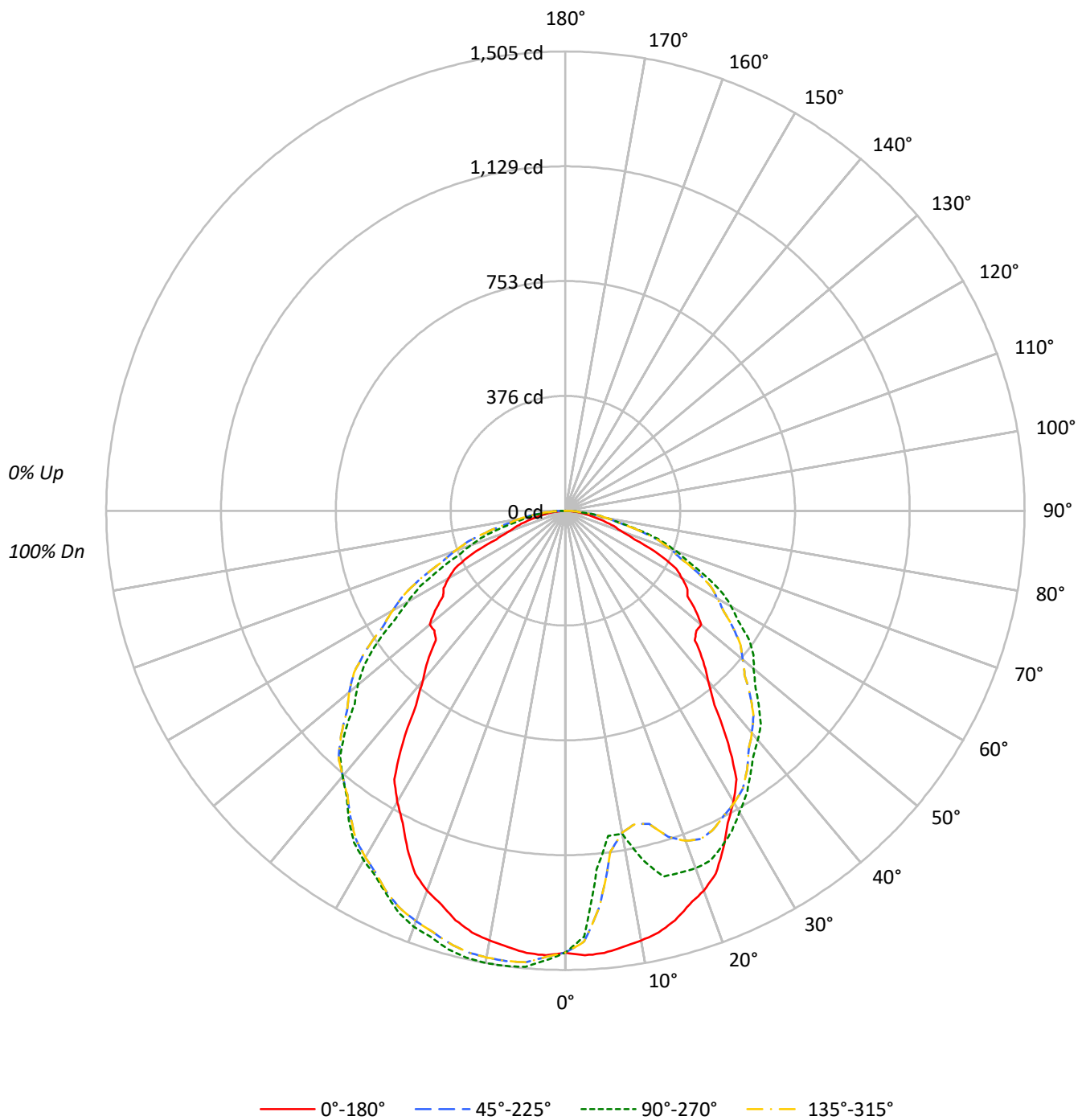
Lumens per Lamp: N/A
Luminaire Lumens: 3753.4 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6682	6682	6682	6682
5°	6739	5463	6739	6948
10°	6701	5039	6701	7048
15°	6636	5929	6636	7101
20°	6505	6122	6505	7124
25°	6229	6180	6229	7058
30°	5868	6080	5868	7044
35°	5240	5950	5240	6968
40°	4374	5908	4374	6841
45°	3916	5838	3916	6651
50°	4170	5782	4170	6372
55°	3934	5907	3934	6051
60°	4071	5790	4071	5500
65°	3709	5534	3709	4951
70°	2587	5194	2587	4417
75°	2296	4591	2296	3834
80°	1894	3568	1894	3276
85°	1159	2467	1159	2901

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6794 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	3.5
10°-20°	371.1	9.9
20°-30°	573.4	15.3
30°-40°	685.1	18.3
40°-50°	689.5	18.4
50°-60°	598.7	16.0
60°-70°	423.8	11.3
70°-80°	224.2	6.0
80°-90°	57.0	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°	1075.1	28.6
0°-40°	1760.2	46.9
0°-60°	3048.4	81.2
0°-90°	3753.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3753.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1448	1448	1448	1448	1448	
5°	1455	1180	1455	1500	1455	138
15°	1390	1242	1390	1487	1390	391
25°	1224	1214	1224	1387	1224	561
35°	930	1056	930	1237	930	575
45°	600	895	600	1020	600	483
55°	489	734	489	752	489	450
65°	340	507	340	454	340	323
75°	129	258	129	215	129	136
85°	22	47	22	55	22	31
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°	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4
2.5°	1458.3	1447.3	1442.9	1434.1	1417.7	1408.9	1415.5	1404.5	1408.9	1396.9	1408.9
5°	1455.2	1430.6	1410.0	1375.8	1326.4	1268.9	1255.2	1219.6	1197.6	1179.8	1197.6
7.5°	1441.5	1399.3	1336.6	1231.9	1147.8	1106.6	1096.5	1086.4	1083.6	1074.6	1083.6
10°	1430.6	1373.0	1256.6	1138.7	1079.8	1060.6	1064.7	1068.8	1077.0	1075.7	1077.0
12.5°	1415.2	1327.0	1173.2	1091.6	1052.4	1051.8	1082.3	1136.8	1174.6	1172.1	1174.6
15°	1389.5	1238.7	1094.9	1042.8	1030.5	1093.5	1204.5	1230.5	1240.1	1241.5	1240.1
17.5°	1352.5	1152.4	1044.7	1010.5	1052.4	1189.4	1223.1	1234.9	1243.1	1243.7	1243.1
20°	1325.1	1108.6	1019.5	996.2	1107.2	1194.9	1215.4	1230.5	1244.2	1247.0	1244.2
22.5°	1287.8	1077.9	993.2	986.3	1137.9	1189.4	1207.8	1230.5	1242.0	1241.5	1242.0
25°	1223.7	1040.0	960.6	975.6	1141.5	1160.6	1196.3	1211.3	1212.7	1214.1	1212.7
27.5°	1153.2	1006.9	922.5	982.8	1119.3	1133.0	1171.3	1179.0	1184.2	1182.0	1184.2
30°	1101.7	983.9	896.2	983.9	1101.7	1109.9	1148.3	1153.8	1146.9	1141.5	1146.9
32.5°	1043.6	955.4	871.0	976.2	1075.4	1086.9	1117.6	1115.4	1108.6	1104.2	1108.6
35°	930.4	907.1	824.9	951.0	1030.5	1045.5	1063.3	1062.0	1060.6	1056.5	1060.6
37.5°	803.0	850.1	779.4	911.8	987.2	986.1	1012.6	1018.4	1017.0	1011.8	1017.0
40°	726.3	803.0	750.9	881.1	956.5	945.5	979.8	986.6	985.2	981.1	985.2
42.5°	669.2	740.5	718.0	843.8	919.2	906.0	948.0	954.8	951.3	948.2	951.3
45°	600.2	612.5	667.3	783.8	856.4	855.1	900.3	907.1	898.9	894.8	898.9
47.5°	582.1	493.9	612.0	714.2	794.2	799.4	847.9	854.0	846.6	843.0	846.6
50°	581.0	435.8	571.4	660.5	753.7	763.3	814.0	816.7	807.1	805.7	807.1
52.5°	538.2	402.9	524.3	613.3	718.6	730.4	776.7	776.1	775.3	777.2	775.3
55°	489.2	363.1	442.6	544.0	664.6	679.7	720.8	722.1	731.7	734.5	731.7
57.5°	473.0	318.2	367.0	484.0	610.3	622.1	660.8	664.0	670.6	670.3	670.6
60°	441.2	286.4	322.0	446.7	568.7	583.7	618.0	623.5	629.0	627.6	629.0
62.5°	408.3	264.5	300.1	416.0	529.2	545.4	568.7	578.5	580.7	578.3	580.7
65°	339.8	235.7	265.8	367.2	468.6	486.5	501.5	508.4	509.7	507.0	509.7
67.5°	245.6	209.1	239.0	319.0	399.0	419.0	427.8	431.9	430.5	435.5	430.5
70°	191.8	190.5	219.2	285.0	356.3	374.1	379.6	383.7	382.3	385.1	382.3
72.5°	165.5	175.1	198.4	249.9	308.0	325.9	329.1	330.0	334.1	331.3	334.1
75°	128.8	149.4	164.4	197.3	241.2	253.5	254.9	256.2	253.5	257.6	253.5
77.5°	89.9	113.7	127.2	146.1	175.7	183.3	183.1	183.9	181.7	181.4	181.7
80°	71.3	86.3	98.7	111.0	132.9	138.4	137.0	135.7	135.7	134.3	135.7
82.5°	52.6	61.1	72.4	81.4	95.6	96.7	98.7	96.2	96.2	98.1	96.2
85°	21.9	28.8	37.0	41.1	46.6	48.0	45.2	49.3	46.6	46.6	46.6
87.5°	5.5	8.8	13.2	15.3	16.4	15.3	15.3	13.2	13.2	13.2	13.2
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°	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4
2.5°	1404.5	1415.5	1408.9	1417.7	1434.1	1442.9	1447.3	1458.3	1458.3	1464.8	1467.0
5°	1219.6	1255.2	1268.9	1326.4	1375.8	1410.0	1430.6	1455.2	1466.2	1481.3	1486.8
7.5°	1086.4	1096.5	1106.6	1147.8	1231.9	1336.6	1399.3	1441.5	1463.7	1483.5	1491.4
10°	1068.8	1064.7	1060.6	1079.8	1138.7	1256.6	1373.0	1430.6	1459.4	1481.3	1488.1
12.5°	1136.8	1082.3	1051.8	1052.4	1091.6	1173.2	1327.0	1415.2	1452.8	1473.6	1481.6
15°	1230.5	1204.5	1093.5	1030.5	1042.8	1094.9	1238.7	1389.5	1436.1	1455.2	1467.6
17.5°	1234.9	1223.1	1189.4	1052.4	1010.5	1044.7	1152.4	1352.5	1411.7	1434.4	1445.4
20°	1230.5	1215.4	1194.9	1107.2	996.2	1019.5	1108.6	1325.1	1390.8	1416.9	1427.8
22.5°	1230.5	1207.8	1189.4	1137.9	986.3	993.2	1077.9	1287.8	1368.9	1396.1	1407.0
25°	1211.3	1196.3	1160.6	1141.5	975.6	960.6	1040.0	1223.7	1333.3	1356.6	1373.0
27.5°	1179.0	1171.3	1133.0	1119.3	982.8	922.5	1006.9	1153.2	1284.2	1317.4	1335.2
30°	1153.8	1148.3	1109.9	1101.7	983.9	896.2	983.9	1101.7	1241.5	1286.7	1310.0
32.5°	1115.4	1117.6	1086.9	1075.4	976.2	871.0	955.4	1043.6	1177.9	1254.9	1282.6
35°	1062.0	1063.3	1045.5	1030.5	951.0	824.9	907.1	930.4	1100.3	1210.0	1233.3
37.5°	1018.4	1012.6	986.1	987.2	911.8	779.4	850.1	803.0	1030.2	1162.6	1179.5
40°	986.6	979.8	945.5	956.5	881.1	750.9	803.0	726.3	963.3	1126.4	1140.1
42.5°	954.8	948.0	906.0	919.2	843.8	718.0	740.5	669.2	889.9	1088.0	1091.8
45°	907.1	900.3	855.1	856.4	783.8	667.3	612.5	600.2	846.8	1026.3	1026.3
47.5°	854.0	847.9	799.4	794.2	714.2	612.0	493.9	582.1	786.5	960.0	959.5
50°	816.7	814.0	763.3	753.7	660.5	571.4	435.8	581.0	742.7	903.0	916.7
52.5°	776.1	776.7	730.4	718.6	613.3	524.3	402.9	538.2	689.0	829.6	872.9
55°	722.1	720.8	679.7	664.6	544.0	442.6	363.1	489.2	605.7	727.6	800.2
57.5°	664.0	660.8	622.1	610.3	484.0	367.0	318.2	473.0	476.3	634.4	727.1
60°	623.5	618.0	583.7	568.7	446.7	322.0	286.4	441.2	364.5	568.7	670.1
62.5°	578.5	568.7	545.4	529.2	416.0	300.1	264.5	408.3	284.5	494.1	615.3
65°	508.4	501.5	486.5	468.6	367.2	265.8	235.7	339.8	222.0	338.5	534.4
67.5°	431.9	427.8	419.0	399.0	319.0	239.0	209.1	245.6	168.8	214.9	457.4
70°	383.7	379.6	374.1	356.3	285.0	219.2	190.5	191.8	120.6	159.0	407.0
72.5°	330.0	329.1	325.9	308.0	249.9	198.4	175.1	165.5	101.9	125.0	355.5
75°	256.2	254.9	253.5	241.2	197.3	164.4	149.4	128.8	102.8	89.1	278.2
77.5°	183.9	183.1	183.3	175.7	146.1	127.2	113.7	89.9	91.8	67.7	208.3
80°	135.7	137.0	138.4	132.9	111.0	98.7	86.3	71.3	75.4	53.4	159.0
82.5°	96.2	98.7	96.7	95.6	81.4	72.4	61.1	52.6	53.4	42.5	118.4
85°	49.3	45.2	48.0	46.6	41.1	37.0	28.8	21.9	27.4	24.7	58.9
87.5°	13.2	15.3	15.3	16.4	15.3	13.2	8.8	5.5	9.9	12.1	24.1
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°	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4	1448.4
2.5°	1463.7	1463.7	1473.6	1475.8	1478.0	1474.7	1478.0	1475.8	1473.6	1463.7	1463.7
5°	1485.4	1485.4	1499.1	1503.2	1503.2	1500.5	1503.2	1503.2	1499.1	1485.4	1485.4
7.5°	1487.3	1489.5	1503.2	1506.2	1508.7	1504.6	1508.7	1506.2	1503.2	1489.5	1487.3
10°	1484.0	1489.5	1503.2	1507.3	1508.7	1504.6	1508.7	1507.3	1503.2	1489.5	1484.0
12.5°	1479.6	1484.0	1497.7	1500.7	1503.2	1500.2	1503.2	1500.7	1497.7	1484.0	1479.6
15°	1464.8	1470.3	1485.4	1488.1	1490.9	1486.8	1490.9	1488.1	1485.4	1470.3	1464.8
17.5°	1444.3	1451.1	1464.8	1469.2	1470.6	1465.4	1470.6	1469.2	1464.8	1451.1	1444.3
20°	1427.8	1434.7	1448.4	1453.9	1455.2	1451.1	1455.2	1453.9	1448.4	1434.7	1427.8
22.5°	1407.0	1418.2	1430.9	1433.0	1431.1	1427.0	1431.1	1433.0	1430.9	1418.2	1407.0
25°	1377.1	1386.7	1390.8	1390.8	1390.8	1386.7	1390.8	1390.8	1390.8	1386.7	1377.1
27.5°	1339.0	1344.0	1346.4	1348.6	1351.4	1348.6	1351.4	1348.6	1346.4	1344.0	1339.0
30°	1312.7	1310.0	1316.8	1322.3	1325.1	1322.3	1325.1	1322.3	1316.8	1310.0	1312.7
32.5°	1276.6	1278.2	1288.3	1291.6	1292.2	1289.4	1292.2	1291.6	1288.3	1278.2	1276.6
35°	1223.7	1230.5	1237.4	1240.1	1241.5	1237.4	1241.5	1240.1	1237.4	1230.5	1223.7
37.5°	1167.8	1179.8	1184.8	1181.7	1182.0	1177.6	1182.0	1181.7	1184.8	1179.8	1167.8
40°	1130.5	1141.5	1144.2	1140.1	1141.5	1136.0	1141.5	1140.1	1144.2	1141.5	1130.5
42.5°	1095.4	1104.2	1101.4	1096.2	1095.4	1093.2	1095.4	1096.2	1101.4	1104.2	1095.4
45°	1037.3	1041.4	1029.1	1025.0	1022.2	1019.5	1022.2	1025.0	1029.1	1041.4	1037.3
47.5°	973.7	968.2	956.5	950.2	942.5	937.3	942.5	950.2	956.5	968.2	973.7
50°	933.2	916.7	907.1	892.1	886.6	887.9	886.6	892.1	907.1	916.7	933.2
52.5°	883.8	864.1	849.0	836.2	831.8	830.9	831.8	836.2	849.0	864.1	883.8
55°	812.6	782.4	757.8	750.9	749.5	752.3	749.5	750.9	757.8	782.4	812.6
57.5°	725.2	695.6	675.3	669.8	665.1	660.8	665.1	669.8	675.3	695.6	725.2
60°	666.0	638.6	619.4	613.9	601.6	596.1	601.6	613.9	619.4	638.6	666.0
62.5°	613.3	580.5	565.7	554.7	545.6	536.9	545.6	554.7	565.7	580.5	613.3
65°	537.2	498.8	483.7	474.1	457.7	453.6	457.7	474.1	483.7	498.8	537.2
67.5°	453.8	420.4	401.5	388.6	378.2	377.9	378.2	388.6	401.5	420.4	453.8
70°	400.1	370.0	352.2	337.1	328.9	327.5	328.9	337.1	352.2	370.0	400.1
72.5°	347.5	318.5	302.8	288.9	281.7	280.4	281.7	288.9	302.8	318.5	347.5
75°	272.7	245.3	232.9	223.4	217.9	215.1	217.9	223.4	232.9	245.3	272.7
77.5°	201.7	179.5	173.2	163.3	158.7	158.4	158.7	163.3	173.2	179.5	201.7
80°	159.0	141.1	131.5	126.1	124.7	123.3	124.7	126.1	131.5	141.1	159.0
82.5°	115.1	105.0	98.7	95.4	95.1	92.6	95.1	95.4	98.7	105.0	115.1
85°	61.7	58.9	57.6	56.2	54.8	54.8	54.8	56.2	57.6	58.9	61.7
87.5°	25.2	26.3	26.3	27.4	28.5	27.4	28.5	27.4	26.3	26.3	25.2
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-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1448.4	1448.4	1448.4	1448.4
2.5°	1467.0	1464.8	1458.3	1458.3
5°	1486.8	1481.3	1466.2	1455.2
7.5°	1491.4	1483.5	1463.7	1441.5
10°	1488.1	1481.3	1459.4	1430.6
12.5°	1481.6	1473.6	1452.8	1415.2
15°	1467.6	1455.2	1436.1	1389.5
17.5°	1445.4	1434.4	1411.7	1352.5
20°	1427.8	1416.9	1390.8	1325.1
22.5°	1407.0	1396.1	1368.9	1287.8
25°	1373.0	1356.6	1333.3	1223.7
27.5°	1335.2	1317.4	1284.2	1153.2
30°	1310.0	1286.7	1241.5	1101.7
32.5°	1282.6	1254.9	1177.9	1043.6
35°	1233.3	1210.0	1100.3	930.4
37.5°	1179.5	1162.6	1030.2	803.0
40°	1140.1	1126.4	963.3	726.3
42.5°	1091.8	1088.0	889.9	669.2
45°	1026.3	1026.3	846.8	600.2
47.5°	959.5	960.0	786.5	582.1
50°	916.7	903.0	742.7	581.0
52.5°	872.9	829.6	689.0	538.2
55°	800.2	727.6	605.7	489.2
57.5°	727.1	634.4	476.3	473.0
60°	670.1	568.7	364.5	441.2
62.5°	615.3	494.1	284.5	408.3
65°	534.4	338.5	222.0	339.8
67.5°	457.4	214.9	168.8	245.6
70°	407.0	159.0	120.6	191.8
72.5°	355.5	125.0	101.9	165.5
75°	278.2	89.1	102.8	128.8
77.5°	208.3	67.7	91.8	89.9
80°	159.0	53.4	75.4	71.3
82.5°	118.4	42.5	53.4	52.6
85°	58.9	24.7	27.4	21.9
87.5°	24.1	12.1	9.9	5.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)