

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-075D-840-1D-UNV-STD-W-6

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-075D-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

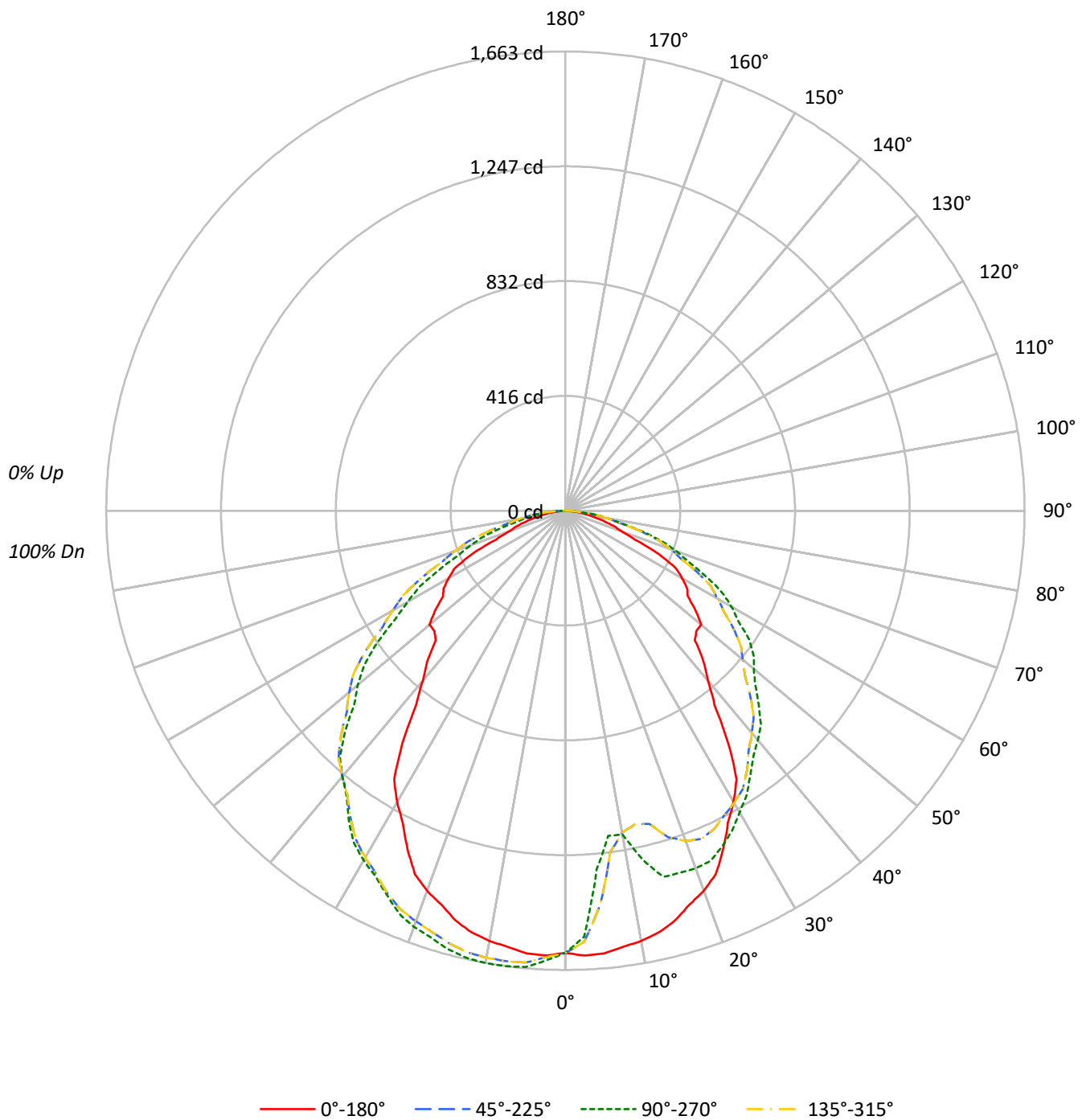
Lumens per Lamp: N/A
Luminaire Lumens: 4149.1 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
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	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°	9848	9848	9848	9848
5°	9933	8053	9933	10241
10°	9877	7427	9877	10388
15°	9781	8739	9781	10465
20°	9588	9022	9588	10500
25°	9180	9108	9180	10404
30°	8650	8962	8650	10382
35°	7723	8769	7723	10270
40°	6446	8709	6446	10083
45°	5771	8604	5771	9803
50°	6146	8523	6146	9393
55°	5799	8706	5799	8918
60°	6001	8535	6001	8106
65°	5468	8158	5468	7297
70°	3814	7656	3814	6510
75°	3384	6768	3384	5651
80°	2791	5256	2791	4828
85°	1708	3634	1708	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 10014 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.3	3.5
10°-20°	410.2	9.9
20°-30°	633.9	15.3
30°-40°	757.4	18.3
40°-50°	762.3	18.4
50°-60°	661.8	16.0
60°-70°	468.5	11.3
70°-80°	247.8	6.0
80°-90°	63.0	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°	1188.4	28.6
0°-40°	1945.8	46.9
0°-60°	3369.8	81.2
0°-90°	4149.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4149.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1601	1601	1601	1601	1601	
5°	1609	1304	1609	1659	1609	152
15°	1536	1372	1536	1644	1536	432
25°	1353	1342	1353	1533	1353	620
35°	1028	1168	1028	1368	1028	635
45°	664	989	664	1127	664	534
55°	541	812	541	832	541	497
65°	376	560	376	501	376	357
75°	142	285	142	238	142	150
85°	24	52	24	61	24	35
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°	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1
2.5°	1612.0	1599.9	1595.1	1585.4	1567.2	1557.5	1564.8	1552.6	1557.5	1544.2	1557.5
5°	1608.7	1581.4	1558.7	1520.8	1466.3	1402.7	1387.5	1348.2	1323.9	1304.2	1323.9
7.5°	1593.5	1546.9	1477.5	1361.8	1268.8	1223.3	1212.1	1200.9	1197.9	1187.9	1197.9
10°	1581.4	1517.8	1389.1	1258.8	1193.6	1172.4	1177.0	1181.5	1190.6	1189.1	1190.6
12.5°	1564.5	1466.9	1297.0	1206.7	1163.3	1162.7	1196.4	1256.7	1298.5	1295.7	1298.5
15°	1536.0	1369.4	1210.3	1152.7	1139.1	1208.8	1331.5	1360.3	1370.9	1372.4	1370.9
17.5°	1495.1	1273.9	1154.9	1117.0	1163.3	1314.8	1352.1	1365.1	1374.2	1374.8	1374.2
20°	1464.8	1225.5	1127.0	1101.2	1223.9	1320.9	1343.6	1360.3	1375.4	1378.4	1375.4
22.5°	1423.6	1191.5	1097.9	1090.3	1257.9	1314.8	1335.1	1360.3	1373.0	1372.4	1373.0
25°	1352.7	1149.7	1061.9	1078.5	1261.8	1283.0	1322.4	1339.1	1340.6	1342.1	1340.6
27.5°	1274.8	1113.1	1019.7	1086.4	1237.3	1252.4	1294.8	1303.3	1309.1	1306.6	1309.1
30°	1217.9	1087.6	990.7	1087.6	1217.9	1227.0	1269.4	1275.4	1267.9	1261.8	1267.9
32.5°	1153.7	1056.1	962.8	1079.1	1188.8	1201.5	1235.5	1233.0	1225.5	1220.6	1225.5
35°	1028.5	1002.8	911.9	1051.3	1139.1	1155.8	1175.5	1174.0	1172.4	1167.9	1172.4
37.5°	887.7	939.8	861.6	1007.9	1091.2	1090.0	1119.4	1125.8	1124.3	1118.5	1124.3
40°	802.8	887.7	830.1	974.0	1057.3	1045.2	1083.1	1090.6	1089.1	1084.6	1089.1
42.5°	739.8	818.6	793.7	932.8	1016.1	1001.6	1047.9	1055.5	1051.6	1048.2	1051.6
45°	663.5	677.1	737.7	866.5	946.7	945.2	995.2	1002.8	993.7	989.1	993.7
47.5°	643.5	545.9	676.5	789.5	878.0	883.7	937.3	944.0	935.8	931.9	935.8
50°	642.3	481.7	631.7	730.1	833.1	843.7	899.8	902.8	892.2	890.7	892.2
52.5°	595.0	445.3	579.6	678.0	794.3	807.4	858.6	858.0	857.1	859.2	857.1
55°	540.8	401.4	489.3	601.4	734.7	751.3	796.8	798.3	808.9	811.9	808.9
57.5°	522.9	351.7	405.7	535.0	674.7	687.7	730.4	734.1	741.3	741.0	741.3
60°	487.8	316.6	356.0	493.8	628.6	645.3	683.2	689.2	695.3	693.8	695.3
62.5°	451.4	292.4	331.7	459.9	585.0	602.9	628.6	639.5	642.0	639.2	642.0
65°	375.7	260.5	293.9	406.0	518.1	537.7	554.4	562.0	563.5	560.5	563.5
67.5°	271.4	231.2	264.2	352.6	441.1	463.2	472.9	477.5	475.9	481.4	475.9
70°	212.1	210.6	242.4	315.1	393.8	413.5	419.6	424.1	422.6	425.7	422.6
72.5°	183.0	193.6	219.3	276.3	340.5	360.2	363.8	364.8	369.3	366.3	369.3
75°	142.4	165.1	181.8	218.1	266.6	280.2	281.7	283.3	280.2	284.8	280.2
77.5°	99.4	125.7	140.6	161.5	194.2	202.7	202.4	203.3	200.9	200.6	200.9
80°	78.8	95.4	109.1	122.7	146.9	153.0	151.5	150.0	150.0	148.4	150.0
82.5°	58.2	67.6	80.0	90.0	105.7	106.9	109.1	106.3	106.3	108.5	106.3
85°	24.2	31.8	40.9	45.4	51.5	53.0	50.0	54.5	51.5	51.5	51.5
87.5°	6.1	9.7	14.5	17.0	18.2	17.0	17.0	14.5	14.5	14.5	14.5
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°	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1
2.5°	1552.6	1564.8	1557.5	1567.2	1585.4	1595.1	1599.9	1612.0	1612.0	1619.3	1621.7
5°	1348.2	1387.5	1402.7	1466.3	1520.8	1558.7	1581.4	1608.7	1620.8	1637.5	1643.5
7.5°	1200.9	1212.1	1223.3	1268.8	1361.8	1477.5	1546.9	1593.5	1618.1	1639.9	1648.7
10°	1181.5	1177.0	1172.4	1193.6	1258.8	1389.1	1517.8	1581.4	1613.2	1637.5	1645.0
12.5°	1256.7	1196.4	1162.7	1163.3	1206.7	1297.0	1466.9	1564.5	1606.0	1629.0	1637.8
15°	1360.3	1331.5	1208.8	1139.1	1152.7	1210.3	1369.4	1536.0	1587.5	1608.7	1622.3
17.5°	1365.1	1352.1	1314.8	1163.3	1117.0	1154.9	1273.9	1495.1	1560.5	1585.7	1597.8
20°	1360.3	1343.6	1320.9	1223.9	1101.2	1127.0	1225.5	1464.8	1537.5	1566.3	1578.4
22.5°	1360.3	1335.1	1314.8	1257.9	1090.3	1097.9	1191.5	1423.6	1513.3	1543.3	1555.4
25°	1339.1	1322.4	1283.0	1261.8	1078.5	1061.9	1149.7	1352.7	1473.9	1499.6	1517.8
27.5°	1303.3	1294.8	1252.4	1237.3	1086.4	1019.7	1113.1	1274.8	1419.6	1456.3	1476.0
30°	1275.4	1269.4	1227.0	1217.9	1087.6	990.7	1087.6	1217.9	1372.4	1422.4	1448.1
32.5°	1233.0	1235.5	1201.5	1188.8	1079.1	962.8	1056.1	1153.7	1302.1	1387.2	1417.8
35°	1174.0	1175.5	1155.8	1139.1	1051.3	911.9	1002.8	1028.5	1216.4	1337.5	1363.3
37.5°	1125.8	1119.4	1090.0	1091.2	1007.9	861.6	939.8	887.7	1138.8	1285.1	1303.9
40°	1090.6	1083.1	1045.2	1057.3	974.0	830.1	887.7	802.8	1064.9	1245.1	1260.3
42.5°	1055.5	1047.9	1001.6	1016.1	932.8	793.7	818.6	739.8	983.7	1202.7	1207.0
45°	1002.8	995.2	945.2	946.7	866.5	737.7	677.1	663.5	936.1	1134.6	1134.6
47.5°	944.0	937.3	883.7	878.0	789.5	676.5	545.9	643.5	869.5	1061.3	1060.6
50°	902.8	899.8	843.7	833.1	730.1	631.7	481.7	642.3	821.0	998.2	1013.4
52.5°	858.0	858.6	807.4	794.3	678.0	579.6	445.3	595.0	761.6	917.0	964.9
55°	798.3	796.8	751.3	734.7	601.4	489.3	401.4	540.8	669.5	804.3	884.6
57.5°	734.1	730.4	687.7	674.7	535.0	405.7	351.7	522.9	526.5	701.3	803.7
60°	689.2	683.2	645.3	628.6	493.8	356.0	316.6	487.8	402.9	628.6	740.7
62.5°	639.5	628.6	602.9	585.0	459.9	331.7	292.4	451.4	314.5	546.2	680.1
65°	562.0	554.4	537.7	518.1	406.0	293.9	260.5	375.7	245.4	374.2	590.8
67.5°	477.5	472.9	463.2	441.1	352.6	264.2	231.2	271.4	186.6	237.5	505.6
70°	424.1	419.6	413.5	393.8	315.1	242.4	210.6	212.1	133.3	175.7	449.9
72.5°	364.8	363.8	360.2	340.5	276.3	219.3	193.6	183.0	112.7	138.1	392.9
75°	283.3	281.7	280.2	266.6	218.1	181.8	165.1	142.4	113.6	98.5	307.5
77.5°	203.3	202.4	202.7	194.2	161.5	140.6	125.7	99.4	101.5	74.8	230.2
80°	150.0	151.5	153.0	146.9	122.7	109.1	95.4	78.8	83.3	59.1	175.7
82.5°	106.3	109.1	106.9	105.7	90.0	80.0	67.6	58.2	59.1	47.0	130.9
85°	54.5	50.0	53.0	51.5	45.4	40.9	31.8	24.2	30.3	27.3	65.1
87.5°	14.5	17.0	17.0	18.2	17.0	14.5	9.7	6.1	10.9	13.3	26.7
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°	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1	1601.1
2.5°	1618.1	1618.1	1629.0	1631.4	1633.8	1630.2	1633.8	1631.4	1629.0	1618.1	1618.1
5°	1642.0	1642.0	1657.2	1661.7	1661.7	1658.7	1661.7	1661.7	1657.2	1642.0	1642.0
7.5°	1644.1	1646.6	1661.7	1665.0	1667.8	1663.2	1667.8	1665.0	1661.7	1646.6	1644.1
10°	1640.5	1646.6	1661.7	1666.3	1667.8	1663.2	1667.8	1666.3	1661.7	1646.6	1640.5
12.5°	1635.7	1640.5	1655.7	1659.0	1661.7	1658.4	1661.7	1659.0	1655.7	1640.5	1635.7
15°	1619.3	1625.4	1642.0	1645.0	1648.1	1643.5	1648.1	1645.0	1642.0	1625.4	1619.3
17.5°	1596.6	1604.1	1619.3	1624.1	1625.7	1619.9	1625.7	1624.1	1619.3	1604.1	1596.6
20°	1578.4	1586.0	1601.1	1607.2	1608.7	1604.1	1608.7	1607.2	1601.1	1586.0	1578.4
22.5°	1555.4	1567.8	1581.7	1584.2	1582.0	1577.5	1582.0	1584.2	1581.7	1567.8	1555.4
25°	1522.4	1533.0	1537.5	1537.5	1537.5	1533.0	1537.5	1537.5	1537.5	1533.0	1522.4
27.5°	1480.2	1485.7	1488.4	1490.8	1493.9	1490.8	1493.9	1490.8	1488.4	1485.7	1480.2
30°	1451.2	1448.1	1455.7	1461.8	1464.8	1461.8	1464.8	1461.8	1455.7	1448.1	1451.2
32.5°	1411.2	1413.0	1424.2	1427.8	1428.4	1425.4	1428.4	1427.8	1424.2	1413.0	1411.2
35°	1352.7	1360.3	1367.8	1370.9	1372.4	1367.8	1372.4	1370.9	1367.8	1360.3	1352.7
37.5°	1290.9	1304.2	1309.7	1306.3	1306.6	1301.8	1306.6	1306.3	1309.7	1304.2	1290.9
40°	1249.7	1261.8	1264.8	1260.3	1261.8	1255.8	1261.8	1260.3	1264.8	1261.8	1249.7
42.5°	1210.9	1220.6	1217.6	1211.8	1210.9	1208.5	1210.9	1211.8	1217.6	1220.6	1210.9
45°	1146.7	1151.2	1137.6	1133.1	1130.0	1127.0	1130.0	1133.1	1137.6	1151.2	1146.7
47.5°	1076.4	1070.3	1057.3	1050.3	1041.9	1036.1	1041.9	1050.3	1057.3	1070.3	1076.4
50°	1031.6	1013.4	1002.8	986.1	980.1	981.6	980.1	986.1	1002.8	1013.4	1031.6
52.5°	977.0	955.2	938.6	924.3	919.5	918.6	919.5	924.3	938.6	955.2	977.0
55°	898.3	864.9	837.7	830.1	828.6	831.6	828.6	830.1	837.7	864.9	898.3
57.5°	801.6	768.9	746.5	740.4	735.3	730.4	735.3	740.4	746.5	768.9	801.6
60°	736.2	705.9	684.7	678.6	665.0	658.9	665.0	678.6	684.7	705.9	736.2
62.5°	678.0	641.7	625.3	613.2	603.2	593.5	603.2	613.2	625.3	641.7	678.0
65°	593.8	551.4	534.7	524.1	505.9	501.4	505.9	524.1	534.7	551.4	593.8
67.5°	501.7	464.7	443.8	429.6	418.1	417.8	418.1	429.6	443.8	464.7	501.7
70°	442.3	409.0	389.3	372.6	363.5	362.0	363.5	372.6	389.3	409.0	442.3
72.5°	384.1	352.0	334.8	319.3	311.4	309.9	311.4	319.3	334.8	352.0	384.1
75°	301.4	271.1	257.5	246.9	240.8	237.8	240.8	246.9	257.5	271.1	301.4
77.5°	223.0	198.4	191.5	180.6	175.4	175.1	175.4	180.6	191.5	198.4	223.0
80°	175.7	156.0	145.4	139.4	137.8	136.3	137.8	139.4	145.4	156.0	175.7
82.5°	127.2	116.0	109.1	105.4	105.1	102.4	105.1	105.4	109.1	116.0	127.2
85°	68.2	65.1	63.6	62.1	60.6	60.6	60.6	62.1	63.6	65.1	68.2
87.5°	27.9	29.1	29.1	30.3	31.5	30.3	31.5	30.3	29.1	29.1	27.9
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-075D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1601.1	1601.1	1601.1	1601.1
2.5°	1621.7	1619.3	1612.0	1612.0
5°	1643.5	1637.5	1620.8	1608.7
7.5°	1648.7	1639.9	1618.1	1593.5
10°	1645.0	1637.5	1613.2	1581.4
12.5°	1637.8	1629.0	1606.0	1564.5
15°	1622.3	1608.7	1587.5	1536.0
17.5°	1597.8	1585.7	1560.5	1495.1
20°	1578.4	1566.3	1537.5	1464.8
22.5°	1555.4	1543.3	1513.3	1423.6
25°	1517.8	1499.6	1473.9	1352.7
27.5°	1476.0	1456.3	1419.6	1274.8
30°	1448.1	1422.4	1372.4	1217.9
32.5°	1417.8	1387.2	1302.1	1153.7
35°	1363.3	1337.5	1216.4	1028.5
37.5°	1303.9	1285.1	1138.8	887.7
40°	1260.3	1245.1	1064.9	802.8
42.5°	1207.0	1202.7	983.7	739.8
45°	1134.6	1134.6	936.1	663.5
47.5°	1060.6	1061.3	869.5	643.5
50°	1013.4	998.2	821.0	642.3
52.5°	964.9	917.0	761.6	595.0
55°	884.6	804.3	669.5	540.8
57.5°	803.7	701.3	526.5	522.9
60°	740.7	628.6	402.9	487.8
62.5°	680.1	546.2	314.5	451.4
65°	590.8	374.2	245.4	375.7
67.5°	505.6	237.5	186.6	271.4
70°	449.9	175.7	133.3	212.1
72.5°	392.9	138.1	112.7	183.0
75°	307.5	98.5	113.6	142.4
77.5°	230.2	74.8	101.5	99.4
80°	175.7	59.1	83.3	78.8
82.5°	130.9	47.0	59.1	58.2
85°	65.1	27.3	30.3	24.2
87.5°	26.7	13.3	10.9	6.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)