

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-125D-940-1D-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-125D-940-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

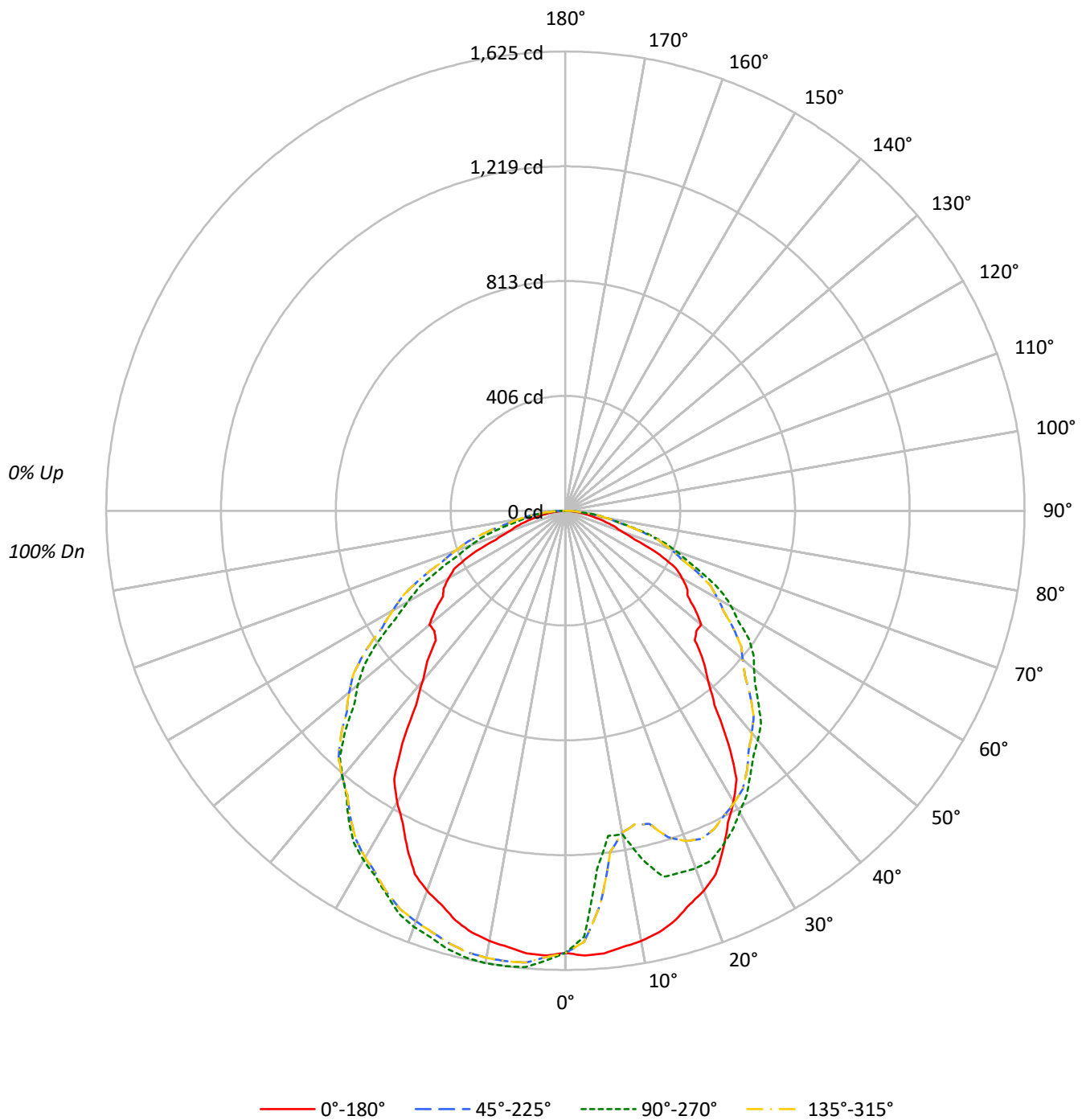
Lumens per Lamp: N/A
Luminaire Lumens: 4054.6 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.6
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°	14436	14436	14436	14436
5°	14560	11804	14560	15012
10°	14478	10886	14478	15228
15°	14337	12810	14337	15341
20°	14054	13226	14054	15391
25°	13457	13351	13457	15250
30°	12679	13137	12679	15219
35°	11321	12855	11321	15055
40°	9450	12765	9450	14780
45°	8460	12612	8460	14370
50°	9008	12493	9008	13768
55°	8501	12762	8501	13073
60°	8796	12511	8796	11882
65°	8014	11957	8014	10697
70°	5589	11222	5589	9544
75°	4959	9921	4959	8284
80°	4091	7709	4091	7077
85°	2509	5325	2509	6267

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 14679 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.0	3.5
10°-20°	400.8	9.9
20°-30°	619.5	15.3
30°-40°	740.1	18.3
40°-50°	744.9	18.4
50°-60°	646.7	16.0
60°-70°	457.8	11.3
70°-80°	242.1	6.0
80°-90°	61.6	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°	1161.4	28.6
0°-40°	1901.5	46.9
0°-60°	3293.1	81.2
0°-90°	4054.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4054.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1565	1565	1565	1565	1565	
5°	1572	1274	1572	1621	1572	149
15°	1501	1341	1501	1606	1501	422
25°	1322	1312	1322	1498	1322	606
35°	1005	1141	1005	1337	1005	621
45°	648	967	648	1101	648	522
55°	528	793	528	813	528	486
65°	367	548	367	490	367	349
75°	139	278	139	232	139	147
85°	24	50	24	59	24	34
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°	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7
2.5°	1575.3	1563.5	1558.7	1549.3	1531.5	1522.0	1529.1	1517.3	1522.0	1509.0	1522.0
5°	1572.1	1545.4	1523.2	1486.2	1432.9	1370.7	1355.9	1317.5	1293.8	1274.5	1293.8
7.5°	1557.3	1511.7	1443.9	1330.8	1239.9	1195.5	1184.5	1173.6	1170.6	1160.8	1170.6
10°	1545.4	1483.2	1357.4	1230.1	1166.5	1145.7	1150.2	1154.6	1163.5	1162.0	1163.5
12.5°	1528.8	1433.5	1267.4	1179.2	1136.9	1136.3	1169.1	1228.0	1268.9	1266.2	1268.9
15°	1501.0	1338.2	1182.7	1126.5	1113.2	1181.3	1301.2	1329.3	1339.7	1341.1	1339.7
17.5°	1461.0	1244.9	1128.6	1091.6	1136.9	1284.9	1321.3	1334.0	1342.9	1343.5	1342.9
20°	1431.4	1197.6	1101.3	1076.2	1196.1	1290.8	1313.0	1329.3	1344.1	1347.1	1344.1
22.5°	1391.2	1164.4	1072.9	1065.5	1229.2	1284.9	1304.7	1329.3	1341.7	1341.1	1341.7
25°	1321.9	1123.5	1037.7	1054.0	1233.1	1253.8	1292.3	1308.6	1310.1	1311.5	1310.1
27.5°	1245.8	1087.7	996.5	1061.7	1209.1	1223.9	1265.3	1273.6	1279.3	1276.9	1279.3
30°	1190.1	1062.8	968.1	1062.8	1190.1	1199.0	1240.5	1246.4	1239.0	1233.1	1239.0
32.5°	1127.4	1032.1	940.9	1054.6	1161.7	1174.2	1207.3	1205.0	1197.6	1192.8	1197.6
35°	1005.1	979.9	891.1	1027.3	1113.2	1129.5	1148.7	1147.2	1145.7	1141.3	1145.7
37.5°	867.4	918.4	842.0	985.0	1066.4	1065.2	1093.9	1100.1	1098.7	1093.0	1098.7
40°	784.6	867.4	811.2	951.8	1033.2	1021.4	1058.4	1065.8	1064.3	1059.9	1064.3
42.5°	723.0	799.9	775.7	911.6	993.0	978.8	1024.1	1031.5	1027.6	1024.4	1027.6
45°	648.4	661.7	720.9	846.7	925.2	923.7	972.5	979.9	971.1	966.6	971.1
47.5°	628.8	533.5	661.1	771.5	858.0	863.6	916.0	922.5	914.5	910.7	914.5
50°	627.6	470.7	617.3	713.5	814.2	824.5	879.3	882.3	871.9	870.4	871.9
52.5°	581.5	435.2	566.4	662.6	776.3	789.0	839.0	838.4	837.5	839.6	837.5
55°	528.5	392.3	478.1	587.7	717.9	734.2	778.6	780.1	790.5	793.4	790.5
57.5°	511.0	343.7	396.4	522.8	659.3	672.0	713.8	717.3	724.5	724.2	724.5
60°	476.7	309.4	347.9	482.6	614.3	630.6	667.6	673.5	679.5	678.0	679.5
62.5°	441.1	285.7	324.2	449.4	571.7	589.2	614.3	625.0	627.3	624.7	627.3
65°	367.1	254.6	287.2	396.7	506.3	525.5	541.8	549.2	550.7	547.7	550.7
67.5°	265.3	225.9	258.2	344.6	431.1	452.7	462.1	466.6	465.1	470.4	465.1
70°	207.2	205.8	236.8	307.9	384.9	404.1	410.0	414.5	413.0	416.0	413.0
72.5°	178.8	189.2	214.3	270.0	332.8	352.0	355.6	356.5	360.9	357.9	360.9
75°	139.1	161.4	177.6	213.2	260.5	273.9	275.3	276.8	273.9	278.3	273.9
77.5°	97.1	122.9	137.4	157.8	189.8	198.1	197.8	198.7	196.3	196.0	196.3
80°	77.0	93.3	106.6	119.9	143.6	149.5	148.0	146.5	146.5	145.1	146.5
82.5°	56.8	66.0	78.2	87.9	103.3	104.5	106.6	103.9	103.9	106.0	103.9
85°	23.7	31.1	40.0	44.4	50.3	51.8	48.8	53.3	50.3	50.3	50.3
87.5°	5.9	9.5	14.2	16.6	17.8	16.6	16.6	14.2	14.2	14.2	14.2
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°	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7
2.5°	1517.3	1529.1	1522.0	1531.5	1549.3	1558.7	1563.5	1575.3	1575.3	1582.4	1584.8
5°	1317.5	1355.9	1370.7	1432.9	1486.2	1523.2	1545.4	1572.1	1583.9	1600.2	1606.1
7.5°	1173.6	1184.5	1195.5	1239.9	1330.8	1443.9	1511.7	1557.3	1581.2	1602.6	1611.1
10°	1154.6	1150.2	1145.7	1166.5	1230.1	1357.4	1483.2	1545.4	1576.5	1600.2	1607.6
12.5°	1228.0	1169.1	1136.3	1136.9	1179.2	1267.4	1433.5	1528.8	1569.4	1591.9	1600.5
15°	1329.3	1301.2	1181.3	1113.2	1126.5	1182.7	1338.2	1501.0	1551.3	1572.1	1585.4
17.5°	1334.0	1321.3	1284.9	1136.9	1091.6	1128.6	1244.9	1461.0	1525.0	1549.6	1561.4
20°	1329.3	1313.0	1290.8	1196.1	1076.2	1101.3	1197.6	1431.4	1502.5	1530.6	1542.5
22.5°	1329.3	1304.7	1284.9	1229.2	1065.5	1072.9	1164.4	1391.2	1478.8	1508.1	1520.0
25°	1308.6	1292.3	1253.8	1233.1	1054.0	1037.7	1123.5	1321.9	1440.3	1465.5	1483.2
27.5°	1273.6	1265.3	1223.9	1209.1	1061.7	996.5	1087.7	1245.8	1387.3	1423.1	1442.4
30°	1246.4	1240.5	1199.0	1190.1	1062.8	968.1	1062.8	1190.1	1341.1	1390.0	1415.2
32.5°	1205.0	1207.3	1174.2	1161.7	1054.6	940.9	1032.1	1127.4	1272.5	1355.6	1385.5
35°	1147.2	1148.7	1129.5	1113.2	1027.3	891.1	979.9	1005.1	1188.7	1307.1	1332.3
37.5°	1100.1	1093.9	1065.2	1066.4	985.0	842.0	918.4	867.4	1112.9	1255.9	1274.2
40°	1065.8	1058.4	1021.4	1033.2	951.8	811.2	867.4	784.6	1040.6	1216.8	1231.6
42.5°	1031.5	1024.1	978.8	993.0	911.6	775.7	799.9	723.0	961.3	1175.3	1179.5
45°	979.9	972.5	923.7	925.2	846.7	720.9	661.7	648.4	914.8	1108.7	1108.7
47.5°	922.5	916.0	863.6	858.0	771.5	661.1	533.5	628.8	849.7	1037.1	1036.5
50°	882.3	879.3	824.5	814.2	713.5	617.3	470.7	627.6	802.3	975.5	990.3
52.5°	838.4	839.0	789.0	776.3	662.6	566.4	435.2	581.5	744.3	896.2	942.9
55°	780.1	778.6	734.2	717.9	587.7	478.1	392.3	528.5	654.3	786.0	864.5
57.5°	717.3	713.8	672.0	659.3	522.8	396.4	343.7	511.0	514.5	685.4	785.4
60°	673.5	667.6	630.6	614.3	482.6	347.9	309.4	476.7	393.8	614.3	723.9
62.5°	625.0	614.3	589.2	571.7	449.4	324.2	285.7	441.1	307.3	533.8	664.6
65°	549.2	541.8	525.5	506.3	396.7	287.2	254.6	367.1	239.8	365.6	577.3
67.5°	466.6	462.1	452.7	431.1	344.6	258.2	225.9	265.3	182.4	232.1	494.1
70°	414.5	410.0	404.1	384.9	307.9	236.8	205.8	207.2	130.3	171.7	439.6
72.5°	356.5	355.6	352.0	332.8	270.0	214.3	189.2	178.8	110.1	135.0	384.0
75°	276.8	275.3	273.9	260.5	213.2	177.6	161.4	139.1	111.0	96.2	300.5
77.5°	198.7	197.8	198.1	189.8	157.8	137.4	122.9	97.1	99.2	73.1	225.0
80°	146.5	148.0	149.5	143.6	119.9	106.6	93.3	77.0	81.4	57.7	171.7
82.5°	103.9	106.6	104.5	103.3	87.9	78.2	66.0	56.8	57.7	45.9	127.9
85°	53.3	48.8	51.8	50.3	44.4	40.0	31.1	23.7	29.6	26.6	63.7
87.5°	14.2	16.6	16.6	17.8	16.6	14.2	9.5	5.9	10.7	13.0	26.1
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°	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7	1564.7
2.5°	1581.2	1581.2	1591.9	1594.3	1596.6	1593.1	1596.6	1594.3	1591.9	1581.2	1581.2
5°	1604.6	1604.6	1619.4	1623.9	1623.9	1620.9	1623.9	1623.9	1619.4	1604.6	1604.6
7.5°	1606.7	1609.1	1623.9	1627.1	1629.8	1625.4	1629.8	1627.1	1623.9	1609.1	1606.7
10°	1603.1	1609.1	1623.9	1628.3	1629.8	1625.4	1629.8	1628.3	1623.9	1609.1	1603.1
12.5°	1598.4	1603.1	1618.0	1621.2	1623.9	1620.6	1623.9	1621.2	1618.0	1603.1	1598.4
15°	1582.4	1588.3	1604.6	1607.6	1610.6	1606.1	1610.6	1607.6	1604.6	1588.3	1582.4
17.5°	1560.2	1567.6	1582.4	1587.2	1588.6	1583.0	1588.6	1587.2	1582.4	1567.6	1560.2
20°	1542.5	1549.9	1564.7	1570.6	1572.1	1567.6	1572.1	1570.6	1564.7	1549.9	1542.5
22.5°	1520.0	1532.1	1545.7	1548.1	1546.0	1541.6	1546.0	1548.1	1545.7	1532.1	1520.0
25°	1487.7	1498.0	1502.5	1502.5	1502.5	1498.0	1502.5	1502.5	1502.5	1498.0	1487.7
27.5°	1446.5	1451.9	1454.5	1456.9	1459.9	1456.9	1459.9	1456.9	1454.5	1451.9	1446.5
30°	1418.1	1415.2	1422.6	1428.5	1431.4	1428.5	1431.4	1428.5	1422.6	1415.2	1418.1
32.5°	1379.0	1380.8	1391.8	1395.3	1395.9	1392.9	1395.9	1395.3	1391.8	1380.8	1379.0
35°	1321.9	1329.3	1336.7	1339.7	1341.1	1336.7	1341.1	1339.7	1336.7	1329.3	1321.9
37.5°	1261.5	1274.5	1279.9	1276.6	1276.9	1272.2	1276.9	1276.6	1279.9	1274.5	1261.5
40°	1221.2	1233.1	1236.0	1231.6	1233.1	1227.2	1233.1	1231.6	1236.0	1233.1	1221.2
42.5°	1183.3	1192.8	1189.9	1184.2	1183.3	1181.0	1183.3	1184.2	1189.9	1192.8	1183.3
45°	1120.6	1125.0	1111.7	1107.3	1104.3	1101.3	1104.3	1107.3	1111.7	1125.0	1120.6
47.5°	1051.9	1046.0	1033.2	1026.4	1018.1	1012.5	1018.1	1026.4	1033.2	1046.0	1051.9
50°	1008.1	990.3	979.9	963.7	957.7	959.2	957.7	963.7	979.9	990.3	1008.1
52.5°	954.8	933.5	917.2	903.3	898.5	897.6	898.5	903.3	917.2	933.5	954.8
55°	877.8	845.2	818.6	811.2	809.7	812.7	809.7	811.2	818.6	845.2	877.8
57.5°	783.4	751.4	729.5	723.6	718.5	713.8	718.5	723.6	729.5	751.4	783.4
60°	719.4	689.8	669.1	663.2	649.8	643.9	649.8	663.2	669.1	689.8	719.4
62.5°	662.6	627.0	611.1	599.2	589.4	580.0	589.4	599.2	611.1	627.0	662.6
65°	580.3	538.8	522.5	512.2	494.4	490.0	494.4	512.2	522.5	538.8	580.3
67.5°	490.3	454.2	433.7	419.8	408.6	408.3	408.6	419.8	433.7	454.2	490.3
70°	432.2	399.7	380.4	364.2	355.3	353.8	355.3	364.2	380.4	399.7	432.2
72.5°	375.4	344.0	327.1	312.0	304.3	302.9	304.3	312.0	327.1	344.0	375.4
75°	294.6	265.0	251.6	241.3	235.4	232.4	235.4	241.3	251.6	265.0	294.6
77.5°	217.9	193.9	187.1	176.5	171.4	171.1	171.4	176.5	187.1	193.9	217.9
80°	171.7	152.5	142.1	136.2	134.7	133.2	134.7	136.2	142.1	152.5	171.7
82.5°	124.3	113.4	106.6	103.0	102.7	100.1	102.7	103.0	106.6	113.4	124.3
85°	66.6	63.7	62.2	60.7	59.2	59.2	59.2	60.7	62.2	63.7	66.6
87.5°	27.2	28.4	28.4	29.6	30.8	29.6	30.8	29.6	28.4	28.4	27.2
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-125D-940-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1564.7	1564.7	1564.7	1564.7
2.5°	1584.8	1582.4	1575.3	1575.3
5°	1606.1	1600.2	1583.9	1572.1
7.5°	1611.1	1602.6	1581.2	1557.3
10°	1607.6	1600.2	1576.5	1545.4
12.5°	1600.5	1591.9	1569.4	1528.8
15°	1585.4	1572.1	1551.3	1501.0
17.5°	1561.4	1549.6	1525.0	1461.0
20°	1542.5	1530.6	1502.5	1431.4
22.5°	1520.0	1508.1	1478.8	1391.2
25°	1483.2	1465.5	1440.3	1321.9
27.5°	1442.4	1423.1	1387.3	1245.8
30°	1415.2	1390.0	1341.1	1190.1
32.5°	1385.5	1355.6	1272.5	1127.4
35°	1332.3	1307.1	1188.7	1005.1
37.5°	1274.2	1255.9	1112.9	867.4
40°	1231.6	1216.8	1040.6	784.6
42.5°	1179.5	1175.3	961.3	723.0
45°	1108.7	1108.7	914.8	648.4
47.5°	1036.5	1037.1	849.7	628.8
50°	990.3	975.5	802.3	627.6
52.5°	942.9	896.2	744.3	581.5
55°	864.5	786.0	654.3	528.5
57.5°	785.4	685.4	514.5	511.0
60°	723.9	614.3	393.8	476.7
62.5°	664.6	533.8	307.3	441.1
65°	577.3	365.6	239.8	367.1
67.5°	494.1	232.1	182.4	265.3
70°	439.6	171.7	130.3	207.2
72.5°	384.0	135.0	110.1	178.8
75°	300.5	96.2	111.0	139.1
77.5°	225.0	73.1	99.2	97.1
80°	171.7	57.7	81.4	77.0
82.5°	127.9	45.9	57.7	56.8
85°	63.7	26.6	29.6	23.7
87.5°	26.1	13.0	10.7	5.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)